

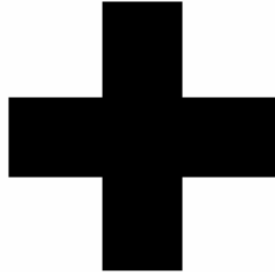
JUE-87

INMARSAT-C MOBILE EARTH STATION

INSTRUCTION MANUAL



ABOUT YOUR SAFETY



CAUTIONS AGAINST HIGH VOLTAGE

Radio and radar devices are operated by high voltages of anywhere from a few hundred volts up to many hundreds of thousands of volts. Although there is no danger with normal use, it is very dangerous if contact is made with the internal parts of these devices. (Only specialists should attempt any maintenance, checking or adjusting.)

There is a very high risk of death by even a few thousand volts, in some cases you can be fatally electrocuted by just a few hundred volts. To circumvent accidents, you should avoid contact with the internal parts of these devices at all costs. If contact is inevitable as in the case of emergency, you must switch off the devices and ground a terminal in order to discharge the capacitors. After making certain that all the electricity is discharged, only then can you insert your hand into the device. Wearing cotton gloves and putting your free hand in your pocket, in order not to use both hands simultaneously, are also very good methods of shock prevention.

Quite often, an injury occurs by secondary factors, therefore it is necessary to choose a sturdy and level working surface. If someone is electrocuted it is necessary to thoroughly disinfect the affected area and seek medical attention as soon as possible.

CAUTIONS CONCERNING TREATMENT OF ELECTROCUTION VICTIMS

When you find an electrocution victim, you must first switch off the machinery and ground all circuits. If you are unable to cut off the machinery, move the victim away from it using a non-conductive material such as dry boards or clothing.

When someone is electrocuted, and the electrical current reaches the breathing synapses of the central nervous system inside the brain, breathing stops. If the victim's condition is stable, he or she can be administered artificial respiration. An electrocution victim becomes very pale, and their pulse can be very weak or even stop, consequently losing consciousness and becoming stiff. Administration of first aid is critical in this situation.

FIRST AID

☆Note points for first aid

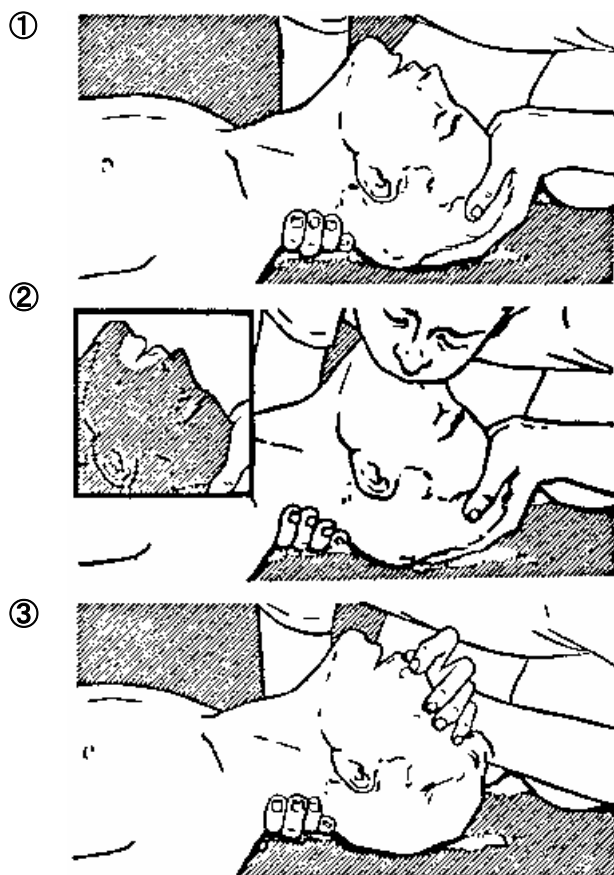
Unless there is impending danger leave the victim where he or she is, then begin artificial respiration. Once you begin artificial respiration, you must continue without losing rhythm.

- (1) Make contacts with the victim cautiously, there is a risk that you may get electrocuted.
- (2) Switch off the machinery and then move the victim away slowly if you must.
- (3) Inform someone immediately (a hospital or doctor, dial emergency numbers, etc.).
- (4) Lay the victim on his or her back and loosen any constructive clothing (a tie, or belt).
- (5)
 - (a) Check the victim's pulse.
 - (b) Check for a heartbeat by pressing your ear against the victim's chest.
 - (c) Check if the victim is breathing by putting the back of your hand or face near the victim's face.
 - (d) Check the pupils of the eyes.
- (6) Open the victim's mouth and remove any artificial dentifrice, food, or chewing gum. Leave the mouth opened and flatten the tongue with a towel or by putting something into the mouth to prevent the victim's tongue from obstructing the throat (If he or she is clenching their teeth and it is difficult to open the mouth, use a spoon or the like to pry open the mouth).
- (7) Continually wipe the mouth to prevent the accumulation of saliva.

**☆ If the victim has a pulse but is not breathing
("Mouth to mouth" resuscitation)**

- (1) Place the victim's head facing backward (place something under the neck like a pillow).
- (2) Point the chin upward to widen the trachea.
- (3) Pinch the victim's nose, take a deep breath, then put your mouth over the victim's mouth and exhale completely, making sure that your mouth completely covers the victim's mouth. Then remove your mouth. Repeat this routine 10 to 15 times per minute (holding the nostrils).
- (4) Pinch the victim's nose, take a deep breath, then put your mouth over the victim's mouth and exhale completely, making sure that your mouth completely covers the victim's mouth. Then remove your mouth. Repeat this routine 10 to 15 times per minute (holding the nostrils).
- (5) Pay attention to the victim to notice if he or she starts to breath. If breathing returns, stop resuscitation.
- (6) If it is impossible to open the victim's mouth, put something like a plastic straw or vinyl tube into one of the nostrils then blow air in while covering the mouth and the other nostril.
- (7) Occasionally, when the victim comes back to consciousness, they immediately try to stand up. Prevent this and keep them in a laying position. Give them something warm to drink and be sure that they rest (do not give them any alcohol).

Administering artificial respiration by raising the head.



- (1) Raise the back of head, then place one hand on the forehead and place the other hand under the neck. →①
Most victims open their mouth when doing this, making "mouth to mouth" resuscitation easier.
- (2) Cover the victim's mouth by opening your mouth widely, then push your cheek against the victim's nose, →②
or pinch the victim's nose to prevent air from leaking out of it. →③
- (3) Completely exhale into the lungs.
Exhale into the lungs until the chest is inflates. You have to blow as rapidly as possible for the first 10 times.

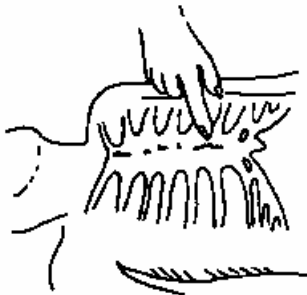
"Mouth to mouth" artificial respiration

**☆ If the victim has no pulse and is not breathing
(Heart massage in combination with artificial respiration.)**

If the victim has no pulse, his or her pupils are dilated, and if you cannot detect a heartbeat, the heart may have stopped, beginning artificial respiration is critical.

- (1) Put both hands on the diaphragm, with hands on top of each other keeping both arms straight (If your elbows are bent, you cannot push with as much power). Press the diaphragm with your body weight until the chest sinks about 2 cm (about 50 times per minute).
- (2) If administering first aid when alone:
Perform the heart massage about 15 times then blow in twice. Repeat this routine.
If administering first aid with two people:
One person performs the heart massage 15 times, and the other person blows air in twice. Repeat this routine (Heart massage and “mouth to mouth” resuscitation used together).
- (3) Constantly check the pupils and the pulse, if the pupils become normal and the pulse steadies, keep them in a laying position and give them something warm to drink, be sure that they rest (do not give them any alcohol). In any case you have to entrust major decision making to a doctor. Having understanding people around is essential to the victim’s recovery from the mental shock of electrocution.

①



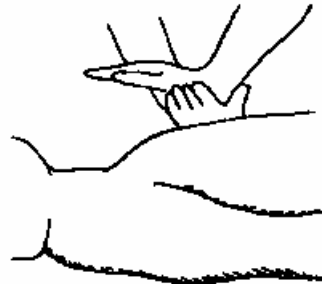
②



③



④



Heart massage in combination with artificial respiration.

PREFACE

Thank you for purchase of the JRC Inmarsat-C, Mobile Earth Station, JUE-87.

- Please read this manual carefully and carry out proper operation.
- Please keep this manual importantly to refer to when it is necessary.
Please use it when questions and troubles are caused in operation, by any chance.

ATTENTIONS BEFORE INSTALLATION




- JRC cannot accept responsibility for any loss due to incorrect operation, malfunction, and other causes except product guarantee condition and liability by law.
- There is possibility that some functions of the terminal may not operate correctly depend on the hardware and software version of equipment connected to the terminal. Please confirm your equipment version before contact with the dealer or agent you purchased, or JRC branches.
- Your communication data are transmitted via Inmarsat system and other global communications system, so unusually some errors may occur in communication theory same as the landlines. You are recommended to backup for your important data.
- Usually, digital scrambling of Inmarsat system protects your communication data privacy. However you are recommended to understand that your communication data might be intercepted by special technology and unauthorized access in the communication theory.
- Specifications of JUE-87 and its accessories may change without notice for improvement.

BEFORE INSTALLATION

About safety symbols

This manual and the terminal are indicated the following safety symbols for your correct operation to prevent your and somebody's injury or damage to the product and assets. The symbols and descriptions are as follows.

You should understand well them before reading this manual and operating the terminal.

	DANGER	This symbol denotes high risk of causing death or serious injury.
	WARNING	This symbol denotes that improper handling poses a risk of causing death or serious injury.
	CAUTION	This symbol denotes that improper handling poses a risk of causing injury or damage to the product and/or assets.

Examples of symbols



The \triangle symbol indicates denotes DANGER, WARNING or CAUTION.
The inside illustration of the \triangle symbol denotes meaning of the DANGER, WARNING or CAUTION more concretely. (This example warns of possible electrical shock.)



The \otimes symbol denotes prohibited action.
The inside illustration of the \otimes symbol denotes the specific prohibited action more concretely. (This example indicated disassembly is prohibited.)

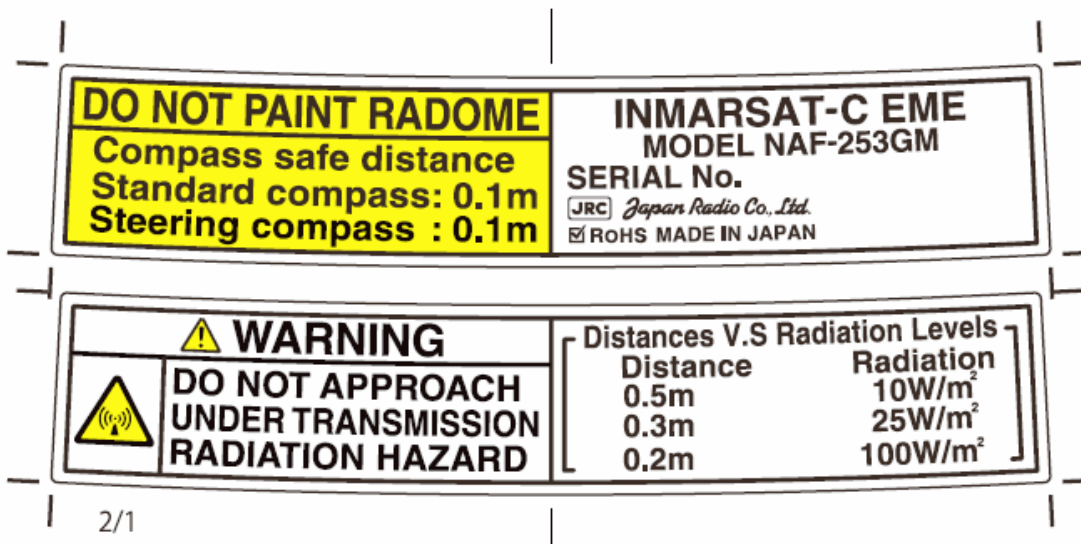


The \bullet symbol obligatory operation or instruction.
The inside illustration of the \bullet symbol denotes obligatory operation or instruction more concretely. (This example indicates unplugging is the obligatory instruction.)

ABOUT WARNING LABELS

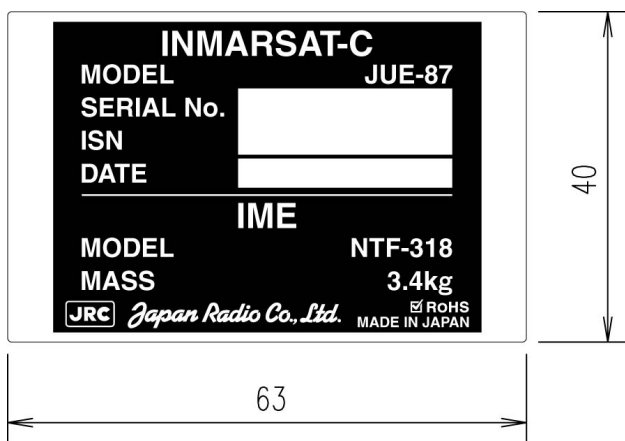
Below mentioned warning labels are put on JUE-87. Do not take off, destroy, or modify these labels.

Labels put on EME



Labels put on IME

<Type1>



<Type2>



CAUTIONS TO BE USED DURING OPERATION

DANGER



Do not touch any internal parts with your hands or tools to avoid danger of electronic shock.



Immediately after printing, the printing head is still very hot, don't touch it until it is cool down.

WARNING



Do not bring JUE-87 (EME) close to the fire, or put it in the fire. It causes the explosion, generation of heat.



Do not approach the JUE-87 (EME) while transmitting, It transmits microwave and strong microwave might be cause injury.



If a foreign substances, such as metal fragment, water, liquid and etc., are get into your JUE-87, turn off the power and contact with the agent you purchased or JRC branches. Continuous operation may cause fire, electrical shock or malfunction.



Ask maintenance and the adjustment of JUE-87 internal equipment to our sales department or nearest branch office.



Do not turn on the terminal under the primary power except the specific voltage (mentioned below).The primary power except the specific voltage may cause fire, electrical shock or malfunction.

DC+24V (+19.2 V to +31.2 V) (When standard PSU, NBD-904 is used)



Do not adjust the internal circuit or exchange the parts because the internal circuit is adjusted strictly. When an abnormal operation is found, please contact with our sales department or nearest branch office.



Do not check or repair the internal equipment of JUE-87 by yourself. Any electrical work by any person other than our specialized maintenance persons may cause fire or abnormal operation of this equipment or electrical shock. This equipment meets the technical standard of the Ministry of Internal affairs and Communications (MIC).



Do not take apart, and do not remodel the equipment. It may cause a fire, the electric shock, and the breakdown.



Ask our agency or office to dispose JUE-87 (EME). Illegal disposal may heat-up, firing, which is affected by the impact or submerged of water.

CAUTIONS TO BE USED DURING OPERATION

CAUTION



Before operating JUE-87, read the operation manual carefully.
Inappropriate procedure may cause incorrect operation or malfunction.



When a failure has been detected, check it according to the Trouble shooting described in this book. If abnormalities are still accepted, restart the terminal. Nevertheless abnormalities are still accepted, stop operation and contact the dealer or agent from which you purchased the device or one of our branches, marketing offices, and representative offices.

< EME >



Do not give mechanical shock and force, because all units of EME are precision instrument.
Unwanted shock and force may cause malfunction.



Do not paint radome. Painting of radome may cause decrease of the communication quality.

< IME >



Do not use the IME to other purpose.
It may cause a problem that unable to be transmitted in the emergency.

DISTRESS ALERT TRANSMISSION PROCEDURES

- DO NOT REQUEST THE DISTRESS ALERT EXCEPT IN AN EMERGENCY
- The distress alert is routed to RCC (Rescue Coordination Center).
- If the false distress request is transmitted, take the following instructions immediately.
 - (1) Stop the transmission power immediately.
 - (2) Report the following information to the Nearest Maritime Safety Office or Station or the Operations Center, Administration Division, Guard & Rescue Department, Maritime Safety Agency (TLX: +72-222-5193 JMSAHQ J, TEL: +81-3-3591-9000).
 - (a) Ship's Name, Type and Flag
 - (b) Main ID Number
 - (c) Position and Time at the false transmission
 - (d) Cause of the false transmission
 - (e) MES type, Serial Number and Delivery Date

Register the distress message in advance before transmitting the distress alert at the distress window in Main menu.

- Distress alert is retransmitted after the device is restarted, when momentary disconnection is occurred in the device during the distress alert transmitting. However, please note that distress alert is not retransmitted in the following cases.
 - (1) When power switch of device is turned OFF/ON
 - (2) When power switch of External power supply unit is turned OFF/ON
 - (3) When the reset button of IME is turned ON
 - (4) When the ship is recovered from blackout
 - (5) When a random failure is occurred on device.

Step	DB* Operation	IME Response	Remarks
1	<ul style="list-style-type: none"> • Open hinged cover and press DISTRESS button till the buzzer sounds. 	<ul style="list-style-type: none"> • IME displays “SOS”. • The buzzer starts sounding 0.5 sec ON 1.0 sec OFF. 	<ul style="list-style-type: none"> • If you do not want to initiate a distress alert, immediately release the button within 4 sec.
2	<ul style="list-style-type: none"> • Distress alert is transmitted after continuously pressing DISTRESS button for 4 sec or more. 	<ul style="list-style-type: none"> • The buzzer sounds continuously. • IME displays “Distress Alert Transmission”. 	<ul style="list-style-type: none"> • When the JUE-87 is tuning to LES channel, the SYNC LED blinks. • The distress message registered in main unit is transmitted.

* DB: Distress button

Note 1) Please register the Distress message to the Distress window in main menu beforehand, prior to transmitting the Distress Alert.

Note 2) **To stop Distress alert transmission, press X key or Y key while holding down Ctrl key.**

ACRONYMS AND ABBREVIATIONS

A

- AC** **Alternating Current**
- ACK** **Acknowledgement**
- AFC** **Automatic Frequency Control**
- AGC** **Automatic Gain Control**
- ALM** **Alarm**
- AMVER** **Automated Mutual-assistance Vessel Rescue system**
A vessel position-reporting system operated by the United States Coast Guard for any merchant vessel of 1000grt or more on a voyage lasting longer than 24 hours, to and from anywhere on the world.
- ANSI** **American National Standard Institute**
- Answerback:**
An identifier given to an Inmarsat MES and used in message transmissions. The format must be four letters (A-Z; no numbers) finishing with an x.
- ANT** **Antenna**
- AOR** **Atlantic Ocean Region**
- AOR-E** **Atlantic Ocean Region (East).**
- AOR-W** **Atlantic Ocean Region (West).**
- ARQ** **Automatic Request Repeat**
The error correction process used in store-and-forward messaging by which a receiver checks for errors in received data packets and requests the sending end to re-transmit any packets which were received containing an error.
- ASCII** **American Standard Code for Information Interchange**
A standard alphanumeric character set based on 7-bit codes.
- AUSREP:**
A vessel position-reporting system similar to AMVER, but operated by the Australian Authorities.

B

- Backup:**
A copy of a program or document that you can use if the original is destroyed. To back up is to make a copy.
- BB** **Bulletin Board**
Operational information of LES, which send from satellite to each ship.
- BBER** **Bulletin Board Error Rate**
Used as a measure of the quality of reception by the MES of the Bulletin Board of a TDM Channel.
- BCD** **Binary Coded Decimal**
- BER** **Bit Error Rate**
Bit: The basic unit of digital communications; may be either 1 or 0.
- BPS** **bit per second**
A unit of measurement for speed of data transfer or throughput.
- BPSK** **Binary Phase Shift Keying**

BS **Backspace**

Bulletin Board (in a TDM channel):

A data packet transmitted in each frame of a TDM channel, which contains information about the status of the Inmarsat B/M, mini-M and C network configurations, and the current frame number, used by the MES as a timing reference.

BUZ **Buzzer**

Byte:

One byte comprises eight bits and may represent either one alphanumeric character or numeric information.

C

Channel number:

The number representing the frequency of an Inmarsat communications channel.

Character:

One element of an alphanumeric character set. One character is equivalent to one byte or eight bits.

Class 1 Inmarsat C MES:

A Class 1 MES is capable of ship-to-shore and shore-to-ship message transfer and distress alerting, but is not capable of receiving EGC messages.

Class 2 Inmarsat C MES:

A Class 2 MES is capable of two modes of operation (selected by the operator):

- As Class 1, and also capable of receiving EGC messages when not engaged in Inmarsat C traffic.
- Ready for EGC message reception exclusively (and not available in that mode for Inmarsat C message transfer).

Class 3 Inmarsat C MES:

A Class 3 MES has two independent receivers, one for receiving two-way Inmarsat C messages, the other for receiving EGC messages.

Closed network:

A private network, with access limited to registered users. The Inmarsat C system allows two types of closed networks: data reporting networks, identified by a Data Reporting Network Identification (DNID) code, and EGC Fleet NET networks, identified by an EGC Network Identification (ENID) code.

Closed user Group:

A private network available only to a group of registered users. Access from the public network being barred to non-registered users.

CNID **Closed Network Identification**

COMM **Communication**

Command:

The generic name for anything you tell a computer program to do.

Commissioning:

The process by which an MES is registered for use via the Inmarsat network.

CPU **Central Processing Unit**

CR **Carriage Return**

One of a code for line feeding.

CSDN **Circuit Switched Data Network**

CUG..... **Closed User Group**
Private network used by the registered user only. Unregistered user cannot be accessed from public network.

D

Data reporting:

A short data packet transmitted in burst mode on the MES signaling channel as a result of a polling telecommand or at the initiative of the MES (operator).

Data services:

This is how a terminal may send and receive electronic messages such as e-mail.

dB..... **Decibels**

DB..... **Distress Button**

DC..... **Direct Current**

DCE..... **Data Circuit Terminating Equipment**

A component part of an Inmarsat C MES. An MES contains a DCE receiver and a DCE transmitter, which are used for communication between the MES and an Inmarsat C LES.

DEC..... **Decoder Circuit**

DEL..... **Delete**

DEM..... **Demodulator Circuit**

Distress alert:

In the Inmarsat-C system, a packet transmitted to an LES or an NCS on a signaling channel by maritime MES in distress. A distress alert provides information on a ship's identity, position, course, speed and the nature of distress. A distress alert has the highest priority in the Inmarsat-C system.

Distress priority message:

In the Inmarsat-C system, a store and forward message carried on a messaging channel having Distress Priority. Used for distress communications between maritime MESs and RCCs.

DMG..... **Distress Message Generator**

DNID..... **Data Network Identification code**

See data report (unreserved), data report (reserved) and data report (pre-assigned).

Downloading:

The process by which an Inmarsat C MES receives information from a service provider. For data reporting purposes, an operational center downloads a DNID code and Member Number to the MES. In the EGC Fleet NET™ service, an information provider downloads an EGC Network Identification (ENID) code to an MES.

DR..... **Data Reporting**

DS..... **Data Source**

DTE..... **Data Terminal Equipment**

A component part of an Inmarsat C MES, used primarily for storage and interfacing external devices (such as a keyboard or monitor). For other Inmarsat systems, this can be a computer connected to the MES for use for data communications.

E

EDR..... **Enhanced Data Reporting**

EEPROM..... **Electrically Erasable and Programmable ROM**

Read only Memory that is able to delete and rewrite electrically.

EGC..... **Enhanced Group Call**
The system for broadcasting messages via Inmarsat C mobile satellite communications system that supports two services: SafetyNET and FleetNET.

EIA **Electronic Industries Association**

EIRP..... **Equivalent Isotropically Radiated Power**
Effective Isotropically Radiated Power, a measure of transmitted power.

E-mail..... **Electronic mail**
A global message-handling system whereby subscribers to commercial e-mail services can exchange electronic messages and data files between computers. E-mail services are provided by some service providers and private organizations. Access to e-mail services may be via PSTN, PSDN networks or the Internet.

EME **Externally Mounted Equipment**

ENID **EGC network identification**

EOF **End Of File**

EPADR..... **Enhanced Pre-assigned Data Reporting**

EXT **External**

E/W..... **East/West**

F

FleetNET:

A commercial service for the broadcasting and automatic reception of fleet management and general public information by means of direct printing through Inmarsat's EGC system.

Footprint (of a satellite):

The area on the Earth's surface (sea or land) covered by the satellite and where an antenna can obtain line-of-sight communications. In the Inmarsat systems, this area is also known as the ocean region or coverage area.

FRLP **Forward ID Return ID Link Pair**

FTU **Frequency Translation Unit**

G

GMDSS..... **Global Maritime Distress and Safety Service**
GMDSS: Global Maritime Distress and Safety System with the basic concept that SAR authorities ashore, in addition to shipping in the vicinity of a casualty, must be rapidly alerted of the distress event so that they can assist with coordinated SAR operation with minimum delay (or a similar definition).

GPS..... **Global Positioning System**
System that provides the geographic location of a vessel. This service uses American military satellites, which have been made available for civilian use.

Ground segment:

The network of LESs which provide a link between the space segment and the terrestrial telecommunication networks.

H

HPA **High Power Amplifier**

HYB..... **Hybrid**

I

- IA5** **International Alphabet number 5**
A standard alpha- numeric character set, also known as ASCII, based on 7-bit codes.
Supports both upper and lower case characters.
- ID** **Identity**
- IF** **Intermediate Frequency**
- IFU** **Intermediate Frequency Unit**
- IHO** **International Hydrographic Organization**
- IME** **Internally Mounted Equipment**
- IMN** **INMARSAT Mobile Number**
The number assigned by the national routing organization to an Inmarsat MES as its identity number. An Inmarsat C maritime IMN has the format 4XXXXXXXX.
- IMO** **International Maritime Organization**
- INFO** **Information**
- INMARSAT** **International Maritime Satellite Organization**
The operator of global mobile satellite communications, part of the Inmarsat Ventures Ltd group of companies.
- Inmarsat C:**
A digital system based on a low-cost MES with low power consumption. This system provides global two-way store-and-forward messaging, distress alerting, EGC Safety NET™ and Fleet NET™, data reporting and polling.
- I/O** **Input/Output**
- IOR** **Indian Ocean Region**
- ISDN** **Integrated Services Digital Network**
- ISO** **International Organization for Standardization**
- ITA** **International Telegraph Alphabet**
- ITA2** **International Telegraph Alphabet 2**
A standard alphanumeric character set, generally used for sending messages on the international telex networks. The character set is based on 5-bit codes, also known as telex format, or 5-bit packed.
- ITU** **International Telecommunication Union**

J

- JASREP:**
A vessel position-reporting system similar to AMVER, but operated by the Japanese authorities.

K

- Kbytes:**
1024 bytes or 128 characters.

L

- LCD** **Liquid Crystal Display**
- LED** **Light Emitting Diode**
- LES** **Land Earth Station**
Land Earth Station. A fixed land station in the Inmarsat satellite communications system acting as a gateway between the space segment and the terrestrial communication networks.

LES TDM channel:

A TDM channel used by an LES to transmit system information and data addressed to an MES.

LMSS **Land Mobile Satellite Service**

Log in:

The action performed on an Inmarsat C MES to inform the NCS in an ocean region that the MES is available for communications.

Log out:

The action performed on an Inmarsat C MES to inform the NCS in an ocean region that the MES is not available for communication.

LNA **Low Noise Amplifier**

LSB **Least Significant Bit**

LT **Local Time**

M

Member number:

The number downloaded with a DNID to an MES, when the MES is registered to a data-reporting network.

MES **Mobile Earth Station**

Mobile Earth Station. A mobile user terminal in the maritime mobile-satellite service located aboard a ship.

Message channel:

A channel assigned by the NCS for an MES to send a message through an LES to its required destination.

METAREA:

A geographical sea area established for the purpose of co ordinating the broadcast of marine meteorological information.

MHS **Message Handling System**

MID **Mobile Identification Digit**

3-digit number which identify the country of registration of the mobile terminal (or similar definition)

MMSI **Maritime Mobile Service Identity**

A nine-digit format assigned by the maritime authority to identify a vessel. The first three digits are the code of the country where the vessel is registered as defined by the ITU.

MMSS **Maritime Mobile Satellite Service**

MOD **Modulator**

Modem **MODulator/DEMODulator**

A device used to transmit digital data, by converting (modulating) a digital signal into an analogue form and re-converting (demodulating) the analogue signal into digital form at the receiving end.

MSB **Most Significant Bit**

MSI **Maritime Safety Information**

Navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships (as defined in Regulation IV/2 of the 1974 SOLAS Convention, as amended).

N

NAVAREA..... **Navigational Area**
A geographical sea area established for the purpose of co ordinating the broadcast of navigational warnings.

NAVTEX..... **MF Navigational Broadcast Service**
The system for The broadcast and automatic reception of Maritime Safety information by means of narrow-band direct-printing telegraphy.

NCS..... **Network Coordination Station**
A fixed land station in the Inmarsat satellite communications system which controls channel assignments and provides network management functions in each satellite ocean region. NCSs also transmit EGC messages on the NCS common channel.

NCS Common Signaling Channel:

Also known as the NCS Common Channel. A TDM channel used by the NCS to transmit system information and message announcements to MESSs.

NMEA..... **National Marine Electronics Association**

N/S..... **North/South**

O

OCC..... **INMARSAT Operations Control Centre**

Ocean region:

The coverage area of an Inmarsat satellite within which an MES may send and receive messages.

OSC..... **Oscillator**

P

Packet:

An envelope or block of data sent over a network; each packet contains addressing information as well as the data being sent.

PC..... **Personal Computer**

PEP..... **Packet Error Probability**

PER..... **Packet Error Rate**

PIN..... **Personal Identification Number**

Polling:

The facility whereby an operational center sends an instruction (a polling command) to selected MESSs to perform a defined task, such as returning a pre-assigned data report or performing a SCADA operation.

POR..... **Pacific Ocean Region**

Presentation code:

A code included in a transmission (ship-to-shore or shore-to-ship), indicating to the recipient the presentation or formatting of the data contained in the message.

Protocol:

A defined set of communications standards, which lay down the parameters to which all users must abide. Protocols in general use are X.25 and X.400.

PROM..... **Programmable Read Only Memory**

PSA..... **Point of service activation**

PSDN..... **Packet Switched Data Network**

PSPDN..... **Packet Switched Public Data Network**

PSTN **Public Switched Telephone Network**
 PSU **Power Supply Unit**
 PVT **Performance Verification Test**

R

RAM **Random Access Memory**
 RCC **Rescue Coordination Center**
 RDB **Remote Distress Button**
 REC **Receiving level**
 ROM **Read Only Memory**
 RX **Receive/Receiver**

S

SafetyNET

The international service for the broadcasting and automatic reception of MSI through Inmarsat EGC system. SafetyNET receiving capability is part of the mandatory equipment which is required to be carried by certain ships under the provisions of chapter IV of SOLAS Convention 1974, as amended.

SAR **Search and Rescue**

Satellite coastal warning area

A unique and precisely defined sea area within a NAVAREA/METAREA or Sub-Area established by a coastal state for the purpose of co-ordinating the broadcast of coastal maritime safety information through the SafetyNET service.

SDM **System Definition Manual**

SFU **Store and Forward Unit**

Signaling channel (MES - LES):

A random access TDMA channel, used by an MES to transmit signaling information and data to an LES.

Signaling channels (MES - NCS):

A random access TDMA channel, used by an MES to transmit signaling information and data to an NCS.

SLCA **Slot Logical Channel Assignment**

SOLAS **International Convention for the Safety Of Life At Sea**

Space segment:

Consists of the communications satellites operated by Inmarsat.

Special access code:

A destination address code used in a ship-to-shore or shore-to-ship message to access a special service provided by a service provider. The two-digit codes are examples of special access codes.

SYNC **Synchronization**

SYNTH **Synthesizer**

T

TDM **Time Division Multiplex**

The process by which multiple signals can share the same communication channel, each using a different time slot.

TDMA **Time Division Multiple Access**

The process by which MESs communicate with an LES or NCS.

TDM channel:

The Inmarsat system uses different TDM channels, each transmitted on an unique frequency. The TDM channels are used for system control and message transfer to MESS. See LES TDM Channel and NCS Common Channel.

Time slot:

Basic unit into which one time frame of a TDM channel is divided.

TX **Transmit/Transmitter**

U

User defined area

A temporary geographic area, either circular or rectangular, to which maritime safety information is addressed.

UTC **Coordinated Universal Time**

Universal Coordinated Time. A term, which for practical purpose has the same meaning as Greenwich Mean Time (GMT).

V

VCXO **Voltage Control Crystal Oscillator**

W

WMO **World Meteorological Organization**

Others

5-bit packed (also known as telex format or ITA2):

A format based on 5-bit codes used for sending alphanumeric characters to and from telex terminals.

7-bit ASCII:

A format based on 7-bit codes used for sending the alphanumeric characters of the ASCII character set.

8-bit data:

A format based on 8-bit codes used for encoding information such as text, national character sets and numerical information.

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CHAPTER 1. GENERAL

This manual covers the installation, operation, and maintenance of the MES (Mobile Earth Station) JUE-87 for Inmarsat-C satellite communications.

The Inmarsat-C satellite communications provides text and data transmission to and from Inmarsat-C MES and terrestrial subscribers via a variety of public networks. It also carries the EGC (Enhanced Group Call) message.

JUE-87 provides the following functions;

- (a) Store and Forward message transfer
- (b) Distress Alert and Distress Priority Messaging
- (c) EGC message reception when not engaged in Inmarsat-C traffic (Inmarsat-C Class 2)
- (d) Position and/or file transfer by a polling command from shore using store and forward message transfer
- (e) Scheduled position and/or file transfer using store and forward message transfer
- (f) Position and/or Data Reporting, Enhanced Data Reporting (EDR) and Enhanced Pre-Assigned Data Reporting (EPADR) using data reporting protocol specified by Inmarsat (depends on LES facility)
- (g) Long-Range Identification Tracking (LRIT) function (by improved version of data reporting)
- (h) INM-C service support via LAN
- (i) JRC Remote Maintenance Service support

CHAPTER 2. COMPOSITION

2.1 JUE-87 Installation Wiring Diagram, Components and Supplied Parts List

2.1.1 Installation Wiring Diagram

The following diagram is for stand alone mounting type.

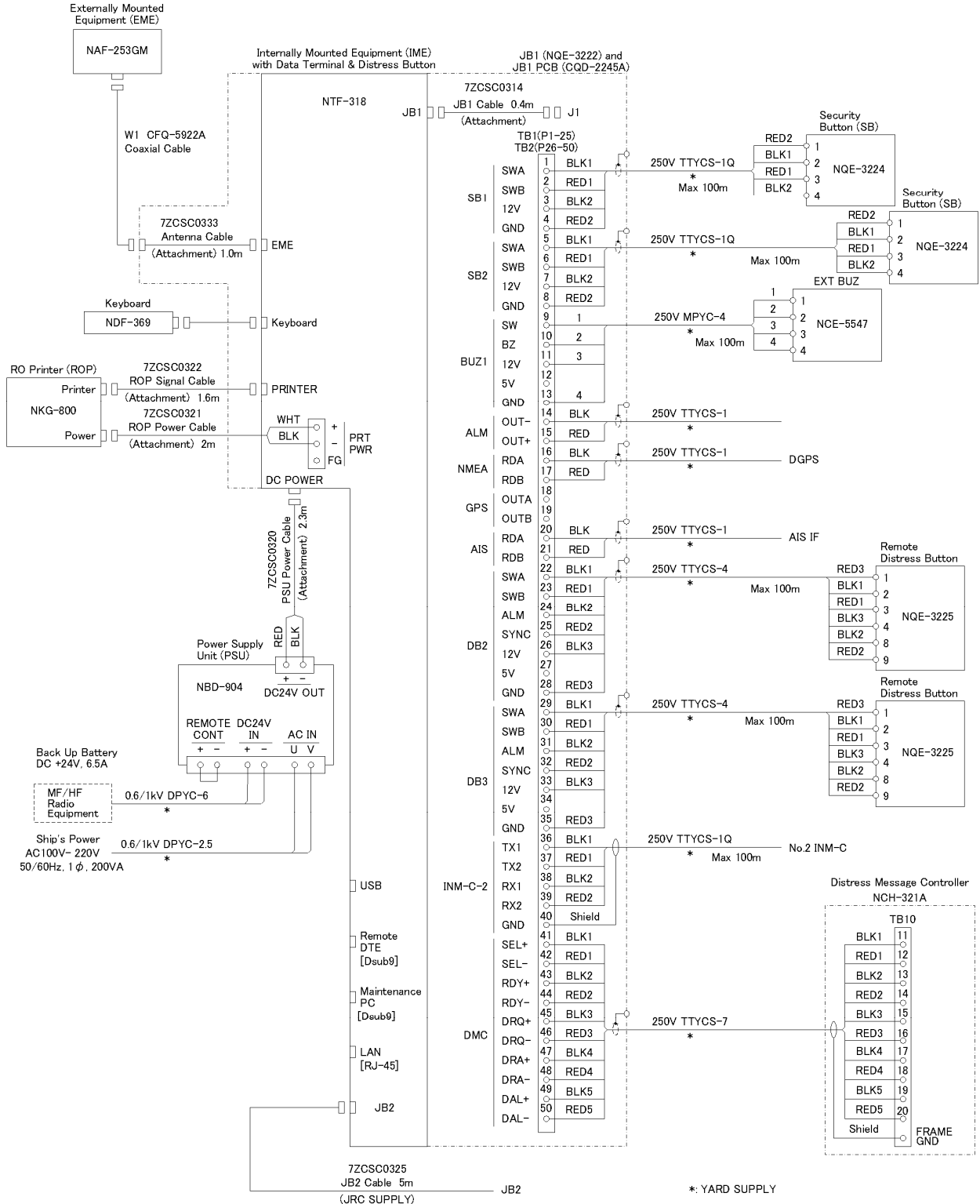
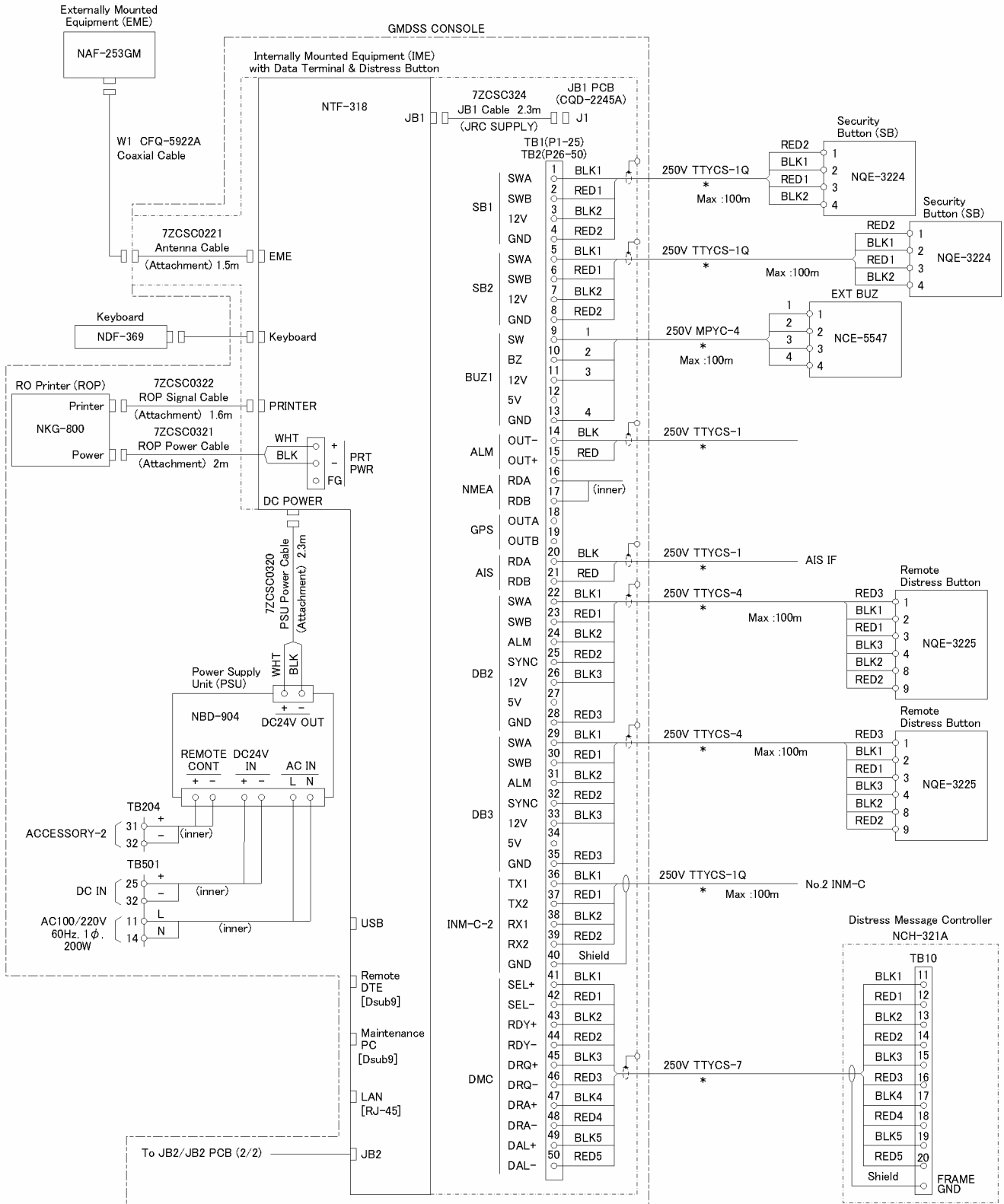


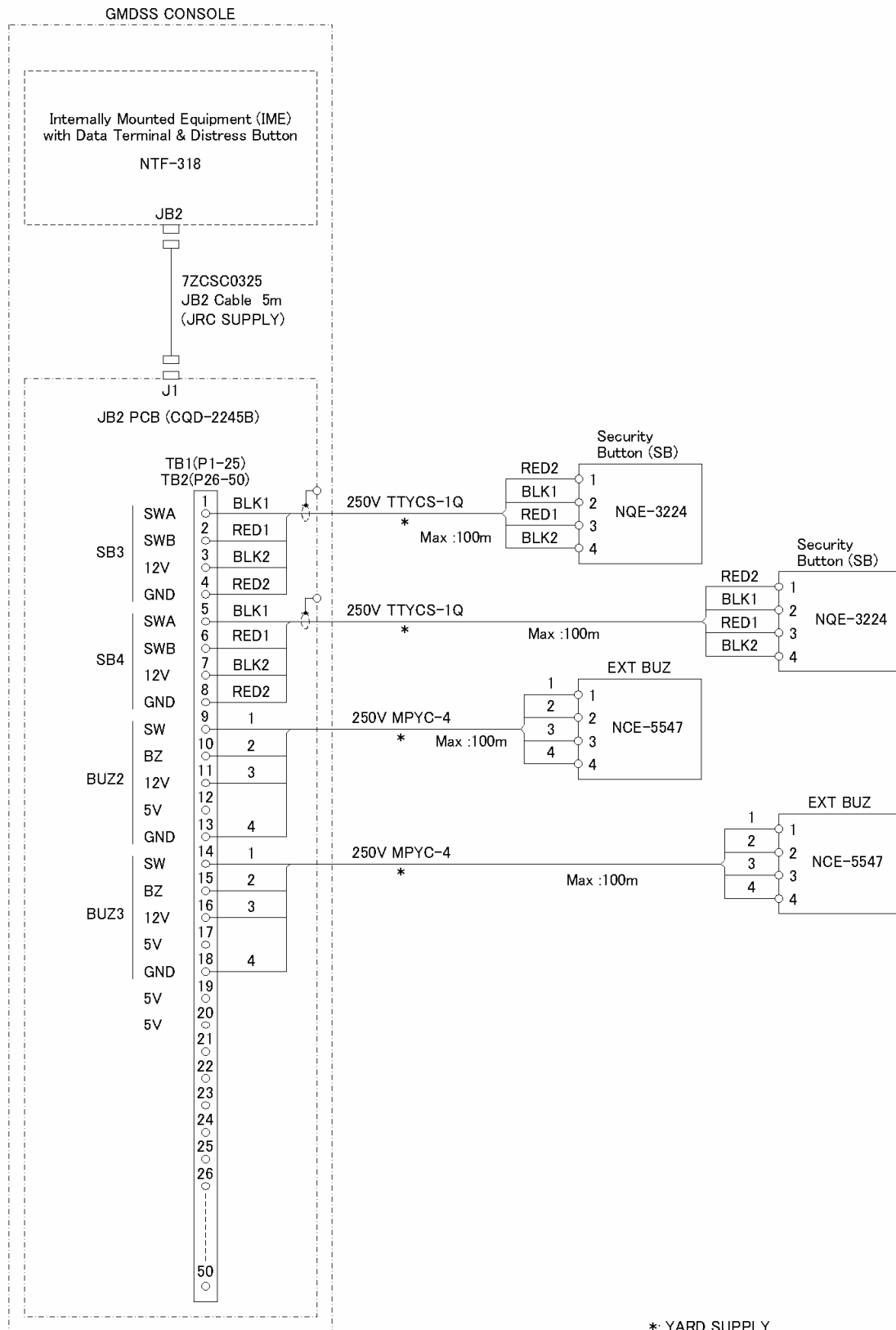
Fig.2.1.1a Wiring Diagram Inmarsat-C JUE-87 Mobile Earth Station (Stand alone, JB1)

The following diagram is GMDSS console mounting type



*: YARD SUPPLY

Fig.2.1.1b Wiring Diagram Inmarsat-C JUE-87 Mobile Earth Station (GM console, JB1)



2.1.2 Components List

Table 2.1.2 Components List

	No.	Name of component	Type	Q'ty
JUE-87 (Standard Components)	1	EME (Externally Mounted Equipment)	NAF-253GM	1
	2	IME (Internally Mounted Equipment)	NTF-318	1
	3	Keyboard	NDF-369	1
	4	Printer	NKG-800	1
	5	EXT PSU (Externally Power Supply Unit)	NBD-904	1
	6	Coaxial cable (Between IME coaxial cable and EME)	CFQ-5922A	1
	7	JB1 Board	CQD-2245A	1
	8	Spare parts	7ZXSC8701	1
	9	JUE-87 Instruction Manual	7ZPSC0444	1
	10	JUE-87 Installation Manual	7ZPSC0446	1
	11	JUE-87 Operation Guide	7ZPSC0448	1
(Optional Components)	1	Remote Distress Button	NQE-3225	1 to 2
	2	DTE	NDZ-227	1
	3	Keyboard	NDF-369	1
	4	Security Button	NQE-3224	1 to 4
	5	EXT BUZ (External Buzzer)	NCE-5547	1 to 3
	7	JB2	NQE-3223	1
	8	JUE-87 SSAS Option Instruction Manual	7ZPSC0450	1
	9	JUE-87 SSAS Option Operation Guide	7ZPSC0452	1

* “Standard components” means the needful units for Inmarsat-C Mobile Earth Station.

* Use the cable [250V TTYCS-4] to connect IME and remote Distress button.

* Use the cable [250V MPYC-7] to connect IME and EXT BUZ.

2.1.3 Supplied Parts by JRC

Table 2.1.3a Supplied parts by JRC for EME Installation

No.	Name	Type	Q'ty	Remarks	Application
1	Fixing Band	MPBP31867	1	Single unit by two	
2	Painting Protection Material	MPXP33556	1		
3	“SUMI” Tape (Self Bandaging Tape)	BRXP05369	1		
4	Packing List	MTZ304557	1		

Table 2.1.3b Supplied parts by JRC for IME Installation

No.	Name	Type	Q'ty	Remarks	Application
1	JB1 Board	CQD-2245A	1	Junction PCB	On Console
2	JB1	NQE-3222	1	Including JB1 Board, IME Coaxial Cable and JB1 Cable	On Stand
3	Tapping Screw	BRTG05285	6		
4	Knobbolt	MPTG30053	2		
5	Rubber Spacer	MTT310999	2		
6	Packing List	MPXP33495	1		
7	Earth Cable	7ZCSC0240	1		

Table 2.1.3c Others

No.	Name	Type	Q'ty	Remarks	Application
1	Cover	MTV304861	4	For IME corner	
2	Ferrite Core		3	For Power Supply Cable LAN Cable	
3	IME Label		1	For Spare label on console	
4	Note for IME Label		1		
5	Register Sheet		1		
6	Envelope for Airmail		1		



Table 2.1.3d Supplied Cables by JRC for IME Installation

No.	Name	Type	Q'ty	Remarks	Application
1	EXT PSU Cable (IME to EXT PSU)	7ZCSC0320	1		
2	Printer Signal Cable (Printer to IME)	7ZCSC0321	1		
3	Printer Power Cable (Printer to IME)	7ZCSC0322	1		
4	JB1 Cable (JB1 to IME)	7ZCSC0314	1	0.4m	On stand
5	JB1 Cable (JB1 to IME)	7ZCSC0324	1	2.0m (Option)	On wall
6	JB2 Cable (JB2 to IME)	7ZCSC0325	1	5m (Option)	
7	DTE Signal Cable (DTE to IME)	7ZCSC0203A	1	Option	
8	DTE Power Cable (DTE to Ext PUS)	7ZCSC0204	1	Option	

2.1.4 Parts for Installation (Prepared by Shipyard)**Table 2.1.4 Required cables**

No.	Part	Description	Q'ty	Remarks	Application
1	PVC tape	Vinyl tape	1	L = 15m	For protecting cable
2	Copper plate	JIS H 3100	1	W = 30mm, t = 0.2mm	For grounding EME
3	Pole		1		For mounting EME

2.1.5 Required Tools**Table 2.1.5 Required Tools**

No.	Tool	Description
1	Open-ended spanner	Nominal 13 (for M8)
2	Plus screwdriver	

2.1.6 Consumable Supplies and Spare Parts List

Table 2.1.6a Consumable Supplies List

No.	Name	Type	Remarks	Application
1	Roll paper Recording paper (1PLY)	5ZPAL00002	Size: 214mmW 98mm ϕ	
2	Roll paper Recording paper (2PLY)	5ZPCK00001	Size: 214mmW 124mm ϕ	
3	Print head unit	5ZYWZ00001		
4	Ink ribbon	5ZZCM00003	Color: Black	

Table 2.1.6b Spare Parts List (H-7ZXSC8701)

No.	Name	Type	Q'ty	Remarks	Application
1	Fuse (DC32 10A)	5ZFCK00015	6	For IME	
2	Fuse (DC32 15A)	5ZFEX00001	6	For Ext PSU	
3	Fuse (125V 20A)	5ZFCA00127	6	For Printer	

2

2.2 JUE-87 (Standard Components)

2.2.1 EME (Externally Mounted Equipment: NAF-253GM)

EME is connected to IME with a coaxial cable. The cable can be extended to maximum 100 m.



Fig.2.2.1 EME

2.2.2 IME (Internally Mounted Equipment: NTF-318)

IME is consists of Interface Unit, Power Supply Unit, Process Circuit, Color LCD Unit, I/F Circuit and USB I/F Circuit.



Fig.2.2.2a IME

Table 2.2.2a The LED Indicates the MES Status (Refer to Fig.2.2.2a)

NAME	ON	OFF
(2) POWER LED	MES power on	MES power off
(3) READY LED	MES receives NCS TDM carrier correctly.	MED does not receive NCS TDM carrier correctly.
(4) COMM LED	MES is communicating.	MES is idle.

Table 2.2.2b The Switch and the Button Function (Refer to Fig.2.2.2a)

Name	Function	Remarks
(1) Screen Angle Adjust Knob	Used to adjust the screen angle (up to 25degrees) to clearly.	
(5) Distress Button	Used to send Distress Alert	
(6) Dimmer Button	Used to adjust the screen and each LED (POWER/READY/COMM) dimmer.	
(7) POWER Switch	Used to turn on MES power	
(8) USB Port	Connect an USB flash memory.	

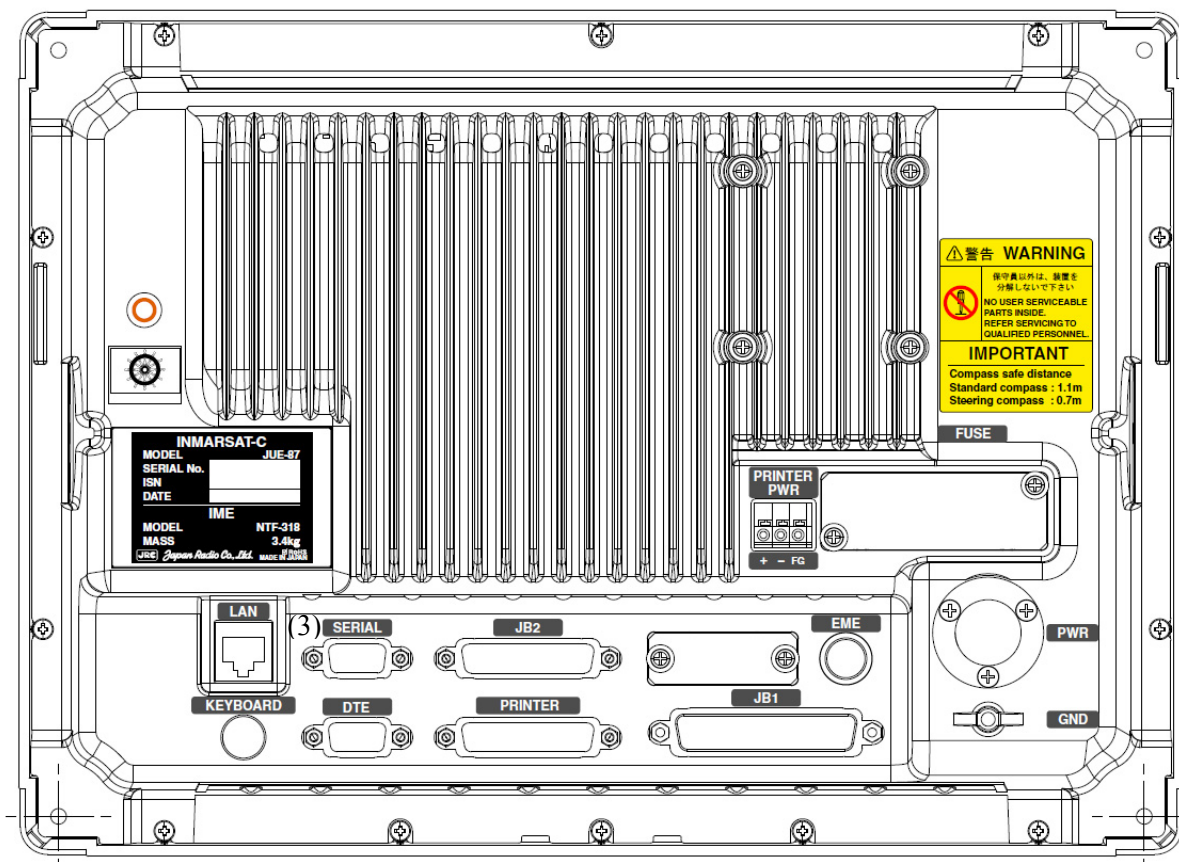


Fig.2.2.2b Back View of IME

Table 2.2.2c Connectors and the Cable (Refer to Fig.2.2.2b)

Name	Connected from/to
(1) LAN Port	PC or HUB for RMS
(2) KEYBOARD Port	KEYBOARD
(3) SERIAL Port	(Not USED)
(4) DTE Port	DTE
(5) JB2 Port	JB2
(6) PRINTER Port	PRINTER
(7) JB1 Port	JB1
(8) EME Port	EME
(9) PWR Port	External Power Supply
(10)GND Port	GND
(11)PRINTER PWR Port	PRINTER

2.2.3 Printer (NKG-800)

The printer (NKG-800) is connected Internally Mounted Equipment (IME) to take a hard copy of transmitted, received and edited messages.

NOTE

- Keep [ON LINE] status at all time. Received message is not printed out in [OFF Line] status.
- When status is off line: received message is not printed.
- Use a roll-paper (JRC code :5ZPAL00002 for one-sheet copy and 5ZPCK00001 for two-sheet copy) and ink ribbon (5ZZCM00003)

Do not use except above mentioned products, for keep normal operation.

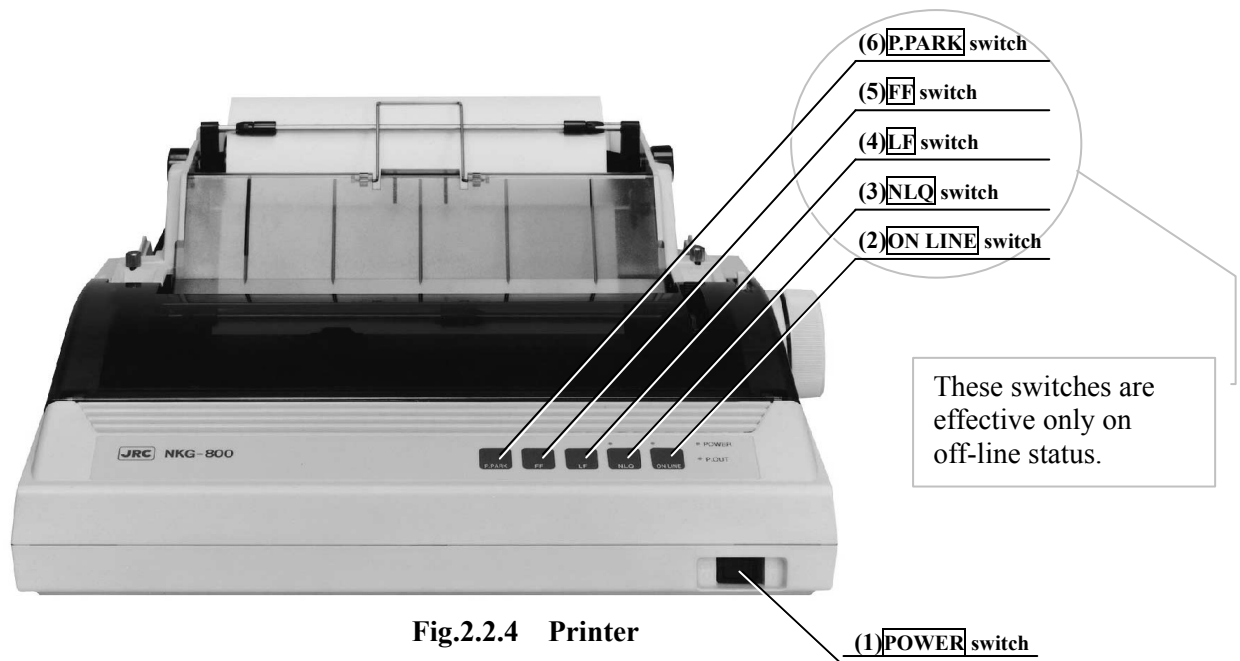


Fig.2.2.4 Printer

- (1) **POWER** switch
Used to turn on/off line voltage to ROP.
- (2) **ON LINE** switch
Used to alternate ROP status on line and off line.
- (3) **NLQ** switch
Used to alternate the character mode normal quality and high quality.
- (4) **LF** switch (Line feeder)
Used to do a linefeed. If a button is pushed once, width of linefeed is 1/6 inches. When keep pressing, linefeed is repeated continuously.
- (5) **FF** switch
Used to do a page feed.
- (6) **P.PARK** switch
Used to eject roll paper or cut sheet.

2.2.4 EXT PSU (External Power supply Unit: NBD-904)

The EXT PSU (NBD-904) supplies DC+24V for IME-EME and Printer from Ship's power source (from 100 to 240V AC) and/or +24V DC.

When both AC and DC power source are connected to the EXT PSU and the power interruption of AC power source is occurred: EXT PSU switches over from AC power source to the DC power source automatically (Power failure detecting function).

The input of the AC power supply of EXT PSU is AC wide range 100- 240V.



Fig.2.2.5 EXT PSU

2.2.5 JB1 (Junction Box 1: NQE-3222)



Fig.2.2.6 JB1

2.2.6 Coaxial Cable (CFQ-5922A)

Connecting EME and Antenna Cable.



Fig.2.2.7 Coaxial Cable

2.3 Appearance (Optional Components)

2.3.1 RDB (Remote Distress Button: NQE-3225)

The DB (Distress Button) is used to transmitting Distress Alert.

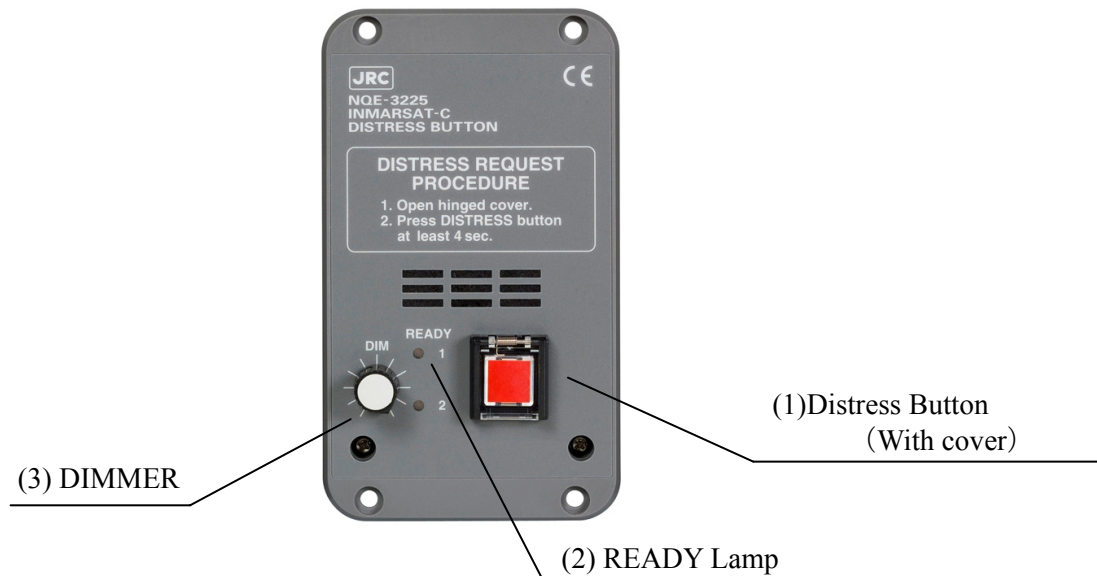


Fig.2.3.1 Remote Distress Button

- (1) Distress Button
Used to Distress Alert transmission.
In case of transmitting Distress Alert, open hinged cover and press the button for 4 seconds.
The Lamp is lit during sending the Distress Alert transmission.
- (2) READY LED
Illuminates RED: Not synchronizing
Illuminates GREEN: Synchronizing, and able to transmitting Distress Alert
- (3) DIMMER
Used to adjust lamp brightness. When it is turn to the right completely, brightness becomes the maximum. When turning it to the left completely, brightness becomes minimum (shines slightly).

2.3.2 JB2 (Junction Box 2: NQE-3223)

It is used when two or more RDB or EXT BUZ is installed.



Fig.2.3.2 JB2



2.3.3 DTE (Data Terminal Equipment: Display NDZ-227 and Keyboard NDF-369)

DTE is composed of display and keyboard, and is connected to IME. DTE can be connected to USB drive.

CAUTION



Do not use the DTE to other purpose.

It may cause a problem that unable to be transmitted in the emergency.

NOTE

- Do not use except the NDZ-227 DTE: otherwise DTE is not operated normally.
- Do not use except specified DTE-IME cable: otherwise the IME is damaged.
- In case of no key-instruction for a given length of time(depends on the setting) under DTE operating mode except any communication, any display is disappeared automatically.



Fig.2.2.3 DTE

- | | |
|---|---|
| (1) Screen Angle Adjust Knob
Used to adjust the screen angle to clearly. | (4) COMM LED
Illuminates in communication. |
| (2) POWER LED
Illuminates when power has been supplied. | (5) Dimmer BUTTON
Used to adjust the screen and each LED (POWER/READY/COMM) dimmer. |
| (3) READY LED
Illuminates when communication is possible | (6) USB PORT
Connect an USB flash memory. |

2.3.4 EXT BUZ (External Buzzer: NCE-5547)

The buzzer built in EXT BUZ sounds, when message is received.

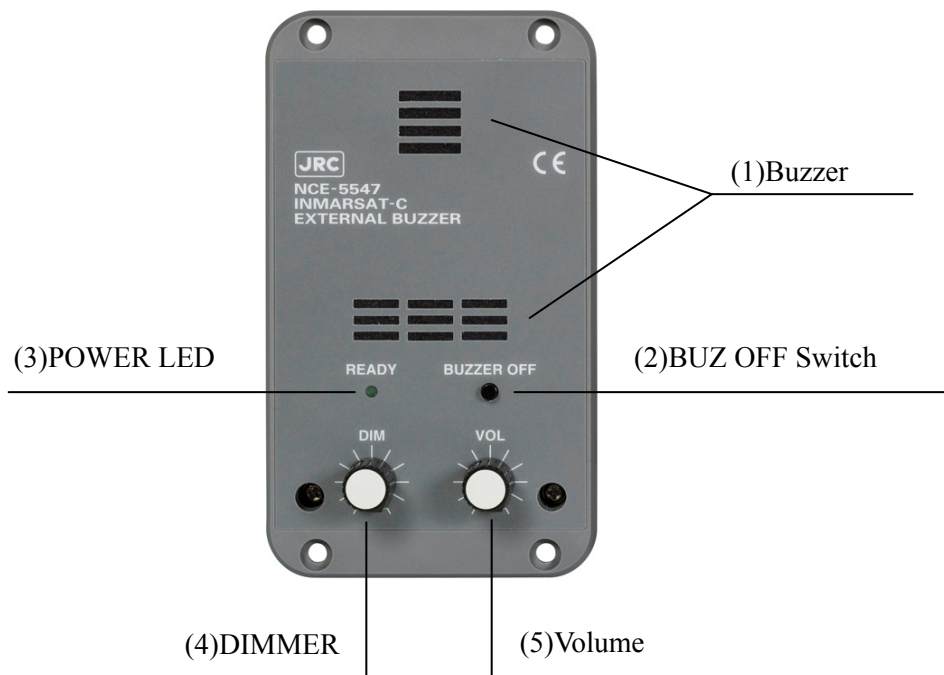
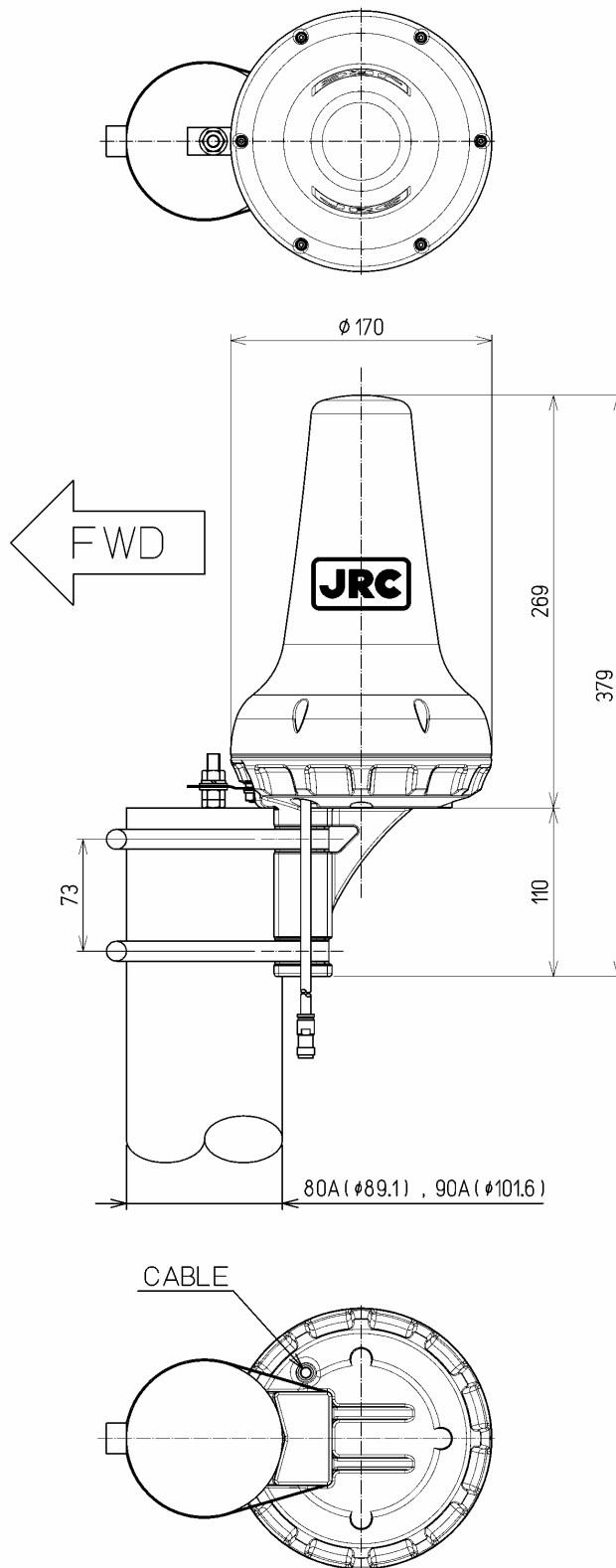


Fig.2.3.4 EXT BUZ

- (1) Buzzer
Sounds when JUE-87 receives messages (INM-C and EGC)
- (2) BUZ OFF Switch
Used to stop the buzzer sounding by pressing the switch.
- (3) POWER LED
Illuminates when power is supplied.
- (4) DIMMER
Used to adjust brightness of the lamp.
- (5) Volume
Used to adjust volume of buzzer.
 - When you want to extend the buzzer sound longer, change the parameter of “Buzzer sound duration” DTE screen.

2.4 Dimensional Drawing (JUE-87 Standard Components)

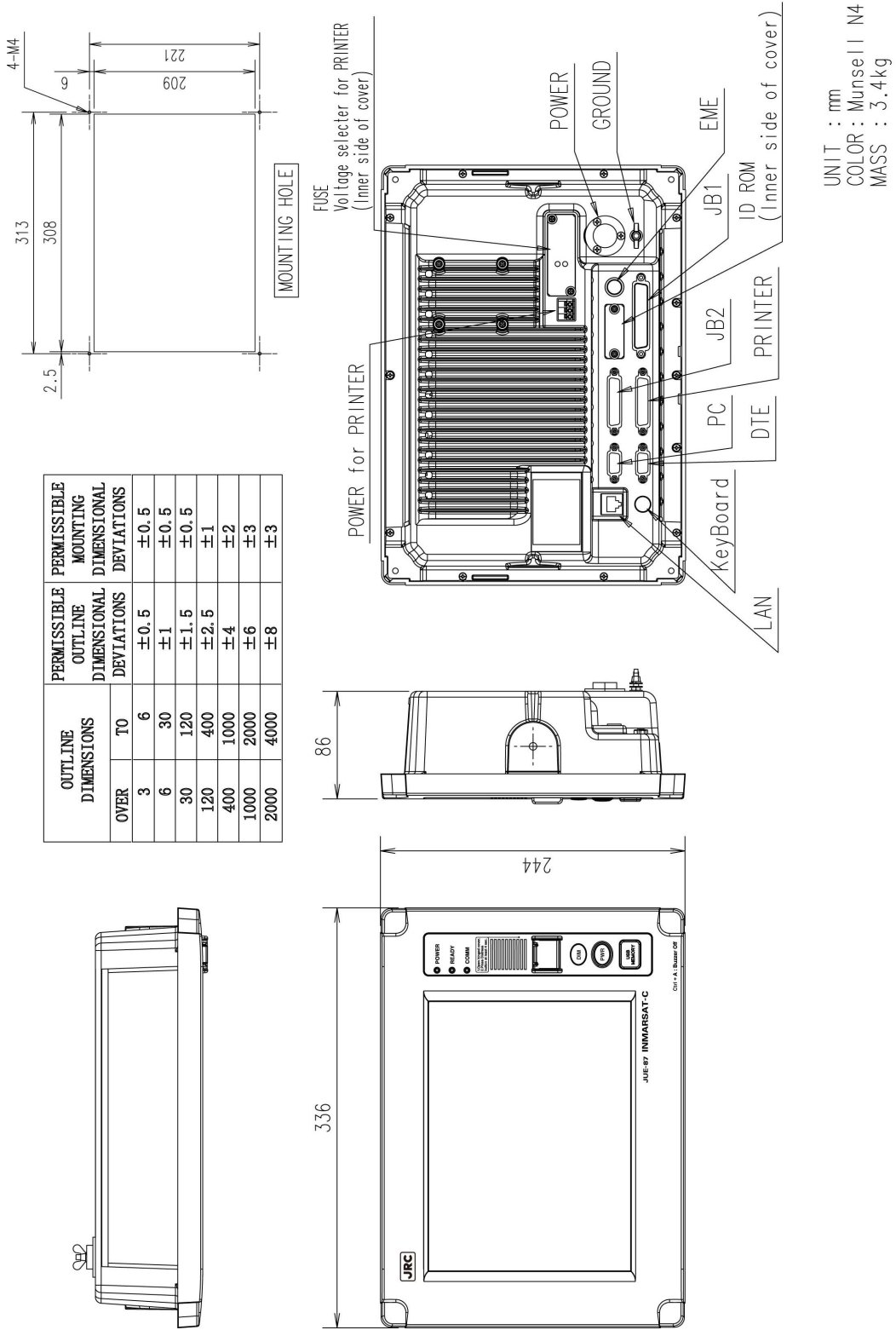
2.4.1 EME (NAF-253GM)



Unit: mm
Mass 2.4 kg
Color: N9

Fig.2.4.1 EME

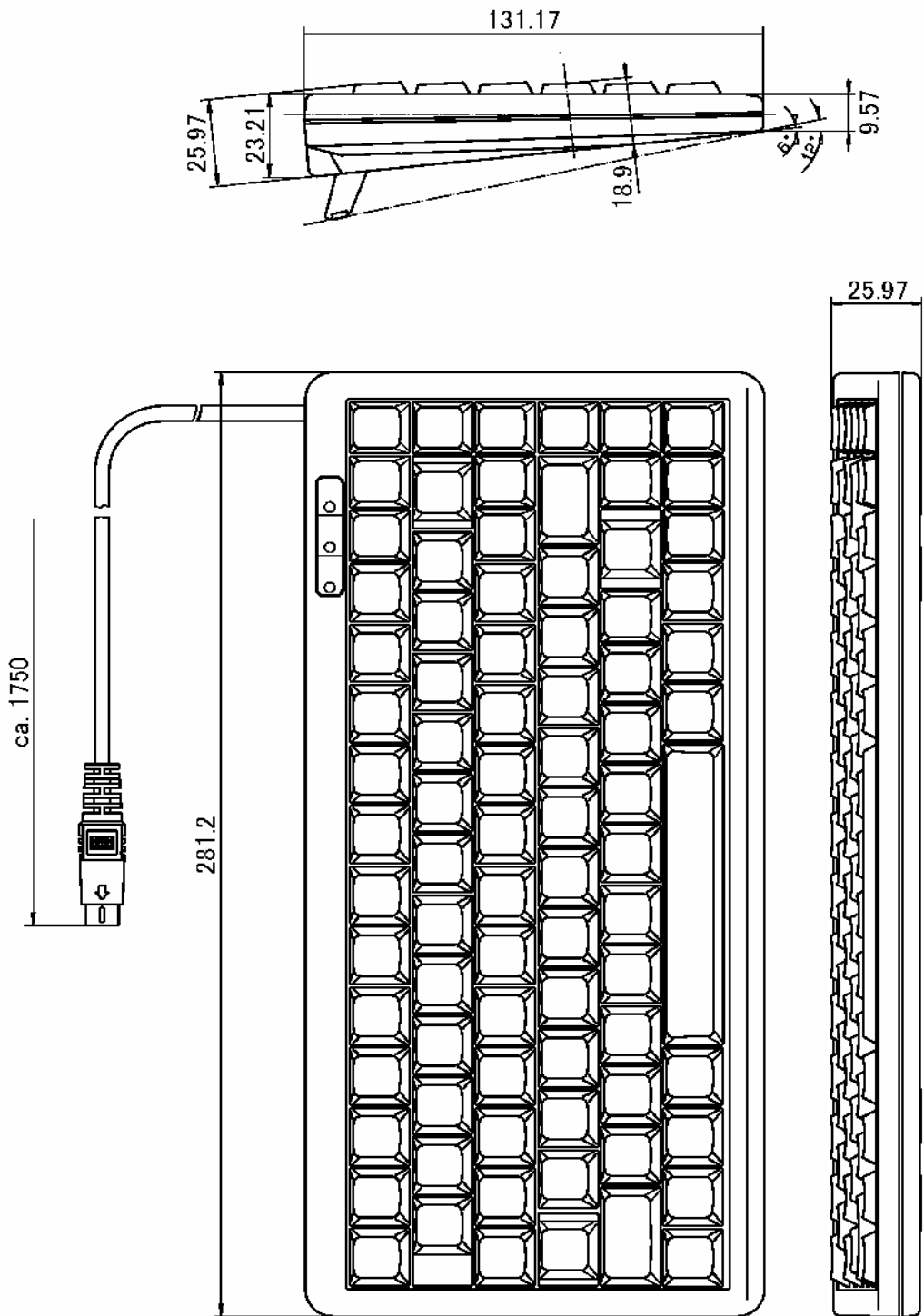
2.4.2 IME (NTF-318)



OUTSIDE DRAWING OF NTF-318

Fig.2.4.2 IME

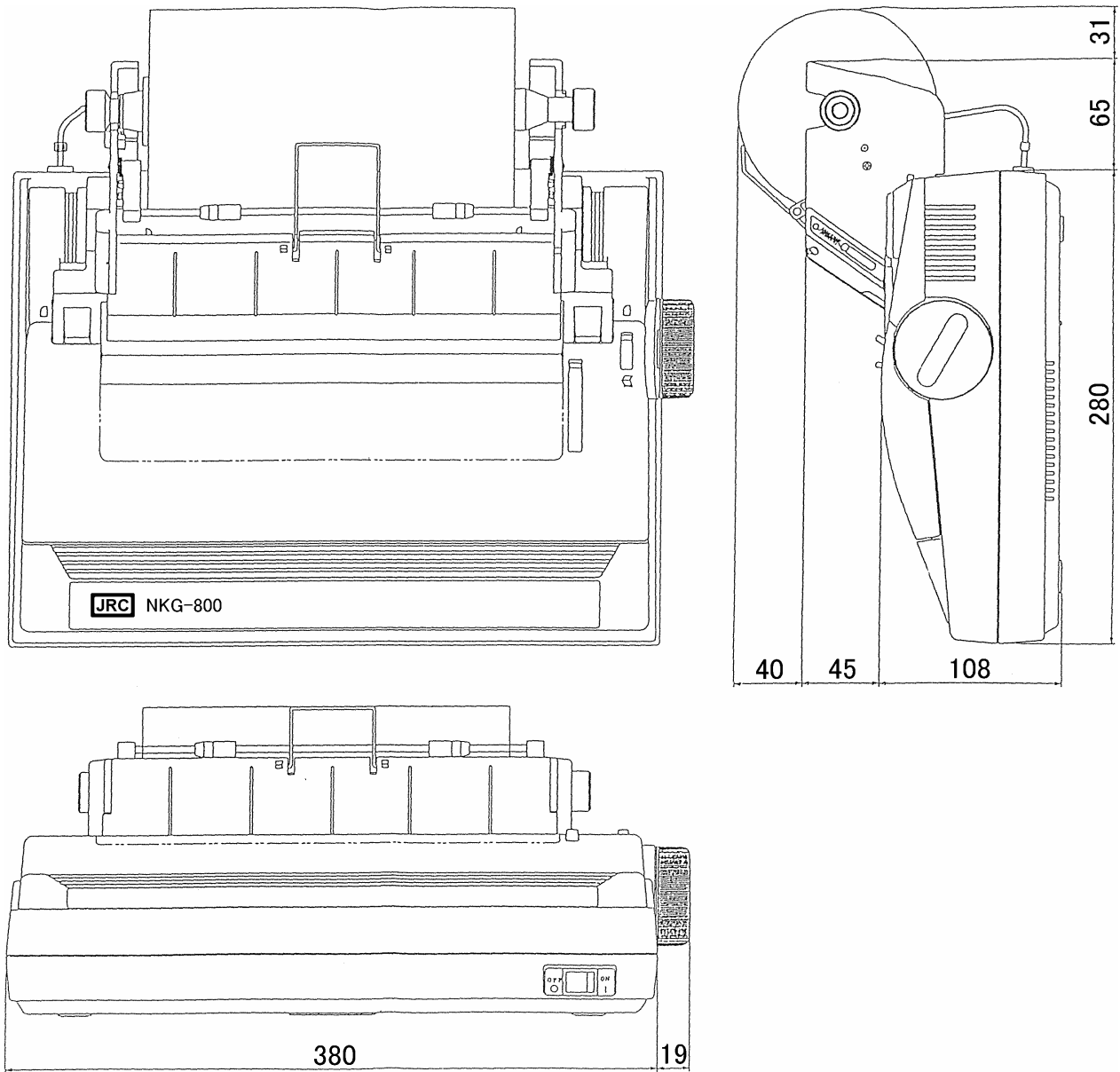
2.4.3 DTE Keyboard (NDF-369)



Unit : mm
Mass : 0.4kg

Fig.2.4.3 DTE Keyboard

2.4.4 Printer (NKG-800)



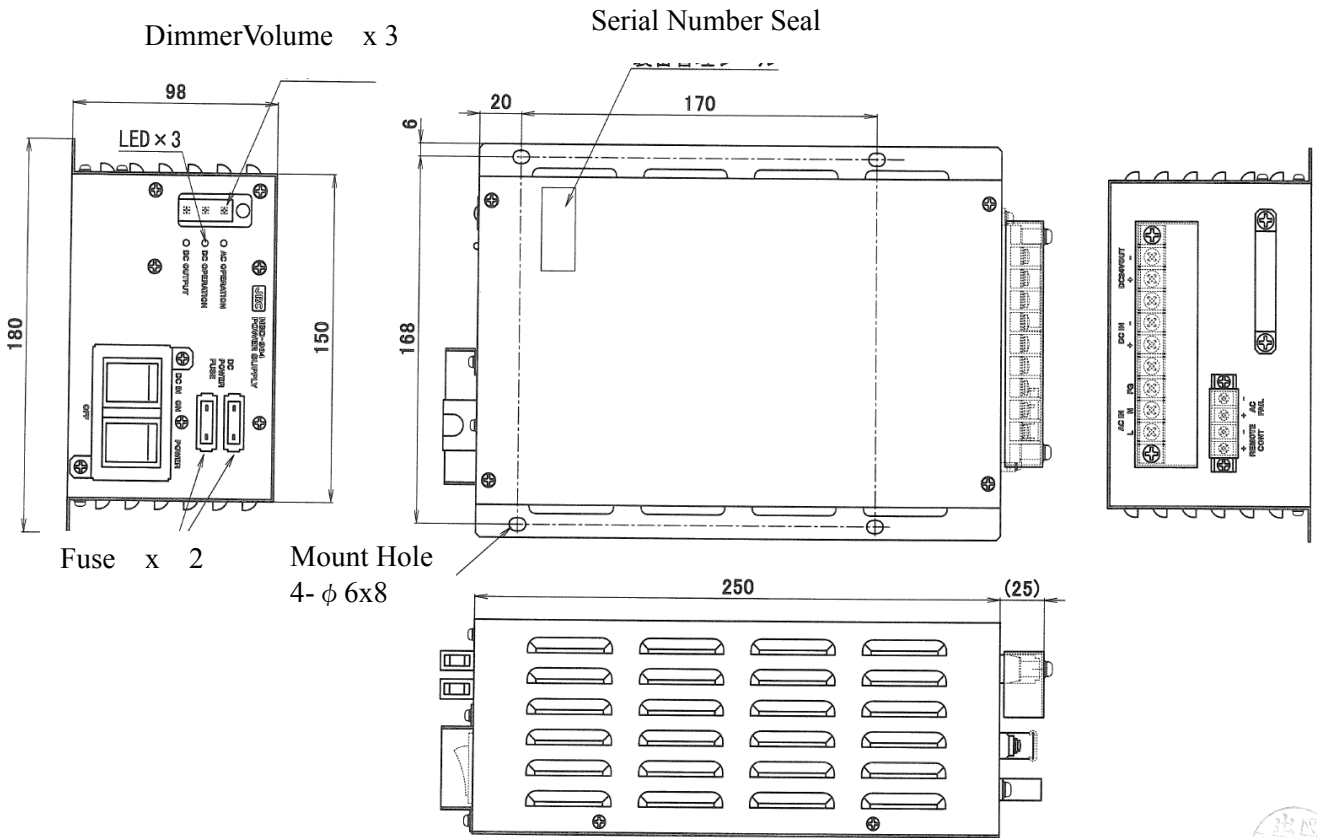
Fixing

Attach the hook and loop fastener to the bottom of the printer and the desk, and then fix them.

Unit: mm
Mass: 3.7kg

Fig.2.4.4 Printer

2.4.5 EXT PSU (NBD-904)



Refer to Table 5.1.5 Principal Specification of EXT PSU for detailed specifications.

Unit: mm
Mass: 2.6kg

Fig.2.4.5 EXT PSU

2.4.6 JB1 (NQE-3222)

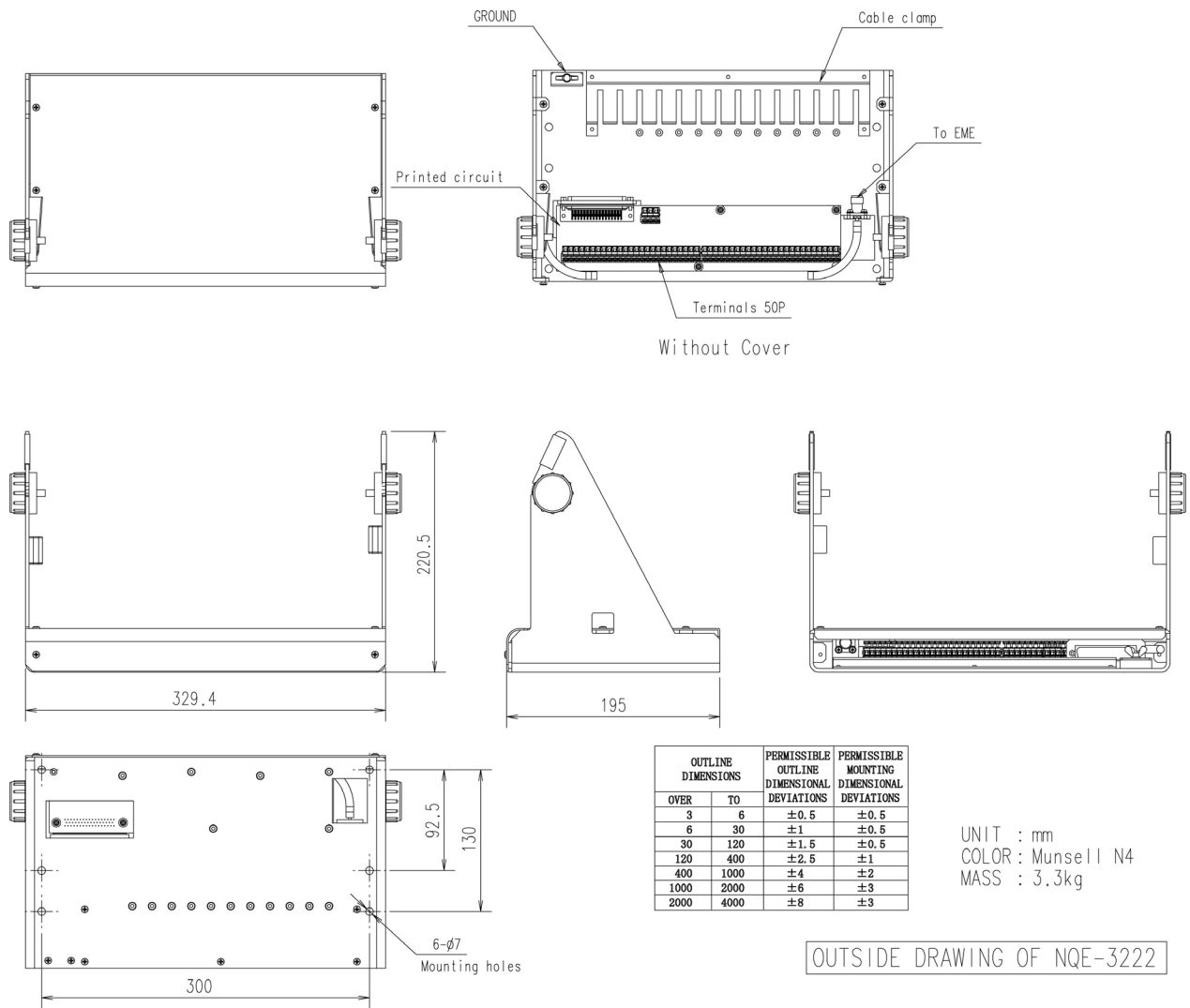
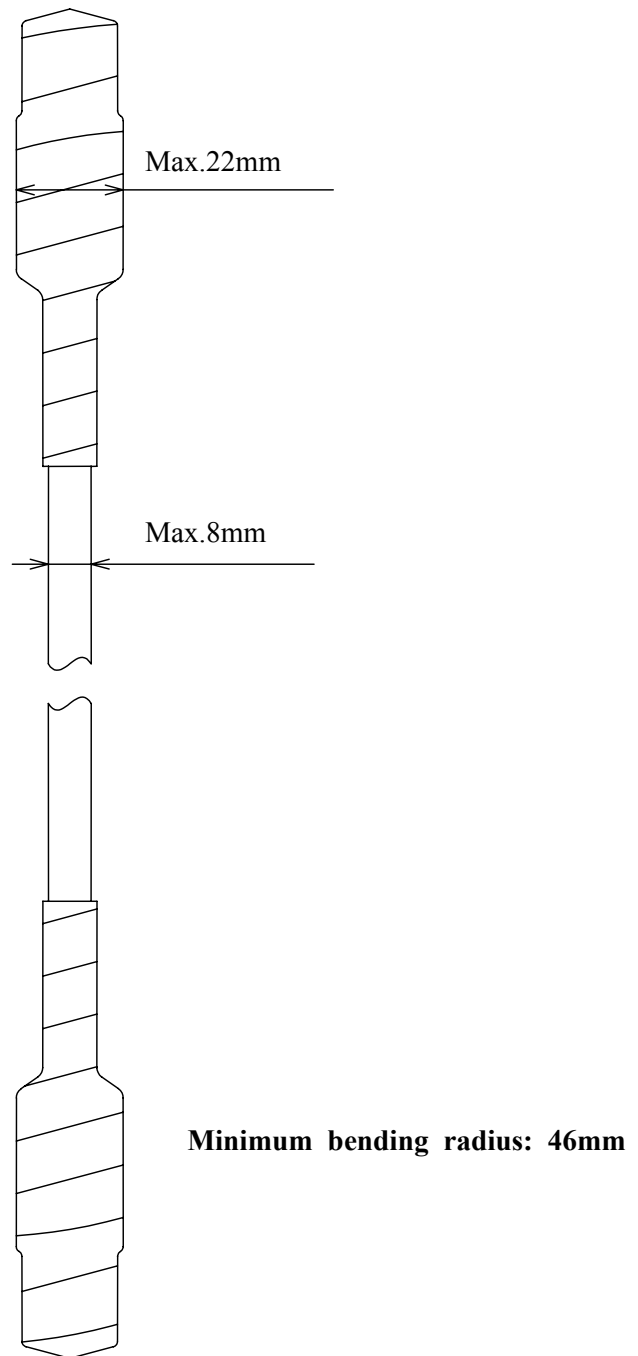


Fig.2.4.6 JB1

2.4.7 Coaxial Cable (CFQ-5922A)

Connecting EME and Antenna Cable.



Type	Length
Standard: CFQ-5922A3	30m (± 10 cm)
Option: CFQ-5922A4	40m (± 10 cm)
Option: CFQ-5922A5	50m (± 10 cm)

Fig.2.4.7 Coaxial Cable

2.5 Dimensional Drawing (Optional Components)

2.5.1 RDB (NQE-3225)

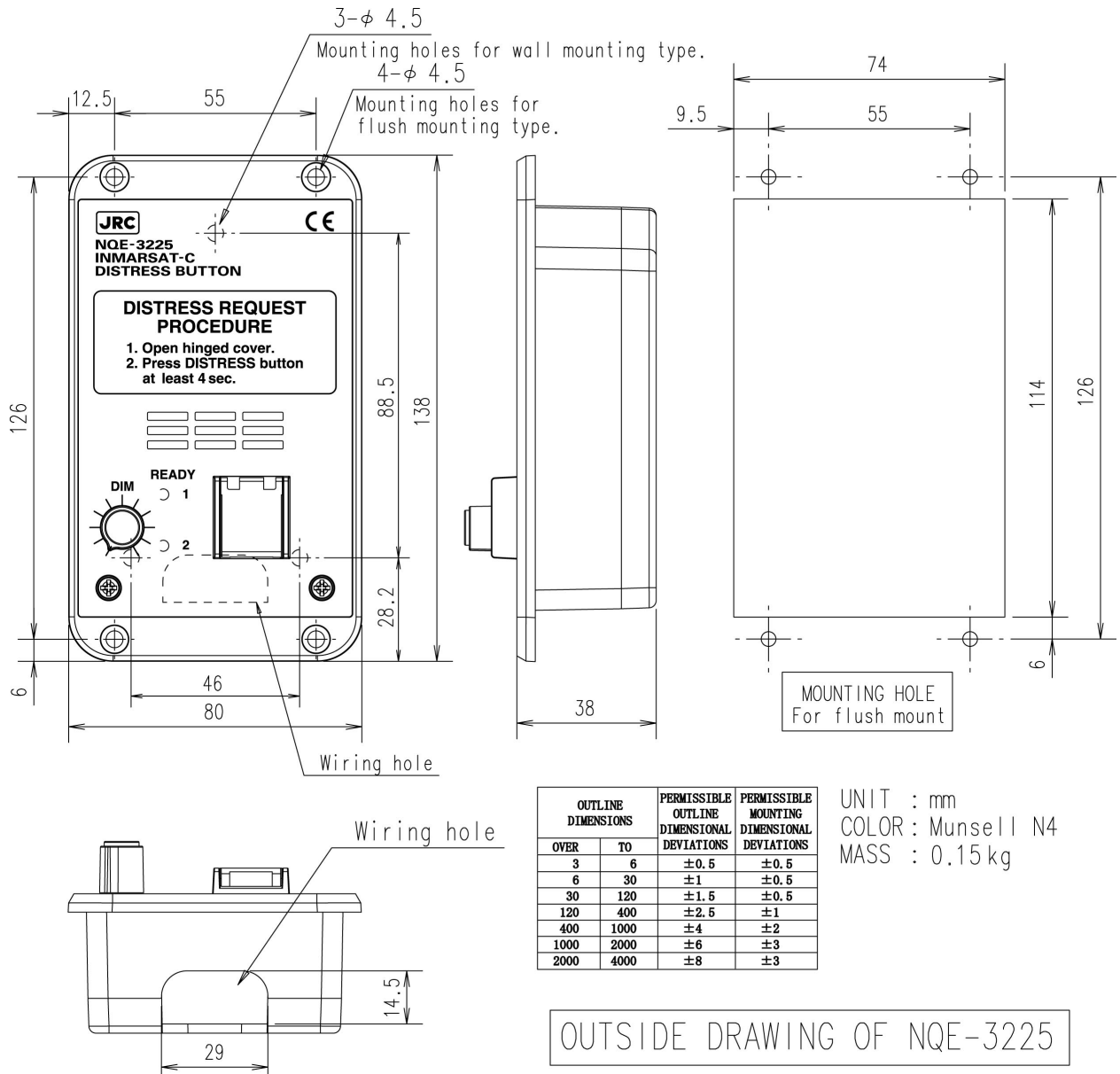


Fig.2.5.1 Remote Distress Button

2.5.2 JB2 (NQE-3223)

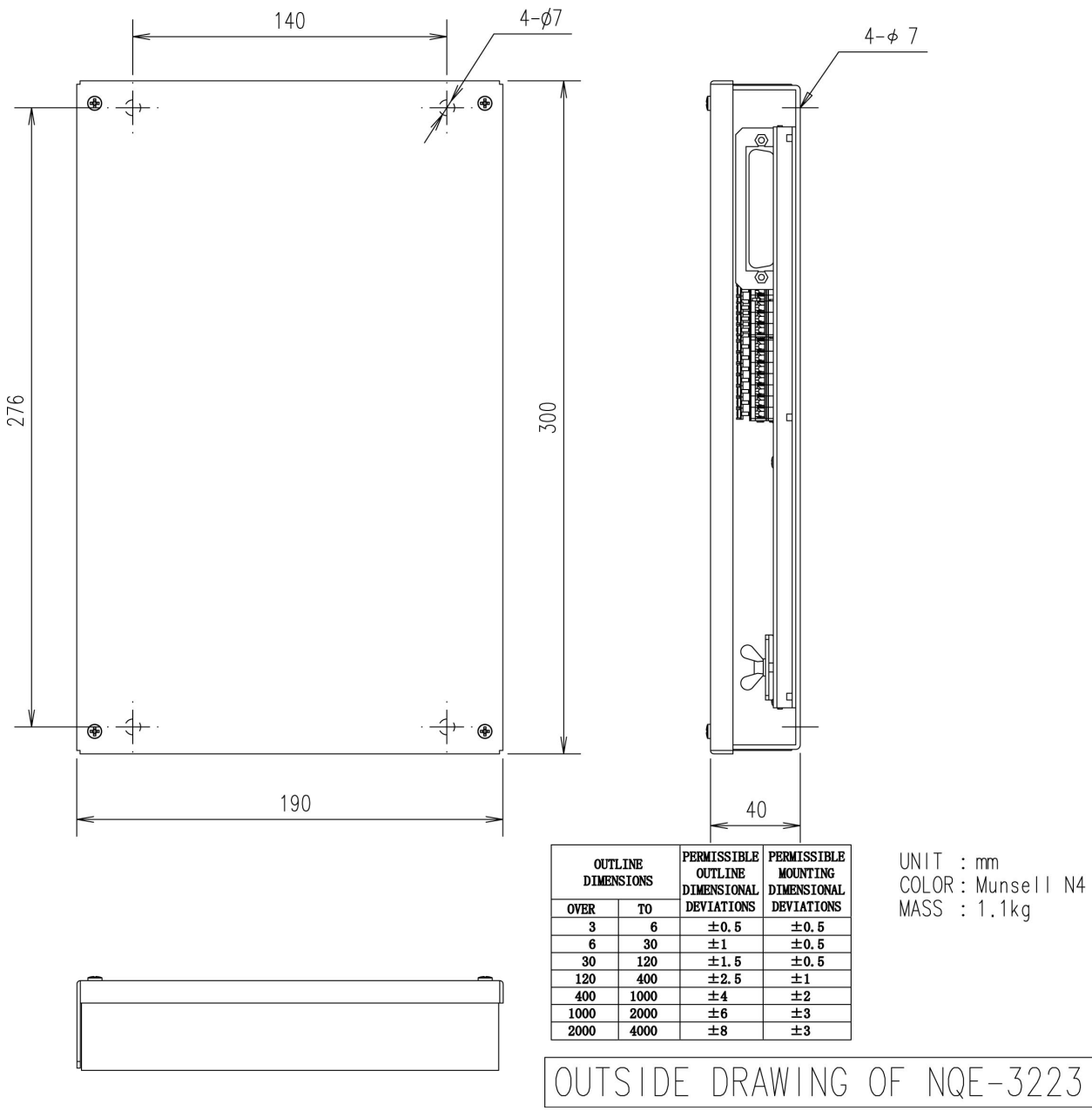


Fig.2.5.2 JB2

2.5.3 DTE (Display NDZ-227 Keyboard NDF-369)

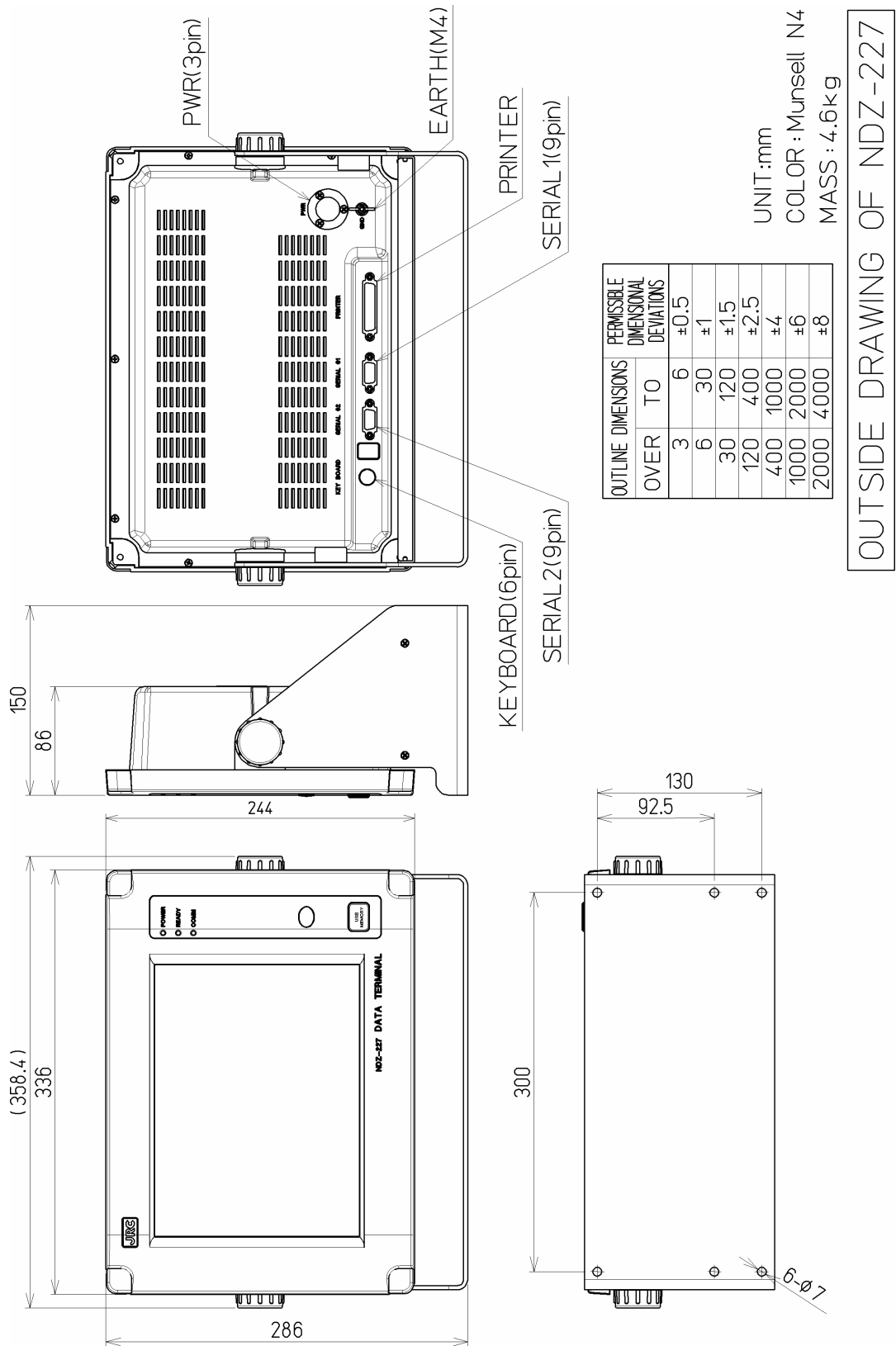


Fig.2.5.3 DTE

2.5.4 EXT BUZ (NCE-5547)

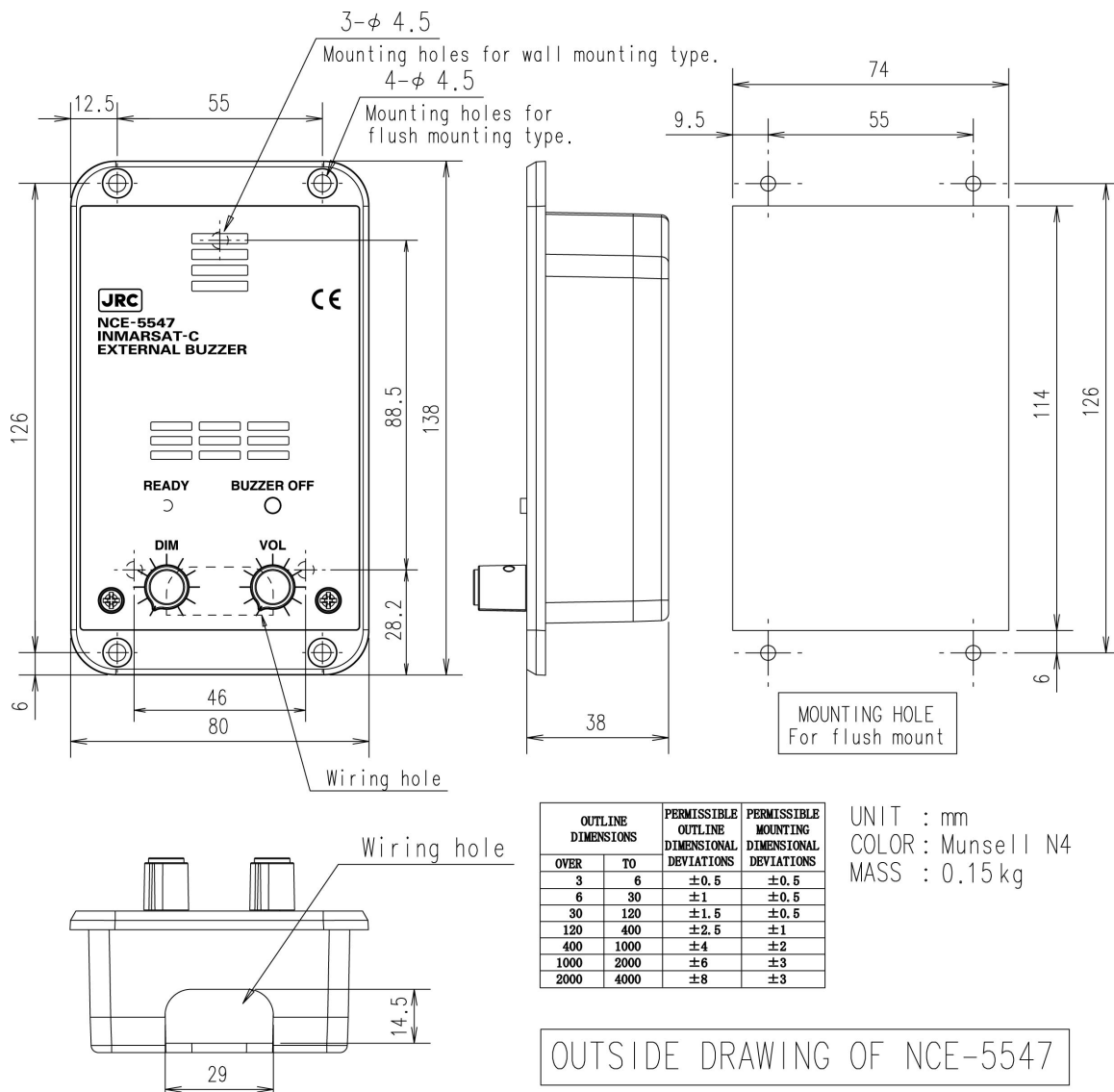


Fig.2.5.4 EXT BUZ

2.5.6 SB (Security Button: NQE-3224)

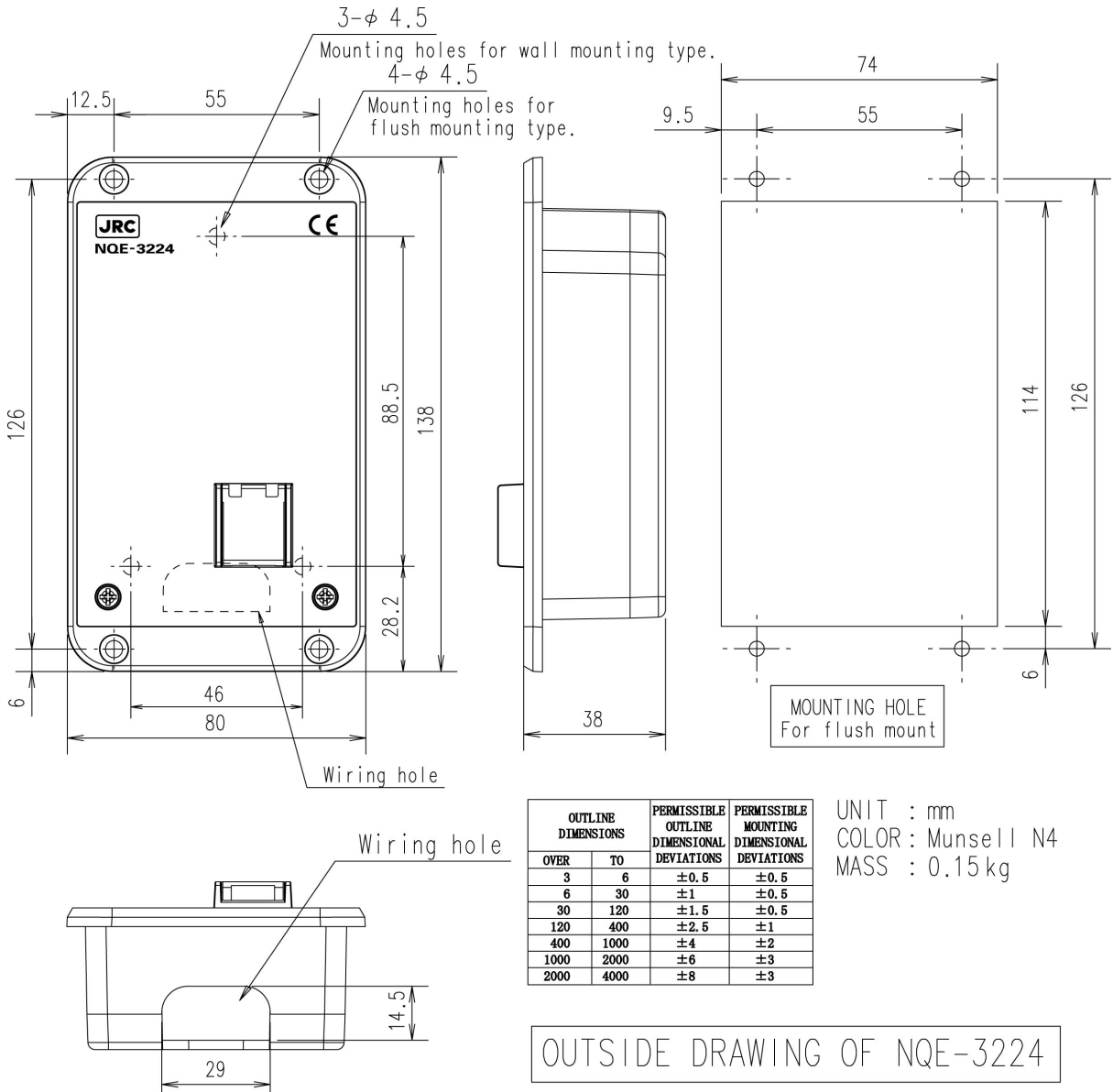


Fig.2.5.6 Security Button

CHAPTER 3. OPERATION

3.1 Starting Up

NOTE

POWER ON

When you turn on the power switch, your JUE-87 tries Log-in to the NCS automatically after synchronized with NCS TDM carrier.

POWER OFF

When you turn off the power switch, your JUE-87 still powered on and tries to Log-out automatically, and regardless of Log-out sequence results, it is disconnected.

This Log-out function does not operate when you turn off the power switch of external power supply or switchboard. Please be sure to turn off the power switch.

- * Log-in: It is to notice initiating operation of JUE-87 to NCS (Network Coordination Station), which is operated automatically when power switch is turned on.
- * Log-out: It is to notice ending operation of JUE-87 to NCS, which is operated automatically when power switch is turned off.
- * NCS TDM Carrier: The signal outputted from NCS as COMMON channel.

3

3.1.1 Power ON

Before turning on all power switches of JUE-87, confirm that all the signal cables and power cables are connected correctly.

Step	Operation/Response (Example)	Screen (Example)
1	<ul style="list-style-type: none"> Turn on the DC switch and AC switch on the EXT PSU. Turn on the IME and the POWER LED of the IME is illuminated. The software version is displayed and operation check. 	NOW LOADING... SELF DIAGNOSING... Software version :1.00 ROM check :OK RAM check :OK Keyboard check :OK
2	<ul style="list-style-type: none"> The IME system software starts up in about 30 seconds, then Main menu screen is displayed. 	
3	<ul style="list-style-type: none"> Turn on the printer. The status is changed “Log-out” or “Egc-only” to “Tune” in the first line on the main menu, then JUE-87 is started selecting NCS common channel. 	See “Fig. 3.4”
4	<ul style="list-style-type: none"> After few minutes, the status is changed Tune to “Comm (TX)” or “Egc-only” in the first line on the main menu. After few minutes, READY LED on the IME is lit. The status is changed “Comm (TX)” to “READY” in the first line on the main menu. 	Log-in (10-11-04 12:05) succeeded. F10:Previous
5	<ul style="list-style-type: none"> Set up each parameter following “3.5 Initial setting”. 	

3.1.2 Power OFF

Turn OFF the power switch of JUE-87 with below outlined procedure.

Step	Operation/Response (Example)	Remarks
1	<ul style="list-style-type: none"> Turn off the IME. (Press the POWER button until POWER LED starts blink.) 	<ul style="list-style-type: none"> Press “Power” on front of IME for 2 seconds at least.
2	<ul style="list-style-type: none"> The status is changed “READY” to “Comm (TX)” in the first line on the main menu to initiate the Log-out. After few minutes, POWER LED on the IME is light OFF. When “Log-out”, “Egc-only” or “Tune” is displayed in the first line on the main menu, power supply of IME is turned off automatically. 	<ul style="list-style-type: none"> When you turned off the external power switch, IME is turned off without Log-out. Switch off after check whether it has Log-out.
3	<ul style="list-style-type: none"> Turn off the printer. Turn off the DC switch and AC switch on the EXT PSU. 	<ul style="list-style-type: none"> Switch off the external power source from DC switch to AC switch. If you made reverse this turn, the power failure detection circuit works after turn off the AC switch, and the battery is drained until turn off the DC switch.

3.2 Log In

When the status in the first line on the main menu is “Log-out” or “Egc only”, initiate the “Log-in” according to the following procedures;

When the “Receive mode” is changed from “Egc receive only” to “Inmarsat-C”. The “Log-In” is initiated automatically.

Step	Operation/Response (Example)	Screen (Example)
1	<ul style="list-style-type: none"> Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> “Set up” screen is displayed.
2	<ul style="list-style-type: none"> Hold down Alt key and press I key. 	<div style="background-color: black; color: white; text-align: center; padding: 2px;">Log-in</div> <div style="border: 1px solid black; padding: 2px;">Do you initiate log- in? Yes No</div>
3	<ul style="list-style-type: none"> Move the cursor to “Yes” and press Enter key. The status is changed “Comm (TX)” in the first line on the main menu. 	
4	<ul style="list-style-type: none"> After few minutes, READY LED on the IME is lit. The status is changed “Comm (TX)” to “READY”. Press ESC key to clear the message window. 	<div style="border: 1px solid black; padding: 5px;">Log-in (10-11-04 12:05) succeeded. F10:Previous</div>



3.3 Log Out

When the status in the first line on the main menu is “READY”, initiate the “Log-out” according to the following procedures;

When the received-mode is changed from “Inmarsat-C” to “Egc receive only”, the “Log-out” is initiated automatically.

Step	Operation/Response (Example)	Screen (Example)
1	<ul style="list-style-type: none"> Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> “Set up” screen is displayed.
2	<ul style="list-style-type: none"> Hold down Alt key and press O key. 	<div style="background-color: black; color: white; text-align: center; padding: 2px;">Log-out</div> <div style="border: 1px solid black; padding: 2px;">Do you initiate log- out? Yes No</div>
3	<ul style="list-style-type: none"> Move the cursor to “Yes” and press Enter key. The status is changed from “READY” to “Comm (TX)” in the first line on the main menu. 	
4	<ul style="list-style-type: none"> After few minutes, READY LED on the IME becomes unlit. The status is changed from “Comm (TX)” to “Log-out” on “Egc only”. 	<div style="border: 1px solid black; padding: 5px;">Log-out (10-11-04 13:10) succeeded. F10:Previous</div>

3.4 Main Menu Screen

The JUE-87 operation adopts a multi-level menu structure with window-menus and hierarchical - submenus. Refer to clause 3.4.3 and 3.4.4 for confirming the composition of each menu. All the time, screen displays the newest information by pop-up window.

The menu can be chosen by moving the cursor with the right-, left-, up-, and down- arrow keys and the targeted item is chosen by pressing **Enter** key.

On the pop-up window, a new window opens whenever information occurs, and the windows are displayed with overlapped when two or more information occurs. Maximum of 10 sheets can be displayed in piles. Buzzer sounds when pop-up window displays maximum of sheets, so press **F10** key to close the window.

MES status area (Header area)	Inm-Ready Rec (AORW) : Good-15 Msg print USB 28 Jan, 10 10:28 (UTC) C Position: N 35° 41' E 139° 34' Course: 011deg Speed: 00.0kn at 02:41 (UTC)
	Transmit read-Out Edit call-Log Distress Ncs/les-info receive-Mode egC
Main area	Transmit : To transmit messages
	read-Out : To read out received message RcvMode:EGC Only
	Edit : To edit a message or to manipulate files
	call-Log : To display the call-history.
	Distress : To edit a distress alert.
	Ncs/les-info : To display or register NCS/LES information
	receive-Mode : To select receive mode, INMARSAT-C or EGC receive only.
egC : To select EGC service type.	
Hold down the Shift key and press F1 to display HELP-information	
Instruntion area (Footer area)	Move the cursor to the item you want with ←, → keys then press <Enter>, or hold down the <Alt> key and press any capital character

Fig.3.4 Main Manu Screen

The Main menu screen is the starting screen to select the main function and is divided into the following areas:

- (1) MES status area (Upper two lines): Gives the MES status, current date, time, and MES position (as set under DOS or Setup command).
- (2) Main menu area: Gives a list of function you use routinely.
- (3) Instruction area (Lower two lines): Gives instruction at the state where you were.

NOTE

Screen saver function is build into IME/DTE.
When you use this function, backlight of IME/DTE is automatically turned off if no key is pressed on keyboard over a given length of time(depends on the setting). Press any key to turn on backlight of IME/DTE.

3.4.1 Command

JUE-87 has two kinds of way to operate the IME/DTE, one is selecting command by cursor, and the other one is pressing the buttons directory. Direct commands make quicker and easy operation when you get used to the operation of IME/DTE.

NOTE

Selecting command by cursor, commands using **Alt** key is **not available when another window is displayed on main menu screen. Use them after closed window with F10("Previous")key.**

(1) Commands selecting by cursor

You can select the function below in the Main menu by moving the cursor to the item you want and pressing **Enter** key.

- Transmit..... To transmit messages.
- read-Out..... To read out received messages.
- Edit To edit a message or to manipulate files.
- call-Log To display the history of both incoming and outgoing calls
- Distress..... To initiate a distress alert.
- Ncs/les-info To display the lists of LES or NCS, or to register newly operating LES or NCS in the list.
- receive-Mode..... To select receive mode, i.e. Inmarsat-C mode or EGC reception mode.
- egC To select EGC service type.

(2) Direct commands

You can select each function in the Main menu screen directly by pressing one of the following keys while holding down **Alt** key:

- Alt** + **T** **Transmit**
- Alt** + **O** **read-Out**
- Alt** + **E** **Edit**
- Alt** + **L** **call-Log**
- Alt** + **D** **Distress**
- Alt** + **N** **Ncs/les-info**
- Alt** + **M** **receive-Mode**
- Alt** + **C** **egC**
- Alt** + **G** **To go to "Status", "set Up" and "diAgnostics".**
- Alt** + **S** **Status**

To display MES status or test results

- MES status (line status, bulletin board error rate, ID, MES serial number and delivery date)
- Tests results (ROM/RAM test, performance test)

Alt + U **set Up**

- To set the current date & time;
- To initiate a Log-out, Log-in or performance test;
- To register each parameter for scheduled transmission;
- To register land ID for polling;
- To select the closed network ID;
- To select the function of peripheral equipment connected with IME or DTE.

Alt + A **diAgnostics**

To display contents of data source, alarm history or software version.

Further instruction and/or selection items are displayed in the pop-up window every time you select a function.

In each window, by pressing a capital character while holding down **Alt** key you can select function instead of moving the cursor.

The following commands are available by pressing a key with holding down **Ctrl** key:

Ctrl + A **Alarm off**

To stop sounding the alarm buzzer of the IME/DTE.

Ctrl + L **MES position display ON/OFF**

To alternate MES position display ON and OFF

Ctrl + O **log-Out**

To initiate a log-out request.

Ctrl + F **MES communication status display ON/OFF**

To alternate MES communication status display ON and OFF.

Ctrl + Z **Printer status display ON/OFF**

To alternate MES printer status display ON and OFF.

Msg print on Automatic printout function ON

Msg print off Automatic printout function OFF.

DTE Printer is routed to IME/DTE.

All Messages All messages are printed out.

Distress & EGC Distress and EGC message are printed out.

EGC Only EGC message only is printed-out.

(Note: All EGC SafetyNET message with “Urgency” and “Distress” priority message are printed out automatically regardless printer setup as required by IMO.)

(3) Screen control commands

You can control screen on the IME/DTE by pressing one of the following keys while holding down **Ctrl** key:

Ctrl + **↑** **To light up the display backlight and LED to 15 stages**

Ctrl + **↓** **To darken the display backlight and LED to 15 stages**

3.4.2 MES Status Area

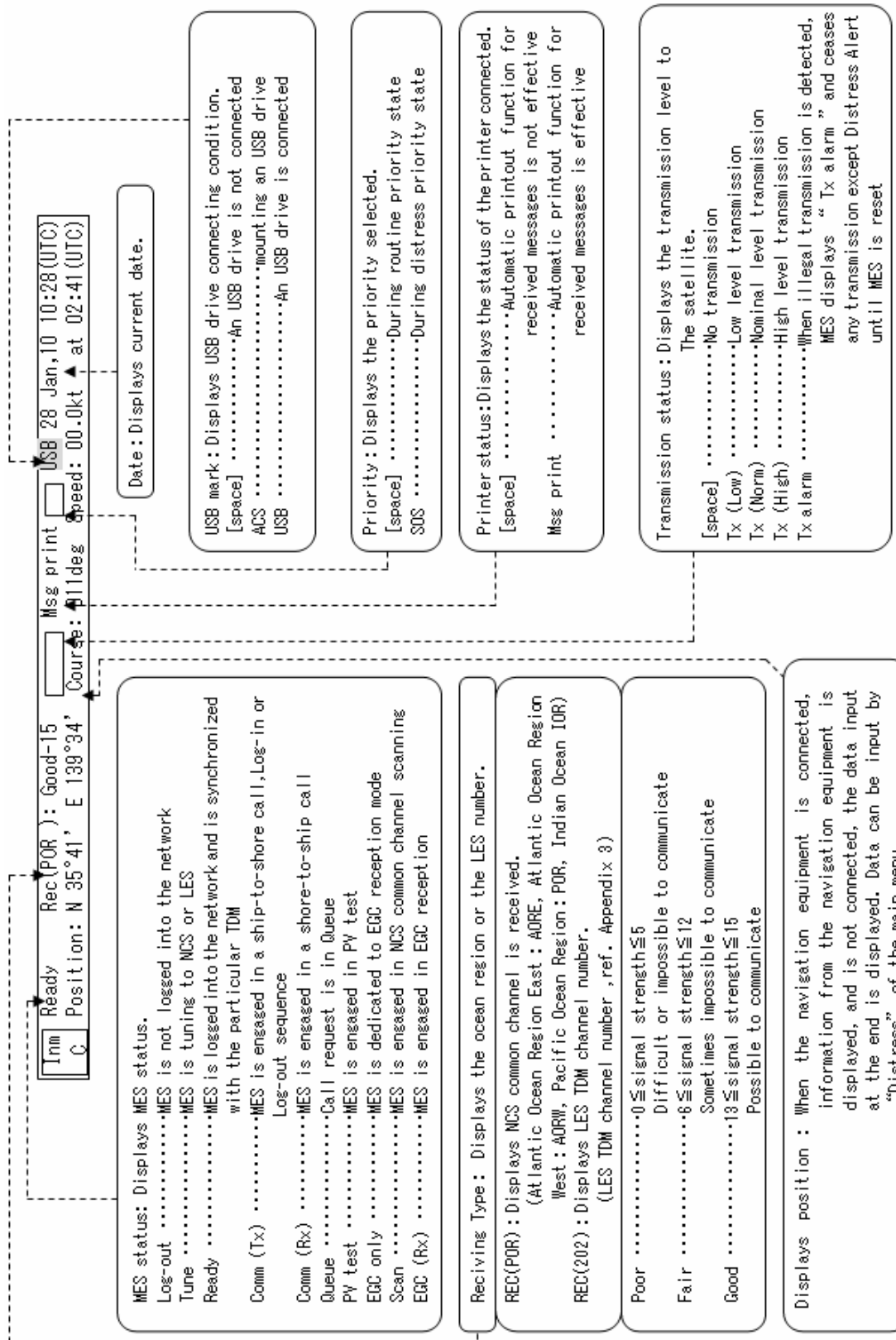


Fig.3.4.2 MES Status Area

3.4.3 Menu Structure Chart

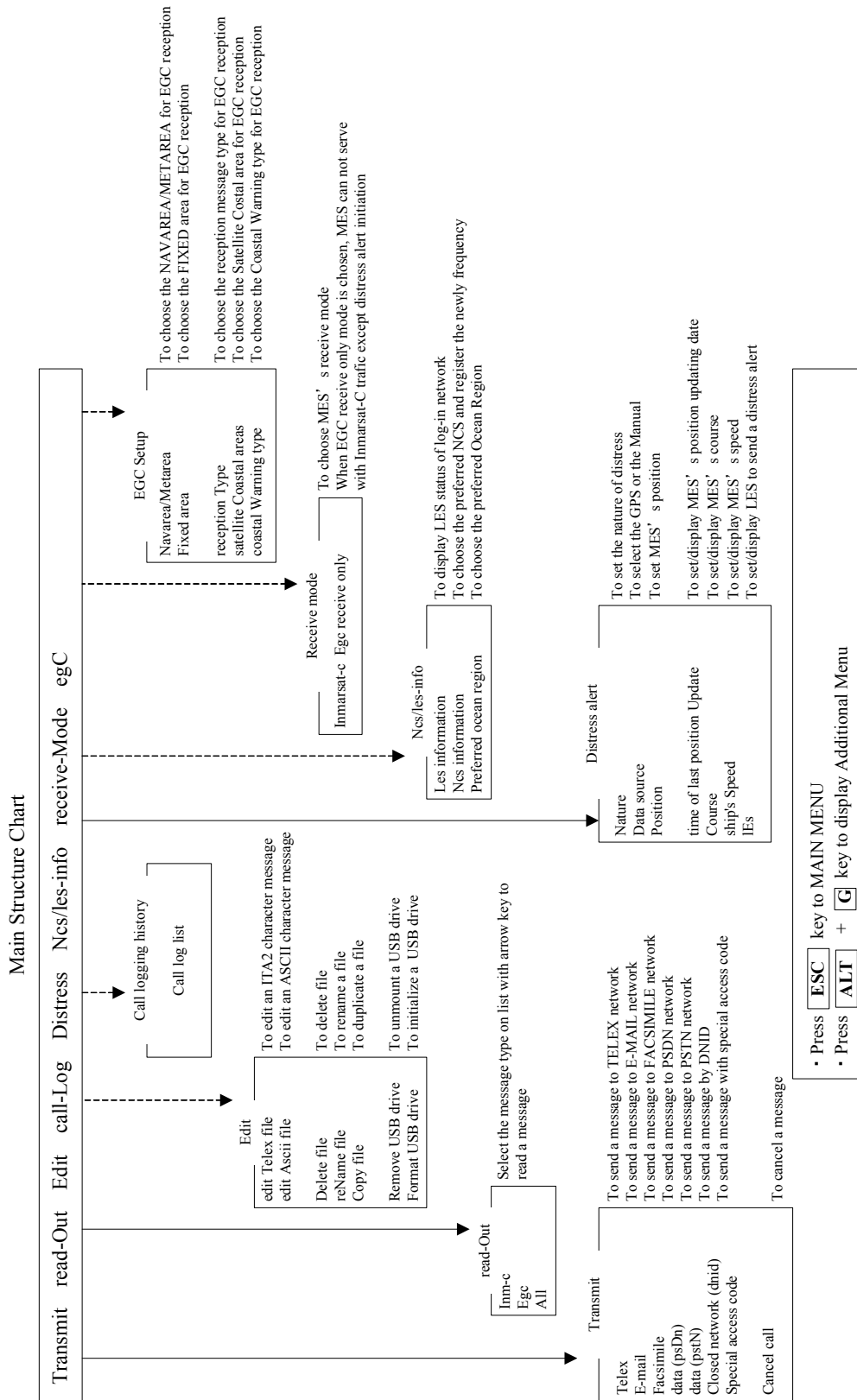


Fig.3.4.3 Menu Structure Chart



3.4.4 Additional Menu Structure Chart

To display additional menu, hold down the **Alt** key and press **G** key on main menu.

(Additional menu screen)

Additional Menu	
Status	Displays MES status
set Up	Sets MES parameter
diAgnostics	Diagnoses MES

To display the Status screen, press and hold **Alt** key and then press **S** key in the main menu or additional menu.

(Status screen)

Status	
Mes status	Displays MES current status
ram/rom Test	Displays the RAM/ROM test results of Main, DTE, and modem unit
Performance test result	Displays the results of performance test

To display the Set Up screen, press and hold **Alt** key, then press **U** key in the main menu or additional menu.

(Set up screen)

Set up	
Date & time	Sets date and time
confiG	Sets IME/DTE display
log-Out initiation	Initiates log-out request
log-In initiation	Initiates log-in request
Performance test initiation	Initiates performance test
Scheduled transmission	Sets parameter of scheduled transmission
Land id registration for polling	Registers land user ID of S&F polling
dnid seleCtion	Sets message reception to able/disable by dedicated network ID
peripheral Function	Sets parameter of peripheral function
passWord	Changes password
EPADR informAtion	Confirms EPADR information and requests EPADR assignment

To display Diagnostics screen, press and hold **Alt** key, then press **A** key in the main menu or additional menu.

(Diagnostics screen)

Diagnostics	
Data source contents	Displays data from data source equipment
Alarm history	Displays alarm history
software Version	Displays the software version of EME/IME/MODEM/DTE
distress button Test	Executes distress button test

Fig.3.4.4 Additional Menu Structure Chart

3.5 Initial Setting

After turn on the JUE-87 MES, set the following parameters;

- (1) Selecting Preferred Ocean Region
- (2) Setting Date & Time
- (3) Setting Peripheral Function

3.5.1 Selecting Preferred Ocean Region (Ncs/Les info)

When a particular ocean region is selected, the MES will scan the NCS common channel only in the ocean region selected.

NOTE

1)The Selecting Preferred Ocean Region command is available, when the first line of the screen is displayed “Ready”, “Log-out”, or “EGC only”.

2)In case of “All ocean region” setup, if MES does not receive NCS common channel more than 30minutes, MES automatically scans all ocean region and tunes new NCS common channel. However, MES automatically does not login. Please login manually. (The information is displayed on IME/DTE screen to user.)

Step	Operation/Response (Example)	Screen (Example)	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Ncs/les-info” with using the arrow keys and press Enter key. 	<ul style="list-style-type: none"> The “Ncs/les information” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “Preferred ocean region” and press Enter key. 	<ul style="list-style-type: none"> The “Preferred ocean region” window is displayed. 	
3	<ul style="list-style-type: none"> Confirm the cursor is at “All ocean region” and press Enter key. 	<ul style="list-style-type: none"> Status display is changed from “Ready” to “Scan”. 	<ul style="list-style-type: none"> When you want to change a parameter, move the cursor to the item you want and press Enter key. You cannot set up when the status in the first line on the main menu is “Tune”. In this case, change the parameter during “Log-out” or “EGC only” displayed in the first line (about 3 seconds), by switching the IME power source OFF and ON.
4	<ul style="list-style-type: none"> To return to Main menu screen, press Esc key. 	<ul style="list-style-type: none"> Windows are disappeared. 	

3.5.2 Setting Date & Time

When the Date & time (displayed in the bottom line on the right side of the first screen) is wrong, correct the Date & time as follows.

When the JUE-87 is synchronized with the NCS common channel, the time is reset at 00:00 (UTC) everyday by Inmarsat frame channel.

Step	Operation/Response (Example)	Screen (Example)	Remarks
1	<ul style="list-style-type: none">Hold down Alt key and press U key.	<ul style="list-style-type: none">The “Set up” window is displayed.	
2	<ul style="list-style-type: none">Confirm that Data & Time window has been selected, then press Enter key.	<ul style="list-style-type: none">The “Date & time” window is displayed.	
3	<ul style="list-style-type: none">Move the cursor to the item you want to correct and press Enter key.		<ul style="list-style-type: none">You can select the display mode, Coordinated Universal Time (UTC), or local time (LT) with “display timE”.
4	<ul style="list-style-type: none">To return to Main menu and correct Date & time in IME, press F10 (“Previous”) key twice or Esc key.	<ul style="list-style-type: none">The correct Date & time is displayed at the first line.	

3.5.3 Setting Peripheral Function

Set the peripheral device (printer, data port, navigation equipment, and/or buzzer) function. Setting procedure is as follows;

Step	Operation	IME/DTE Response	Remarks
1	• Hold down Alt key and press U key on Main menu.	• The “ Set up ” window is displayed.	
2	• Move the cursor to the item “ Peripheral function ” and press Enter key.	• The “ Peripheral function ” window (Fig.3.5.3) is displayed.	
3	• Set the each parameter.		
4	• After confirming each parameter, to return to Main menu, press F10 key twice or ESC key.	• The Main menu is displayed	



Peripheral function	
automatic Message print out	: oN
Printer which received message is routed to	: None
Nav. equipment connected with mes	: None
Buzzer sound duration for message received (0-10)	: 2sec
Data port main	: Dte
dAta port #1	: LAN
- IP Address	: 192.168. 60. 247
daTa port #2	: None
Extention port	: GPS out & AIS
F10: Previous	

Fig.3.5.3 “Peripheral function” Window

Setting parameters are as follows;

- automatic Message print out:

Set received message, transmitted message, and function of call logging information automatic print out to ON or OFF.

NOTE

Printing of EGC message is carried out although automatic print out function is turned OFF. Please note it is not malfunction of the printer.

- Printer which received message is routed to:

Set a port of printer connected. Choose the message type to print out:

- None: No connection
- Dte: Connecting with IME/DTE

Then, choose the message reception type from follows:

- All message: Print out all messages.
- Inm-c message only: Print out Inm-C message only.
- inm-c Distress and egc message only: Print out Inm-C Distress message and EGC message.
- Egc message only: Print out EGC message only.

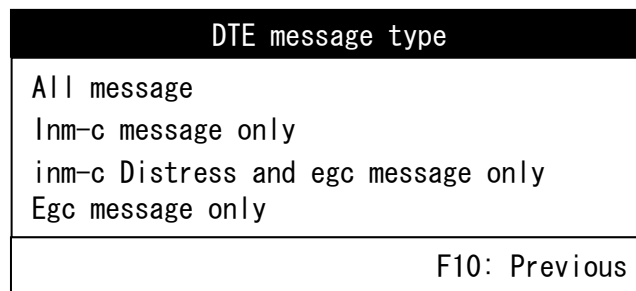


Fig.3.5.4 “DTE message type” Window

- Nav. equipment connected with MES:
 - * Choose the port connected with MES and interface condition, i.e. Nmea0183, nMea0182 or JRC original, when you choose “**Internal**”.
 - * Choose interface from “**Nmea0183**” or “**nMea0182**” when you choose “**External**”. (as usual, select “**Nmea0183**”)
 - * Received sentence is **GGA, RMC, GLL, GNS, ZDA and DTM**. Baudrate is **4800 bps**.
- Buzzer sound duration for message received:

Set the buzzer sound duration for receiving routine or safety message. No sound occurs when you set it as “**0 sec**”.

However, when distress or urgent message is received, buzzer sounds continuously until alarm off command (**Ctrl** + **A**) is executed, or BUZ OFF switch of EXT. BUZ is pressed.

- dAta port #1 (LAN port):

Set parameters of Local Area Network.

- IP Address (Default Primary IP: 192.168.60.247, Secondary IP: 192.168.60.248)
- Subnet mask
- Default gateway
- Jcmail port number

- daTa port #2 (IME optional DTE port (option)):

Set the data port which is connected. When you choose “**Dte**”, you can set printer parameter.
When you choose “**dS**”, you can select the following interface condition;

- Baud rate : 4800, 2400 or 1200 bps
- Data length : 8 or 7 bits
- Parity : None, odd or even
- Stop bit : 1 or 2 bits

- Extention port

Set the extention port which is connected.

- GPS out & AIS: output Internal GPS data and input AIS data
- AME: Connecting with AME
- Both: Connecting with AME and AIS, output Internal GPS data



NOTE

Do not operate the followings from DTEs connect to data port #2.

- Log in
- Log out
- Ocean region setting
- Data port setting
- Telex (Distress alert)
- Cancel call

3.6 IME/DTE Display Setting (Config)

This menu can set the IME display setting.

Config		
LCD/LED dimmer (0-15)	: 13	☐ LCD/LED dimmer
LCD/LED dimmer button setting		☐ LCD/LED dimmer button
Screensaver setting		} Screen saver function
- Function ON/OFF	: ON	
- Starting time (1-15)	: 3 minutes	
Display color pattern	: Ocean Day	☐ Display color pattern
User defined color setting		} User defined color
- Background color of main display	: Green	
- Text color of main display	: White	
- Background color of H&F display	: Lime	
- Text color of H&F display	: Navy	
- Shortcut character color	: Orange	
F10:Previous		

Fig.3.6 “Config” Window(Default Setting)

3.6.1 LCD/LED Dimmer

This menu can set the IME/DTE display and LED dimmer level. Setting range is from 0 to 15.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ LCD/LED dimmer ” with using the arrow keys and press Enter key..	• The cursor is move to next step.
2	• Enter the value you want , and press Enter key.	• Change the setting to new one.

3.6.2 LCD/LED Dimmer Button Setting

This menu can set dimmer level, which are switched by pressing dimmer button. There are settable three step values, “Maximum”, “Typical”, and “Minimum”. When press the dimmer button, dimmer level switch four step values, “Maximum”, “Typical”, “Minimum”, and “Turn off a light”.

Setting range is from 1 to 15.

LCD/LED dimmer button setting	
Maximum	: 13
Typical	: 10
Minimum	: 6
F10:Previous	

Fig.3.6.2 “LCD/LED dimmer button setting” Window

Step	Operation	IME/DTE Response
1	• Move the cursor to setting “ LCD/LED dimmer button setting ” with using the arrow keys and press Enter key.	• The cursor is move to next step.
2	• Move the cursor to the following three step, you want to change (Maximum, Typical or Minimum) and press Enter key.	• The cursor is move to the setting area.
3	• Enter the value you want , and press Enter key. Setting range is from 1 to 15. As the value rise, the LCD/LED lights up.	• Change the setting to new one.

3.6.3 Screensaver Setting

Screensaver setting sets screensaver function and starting time.

3.6.3.1 Function ON/OFF

This menu can set the screensaver function ON/OFF state.

Step	Operation	IME/DTE Response
1	• Move the cursor to setting “ Function ON/OFF ” with using arrow keys and press Enter key.	• The cursor is move to the setting area.
2	• Choose “ ON ” or “ OFF ” from the pull down menu and press Enter key.	• Change the setting to new one.

3.6.3.2 Starting Time

This menu can set the time between the last key operation to starting up screensaver. Setting range is from 1 to 15 (min).

Step	Operation	IME/DTE Response
1	• Move the cursor to setting “ Starting time ” with using arrow keys and press Enter key.	• The cursor is move to the setting area.
2	• Enter the value you want , and press Enter key.	• Change the setting to new one.

3.6.4 Display Color Pattern

This menu can set the display color pattern and select from the following 9 colors. Ocean Day, Ocean Dusk, Ocean Night, Earth Day, Earth Dusk, Earth Night, Basic Black, Basic White, and User defined. When select the User defined, the color pattern is set “3.6.5 User defined color setting”

Step	Operation	IME/DTE Response
1	• Move to the cursor to setting “ Display color pattern ” with using the arrow keys and press Enter key.	• The cursor is move to the setting area.
2	• Select the color pattern you want from the pull down menu and press Enter key.	• Change the setting to new one.

3.6.5 User Defined Color Setting

This menu can set the color is used to when you select “User defined” in “3.6.4 Display color pattern”.

The screenshot shows the IME/DTE Display Structure with three main areas:

- Header area:** Contains status information: Inm-Ready, Rec (AORW) : Good-15, Msg print USB 28 Jan, 10 10:28 (UTC), and Position: N 35°41' E 139°34' Course: 011deg Speed: 00.0kt at 02:41 (UTC).
- Main area:** Contains a menu of options: Transmit, read-Out, Edit, call-Log, Distress, Ncs/les-info, and receive-Mode. A sub-menu for 'receive-Mode' is open, showing 'RcvMode:EGC Only'. Below the menu, there are descriptions for each option:
 - Transmit : To transmit messages
 - read-Out : To read out received message
 - Edit : To edit a message or to manipulate files
 - call-Log : To display the call-history.
 - Distress : To edit a distress alert.
 - Ncs/les-info : To display or register NCS/LES information
 - receive-Mode : To select receive mode, INMARSAT-C or EGC receive only.
 - egC : To select EGC service type.
- Footer area:** Contains instructions: 'Move the cursor to the item you want with ←, → keys then press <Enter>, or hold down the <Alt> key and press any capital character'.

Fig.3.6.5 IME/DTE Display Structure

This menu can set the five colors, Main area background (3.6.5.1) and text (3.6.5.2) colors, H&F (Header & Footer) area background (3.6.5.3) and text (3.6.5.4) colors, and capital letter shows shortcut command(for example, “T” for Transmit) font (3.6.5.5) color. Each item can set from the following 17 colors, Black, Gray, Silver, White, Maroon, Red, Olive, Yellow, Green, Lime, Teal, Cyan, Navy, Blue, Purple, Magenta, and Orange. In addition, you can not set the same color between background and text in each area.

3.6.5.1 Background Color of Main Display

This menu can set Main area background color.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ Background color of main display ” with using the arrow keys and press Enter key.	• “ Background color of main display ” setting window is displayed.
2	• Select the color and press Enter key. When the color is not changed , Press F10 key.	• Change the setting to new one.

3.6.5.2 Text Color of Main Display

This menu can set the Main area text color.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ Text color of main display ” with using the arrow keys and press Enter key.	• “ Text color of main display ” setting window is displayed.
2	• Select the color and press Enter key. When the color is not changed , Press F10 key.	• Change the setting to new one.

3.6.5.3 Background Color of H&F Display

This menu can set H&F area background color.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ Background color of H&F display ” with using the arrow keys and press Enter key.	• “ Background color of H&F display ” setting window is displayed.
2	• Select the color and press Enter key. When the color is not changed , Press F10 key.	• Change the setting to new one.

3.6.5.4 Text Color of H&F Display

This menu can set H&F area text color.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ Text color of H&F display ” with using the arrow keys and press Enter key.	• “ Text color of H&F display ” setting window is displayed.
2	• Select the color and press Enter key. When the color is not changed , Press F10 key.	• Change the setting to new one.

3.6.5.5 Shortcut Character Color

This menu can set capital character shows shortcut command.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ Shortcut character color ” with using the arrow keys and press Enter key.	• “ Shortcut character color ” setting window is displayed.
2	• Select the color and press Enter key. When the color is not changed , Press F10 key.	• Change the setting to new one.

3.7 Editing a Message

Before a calling, edit a message file by the editing menu. The editing command can be edited a message file and managed a message file.

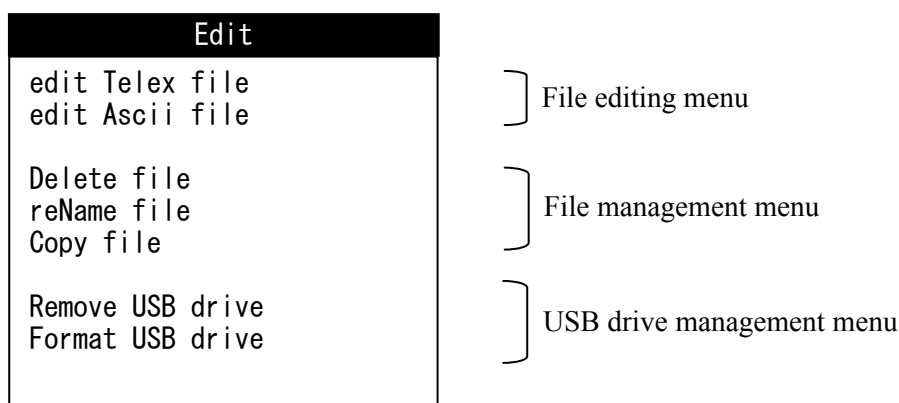


Fig.3.7 Example of “Edit” Window

3.7.1 File Editing Menu

- (1) Edit a message file by the editing command.
- (2) The editing command is composed of “**Edit Telex File**” menu and “**Edit Ascii File**” menu.
 - Edit Telex File
This command is used for the transmitting file by telex.
In this command, the characters that can use on the land telex line can be input. (Note 1)
 - Edit Ascii File
This command is used for the transmitting file by data line.
In this command, the characters that can use on the land data line can be input.
- (3) The edited message file is stored in the IME/DTE memory. The capacity of the IME/DTE memory is approx. 128M byte or 100 files maximum.
- (4) When the USB drive is connected to the IME/DTE, the edited message file is saved in the USB drive.

NOTE

When saves the file at the 101th, the following window is displayed. In this case, delete the unnecessary file until the file number is decreased less than 100, by “**delete file**” command.

This window is continuously displayed until the file number is decreased less than 100.

ERROR
 Can not create new file.
 It may be too many files on disk.
 F10: Previous

Fig.3.7.1 “ERROR” Window



Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Edit” and press Enter key. 	<ul style="list-style-type: none"> The “Edit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “edit Telex file” or “edit Ascii file” and press Enter key. The cursor blinks at “File”. 	<ul style="list-style-type: none"> List of files stored in the IME/DTE memory is displayed. 	
3	<ul style="list-style-type: none"> Enter the file name to be edited and press Enter key, or move the cursor to the file to be edited and press Enter key. 	<ul style="list-style-type: none"> The message in the file is displayed. 	<ul style="list-style-type: none"> When you want to make a new file, enter a file name and press Enter key. Note 2 When you want to edit a file stored in USB drive, input E : into the column of “File:” (Note 3)
4	<ul style="list-style-type: none"> Edit the message using Edit function keys (F1-F10). 		<ul style="list-style-type: none"> See “3.6.2 Editing Procedure” below.
5	<ul style="list-style-type: none"> After confirmation of editing, press F9 (“Save & Quit”) key. 	<ul style="list-style-type: none"> Edited message is saved in the IME/DTE memory and the list of file is displayed again. 	<ul style="list-style-type: none"> When F7 (“Quit”) key is pressed, the message is abandoned without saving in the USB drive.
6	<ul style="list-style-type: none"> To return to Main menu screen, press Esc key. 	<ul style="list-style-type: none"> Main menu screen is displayed. 	

In “edit telex file” mode;

Note 1) The characters which can use on the land telex line can be input. So, the following characters and the small letters are rejected in the file:

!, @, #, \$, %, ^, &, *, _ , {, [,], }, :, ¥, ;, ”, ~, ’, and -

Note 2) Edit telex file uses the extension “.TLX” as file name.

Blank space and the characters specified in Note 1 cannot be used for file name. It may cause an error at the schedule transmission.

To erase file name, use **Delete** key, or **Backspace** key.

To erase all characters, use **Delete** key. To erase characters one by one, use **Backspace** key.

Note 3) After editing USB drive file, saving and read-out place of file is changed to USB drive (**E** **:**).

When you want to save and read-out files in the memory of the IME/DTE, enter **F** **:** into the column of “File:”.

Note 4) Pull out USB drive after return the read-out place to inner IME/DTE memory (**F** **:**), when you completed editing of USB drive.

Error is occurred when you log-in to the editing mode again, if you pull out the USB drive without change the read-out place to **F** **:** from **E** **:**.

3.7.1.1 Editing Menu

“Edit” has two sets of the function-key commands, group A and group B. Each command set can be selected alternately by pressing **F10** (“-Others-”) key.

Group A

Function	Step	Operation	Example
F1 (“Insert-on”) Character Insertion	1	• Move the cursor to the character to be inserted by pressing \leftarrow , \rightarrow , \uparrow and \downarrow .	THE QU <u>CK</u> BROWN \uparrow cursor
	2	• Press F1 (“Insert-on”).	THE QU <u>CK</u> BROWN
	3	• Type character(s) to be inserted.	THE QU <u>ICK</u> BROWN
F1 (“Insert-off”) Character Change	1	• Move the cursor to the character to be changed by pressing \leftarrow , \rightarrow , \uparrow and \downarrow .	THE QUE <u>CK</u> BROWN
	2	• Type desired character(s).	THE QU <u>ICK</u> BROWN
F2 (“Ins-Line”) Line Insertion	1	• Move the cursor to a character in the next line to be inserted by pressing \leftarrow , \rightarrow , \uparrow and \downarrow .	THE QUICK BROWN THE LAZY DOG
	2	• Press F2 (“Ins-Line”).	THE QUICK BROWN _
	3	• Type character(s) to be inserted.	THE QUICK BROWN FOX THE LAZY DOG
F3 (“Block”) Block Function	1	• See paragraph 3.7.1.2	
F4 (“Del-Word”) Word Deletion	1	• Move the cursor to any character of the word to be deleted by pressing \leftarrow , \rightarrow , \uparrow and \downarrow .	THE QU <u>ICK</u> QUICK BROWN
	2	• Press F4 (“Del-Word”).	THE _QUICK BROWN
F5 (“Del-Line”) Line Deletion	1	• Move the cursor to any character of the next line to be deleted by pressing \leftarrow , \rightarrow , \uparrow and \downarrow .	THE QUICK BROWN ABC 123 FOX JUMPS
	2	• Press F5 (“Del-Line”).	THE QUICK BROWN FOX JUMPS
F6 (“Transmit”) Call initiation	1	• Edited message can be transmitted directly from editing screen.	



Function	Step	Operation	Example
F7 (“Quit”) Exit Edit without Saving File	1	• Press F7 (“Quit”).	
	2	• When “ Really quit without saving? Yes No ” is displayed, select “ Yes ” for finishing the editing without saving or “ No ” for returning the editing to save the file.	
F8 (“Save As”) Saving edited file as another file	1	• Press F8 to save the edited file as another file.	Input save file name Name: __
	2	• Enter a new file name • Note 1	
F9 (“Save & Quit”) Storage of Editing File on the USB drive & Exit Edit	1	• Press F9 (“Save & Quit”)	
F10 (“-Others-”) Switch of Command Sets	1	• Press F10 (“-Others-”) to switch the command sets to the group B.	

Note 1) When **F8** key is pressed, then the new file is created in File list.

NOTE

“**Edit**” has two modes for character editing, ‘**overwrite**’ mode and ‘**insertion**’ mode.

These two modes can be alternately selected by pressing **F1** (“**Insert Off**” / “**Insert On**”).

When “**Edit**” is started, ‘**overwrite**’ mode is selected automatically. Once **F1** is pressed, “**Edit**” enters ‘**overwrite**’ mode then “‘**overwrite**’ appears at the right end of the third line.

In ‘**overwrite**’ mode, a character on the cursor is overwritten with the character typed-in from the keyboard.

In ‘**insertion**’ mode, a character typed-in is inserted before the cursor and “**Insert On**” appears at the right end of the third line.

Group B

Function	Step	Operation	Example
F1 (“Max Column”) Number of characters per Line (Note)	1	• Press F1 (“Max Column”).	Input Max Column Numbers: _
	2	• Type the number of characters per line and press Enter key.	
F2 (“Set Tab”) Tab setting	1	• Press F2 (“Set Tab”).	Input Column Numbers: _
	2	• Type the number of columns with delimiting by / key and press Enter key.	20/30/40/ (The column number tub position is being set)
F3 (“Undo-Char”) Restoration of Deleted Character	1	• Move the cursor to the character after the one to be restored (only one character is restored)	THE <u>Q</u> ICK
	2	• Press F3 (“Undo-Char”).	THE <u>Q</u> ICK
F4 (“Undo-word”) Restoration of Deleted Word	1	• Move the cursor to the word after the one to be restored.	THE <u>B</u> BROWN FOX
	2	• Press F4 (“Undo-Word”).	THE QUICK <u>B</u> BROWN FOX
F5 (“Undo-Line”) Restoration of Deleted Line	1	• Move the cursor to the next line after the one to be restored.	THE QUICK <u>O</u> VER THE LAZY
	2	• Press F5 (“Undo-Line”).	<u>B</u> BROWN FOX JUMPS THE QUICK <u>O</u> VER THE LAZY
F6 (“Merge File”) Mergence of Files	1	• Move the cursor to the character where another file is to be inserted.	THE QUICK_ FOR
	2	• Press F6 (“Merge-File”).	Merge File: _
	3	• Type the file name to be merged.	THE QUICK BROWN
F7 (“Find”) Word Search	1	• Move the cursor to the beginning of the line.	THE QUICK BROWN
	2	• Press F7 (“Find”).	Input Search Strings: __
	3	• Type the word to be searched. (EX: THE) The number of characters can be searched is 20 characters or less. • Command set is returned to Group B, when searching is completed.	<u>T</u> HE QUICK BROWN
F8 (“Print Out”) Print-out File	1	• Press F8 (“Print Out”).	“Now printing. Please wait” is displayed.

Function	Step	Operation	Example
F9 (“Find/Replace”) Word Search and Replace	1	<ul style="list-style-type: none"> Move the cursor to the beginning of the line. 	1. THE QUICK 2. THE BLOCK 3. THE QUICK
	2	<ul style="list-style-type: none"> Press F9 (“Find/Replace”). 	Input Search String:
	3	<ul style="list-style-type: none"> Input the search string and press Enter. EX. “BLOCK” 	Input Replace String:
	4	<ul style="list-style-type: none"> Input the replace string and press Enter. EX. “QUICK” 	2. THE <u>B</u> LOCK 3. THE QUICK Replace the string? Y ES NO
	5	<ul style="list-style-type: none"> Select YES and press Enter to replace the search string. Select NO and press Enter to stop the search. EX. Select YES 	2. THE <u>Q</u> UICK 3. THE QUICK Continue Search? Y ES NO
	6	<ul style="list-style-type: none"> Select YES and press Enter to continue the search string. Select NO and press Enter to stop the search string. 	String xxxxx not found!
	7	<ul style="list-style-type: none"> Press any Key to return the edit mode. 	
F10 (“-Others-”) Switch of Command sets	1	<ul style="list-style-type: none"> Press F10 (“-Others-”) to switch the command sets to the group A. 	

NOTE

- When the edit mode is “**edit Telex file**”, set the max. columns to “**69**”.
- Characters, words, and lines can be copied easily with using “**Undo**” command. After once deleted, press “**Undo**” command the number of times you want to copy.
- Input a word with capital letter when searching and replacing the word in Telex file. To make capital letter, input character string with pressing **Caps Lock** key or **Shift** key.

3.7.1.2 Block Function

When the block is selected in Edit mode previously, the block can be copied, moved, deleted and etc. The block function menu is provided on Edit mode. Item of the menu is as follows:

Top-marker of block Bottom-marker of block rEmove markers
Copy block Move block Delete block Save block as Go to the block
F10: Previous

Fig.3.7.1.2a “Block function menu” Window



- Top-marker of block To select a top-marker of block.
- Bottom-marker of block..... To select a bottom-marker of block.
- Remove marker..... To remove the block markers.
- Copy block..... To duplicate a block on the edit mode.
- Move block To move a block on the edit mode.
- Delete block To delete a block on the edit mode.
- Save block as To save a block to the USB drive.
- Go to the block..... To go the cursor to a top of the selected

(1) Select block

Before the block function is used, select the block according to the following procedures.

Step	Operation	Example
1	<ul style="list-style-type: none"> • Move the cursor to the top of the block. 	1. THE QUICK 2. THE QUICK 3. THE QUICK
2	<ul style="list-style-type: none"> • Press F3 (“Block”). • Move the cursor to “Top-marker of block” and press Enter key. 	Top-marker of block
3	<ul style="list-style-type: none"> • Move the cursor to the bottom of the block. 	1. THE QUICK 2. THE QUICK 3. THE QUICK
4	<ul style="list-style-type: none"> • Press F3 (“Block”). • Move the cursor to “Bottom- marker of block” and press Enter key. 	Bottom- marker of block
5	<ul style="list-style-type: none"> • When the block is selected, it is highlighted. 	1. THE QUICK 2. THE QUICK 3. THE QUICK
6	<ul style="list-style-type: none"> • To remove the highlighted, press F3 (“Block”). • Move the cursor to “rEmove markers” and press Enter key. 	1. THE QUICK 2. THE QUICK 3. THE QUICK

(2) Copy block

Step	Operation	Example
1	<ul style="list-style-type: none"> Select the Block according to the item (1) “Select Block”. 	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK
2	<ul style="list-style-type: none"> Move the cursor to the character where the block is to be inserted. 	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK
3	<ul style="list-style-type: none"> Press F3 (“Block”). Select “Copy block” and press Enter key. 	1. THE QUICK 2. THE QUICK 3. THE QUICK 1. THE QUICK 2. THE QUICK 4. THE QUICK

The copied block

* Warning message window (Fig.3.8b) is displayed when the data capacity exceeds 8000 bytes.

(3) Delete block

Step	Operation	Example
1	<ul style="list-style-type: none"> Select the Block according to the item (1) “Select Block”. 	1. THE QUICK 2. THE QUICK 3. THE QUICK
2	<ul style="list-style-type: none"> Press F3 (“Block”). Select “Delete block” and press Enter key. 	3. THE QUICK

(4) Move block

Step	Operation	Example
1	<ul style="list-style-type: none"> Select the Block according to the item (1) “Select Block”. 	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK
2	<ul style="list-style-type: none"> Move the cursor to the character where the block is to be removed. 	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK
3	<ul style="list-style-type: none"> Press F3 (“Block”). Select “Move block” and press Enter key. The highlight is removed automatically. 	3. THE QUICK 1. THE QUICK 2. THE QUICK 4. THE QUICK

The moved block

(5) Save block

Step	Operation	Example
1	<ul style="list-style-type: none"> Select the Block according to the item (1) “Select Block”. 	1. THE QUICK 2. THE QUICK 3. THE QUICK
2	<ul style="list-style-type: none"> Press F3 (“Block”). Select “Save block as” and press Enter key. 	File name: _
3	<ul style="list-style-type: none"> Enter the file name to be saved and press Enter Ex. ABC. TLX The block is saved to the memory. 	File name: ABC. TLX



(6) Go to the block

Step	Operation	Example
1	<ul style="list-style-type: none"> Select the Block according to the item (1) “Select Block”. 	<u>1.</u> THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK
2	<ul style="list-style-type: none"> Press F3 (“Block”). Select “Go to the block” and Enter key. The cursor is jumped to a top of the block. (Note) 	<u>3.</u> THE QUICK 4. THE QUICK

NOTE

When the block has not selected, the following messages are displayed. Press any key to erase this message.

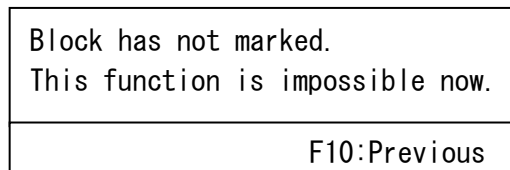


Fig.3.7.1.2b The Message Window Says “Block has not marked”

3.7.2 File Management

The edited message file in the IME/DTE memory can be deleted, renamed, or copied by the file management menu.

When the USB drive is connected to the IME/DTE optionally, the edited message file in the USB drive can be deleted, renamed, or copied by the file management menu.

- Delete file : To delete a file
- Rename file: To rename a file
- Copy file : To copy a file

Press **F2** (“Sort by Name/Time”) to sort the file by Name or Time, when file list is displayed.

(1) Delete file

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> • Move the cursor to “Edit” and press Enter key. 	<ul style="list-style-type: none"> • “Edit” window is displayed. 	
2	<ul style="list-style-type: none"> • Select “Delete file” and press Enter key. 	<ul style="list-style-type: none"> • Delete file list menu is displayed. “Delete file: _” 	
3	<ul style="list-style-type: none"> • Select the file name to delete and press Enter key. EX. “TEST.BAK” 	<ul style="list-style-type: none"> • “CAUTION:Are you sure you want to delete the file "TEST.BAK"? Yes No” is displayed. 	To delete the file of USB drive, input E : into the column of “File: ”
4	<ul style="list-style-type: none"> • To delete the selected file, select Yes and press Enter key. 	<ul style="list-style-type: none"> • The selected file is deleted. 	
5	<ul style="list-style-type: none"> • Press ESC key to return the main menu. 	<ul style="list-style-type: none"> • The main menu is displayed. 	

(2) Rename file

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Edit” and press Enter key. 	<ul style="list-style-type: none"> “Edit” window is displayed. 	
2	<ul style="list-style-type: none"> Select “reName file” and press Enter key. 	<ul style="list-style-type: none"> The file list memorized in IME/DTE and “Current file name: ” is displayed. 	
3	<ul style="list-style-type: none"> Select or input the file name you want to rename, and press Enter key. Example: “TEST. TLX” 	<ul style="list-style-type: none"> “Current file name: TEST. TLX” “New file name: ” is displayed. 	
4	<ul style="list-style-type: none"> Input the new file name and press Enter key. EX: “ABC. TLX” 	<ul style="list-style-type: none"> “New file name: ABC. TLX CAUTION. Are you sure you want to rename the file “TEST. TLX” To “ABC. TLX”?” Yes No is displayed. 	Blank space cannot be used for file name.
5	<ul style="list-style-type: none"> When the file name is renamed, select Yes and press Enter key. 	<ul style="list-style-type: none"> The selected file is renamed. 	
6	<ul style="list-style-type: none"> Press ESC key to return the main menu. 	<ul style="list-style-type: none"> Main menu is displayed. 	

(3) Copy file

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Edit” and press Enter key. 	<ul style="list-style-type: none"> “Edit” window is displayed. 	
2	<ul style="list-style-type: none"> Select “Copy file” and press Enter key. 	<ul style="list-style-type: none"> The file list memorized in IME/DTE and “Current file name: ” is displayed. 	
3	<ul style="list-style-type: none"> Enter the file name, or move the cursor to the file name you want to copy, then press Enter key. When you save the file to IME/DTE from USB drive, Enter as [E: (the file name you want to copy)] to the column of copy origin, then press Enter key. 	<ul style="list-style-type: none"> “Current file name: XXX. TLX” “New file name: ” is displayed. 	
4	<ul style="list-style-type: none"> When you save the file to USB drive from IME/DTE, Enter as [E: (new file name)] to the column of copy origin, then press Enter key. 	<ul style="list-style-type: none"> “New file name: ABC. TLX” is displayed. 	Input file name within 8 characters and input the extension within 3 characters.
5	<ul style="list-style-type: none"> The new file is duplicated. 		
6	<ul style="list-style-type: none"> Press ESC key to return the main menu. 	<ul style="list-style-type: none"> Main menu is displayed. 	

3.7.3 USB Drive Management Menu

- Remove USB drive : To remove a USB drive.
- Format USB drive : To format a USB drive.

3.7.3.1 Connect the USB Drive

- When you connect USB drive, ACS mark is displayed at header area in the display during recognizing the device.
- When the USB drive installation succeeded, “The USB drive is installed and ready to use.” is displayed and the USB mark is displayed (ACS mark is disappeared).
- When the USB drive installation failed, “The attached USB drive has malfunctioned, and DTE does not recognize the attached USB drive. ” is displayed.
- When the USB device is noncompliant, “The attached USB drive is not supported. DTE supports the USB drive only” is displayed.

NOTE

- You need your USB drive, when you use.
- Do not remove the USB drive, while the USB drive LED which lights up when IME/DTE is loading from or writing to the USB drive is lighting up. Otherwise, the data in the USB drive might be destroyed.
- When the USB Device is not connected, please close the rubber flap in order to maintain waterproofing and dust-proofing.
- JRC can not accept responsibility for any loss due to use virus-infected USB Device except product guarantee condition and liability by law.

3.7.3.2 The USB Drive Management Menu

(1) Remove USB drive

When select “Remove USB drive” and press **Enter** key ,you remove the USB drive.

Step	Operation	IME/DTE Response
1	• Move the cursor to “ Edit ” and press Enter key.	• “ Edit ” window is displayed.
2	• Select “ Remove USB drive ” and press Enter key.	• “To stop the USB drive, choose Yes. After the USB drive is stopped, the USB drive can be safety removed. YES NO ” is displayed
3	• To remove the USB drive, select Yes and press Enter key.	• When the processing is succeeded, “The USB drive can now be safely removed from DTE. ” is displayed and the USB mark is disappeared. • When the processing is failed, “ ERROR DTE failed to stop the USB drive.” is displayed. • When USB Device is not connected, “DTE failed to detect the USB drive” is displayed.
4	• When the processing is succeeded, remove the USB drive from IME/DTE.	

NOTE

When the source file name is presented to the target USB drive, “**WARNING, File XXXX. XXX(file name) already present on the USB drive, Do you want to overwrite it? Yes No**” is displayed. When the file name is overwritten, select Yes and press Enter key. When the file name is not overwritten, select No and press Enter key.

When remove the USB drive without above operation, “The USB drive was removed before the USB drive is stopped.” is displayed. Then, there is a possibility the data in the USB drive is destroyed.

(2) Format USB drive

Carry out formatting of USB drive when the USB drive you use is unusable.

NOTE

Formatting destroys all data on the USB drive. Be very careful when using the command.

Step	Operation	IME/DTE Response	Remarks
1	• Move the cursor to “ Edit ” and press <input type="checkbox"/> Enter key.	• “ Edit ” window is displayed.	
2	• Select “ Format USB drive ” and press <input type="checkbox"/> Enter key.	• “ WARNING, Formatting will erase ALL data on the USB drive. To format the USB drive, choose Yes. <input type="checkbox"/> Yes <input type="checkbox"/> No” is displayed.	
3	• Select <input type="checkbox"/> Yes to format the USB drive and press <input type="checkbox"/> Enter key, and then insert the new USB drive to USB drive. When select <input type="checkbox"/> No key and press <input type="checkbox"/> Enter key, back to the “ Edit ” window.	• When start the formatting, “Formatting the USB drive. ” is displayed and blinked. • When the formatting is success, “Format the USB drive complete” is displayed. • When the formatting is failed, “ERROR DTE was unable to complete the format. Please remove the USB drive. ” is displayed. • When carry out the formatting USB drive is not connected, “DTE failed to detect the USB drive.” is displayed.	

3

3.7.3.3 USB Drive Feature Overview

(1) USB drive compatibility

- ※1: The USB device must be USB Flash memory.
- ※2: The USB Flash memory complies with USB 1.1 or USB 2.0 standards.
- ※3: The USB Flash memory has NOT any built-in USB hubs.
- ※4: The USB Flash memory has NOT any security functions. (e.g. to require passwords when connecting the USB Flash memory)
- ※5: The USB Flash memory is formatted in FAT16 or FAT32; the USB Flash memory is not formatted in Non-MS Windows operating system. FAT16 is recommended for fast accessing such as mounting and formatting rather than FAT32.
- ※6: The USB Flash memory contains only one drive.
- ※7: Do NOT use write protect function.

Above requirements do NOT provide any warranties as to the device performances. Some USB Flash memory devices do NOT operate normally as data is NOT recorded and NOT recognized.

Please inquire of our branch and office about the USB Flash memory of our recommendation.

Please inquire of our branch and office about the USB Flash memory max size of our confirmed operation.

(2) Accessible files

- ※: The IME/DTE only ensures to access the files which are created or edited by itself.

(3) Precautions

- ※1: The IME/DTE does NOT support other than USB Flash memories devices, such as Hard Disk Drives, any Optical Drives such as CD-ROM drives or DVD-ROM drives, any Optical-Magnetic Drives such as MO drives, and any Flash memory Card Reader such as SD Card Reader. In addition Mouses, Keyboards, Game Pads, and all other USB devices are disabled. These devices must NOT connect the IME/DTE.
- ※2: The IME/DTE does NOT support the devices as bus-powered.
- ※3: The size of the USB Flash memory is greater, the accessing speed, such as read/write speed, recognizing speed, and quick formatting speed will be slower.
- ※4: The IME/DTE does NOT support other than FAT16 and FAT32 file system, such as NTFS, HFS, HFS+, and exFAT.
- ※5: The USB Flash memory must connect the IME/DTE directly, NOT through any USB hubs.
- ※6: The USB Flash memory specially shaped may NOT be able to connect the IME/DTE physically.
- ※7: The maximum files and folders which are accessible by the IME/DTE are 100 and 50 respectively; the IME/DTE is only accessible 150 files and folders if the IME/DTE finds more files and folders than the limits. The files and the folders should be under the limits when the USB Flash memory is used.

- ※8: The maximum name length of folders and files which are accessible by the IME/DTE is 255 characters in full path.
- ※9: The USB Flash memory which contains multibyte character filenames and folders which can be created under other than the IME/DTE must not connect.
- ※10: The rubber cap on the USB connector of the IME/DTE must be closed when a USB Flash memory is not connected.
- ※11: The USB Flash memory has NOT to be removed when accessing LED of the memory is flickered. The file data might be destroyed.
- ※12: Our warranty does not apply to damages or malfunctions affected by the USB Flash memories which are infected by computer viruses.
- ※13: Save a file into the USB Flash memory after it is physically formatted on a PC. Without that, to mount the USB Flash memory on this IME/DTE will require long time.
- ※14: The USB connector must be series A connector.
- ※15: Do NOT use extension cable or translator to connect the IME/DTE.

3.8 Transmitting Message (Transmit)

The edited message is sent to the subscriber with some communication network. When the message is sent, the communication network is selected in the “Transmit” window.

The telex communication network is the mandatory facility for all LESs. Other facility depends on each LES.

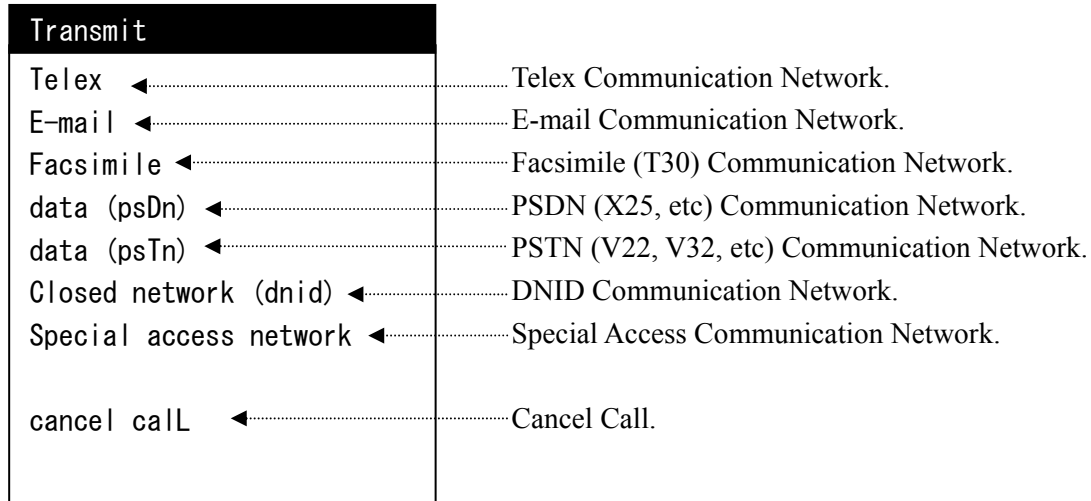


Fig.3.8a “Transmit” Window

NOTE

The size of the transmission message in JUE-87 is 8000 bytes maximum. If the size of the message is exceeded 8000 bytes, the following windows is displayed. In this case, reduce the size to 8000 bytes or less divide the message to a few file.

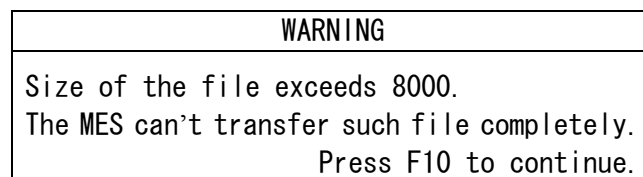


Fig.3.8b “WARNING !!!” Window

3.8.1 Sending Telex

NOTE

- DO NOT REQUEST ANY DISTRESS PRIORITY CALLS EXCEPT IN AN EMERGENCY.
Accident alarm message is transmitted to Rescue Coordination Center regardless of destination code, subscriber's number, and answerback.
- Distress telex message is retransmitted after the device is restarted, when momentary disconnection is occurred in the device during the distress telex message transmitting. However, please note that distress telex message is not retransmitted in the following cases.
 - (1) When power switch of the device is turned OFF and ON
 - (2) When power switch of External power supply unit is turned OFF and ON
 - (3) When the ship is recovered from blackout
 - (4) When a random failure is occurred in the device

Telex	
Destination code-subscriber's number and answerback	: 072-02822351
File name	: TEST.MSG
land Earth station (les) position	: 203 (Yamaguchi)
delivery Confirmation	: Off
characTer code	: la5
Priority	: rouTine
F1: Send call	F10: Previous

Fig.3.8.1a Example of "Telex" Window



Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “Telex” and press Enter key. 	<ul style="list-style-type: none"> The “Telex” window is displayed. 	<ul style="list-style-type: none"> “Telex” is the mandatory facility for all LESs. Other facility depends on each LES.
3	<ul style="list-style-type: none"> Move the cursor to “Destination code-subscriber’s number and answerback” and press Enter key. 	<ul style="list-style-type: none"> The “Destination” window is displayed. 	
4	<ul style="list-style-type: none"> Move the cursor to the “1:” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “subscriber’s no”. 	<ul style="list-style-type: none"> When the abbreviated number is used, press F2 (“Address book code”) key.
5	<ul style="list-style-type: none"> Type telex country code, subscriber’s number and press →. Ex. Country code: 72 Subscriber’s number: 12345678 0 7 2 1 2 3 4 5 6 7 8 → 	<ul style="list-style-type: none"> The cursor is moved to “answerback”. 	<ul style="list-style-type: none"> Type triple digits in the country code. When the country code is double digits such as Ex, “0” is preceded by the country code.
6	<ul style="list-style-type: none"> Type answerback code and press Enter. Ex. 12345678 ABCD J 1 2 3 4 5 6 7 8 A B C D J Enter 	<ul style="list-style-type: none"> The cursor is moved to “2”. 	<ul style="list-style-type: none"> When the answerback code is not provided, press Enter key only. Note 1
7	<ul style="list-style-type: none"> After confirmation of each parameter, press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “Telex” window is displayed, and the cursor is moved to “File name”. 	
8	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
9	<ul style="list-style-type: none"> Press F2 (“File selection”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
10	<ul style="list-style-type: none"> Select the file by ↑, ↓ key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 2
11	<ul style="list-style-type: none"> Confirm the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	

Step	Operation	IME/DTE Response	Remarks
12	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return the “Telex” window. 	<ul style="list-style-type: none"> The “Telex” window is displayed and the cursor is moved to “land Earth station (les)”. 	
13	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
14	<ul style="list-style-type: none"> Confirm the contents and press F2 (“LES list”) key. 	<ul style="list-style-type: none"> The “Les list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
15	<ul style="list-style-type: none"> Select the Les ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “posltion”. 	<ul style="list-style-type: none"> Note 3
16	<ul style="list-style-type: none"> When the setting of the “posltion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
17	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
18	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
19	<ul style="list-style-type: none"> When the delivery confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. 	
20	<ul style="list-style-type: none"> When the setting of the “characTer code” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
21	<ul style="list-style-type: none"> Select the “characTer code” and Enter key. Select the “Ia5” normally. 	<ul style="list-style-type: none"> The cursor is moved “Priority”. 	
22	<ul style="list-style-type: none"> When the “Priority” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
23	<ul style="list-style-type: none"> When the priority is set to the normal, select “Routine” and press Enter key. When the priority is set to the distress, select “Distress” and press Enter key. 	<ul style="list-style-type: none"> The cursor is returned to ”Destination code-subscriber’s number and answerback”. 	

Step	Operation	IME/DTE Response	Remarks
24	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Send Call”) key. 	<ul style="list-style-type: none"> The contents of the selected file are displayed, and then Main menu is displayed again. 	<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.
25		<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) sent to LES (203)” is displayed. Example: Call date and time: 1996/1/15 11:00 LES ID: 203 When the “Message print on function” is turned on, the call time, date destination number, LES ID, and the message are printed out. 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to delete the message.
26	<ul style="list-style-type: none"> After the message is transmitted to subscribers, “S&F message delivered to subscribers” is displayed. Press F10 (“Previous”) key to return to main menu. 	<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) delivered to subscribers (07202822351)” is displayed. Example: Delivery date and time: 1996/1/15 11:00 Destination number: 07202822351 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to delete the message.

Note 1) Message can be sent to up to 5 subscribers whom destination code is same, by moving the cursor to “Destination code-subscriber’s number, and answerback code” with pressing **Enter** key (Multi address function).

When the subscriber’s number set to two numbers or more, “*” is displayed at right side of the number.

Note 2) When the entered file is not in the IME/DTE memory or the USB drive, the following window is displayed, press **F10** (“Previous”) key and type the new file name.

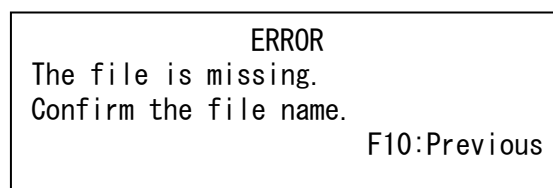


Fig.3.8.1b “ERROR” Window

Note 3) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed.

Press **F10** (“**Previous**”) key and type the correct LES ID.

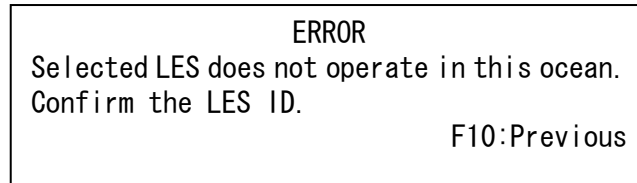


Fig.3.8.1c “ERROR” Window

3.8.2 Transmitting E-mail Message

Special access network	
Special access code	: 28
File name	: TEST.MSG
land Earth station(les)	: 203 (Yamaguchi)
position	: Off
character code	: Data
delivery Confirmation	: Off
F1: Send call	F10: Previous

Fig.3.8.2a Example of “E-mail” Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the “E-mail” and press Enter key. 	<ul style="list-style-type: none"> The “E-mail” window is displayed. 	<ul style="list-style-type: none"> “E-mail” is optional facility for each LES.
3	<ul style="list-style-type: none"> Move the cursor to the “Special access code” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “Special access code”. 	
4	<ul style="list-style-type: none"> Type the Special access code (Numbers or Alphabets, 6 digits maximum) and press Enter key. Ex. 28 2 8 Enter 	<ul style="list-style-type: none"> The cursor is moved to “File name”. 	<ul style="list-style-type: none"> Special access codes differ from LES to LES. Ask LES of the LES’s special access code.
5	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “File name”. 	
6	<ul style="list-style-type: none"> Press F2 (“File selection”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
7	<ul style="list-style-type: none"> Select the file by ↑, ↓ key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 1, 2
8	<ul style="list-style-type: none"> After confirmation of the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	

Step	Operation	IME/DTE Response	Remarks
9	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return to the “Special access network” window. 	<ul style="list-style-type: none"> The cursor is moved to “land Earth station (les)”. 	
10	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “land Earth station (les)”. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
11	<ul style="list-style-type: none"> Press F2 (“Les list”) key. 	<ul style="list-style-type: none"> The “Les list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
12	<ul style="list-style-type: none"> Select the LES ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “posItion”. 	<ul style="list-style-type: none"> Note 3
13	<ul style="list-style-type: none"> When the setting of the “posItion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “posItion”. 	
14	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. 	
15	<ul style="list-style-type: none"> When the setting of the “characTer code” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “characTer code”. 	
16	<ul style="list-style-type: none"> Select the “characTer code” and Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
17	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “delivery Confirmation”. 	
18	<ul style="list-style-type: none"> When the delivery confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. The “special access code” window is displayed. 	
19	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Send Call”) key. 		<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.

Step	Operation	IME/DTE Response	Remarks
20	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return to main menu. 	<ul style="list-style-type: none"> Main menu is displayed. 	

Note 1) When the entered file name is not in the IME/DTE memory or the USB drive, “ERROR, The file is missing. Confirm the file name.” is displayed, press **F10** (“**Previous**”) key and type the new file name.

ERROR

The file is missing.
Confirm the file name.

F10: Previous

Fig.3.8.2b “ERROR” Window

Note 2) Following window is displayed when you carry out the procedure of Step 7, if "characTer code" is set as "Data". Press **F10** (“**Previous**”) key when you carry out data transmission.

Warning

Can not display binary text.

F10: Previous

Fig.3.8.2c “WARNING” Window

Note 3) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed. Press **F10** (“**Previous**”) key and type the correct LES ID.

ERROR

Selected LES does not operate in this ocean.
Confirm the LES ID.

F10: Previous

Fig.3.8.2d “ERROR” Window

3.8.3 Transmitting Facsimile Message

Facsimile	
country code-	
subscriber's number	: 081-422459957
Modem of subscriber	: T30
File name	: TEST. MSG
land Earth station(ies)	: 203 (Yamaguchi)
position	: Off
character code	: la5
delivery Confirmation	: Off
F1: Send call	F10: Previous

Fig.3.8.3a Example of "Facsimile" Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to "Transmit" and press Enter key. 	<ul style="list-style-type: none"> The "Transmit" window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the "Facsimile" and press Enter key. 	<ul style="list-style-type: none"> The "Facsimile" window is displayed. 	<ul style="list-style-type: none"> "Facsimile" is optional facility for each LES.
3	<ul style="list-style-type: none"> Move the cursor to the "Country code-subscriber's number" and press Enter. 	<ul style="list-style-type: none"> The "Destination" window is displayed. 	
4	<ul style="list-style-type: none"> Move the cursor to the "1:" and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to "subscriber's no". 	<ul style="list-style-type: none"> When the abbreviated number is used, press F2 ("Address book code") key.
5	<ul style="list-style-type: none"> Type telephone country code, subscriber's number and press Enter. Ex. Country code: 81 Subscriber's number: 12345678 0 8 1 1 2 3 4 5 6 7 8 Enter 	<ul style="list-style-type: none"> The cursor is moved to "2:". 	<ul style="list-style-type: none"> Type triple digits in the country code. When the country code is double digits such as Ex, "0" is preceded by the country code. Note 1
6	<ul style="list-style-type: none"> After confirmation of each parameter, press F10 ("Previous") key. 	<ul style="list-style-type: none"> The cursor is moved to "File name". 	
7	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	

Step	Operation	IME/DTE Response	Remarks
8	<ul style="list-style-type: none"> Press F2 (“File selection”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
9	<ul style="list-style-type: none"> Select the file by ↑, ↓.key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 2, 3
10	<ul style="list-style-type: none"> After confirmation of the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
11	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return the “Facsimile” window. 	<ul style="list-style-type: none"> The cursor is moved to “land Earth station (les)”. 	
12	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
13	<ul style="list-style-type: none"> Press F2 (“LES list”) contents and press (“Previous”) key. 	<ul style="list-style-type: none"> The “LES list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
14	<ul style="list-style-type: none"> Select the LES ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> The “Facsimile” window is displayed and the cursor is moved to “posItion”. 	<ul style="list-style-type: none"> Note 4
15	<ul style="list-style-type: none"> When the setting of the “posItion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
16	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. 	
17	<ul style="list-style-type: none"> When the setting of the “characTer code” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
18	<ul style="list-style-type: none"> Select the “characTer code” and Enter key. Select the “Ia5” normally. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
19	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	

Step	Operation	IME/DTE Response	Remarks
20	<ul style="list-style-type: none"> When the delivery confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is return to ”country coDe-subscriber’s number”. 	
21	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Send Call”) key. 	<ul style="list-style-type: none"> The contents of the selected file are displayed, then Main menu is displayed again. 	<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.
22		<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) sent to LES (203)” is displayed. Example: Call date and time: 1996/1/15 11:00 LES ID: 203 When the message print on function is turned on, the call time, date destination number, LED ID, and the message are displayed. 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to clear the message.
23	<ul style="list-style-type: none"> After the message is transmitted to subscribers, “S&F message delivered to subscribers” is displayed . Press F10 (“previous”) key to return previous screen. 	<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) delivered to subscribers (0811234567)” is displayed. Example: Delivery date and time: 1996/1/15 11:00 Destination number: 0811234567 When the message print on function is turned on, the call time destination number and LES ID are displayed. 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to clear the message.

Note 1) Message can be sent to up to 5 subscribers whom destination code is same, by moving the cursor to “**Destination code-subscriber’s number and answerback code**” then pressing Enter key (Multi address function).

When the subscriber’s number set to two numbers or more, “*” is displayed at right side of the number.

Note 2) When the file is not in the IME/DTE memory or the USB drive, the following window is displayed, press **F10** (“**Previous**”) key and type the new file name.



Fig.3.8.3b “ERROR” Window

Note 3) Following window is displayed when you carry out the procedure of Step 9, if "characTer code" is set as "Data". Press **F10** (“**Previous**”) key when you carry out data transmission.

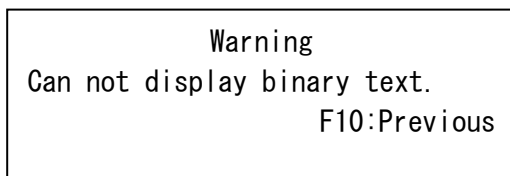


Fig.3.8.3c “WARNING” Window

Note 4) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed. Press **F10** (“**Previous**”) key and type the correct LES ID.

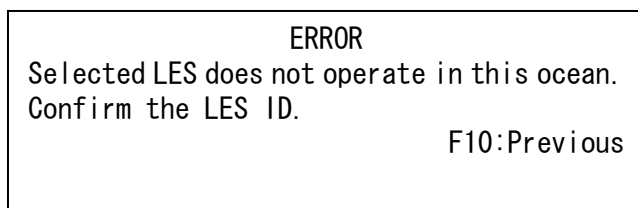


Fig.3.8.3d “ERROR” Window

3.8.4 Transmitting Data (PSDN) Message

Data (PSDN)	
Data network id	
subscriber's number	: 1117-422459957
File name	: TEST. MSG
land Earth station(les)	: 203 (Yamaguchi)
position	: Off
delivery Confirmation	: Off
F1: Send call F10: Previous	

Fig.3.8.4a "Data (PSDN)" Window



Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to "Transmit" and press Enter. 	<ul style="list-style-type: none"> The "Transmit" window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the "data (psDn)" and press Enter. 	<ul style="list-style-type: none"> The "Data (PSDN)" window is displayed. 	<ul style="list-style-type: none"> "Data (PSDN)" is optional facility for each LES.
3	<ul style="list-style-type: none"> Move the cursor to the "Data network id, subscriber's number and answerback" and press Enter. 	<ul style="list-style-type: none"> The "Destination" window is displayed. 	
4	<ul style="list-style-type: none"> Move the cursor to the "1:" and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to "subscriber's no". 	<ul style="list-style-type: none"> When the abbreviated number is used, Press F2 ("Address book code") key.
5	<ul style="list-style-type: none"> Type data network id, subscriber's number and press Enter. Ex. Data Network ID: 1112 Subscriber's number: 12345678 1 1 1 2 1 2 3 4 5 6 7 8 Enter 	<ul style="list-style-type: none"> The cursor is moved to "2:". 	<ul style="list-style-type: none"> The data network id is provided by each LES. Note 1
6	<ul style="list-style-type: none"> Confirm each parameter, and press F10 ("Previous") key. 	<ul style="list-style-type: none"> Data (PSDN) window is displayed and the cursor is moved to "File name". 	
7	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
8	<ul style="list-style-type: none"> Press F2 ("File selection") key. 	<ul style="list-style-type: none"> The "File list" window is displayed. 	

Step	Operation	IME/DTE Response	Remarks
9	<ul style="list-style-type: none"> Select the file by ↑, ↓ key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 2, 3
10	<ul style="list-style-type: none"> Confirm the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
11	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return the “Data (PSDN)” window. 	<ul style="list-style-type: none"> Data (PSDN) window is displayed and the cursor is moved to “land Earth station (les)”. 	
12	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
13	<ul style="list-style-type: none"> Press F2 (“LES list”) key. 	<ul style="list-style-type: none"> The “Les list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed. Note 4
14	<ul style="list-style-type: none"> Select the LES ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> Data (PSDN) window is displayed and the cursor is moved to “posItion”. 	
15	<ul style="list-style-type: none"> When the setting of the “posItion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
16	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “oFf” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
17	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
18	<ul style="list-style-type: none"> When the delivery confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key.. 	<ul style="list-style-type: none"> The cursor is returned to “Data network id subscriber’s number”. 	

Step	Operation	IME/DTE Response	Remarks
19	<ul style="list-style-type: none"> Confirm each parameter and press F1 (“Send Call”) key. 	<ul style="list-style-type: none"> The Main menu is displayed. 	<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.
20		<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) sent to LES (203)” is displayed. Example: Call date and time: 1996/1/15 11:00 LES ID: 203 When the message print on function is turned on, the call time, date destination number, LED ID is displayed. 	<ul style="list-style-type: none"> Press F10 (“previous”) key to clear the message.
21		<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) delivered to subscribers (11121234567)” is displayed. Example: Delivery date and time: 1996/1/15 11:00 Destination number: 11121234567 When the message print on function is turned on, the call time destination number and LES ID are displayed. 	<ul style="list-style-type: none"> Press F10 (“previous”) key to clear the message.

Note 1) Message can be sent to up to five subscribers whom destination code is same, by moving the cursor to “Destination code-subscriber’s number and answerback code” then pressing **Enter** key. When the subscriber’s number set to 2 numbers or more, “*” is displayed at right side of the number.

Note 2) When the file is not in the IME/DTE memory or the USB drive, the following window is displayed, press **F10** (“Previous”) key and type the new file name.



Fig.3.8.4b “ERROR” Window

Note 3) Following window is displayed when you carry out the procedure of Step 9. Press **F10** (“Previous”) key when you carry out data transmission.

<p>Warning Can not display binary text. F10:Previous</p>
--

Fig.3.8.4c “WARNING” Window

Note 4) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed. Press **F10** (“Previous”) key and type the correct LES ID.

<p>ERROR Selected LES does not operate in this ocean. Confirm the LES ID. F10:Previous</p>

Fig.3.8.4d “ERROR” Window

3.8.5 Transmitting Data (PSTN) Message

Data (PSTN)	
country code-	
subscriber's number	: 081-4123456789
Modem of subscriber	: Others (T30)
File name	: TEST.MSG
land Earth station (les)	: 203 (Yamaguchi)
position	: Off
character code	: Data
delivery Confirmation	: Off
<p>F1: Send call F10: Previous</p>	

Fig.3.8.5a Example of “Data (PSTN)” Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the “data (psTn)” and press Enter key. 	<ul style="list-style-type: none"> The “Data (PSTN)” window is displayed. 	<ul style="list-style-type: none"> “Data (PSTN)” is optional facility for each LES.
3	<ul style="list-style-type: none"> Move the cursor to the “Country code-subscriber’s number” and press Enter. 	<ul style="list-style-type: none"> The “Destination” window is displayed. 	
4	<ul style="list-style-type: none"> Move the cursor to the “1:” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “Subscriber’s no”. 	<ul style="list-style-type: none"> When the abbreviated number is used, press F2 (“Address book code”) key.
5	<ul style="list-style-type: none"> Type telephone country code, subscriber’s number and press Enter. Ex. Country code: 081 Subscriber’s number: 12345678 0 8 1 1 2 3 4 5 6 7 8 Enter 	<ul style="list-style-type: none"> The cursor is moved to “2:”. 	<ul style="list-style-type: none"> Note 1
6	<ul style="list-style-type: none"> After confirmation of each parameter, press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “Data (PSTN)” window is displayed. The cursor is moved to “Modem of subscriber”. 	
7	<ul style="list-style-type: none"> When the setting of the Modem of subscriber’s is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
8	<ul style="list-style-type: none"> Select the setting of the Modem of subscriber’s and press Enter key. V22 : 1200bps V22bis : 2400bps V32bis : 9600bps Others : 3 digits protocol number described the ITU-T 	<ul style="list-style-type: none"> The “Data (PSTN)” window is displayed. The cursor is moved to “File name”. 	
9	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
10	<ul style="list-style-type: none"> Press F2 (“File selection”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	

Step	Operation	IME/DTE Response	Remarks
11	<ul style="list-style-type: none"> Select the file by ↑, ↓ key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 2, 3
12	<ul style="list-style-type: none"> After confirmation of the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
13	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return the “Data (PSTN)” window. 	<ul style="list-style-type: none"> The “Data (PSTN)” window is displayed. The cursor is moved to “land Earth station (les)”. 	
14	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
15	<ul style="list-style-type: none"> Press F10 (“LES list”) key. 	<ul style="list-style-type: none"> The “LES list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
16	<ul style="list-style-type: none"> Select the LES ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> The “Data (PSTN)” window is displayed. The cursor is moved to “posItion”. 	<ul style="list-style-type: none"> Note 4
17	<ul style="list-style-type: none"> When the setting of the “posItion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
18	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. 	
19	<ul style="list-style-type: none"> When the setting of the “characTer code” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	
20	<ul style="list-style-type: none"> Select the “characTer code” and Enter key. Select the “Ia5” normally. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
21	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right side. 	

Step	Operation	IME/DTE Response	Remarks
22	<ul style="list-style-type: none"> When the delivery confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is returned to “country coDe-subscriber’s number”. 	
23	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Send Call”) key. 	<ul style="list-style-type: none"> The contents of the selected file are displayed, and then Main menu is displayed again. 	<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.
24		<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) sent to LES (203)” is displayed. Example: Call date and time: 1996/1/15 11:00 LES ID: 203 When the message print on function is turned on, the call time, date destination number, LES IDs are displayed. 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to clear the message.
25		<ul style="list-style-type: none"> “S&F message (96-01-15 11:00) delivered to subscribers (0811234567)” is displayed. Example: Delivery date and time: 1996/1/15 11:00 Destination number: 0811234567 When the message print on function is turned on, the call time destination number and LES IDs are displayed. 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to clear the message.

Note 1) Message can be sent to up to five subscribers whom destination code is same, by moving the cursor to “Destination code-subscriber’s number and answerback code” then pressing **Enter** key. When the subscriber’s number set to 2 numbers or more, “*” is displayed at right side of the number.

Note 2) When the file is not in the IME/DTE memory or the USB drive, the following window is displayed, press **F10** (“Previous”) key and type the new file name.

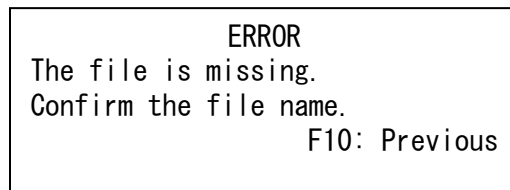


Fig.3.8.5b “ERROR” Window

Note 3) Following window is displayed when you carry out the procedure of Step 11, if "characTer code" is set as "Data". Press **F10** (“Previous”) key when you carry out data transmission.

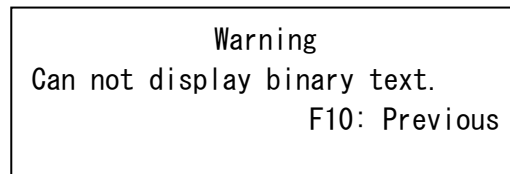


Fig.3.8.5c “WARNING” Window

Note 4) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed. Press **F10** (“Previous”) key and type the correct LES ID.

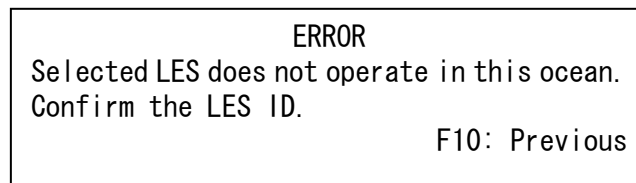


Fig.3.8.5d “ERROR” Window

3.8.6 Transmitting Closed Network Message

NOTE

It is necessary to download the closed network ID (DNID) from LES prior to the closed network message is transmitted.

Closed network (dnid)	
cloSed network id (dnid)	: 12345
File name	: TEST.MSG
land Earth station (les)	: 203 (Yamaguchi)
posltion	: Off
traNsfer	: Data report
F1: Send call	
F10: Previous	

Fig.3.8.6a Example of “Closed network” Window

Closed network (S&F)	
cloSed network id (dnid)	: 12345
File name	: TEST.MSG
land Earth station (les)	: 203 (Yamaguchi)
posltion	: Off
traNsfer	: S&F
character code	: la5
delivery Confirmation	: oN
F1: Send call	
F10: Previous	

Fig.3.8.6b Example of “Closed network (S&F)” Window



Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the “Closed network” and press Enter key. 	<ul style="list-style-type: none"> The “Closed network” window is displayed. 	<ul style="list-style-type: none"> “Closed network” is the optional facility for each LES.
3	<ul style="list-style-type: none"> Move the cursor to the “Closed network id” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right entry field from “Closed network id”. 	
4	<ul style="list-style-type: none"> When the closed network ID is selected, press F2 (“DNID list”) key. 	<ul style="list-style-type: none"> The “Closed network list window” is displayed. When the closed network ID is not downloaded, the blank list is displayed. 	<ul style="list-style-type: none"> When the closed network ID is not downloaded, the blank list is displayed.
5	<ul style="list-style-type: none"> Select the closed network ID by ↑ and ↓ key and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “File name”. 	
6	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “File name”. 	
7	<ul style="list-style-type: none"> Press F2 (“File selection”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
8	<ul style="list-style-type: none"> Select the file by ↑, ↓ key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 1, 2
9	<ul style="list-style-type: none"> After confirmation of the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
10	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return the “Closed network” window. 	<ul style="list-style-type: none"> The cursor is moved to “land Earth station (les)”. 	
11	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “land Earth station (les)”. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
12	<ul style="list-style-type: none"> Press F2 (“LES list”) key. 	<ul style="list-style-type: none"> The “LES list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
13	<ul style="list-style-type: none"> Select the LES ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “position”. 	<ul style="list-style-type: none"> Note 3

Step	Operation	IME/DTE Response	Remarks
14	<ul style="list-style-type: none"> When the setting of the “posItion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “posItion”. 	
15	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “traNsfer”. 	
16	<ul style="list-style-type: none"> When the setting of “traNsfer” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “traNsfer”. 	
17	<ul style="list-style-type: none"> When the data reporting service is used, select the “Data report” and press Enter key. When the store and forward service is used, select the “S&F” and press Enter key. 	<ul style="list-style-type: none"> When the “S&F” is selected, the “closed network” window is displayed. 	<ul style="list-style-type: none"> When the “Data report” is selected, skip to step 23.
18	<ul style="list-style-type: none"> Select the “characTer code” and Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “characTer code”. 	
19	<ul style="list-style-type: none"> When the setting of the “characTer code” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
20	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “delivery Confirmation”. 	
21	<ul style="list-style-type: none"> When the delivery Confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is returned to “closed network id”. 	
22	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Send Call”) key. 	<ul style="list-style-type: none"> The contents of the selected file are displayed, and then Main menu is displayed again. 	<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.

Note 1) When the entered file name is not in the IME/DTE memory or the USB drive, **“ERROR, The file is missing. Confirm the file name.”** is displayed. Then press **F10** (**“Previous”**) key and type the new file name.

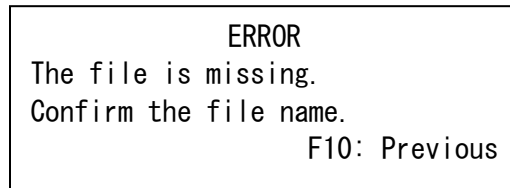


Fig.3.8.6c “ERROR” Window

Note 2) Following window is displayed when you carry out the procedure of Step 8, if "characTer code" is set as "Data". Press **F10** (**“Previous”**) key when you carry out data transmission.

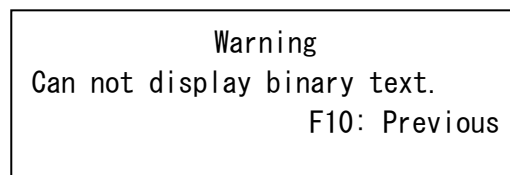


Fig.3.8.6d “WARNING” Window

Note 3) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed. Press **F10** (**“Previous”**) key and type the correct LES ID.

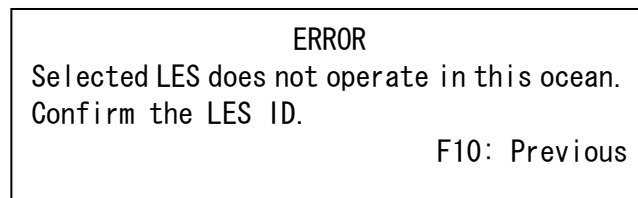


Fig.3.8.6e “ERROR” Window

3.8.7 Transmitting Special Access Network Message

Special access network	
Special access code	: 28
File name	: TEST. MSG
land Earth station(les)	: 203 (Yamaguchi)
posltion	: Off
character code	: Data
delivery Confirmation	: Off
F1: Send call	F10: Previous

Fig.3.8.7a Example of “Special access network” Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the “Special access network” and press Enter key. 	<ul style="list-style-type: none"> The “Special access network” window is displayed. 	<ul style="list-style-type: none"> “Special access network” is optional facility for each LES.
3	<ul style="list-style-type: none"> Move the cursor to the “Special access code” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “Special access code”. 	
4	<ul style="list-style-type: none"> Type the Special access code (Numbers or Alphabets, 6 digits maximum) and press Enter key. Ex. 28 2 8 Enter 	<ul style="list-style-type: none"> The cursor is moved to “File name”. 	<ul style="list-style-type: none"> Special access codes differ from LES to LES. Ask LES of the LES’s special access code.
5	<ul style="list-style-type: none"> When the file is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “File name”. 	
6	<ul style="list-style-type: none"> Press F2 (“File selection”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	
7	<ul style="list-style-type: none"> Select the file by ↑, ↓ key and press Enter key. 	<ul style="list-style-type: none"> The contents of the file are displayed. 	<ul style="list-style-type: none"> When the file name is knowledge, type the file name directly. Note 1, 2
8	<ul style="list-style-type: none"> After confirmation of the contents and press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “File list” window is displayed. 	

Step	Operation	IME/DTE Response	Remarks
9	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return to the “Special access network” window. 	<ul style="list-style-type: none"> The cursor is moved to “land Earth station (les)”. 	
10	<ul style="list-style-type: none"> When the LES is selected, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “land Earth station (les)”. 	<ul style="list-style-type: none"> When the LES ID is knowledge, type the LES ID directly.
11	<ul style="list-style-type: none"> Press F2 (“Les list”) key. 	<ul style="list-style-type: none"> The “Les list” window is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
12	<ul style="list-style-type: none"> Select the LES ID by ↑, ↓ key, and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “posItion”. 	<ul style="list-style-type: none"> Note 3
13	<ul style="list-style-type: none"> When the setting of the “posItion” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “posItion”. 	
14	<ul style="list-style-type: none"> When the ship’s position is included the transmitting message, select “oN” and press Enter key. When the ship’s position is not included, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. 	
15	<ul style="list-style-type: none"> When the setting of the “characTer code” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “characTer code”. 	
16	<ul style="list-style-type: none"> Select the “characTer code” and Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “delivery Confirmation”. 	
17	<ul style="list-style-type: none"> When the setting of the “delivery Confirmation” is changed, press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to right column from “delivery Confirmation”. 	
18	<ul style="list-style-type: none"> When the delivery confirmation is requested to LES, select “oN” and press Enter key. When the delivery confirmation is not requested to LES, select “Off” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “characTer code”. The “special access code” window is displayed. 	
19	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Send Call”) key. 		<ul style="list-style-type: none"> Normally, it takes about 3-5 minutes to complete the communication.

Step	Operation	IME/DTE Response	Remarks
20	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return to main menu. 	<ul style="list-style-type: none"> Main menu is displayed. 	

Note 1) When the entered file name is not in the IME/DTE memory or the USB drive, “ERROR, The file is missing. Confirm the file name.” is displayed, press **F10** (“Previous”) key and type the new file name.

ERROR
The file is missing.
Confirm the file name.
F10: Previous

Fig.3.8.7b “ERROR” Window

Note 2) Following window is displayed when you carry out the procedure of Step 7, if "characTer code" is set as "Data". Press **F10** (“Previous”) key when you carry out data transmission.

Warning
Can not display binary text.
F10: Previous

Fig.3.8.7c “WARNING” Window

Note 3) When the selected LED ID is closed, or the selected LES ID is other than 000~063, 100~163, 200~263, and 300~363, the following window is displayed. Press **F10** (“Previous”) key and type the correct LES ID.

ERROR
Selected LES does not operate in this ocean.
Confirm the LES ID.
F10: Previous

Fig.3.8.7d “ERROR” Window



3.8.8 Address Book

(1) Address number registration

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the service type to register the address number. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	<ul style="list-style-type: none"> The address number can be used in “Telex”, “FAX”, “Data (PSTN)” and “Data (PSDN)”.
3	<ul style="list-style-type: none"> Move the cursor to the “Destination code” and press Enter key. 	<ul style="list-style-type: none"> The “Destination” window is displayed. 	
4	<ul style="list-style-type: none"> Press F2 (“Address book code”) key. 	<ul style="list-style-type: none"> The “Address book code” window is displayed. 	
5	<ul style="list-style-type: none"> Move the cursor to register the abbreviated number and press F6 (“New code”) key. 	<ul style="list-style-type: none"> The cursor is moved to “Name”. 	<ul style="list-style-type: none"> The abbreviated number is registered 40 numbers maximum.
6	<ul style="list-style-type: none"> Type the country code, subscriber’s number and press Enter key. When the service type is “Telex”, type the answerback code. Move the cursor to next number after press Enter key. 	<ul style="list-style-type: none"> The typed numbers are displayed. 	<ul style="list-style-type: none"> When the cursor is moved, press ← or → key. When the number is deleted, press Del key.
7	<ul style="list-style-type: none"> After confirmation of each parameter, press F1 (“Complete”) key. 	<ul style="list-style-type: none"> The “Address book code” window is displayed. 	<ul style="list-style-type: none"> Registration completed.
8	<ul style="list-style-type: none"> Press Esc Key. 	<ul style="list-style-type: none"> The “Main Menu” screen is displayed. 	

(2) Address number selection

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Transmit” and press Enter key, on main menu. 	<ul style="list-style-type: none"> The “Transmit” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the service type to register the address number, and press Enter key. 	<ul style="list-style-type: none"> Selected service window is displayed. 	
3	<ul style="list-style-type: none"> Move the cursor to “Destination code” and press Enter key. 	<ul style="list-style-type: none"> The “Destination” window is displayed. 	
4	<ul style="list-style-type: none"> Press F2 (“Address book code”) key. 	<ul style="list-style-type: none"> The “Address book code” window is displayed. 	
5	<ul style="list-style-type: none"> Select the address number by cursor key and press Enter key. 	<ul style="list-style-type: none"> The line of selected number is displayed in reverse. 	
6	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The specified destination number etc. is displayed on the “Destination” menu. 	<ul style="list-style-type: none"> When the multi address function is used, press Enter key instead of F10 key, and select the number. After confirmation, press F10 (“Previous”) key. Note 1
7	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	<ul style="list-style-type: none"> “Telex” window is displayed. 	
8	<ul style="list-style-type: none"> Set the other request parameter and press F1 (“Send Call”) key when you want to send a call. 	<ul style="list-style-type: none"> The “Main Menu” screen is displayed. 	<ul style="list-style-type: none"> Communication can be start.

Note 1) Using Multi address function, message can be sent up to 5 subscribers whom destination codes are same.

Multi address function is optional facility of each LES. Depends on LES, this function is not offered.



3.8.9 Scheduled Transmission

JUE-87 can send position information, file, and/or data from data source to a designated party in regular interval.

Up to 5 schedules can be registered.

Step	Operation	IME/DTE Response	Remarks
1	Hold down Alt key and press U key on Main menu.	The “Set up” window is displayed.	
2	Move the cursor to the item “Scheduled transmission” then press Enter key.	The “Scheduled transmission” window is displayed.	
3	Move the cursor to the item you want to register then press Enter key.	The “Scheduled transmission parameter” window is displayed.	See the example below.
4	Move the cursor to each item to set and press Enter key then set each parameter.		
5	After confirming each parameter, to return to Main menu, press F10 (“Previous”) key twice or ESC key.		

Scheduled transmission #1	
starting date and Time	(yy-mm-dd hh:mm UTC) : 10-12-20 17:00
requesting Interval	: 00:10
IEs	: 002-111-210-302
Network type	: Telex
Destination code & subscriber's number	: 072-0223344
Character code	: la5
data type qth	: oFf
dS	: None
File name	: 0: TEST. TLX
transMission	: oFf
F9:Next F10:Previous	

Fig.3.8.9 Example of “Scheduled transmission” Window

- Starting date and time Set the date and time you want to start for a scheduled transmission.
- Requesting interval Set the interval time of schedule. (Minimum 10 minutes)
- LES Set the LES IDs you want to use, in all ocean regions. The first field is West AOR (000-063), the second field is East AOR (100-163), the third field is POR (200-263) and the fourth field is IOR (300-363).
- Network type Set the network type you want to use. You can choose one of the following networks:
 - E-mail
 - Telex
 - PSTN
 - Facsimile
 - PSDN (Data transmission)
 - Closed network.
 - Special access.

Network type
E-mail
Telex
pstN
Facsimile
psDn
Closed net (dnid)
Special access
F10: Previous

- Destination code & subscriber’s number Set the destination code and subscriber’s number.
- Character code Set the character code you want to use over the satellite link.
- Data type Set the data type you want to send. You can choose the following messages:
 - Position data (QTH): Choose the on or off of the position data transmission, Position data is automatically updated when navigation equipment (GPS, etc.) is connected. Use the information you inputted at the section of “**Distress**” when no navigation equipment is connected.
 - Data source (dS)
 - * “1” and “2” means data source number.

- File (File name)

Set the file name you want to send. Confirmation of file name is required at “**Edit**”. Message with no file name is sent when unrecorded file name is inputted.

- Transmission

Choose the schedule on or off.

3.9 Handling Received Messages (Read-out, Printing, Saving, and Deleting)

The received messages of Inmarsat-C and EGC, are printed out immediately when the MES receives them, in the case of the automatic message print out function (see 3.5.3.) is turned on. They are erased from older ones when stored calls exceed more than its maximum capacity, 100 calls, or 40K bytes. When your JUE-87 stored over 90 calls, warning window is displayed (Fig.3.9g). If the numbers of calls exceed 100, the call logs are deleted from older ones. When you need to **read out, print out, saving, or deleting** the messages, follow the below procedures.

(1) To read out, print out, and save the message

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “read Out” and press Enter key. 	<ul style="list-style-type: none"> “Read-out” window is displayed. It shows 3 types of message list. 	<ul style="list-style-type: none"> “Inm-C”: “Inm-C message list” “Egc” : “Egc message list” “All” : “reception message list” (Received all messages) See Fig. 3.9a to 3.9c.
2	<ul style="list-style-type: none"> Select the type of message list you want to see. 	<ul style="list-style-type: none"> The message list you have chosen is displayed. Each message list displays received messages in chronological order. (The newest message is displayed at the top of list.) 	
3	<ul style="list-style-type: none"> Move the cursor to the message you want to read and press Enter key. 	<ul style="list-style-type: none"> The message you want to see is displayed. (See Fig. 3.9e) Press F10 (“Previous”) key to return to main menu when you do not need to print out. 	<ul style="list-style-type: none"> Lower 2 lines show the description of the received message. Under line shows the characters received in error. (See Fig. 3.9e)
4	<ul style="list-style-type: none"> To print out the message, press F5 (“Print out”). 	<ul style="list-style-type: none"> The message is printed out. 	<ul style="list-style-type: none"> Press F10 (“Previous”) key to return to main menu when you do not need to save it.
5	<ul style="list-style-type: none"> To save the message, press F6 (“save as”) key. 	<ul style="list-style-type: none"> The “File name” is displayed. 	<ul style="list-style-type: none"> Blank space cannot be used for file name. Using received day for file name, is convenient for you.
6	<ul style="list-style-type: none"> Enter the file name and press Enter key. Press F10 (“Previous”) key to return main menu. 	<ul style="list-style-type: none"> “Now saving data. Please wait” is displayed 	

Inm-C message list					
No.	Date	Time	Priority	Size	
1.	05-01-01	01:12	Routine	1000	
2.	04-12-02	01:10	Routine	1001	
3.	04-11-30	01:33	Routine	1002	
4.	04-10-22	01:41	Routine	1003	
5.	04-09-20	01:55	Routine	1004	
6.	04-05-30	01:22	Routine	1005	
7.	03-12-24	01:08	Routine	1006	
8.	03-05-03	01:07	Routine	1007	
9.	03-01-06	01:09	Routine	1000	
10.	02-10-30	01:24	Routine	1000	
				↑ ↓ contd. (total :	Residual : Kbytes)
F1:Delete		F5:Print out		F10:Previous	

Fig.3.9a Example of “Inm-C Message list Window”

Press **F1** to go to **Delete mode**

EGC message list					
No.	Date	Time	Priority	Size	Service
1.	05-01-01	01:12	Safety	1000	*Group call
2.	04-12-02	01:10	Safety	1001	*Urgency message, NAV warning
3.	04-11-30	01:33	Urgent	1002	*INMARSAT system message
4.	04-10-22	01:41	Distress	1003	*Coastal warning
5.	04-09-20	01:55	Safety	1004	*Shore-ship distress alert
6.	04-05-30	01:22	Safety	1005	*Urgency message, NAV warning
7.	03-12-24	01:08	Distress	1006	*Urgency message, MET/NAV warning
8.	03-05-03	01:07	Safety	1007	*Group call
9.	03-01-06	01:09	Distress	1000	*Download group identity
10.	02-10-30	01:24	Distress	1000	*Coastal warning
				↑ ↓ contd. (total :	Residual : Kbytes)
F1:Delete		F5:Print out		F10:Previous	

Fig.3.9b Example of “EGC Message list Window”

Reception message list					
No.	Date	Time	Priority	Size	Service
1.	05-01-01	01:12	Safety	1000	*Group call
2.	04-12-02	01:10	Routine	1001	
3.	04-11-30	01:33	Urgent	1002	*INMARSAT system message
4.	04-10-22	01:41	Routine	1003	
5.	04-09-20	01:55	Safety	1004	*
6.	04-05-30	01:22	Routine	1005	
7.	03-12-24	01:08	Safety	1006	*Urgency message, MET/NAV warning
8.	03-05-03	01:07	Routine	1007	
9.	03-01-06	01:09	Safety	1000	*Download group identity
10.	02-10-30	01:24	Routine	1000	
↑ ↓ contd. (total : Residual : Kbytes)					
F1:Delete		F5:Print out		F10:Previous	

Fig.3.9c Example of “Reception Message list Window”



(2) To delete the message

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “read Out” and press Enter key. 	<ul style="list-style-type: none"> “Read-out” window is displayed. It shows three types of message list. 	<ul style="list-style-type: none"> “Inm-C”: “Inm-C message list” “Egc” : “Egc message list” “All” : “Reception message list” (Received all messages)
2	<ul style="list-style-type: none"> Select the type of message list you want to see. 	<ul style="list-style-type: none"> The message list you have chosen is displayed. Each message list displays received messages in chronological order. (The newest message is displayed at the top of list.) 	<ul style="list-style-type: none"> See Fig. 3.8a to 3.8c.
3	<ul style="list-style-type: none"> Press F1 key to go to Delete mode. 	<ul style="list-style-type: none"> “Delete mode” screen is displayed. 	
4	<ul style="list-style-type: none"> Move the cursor to the message you want to delete, and press Space bar (You can select a number of messages in same time). 	<ul style="list-style-type: none"> Asterisk marks (*) are displayed on the head of the lines you want to delete. To delete the all message, press F2(select all) key. 	<ul style="list-style-type: none"> If you want to cancel the deleting, press Space bar once more to cancel it. Then, Asterisk marks (*) are cleared and deletion is cancelled.
5	<ul style="list-style-type: none"> To delete the selected messages, press F7 (“Delete”) key. 	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Warning</p> <p>Do you really want to delete selected messages?</p> <p>OK Cancel</p> </div>	<p>Messages displayed on warning dialog boxes are:</p> <p>Do you really want to delete All messages?</p> <p>Do you really want to delete Inm-C messages?</p> <p>Do you really want to delete EGC messages?</p>
6	<ul style="list-style-type: none"> Select OK . 	<ul style="list-style-type: none"> The messages are deleted. “Message list “ in read-out mode is re-displayed when deletion is completed. 	

EGC Message list (Delete)					
No.	Date	Time	Priority	Size	Service
1.	05-01-01	01:12	Routine	1000	Group call
2.	04-12-02	01:10	Safety	1001	Urgency message, NAV warning
3.	04-11-30	01:33	Urgent	1002	INMARSAT system message
4.	04-10-22	01:41	Distress	1003	Coastal warning
5.	*04-09-20	01:55	Routine	1004	Shore-ship distress alert
6.	*04-05-30	01:22	Safety	1005	
7.	*03-12-24	01:08	Distress	1006	Urgency message, MET/NAV warning
8.	03-05-03	01:07	Routine	1007	Group call
9.	03-01-06	01:09	Distress	1000	Download group identity
	10-30	01:24	Distress	1000	Coastal warning

↑ ↓ contd. (total : Residual : Kbytes)

F2:Select all F7:Delete F10:Previous

Asterisk marks (*) are displayed when you select the messages by pressing "Space".

Fig.3.9d Example of "EGC Message list (Delete)" Window

Inm-C Ready Rec(AORW) : Good-15 Msg print USB 28 Jan,10 10:28(UTC)
 Position: N 35°41' E 139°34' Course: 011deg Speed: 00.0kt at 02:41(UTC)

Transmit read-Out Edit call-Log Distress Ncs/les-info receive-Mode egC

Inm-C

Receptionmessage list

No.	Date	Time	Priority	Size	Service(* : EGC message)
Reception message					<la5 08-02-25-01:53>
Message					

F5:Print out F6:Save as F10:Previous

Date	Time	Priority	Size	Msg. no.	LES
Description : 08-02-25	01:53	Safety	200	40962	003

Fig.3.9e Example of "Message" Window

* When the received message in the data communication is read out, the following window is displayed. In this case, press **F10** ("Previous") key, and press **F6** ("save as") key to save the message in the IME/DTE memory. When the message is read out, use the "edit Ascii file" command in the "Edit" window.

Warning

Can not display binary text.

F10: Previous

Fig.3.9f "Warning Window" is Displayed When A Message is Received in Data Communication

Warning

Print out call log.

F10: Previous

Fig.3.9g "Warning Window" is Displayed When Calls are Stored Over 90



3.10 Call Logging (Call-Log)

Call history of the latest calls (up to 100) are stored in the IME memory, and are displayed by moving the cursor to “call-Log” and pressing **Enter** key, in the main menu.

If the numbers of calls exceed 100, the call logs are deleted from older ones and waning window (Fig.3.9g) is displayed.

If you need to print out the call logs, press **F5** (“Print out”) key, and delete the call logs by press **F7** (“clear history”) key.

Call logging history						
Date	Time	Type of call	Destination	LES	Msg no	Size
05-04-12	14:20-14:25	S&F	T 07202822351	222	12345	85
		. . .	Delivered to LES			
05-04-12	13:50-13:55	S&F	R	210	8421	125
		. . .	Reception success			
05-04-11	10:13-10:16	S&F	Poll T 051885629	210	8415	42
		. . .	Delivered to subscriber			
05-04-11	10:09-10:12	S&F	T	210	8413	26
		. . .	Delivered to LES Multi			
05-04-09	18:21-18:24	S&F	T 023961114	203		78
		. . .	Call failure			
						↓ contd. (Total 25)
F1: Delivery confirmation		F5: Print out		F7: Clear histor		F10: Previous

Press **F1**, then
“Delivery confirmation request” window is displayed. See next page “3.10.1”.

Press **F5**, then
“Call logging history” is printed out.

Press **F7**, then all information of
“Call logging history” are cleared away.

Fig.3.10 Example of “Call logging history” Window

NOTE

F7 “clear history” command clears all information of your call-log.

Note:

- (1) **“Time”** area (example: 14:20-14:25) shows the starting time and stopping time of the call.
- (2) **“Type of call”** shows the communication type and the direction as follows:

- Type of call

S&F:	Store & Forward communication (Telex communication)
S&F Poll:	Automatic response communication with S&F to the polling command
S&F sched:	Scheduled communication with S&F
S&F Dist:	Distress priority communication with S&F
Data RPT:	Data reporting
EDR:	Enhanced Data Reporting
EDR Sched:	Scheduled communication with EDR
EDR Prg:	Programmed Position Report with EDR
EDR Poll:	Immediate Position Report with EDR
EPADR:	Enhanced Pre-assigned Data Reporting
SLCA:	Slot Logical Channel Assignment (for EPADR)
SLCA Req:	SLCA Request
SLCA Ctrl:	SLCA Control (which is suspending SLCA or resuming SLCA)
EDR R-PADR:	Re-sending data reporting by EDR which EPADR communication is failed
Distress:	Distress alerting
Log-in:	Log-in request
Log-out:	Log-out request
PV test:	Performance verification test

- Direction of call

R: Reception (Land subscriber to MES)
T: Transmission (MES to land subscriber)

- (3) **“Msg no”** shows the serial number of the calls via each LES.
- (4) **“Size”** shows number of characters in the message.
- (5) 2nd line shows the result of the call.

Example)

Delivered to LES: Message is transmitted to LES.
Delivered to subscriber : Message is transmitted to (land) subscriber.
Reception success: Message from LES is received.
Call failure: Message transmission to LES or subscriber is failed.

NOTE

“Delivered to LES” means the message you sent to land subscriber is received by LES as a relay point. When you want to confirm whether the message is received by land subscriber, execution of “Delivery confirmation request” is recommended.

When you turn ‘ON’ “delivery confirmation” function (see Fig. 3.8.1.) at the Telex window, you can receive delivery confirmation automatically.

When you use **“Multi-address function”**(sending a message to up to 5 subscribers whom destination code is same, via Telex), result of transmission is displayed individually. (checking **“Delivery confirmation request”** window is not necessary).



3.10.1 Delivery Confirmation

When you want to confirm the delivery result of the transmitted message, press **F1** (“**Delivery confirmation**”) key of the “**Call logging history**” window (see previous page), then select the message to be confirmed on “**Delivery confirmation request window**”, then press **Enter** key.

Then, the delivery information is shown in the window as “**Delivery confirmation request**”.

This window shows information of all messages you sent, and received message from only LES as same as “**Call logging history**”. But point of difference is, you can check the result of transmission to a number of subscribers via E-mail, an individual transmission succeeded or not, in this screen.

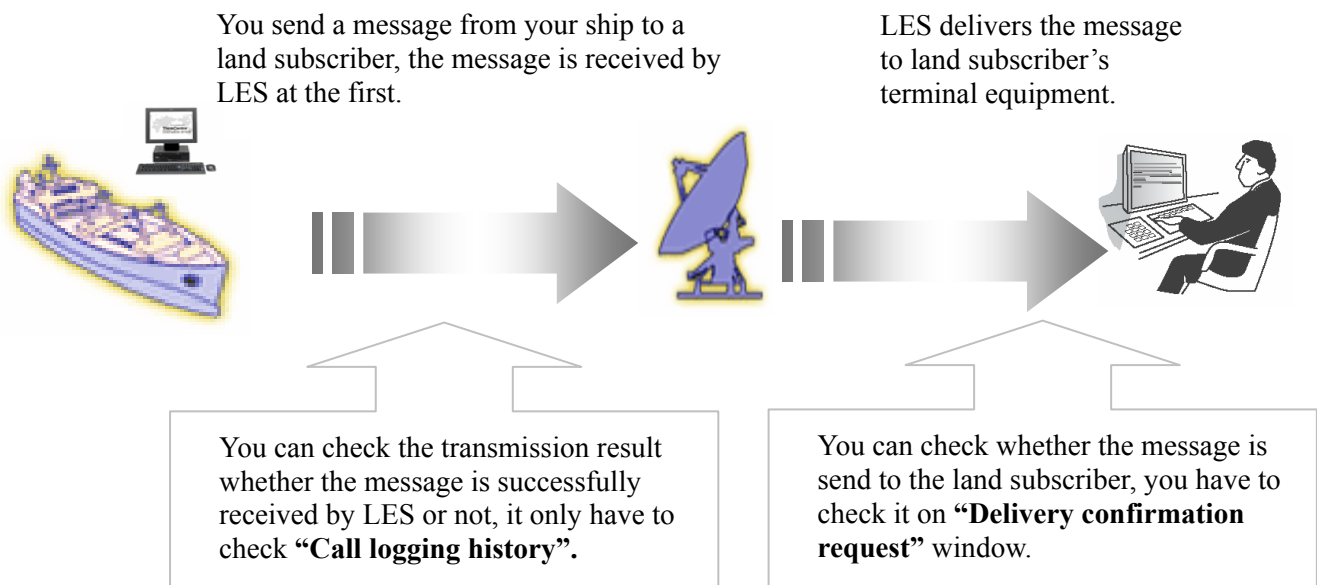


Fig.3.10.1a Confirmation of the Result of Telex Transmission

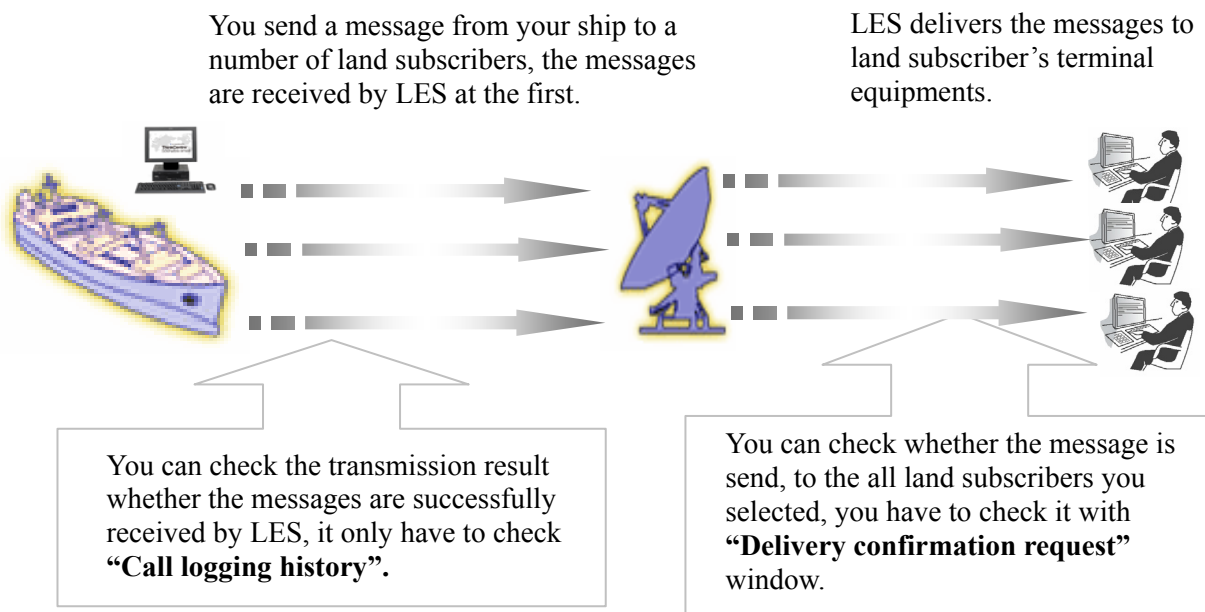


Fig.3.10.1b Confirmation of the Result of E-mail Transmission

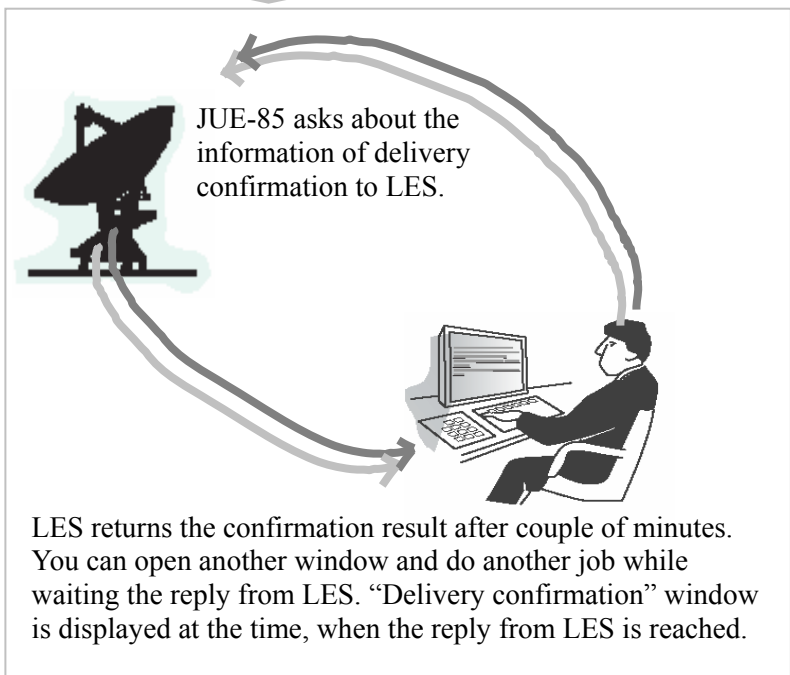
Delivery confirmation can be done on the result of all transmissions. Cursor will skip the received calls from LES. On the example window below, cursor stops first item, but does not stop on second one (because the message is received from LES, no use to confirm the detail). And, it stops again on third call.

Select the received message, and pressing **ENTER** or **F3** key, then “**Delivery confirmation**” window is displayed, and you can check that your messages are send to the land subscribers you selected.

Delivery confirmation request						
Date	Time	Type of call	Destination	LES	Msg no	Size
05-03-13	14:20-14:25	S&F	T 07202822351	222	12345	85
			...Delivered to LES Multi			
05-03-12	13:50-13:55	S&F	R	210	8421	125
			...Reception success			
05-03-10	10:13-10:16	S&F Poll	T 051885629	210	8415	42
			...Delivered to subscriber			
05-03-08	10:09-10:12	S&F	R	210	8413	26
			...Reception success			
05-03-06	18:21-18:24	S&F	T 023961114	203		78
			...Call failure			
				↑ ↓	cont d. (total : 15)	
ENTER :Request		F3: Display		F10: Previous		

Press **ENTER** key, when you execute **Delivery confirmation request** to selected call for the first time.

Press **F3** key, in the case of that the selected call has a experience of executing **Delivery confirmation request** in the past.



JUE-85 only displays Information of delivery confirmation stored in its memory.

The delivery confirmations which send to multiple destination can be gotten continuing only once you executing “Delivery confirmation request” (up to 10 destination).

Fig.3.10.1c Example of “Delivery confirmation request” Window and About Key Operation

S&F message (96-04-14-08: 10) delivered to subscribers (072123456, 0729876543).
F10: Previous

Fig.3.10.1d Example of “Delivery confirmation” Window for A Message Sent to A Subscriber.

Delivery confirmation						
Date	Time	Type of call	Destination	LES	Msg no	Size
05-04-8	14:20	S&F	00123123456789012	222	12345678	12345
1@34567891234567890		:	Call failure – Terrestrial congestion			
12@4567891234567890		:	Not Delivered to subscriber (EEE)			
123@567891234567890		:	Delivered to subscriber			
1234@67891234567890		:	Delivered to subscriber			
12345@7891234567890		:	Delivered to subscriber			
123456@891234567890		:	Delivered to subscriber			
1234567@91234567890		:	Delivered to subscriber			
12345678@1234567890		:	Delivered to subscriber			
				↑ ↓	contd. (total : 15)	
ENTER :Request		F3: Display		F10: Previous		

Not delivered

Fig.3.10.1e Example of “Delivery confirmation” Window for A Message Sent to A Number of Subscribers.

Above figure shows that first and second destination did not receive the mail by any reasons. Ask the LES of the detail of 3 degrees code is showed when the destination does not receive the mail such as second call. Transmissions to the rest of 5 persons are succeeded.

* Character line, 1234567@91234567890, means E-mail address.

3.10.2 Print Out

When you want to print out the history, press **F5** (“Print out”) key.

3.10.3 Clear History

Press **F7** (“Clear history”) key to clear away all the communication histories.

NOTE

All histories are cleared away when **F7** “Clear history” key is pressed.

3.10.4 Ending

To quit this function, press **F10** (“Previous”) key or **Esc** Key.

3.10.5 Buzzer (Alarm) Processing

To stop the buzzer sound of **EXT BUZ**, press **BUZ OFF** switch. (See clause 2.3.1.)

To stop the buzzer sound of **IME/DTE**, press **Ctrl** + **A**.

There are two types of buzzer sounds:

1	Continuation sound as receiving buzzer	When JUE-87 received messages. (Note 1)
2	Intermittence sound as alarm	When the position information from external GPS is lost 4 hours or more. (Note 2)
		Some sort of trouble occurs on JUE-87. Check the alarm window displayed on the screen, and follow the direction.
		JUE-87 received an abnormal message. All LED lamps are blinked with buzzer sound, you can no operation from the keyboard.



Note 1) Changing the parameter on **“Peripheral function window”** in **“Set up menu”** can extend the **“Buzzer sound duration”**. See 3.5.3.

Note 2) When the ship’s position has not been updated more than 4 hours, the alarm is sounded with the message, **“Enter new ship’s position”**.

Turn off the IME when you cannot stop the sound by pressing **Ctrl** + **A**.

Contact the JRC service agent and let them know about Alarm history of your JUE-87, when some sort of failure is occurred. (See 4.2. “Troubleshooting”.)

3.11 Distress Alert (Distress)

NOTE

- DO NOT SEND DISTRESS ALERT EXCEPT YOU ARE IN GRAVE AND IMMINENT DANGER
- Update content of the distress alert prior to its transmission.
- Distress alert can be transmitted from dedicated distress button only.

Distress alert	
Nature	: Undesignated
Data Source	: Gps
Position	: N35 36.11 deg min E139 55.01 deg min
time of last position Update	: 12:34 hh:mm
Course	: 120 deg
Ship's Speed	: 12.0 knots
LEs	: 144 (NCS)
F10: Previous	

Fig.3.11 "Distress Alert" Window

Nature	: Nature of distress (Default value: Undesignated)
Data Source	: Input-method of position information
Position	: MES position
Time of last position Update	: MES Last updated time
Course	: MES heading
ship's Speed	: MES Navigation speed
IEs	: LES ID/name where a distress alert is sent

NOTE

Set the "Data source" to "Manual" prior to enter a position information manually.
The position information from GPS is ignored within 60 minutes after manual entering.
Set the "Data source" to "GPS" to make the position information from GPS effective.

To stop Distress alert transmission, press **X** key or **Y** key while holding down **Ctrl** key.

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “Distress” and press Enter key. 	<ul style="list-style-type: none"> “Distress Alert” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “Nature of distress” and press Enter key. 	<ul style="list-style-type: none"> “Nature of distress” window is displayed. <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: black; color: white; margin: 0;">Nature of distress</p> <p>Undesignated fire/Explosion Flooding Collision Grounding Listing Sinking Disabled and adrift Abandoning ship further assistance required Piracy/armed attack</p> <p style="text-align: right; margin-top: 10px;">F10: Previous</p> </div>	
3	<ul style="list-style-type: none"> Move the cursor to the type of “Nature of distress”, press Enter key. 	<ul style="list-style-type: none"> “Nature of distress” window is closed and the cursor moved to “Data source.” 	
4	<ul style="list-style-type: none"> Press Enter key, to change the setting of “Data source” (Input method of position information) 	<ul style="list-style-type: none"> The cursor is moved on right side. 	
5	<ul style="list-style-type: none"> Select “Data source” and then press Enter key. “GPS”: Automatically inserted with GPS data (Position /Update/Course/Speed). “Manual”: Input data (Position Update/Course/Speed).Update/Course/Speed). 	<ul style="list-style-type: none"> The cursor is moved to “IEs” when you select “GPS”. The cursor is moved to “Position”, when you select “Manual”. 	
6	<ul style="list-style-type: none"> Enter the latitude of your ship and press Enter key. Enter longitude of your ship and Enter key. <p>Example: North latitude 35 50 20 East longitude 139 30 35</p> <p style="margin-left: 40px;"> N 3 5 5 0 2 0 Enter N 1 3 9 3 0 3 5 Enter </p>	<ul style="list-style-type: none"> The cursor is moved to “time of last position Update” 	

Step	Operation	IME/DTE Response	Remarks
7	<ul style="list-style-type: none"> Press Enter key to change the MES Last updated time. 	<ul style="list-style-type: none"> The cursor moves on right side. 	
8	<ul style="list-style-type: none"> Enter the MES Last updated time and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “Course” 	
9	<ul style="list-style-type: none"> Press Enter key to change the course. 	<ul style="list-style-type: none"> The cursor moves on right side. 	
10	<ul style="list-style-type: none"> Enter the course of your ship and press Enter key. 	<ul style="list-style-type: none"> The cursor moves to “ship’s Speed” 	
11	<ul style="list-style-type: none"> Press Enter key to change the speed. 	<ul style="list-style-type: none"> The cursor moves to right side. 	
12	<ul style="list-style-type: none"> Enter the speed, and then press Enter key. Ex) : 12.0 knots 1 2 0 Enter 	<ul style="list-style-type: none"> The cursor moves to “IEs” 	
13	<ul style="list-style-type: none"> Press Enter key to change the LES you want to send. 	<ul style="list-style-type: none"> The cursor moves to right side. 	
14	<ul style="list-style-type: none"> Press F2 (“LES list”) key. 	<ul style="list-style-type: none"> “LES list” window screen is displayed. 	<ul style="list-style-type: none"> When the JUE-87 is not synchronized to satellite, the blank list is displayed.
15	<ul style="list-style-type: none"> Choose LES ID using ↑ , ↓ key and press Enter key. 	<ul style="list-style-type: none"> “Distress alert” window is displayed. 	
16	<ul style="list-style-type: none"> Send Distress Alert using Distress button, Refer to the article of the beginning of this manual, “Distress Alert Transmission Procedure.” 		
17	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) key . 		

3.12 Polling

Polling is the function, which is automatically sending position of JUE-87, file or data, demanded from land Telex users.

JUE-87 provides the following polling function from land telex user;

- Position polling by using S&F message transfer
- File polling by using S&F message transfer
- Data source polling by using S&F message transfer

NOTE

Polling command is effective only by registered TELEX user in section 3.12.1 Land ID registration for polling.

3

3.12.1 Land ID Registration for Polling

Register the subscriber's number of land user to use the polling function.

Up to 10 land users can be registered. Registration procedure is as follows;

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> • Hold down ALT key and press U key on Main menu. 	<ul style="list-style-type: none"> • “Set up” window is displayed. 	
2	<ul style="list-style-type: none"> • Move the cursor to the item “Land id registration for polling” then press Enter key. 	<ul style="list-style-type: none"> • “Land id registration for polling” window is displayed. 	<ul style="list-style-type: none"> • See the example in next page.
3	<ul style="list-style-type: none"> • Move the cursor to the item you want to register, then press Enter key. 		
4	<ul style="list-style-type: none"> • Type Telex destination code and subscriber's number of polling user then press Enter key. 		<ul style="list-style-type: none"> • 1st field: 3-digit destination code (country code) • 2nd field: Up to 11-digit subscriber's number
5	<ul style="list-style-type: none"> • Type LES IDs of each ocean region then press Enter key. • LES ID of all ocean regions is required for the registration. 	<ul style="list-style-type: none"> • The cursor is moved to next column, when data is registered . • LES ID is not registered when incorrect data was entered. Enter correct data again. 	<ul style="list-style-type: none"> • 1st field: West AOR (000-063) • 2nd field: East AOR (100-163) • 3rd field: POR (200-263) • 4th field: IOR (300-363)
6	<ul style="list-style-type: none"> • To return to Main menu, press F10 (“Previous”) key twice or press ESC key. 	<ul style="list-style-type: none"> • Main menu screen is displayed. 	

Land ID registration for polling	
# 1 Destination code & subscriber's no :	072-02822351 LES: 002-111-210-312
# 2 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 3 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 4 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 5 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 6 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 7 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 8 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
# 9 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
#10 Destination code & subscriber's no :	- LES: 0 -1 -2 -3
F10: Previous	

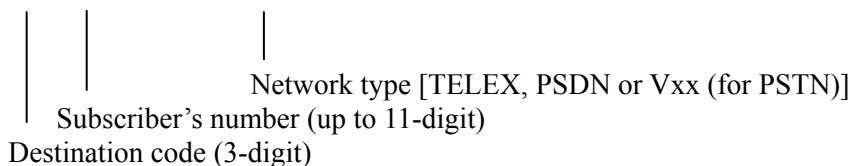
Fig.3.12.1 Example of “Land id registration for polling” Window

3.12.2 Position Polling using S&F Message Transfer

Land user can poll the MES's position information by S&F message transfer. When the following text is included in the received message, JUE-87 checks the land ID then transmit the MES's position information to the land user in the text if the number is registered.

Command for position polling

/Q/XXX:XXX. . . . XXX/X. . X/



Example of position polling

MES receives the following message:

/Q/072:02822351/TELEX/
NNNN

Then, MES transmits the following message to the land user, destination code: 072, subscriber's number: 02822351 via Telex:

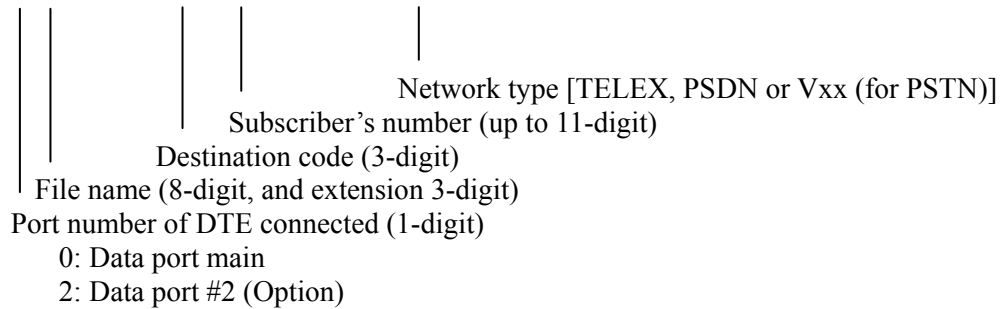
MES NO, 412345678
LAT, N12 34. 56, LON, E123 45. 67, UTC, 10. 05. 2011 12:34, SOG, 12. 3KT, COG, 123DEG

3.12.3 File Polling by Using S&F Message Transfer

Land user can access to the MES's file on IME/DTE's memory by S&F message transfer. When the following text is included in the received message, JUE-87 checks the land ID, then transmit the contents of file or its list to the land user in the text if the user's number is registered.

Command for position polling

/FILEXXX. . . XXX/XXX:XXX. XXX/X. . X/



Example of position polling

MES receives the following message:

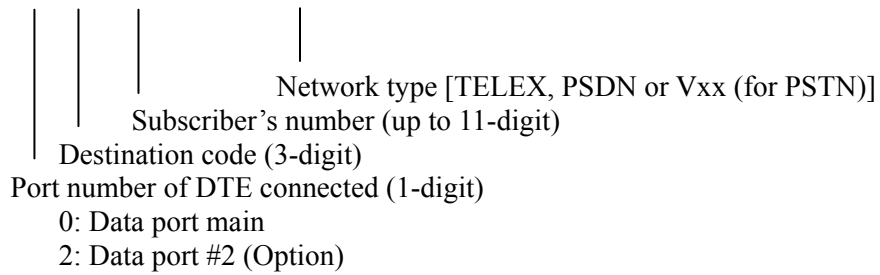
/FILE0QBF. TLX/072:02822351/TELEX/
NNNN

Then, MES transmits the following message to the land user, destination code: 072, subscriber's number: 02822351 via Telex:

FILE 0:QBF. TLX
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

Command for file list polling

/FLISTX/XXX:XXX. . . . XXX/X. . X/



Example of file list polling

MES receives the following message:

/FLIST0/072:02822351/TELEX/
NNNN

Then, MES transmits following message to the land user, destination code: 072, subscriber's number: 02822351 via Telex:

FLIST 0				
OPEDTE. EXE	280337	96-08-08	19:53	
QBF. TLX	58	96-07-14	02:47	

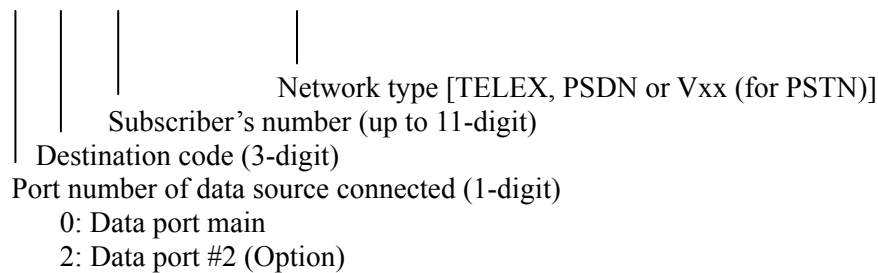


3.12.4 Data Source Polling by Using S&F Message Transfer

Land user can access to the data from data source connected with MES by S&F message transfer. When the following text is included in the received message, JUE-87 checks the land ID then transmit the data from data source to the land user in the text if the number is registered. The maximum data size is up to 2K bytes per each port.

Command for file polling

/DSX/XXX:XXX. . . . XXX/X. . X/



Example of data source polling

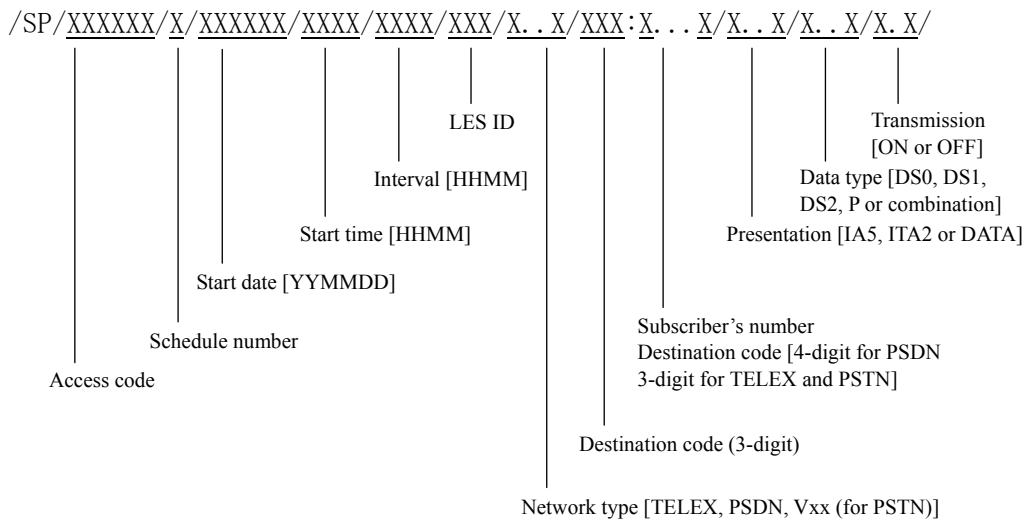
MES receives the following message:

/DS0/072:02822351/TELEX/
NNNN

Then, MES transmits the following message to the land user, destination code: 072, subscriber's number: 02822351 via Telex:

DS 0:
ABCD12345

Command for parameter setting



Example of parameter setting

MES receives the following message:

/SP/123456/1/930515/1200/0600/101/V22B/001:1234567890/DATA/DS1/ON/

MES changes the parameters as follows:

1 START	96-05-15	12:00
INTERVAL	06:00	
LES	101	
DESTINATION	001-1234567890	
NETWORK	PSTN (V22B)	
CHARACTER	DATA	
DATA	DS1	
TRANSMIT	ON	

3.12.6 Call Log by Using S&F Message Transfer

Land user will read out the latest up 10 call log from MES by S&F message transfer. When the following command is included in the polled message, the MES checks the land ID then transmit MES's call log to the land based user in the number is registered in the land ID registration for polling.

Command for call log polling

```
/LOG/XXX:XXX. . . . XXX/X. . X/
```

 |
 | Network type [TELEX, PSDN or Vxx (for PSTN)]
 | Subscriber's number (up to 11-digit)
 | Destination code (3-digit)

Example of call log polling

MES receives the following message:

```
/LOG/072:02822351/TELEX/
```

MES transmits the following message to the land based user, country code: 072, subscriber's number: 02822351 via Telex:

```
CALL LOG 412345678  
96-10-10 14:10-14:13 S+F                                T                07201822351 202           12345     10  
                                                      ... DELIVERED TO SUBSCRIBER  
96-10-10 13:20-13:21 LOGIN                            T                                                            244  
                                                      ... CALL SUCCESS  
96-10-09 07:10-07:11 LOGOUT                           T                                                            244  
                                                      ... CALL SUCCESS  
96-10-09 06:55-06:58 S+F                                T                07201822351 202           345        10  
                                                      ... DELIVERED TO LES  
96-10-08 14:34-14:37 S+F                                T                07201822351 202           21345     10  
                                                      ... DELIVERED TO SUBSCRIBER  
96-10-08 14:10-14:13 S+F                                T                07201822351 202           20845     10  
                                                      ... DELIVERED TO SUBSCRIBER  
96-10-08 06:10-06:11 LOGIN                            T                                                            244  
                                                      ... CALL SUCCESS  
96-10-08 02:10-02:13 S+F                                T                07201822351 202           12345     10  
                                                      ... NOT DELIVERED TO SUBSCRIBER
```



3.13 EGC Message Reception

3.13.1 EGC Messages

EGC is a message broadcast service within the Inmarsat-C communication system. It allows terrestrial information providers to pass messages or data to JUE-87 Inmarsat-C MES.

EGC messages are sent to Land Earth Station by shore based Information Providers using terrestrial facilities such as Telex, and are processed at the LES, and forwarded to an NCS then are broadcasted to the INMARSAT-C MES via NCS common channel transmitted by NCS.

There are three basic services offered by EGC; the Safety NET™ service, the Fleet NET™ service and System service. Safety NET™ is a service provided primarily for the dissemination of maritime safety information, such as shore to ship distress alerts, weather forecasts and coastal warning. Fleet NET™ is a commercial communication service allowing terrestrial information providers to send messages to pre-defined groups of subscribers. System service is a service provided for operational information.

Both the Safety NET™ and Fleet NET™ services make use of flexible addressing techniques to allow the reception of messages from a variety of service providers depending on the particular requirements of the user. The Safety NET™ service utilizes a geographic area addressing technique to direct messages to ships within defined boundary. The Fleet NET™ service employs closed user group and unique receiver addressing to provide secure transmission of messages from the terrestrial information provider to the desired service recipients(s).

Following message services are available:

- (a) General Call
- (b) Group Call
- (c) Urgency message, NAV warning to rectangular area
- (d) Inmarsat system message
- (e) Coastal warning
- (f) Shore-ship distress alert to circular area
- (g) EGC system message
- (h) Urgency message, MET/NAV warning to circular area
- (i) MET NAVAREA warning or MET Forecast
- (j) Download group identity
- (k) SAR coordination to rectangular area
- (l) SAR coordination to circular area
- (m) Chart correction services
- (n) Chart correction services for fixed area

3.13.2 Receive Mode for EGC Reception (Receive-Mode)

The JUE-87 has following two kinds of receive mode;

“Inmarsat-C” mode: EGC message can be received when Inmarsat-C mode is not communicated.

“EGC receive only” mode: EGC message can be received continuously and Inmarsat-C mode may be ignored. However, the distress alert can be transmitted in EGC receive only mode.

This command is effective only while the MES status displayed at the first line of the IME/DTE is **“Log-out”**, **“Ready”** or **“EGC only”**.

When you choose **“EGC receive only”** from **“Inmarsat-C”**, the JUE-87 initiates log-out automatically when logged in status. The other way, when you choose **“Inmarsat-C”** from **“EGC receive only”**, the JUE-87 initiates Log-in automatically.



NOTE

- When an Inmarsat-C mode is communicated, EGC message cannot be received. To receive EGC message only, select the **“EGC receive only”** mode in **“receive-Mode”** window.
- When EGC message with Urgency or Distress priority is received, the buzzer in DTE and IME sounding continuously. In this case, hold down **Ctrl** key and press **A** key on Main menu.
- When the ship’s position has not been updated more than 4 hours, **“Enter new ship’s position”** message is displayed. When the ship’s position has not been updated more than 8 hours from the displayed above warning message, all geographical addresses and Safety NET message with priorities higher than routine are received.
When any navigation equipment is connected with the JUE-87 ship’s position data is updated automatically.

3.13.3 EGC Message Restriction (Egc)

The JUE-87 can restrict to EGC message reception with Navarea, Fixed area, reception type, Satellite Coastal areas, and Coastal Warning type. Choose **“egC”** on main menu to setup this function.

Also JUE-87 has the function that printing EGC message automatically when received it. See “3.13.3.7”, when you want to stop it.

EGC Setup	
Navarea/Metarea	
Fixed area	: 00000000-00000000
reception Type	
satellite Coastal areas	
coastal Warning type	
F10: Previous	

Fig.3.13.3 “EGC” Window

3.13.3.1 Setting of Navarea/Metarea

Only receives the messages to Navarea/Metarea, which have been set up.

NOTE

Basically, information of Navarea/Metarea in the ocean region being logged in now is sent.

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “egC” and press Enter key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	
2	<ul style="list-style-type: none"> When you want to change the “Navarea/Metarea”, press Enter key. 	<ul style="list-style-type: none"> The “Navarea/Metarea” window is displayed. 	
3	<ul style="list-style-type: none"> When you want to restrict the “Navarea/Metarea”, move the cursor to the restrict “Navarea/Metarea” number and Enter key. 	<ul style="list-style-type: none"> The cursor is moved To “Enable” or “Disable”. 	
4	<ul style="list-style-type: none"> Move the cursor to “Enable” or “Disable” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to next item. 	
5	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	
6	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) key twice. 	<ul style="list-style-type: none"> Main menu screen is displayed. 	<ul style="list-style-type: none"> When you want to change the another item, move the cursor and press Enter key.

Navarea/Metarea	
Area 1 : Enable	Area 12 : Enable
Area 2 : Enable	Area 13 : Enable
Area 3 : Enable	Area 14 : Enable
Area 3 : Enable	Area 15 : Enable
Area 4 : Enable	Area 16 : Enable
Area 5 : Enable	Area 17 : Enable
Area 6 : Enable	Area 18 : Enable
Area 7 : Enable	Area 19 : Enable
Area 8 : Enable	Area 20 : Enable
Area 9 : Enable	Area 21 : Enable
Area 10 : Enable	
Area 11 : Enable	
F10: Previous	

Fig.3.13.3.1a “Navarea/Metarea” Window

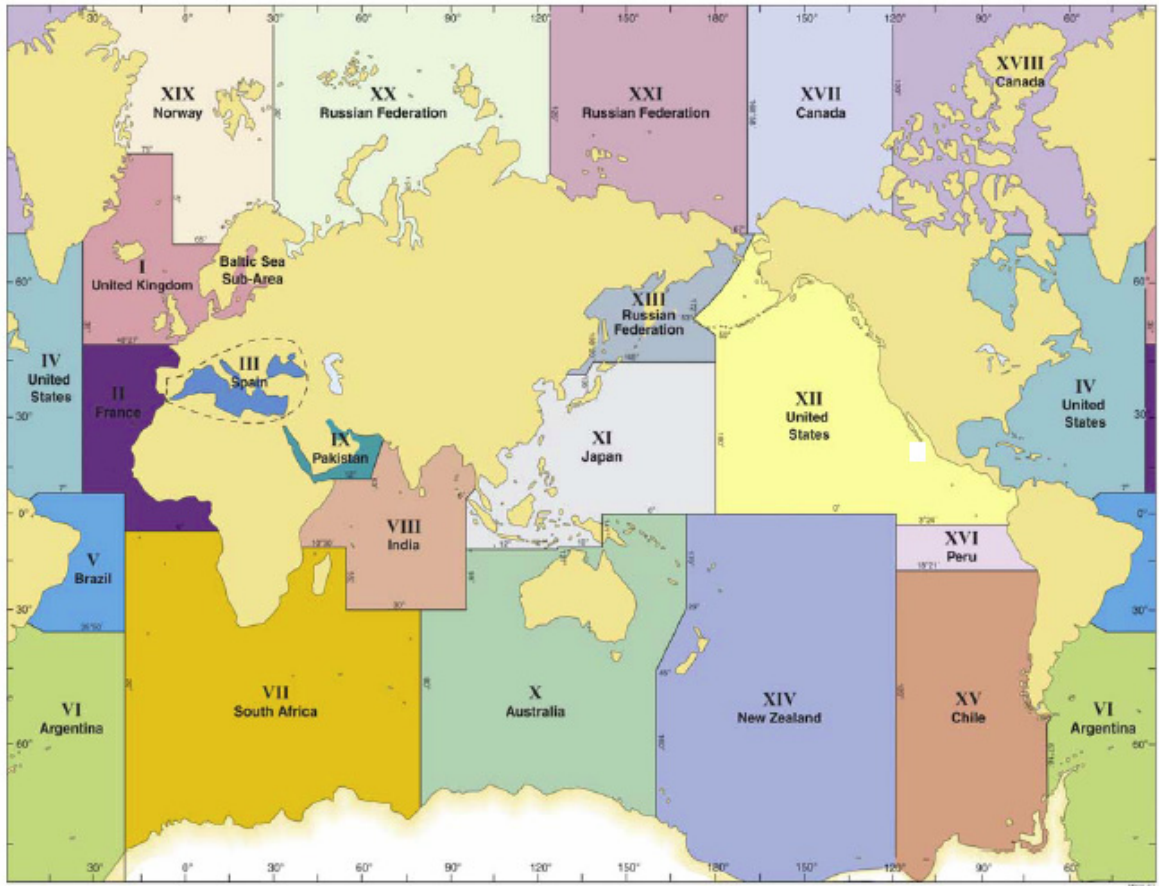


Fig.3.13.3.1b Navarea/Metarea

3.13.3.2 Setting of Fixed Area

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “egC” and press Enter key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	
2	<ul style="list-style-type: none"> When you want to change the fixed area, move the cursor to the “Fixed area” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to the “Fixed area” area. 	
3	<ul style="list-style-type: none"> Press the new “Fixed area” and Enter key. 	<ul style="list-style-type: none"> The new fixed area is displayed and the cursor is moved next to fixed area. 	
4	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) key twice. 	<ul style="list-style-type: none"> Main menu screen is displayed. 	<ul style="list-style-type: none"> When you want to change the other item, move the cursor and press Enter key.

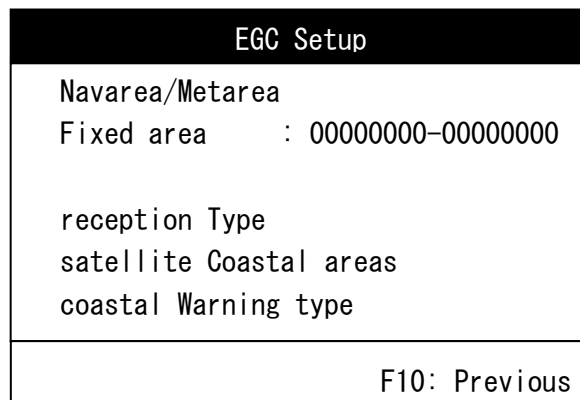


Fig.3.13.3.2 “EGC” Window

3.13.3.3 Setting of Reception Type

You can restrict below mentioned services at this menu.

- Chart correction service (“charT correction service”)
- Chart correction service for fixed area (“Chart correction service for fixed areas”)
- Download group ID (“Download group identity”)
- General call (“General call”)
- Group call (“group call”) (Note 1)

EGC reception type	
charT correction service	: Enable
Chart correction service for fixed areas	: Enable
Download group identity (ENID)	: Enable
General call (All ships)	: Enable
group call (Fleet NET)	: Enable
F10: Previous	

Fig.3.13.3.3 “EGC reception type” Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “egC” and press Enter key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “reception type” and press Enter key. 	<ul style="list-style-type: none"> The “EGC reception type” window is displayed. 	
3	<ul style="list-style-type: none"> When you want to restrict the service message, move the cursor to restrict item and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “Enable” or “Disable”. 	
4	<ul style="list-style-type: none"> Move the cursor to “Enable” or “Disable” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to next item. 	
5	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	<ul style="list-style-type: none"> When you want to restrict the other service message, return to step 3.
6	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) or press Esc key. 	<ul style="list-style-type: none"> Main menu screen is displayed. 	<ul style="list-style-type: none"> When you want to change the other item, move the cursor and press Enter key.

Note 1) When the “group call (Fleet NET)” is selected and the “Enable” is also selected, the list of ENIDs downloaded into MES’s memory is displayed.

3.13.3.4 Setting of Satellite Coastal Areas

The JUE-87 can restrict the Satellite Coastal Area message of the A through Z areas. Choose the area you want to receive or restrict from these areas.

Satellite coastal areas	
A: Enable	N: Enable
B: Enable	O: Enable
C: Enable	P: Enable
D: Enable	Q: Enable
E: Enable	R: Enable
F: Enable	S: Enable
G: Enable	T: Enable
H: Enable	U: Enable
I: Enable	V: Enable
J: Enable	W: Enable
K: Enable	X: Enable
L: Enable	Y: Enable
M: Enable	Z: Enable
F10: Previous	

Fig.3.13.3.4 “Satellite coastal areas” Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “egC” and press Enter key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “satellite Coastal area” and press Enter key. 	<ul style="list-style-type: none"> The “Satellite coastal areas” window is displayed. 	<ul style="list-style-type: none"> The JUE-87 can select the “A” through “Z” areas to the “Enable” or the “Disable”.
3	<ul style="list-style-type: none"> When you want to change the setting, move the cursor. 	<ul style="list-style-type: none"> The cursor is moved to “Enable” or “Disable”. 	
4	<ul style="list-style-type: none"> Select the “Enable” or “Disable” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to next area. 	
5	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	<ul style="list-style-type: none"> When you want to change the other area setting, return to step 3.
6	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) or press Esc key. 	<ul style="list-style-type: none"> Main menu screen is displayed. 	<ul style="list-style-type: none"> When you want to change the other item, move the cursor and press Enter key.

3.13.3.5 Setting of Coastal Warning Type

The JUE-87 can restrict the Coastal Warnings mentioned below.

- other Electronic navaid messages
- Ice reports
- Loran messages
- Meteorological forecasts
- Pilot and VTS service messages
- GNSS messages
- no message on Hand
- AIS service messages

NOTE

The following items are mandatory.
JUE-87 cannot restrict.

- Navigational warnings
- meteorological Warnings
- search and Rescue (SAR) information and piracy attack warnings
- Additional navigational warnings



Coastal warning type	
other Electronic navaid messages	: Enable
Ice report	: Enable
Loran messages	: Enable
Meteorological forecasts	: Enable
Pilot and VTS service messages	: Enable
GNSS messages	: Enable
no message on Hand	: Enable
AIS service messages	: Enable
Navigational warnings	: Enable
meteorological Warnings	: Enable
search and Rescue (SAR) information and piracy attack warnings	: Enable
Additional navigational warnings	: Enable
F10: Previous	

Fig.3.13.3.5 Coastal warning type Window

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Move the cursor to “egC” and press Enter key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to “coastal Warning type” and press Enter key. 	<ul style="list-style-type: none"> The “Coastal warning type” window is displayed. 	
3	<ul style="list-style-type: none"> When you want to restrict the Coastal warning, move the cursor to restrict item and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to “Enable” or “Disable”. 	
4	<ul style="list-style-type: none"> Move the cursor to “Enable” or “Disable” and press Enter key. 	<ul style="list-style-type: none"> The cursor is moved to next item. 	
5	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	<ul style="list-style-type: none"> The “EGC” window is displayed. 	<ul style="list-style-type: none"> When you want to restrict the other Coastal warning, return to step 3.
6	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) or press Esc key. 	<ul style="list-style-type: none"> Main menu screen is displayed. 	<ul style="list-style-type: none"> When you want to change the other item, move the cursor and press Enter key.

3.13.3.6 Position Updated

Renew the position information at fixed intervals with following below outlined procedures.

NOTE

Set the “Data source” to “Manual” prior to enter a position information manually.
 The position information from GPS is ignored within 60 minutes after manual entering.
 Set the “Data source” to “GPS” to make the position information from GPS effective.

Step	Operation	IME/DTE Response
1	<ul style="list-style-type: none"> Move the cursor to the “Distress” and press Enter key. 	“ Distress ” window is displayed.
2	<ul style="list-style-type: none"> Move the cursor to the “Data source” and press Enter key. 	The cursor is moved to right side.
3	<ul style="list-style-type: none"> Select the “Data source” and press Enter key. GPS: Ship’s position is set from GPS data Manual: Ship’s position is set to manual. 	When the “ Gps ” is selected, the cursor is moved to “ IEs ”. When the “ Manual ” is selected, the cursor is moved to “ Position ”.
4	<ul style="list-style-type: none"> Type the ship’s latitude and press Enter key. Type the ship’s Longitude and press Enter key. Ex. North: 35 50 20 East: 139 30 35 N 3 5 5 0 2 0 Enter E 1 3 9 3 0 3 5 Enter	The cursor is moved to “ Course ”.
5	<ul style="list-style-type: none"> When the ship’s course is changed, press Enter key. 	The cursor is moved to right side.
6	<ul style="list-style-type: none"> When the ship’s course is changed, press Enter key. 	The cursor is moved to “ ship’s Speed ”.
7	<ul style="list-style-type: none"> When the ship’s Speed is changed, press Enter key. 	The cursor is moved to right side.
8	<ul style="list-style-type: none"> Type the ship’s Speed and press Enter key. 	The cursor is moved to “ IEs ”.
9	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) or press Esc key. 	Main menu is displayed right side.

Note 1) When the ship’s position has not been updated more than 4 hours, the “**Enter new ship’s position**” message is displayed.

When the ship’s position has not been updated more than 8 hours from the displayed above warning message, all geographical addresses and Safety NET message with priorities higher than routine are received.

Note 2) When any GPS equipment is connected with the JUE-87, ship’s position data is updated automatically.

If GPS equipment is disconnected more than 3 minutes, it sounds and displays warning.



Note 3) Valid time of Position information and Update information is for 24 hours, and velocity information is for a hour.

When it passes over the valid time, IME/DTE displays as follows

Position information Latitude 999.99 deg, Longitude 9999.99 deg
 Velocity information 99.9 knot
 Course information 999 deg
 Update information 88:88

And DTE displays warning message and sounds.

3.13.3.7 Message Print Out Function

When the JUE-87 is received the EGC or Inmarsat-C message, the received message is printed out automatically that is the message print out function.

When this function is turned off or on according to the following procedure.

Step	Operation	IME/DTE Response
1	<ul style="list-style-type: none"> Hold down Alt key and press u key. 	“Set up” window is displayed.
2	<ul style="list-style-type: none"> Move the cursor to “Peripheral Function” and press Enter key. 	“Peripheral function” window is displayed.
3	<ul style="list-style-type: none"> Move the cursor to “automatic Message print out” and press Enter key. 	The cursor is moved to “oN”, “oFf”.
4	<ul style="list-style-type: none"> Select “oN” or “oFf” and press Enter key. <ul style="list-style-type: none"> ➤ oN: The function is turned on. ➤ oFf: The function is turned off. 	The cursor is moved to next step.
5	<ul style="list-style-type: none"> Press F10 (“Previous”) key. 	“Setup” window is displayed.
6	<ul style="list-style-type: none"> To return to Main menu, press Enter key. 	Main menu is displayed.

NOTE

EGC SafetyNET messages with Urgency and Distress priority are printed out automatically if the print function is set off.

3.14 PV Test

Performance Verification Test of JUE-87 can be carried out with following below outlined procedures.
Carry out PV test with confirming that JUE-87 is logged-in.

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> The “Set up” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the item “Performance test initiation” and press Enter key. 	<ul style="list-style-type: none"> Initiation confirming window is displayed. “Performance test” window is displayed. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center; background-color: black; color: white; margin: 0;">Performance test</p> <p style="margin: 0;">Do you initiate performance test ? YES NO</p> </div>	
3	<ul style="list-style-type: none"> Move the cursor to “Yes” and press Enter key. 	<ul style="list-style-type: none"> The “Set up” window is displayed. MES status changes to “PV test” from “Ready”. The following window is displayed within PV testing. <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Automatic test mode: Normal communication disabled. Do not press any distress button unless you are in distress.</p> </div>	
4		<ul style="list-style-type: none"> When PV test is completed, test results are displayed automatically. 	<ul style="list-style-type: none"> See the following example of test results.



Performance test result <10-04-10-00:11>	
Overall result	: Applicable tests pass
Request attempts	: Third attempt failed
RX attempts	: First attempt
TX attempts	: First attempt
Distress alert	: Test OK
Signal strength	: Greater than X + 13dB
Bulletin Board Error Rate	: Pass
Transmit power	: OK
Frequency	: OK
F5: Print out	F10: Previous

Fig.3.14 Example of Performance Test Results

The Performance Verification test (PV test) is a fully automatic test to check individual MESs with respect to signal level and some access and control responses. In the PV test, the following tests are performed sequentially:

Shore-ship message transfer test, Ship-shore message transfer test, and Distress alert test.

In PV test, below tests are performed sequentially and then the signal level is automatically measured.

- LES originating message transfer test
- MES originating message transfer test
- Distress alert test

3.15 Distress Button Test

The Distress button test can be demonstrated the procedure of a distress alert transmission even if the JUE-87 is not synchronized to satellite.

NOTE

To avoid sending the false distress alert transmission, confirm certainly that JUE-87 is in the test mode, prior to carrying out Distress button test.

Step	Operation	IME/DTE Response
1	<ul style="list-style-type: none"> Hold down Alt key and press A key on Main Menu. 	<ul style="list-style-type: none"> “Diagnostics” window is displayed. <div data-bbox="850 383 1372 660" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: black; color: white; margin: 0;">Diagnostics</p> <p>Data source contents Alarm history software Version distress button Test</p> <p style="text-align: right;">F10: Previous</p> </div>
2	<ul style="list-style-type: none"> Move the cursor to “distress button Test” and press Enter key. 	<ul style="list-style-type: none"> “Distress Button test mode” window is displayed. <div data-bbox="855 808 1425 1086" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: black; color: white; margin: 0;">Distress button test mode</p> <p>Distress buttons are under test now. Press the distress button to test it. If real distress alert to be sent, Cancel the test mode.</p> <p style="text-align: right;">F10: Cancel</p> </div>
3	<ul style="list-style-type: none"> When the distress button is tested, press the distress button till the buzzer sounds for about 5 seconds or more. When the distress button test is terminated, press F7 (“Cancel”) key. 	<ul style="list-style-type: none"> The buzzer in DTE and IME is sounding 0.5 sec on, 1.0 sec off. Then, “SOS” is displayed at the first line of DTE The buzzer sounding for about 30 seconds.
4	<ul style="list-style-type: none"> (It passes 5 sec after pressing the distress button.) 	<ul style="list-style-type: none"> The buzzer in DTE and IME is sounding 0.5 sec ON, 0.5 sec OFF. The “Distress” lamp on IME is blinking 0.5 sec ON, 0.5 sec OFF. “Distress Button Test” window is displayed. <div data-bbox="893 1552 1337 1720" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">--- Distress Button Test --- Now distress button testing ---</p> <p style="text-align: right;">F10: Cancel</p> </div>

Step	Operation	IME/DTE Response
5	<ul style="list-style-type: none"> To start the distress test, press the distress button again. 	<ul style="list-style-type: none"> The buzzers in DTE and IME are sounding 5 sec continuously. The “DISTRESS” lamp on IME is illuminating 5 sec. <div data-bbox="783 479 1272 645" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">--- Distress Button Test --- Distress button test succeeded.</p> <p style="text-align: right;">F10: Previous</p> </div> <ul style="list-style-type: none"> When the distress button is tested completely, the following window is displayed. <div data-bbox="748 848 1351 1066" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <div style="background-color: black; color: white; text-align: center; padding: 2px;">Distress button test mode</div> <p style="text-align: center;">Distress buttons are under test now. Press the distress button to test it</p> <p style="text-align: right;">F10: Cancel</p> </div>
6	<ul style="list-style-type: none"> To return to Main menu, press F10 (“Previous”) key and press F7 (“Cancel”) key. 	<ul style="list-style-type: none"> Main menu is displayed.

3.16 Data Reporting Function

3.16.1 Data Reporting Function Overview

The data reporting function has two type methods of reporting, or immediate reporting and periodic reporting. The data reporting function mainly is used as MES's periodic position reporting.

There are three type function, or DR (Data Reporting), EDR (Enhanced Data Reporting), EPADR (Enhanced Pre-assigned Data Reporting) as the data reporting function. DR and EDR are available as immediate reporting or periodic reporting. EPADR is available as periodic reporting.

In periodic reporting, the data report will be sent based on the information, which is Polling Program or EPADR Assignment. The information is previously downloaded from LES via NCS.

For DR/EDR function, Polling Program is necessary information. Polling Program include following information.

- (1) Address information (LES, DNID/Member Number)
- (2) Start data and time of DR/EDR first transmission
- (3) Transmission interval of DR/EDR:
Minimum: 15 minutes, Maximum: 24 hours
- (4) Number of packets of DR/EDR:
Minimum: 1 packet, Maximum: 4 packets

For EPADR function, EPADR Assignment is necessary information. EPADR Assignment include following information.

- (1) Address information (LES, DNID/Member Number)
- (2) Start data and time of EPADR first transmission
- (3) Transmission interval of EPADR:
15 minutes, 30 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 6 hours, 8 hours
- (4) Number of packets of EPADR:
Minimum: 1 packet, Maximum: 4 packets
- (5) Number of reports of EPADR
- (6) Slot Logical Channel Number (SLCN):
The number, which was assigned by LES, is assignment identification for EPADR.
- (7) Multi-user detection:
If multi-user detection is enabled, MES will confirm acknowledgement when data report is sent.
- (8) The channel information will be used on EPADR transmission

3.16.2 Comparison of Various Data Reporting Function

The comparison of DR, EDR and EPADR function is as follows.

	DR	EDR	EPADR
Previously assigned channel and slot*			X
Confirm acknowledgement		X	X
Re-sent report after reporting failure			X
Request program/assignment from MES			X
Maximum of data size	32 bytes	40 bytes	40 bytes

* If channel and slot does not previously assigned, packet collision may occur. As a result, there is a possibility that data reporting is failed.

(1) DR communication sequence

The MES sends a data report to the LES and DR communication sequence is completed.



(2) EDR communication sequence

The MES sends a data report to the LES.



The LES sends an acknowledgement to the MES.



- (a) When the MES receives the acknowledgement, the MES decides “call successful” of data report, and EDR communication sequence is completed.
- (b) When the MES does not receive the acknowledgement, the MES re-sends data report to the LES. The MES retry to send data report until the MES receive the acknowledgement (maximum number of retry is three).

(3) EPADR communication sequence

The MES sends a data report to the LES by the channel and the slot which are previously assigned.



- (a) When EPADR transmission is successful, EPADR communication sequence is completed.
- (b) When EPADR transmission is failed, the MES re-sends data report to the LES **by EDR communication sequence.**

The feature of EPADR is as follows.

- Data report transmission failure by packet collision does not occur, because the channel and the slot are previously assigned.
- When data report transmission is failed, data report is re-sent by EDR (Enhanced Data Reporting).
- MES can request EPADR Assignment
For new request, assigning address, transmission interval, number of packets and number of reports is necessary.
For parameter change request of EPADR assignment which already downloaded, assigning transmission interval, number of packets and number of reports is necessary.
- After MES sends the all reports as a function of “number of reports”, MES will request new EPADR Assignment automatically.
- LES can call to MES for a report which is content of already downloaded EPADR Assignment.
- LES can request that MES re-sends data report. The data report will be re-sent by EDR.
- LES can suspend or resume EPADR Assignment easily.

3.16.3 Confirmation of DNID

DNID can be confirmed by following procedure.

Step	Operation	IME/DTE response
1	<ul style="list-style-type: none"> Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> "Set up" window is displayed. <pre> Set up Date & time config log-Out initiation log-In initiation Performance test initiation Scheduled transmission Land id registration for polling dnid seleCtion peripheral Function password EPADR informAtion F10:Previous </pre>
2	<ul style="list-style-type: none"> Move the cursor to "dnid seleCtion" and press Enter key. 	<ul style="list-style-type: none"> "DNID selection" window is displayed and downloaded DNID can be confirmed. Confirm that "Enable" is selected to each column. DNID on the left of ID number is for EPADR. <pre> DNID selection Name DNID(*:for EPADR) LES MEM ABC 00001 003 001 : Enable ABC 00001 103 001 : Enable ABC 00001 203 001 : Enable ABC 00001 303 001 : Enable CDE 00002 012 002 : Disable ABCDEFGHIJKL *12345 003 100 : Enable MNOPQRSTU VWXYZ ↑ ↓ contd. (total : 6) F1:Program information F2:EPADR information F5:Print out F10:Previous </pre>

3.16.4 Confirmation of Polling Program

Polling Program can be confirmed by following procedure.

Step	Operation	IME/DTE response
1	<ul style="list-style-type: none"> Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> "Set up" window is displayed.
2	<ul style="list-style-type: none"> Move the cursor to "dnid seleCtion" and press Enter key. 	<ul style="list-style-type: none"> "DNID Selection" window is displayed.
3	<ul style="list-style-type: none"> Press F1 key at "DNID Selection window" 	<ul style="list-style-type: none"> "Polling program information" window is displayed and downloaded Polling Program can be confirmed. Confirm that the status of the Polling Program (STS) is set to Active (Act).

3

Polling program information									
OR	LES	DNID	MEM	STF	ITVL	STS	PKT	DATE	
AOW	003	12345	123	1250	2500	Act	2	2008/08/25	
POR	203	13503	002	1280	1000	Inact			
									(total : 2)
					F5:Print out		F10:Previous		

Fig.3.16.4 "Polling program information" Window

<Explanation of displayed items>

OR: Ocean Region (AOW, AOE, POR, IOR)

LES: Land Earth Station

DNID: Data Network ID

MEM: Member Number

STF: Starting Transmission Frame

* Time (UTC) = Frame x 8.64 sec./1 frame

ITVL: Transmission Interval Frame

STS: Status (Act: Active, Inact: Inactive)

PKT: Number of transmitted Packet

DATE: Program activated date

<Explanation of displayed screen>

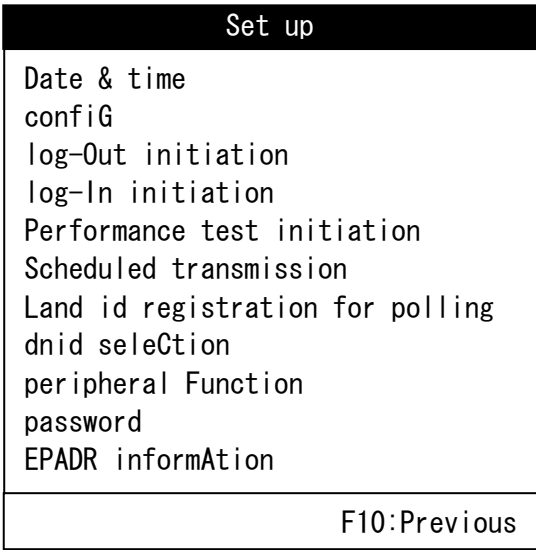
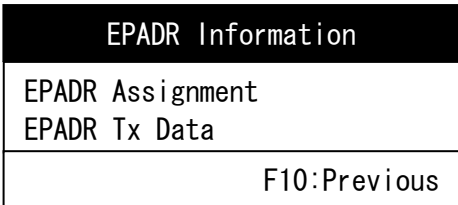
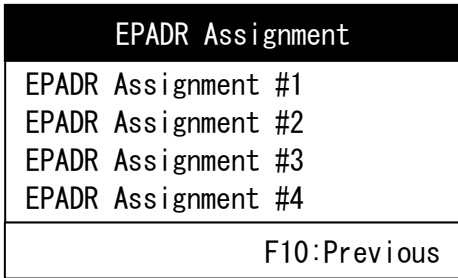
In above case, the program activates only in AOW (AOR-W) Ocean Region and executes the Data reporting (2 packets are sent in each time) at 2500 frames (6 hours) intervals from 1250th frame (3:00(UTC)) at 2008/8/25.

Program 2 does not activate because its status is [Inact](Inactive).

3.16.5 EPADR

3.16.5.1 Confirmation of EPADR Assignment

EPADR Assignment can be confirmed by following procedure.

Step	Operation	IME/DTE response
1	<ul style="list-style-type: none"> Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> "Set up" window is displayed. 
2	<ul style="list-style-type: none"> Move the cursor to "EPADR informAtion" and press Enter key. 	<ul style="list-style-type: none"> "EPADR Information" window is displayed. 
3	<ul style="list-style-type: none"> Move the cursor to "EPADR Assignment" and press Enter key. 	<ul style="list-style-type: none"> "EPADR Assignment" window is displayed. 
4	<ul style="list-style-type: none"> Move the cursor to "EPADR Assignment #1" and press Enter key. 	<ul style="list-style-type: none"> "EPADR Assignment #1" window (Fig.3.16.5.1) is displayed.
5	<ul style="list-style-type: none"> Press F9 key. 	<ul style="list-style-type: none"> Each time F9 key is pressed, other assignments ("EPADR Assignment #1, #2, #3 or #4" window) is displayed.

EPADR Assignment #1	
destination Address type	: SLCN & DNID
IEs	: 003 (KDDI JPN)
Dnid/mem	: 12345/100 (ABCDEFGHIJKLMN OPQRSTUVWXYZ)
transmission Interval	: 2 hours
number of Packets	: 2 packets
number of Reports	: 7000
Number of Reports remaining	: 6999
Status of the assignment	: Active
Start Date&Time (YY-MM-DD hh:mm)	: 11-06-27 12:00
Slot Logical Channel Number (SLCN)	: 001
Request Origin	: LES
Multi-user detection (MUD)	: Disable
LES TDM/Sig CH/Slot	: 12000/13000/28
F1:Assignment Request F9:Next F10:Previous	

Fig.3.16.5.1 “EPADR Assignment #1” Window

Parameters are as follows;

- destination Address type:

The following two types are existed.

- SLCN & DNID: Slot Logical Channel Number and Data Network ID
- SLCN: Slot Logical Channel Number only

The DNID, which is used on EPADR, is dedicated for EPADR.

- IEs:

Land Earth Station

- Dnid/mem:

Data Network ID and Member Number

- transmission Interval:

Transmission interval is set “15 minutes”, “30 minutes”, “1 hour”, “2 hours”, “3 hours”, “4 hours”, “6 hours” or “8 hours”.

- number of Packets:

The number of packets is set “1 packet”, “2 packets”, “3 packets” or “4 packets”.

- number of Reports

- Number of Reports remaining

When the number of reports remaining is zero, EPADR assignment request is executed automatically.



- Status of the assignment:
The following three statuses are existed.
 - No Data
 - Active
 - Suspend
- Start Date&Time (YY-MM-DD hh:mm):
Start date and time of EPADR first transmission.
- Slot Logical Channel Number (SLCN):
The number, which was assigned by LES, is assignment identification for EPADR.
- Request Origin:
The request origin is LES or MES (JUE-87).
- Multi-user detection (MUD)
- LES TDM/Sig CH/Slot:
The channel information will be used on EPADR transmission.

3.16.5.2 Request of EPADR Assignment

EPADR Assignment can be requested from JUE-87 by following procedure. However, the request may be rejected.

Step	Operation	IME/DTE response
1	<ul style="list-style-type: none"> • Hold down Alt key and press U key on Main menu. 	<ul style="list-style-type: none"> • "Set up" window is displayed.
2	<ul style="list-style-type: none"> • Move the cursor to "EPADR informAtion" and press Enter key. 	<ul style="list-style-type: none"> • "EPADR Information" window is displayed.
3	<ul style="list-style-type: none"> • Move the cursor to "EPADR Assignment" and press Enter key. 	<ul style="list-style-type: none"> • "EPADR Assignment" window is displayed.
4	<ul style="list-style-type: none"> • Move the cursor to "EPADR Assignment #1" and press Enter key. 	<ul style="list-style-type: none"> • "EPADR Assignment #1" window (Fig.3.16.5.1) is displayed.
5	<ul style="list-style-type: none"> • Press F9 key. 	<ul style="list-style-type: none"> • Each time F9 key is pressed, other assignments ("EPADR Assignment #1, #2, #3 or #4" window) is displayed. • Note 1
6	<ul style="list-style-type: none"> • Set the each parameter of the assignment. 	<ul style="list-style-type: none"> • Note 2 • Note 3

Step	Operation	IME/DTE response
7	<ul style="list-style-type: none"> Press F1 key. 	<ul style="list-style-type: none"> The following warning message is displayed. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Warning</p> <p>EPADR Assignment #1 Request OK?</p> <p>OK Cancel</p> <hr/> <p>F10 Previous</p> </div>
8	<ul style="list-style-type: none"> Move the cursor to "OK" and press Enter key. 	

Note 1) If you want to request changing parameter of previously downloaded assignment, please display EPADR Assignment window of the assignment.

If you want to request new assignment, please display EPADR Assignment window whose status is "No Data". However, when previously downloaded assignments satisfy following requirements, new assignment can not be requested.

- Number of previously downloaded assignment is four.
- The transmission interval of previously downloaded assignment is "15 minutes".

Note 2) The parameters, which can be set, are as follows:

(a) Status of the assignment is "No Data".

- destination Address type
- IEs (which can be set when destination Address type is "SLCN")
- Dnid/mem (which can be set when destination Address type is "SLCN & DNID")
- transmission Interval
- number of Packets
- number of Reports

(b) Status of the assignment is "Active" or "Suspend".

- transmission Interval
- number of Packets
- number of Reports

Note 3) When number of already downloaded assignment is one or more, new assignment, whose transmission interval is "15 minutes", can not be requested.

3.16.5.3 Setting of EPADR Transmission Data

EPADR transmission data can be set by following procedure. However, **there is a possibility that trouble of operation using EPADR occur by setting of EPADR transmission data.**

Step	Operation	IME/DTE response
1	<ul style="list-style-type: none">Hold down Alt key and press U key on Main menu.	<ul style="list-style-type: none">"Set up" window is displayed.
2	<ul style="list-style-type: none">Move the cursor to "EPADR informAtion" and press Enter key.	<ul style="list-style-type: none">"EPADR Information" window is displayed.
3	<ul style="list-style-type: none">Move the cursor to "EPADR Tx Data" and press Enter key.	<ul style="list-style-type: none">"EPADR Tx Data" window is displayed.
4	<ul style="list-style-type: none">When you want to send position data, move the cursor to "posItion" and press Enter key, and move the cursor to "oN" and press Enter key.	
5	<ul style="list-style-type: none">When you want to send other data, move the cursor to "File name" and press Enter key, and select file.	<ul style="list-style-type: none">Warning message window is displayed when the data capacity exceeds 39 bytes.

3.16.5.4 Call Logging for EPADR

When EPADR Assignment is accessed, downloaded, suspended or resumed, the result for the access is recorded instead of Msg no in “Msg no” field of call logging (refer to section 3.10).

When the access is accepted, “Accept” is recorded in Msg no field. When the access is rejected, “Reject” and a reason code (refer to Table 3.16.5.4) are recorded in Msg no field. The reason code is advised to LES as Fig.3.16.5.4.

Call logging history						
Date	Time	Type of call	Destination	LES	Msg no	Size
11-11-08	14:20-14:30	S&F	T 07202822351	003	12345	85
		. . .	Delivered to LES			
11-11-08	13:20-13:30	SLCA	R	100	003	Accept
		. . .	Call successful			
11-11-08	12:20-12:30	SLCA	R	100	003	
		. . .	Call failure			
11-11-08	11:20-11:30	SLCA	R	100	003	
		. . .	Canceled by Distress			
11-11-08	10:20-09:30	SLCA	R	100	003	Reject03
		. . .	Call successful			
↓ contd. (Total 25)						
F1:Delivery confirmation		F5:Print out		F7:Clear history		F10:Previous

3

Fig.3.16.5.4 Example of “Call logging history” Window

Table 3.16.5.4 Reason Code

Reason Code	Content
01	Assignment rejected - reason unspecified
02	MES cannot accept new assignments
03	Conflicting assignment - MES should always sent this if there is a chance that the assignment conflict can be solved with a LES request for assignment schedule.
04	Logical Channel Number already assigned with this LES
05	Destination address rejected - The address is unacceptable (EG Unknown DNID/member number).
11	Query/control rejected - reason unspecified
12	Query/control rejected - no LCN with commanding LES
13	Resume command for active assignment
14	Suspend command for suspended assignment
15	Terminate command for non-existent assignment

CHAPTER 4. MAINTENANCE

4.1 Maintenance

Keep the equipment in a good state according to the following maintenance.

4.1.1 Daily Maintenance

4.1.1.1 Mechanical Maintenance

1) Cleaning

Keep the equipment as clean as possible. In particular, wipe the ventilation opening with a dry cloth.

2) Tightening of screws

Check screws in all parts of the equipment and tighten any loosen one.

4.1.1.2 Electrical Maintenance

Daily maintenance of electrical may be unnecessary. Refer to Next chapter, [Troubleshooting Flowchart], Fig.4.2.1.

4.2 Troubleshooting



CAUTION

When a failure has been detected, check it according to the Trouble shooting described in this book. If abnormalities are still accepted, restart the terminal. Nevertheless abnormalities are still accepted, stop operation and contact the dealer or agent from which you purchased the device or one of our branches, marketing offices, and representative offices.

4.2.1 Troubleshooting Flowchart

Check all items in the following section to secure normal communication at all times. When any unusual phenomenon occurs in the equipment, send appropriate information to JRC service network to get advice or to request for repair with the results of these items.

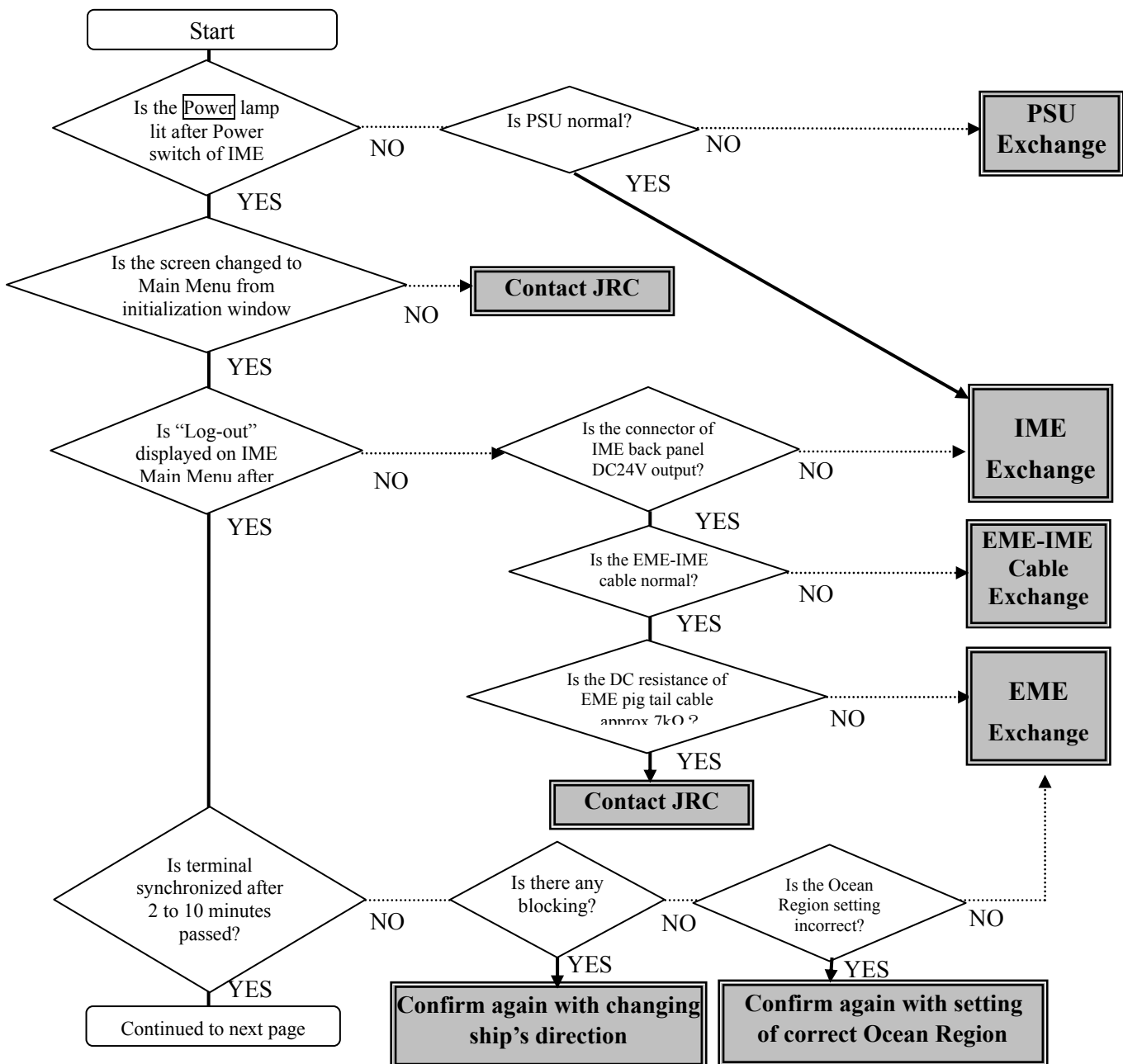


Fig4.2.1a Troubleshooting Flowchart (1/2)

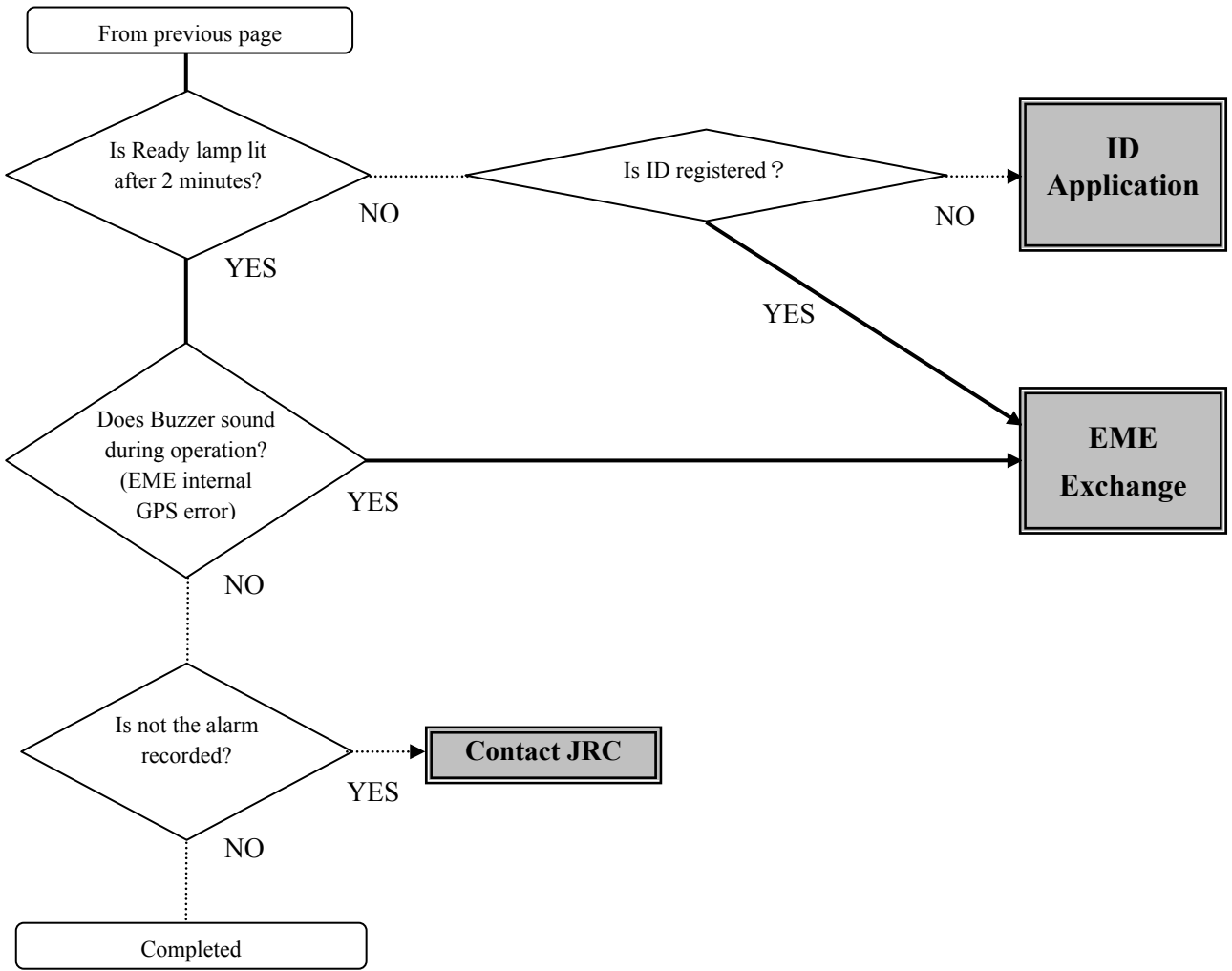


Fig4.2.1b Troubleshooting Flowchart (2/2)

4.2.2 Alarm Check

The JUE-87 provides the following function, which is useful for maintenance and for prompt detection of faults on the equipment.

Various operation states and alarm states are displayed on the first line of the screen of IME/DTE and alarm history is displayed as the following procedure.

4.2.3 Alarm History

The JUE-87 has a self-monitoring function named alarm history, which is displayed as the following procedure:

Step	Operation	IME/DTE Response	Remarks
1	<ul style="list-style-type: none"> Hold down Alt key and press A key on Main menu. 	<ul style="list-style-type: none"> “Diagnostics” window is displayed. 	
2	<ul style="list-style-type: none"> Move the cursor to the item “Alarm history” then press Enter key. 	<ul style="list-style-type: none"> “Alarm history” window is displayed. 	
3	<ul style="list-style-type: none"> To return to Main menu, press F10 key twice or ESC key. 	<ul style="list-style-type: none"> Main menu is displayed 	

Example of Alarm History

Alarm history

JUE-87 ①IMN:410032123;②SER:068577;③HW:01/4;④ACSE:01.00/2.0;⑤MDM:11.00;
 ⑥IME:01.00/1.3;⑦DTE:01.00;⑧G:6;

⑨03/26 01:10:49; ⑩N35 41 E139 34; ⑪READY /1;
 ⑫CH:244/3124/2748; ⑬TX: ; ⑭MD1:83017700007D9D00; ⑮ST:000000/D080 ;
 ⑯ACS:1000/1000/0000; ⑰EIC:6363/0000/0000; ⑱SET:132/2/1/100;
 ⑲MD2:0123456789ABCDEF;

01.03/11 02:02:04 N35 41 E139 34 COMMRX/0
 CH:000/ / TX: MD1:00000000000000000000 ST:000000/9800
 ACS:1000/1000/0000 EIC:6400/0000/0000 SET:132/2/1/100

02.03/10 15:57:48 N35 41 E139 34 COMMRX/0

↓ contd.

F5:Print out F6:Save as
F7:Clear F10:Previous

Basic information

Current status information

Past status information (10 cases maximum)

Fig.4.2.3 “Alarm history” window

Table 4.2.3 Contents of Alarm history

No.	Display format (In case of Fig.4.2.3)	Content	
①	IMN:4XXXXXXXX (IMN:410032123)	MES Number	
②	SER:XXXXXX (SER:068577)	Serial Number	
③	HW:XX/Y (HW:01/4)	EME Board Version (XX)	
		IME Board Version (Y)	
④	ACSE:XX.XX/Y.Y (ACSE:01.00/2.0)	ACSE Main Version (XX.XX)	
		ACSE SAFE Mode Version (Y.Y)	
⑤	MDM:XX.XX (MDM:11.00)	MODEM Version	
⑥	IME:XX.XX/Y.Y (IME:01.00/1.3)	IME Main Version (XX.XX)	
		IME SAFE Mode Version (Y.Y)	
⑦	DTE:XX.XX (DTE:01.00)	DTE Version	
⑧	G:X (G:6)	GPS Equipment	
⑨	MM/DD hh:mm:ss (03/26 01:10:49)	Date	Month (MM)
			Day (DD)
			Hour (hh)
			Minute (mm)
			Second (ss)
⑩	NXX XX EYYY YY (N35 41 E139 34)	Position	Latitude (N)
			Degree (XX XX)
			Longitude (E)
			Degree (YYY YY)
⑪	XXXXXX/Y (READY /1)	MES Status(XXXXXX)	
		TDM Channel type (Y)	
⑫	CH:XXX/YYYY/ZZZZ (CH:244/3124/2748)	TDM Channel ID (XXX)	
		Receiving channel (YYYY)	
		Transmitting channel (ZZZZ)	
⑬	TX:XX (TX:)	EIRP	
⑭	MD1:UUVVVVVVVVVXXXXYY (MD1:83017700007D9D00)	AGC setting value (UU)	
		C/N0 (VVVV)	
		IQ balance (WWWW)	
		Master OSC (XXXX)	
		Modem ATC Wave Detect Power (YY)	



⑮	ST:XXXXXX/YYYY (ST:000000/D080)	Alarm(XXXXXX)	0x000000	No alarm (If there are any alarm, Add the following each status value)
			+ 0x800000	EME ROM data alarm
			+ 0x400000	EME RAM data alarm
			+ 0x200000	EEPROM data alarm
			+ 0x100000	EEPROM FATAL alarm
			+ 0x080000	External UART data alarm
			+ 0x040000	EME-IME connection alarm
			+ 0x020000	Internal GPS alarm
			+ 0x010000	External GPS alarm
			+ 0x008000	TX DURATION alarm
			+ 0x004000	PLL1 UNLOCK alarm
			+ 0x002000	PLL2 UNLOCK alarm
			+ 0x001000	MODEM Software alarm
			+ 0x000800	MODEM Hardware alarm
			+ 0x000400	DISTRESS button1 alarm
			+ 0x000200	DISTRESS button2 alarm
			+ 0x000100	DISTRESS button3 alarm
			+ 0x000080	Reserved
			+ 0x000040	SECURITY ALERT button1 alarm
			+ 0x000020	SECURITY ALERT button2 alarm
		+ 0x000010	SECURITY ALERT button3 alarm	
		+ 0x000008	SECURITY ALERT button4 alarm	
		Status(YYYY)	0x0000	Default menu (Add the following each status value)
			+ 0x8000	READY
			+ 0x4000	SYNC
			+ 0x2000	CARRIER
			+ 0x1000	LOG IN
			+ 0x0800	EGC Mode
			+ 0x0400	Reserved
			+ 0x0200	Reserved
			+ 0x0100	Preheat
			+ 0x0080	DISTRESS button1 detection
+ 0x0040	DISTRESS button2 detection			
+ 0x0020	DISTRESS button3 detection			
+ 0x0010	Reserved			
+ 0x0008	SECURITY ALERT button1 detection			
+ 0x0004	SECURITY ALERT button2 detection			
+ 0x0002	SECURITY ALERT button3 detection			
+ 0x0001	SECURITY ALERT button4 detection			

⑩	ACS: XXXX/YYYY/ZZZZ (ACS: 1000/1000/0000)	Signaling Channel Control Step (XXXX)	
		Message Channel Control Step (YYYY)	
		Process Control Step (ZZZZ)	
⑪	EIC: XXXX/YYYY/ZZZZ (EIC: 6363/0000/0000)	EME-IME connection success rate (XXXX)	Top 2 digit: EME->IME Last 2 digit: IME->EME
		EME-IME connection error counter (YYYY)	Top 2 digit: EME->IME Last 2 digit: IME->EME
		EME-IME connection error factor (ZZZZ)	Top 2 digit: EME->IME Last 2 digit: IME->EME
⑫	SET: WWW/X/Y/ZZZ (SET: 132/2/4/100)	LESsetting (WWW)	
		Preferred Ocean Region (X)	
		GPS setting (Y)	
		Data port type (ZZZ)	1st digit: DTE port main 2nd digit: DTE port #1 3rd digit: DTE port #2
⑬	MD2: SSTTUUVVWXXYYZZ (MD2: 0123456789ABCDEF)	TX I Amplitude(SS)	
		TX I DC Offset(TT)	
		TX Q DC Offset(UU)	
		TX VCONT(VV)	
		EIRP Moni(WW)	
		PA BIAS1(XX)	
		PA BIAS2(YY)	
PA BIAS3(ZZ)			



4.2.4 Countermeasure

If the equipment does not operate in normal even after the following procedure is performed, consult JRC service agent. Take care not to touch any parts on PC board.

Abnormal operation of IME/DTE

In case of the heavy fluctuation of the voltage or frequency of the power source, or thunderbolt and etc., IME may not operate normally. In this case, press **Del** key under holding **Ctrl** and **Alt** keys.

If above method does not work or if the keyboard is ineffective, turn off **AC POWER** and **DC POWER** on the EXT PSU (NBD-904) after turning off the IME **POWER** switch.

TX ALARM

If TX ALARM is displayed on the IME screen, reset TX ALARM to set **POWER** switch to OFF and set to ON again. If TX ALARM is displayed again in spite of the resetting TX ALARM, turn off the **POWER** switch of IME and contact JRC service network.

4.2.5 After service

4.2.5.1 When Ordering Repair

In the case of during the term of a guarantee

When it breaks down in the state of the normal operation according to explanation and a handling description in the operation manual, the dealer or our company will perform repair without any charge according to the provisions in the specific action.

However, in the following case, gratis service cannot be received even if it is during the term of a guarantee.

- When the construction report is not sent to JRC after apparatus attachment.
- Failure produced by inevitability, such as misuse, negligence, or a natural disaster, a fire, etc.

In the case of passed over the term of a guarantee

When a function can be recovered by repair, any repair is performed with charge by demand of a user.

Please inform us of the following items when ordering the repair:

- Product name, model name, date of manufacture, manufacture number
- State of the abnormality (as in detail as possible)
- Office name or organization name, address, telephone number

Recommendation of overhaul

The performances of the set may deteriorate due to the aging of parts, and so on through the rate varies depending on the conditions of use. So, it is recommendable to contact the dealer from which you purchased the device or one of our marketing offices for overhaul apart from daily services.

Disposal of JUE-87

When disposing JUE-87 process it in accordance with the rules of the pertinent local government. For details, contact to the purchasing dealer from which you purchased, our service office or a pertinent local government.

Please contact the dealer from which you purchased the device or our marketing offices that is nearest to you for any question as to the after-sales service.

For any question: Refer to the list of office at the end of the volume.

4.3 Pop-up Window

JUE-87 has the following pop-up windows. The information window is displayed when the JUE-87 have some trouble or some warning.

- (1) WARNING Window
- (2) CAUTION Window
- (3) ERROR Window
- (4) MES Information Window

When the window is displayed, follow the instruction in the window. When the pop-up window is closed, press **F10** (“**Previous**”) key.

The pop-up window shows in Item 4.3.1 to 4.3.4 for example.

4.3.1 WARNING Window

The examples of the messages of WARNING window are listed in Table 4.3.1.

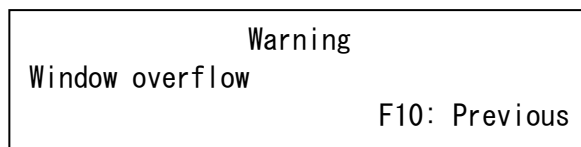


Fig.4.3.1 WARNING Window

Table 4.3.1 Message list of WARNING window

Warning Message	Cause	Countermeasure
Are you sure you want to delete the file ? [Yes] [No]		Select [No] when you want to keep the file.
Cannot display binary text.		Press F10 key when you carry on the job. The data cannot display as characters .
Do you want to overwrite it? [Yes] [No]		Select [No] when you want to keep old file, and save the new data as new file name.
Formatting will erase ALL data on the USB drive. To format the USB drive, choose Yes. [Yes] [No]		
Now EGC high priority message is receiving.		When the alarm buzzer is stopped, hold down the ctrl key and press A key. When the window is closed, press F10 (“Previous”) key.
Print out Call log	The Call logging data of 90 or more calls are stored then the oldest call logging data is cleared. Therefore, print out the call logging data.	Print out the call logging according to item 3.9.2 “Print Out”.
Transmitter over loaded. It may be permanent damaged.		Contact the purchasing dealer, JRC agent or one of the JRC branches.
Window overflow	Windows of the DTE are opened maximum numbers.	Press F10 key to close the window one by one, or press ESC key.



4.3.2 CAUTION Window

The examples of the message of CAUTION window are listed in Table 4.3.2.

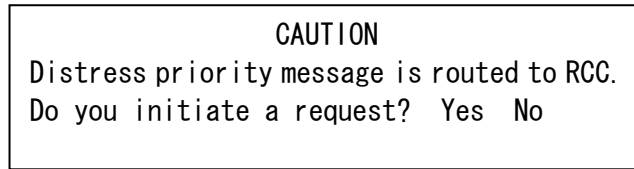


Fig.4.3.2 CAUTION window

Table 4.3.2 Message list of CAUTION window

Caution Message	Cause	Countermeasure
By current high priority request, previous request (144, 92-04-19-12: 30) is cancelled		Request again, if necessary.
Distress priority message is route to RCC. Do you initiate a to request? [Yes] [No]		Press ENTER key to transmitting the distress message. Move the cursor and press ENTER not to transmitting the distress message.
EGC message storage in DCE is full. Oldest message is overwritten by the latest incoming message.		Delete unnecessary messages.
No Position Data. Press F10 key to input data.		Press F10 and input position data.
Inmarsat-C message storage in DCE is full. Oldest message is overwritten by the latest incoming message.		Delete unnecessary data.

4.3.3 ERROR Window

The examples of message of ERROR window are listed in Table 4.3.3.

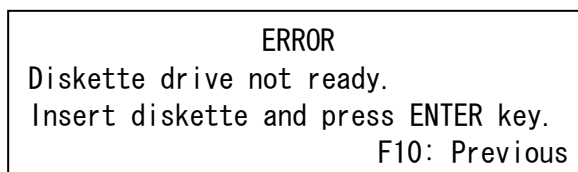
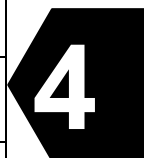


Fig.4.3.3 ERROR Window

Table 4.3.3 ERROR Message

ERROR Message	Cause	Countermeasure
Cannot create the new file.	The capacity of the USB drive is not enough.	Delete unnecessary file or use the other USB drive.
Confirm the file name.	The specified file name is wrong or it doesn't exist.	Enter correct file name.
Distress Button is disconnected. Check the connection.		
DTE failed to initialize the flash memory.		Re-boot the DTE. If same message is displayed again, the DTE might have a failure.
DTE was unable to complete the format. Please remove the USB drive.		
Error on System Information Writing		It seems that the restoration of the file is difficult. Taking backup of important document is highly recommended.
File ERROR! Process aborted!		
File can't be open		
Press ENTER key to retry.		
Printer is not ready. Confirm the paper and on-line.	The message is not printed out.	Press Esc key to clear the window, then confirm the loading of roll paper and the setting of the printer by " Set up " command.
Remote Distress Button is disconnected. Check the connection.		Connect the Remote Distress Button.
SA Button No. is connected incorrectly. Check the connection.		
SA Button No. is disconnected. Check the connection.		
Same name already exists. Confirm the file name.	The file name is same at the other file.	Use the other file name.
SB Controller is disconnected. Check the connection.		



ERROR Message	Cause	Countermeasure
The DTE main drive is unreadable. Press ENTER key to retry.	Can not access the DTE Flash ROM	Press ENTER key to re-read the Flash ROM. If the same window is displayed, the Flash ROM might be troubled.
The file is missing. Confirm the file name.	The file name is missing	Confirm the file name.
The USB drive is unreadable. Press Enter key to retry.		Press Enter key to re-read the USB drive.If the same window is displayed, the USB drive might be troubled or unformatted.
There is not enough room on the DTE main drive. Delete some files.	The capacity of the Flash ROM is not enough.	Delete unnecessary file.
USB drive is not ready. Insert USB drive and press Enter key.		Connect the USB drive and press Enter key
Unsuitable Density of Physical Error.		

4.3.4 MES INFORMATION Window

The examples of the messages of Information window are listed in Table 4.3.4.

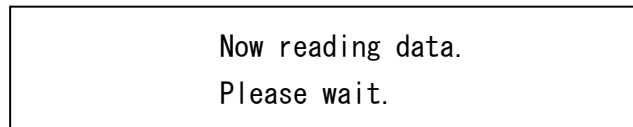


Fig.4.3.4 MES INFORMATION Window

Table 4.3.4 MES INFORMATION Message

INFORMARION message	Countermeasure
2nd LES ID Invalid Because of Demand Assigned LES	
Another Distress Alert initiated.	
Are you sure you want to rename the file?	
--Automatic test mode-- Normal communication disabled Do not press any distress button unless you are in distress.	
Can not create new file.	
Cancelled Security Alert by No. (). SA Button.	
Confirm the file name.	
Current file name:	
Data report (09-10-29 16:23) sent to DNID (12345)	
Data report (003, 09-10-29 16:25) failed.	
Delete file:	
Distress Button is disconnected. Check the connection.	
Distress acknowledgement received.	
Distress Alert failed.	Retry transmission.
Distress Alert has been initiated.	
Distress Alert has not been sent to NCS. Returning to alternative NCS.	
Distress Button is disconnected. Check the connection.	
Distress Button No () is connected incorrectly. Check the connection.	
-----Distress Button Test----- Distress button test succeeded. If real distress alert to be sent, cancel the test mode.	Cancel the test mode when carry out real distress alert transmission.
-----Distress Button Test----- Now distress button testing. If real distress alert to be sent, cancel the test mode.	Do not turn off the power switch.
Distress Buttons are under test now.	Do not turn off the power switch.



INFORMARION message	Countermeasure
Distress () failed. Now retrying to request.	
Distress priority selected.	
Distress () succeeded.	
DTE failed to detect the USB drive.	Confirm the USB drive connection.
DTE failed to stop the USB drive.	
EDR (003, 09-10-29-16:29) failed.	
EDR (09-10-29-16:27) sent to DNID(12345).	
EGC distress message received.	
EGC urgency message received.	
Format the USB drive complete.	
Formatting the USB drive.	
Initiate a manual scan of NCS common channel due to BBER increasing.	
Input column numbers:	
Input Max Column numbers:	
Input Merge File Name:	
Input Replace String:	
Input Save File Name	
Input Search String:	
It may be too many files on desk.	Delete unnecessary files.
LES ID for distress alert has been updated automatically.	
Log-in () failed.	There is a possibility that the LES is busy or receiving level is too low. Move the position of antenna and wait a while to log in.
Log-in () succeeded.	
Log-out () failed.	
Log-out () succeeded.	
Merge file:	
MES is not commissioned yet. The commissioning test will start automatically after the first log-in.	Carry out PV test.
Modification of this field is not possible.	
NCS operates restoration mode. Select preferred LES.	Enter ID No.
NCS scan cancelled.	
NCS scan was completed. Current NCS is ().	
NCS was not found with NCS scan. Confirm the preferred ocean region.	Confirm the ocean region by "Preferred ocean region".
New file name:	

INFORMARION message	Countermeasure
Now printing. Please wait.	When the display doesn't disappear, the breakdown of the printer is thought. In this case, please OFF/ON it the power supply of the printer.
Now reading data. Please wait	Do not remove a diskette during data reading.
Performance test failed.	
Please turn off Security Button for real Security Alert.	
Previous request (144, 92-04-14-08:10) is cancelled with new request.	
Really quit without saving? [Yes] [No]	Select [Yes] to save the data.
Request (144, 92-04-14-08:10) cancelled.	
Request (144, 92-04-14-08:10) failed.	Retry transmission.
Request (144, 92-04-14-08:10) failed. Automatic request will be re-sent in 5minutes.	
Request (92-04-14-08:10) failed. Now retrying to request.	Wait until re-transmission is completed.
Request (144, 92-04-14-08:10) queued. Now waiting for announcement.	Wait the announcement from LES. Carry out "cancel call" of "Transmit" when you close down the call request.
SB test is incomplete. Confirm ALL SBs are OFF. Turn off IME and DTE.	
----- Security Button Test ----- Now security button testing. . . . If real security alert to be sent, cancel the test mode.	
----- Security Button Test ----- Security button test succeeded. If real security alert to be sent, cancel the test mode.	
Sending Distress Alert to alternative NCS.	
Sending Distress Message.	
S&F message (92-04-14-08:10) delivered to subscribers (072123456, 07202822351)	
S&F message () No delivered.	
S&F message (92-04-14-08:10) sent to LES (144).	To receive the notification of delivery to other party, make "Delivery Confirmation" to "ON" at "Transmit" window.
The attached USB drive has malfunctioned, and DTE does not recognize the attached USB drive.	Connect the USB drive again. If the same window is displayed, the USB drive might have a failure. Connect another USB drive.
The attached USB drive is not supported. DTE supports the USB drive only.	



INFORMARION message	Countermeasure
The USB drive can now be safety removed from DTE.	
The USB drive is installed and ready to use.	
The USB drive was removed before the USB drive is stopped.	
There is a possibility of the USB IC failure. All USB functions are disabled.	Connect the USB drive again. If the same window is displayed, the USB IC in the DTE might have a failure.
To stop the USB drive, choose Yes. After the USB drive is stopped the USB drive can be safety removed. [Yes] [No]	
Tune to NCS (144) cancelled.	
Tune to NCS (144) failed.	Confirm whether there is a shield between the antenna and the satellite. Carry out NCS scanning again.

4.4 Help Function

Hold down the **Shift** key and press **F1** key to display HELP-information. Press **F10** key or **Esc** key to return the previous mode.

CHAPTER 5. Specification

5.1 JUE-87

5.1.1 EME (NAF-253GM) and IME (NTF-318)

Table 5.1.1 Principal Specification of JUE-87

Item		Specification
Class of Inmarsat-C MES		Class 2
Frequency Range		Transmission: 1626.5 to 1646.5MHz Reception :1537.0 to 1544.2MHz
Channel Spacing:		5KHz
G/T		-23.0 dB/K minimum
EIRP		Within 14 ±2 dBW (at 5 degrees elevation angle)
Modulation		TX: 1200 symbols/sec. RX: 1200 symbols/sec. BPSK (BPSK: Binary Phase Shift Keying)
Antenna		Type: Helical antenna Pattern: Hemisphere (non directional) Polarization: Right hand circular
Power Supply	Voltage	DC +24V (+19.2 V to +31.2 V) (When standard PSU, NBD-904 is used)
	Power Consumption	Transmission : 100 W Standby time : 15W (EME and IME) 160 W Max. (EME, IME, DTE and Printer)
Environmental Condition	Operative Temperature	-35°C to +55°C (EME operational) -15°C to +55°C (IME)
	Storage Temperature	-40°C to +70°C
	Relative Humidity	95% (+40°C)
	Ice	25 mm (EME)
	Precipitation	100 mm/hour (EME)
	Wind	100 knots
Vibration		Compatibility with IEC 60945
Coding		Interleaved, convolution code (R = 1/2, K = 7)
Data Rate	Transmission	600 bps
	Reception	600 bps
Max Transmission Message		8K bytes
Reception Message Storage		80K bytes (Inmarsat-C: 40K bytes, EGC: 40K bytes)
Interface	Internal GPS	JRC original
	External GPS	Input sentence: GGA, RMC, GLL, GNS, ZDA, DTM Baud rate: 4800 bps
	LAN	RJ-45 : 10 Base-T
	DTE	ITU-T V24/28, 9600 bps, D-sub 9PIN connector
	Printer	Centronics compatible parallel interface, Connector : D-sub 25PIN connector
International Protection		EME: IP 66-compliant IME: IP22-compliant (except for while connecting a USB device to USB drive)
Dimensions		EME: 170 mm (φ) × 379 mm (H) IME: 336 mm (W) × 86 mm (D) × 244 mm (H)
Mass		EME: 2.4 kg IME: 3.4 kg



5.1.2 Printer (NKG-800)

Table 5.1.2 Principal Specification of Printer

Item	Specification
Character Coding	ASCII code
Line Interface	Parallel interface
Printer System	Impact dot
Maximum Printing Speed	200 characters/sec
Character Format	9 × 7 dot
Maximum Number of Character Per Line	80 characters/line
Roll Paper Size	Recording paper (1PLY) 214mmW 98mm ϕ 5ZPAL00002 (Standard) Recording paper (2PLY) 214mmW 124mm ϕ 5ZPCK00001 (Option)
Print Head Unit	#SP-24090AI 5ZYWZ00001 (Option)
Ink Ribbon	Type: #SP-16051 JRC Code: 5ZZCM00003 Color: Black
Power Supply	DC +24V (+19.2 to +31.2V)
Power Consumption	Approx. 35W (max)
Dimensions	399 mm (W) × 376 mm (D) × 193 mm (H)
Weight	3.7kg

5.1.3 EXT PSU (NBD-904)

Table 5.1.3 Principal Specification of EXT PSU

Item	Specification
Line voltage	AC: from +100V to +220V /DC: +24V
Line voltage range	AC:+89V to +266V/ DC:+19.2 to +31.2V
Line frequency range	47 Hz to 64Hz
Function	<ul style="list-style-type: none"> • DC power automatic backup at AC power failure • DC input is only available when AC input is stopped. • DC output is only supplied through DC input (condition: over +18V and “REMOTE CONT” is short).
Control Signal	<ul style="list-style-type: none"> • REMOTE CONT +/- (Input): When open, DC input is not available, when short, DC input is available. • AC FAIL +/- (Output): When AC input is stopped, between + and – is open, when AC input is available, between + and – is short. (Output rating: DC 30V, 30mA)
Output	Floating type DC+24V, 8.5A (max, 5minutes) 6.5A (Continuous)
Switch	<ul style="list-style-type: none"> • DC INPUT: turn on/off DC input + line. • DC OUTPUT: turn on/off DC output +/- line
LED	<ul style="list-style-type: none"> • AC operation is lighted up, when AC input available. • DC operation is lighted up, when DC output is supplied through DC input. • DC output is lighted up, when DC output is available.
Protection	Protection by No-Fuse breaker or Fuse (DC over current only) <ul style="list-style-type: none"> • Over voltage (Input) +35V DC , +280V AC (Automatic protected. => Protected is removed after turn off/on.) • Over current (Output) 13.0A (AC.. automatic), 15.0A (DC ... Fuse)
Others	Isolation against ground: > 1M ohm at DC 500V Temperature: Compatible with IEC 60945 Fuse: DC32V, 15A (DC+/- input)
Dimensions	168 mm(W) × 250 mm(D) × 98 mm(H)
Weight	2.6 kg



5.2 Option

5.2.1 DTE (NDZ-227)

Table 5.2.1 Principal Specification of DTE

Item	Specification
CPU	ARM 9
Text Memory	256MB SDRAM 128MB Flash Memory
Display	10.4 inch TFT LCD color monitor 640 × 480 dot-mapped graphics (VGA)
Back Light	Cold Cathod Fluorescent Lamp (CCFL)
Keyboard	IBM compatible
Operating System	μ ITRON (NORTi professional III)
Radio Modem Interface	RS-232C 9600 bps
Printer Interface	Centronics compatible parallel interface
Screensaver Function	When you use this function, backlight of DTE is automatically turned off if no key is pressed on keyboard over a given length of time (depends on the setting). Press any key to turn on backlight of DTE.
Primary Power	DC +24V (+19.2 to +31.2V) Consumption 0.5A
International Protection	IP22-compliant (except for while connecting a USB device to USB drive)
Dimensions	336 mm (W) × 89 mm (D) × 244 mm (H)
Weight	4.6 kg (Main Unit) 0.4 kg (Keyboard)

5.2.2 Remote Distress Button (NQE-3225)

Table 5.2.2 Principal Specification of Remote Distress Button

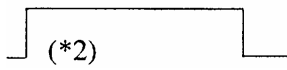
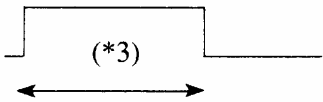

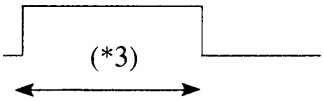
Specification	Contents
Interface	RS-422 and binary signal (0V, +5V)
Function	
(1) Distress Button and LED	Used to Distress Alert transmission. In case of transmitting Distress Alert, open hinged cover and press the button for 4 seconds. The LED is lit during sending the Distress Alert transmission.
(2) Ready LED	Illuminates RED: Not synchronizing Illuminates GREEN: Synchronizing, able to transmitting distress.
(3) DIMMER Button	Used to adjust lamp brightness. When it is turn to the right completely, brightness becomes the maximum. When turning to the left completely, brightness becomes minimum (shines slightly).
Power Supply	DC +12V (+11.4V to +12.6V)
Dimensions	80 mm (W) × 38 mm (D) × 138 mm (H)
Weight	0.2 kg

5.2.3 External Buzzer (NCE-5547)

Table 5.2.3a Principal Specification of External Buzzer

Specification	Contents
Interface	Binary signal (0V, OPEN)
Power Supply	DC +12V (+11.4V to +12.6V)
Dimensions	80 mm (W) × 38 mm (D) × 138 mm (H)
Weight	0.2 kg

Table 5.2.3b The sound status of External Buzzer LED

	Communication Mode or Priority	Sound
Inmarsat-C MESS	High Priority	↓ (*1)  (*2)
	Low Priority	800Hz single tone  (*3)
EGC Receivers	High Priority	↓ (*1)  (*2)
	Low Priority	800Hz single tone  (*3)

*1) Sound stops when the '**RESET**' button on the panel of EXT BUZ is pressed.

*2) 2.2 kHz and 1.3 kHz tones sounds alternately.

*3) Sounding time can be selected by the IME command.

APPENDIX 1. INMARSAT SYSTEM COVERAGE AREAS

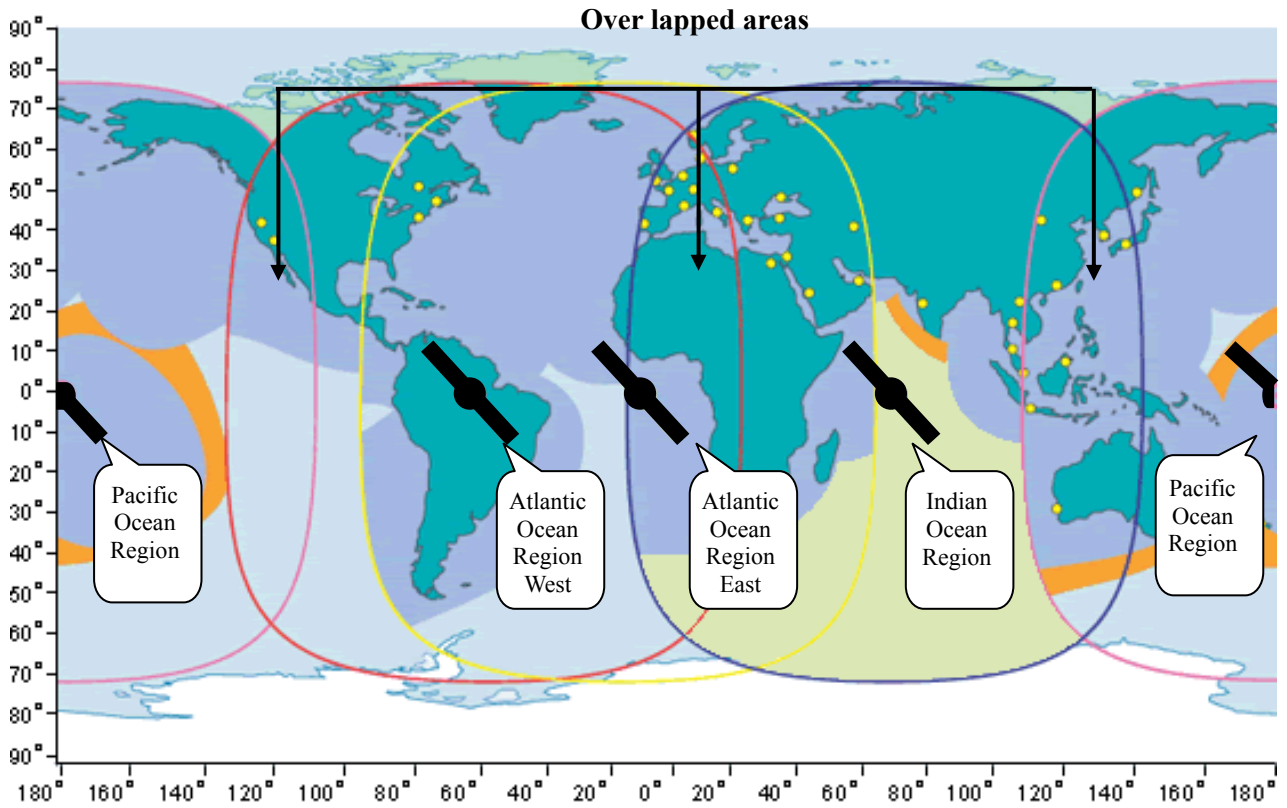


Fig.A1.1 All Ocean Region



Fig.A1.2 Atlantic Ocean Region West



Fig.A1.3 Atlantic Ocean Region East

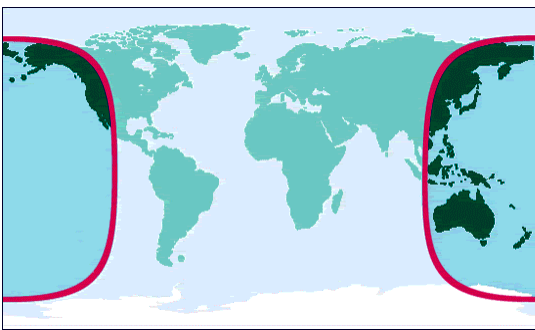


Fig.A1.4 Pacific Ocean Region

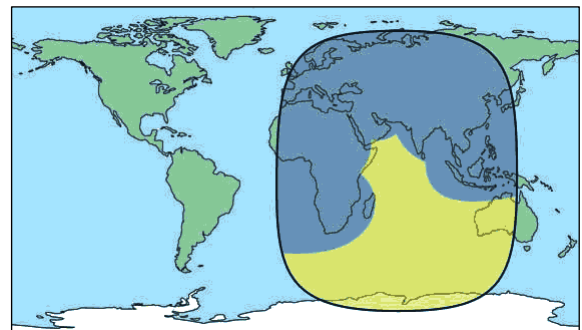


Fig.A1.5 Indian Ocean Region

APPENDIX 2. WHAT IS LRIT?

A2.1 LRIT System Summary

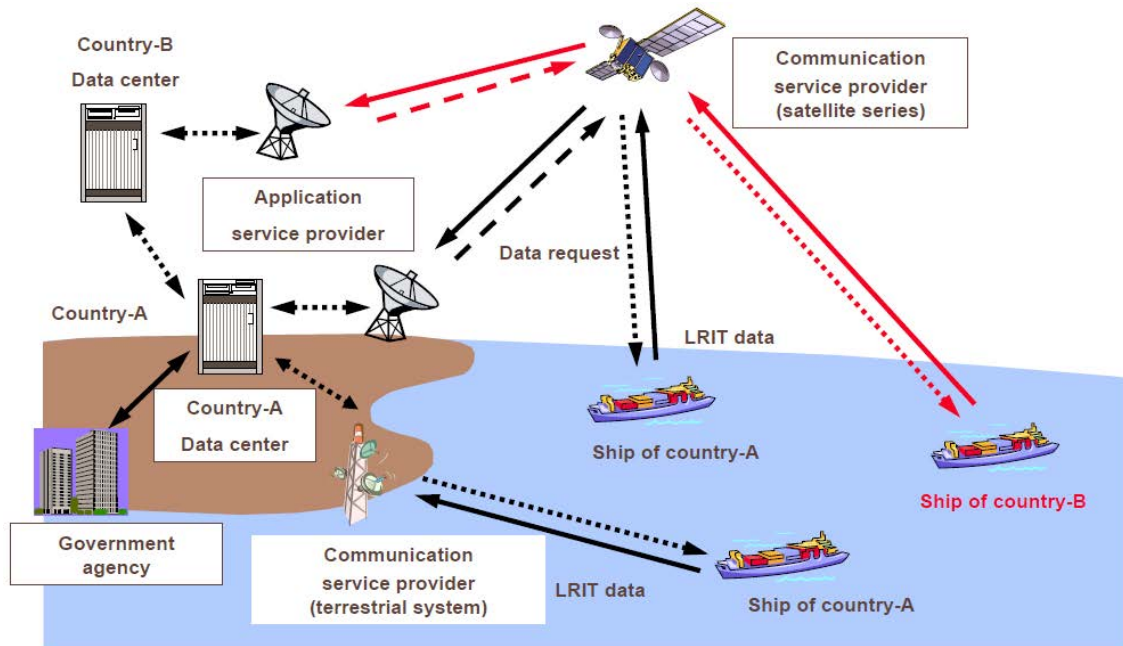
A2.1.1 What is LRIT?

Long-Range Identification and Tracking (LRIT) is the global monitoring system of ship's movement.

- (1) LRIT system is obligation facilities of IMO.
- (2) It is a system that transmits peculiar information of the ship (ship's communication ID and position information) from Inmarsat-C terminals or other communication equipments, by the commands from land.
- (3) Object ships are passenger ship (including high-speed passenger ship), cargo ships (including high-speed craft) , and mobile offshore drilling units.
- (4) The application of the rule becomes the first survey of the radio inspection after 31 December 2008.

A2.1.2 LRIT System Configuration

LRIT system is configured as following figure. LRIT information of foreign-flag ships are monitored and provided by the data centers of its own country.



A2.2 LRIT Requirements

A2.2.1 LRIT Mounting Requirements

By addition of MSC.202(81) SOLAS V 19-1

A2.2.1.1 Object ships: International Navigation Ships

Passenger ships (including high-speed passenger ships), cargo ships (including high-speed craft), and mobile offshore drilling units.

A2.2.1.2 SOLAS V, 19-1 Rule of LRIT (Mounting Requirements are Added)

Mounting LRIT is required to:

- (1) A Ship which built after 31 December 2008 (excluding sea area A1 limited navigation ship).
- (2) A Ship which built before 31 December 2008, and also its operation has been approved and:
 - 1) Navigates sea area A1 and A2 or A1, A2, and A3.

Adding the LRIT function is required by the first survey of the radio inspection after 31 December 2008.

- 2) Navigates sea area A1, A2, A3 and A4.

Adding the LRIT function is required by the first survey of the radio inspection after 1 July 2009.

- (3) A Ship navigates sea area A1 only

Mounting AIS is only required and this LRIT rule should not be applied (Above (1) and (2)).

A2.2.2 LRIT Mounting Requirement Schedule

	Navigating sea area	31/DEC/2008	1/JUL/2009
A Ship built after 31/DEC/2008 (International navigation ship)	Except A1 limited navigation ship	Mounting LRIT equipment is required	—
A Ship built before 31/DEC/2008 (International navigation ship)	A1 limited	Mounting LRIT is not required (Mounting AIS is only required)	
	A1 and A2	Adding function or mounting equipment of LRIT is required by first survey of the radio inspection after 31/DEC/2008	—
	A1, A2 and A3		
	A1, A2, A3, and A4, but normally A1, A2, and A3 only.	—	Adding function or mounting equipment is required by the first survey of the radio inspection after 1/JUL/2009
	A1, A2, A3 and A4	—	

(Note: JUE-85/87/95LT/75C are out of target because Inmarsat-C does not support sea area A4)

A2.2.3 Functional Requirements of LRIT Terminal

By addition of MSC.242(83), MSC.263(84) SOLAS V 19-1

- (1) It can be sent LRIT information with 6 hours intervals automatically.
- (2) It can be control the sending intervals (15 minutes to 6 hours) by remote control from the land.
- (3) It can be sent LRIT information by polling.

A2.3 For LRIT Operation

LRIT information can be sent by Inmarsat-C Position Data Reporting service^{*1}.

To utilize Position Data Reporting service, downloading Data Network ID (DNID), program of Data Report, and starting command are required preliminary via satellite.

LRIT information is sent by Enhanced Data Reporting (EDR) function.

*1) Position Data Reporting service utilizes data reporting procedure which is specified by Inmarsat.

Items of the service are:

- Sending Position Data Reporting to the specified LES periodically with following the schedule with using DNID.
- Sending Position Data Reporting even the polling is sent from LES.
- The sending schedule can be changed from LES via satellite.
- Particular operation for MES equipment is not necessary.

APPENDIX 3. TELEX DESTINATION CODES LIST

Area	Destination Code	Area	Destination Code	Area	Destination Code
Afghanistan	79	Cayman Is.	293	Greece (Hellenic Rep.)	601
Albania	604	Central African Rep.	971	Greenland	503
Algeria	408	Chad	976	Grenada	395
American Samoa	770	Chile	34	Guadeloupe	299
American Virgin Is.	208	China	85	Guam	700
Andorra	590	Christmas Island	71	Guatemala	372
Angola	991	Cocos-Keeling Is.	71	Guinea	995
Anguilla	391	Colombia	35	Guinea Bissau	969
Antigua&Barbuda	393	Comoros	994	Guyana	295
Argentina	33	Congo	981	Haiti	203
Aruba	303	Cook Is.	772	Hawaii	704
Ascension	939	Costa Rica	376		705
Australia	71	Cote d'Ivoire	983		708
Austria	47	Cuba	28		709
Azerbaijan	784	Cyprus	605		773
Azores Is.	404	Czech	663	Honduras	374
Bahamas	297	Denmark	55	Hong Kong	802
Bahrain	490	Diego Garcia	938	Hungary	61
Bangladesh	780	Djibouti	979	Iceland	501
Barbados	392	Dominica	394	India	81
Belarus	681	Dominican Rep.	201	Indonesia	73
Belgium	46		202	Inmarsat (AOR-W)	584
Belize	371	Ecuador	308	Inmarsat (AOR-E)	581
Benin	972	Eqypt	91	Inmarsat (POR)	582
Bermuda	290	El Salvador	373	Inmarsat (IOR)	583
Bhutan	890	Estonia	537	Iran	88
Bolivia	309	Ethiopia	980	Iraq	491
Botswana	962	Falkland Is.	306	Ireland	500
Brazil	38	Faroe Is.	502	Israel	606
British Virgin Is.	292	Fiji	701	Italy	43
Bulgaria	67	Finland	57	Jamaica	291
Burkina Faso	978	France	42	Japan	72
Burundi	903	French Guiana	300	Jordan	493
Cambodia	807	French Polynesia	702	Kazakhstan	785
Cameroon	970	Gabon	973	Kenya	987
Canada	21	Gambia	996	Kiribati	761
	26	Germany(Fed.Rep.of)	41	Korea	899
Canary Is.	52	Ghana	94	Korea(Rep.of)	801
Cape Verde	993	Gibraltar	405	Kuwait	496

Kyrgyzstan	788	Norfolk Island	766	Switzerland	45
Laos	804	Norway	56	Syria	492
Latvia	538	Oman	498	Tadzhikistan	787
Lebanon	494	Pakistan	82	Taiwan	769
Lesotho	963	Palau	763	Tanzania	989
Liberia	997	Panama	379	Thailand	86
Libya	901	Papua New Guinea	703	Togo	977
Liechtenstein	45	Paraguay	305	Tonga	777
Lithuania	539	Peru	36	Trinidad & Tobago	294
Luxembourg	402	Philippines	75	Tunisia	409
Macao	808		758	Turkey	607
Madagascar	986	Poland	63	Turkmenistan	789
Madeira	404	Portugal	404	Turks & Caicos Is.	296
Malawi	904	Puerto Rico	205	Tuvalu	774
Malaysia	84		206	Uganda	988
Maldives	896		209	Ukraine	680
Mali	985	Qatar	497	Abu Dhabi	893
Malta	406	Reunion	961	Ajman	
Marshall Is.	765	Romania	65	Dubai	
Martinique	298	Rwanda	909	Fujairah	
Mauritania	974	Saipan	760	Ras Al Khaimah	
Mauritius	966	San Marino	505	Sharjjah	
Mexico	22	Sao Tome & Principe	967	Umm Al Qaiwain	
Micronesia	764	Saudi Arabia	495	United Kingdom	51
Moldova	682	Senegal	906	Uruguay	32
Monaco	42	Seychelles	965	U.S.A.	23
Mongolia	800	Sierra Leone	998		25
Montserrat	396	Singapore	87	C.I.S.(Former U.S.S.R.)	640
Morocco	407	Slovak	666	Vanuatu	771
Mozambique	992	Solomon Is.	778	Vatican	504
Myanmar	83	Somalia	900	Venezuela	31
Namibia	908	South Africa	95	Viet Nam	805
Nauru	775	Spain	52	Western Samoa	779
Negara Brunei Darussalam	809	Sri Lanka	803	Yemen(Rep.Of)	895
Nepal	891	St.Helena	960	Area of Former	597
Netherlands	44	St.Christopher & Nevis	397	Yugoslavia	598
Netherlands Antilles	390	St.Lucia	398		599
New Caledonia	706	St.Pierre & Miquelon	204		600
New Zealand	74	St.Vincent & the Grenaines	399		62
Nicaragua	375	Sudan	984	Zaire	982
Niger	975	Suriname	304	Zambia	902
Nigeria	905	Swaziland	964	Zimbabwe	907
Niue	776	Sweden	54		

APPENDIX 4. INTERNATIONAL TELEPHONE COUNTRY CODES LIST

地域名	国番号	地域名	国番号	地域名	国番号
Afghanistan	93	Central African Rep.	236	Grenada	1
Alaska	1	Chad	235	Guadeloupe	590
Albania	355	Chile	56	Guam	1
Algeria	213	China	86	Guatemala	502
American Samoa	1	Christmas Island	61	Guinea	224
American Virgin Is.	1	Cocos-Keeling Is.	61	Guinea Bissau	245
Andorra	376	Colombia	57	Guyana	592
Angola	244	Comoros	269	Haiti	509
Anguilla	1	Congo	242	Hawaii	1
Antigua&Barbuda	1	Cook Is.	682	Hellenic(Greece)	30
Argentina	54	Costa Rica	506	Honduras	504
Aruba	297	Cote d'Ivoire	225	Hong Kong	852
Ascension	247	Cuba	53	Hungary	36
Australia	61	Cyprus	357	Iceland	354
Austria	43	Czech	420	India	91
Azerbaijan	994	Denmark	45	Indonesia	62
Azores Is.	351	Djibouti	253	Inmarsat	870
Bahamas	1	Dominica	1	Iran	98
Bahrain	973	Dominican Rep.	1	Iraq	964
Bangladesh	880	East Timor	670	Ireland	353
Barbados	1	Ecuador	593	Iridium(SAT)	8816/8817
Belarus	375	Egypt	20	Israel	972
Belgium	32	El Salvador	503	Italy	39
Belize	501	Equat Guinea	240	Jamaica	1
Benin	229	Eritrea	291	Japan	81
Bermuda	1	Estonia	372	Jordan	962
Bhutan	975	Ethiopia	251	Kazakhstan	7
Bolivia	591	Falkland Is.	500	Kenya	254
Botswana	267	Faroe Is.	298	Kiribati	686
Brazil	55	Fiji	679	Korea	82
British Virgin Is.	1	Finland	358	Korea-DPR	850
Bulgaria	359	France	33	Kuwait	965
Burkina Faso	226	French Guiana	594	Kyrgyz	996
Burundi	257	French Polynesia	689	Laos	856
Cambodia	855	Gabon	241	Latvia	371
Cameroon	237	Gambia	220	Lebanon	961
Canada	1	Germany(Fed.Rep.of)	49	Lesotho	266
Canary Is.	34	Ghana	233	Liberia	231
Cape Verde	238	Gibraltar	350	Libya Arab	218
Cayman Is.	1	Greenland	299	Liechtenstein	423

Lithuania	370	Palau	680	Taiwan	886
Luxembourg	352	Panama	507	Tanzania	255
Macao	853	Paraguay	595	Thailand	66
Macedonia	389	Peru	51	Thuraya(SAT)	88216
Madagascar	261	Philippines	63	Togo	228
Madeira	351	Poland	48	Tonga	86
Malawi	265	Portugal	351	Trinidad & Tobago	1
Malaysia	60	Puerto Rico	1	Tunisia	216
Maldives	960	Qatar	974	Turkey	90
Mali	223	Reunion	262	Turkmenistan	993
Malta	356	Romania	40	Turks & Caicos Is.	1
Marshall Is.	692	Russia	7	Tuvalu	688
Martinique	596	Rwanda	250	UAE	971
Mauritania	222	Saipan	1	Uganda	256
Mauritius	230	Samoa	685	Ukraine	380
Mayotte	262	San Marino	378	Uruguay	598
Mexico	52	Sao Tome & Principe	239	U.S.A.	1
Micronesia	691	Saudi Arabia	966	Uzbekistan	998
Moldova	373	Senegal	221	Vanuatu	678
Monaco	377	Serbia	381	Vatican City	39
Mongolia	976	Sierra Leone	232	Venezuela	58
Montenegro	382	Singapore	65	Viet Nam	84
Montserrat	1	Slovak	421	United Kingdom	44
Morocco	212	Slovenia	386	Yemen Rep	967
Mozambique	258	Solomon Is.	677	Zambia	260
Myanmar	95	Somalia	252	Zimbabwe	263
Namibia	264	South Africa	27		
Nauru	674	Spain	34		
Nepal	977	Spanish Afric	34		
Netherlands	31	Sri Lanka	94		
Netherlands Antilles	599	St.Christophe	1		
New Caledonia	687	St.Helena	290		
New Zealand	64	St.Lucia	1		
Nicaragua	505	St.Pierre & Miquelon	508		
Niger	227	St.Vincent & the Grenaines	1		
Nigeria	234	Sudan	249		
Niue	683	Suriname	597		
Nofolk Island	672	Swaziland	268		
Norway	47	Sweden	46		
Oman	968	Switzerland	41		
Papua New Guinea	675	Syrian Arab	963		
Pakistan	92	Tadzhikistan	992		

APPENDIX 5. NKG-800 PRINTER INSTALLATION GUIDE

Concerning details, please refer to the installation manual for each equipment.

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A5.1 Cautions for Use

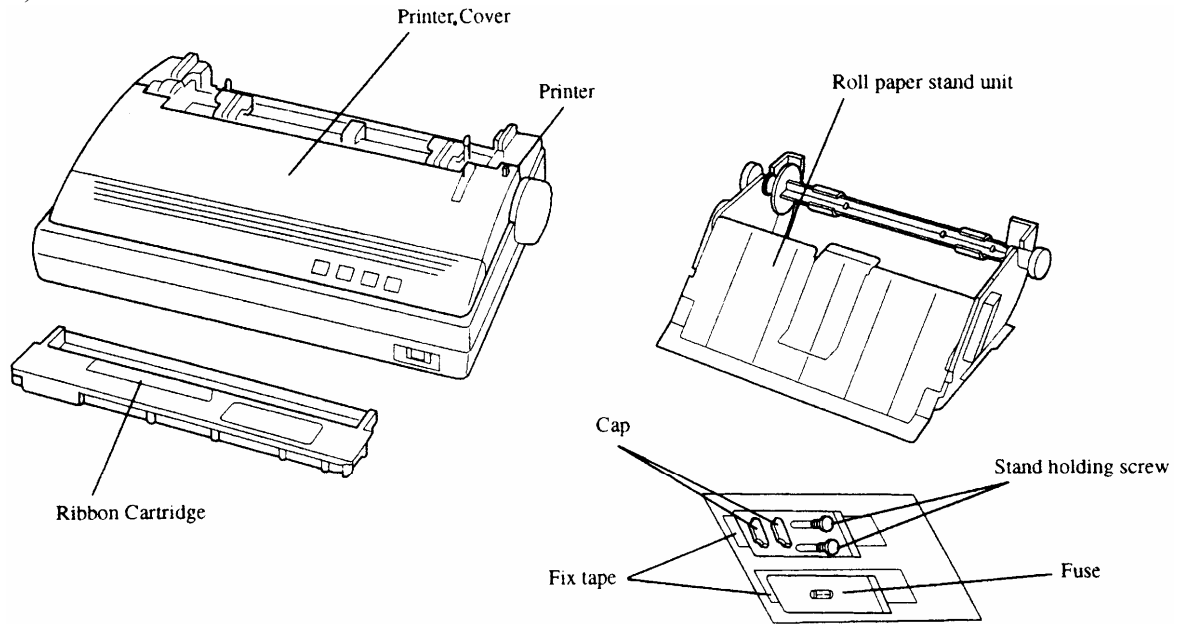
- Don't touch immediately after printing as the printing head is still very hot.
- To set the ribbon, pay attention not to twist the ribbon.
- To turn on the power again after once turned OFF, wait at least 2 seconds. If this is not respected, initialization may become wrong.
- Do not install in humid or dusty place or place exposed to direct sunshine.
- Don't print without ribbon cassette and paper.
- Set the printer on desk or table installed evenly and stably.
- When the printer is working, its mechanism is working with rather strong force, pay attention not to approach your accessories, necktie, etc. worn on you. Those may be caught.
- Don't put anything on the printer. If any thing is dropped in the machine, at first turn OFF the power, then remove dropped thing carefully.
- Don't wet the printer. If water etc. is fallen, turn OFF immediately the power, and wipe off liquid. And wait until the printer becomes completely dry to turn ON again.

A5.2. Outline and Names of Components

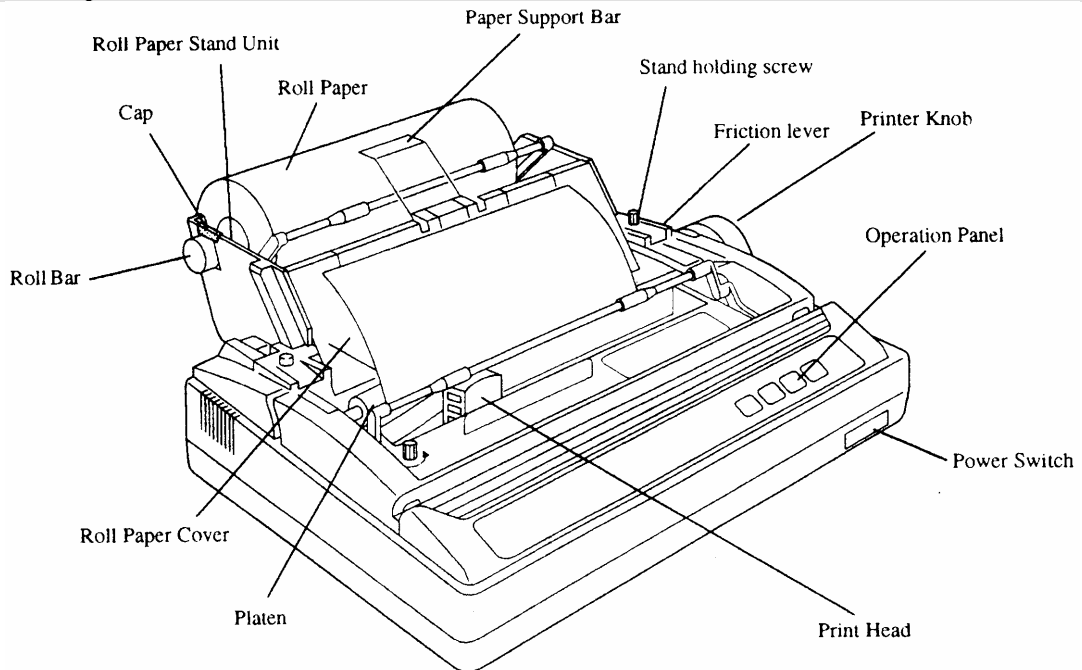
A5.2.1 Supplied Accessories

The following items are included as part your purchase

- | | | |
|-----------------------------|------------------------|---------|
| 1) Printer | 6) Fix tape | 2 pairs |
| 2) Ribbon Cartridge (Black) | 7) Cap | 2 pcs. |
| 3) Printer Cover | 8) Stand holding screw | 2 pcs. |
| 4) Roll Paper Stand Unit | | |
| 5) Fuse | | |

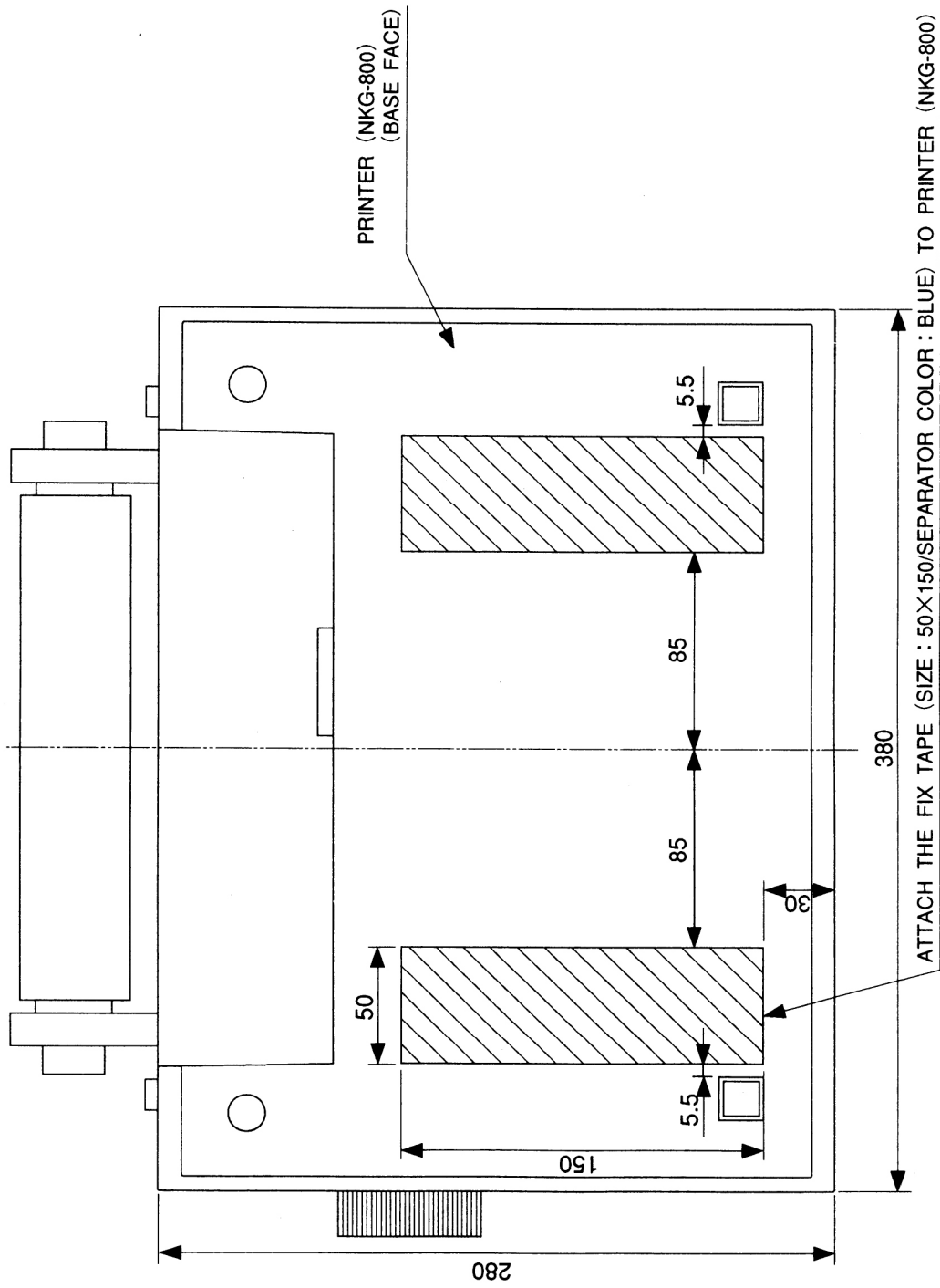


A5.2.2 Components Names

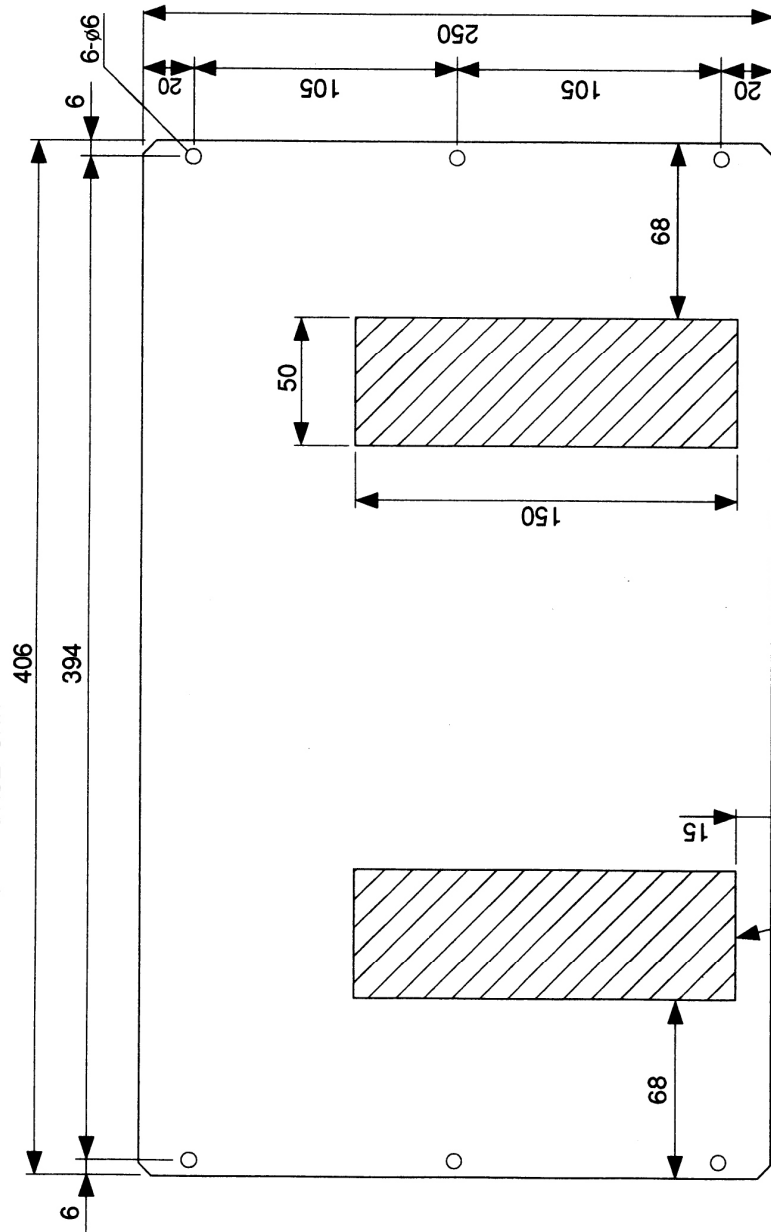


A5.3. Installation

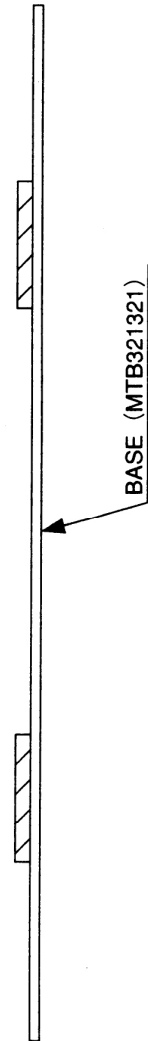
A5.3.1 Fix Tape Attachment



• IN THE CASE OF USE OPTIONAL BASE UNIT



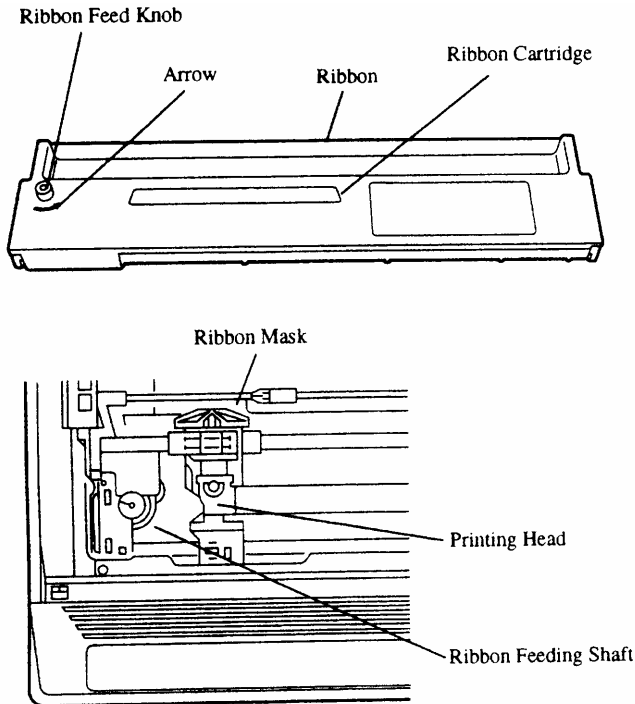
ATTACH THE FIX TAPE (SIZE : 50X150/SEPARATOR COLOR : YELLOW) TO BASE (MTB321321)



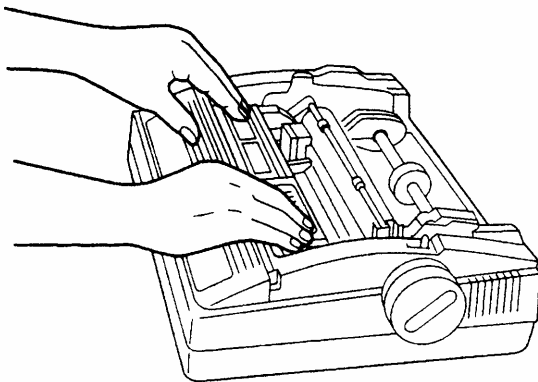
A5.3.2 Change of Ribbon Cassette-cartridge

Mounting method

- 1) Verify that the power switch remains turned OFF.
- 2) Turn the cassette knob in arrow mark direction to give tension to the ribbon.
- 3) In case of paper stand has been mounted, loosen stand-holding screw, and slide the paper stand backward.
- 4) Remove the printer cover.



- 5) Move by hand the printing head to its home position (left end).
- 6) Put the ribbon cassette so as the ribbon is placed between the ribbon mask and printing head. At that time, arrange so as the ribbon-feeding shaft enters in a hole located under the ribbon cassette knob.
- 7) Push lightly from top both ends of the ribbon cassette.
- 8) Turn again the cassette knob to give tension to the ribbon.
- 9) Verify that the ribbon is correctly placed in front of the printing head.

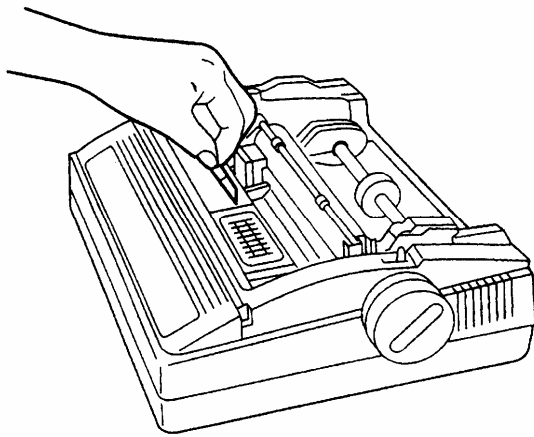


DANGER



Immediately after printing, the printing head is still very hot, don't touch it until it is cool down.

Dismounting method

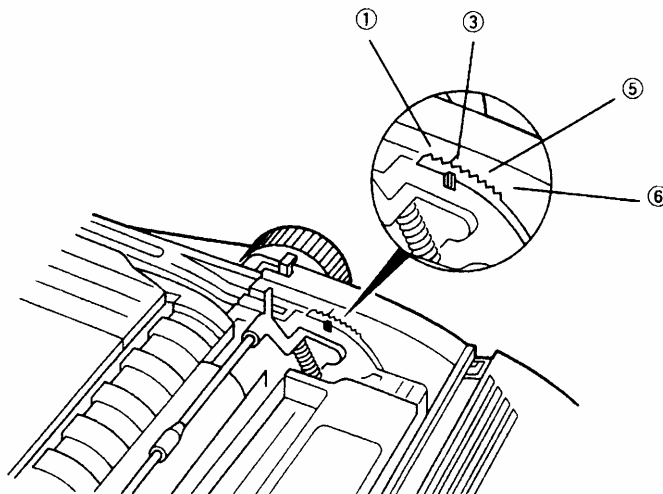


- 1) To change the ribbon, at first verify that the power to printer is turned OFF.
- 2) In case of paper stand has been mounted, loosen stand-holding screws, and slide the paper stand backward.
- 3) Remove the printer cover.
- 4) Seize the ribbon cassette knob, rise up vertically to remove.

A5.3.3 Printing Pressure Adjustment (Print Paper Thickness Adjustment)

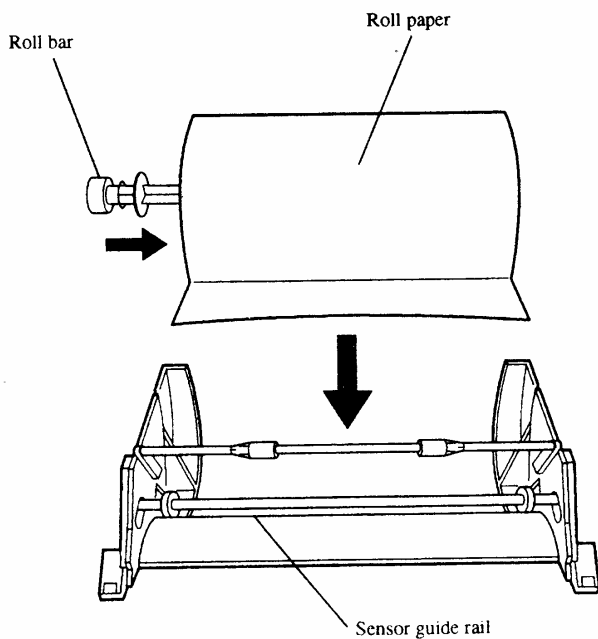
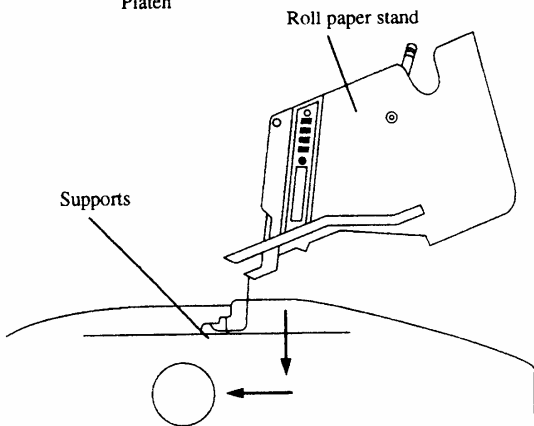
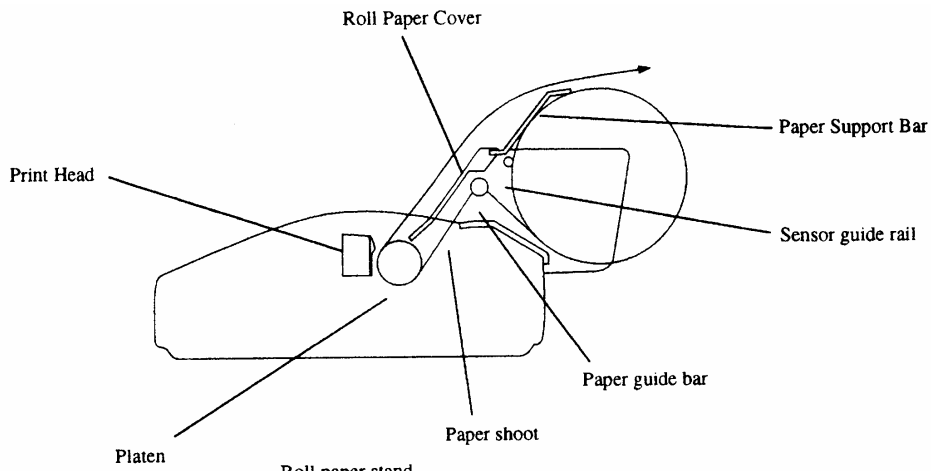
The printing pressure can be adjusted with the head adjustment lever located on right side in the printer.

For one ply plain paper the position ③ is most suited. When shipped, this lever is set to this position. In case of 3 ply duplicating paper, either ⑤ or ⑥ becomes suitable position.



A5.3.4 Roll Paper Loading

Paper holder mounting

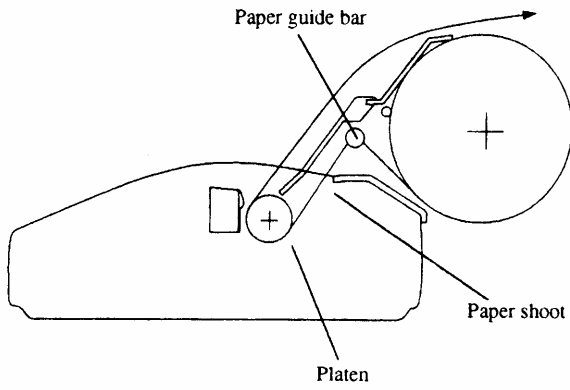


Paper holder mounting

- 1) Insert the roll paper stand into guides on right and left

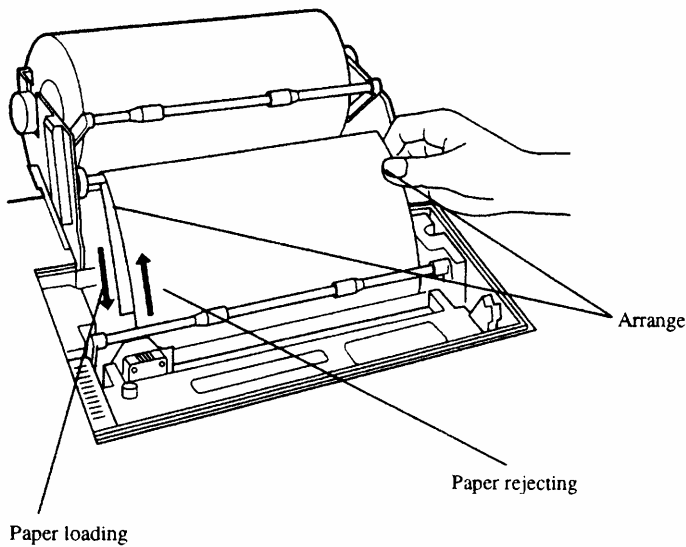
Loading of roll paper

- 1) Cut off broken or folded end of roll paper.
- 2) Inset roll core to roll.
- 3) Pull toward you the sensor guide lever.
- 4) Mount the roll with roll core to roller holder. At that time, pay attention to direction of paper.
- 5) Mount caps above the roll bar.



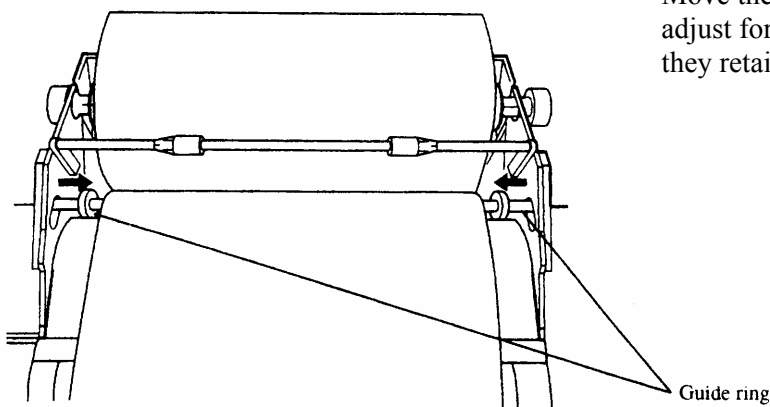
Roll paper setting

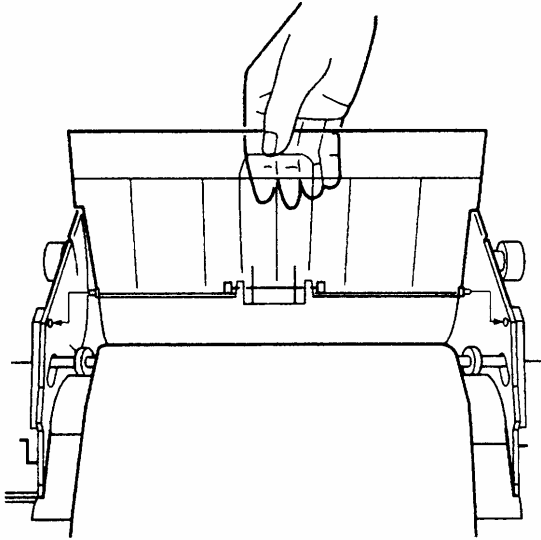
- 1) In case of paper stand has been mounted, loosen stand holding screws and slide the paper stand backward.
- 2) Remove the printer cover.
- 3) Push back the friction lever.
- 4) Pass the roll paper on paper guide bar, insert it in paper chute, pull it out from front of the platen.
- 5) Pull out the paper, adjust paper position for feeding and discharge side, so as paper enters straight.
- 6) When the position is fixed, pull the friction lever toward you.



Adjustment of guide ring

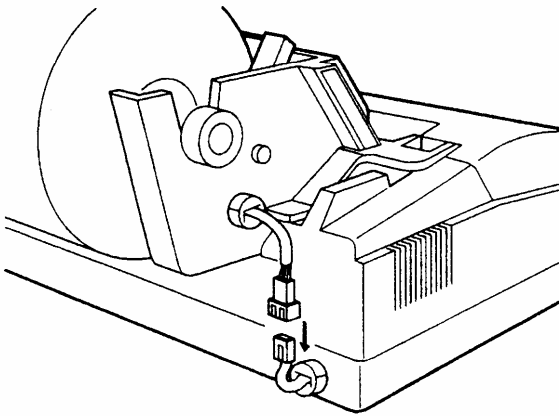
Move the right and left guide rings to adjust for paper width. Fix them so as they retain lightly the paper.





Mount of roll paper cover

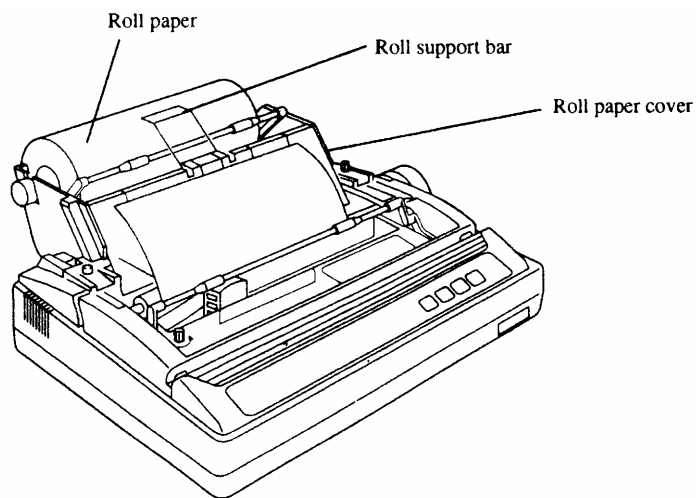
- 1) Mount the roll paper cover as shown in Fig.
- 2) Push up the paper support lever.



Connection of paper end near sensor

Connect the sensor cable on the back as shown in Fig.

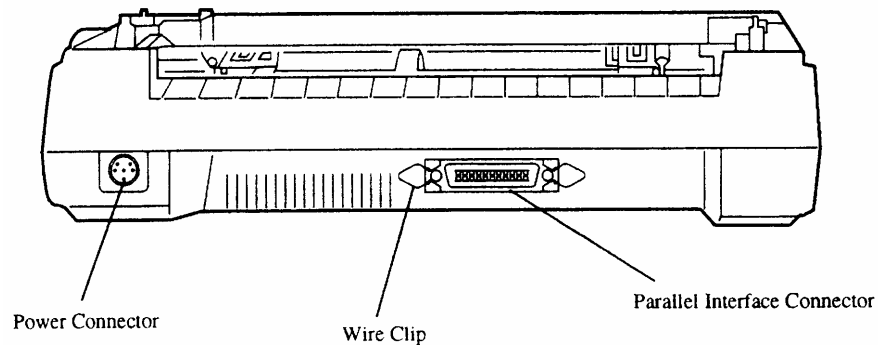
Upon accomplishment of the above, the state becomes as shown in Fig. below. Then mount the printer cover. Slide finally the paper stand forward and fix it by stand holding screws.



A5.3.5 Connection with Terminal

Prior to connect, verify that for both the terminal and printer their power switch is turned OFF.

- 1) Connect the printer cable to the parallel interface connector located on back of the printer, then, fix with locking lever.
- 2) Connect the other end of cable to the terminal.



A5.4. Self-printing Function

This printer is provided with self-printing function in order to check printing quality or printer's condition prior to use. However, with this self-printing function, the printer port is not checked. Prior to perform self-printing, verify at first the paper is set.

NOTE

If printing is made directly on the platen without ribbon and paper, the platen or printing head may be damaged.

Test printing

Turn ON the power while pushing [LF] switch and continue to push [LF] switch until self-printing starts. After the initialization, 5 lines each of DRAFT and NLQ are printed alternatively. By turning OFF the power, self-printing stops.

[Sample]

S E L F T E S T Version. AMX4010

Draft font

! '\$ % & ' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n
' '\$ % & ' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o
'\$ % & ' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p
\$ % & ' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q
& ' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q r

Sans Serif font

& ' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q r s
' () , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q r s t
() , - . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q r s t u
- . / - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q r s t u v
/ - 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ^ _ a b c d e f g h i j k l m n o p q r s t u v w

* font

4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I
7 8 9 : ; < = > ? @ A B C D E F G H
? @ A B C D E F G H I

APPENDIX 6. JRC Service Network

Please contact the dealer from which you purchased the device or our marketing offices that is nearest to you for any question as to the after-sales service.

JRC web site

JRC Tokyo <http://www.jrc.co.jp>

JRC Amsterdam <http://www.jrceurope.com/>

JRC Seattle <http://www.jrcamerica.com>

电子信息产品有害物资申明
日本无线株式会社

Declaration on toxic & hazardous substances or elements
of Electronic Information Products
Japan Radio Company Limited

有毒有害物质或元素的名称及含量
(Names & Content of toxic and hazardous substances or elements)

形式名(Type): JUE-87

名称(Name): INMARSAT-C Mobile Earth Station

部件名称 (Part name)	有毒有害物质或元素 (Toxic and Hazardous Substances and Elements)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
室外装置 (Externally Mounted Equipment)	○	○	○	○	○	○
室内装置 (Internally Mounted Equipment)	○	○	○	○	○	○
外部设备(Peripherals) ·打印机(Printer) ·选择(Options) ·电线类(Cables) ·手册(Documentts)	○	○	○	○	○	○
<p>○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11306-2006 标准规定的限量要求以下。 (Indicates that this toxic, or hazardous substance contained in all of the homogeneous materials for this part is below the requirement in SJ/T11363-2006.)</p> <p>×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。 (Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T 11363-2006.)</p>						

アスベストは使用しておりません
Not use the asbestos

CODE No.7ZPSC0444

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Since 1915

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