# 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**

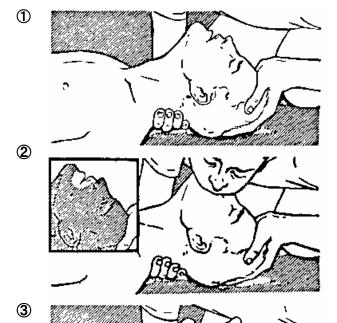
Unless there is impending danger leave the victim where he or she is, then begin artificial respiration. Once you begin artificial respiration, you must continue without losing rhythm.

- (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.



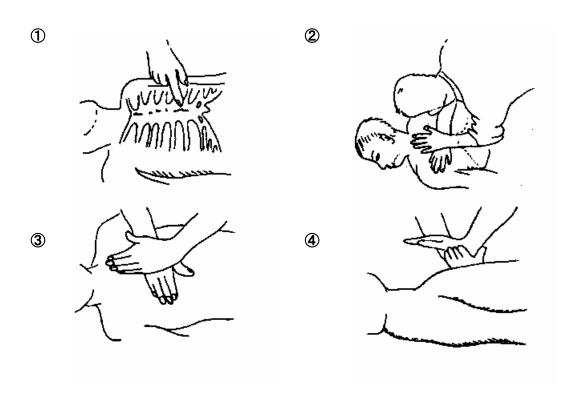
- Raise the back of head, then place one hand on the forehead and place the other hand under the neck. →①
  - Most victims open their mouth when doing this, making "mouth to mouth" resuscitation easier.
- (2) Cover the victim's mouth by opening your mouth widely, then push your cheek against the victim's 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.



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.



This symbol denotes high risk of causing death or serious injury.

This symbol denotes that improper handling poses a risk of causing death or serious injury.

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 \( \rightarrow \) symbol denotes prohibited action.

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



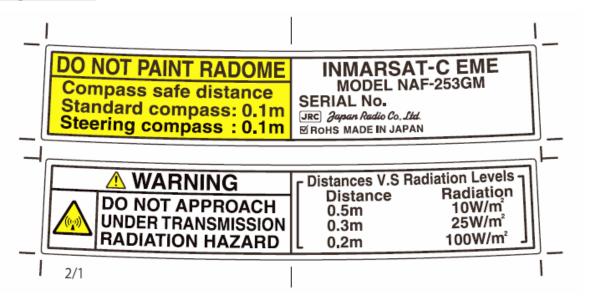
The • symbol obligatory operation or instruction.

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

#### ABOUT WARNING LABELS

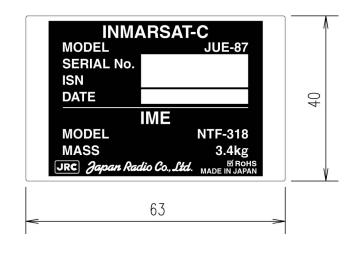
Below mentioned warning labels are put on JUE-87. Do not take off, destroy, or modify these labels.

#### Labels put on EME



#### Labels put on IME

<Type1>





#### 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**

### **A** 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	Open hinged cover and press DISTRESS button till the buzzer sounds.	<ul> <li>IME displays "SOS".</li> <li>The buzzer starts sounding 0.5 sec ON 1.0 sec OFF.</li> </ul>	• If you do not want to initiate a distress alert, immediately release the button within 4 sec.
2	Distress alert is transmitted after continuously pressing DISTRESS button for 4 sec or more.	<ul> <li>The buzzer sounds continuously.</li> <li>IME displays "Distress Alert Transmission".</li> </ul>	<ul> <li>When the JUE-87 is tuning to LES channel, the SYNC LED blinks.</li> <li>The distress message registered in main unit is transmitted.</li> </ul>

<sup>\*</sup> 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

AC	Alternating Curi
	Ala
AMVER A vessel position-rep	Automated Mutual-assistance Vessel Rescue system operated by the United States Coast Guard for an 000grt or more on a voyage lasting longer than 24 hours, to and
ANSI	American National Standard Insti
must be four letters (A	o an Inmarsat MES and used in message transmissions. The form A-Z; no numbers) finishing with an x.
ANT	Ante
AOR	
AOR-E	Atlantic Ocean Region (Ea
AOR-W	
The error correction checks for errors in r	process used in store-and-forward messaging by which a received data packets and requests the sending end to re-transmi ere received containing an error.
ASCII A standard alphanum	
AUSREP: A vessel position-rep Authorities.	orting system similar to AMVER, but operated by the Australia
Backup: A copy of a program up is to make a copy.	or document that you can use if the original is destroyed. To ba
BB	Bulletin Bo
Operational informati	ion of LES, which send from satellite to each ship.
Used as a measure of TDM Channel.	the quality of reception by the MES of the Bulletin Board of a
BCD	Binary Coded Deci
BER	
Bit. The basic unit of	$\varepsilon$
BPS	bit per sec nt for speed of data transfer or throughput.

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.
Channel number: The number representing the frequency of an Inmarsat communications channel.
<b>Character:</b> 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.
<ul> <li>Class 2 Inmarsat C MES: <ul> <li>A Class 2 MES is capable of two modes of operation (selected by the operator):</li> <li>As Class 1, and also capable of receiving EGC messages when not engaged in Inmarsat C traffic.</li> <li>Ready for EGC message reception exclusively (and not available in that mode for Inmarsat C message transfer).</li> </ul> </li> </ul>
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
COMMCommunication
Command: The generic name for anything you tell a computer program to do.
<b>Commissioning:</b> The process by which an MES is registered for use via the Inmarsat network.
CPU
CRCarriage Return
One of a code for line feeding.  CSDN  Circuit Switched Data Natwork

 $\mathbf{C}$ 

D	CUG
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).
	<b>Data services:</b> This is how a terminal may send and receive electronic messages such as e-mail.
	dBDecibels
	DB
	DC
	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
	DELDelete
	DEM Demodulator Circuit
	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
	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 <sup>TM</sup> service, an information provider downloads an EGC Network Identification (ENID) code to an MES.
	DR
	DS
	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
	<b>EEPROM</b> Electrically Erasable and Programmable ROM Read only Memory that is able to delete and rewrite electrically.

	The system for broadcastin	Enhanced Group Call ag messages via Inmarsat C mobile satellite communications
	, , , , ,	ervices: SafetyNET and FleetNET.
		Electronic Industries Association
		Equivalent Isotropically Radiated Power liated Power, a measure of transmitted power.
	A global message-handling can exchange electronic me	g system whereby subscribers to commercial e-mail services essages and data files between computers. E-mail services are providers and private organizations. Access to e-mail services networks or the Internet.
	EME	Externally Mounted Equipment
		EGC network identification
		End Of File
		Enhanced Pre-assigned Data Reporting
		External
		East/West
F		
	and general public informa system.  Footprint (of a satellite):  The area on the Earth's sur	the broadcasting and automatic reception of fleet management ation by means of direct printing through Inmarsat's EGC rface (sea or land) covered by the satellite and where an sight communications. In the Inmarsat systems, this area is gion or coverage area.
	FRLP	Forward ID Return ID Link Pair
	FTU	Frequency Translation Unit
G		
	GMDSS: Global Maritime authorities ashore, in additi	Distress and Safety Service Distress and Safety Service Distress and Safety System with the basic concept that SAR ion to shipping in the vicinity of a casualty, must be rapidly t so that they can assist with coordinated SAR operation with ar definition).
	System that provides the gomilitary satellites, which has	eographic location of a vessel. This service uses American ave been made available for civilian use.
	Ground segment: The network of LESs whice telecommunication network	h provide a link between the space segment and the terrestrial ks.
Н		
		High Power Amplifier
	TIX/D	Hybrid

Supports poin upper	umeric character set, also known as ASCII, based on 7-bit codes.
	and lower case characters.  Ident
IF	Intermediate Frequen
IFU	Intermediate Frequency U
IHO	International Hydrographic Organizat
IME	Internally Mounted Equipme
The number assigne	d by the national routing organization to an Inmarsat MES as its Inmarsat C maritime IMN has the format 4xxxxxxxxx.
IMO	International Maritime Organizat
INFO	Informat
The operator of glob Ltd group of compar	International Maritime Satellite Organizate all mobile satellite communications, part of the Inmarsat Venture nies.
Inmarsat C:  A digital system bas provides global two- NET <sup>TM</sup> and Fleet NI	ed on a low-cost MES with low power consumption. This system way store-and-forward messaging, distress alerting, EGC Safety ET <sup>TM</sup> , data reporting and polling.
I/O	Input/Out
IOR	Indian Ocean Reg
ISDN	Integrated Services Digital Netwo
ISO	International Organization for Standardizat
ITA	International Telegraph Alpha
A standard alphanur	meric character set, generally used for sending messages on the etworks. The character set is based on 5-bit codes, also known as t packed.
ITU	International Telecommunication Un
JASREP: A vessel position-re authorities.	porting system similar to AMVER, but operated by the Japanese
<b>Kbytes:</b> 1024 bytes or 128 cl	naracters.
LCD	Liquid Crystal Disp
LED	Light Emitting Die
LES	A fixed land station in the Inmarsat satellite communications syst

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

M

SOLAS Convention, as amended).

N	
	NAVAREA
	NAVTEX
	NCS
	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 MESs.
	NMEA
	N/S
O	
Ū	OCC
	Ocean region: The coverage area of an Inmarsat satellite within which an MES may send and receive messages.
<b>.</b>	OSCOscillator
P	Packet:  An envelope or block of data sent over a network; each packet contains addressing information as well as the data being sent.
	PCPersonal 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 MESs to perform a defined task, such as returning a pre-assigned data report or performing a SCADA operation.
	POR
	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.
	<b>Protocol:</b> 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
	PSPDN Packet Switched Public Data Network

	PSTN Public Switched Telephone Network
	PSUPower Supply Unit
	PVT Performance Verification Test
R	
	RAM
	RCC
	RDB
	REC
	ROM
	RX
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.
	SDMSystem Definition Manual
	SFUStore 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.
	<b>Signaling channels (MES - NCS):</b> A random access TDMA channel, used by an MES to transmit signaling information and data to an NCS.
	SLCA
	SOLAS
	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
	SYNTHSynthesizer
Т	
•	TDM
	TDMA

#### 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.

IJ

#### User defined area

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

V

W

#### **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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# 1

#### 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.

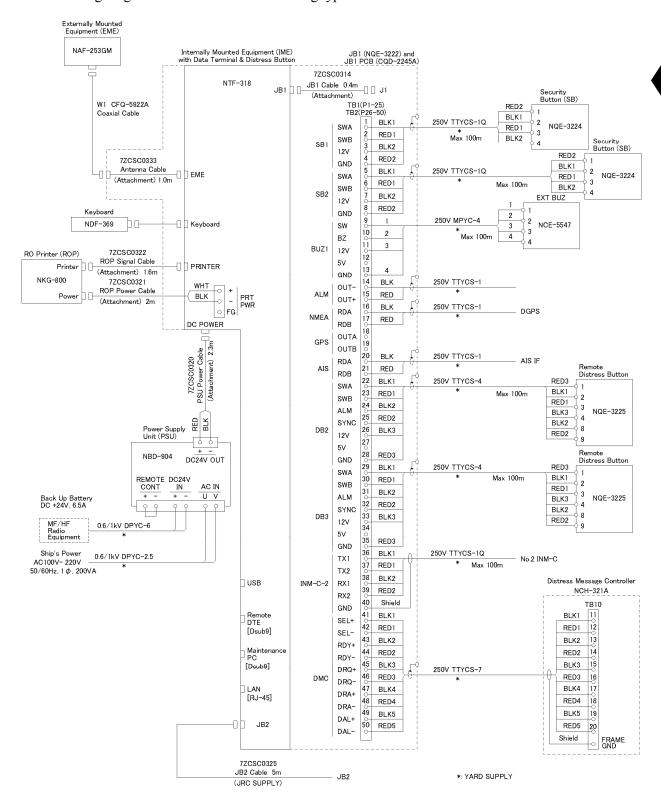
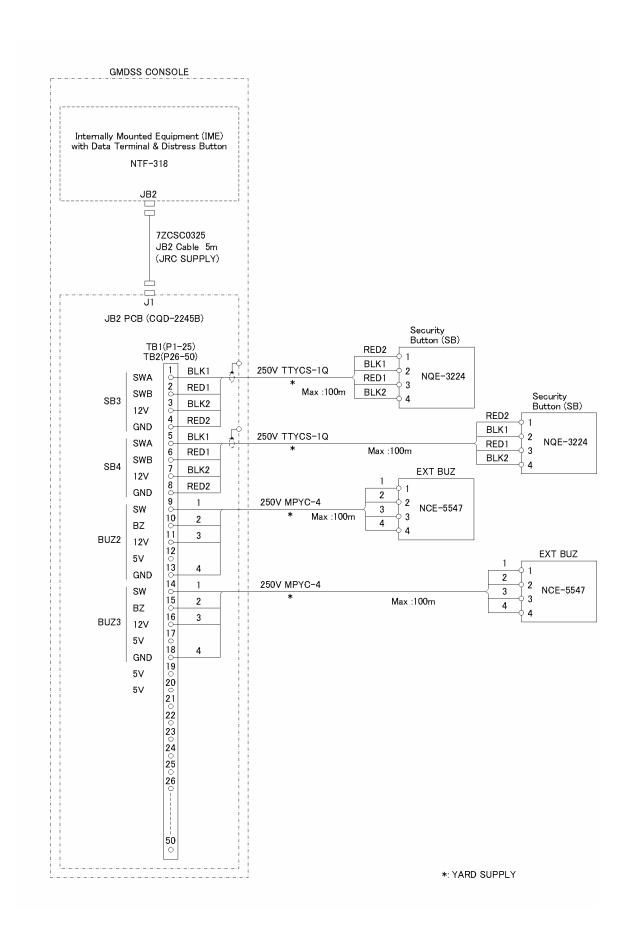


Fig.2.1.1a Wiring Diagram Inmarsat-C JUE-87 Mobile Earth Station (Stand alone, JB1)

The following diagram is GMDSS console mounting type Externally Mounted Equipment (EME) GMDSS CONSOLE NAF-253GM Internally Mounted Equipment (IME) with Data Terminal & Distress Buttor JB1 PCB (CQD-2245A) 7ZCSC324 JB1 Dable 2.3m NTF-318 -[] [] J1 Security Button (SB) (JRC SUPPLY) TB1(P1-25) TB2(P26-50) W1 CFQ-5922A RED2 Coaxial Cable BLK1 BLK1 250V TTYCS-1Q 2 SWA NQE-3224 RED1 3 RED1 SWB Max :100m BLK2 Security Button (SB) SB1 3 BLK2 12V RED2 RFD2 7ZCSC0221 GND BLK1 Antenna Cable BLK1 250V TTYCS-1Q NQE-3224 SWA RFD1 (Attachment) 1.5m RED1 3 Max :100m SWB BLK2 SB2 BLK2 EXT BUZ 12V 8 RED2 Keyboard GND 2 2 3 NCE-5547 SW 3 10 2 ΒZ Max :100m 4 3 BUZ1 7ZCSC0322 12V RO Printer (ROP) 12 ROP Signal Cable 5V Printer PRINTER (Attachment) 1.6m GND NKG-800 14 77CSC0321 BLK 250V TTYCS-1 WHT OUT: ROP Power Cable 15 ALM RED OUT+ (Attachment) 2m o FG RDA NMEA (inner) DC POWER RDB OUTA GPS 19 7ZCSC0320 PSU Power Cable (Attachment) 2.3m OUTB 20 BLK 250V TTYCS-1 RDA Remote Distress Button AIS RED RDB RED3 BLK1 250V TTYCS-4 SWA BLK1 23 RED1 Max :100m SWB RED1 BLK2 ALM BLK3 NQE-3225 25 RED2 4 MH BLK SYNC BLK2 Power Supply Unit (PSU) DB2 BLK3 RED2 12V 27 5V Remote Distress Button 28 RED3 NBD-904 DC24V OUT GND 29 BLK1 250V TTYCS-4 RED3 SWA REMOTE DC24V CONT IN 30 Max :100m BLK1 RED1 SWB AC IN RED1 BLK2 3 L N ALM BLK3 NQE-3225 32 RED2 4 SYNC BLK2 TR204 DB3 33 BLK3 8 RED2 12V 31 ∳ ACCESSORY-2 (inner) . 32 c 5V RED3 GND TB501 36 BLK1 250V TTYCS-1Q 25 👇 TX1 No.2 INM-C DC IN 37 RED1 Max :100m 32 TX2 38 BLK2 AC100/220V 11 USB Distress Message Controller INM-C-2 RX1 Ν RED2 NCH-321A . 14 🗄 RX2 40 Shield TB10 GND Remote DTE BLK1 BLK1 SEL+ 42 RED1 RED1 12 [Dsub9] SEL-13 43 BLK2 BLK2 RDY+ 44 Maintenance PC RED2 RED2 14 RDY-45 15 BLK3 BLK3 [Dsub9] DRQ+ 250V TTYCS-7 46 RED3 RED3 16 DMC DRQ-BLK4 **∏ĭ**7 BI K4 LAN DRA+ [RJ-45] 48 RED4 RED4 18 DRA-49 BLK5 19 BLK5 DAL+ To JB2/JB2 PCB (2/2) 50 JB2 RED5 RED5 20 DAI -Shield \*: 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	Туре	Q'ty
JUE-87 (Standard	1	EME (Externally Mounted Equipment)	NAF-253GM	1
Components)	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		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

<sup>\* &</sup>quot;Standard components" means the needful units for Inmarsat-C Mobile Earth Station.

<sup>\*</sup> Use the cable [250V TTYCS-4] to connect IME and remote Distress button.

<sup>\*</sup> Use the cable [250V MPYC-7] to connect IME and EXT BUZ.

# 2

#### 2.1.3 Supplied Parts by JRC

Table 2.1.3a Supplied parts by JRC for EME Installation

No.	Name	Туре	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	Туре	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

	Table 2.1.3d Supplied Cables by JRC for fivile instanation					
No.	Name	Туре	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 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)

N	lame	Function	Remarks
(1) Screen Knob	Angle Adjust	Used to adjust the screen angle (up to 25digrees) to clearly.	
(5) Distres	ss Button	Used to send Distress Alert	
(6) Dimm	er Button	Used to adjust the screen and each LED (POWER/READY/COMM) dimmer.	
(7) POWE	ER Switch	Used to turn on MES power	
(8) USB P	ort	Connect an USB flash memory.	

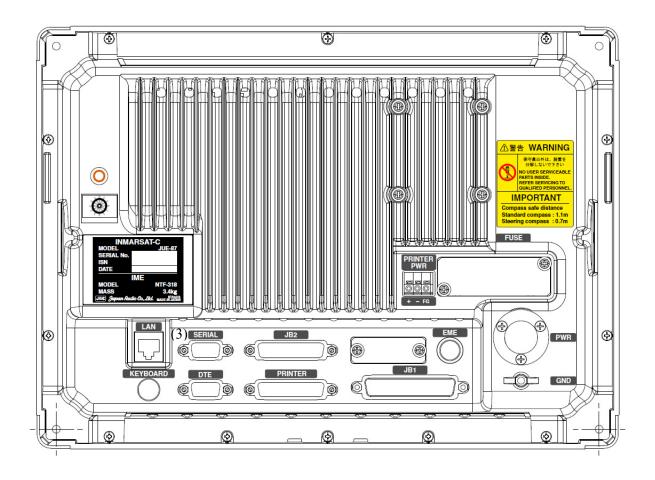


Fig.2.2.2b Back View of IME

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

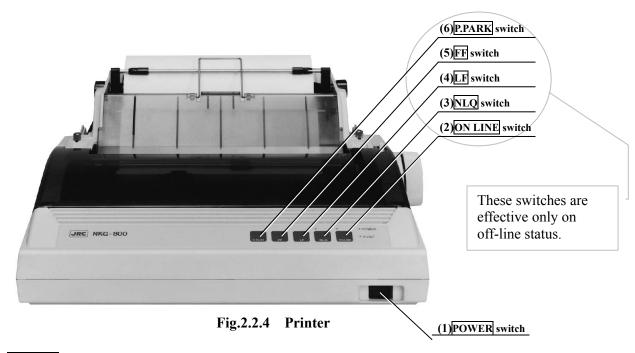
#### 2.2.3 Printer (NKG-800)

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 5ZPCK00001for two-sheet copy) and ink ribbon (5ZZCM00003)

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



(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.

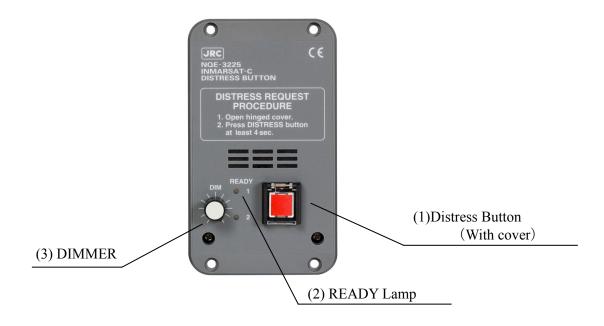


Fig.2.3.1 Remote Distress Button

#### (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.





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.
- (2) **POWER** LED Illuminates when power has been supplied.
- (3) **READY** LED Illuminates when communication is possible
- (4) **COMM** LED Illuminates in communication.
- (5) **Dimmer** BUTTON
  Used to adjust the screen and each LED
  (POWER/READY/COMM) dimmer.
- (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.

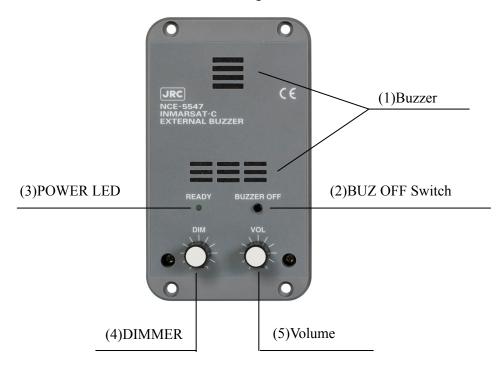
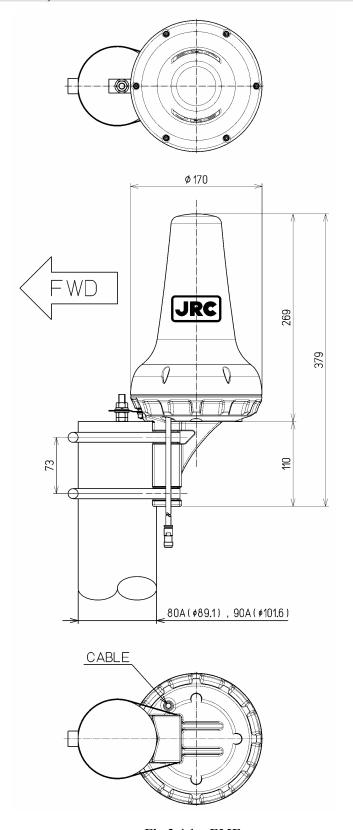


Fig.2.3.4 EXT BUZ

- (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)



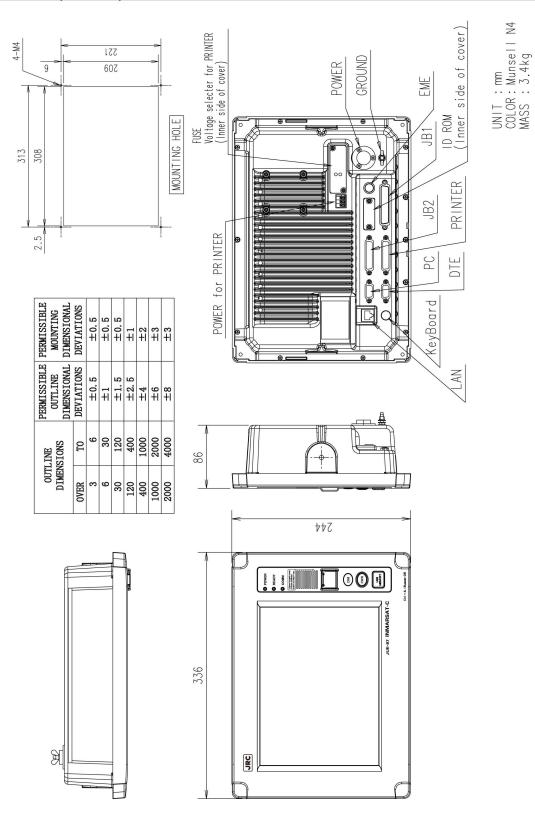
**Fig.2.4.1 EME** 

Unit: mm Mass 2.4 kg Color: N9

NTF-318

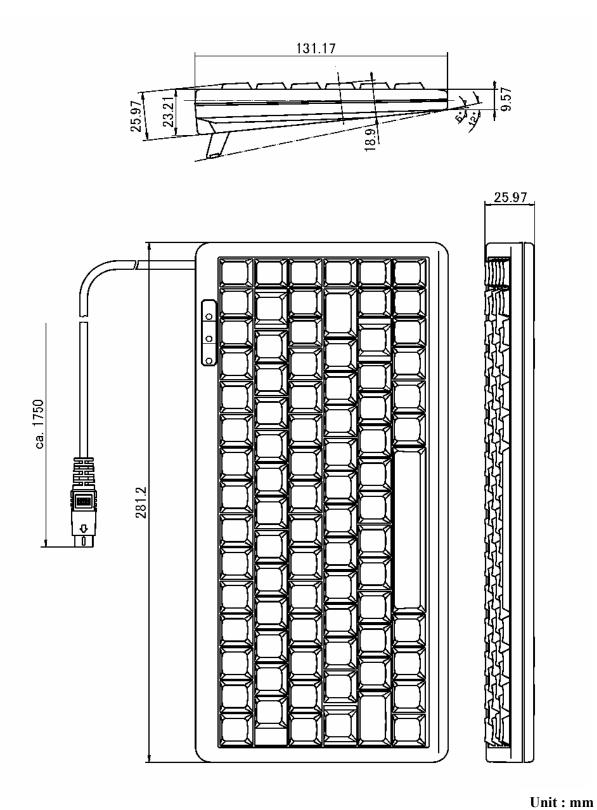
OUTSIDE DRAWING OF

# 2.4.2 IME (NTF-318)



**Fig.2.4.2 IME** 

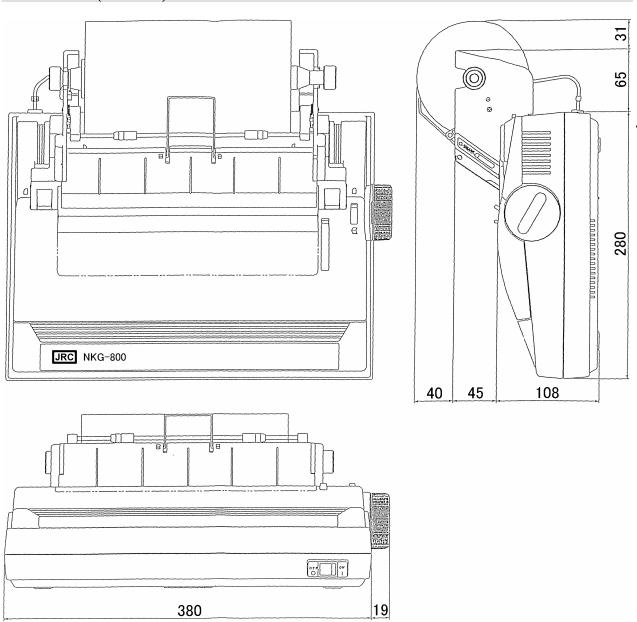
# 2.4.3 DTE Keyboard (NDF-369)



Mass: 0.4kg

Fig.2.4.3 DTE Keyboard

# 2.4.4 Printer (NKG-800)

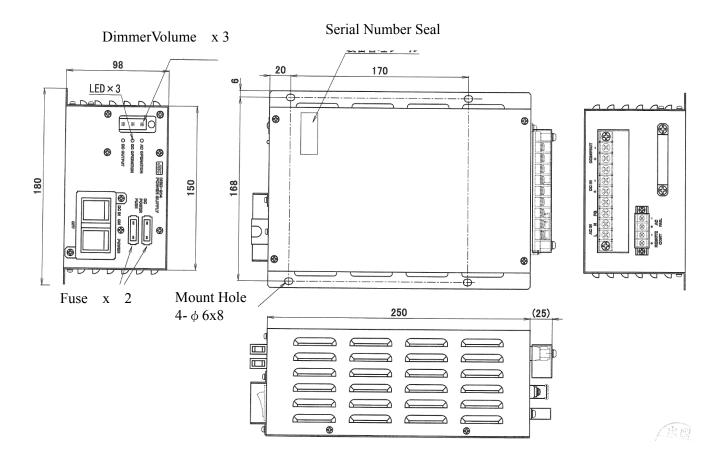


Fixing Unit: mm
Mass: 3.7kg

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

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

# 2.4.6 JB1 (NQE-3222)

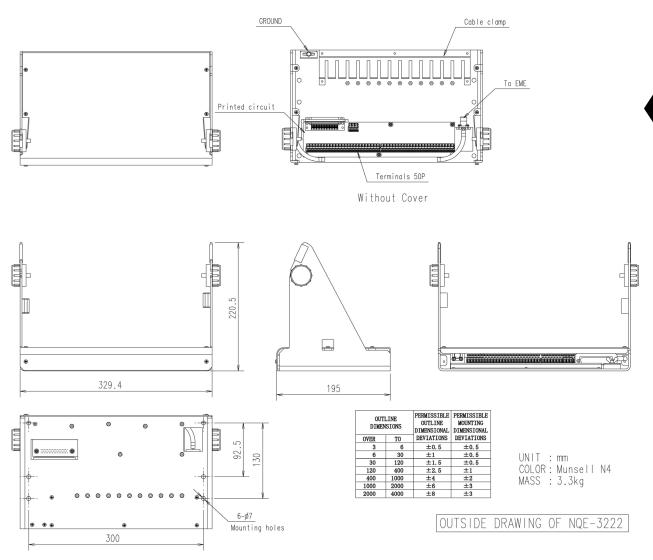
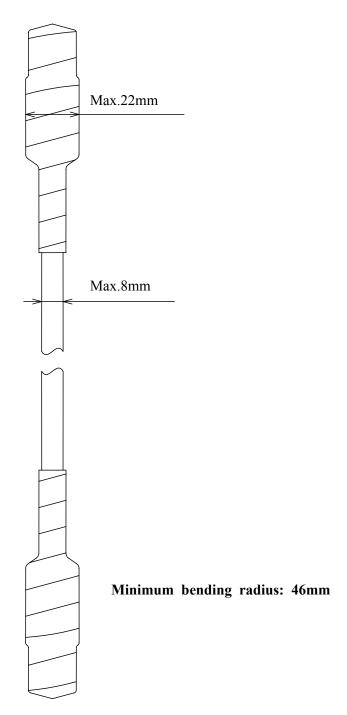


Fig.2.4.6 JB1

# 2.4.7 Coaxial Cable (CFQ-5922A)

Connecting EME and Antenna Cable.



Туре	Length
Standard: CFQ-5922A3	$30 \mathrm{m} (\pm 10 \mathrm{cm})$
Option: CFQ-5922A4	$40 \text{m} (\pm 10 \text{cm})$
Option: CFQ-5922A5	$50 \text{m} (\pm 10 \text{cm})$

Fig.2.4.7 Coaxial Cable

# 2.5 Dimensional Drawing (Optional Components)

# 2.5.1 RDB (NQE-3225)

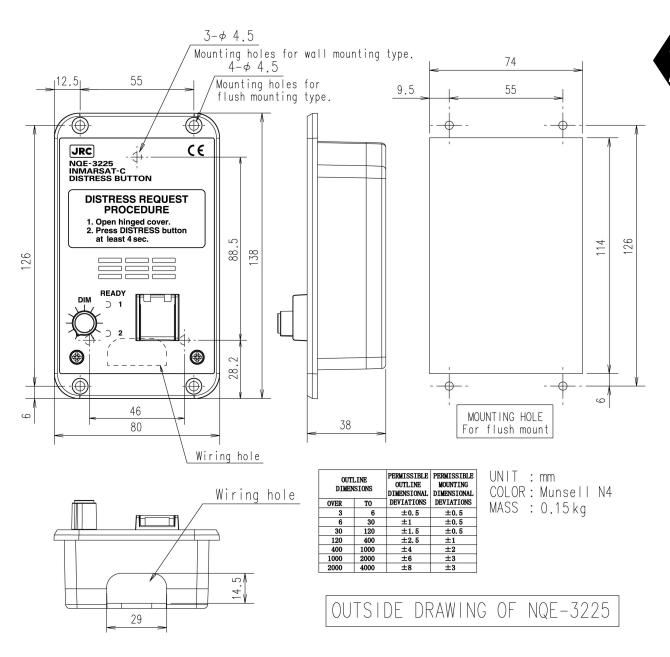


Fig.2.5.1 Remote Distress Button

# 2.5.2 JB2 (NQE-3223)

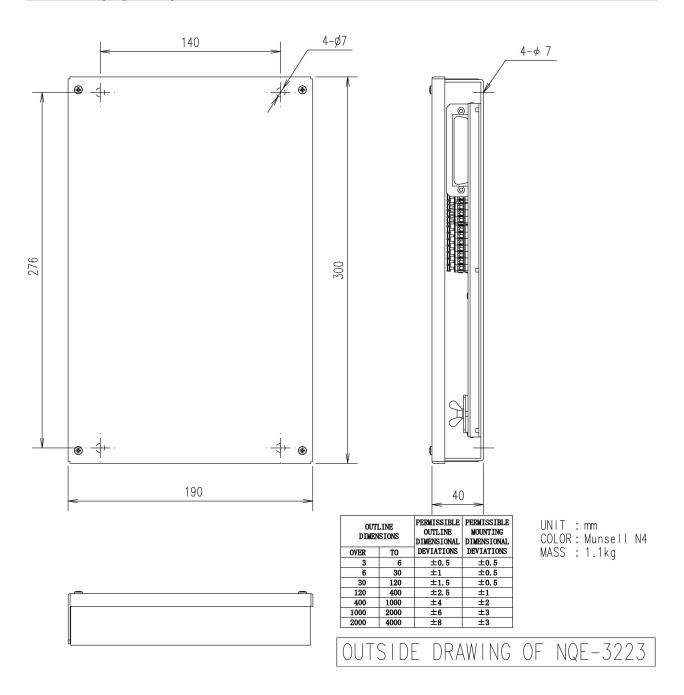
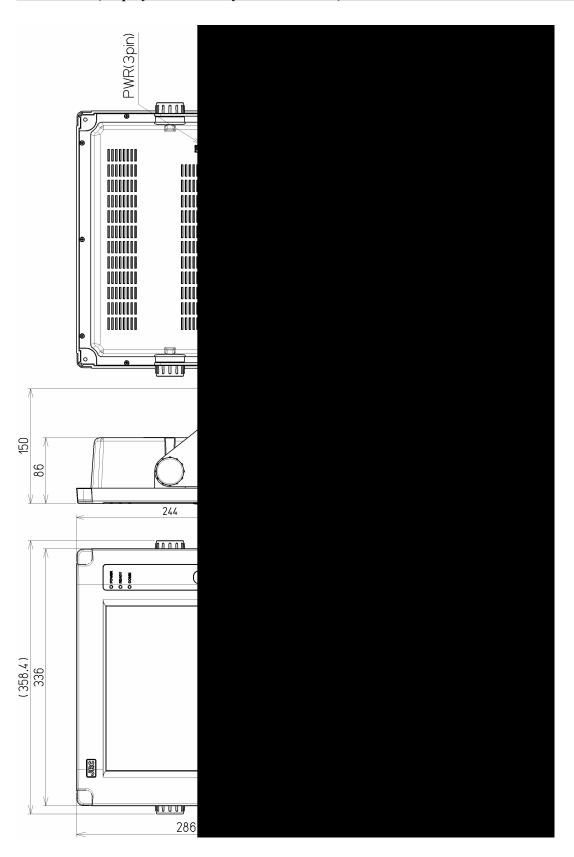


Fig.2.5.2 JB2

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



**Fig.2.5.3 DTE** 

# 2.5.4 EXT BUZ (NCE-5547)

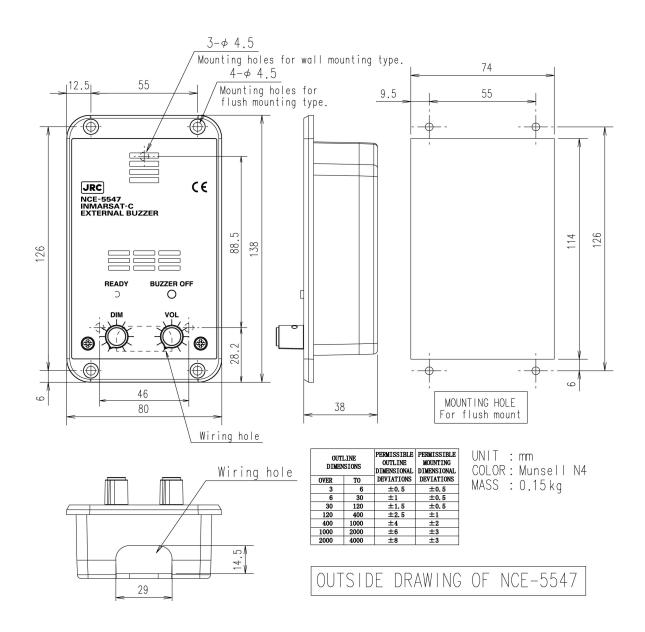


Fig.2.5.4 EXT BUZ

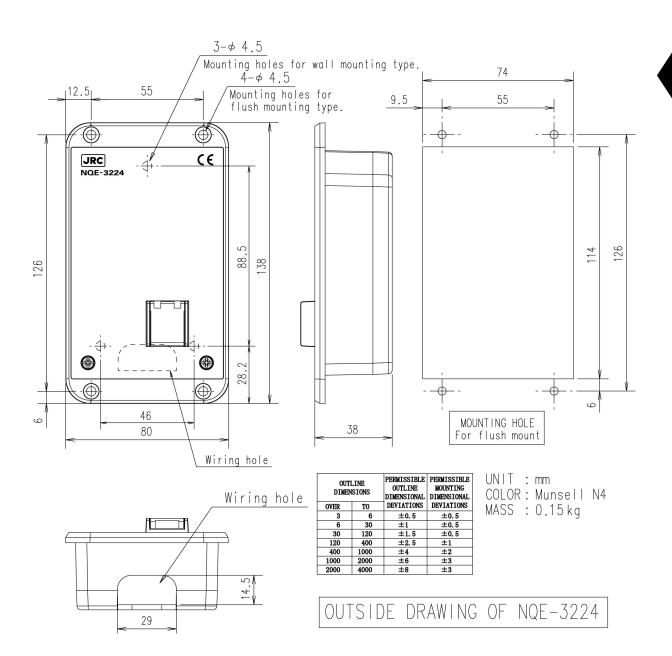


Fig.2.5.6 Security Button

# **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.

# 3.1.1 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> <li>Turn on the DC switch and AC switch on the EXT PSU.</li> <li>Turn on the IME and the POWER LED of the IME is illuminated.</li> <li>The software version is displayed and operation check.</li> </ul>	NOW LOADING  SELF DIAGNOSING  Software version :1.00  ROM check :OK
2	• The IME system software starts up in about 30 seconds, then Main menu screen is displayed.	RAM check : 0K Keyboard check : 0K
3	<ul> <li>Turn on the printer.</li> <li>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.</li> </ul>	See "Fig. 3.4"
4	<ul> <li>After few minutes, the status is changed Tune to "Comm (TX)" or "Egc-only" in the first line on the main menu.</li> <li>After few minutes, READY LED on the IME is lit.</li> <li>The status is changed "Comm (TX)" to "READY" in the first line on the main menu.</li> </ul>	Log-in (10-11-04 12:05) succeeded. F10:Previous
5	• 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	Turn off the IME.     (Press the POWER button until         POWER LED starts blink.)	• Press "Power" on front of IME for 2 seconds at least.
2	<ul> <li>The status is changed "READY" to "Comm (TX)" in the first line on the main menu to initiate the Log-out.</li> <li>After few minutes, POWER LED on the IME is light OFF.</li> <li>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.</li> </ul>	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> <li>Turn off the printer.</li> <li>Turn off the DC switch and AC switch on the EXT PSU.</li> </ul>	• 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	Hold down Alt key and press U key on Main menu.	"Set up" screen is displayed.
2	Hold down Alt key and press I key.	Log-in Do you initiate log- in? Yes No
3	<ul> <li>Move the cursor to "Yes" and press Enter key.</li> <li>The status is changed "Comm (TX)" in the first line on the main menu.</li> </ul>	
4	<ul> <li>After few minutes, READY LED on the IME is lit.</li> <li>The status is changed "Comm (TX)" to" READY".</li> <li>Press ESC key to clear the message window.</li> </ul>	Log-in (10-11-04 12:05) succeeded. F10:Previous

# 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	Hold down Alt key and press U key on Main menu.	"Set up" screen is displayed.	
2	Hold down Alt key and press O key.	Log-out	
		Do you initiate log- out? Yes No	
3	<ul> <li>Move the cursor to "Yes" and press Enter key.</li> <li>The status is changed from "READY" to "Comm (TX)" in the first line on the main menu.</li> </ul>		
4	<ul> <li>After few minutes, READY LED on the IME becomes unlit.</li> <li>The status is changed from "Comm (TX)" to "Log-out" on "Egc only".</li> </ul>	Log-out (10-11-04 13:10) succeeded. F10:Previous	

#### 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.

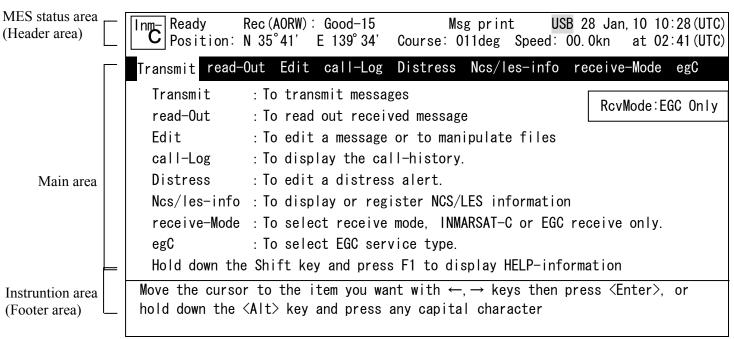


Fig.3.4 Main Manu Screen

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.

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  $\boxed{\textbf{Ctrl}}$  key:

 $\boxed{\text{Ctrl}} + \boxed{\uparrow}$ ....... To light up the display backlight and LED to 15 stages

Ctrl + 1 ......... To darken the display backlight and LED to 15 stages

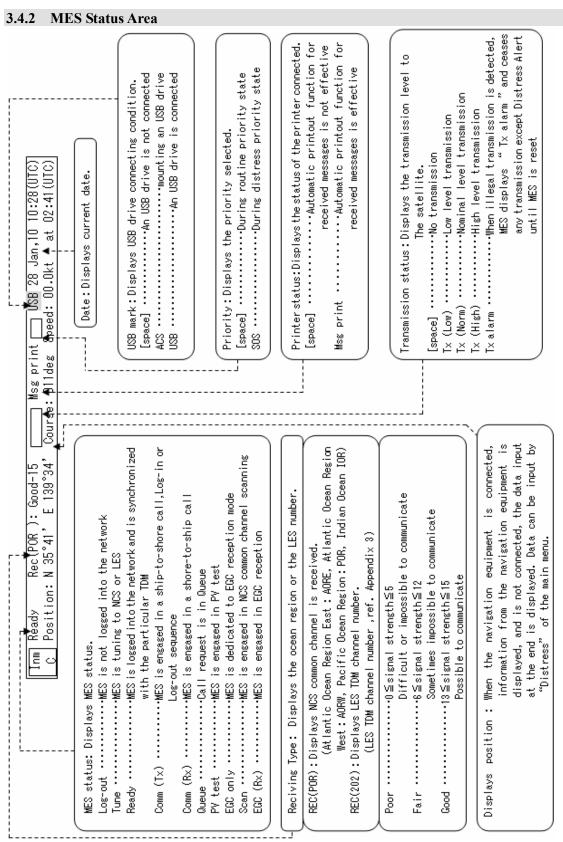


Fig.3.4.2 MES Status Area

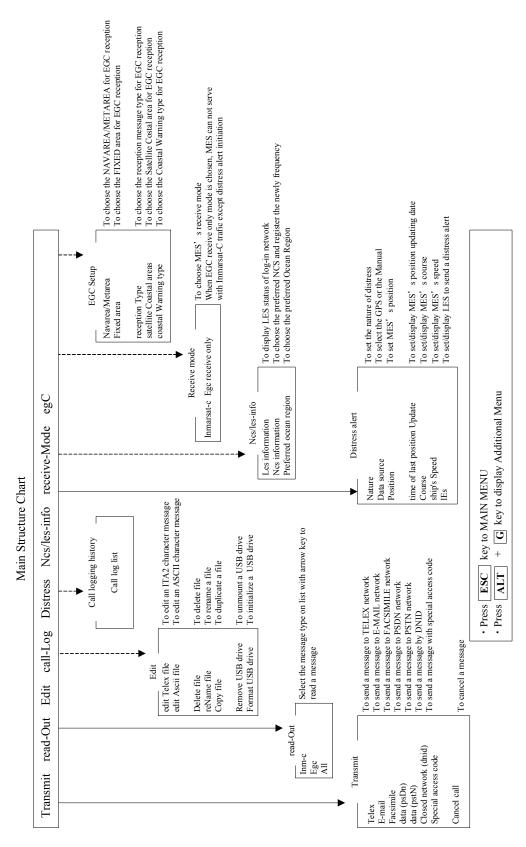


Fig.3.4.3 Menu Structure Chart

#### 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 Set Up Displays MES status Sets MES parameter

diAgnostics Diagnoses MES

To display the Status screen, press and hold  $\overline{\text{Alt}}$  key and then press  $\overline{\text{S}}$  key in the main menu or additional menu.

#### (Status screen)

Status

Mes status
ram/rom Test
Performance test result

Displays MES current status

Displays the RAM/ROM test results of Main, DTE, and modem unit

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
confiG

log-Out initiation log-In initiation

Performance test initiation Scheduled transmission

Land id registration for polling

dnid seleCtion

peripheral Function

passWord

**EPADR** informAtion

Sets date and time

Sets IME/DTE display

Initiates log-out request Initiates log-in request

Initiates performance test

 $Sets\ parameter\ of\ scheduled\ transmission$ 

Registers land user ID of S&F polling

Sets message reception to able/disable by dedicated

network ID

Sets parameter of peripheral function

Changes password

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
Alarm history
software Version
distress button Test

Displays data from data source equipment
Displays alarm history
Displays the software version of EME/IME/MODEM/DTE
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	Move the cursor to     "Ncs/les-info" with     using the arrow keys and     press Enter key.	• The "Ncs/les information" window is displayed.	
2	Move the cursor to     "Preferred ocean     region" and press Enter     key.	• The "Preferred ocean region" window is displayed.	
3	Confirm the cursor is at  "All ocean region" and press Enter key.	• Status display is changed from "Ready" to "Scan".	<ul> <li>When you want to change a parameter, move the cursor to the item you want and press Enter key.</li> <li>You cannot set up when the status in the first line on the main menu is "Tune".</li> <li>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.</li> </ul>
4	To return to Main menu screen, press Esc key.	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	Hold down Alt key and press     W key.	• The "Set up" window is displayed.	
2	Confirm that Data & Time window has been selected, then press Enter key.	• The "Date & time" window is displayed.	
3	Move the cursor to the item you want to correct and press      Enter key.		• You can select the display mode, Coordinated Universal Time (UTC), or local time (LT) with "display time".
4	To return to Main menu and correct Date & time in IME, press F10 ("Previous") key twice or Esc key.	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 " <b>Set up</b> " 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 massage 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.

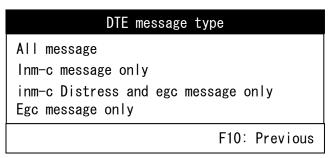


Fig.3.5.4 "DTE message type" Window

- 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
- Jemail 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.

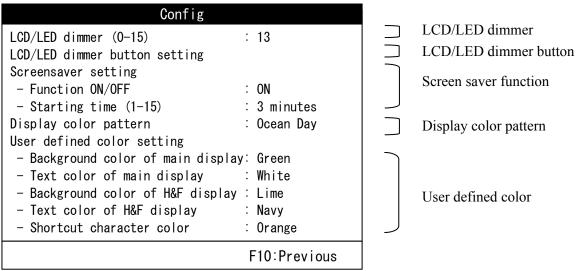


Fig.3.6 "Config" Window(Default Setting)

#### 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	b	utt	on	set	tin	g
Maximum		:	13				
Typical		:	10				
Minimum		:	6				
				F1	0∶Pr	evi	ous

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 <b>Enter</b> 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.
• 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 <b>Enter</b> 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".

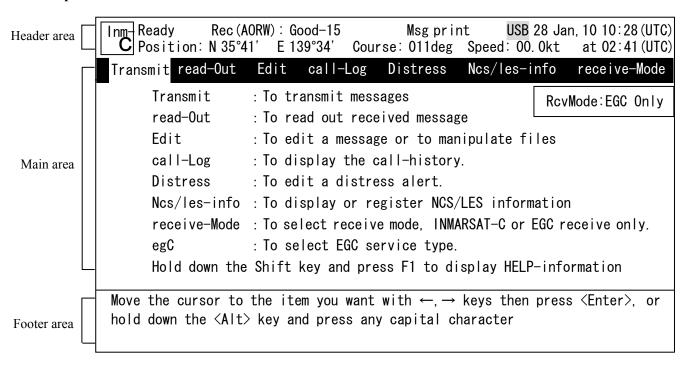


Fig.3.6.5 IME/DTE Display Structure

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 <b>Enter</b> key.  When the color is not changed, Press <b>F10</b> 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 <b>Enter</b> key.  When the color is not changed, Press <b>F10</b> 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 <b>Enter</b> key.  When the color is not changed, Press <b>F10</b> 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.

St	tep	Operation	IME/DTE Response
1	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	2	• Select the color and press <b>Enter</b> key.  When the color is not changed, Press <b>F10</b> 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 <b>Enter</b> key. When the color is not changed, Press <b>F10</b> 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.

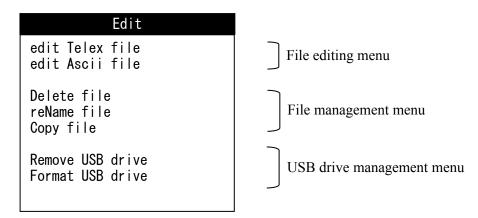


Fig.3.7 Example of "Edit" Window

### 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	• Move the cursor to "Edit" and press Enter key.	• The "Edit" window is displayed.	
2	• Move the cursor to "edit Telex file" or "edit Ascii file" and press Enter key. The cursor blinks at "File".	• List of files stored in the IME/DTE memory is displayed.	
3	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.  Enter key.	The message in the file is displayed.	<ul> <li>When you want to make a new file, enter a file name and press Enter key.</li> <li>Note 2</li> <li>When you want to edit a file stored in USB drive, input E: into the column of "File:" (Note 3)</li> </ul>
4	• Edit the message using Edit function keys (F1-F10).		See "3.6.2 Editing Procedure" below.
5	• After confirmation of editing, press F9 ("Save & Quit") key.	• Edited message is saved in the IME/DTE memory and the list of file is displayed again.	• When F7 ("Quit") key is pressed, the message is abandoned without saving in the USB drive.
6	• To return to Main menu screen, press Esc key.	Main menu screen is displayed.	

In	"edit	telex	file"	mode
----	-------	-------	-------	------

into the column of "File:".

Note 1)

	and the small letters are rejected in the file:
	!, @, #, \$, %, ^, &, *, _, {, [, ], }, :, $\pm$ , ;, ", ~, ', 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 <b>Delete</b> key, or <b>Backspace</b> key.
	To erase all characters, use <b>Delete</b> key. To erase characters one by one, use <b>Backspace</b> 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 <b>F</b> :

The characters which can use on the land telex line can be input. So, the following characters

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  $\boxed{F10}$  ("-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 ←, →, ↑ and ↓.	THE QU <u>C</u> K BROWN  ↑ cursor
	2	• Press F1 ("Insert-on").	THE QU <u>C</u> K BROWN
	3	Type character(s) to be inserted.	THE QUICK BROWN
F1 ("Insert-off") Character Change	1	• Move the cursor to the character to be changed by pressing ←, →, ↑ and ↓.	THE QUECK BROWN
	2	Type desired character(s).	THE QUICK BROWN
Line Insertion next line to be inserted by pressing		into ve the earson to a character in the	THE QUICK BROWN THE LAZY DOG
	2	• Press F2 ("Ins-Line").	THE QUICK BROWN  THE LAZY DOG
	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 ☐, ☐, ☐ and ☐.	THE QUICK QUICK BROWN
	2	• Press F4 ("Del-Word").	THE _QUICK BROWN
F5 ("Del-Line") Line Deletion		• Move the cursor to any character of the next line to be deleted by pressing ←, →, ↑ and ↓.	THE QUICK BROWN AB <u>C</u> 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")	1	• Press <b>F7</b> (" <b>Quit</b> ").	
Exit Edit without Saving File	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.	
Saving edited file as another file.		1 1055 To to save the cantea line as	Input save file name Name <u>:</u>
another file	2	<ul><li>Enter a new file name</li><li>Note 1</li></ul>	
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	1	• Press F1 ("Max Column").	Input Max Column Numbers:_
Line (Note)	2	• Type the number of characters per line and press <b>Enter</b> key.	
F2 ("Set Tab")	1	• Press <b>F2</b> ( <b>"Set Tab"</b> ).	Input Column Numbers:_
Tab setting	2	<ul> <li>Type the number of columns with delimiting by / key and press</li> <li>Enter key.</li> </ul>	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>U</u> ICK
	2	• Press F3 ("Undo-Char").	THE Q <u>U</u> ICK
F4 ("Undo-word") Restoration of Deleted	1	Move the cursor to the word after the one to be restored.	THE BROWN FOX
Word	2	• Press F4 ("Undo-Word").	THE QUICKBROWN FOX
F5 ("Undo-Line") Restoration of Deleted	1	• Move the cursor to the next line after the one to be restored.	THE QUICK OVE <u>R</u> THE LAZY
Line	2	• Press F5 ("Undo-Line").	BROWN FOX JUMPS THE QUICK OVER 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 <b>F6</b> (" <b>Merge-File</b> ").	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 <b>F7</b> ( <b>"Find"</b> ).	Input Search Strings:
	3	<ul> <li>Type the word to be searched. (EX: THE) The number of characters can be searched is 20 characters or less.</li> <li>Command set is returned to Group B, when searching is completed.</li> </ul>	THE 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	Move the cursor to the beginning of the line.	1. THE QUICK 2. THE BLOCK 3. THE QUICK
	2	• Press F9 ("Find/Replace").	Input Search String:
	3	• Input the search string and press Enter. EX. "BLOCK"	Input Replace String:
	4	• Input the replace string and press Enter EX. "QUICK"	2. THE BLOCK 3. THE QUICK  Replace the string?  YES NO
	5	<ul> <li>Select YES and press Enter to replace the search string.</li> <li>Select NO and press Enter to stop the search.</li> <li>EX. Select YES</li> </ul>	2. THE QUICK 3. THE QUICK Continue Search? YES NO
	6	<ul> <li>Select YES and press Enter to continue the search string.</li> <li>Select NO and press Enter to stop the search string.</li> </ul>	String xxxxx not found!
	7	Press any Key to return the edit mode.	
F10 ("-Others-") Switch of Command sets	1	• 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:

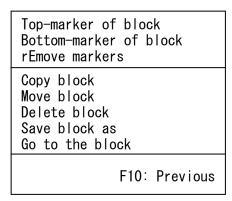


Fig.3.7.1.2a "Block function menu" Window

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	Move the cursor to the top of the block.	1. THE QUICK 2. THE QUICK 3. THE QUICK
2	<ul> <li>Press F3 ("Block").</li> <li>Move the cursor to "Top-marker of block" and press Enter key.</li> </ul>	Top-marker of block
3	Move the cursor to the bottom of the block.	1. THE QUICK 2. THE QUIC <u>K</u> 3. THE QUICK
4	<ul> <li>Press F3 ("Block").</li> <li>Move the cursor to "Bottom- marker of block" and press Enter key.</li> </ul>	Bottom- marker of block
5	When the block is selected, it is highlighted.	1. THE QUICK 2. THE QUICK 3. THE QUICK
6	<ul> <li>To remove the highlighted, press F3 ("Block").</li> <li>Move the cursor to "rEmove markers" and press Enter key.</li> </ul>	1. THE QUICK 2. THE QUICK 3. THE QUICK

# (2) Copy block

Step		Operation	Example	
1	•	Select the Block according to the item (1) "Select Block".	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK	
2	•	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	•	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	ed

<sup>\*</sup> Warning message window (Fig.3.8b) is displayed when the data capacity exceeds 8000 bytes.

# (3) Delete block

Step	Operation	Example
1	• Select the Block according to the item (1) "Select Block".	1. THE QUICK 2. THE QUICK 3. THE QUICK
2	• Press <b>F3</b> ( <b>"Block"</b> ).	3. THE QUICK
	• Select "Delete block" and press Enter key.	

# (4) Move block

Step		Operation	Example	
1	•	Select the Block according to the item (1) "Select Block".	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK	
2	•	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	•	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	ed block

# (5) Save block

Step	Operation	Example
1	• Select the Block according to the item (1) "Select Block".	1. THE QUICK 2. THE QUICK 3. THE QUICK
2	<ul> <li>Press F3 ("Block").</li> <li>Select "Save block as" and press Enter key.</li> </ul>	File name:_
3	<ul> <li>Enter the file name to be saved and press Enter Ex. ABC. TLX</li> <li>The block is saved to the memory.</li> </ul>	File name: ABC. TLX

## (6) Go to the block

Step	Operation	Example
1	• Select the Block according to the item (1) "Select Block".	1. THE QUICK 2. THE QUICK 3. THE QUICK 4. THE QUICK
2	• Press <b>F3</b> ( <b>"Block"</b> ).	3. THE QUICK
	• Select "Go to the block" and	4. THE QUICK
	Enter key.	
	• The cursor is jumped to a top of the block. (Note)	

## **NOTE**

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

Block has not marked.
This function is impossible now.
F10:Previous

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	• Move the cursor to "EdIt" and press Enter key.	"Edit" window is displayed.	
2	• Select "Delete file" and press Enter key.	• Delete file list menu is displayed.  "Delete file:_"	
3	• Select the file name to delete and press Enter key. EX. "TEST.BAK"	• "CAUTION:Are you sure you want to delete the file "TEST.BAK"? Yes No" is displayed.	To delete the file of USB drive, input <b>E</b> : into the column of "File:"
4	To delete the selected file, select Yes and press Enter key.	The selected file is deleted.	
5	Press ESC key to return the main menu.	The main menu is displayed.	

# (2) Rename file

	y Kename me				
Step		Operation		IME/DTE Response	Remarks
1	•	Move the cursor to "Edit" and press Enter key.	•	<b>"Edit"</b> window is displayed.	
2	•	Select "reName file" and press Enter key.	•	The file list memorized in IME/DTE and "Current file name:" is displayed.	
3	•	Select or input the file name you want to rename, and press Enter key. Example: "TEST. TLX"	•	"Current file name: TEST. TLX" "New file name: " is displayed.	
4	•	Input the new file name and press Enter key.  EX: "ABC. TLX"	•	"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	•	When the file name is renamed, select Yes and press Enter key.	•	The selected file is renamed.	
6	•	Press ESC key to return the main menu.	•	Main menu is displayed.	

(3) Copy file

(3)	) Copy file		
Step	Operation	IME/DTE Response	Remarks
1	• Move the cursor to "Edit" and press Enter key.	• "Edit" window is displayed.	
2	Select "Copy file" and pres     Enter key.	• The file list memorized in IME/DTE and "Current file name:" is displayed.	
3	<ul> <li>Enter the file name, or move the cursor to the file name you want to copy, then press Enter key.</li> <li>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.</li> </ul>	<ul> <li>"Current file name: XXX. TLX"</li> <li>"New file name: " is displayed.</li> </ul>	
4	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.	-	Input file name within 8 characters and input the extension within 3 characters.
5	• The new file is duplicated.		
6	Press ESC key to return the main menu.	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.	<ul> <li>"To stop the USB drive, choose Yes.</li> <li>After the USB drive is stopped,</li> <li>the USB drive can be safety removed.</li> <li>YES NO" is displayed</li> </ul>
3	•To remove the USB drive, select Yes and press Enter key.	<ul> <li>• When the processing is succeeded, "The USB drive can now be safely removed from DTE." is displayed and the USB mark is disappeared.</li> <li>• When the processing is failed, "ERROR DTE failed to stop the USB drive." is displayed.</li> <li>• When USB Device is not connected, "DTE failed to detect the USB drive" is displayed.</li> </ul>
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 Enter key.	•"Edit" window is displayed.	
2	• Select " Format USB drive " and press Enter key.	•"WARNING, Formatting will erase ALL data on the USB drive. To format the USB drive, choose Yes.  Yes No" is displayed.	
3	• Select Yes to format the USB drive and press Enter key, and then insert the new USB drive to USB drive. When select No key and press Enter key, back to the "Edit" window.	<ul> <li>• When start the formatting, "Formatting the USB drive." is displayed and blinked.</li> <li>• When the formatting is success, "Format the USB drive complete" is displayed.</li> <li>• When the formatting is failed, "ERROR DTE was unable to complete the format. Please remove the USB drive." is displayed.</li> <li>• When carry out the formatting USB drive is not connected, "DTE failed to detect the USB drive." is displayed.</li> </ul>	

#### 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 Mousses, 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.
- 35: 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.
- ¾14: 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.

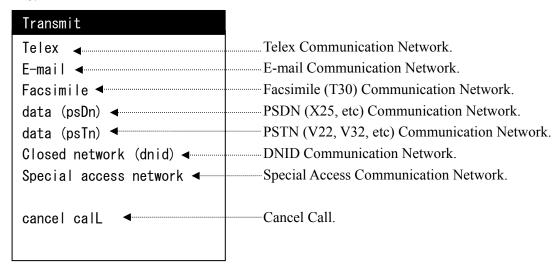


Fig.3.8a "Transmit" Window

#### **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.



#### 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

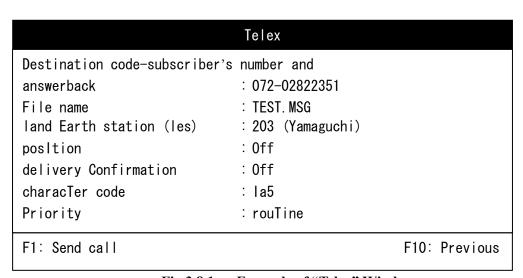


Fig.3.8.1a Example of "Telex" Window

Step	Operation	IME/DTE Response	Remarks
1	• Move the cursor to " <b>Transmit</b> " and press <b>Enter</b> key.	• The "Transmit" window is displayed.	
2	Move the cursor to "Telex" and press Enter key.	The "Telex" window is displayed.	"Telex" is the mandatory facility for all LESs.     Other facility depends on each LES.
3	<ul> <li>Move the cursor to "Destination code-subscriber's number and answerback" and press Enter key.</li> </ul>	• The "Destination" window is displayed.	
4	Move the cursor to the "1:" and press Enter key.	The cursor is moved to "subscriber's no".	• When the abbreviated number is used, press F2 ("Address book code") key.
5	<ul> <li>Type telex country code, subscriber's number and press  Ex. Country code: 72 Subscriber's number: 12345678 </li> <li>07212345678  </li> </ul>	• The cursor is moved to "answerback".	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	• Type answerback code and press  Enter.  Ex. 12345678 ABCD J  12345678 ABCD  J Enter	• The cursor is moved to "2".	<ul> <li>When the answerback code is not provided, press</li> <li>Enter key only.</li> <li>Note 1</li> </ul>
7	• After confirmation of each parameter, press F10 ("Previous") key.	• The "Telex" window is displayed, and the cursor is moved to "File name".	
8	• When the file is selected, press <b>Enter</b> key.	The cursor is moved to right side.	
9	• Press F2 ("File selection") key.	• The "File list" window is displayed.	
10	• Select the file by ①, ↓ key and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 2</li> </ul>
11	• Confirm the contents and press F10 ("Previous") key.	The "File list" window is displayed.	

Step	Operation	IME/DTE Response	Remarks
12	• Press F10 ("Previous") key to return the "Telex" window.	• The "Telex" window is displayed and the cursor is moved to "land Earth station (les)".	
13	When the LES is selected, press     Enter key.	The cursor is moved to right side.	When the LES ID is knowledge, type the LES ID directly.
14	• Confirm the contents and press F2 ("LES list") key.	• The "Les list" window is displayed.	• When the JUE-87 is not synchronized to satellite, the blank list is displayed.
15	• Select the Les ID by ↑, ↓ key, and press Enter key.	• The cursor is moved to "posItion".	• Note 3
16	• When the setting of the "posItion" is changed, press Enter key.	The cursor is moved to right side.	
17	<ul> <li>When the ship's position is included the transmitting message, select</li> <li>"oN" and press Enter key. When the ship's position is not included, select "Off" and press Enter key.</li> </ul>	• The cursor is moved to "delivery Confirmation".	
18	<ul> <li>When the setting of the "delivery Confirmation" is changed, press</li> <li>Enter key.</li> </ul>	The cursor is moved to right side.	
19	<ul> <li>When the delivery confirmation is requested to LES, select "oN" and press Enter key.</li> <li>When the delivery confirmation is not requested to LES, select "Off" and press Enter key.</li> </ul>	• The cursor is moved to "characTer code".	
20	• When the setting of the "characTer code" is changed, press Enter key.	The cursor is moved to right side.	
21	<ul> <li>Select the "characTer code" and Enter key.</li> <li>Select the "Ia5" normally.</li> </ul>	• The cursor is moved "Priority".	
22	• When the "Priority" is changed, press Enter key.	The cursor is moved to right side.	
23	<ul> <li>When the priority is set to the normal, select "Routine" and press Enter key.</li> <li>When the priority is set to the distress, select "Distress" and press Enter key.</li> </ul>	The cursor is returned to "Destination code-subscriber's number and answerback".	

Step	Operation	IME/DTE Response	Remarks
24	• After confirmation of each parameter, press F1 ("Send Call") key.	The contents of the selected file are displayed, and then Main menu is displayed again.	Normally, it takes about 3-5 minutes to complete the communication.
25		"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.	• Press F10 ("Previous") key to delete the message.
26	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> <li>"S&amp;F message (96-01-15 11:00) delivered to subscribers (07202822351)" is displayed.</li> <li>Example: Delivery date and time: 1996/1/15 11:00 Destination number: 07202822351</li> </ul>	• 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.

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

Fig.3.8.1b "ERROR" Window

3

Note 3) When the selected LED ID is closed, or the selected LES ID is other than  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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  $\ensuremath{\mathsf{ID}}$ .

F10:Previous

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)
posltion : 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	Move the cursor to     "Transmit" and press     Enter key.	• The "Transmit" window is displayed.	
2	Move the cursor to the     "E-mail" and press Enter     key.	The "E-mail" window is displayed.	• "E-mail" is optional facility for each LES.
3	• Move the cursor to the "Special access code" and press Enter key.	• The cursor is moved to right column from "Special access code".	
4	Type the Special access code (Numbers or Alphabets, 6 digits maximum) and press Enter key.  Ex. 28  Enter	The cursor is moved to     "File name".	<ul> <li>Special access codes differ from LES to LES.</li> <li>Ask LES of the LES's special access code.</li> </ul>
5	When the file is selected, press Enter key.	• The cursor is moved to right column from "File name".	
6	• Press F2 ("File selection") key.	• The "File list" window is displayed.	
7	• Select the file by 1, Lkey and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 1, 2</li> </ul>
8	After confirmation of the contents and press F10 ("Previous") key.	The "File list" window is displayed.	

Step	Operation	IME/DTE Response	Remarks
9	Press F10 ("Previous") key to return to the "Special access network" window.	• The cursor is moved to "land Earth station (les)".	
10	When the LES is selected, press Enter key.	• The cursor is moved to right column from "land Earth station (les)"	When the LES ID is knowledge, type the LES ID directly.
11	• Press F2 ("Les list") key.	The "Les list" window is displayed.	When the JUE-87 is not synchronized to satellite, the blank list is displayed.
12	• Select the LES ID by ↑, ↓ key, and press Enter key.	• The cursor is moved to "posItion".	• Note 3
13	When the setting of the     "posItion" is changed, press     Enter key.	• The cursor is moved to right column from "posItion".	
14	<ul> <li>When the ship's position is included the transmitting message, select "oN" and press Enter key.</li> <li>When the ship's position is not included, select "Off" and press Enter key.</li> </ul>	The cursor is moved to      "characTer code".	
15	When the setting of the "characTer code" is changed, press Enter key.	• The cursor is moved to right column from "characTer code".	
16	Select the "characTer code" and Enter key.	• The cursor is moved to "delivery Confirmation".	
17	When the setting of the     "delivery Confirmation" is     changed, press Enter key.	• The cursor is moved to right column from "delivery Confirmation".	
18	<ul> <li>When the delivery confirmation is requested to LES, select "oN" and press Enter key.</li> <li>When the delivery confirmation is not requested to LES, select "Off" and press Enter key.</li> </ul>	<ul> <li>The cursor is moved to "characTer code".</li> <li>The "special access code" window is displayed.</li> </ul>	
19	After confirmation of each parameter, press F1 ("Send Call") key.		Normally, it takes about 3-5 minutes to complete the communication.

Step		Operation		IME/DTE Response	Remarks
20	•	Press F10 ("Previous") key to return to main menu.	•	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  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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

country coDe-		
subscriber's number	: 081-422459957	
Modem of subscriber	: T30	
File name	: TEST. MSG	
land Earth station(les)	:203 (Yamaguchi)	
position	: Off	
characTer code	: Ia5	
delivery Confirmation	: Off	

Fig.3.8.3a Example of "Facsimile" Window

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to     "Transmit" and press Enter key.	The "Transmit" window is displayed.	
2	Move the cursor to the     "Facsimile" and press Enter key.	• The "Facsimile" window is displayed.	• "Facsimile" is optional facility for each LES.
3	• Move the cursor to the "Country code-subscriber's number" and press Enter.	• The " <b>Destination</b> " window is displayed.	
4	Move the cursor to the "1:" and press Enter key.	• The cursor is moved to "subscriber's no".	• When the abbreviated number is used, press F2 ("Address book code") key.
5	Type telephone country code, subscriber's number and press Enter.  Ex. Country code: 81 Subscriber's number: 12345678  8112345678  Enter	• The cursor is moved to "2:".	<ul> <li>Type triple digits in the country code. When the country code is double digits such as Ex, "0" is preceded by the country code.</li> <li>Note 1</li> </ul>
6	• After confirmation of each parameter, press F10 ("Previous") key.	• The cursor is moved to "File name".	
7	When the file is selected, press Enter key.	The cursor is moved to right side.	

Step	Operation	IME/DTE Response	Remarks
8	• Press F2 ("File selection") key.	The "File list" window is displayed.	
9	• Select the file by , . key and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 2, 3</li> </ul>
10	After confirmation of the contents and press F10 ("Previous") key.	The "File list" window is displayed.	
11	• Press F10 ("Previous") key to return the "Facsimile" window.	• The cursor is moved to "land Earth station (les)".	
12	• When the LES is selected, press Enter key.	The cursor is moved to right side.	When the LES ID is knowledge, type the LES ID directly.
13	• Press F2 ("LES list") contents and press ("Previous") key.	The "LES list" window is displayed.	• When the JUE-87 is not synchronized to satellite, the blank list is displayed.
14	• Select the LES ID by 1, key, and press Enter key.	• The "Facsimile" window is displayed and the cursor is moved to "posItion".	• Note 4
15	• When the setting of the "posItion" is changed, press Enter key.	The cursor is moved to right side.	
16	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.	The cursor is moved to "characTer code".	
17	• When the setting of the "characTer code" is changed, press Enter key.	The cursor is moved to right side.	
18	<ul> <li>Select the "characTer code" and Enter key.</li> <li>Select the "Ia5" normally.</li> </ul>	• The cursor is moved to "delivery Confirmation".	
19	• When the setting of the "delivery Confirmation" is changed, press Enter key.	The cursor is moved to right side.	

Step	Operation	IME/DTE Response	Remarks
20	<ul> <li>When the delivery confirmation is requested to LES, select "oN" and press Enter key.</li> <li>When the delivery confirmation is not requested to LES, select "Off" and press Enter key.</li> </ul>	The cursor is return to "country coDe-subscriber's number".	
21	• After confirmation of each parameter, press F1 ("Send Call") key.	The contents of the selected file are displayed, then Main menu is displayed again.	• Normally, it takes about 3-5 minutes to complete the communication.
22		"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.	• Press F10 ("Previous") key to clear the message.
23	After the message is transmitted to subscribers,     "S&F message delivered to subscribers" is displayed.  Press F10 ("previous") key to return previous screen.	"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.	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.

### **ERROR**

The file is missing. Confirm the file name.

F10:Previous

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.

Warning Can not display binary text. F10:Previous

Fig.3.8.3c "WARNING" Window

Note 4) When the selected LED ID is closed, or the selected LES ID is other than  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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.3.8.3d "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	•	Move the cursor to "Transmit" and press Enter.	•	The "Transmit" window is displayed.		
2	•	Move the cursor to the "data (psDn)" and press Enter.	•	The "Data (PSDN)" window is displayed.	•	"Data (PSDN)" is optional facility for each LES.
3	•	Move the cursor to the "Data network id, subscriber's number and answerback" and press Enter.	•	The " <b>Destination</b> " window is displayed.		
4	•	Move the cursor to the "1:" and press Enter key.	•	The cursor is moved to "subscriber's no".	•	When the abbreviated number is used, Press F2 ("Address book code") key.
5	•	Type data network id, subscriber's number and press Enter.  Ex. Data Network ID: 1112  Subscriber's number: 12345678  11121212345678  Enter	•	The cursor is moved to "2:".	•	The data network id is provided by each LES.  Note 1
6	•	Confirm each parameter, and press F10 ("Previous") key.	•	Data (PSDN) window is displayed and the cursor is moved to "File name".		
7	•	When the file is selected, press Enter key.	•	The cursor is moved to right side.		
8	•	Press F2 ("File selection") key.	•	The "File list" window is displayed.		

Step	Operation	IME/DTE Response	Remarks
9	• Select the file by 1, key and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 2, 3</li> </ul>
10	• Confirm the contents and press F10 ("Previous") key.	The "File list" window is displayed.	
11	• Press F10 ("Previous") key to return the "Data (PSDN)" window.	• Data (PSDN) window is displayed and the cursor is moved to "land Earth station (les)".	
12	• When the LES is selected, press Enter key.	The cursor is moved to right side.	When the LES ID is knowledge, type the LES ID directly.
13	• Press F2 ("LES list") key.	• The "Les list" window is displayed.	<ul> <li>When the JUE-87 is not synchronized to satellite, the blank list is displayed.</li> <li>Note 4</li> </ul>
14	• Select the LES ID by , key, and press Enter key.	Data (PSDN) window is displayed and the cursor is moved to "posItion".	
15	• When the setting of the "posItion" is changed, press Enter key.	The cursor is moved to right side.	
16	<ul> <li>When the ship's position is included the transmitting message, select "oN" and press Enter key.</li> <li>When the ship's position is not included, select "oFf"</li> </ul>	The cursor is moved to     "delivery     Confirmation".	
17	<ul> <li>and press Enter key.</li> <li>When the setting of the "delivery Confirmation" is changed, press Enter key.</li> </ul>	The cursor is moved to right side.	
18	When the delivery confirmation is requested to LES, select "oN" and press Enter key.	The cursor is returned to     " Data network id     subscriber's number".	
	When the delivery confirmation is not requested to LES, select "Off" and press Enter key		

Step	Operation	IME/DTE Response	Remarks
19	• Confirm each parameter and press F1 ("Send Call") key.	The Main menu is displayed.	• Normally, it takes about 3-5 minutes to complete the communication.
20		"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.	• Press F10 ("previous") key to clear the message.
21		<ul> <li>"S&amp;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</li> <li>When the message print on function is turned on, the call time destination number and LES ID are displayed.</li> </ul>	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.

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

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.

Warning Can not display binary text. F10:Previous

Fig.3.8.4c "WARNING" Window

Note 4) When the selected LED ID is closed, or the selected LES ID is other than  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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.3.8.4d "ERROR" Window

### 3.8.5 Transmitting Data (PSTN) Message

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

Fig.3.8.5a Example of "Data (PSTN)" Window

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to     "Transmit" and press     Enter key.	• The "Transmit" window is displayed.	
2	Move the cursor to the     "data (psTn)" and press     Enter key.	• The "Data (PSTN)" window is displayed.	"Data (PSTN)" is optional facility for each LES.
3	Move the cursor to the     "Country     code-subscriber's     number" and press Enter.	• The "Destination" window is displayed.	
4	Move the cursor to the "1:" and press Enter key.	• The cursor is moved to "Subscriber's no".	<ul> <li>When the abbreviated number is used, press</li> <li>F2 ("Address book code") key.</li> </ul>
5	Type telephone country code, subscriber's number and press Enter.	• The cursor is moved to "2:".	• Note 1
	<ul> <li>Ex. Country code: 081         Subscriber's number:         12345678     </li> <li>08112345678</li> </ul>		
	Enter	TI ((D. ) (DCTN)	
6	• After confirmation of each parameter, press F10 ("Previous") key.	<ul> <li>The "Data (PSTN)" window is displayed.</li> <li>The cursor is moved to "Modem of subscriber".</li> </ul>	
7	When the setting of the     Modem of subscriber's is     changed, press Enter key.	The cursor is moved to right side.	
8	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> <li>The "Data (PSTN)" window is displayed.</li> <li>The cursor is moved to "File name".</li> </ul>	
9	When the file is selected, press Enter key.	The cursor is moved to right side.	
10	• Press F2 ("File selection") key.	• The "File list" window is displayed.	

Step	Operation	IME/DTE Response	Remarks
11	Select the file by ↑, ↓.key and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 2, 3</li> </ul>
12	After confirmation of the contents and press F10 ("Previous") key.	The "File list" window is displayed.	
13	Press F10 ("Previous") key to return the "Data (PSTN)" window.	<ul> <li>The "Data (PSTN)" window is displayed.</li> <li>The cursor is moved to "land Earth station (les)".</li> </ul>	
14	When the LES is selected, press Enter key.	The cursor is moved to right side.	When the LES ID is knowledge, type the LES ID directly.
15	• Press F10 ("LES list") key.	The "LES list" window is displayed.	When the JUE-87 is not synchronized to satellite, the blank list is displayed.
16	• Select the LES ID by 1, key, and press Enter key.	<ul> <li>The "Data (PSTN)" window is displayed.</li> <li>The cursor is moved to "posItion".</li> </ul>	Note 4
17	When the setting of the     "posItion" is changed,     press Enter key.	The cursor is moved to right side.	
18	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.	The cursor is moved to     "characTer code".	
19	When the setting of the     "characTer code" is     changed, press Enter key.	The cursor is moved to right side.	
20	<ul> <li>Select the "characTer code" and Enter key.</li> <li>Select the "Ia5" normally.</li> </ul>	The cursor is moved to     "delivery Confirmation".	
21	• When the setting of the "delivery Confirmation" is changed, press Enter key.	The cursor is moved to right side.	

Step	Operation	IME/DTE Response	Remarks
22	<ul> <li>When the delivery confirmation is requested to LES, select "oN" and press Enter key.</li> <li>When the delivery confirmation is not requested to LES, select "Off" and press Enter key.</li> </ul>	The cursor is returned to     "country coDe-subscriber's     number".	
23	After confirmation of each parameter, press F1 ("Send Call") key.	The contents of the selected file are displayed, and then Main menu is displayed again.	Normally, it takes about 3-5 minutes to complete the communication.
24		"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.	Press F10 ("Previous")     key to clear the     message.
25		<ul> <li>"S&amp;F message (96-01-15 11:00) delivered to subscribers (0811234567)" is displayed.</li> <li>Example: Delivery date and time: 1996/1/15 11:00 Destination number: 0811234567</li> <li>When the message print on function is turned on, the call time destination number and LES IDs are displayed.</li> </ul>	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.

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

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.

Warning Can not display binary text. F10: Previous

Fig.3.8.5c "WARNING" Window

Note 4) When the selected LED ID is closed, or the selected LES ID is other than  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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.3.8.5d "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) File name Ind Earth station (les) position traNsfer Closed network (dnid) : 12345 : TEST. MSG : 203 (Yamaguchi) : Off : Data report F1: Send call F10: Previous

Fig.3.8.6a Example of "Closed network" Window

	Closed network (S&F)	
cloSed network id (dnid) File name land Earth station (les) posItion traNsfer character code delivery Confirmation	: 12345 : TEST.MSG : 203 (Yamaguchi) : Off : S&F : Ia5 : oN	
F1: Send call		F10: Previous

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

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to     "Transmit" and press     Enter key.	The "Transmit" window is displayed.	
2	Move the cursor to the     "Closed network" and     press Enter key.	The "Closed network" window is displayed.	• "Closed network" is the optional facility for each LES.
3	Move the cursor to the     "Closed network id" and     press Enter key.	The cursor is moved to right entry field from "Closed network id".	
4	When the closed network ID is selected, press F2 ("DNID list") key.	<ul> <li>The "Closed network list window" is displayed.</li> <li>When the closed network ID is not downloaded, the blank list is displayed.</li> </ul>	When the closed network ID is not downloaded, the blank list is displayed.
5	• Select the closed network ID by 1 and 2 key and press Enter key.	• The cursor is moved to "File name".	
6	When the file is selected, press Enter key.	The cursor is moved to right column from "File name".	
7	• Press F2 ("File selection") key.	The "File list" window is displayed.	
8	• Select the file by 1, key and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 1, 2</li> </ul>
9	• After confirmation of the contents and press F10 ("Previous") key.	The "File list" window is displayed.	
10	• Press F10 ("Previous") key to return the "Closed network" window.	• The cursor is moved to "land Earth station (les)".	
11	• When the LES is selected, press Enter key.	• The cursor is moved to right column from "land Earth station (les)".	When the LES ID is knowledge, type the LES ID directly.
12	Press F2 ("LES list") key.	The "LES list" window is displayed.	When the JUE-87 is not synchronized to satellite, the blank list is displayed.
13	• Select the LES ID by 1, 4 key, and press <b>Enter</b> key.	• The cursor is moved to "posItion".	• Note 3

Step	Operation	IME/DTE Response	Remarks
14	When the setting of the     "posItion" is changed,     press Enter key.	The cursor is moved to right column from "posItion".	
15	<ul> <li>When the ship's position is included the transmitting message, select "oN" and press Enter key.</li> <li>When the ship's position is not included, select "Off" and press Enter key.</li> </ul>	The cursor is moved to "traNsfer".	
16	• When the setting of "traNsfer" is changed, press Enter key.	The cursor is moved to right column from "traNsfer".	
17	• When the data reporting service is used, select the "Data report" and press  Enter key.	When the "S&F" is selected, the "closed network" window is displayed.	• When the "Data report" is selected, skip to step 23.
	When the store and forward service is used, select the "S&F" and press Enter key.		
18	Select the "characTer code" and Enter key.	• The cursor is moved to right column from "characTer code".	
19	• When the setting of the "characTer code" is changed, press Enter key.	• The cursor is moved to "delivery Confirmation".	
20	• When the setting of the "delivery Confirmation" is changed, press <b>Enter</b> key.	• The cursor is moved to right column from "delivery Confirmation".	
21	• When the delivery Confirmation is requested to LES, select "oN" and press Enter key.	The cursor is returned to      "closed network id".	
	When the delivery confirmation is not requested to LES, select "Off" and press Enter key.		
22	After confirmation of each parameter, press F1 ("Send Call") key.	The contents of the selected file are displayed, and then Main menu is displayed again.	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.

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

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.

Warning Can not display binary text. F10: Previous

Fig.3.8.6d "WARNING" Window

Note 3) When the selected LED ID is closed, or the selected LES ID is other than  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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.3.8.6e "ERROR" Window

### 3.8.7 Transmitting Special Access Network Message

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

Fig.3.8.7a Example of "Special access network" Window

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to     "Transmit" and press     Enter key.	The "Transmit"     window is displayed.	
2	Move the cursor to the     "Special access network"     and press Enter key.	The "Special access network" window is displayed.	• "Special access network" is optional facility for each LES.
3	• Move the cursor to the "Special access code" and press Enter key.	• The cursor is moved to right column from "Special access code".	
4	Type the Special access code (Numbers or Alphabets, 6 digits maximum) and press Enter key.  Ex. 28  Enter	The cursor is moved to "File name".	<ul> <li>Special access codes differ from LES to LES.</li> <li>Ask LES of the LES's special access code.</li> </ul>
5	• When the file is selected, press Enter key.	• The cursor is moved to right column from "File name".	
6	• Press F2 ("File selection") key.	• The "File list" window is displayed.	
7	• Select the file by 1, Lkey and press Enter key.	The contents of the file are displayed.	<ul> <li>When the file name is knowledge, type the file name directly.</li> <li>Note 1, 2</li> </ul>
8	After confirmation of the contents and press F10 ("Previous") key.	The "File list" window is displayed.	

Step	Operation	IME/DTE Response	Remarks
9	Press F10 ("Previous") key to return to the "Special access network" window.	• The cursor is moved to "land Earth station (les)".	
10	When the LES is selected, press Enter key.	• The cursor is moved to right column from "land Earth station (les)".	When the LES ID is knowledge, type the LES ID directly.
11	• Press F2 ("Les list") key.	The "Les list" window is displayed.	When the JUE-87 is not synchronized to satellite, the blank list is displayed.
12	• Select the LES ID by 1, 4 key, and press Enter key.	• The cursor is moved to "posItion".	• Note 3
13	When the setting of the     "posItion" is changed, press     Enter key.	• The cursor is moved to right column from "posItion".	
14	When the ship's position is included the transmitting message, select "oN" and press Enter key.	• The cursor is moved to "characTer code".	
	<ul> <li>When the ship's position is not included, select "Off" and press Enter key.</li> </ul>		
15	• When the setting of the "characTer code" is changed, press Enter key.	The cursor is moved to right column from "characTer code".	
16	Select the "characTer code" and Enter key.	• The cursor is moved to "delivery Confirmation".	
17	• When the setting of the "delivery Confirmation" is changed, press Enter key.	• The cursor is moved to right column from "delivery Confirmation".	
18	<ul> <li>When the delivery confirmation is requested to LES, select "oN" and press Enter key.</li> <li>When the delivery confirmation is not requested to LES, select "Off" and press Enter key.</li> </ul>	<ul> <li>The cursor is moved to "characTer code".</li> <li>The "special access code" window is displayed.</li> </ul>	
19	After confirmation of each parameter, press F1 ("Send Call") key.		Normally, it takes about 3-5 minutes to complete the communication.

Step	Operation		IME/DTE Response		Remarks
20	•	Press F10 ("Previous") key to return to main menu.	•	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  $000 \sim 063$ ,  $100 \sim 163$ ,  $200 \sim 263$ , and  $300 \sim 363$ , 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> <li>Move the cursor to</li> <li>"Transmit" and press</li> <li>Enter key.</li> </ul>	• The "Transmit" window is displayed.	
2	Move the cursor to the service type to register the address number.	The "Transmit" window is displayed.	• The address number can be used in "Telex", "FAX", "Data (PSTN)" and "Data (PSDN)".
3	<ul> <li>Move the cursor to the "Destination code" and press Enter key.</li> </ul>	• The "Destination" window is displayed.	
4	• Press F2 ("Address book code") key.	The "Address book code" window is displayed.	
5	• Move the cursor to register the abbreviated number and press <b>F6</b> ("New code") key.	• The cursor is moved to "Name".	The abbreviated number is registered 40 numbers maximum.
6	<ul> <li>Type the country code, subscriber's number and press Enter key.</li> <li>When the service type is "Telex", type the answerback code.</li> <li>Move the cursor to next number after press Enter key.</li> </ul>	The typed numbers are displayed.	<ul> <li>When the cursor is moved, press ← or → key.</li> <li>When the number is deleted, press Del key.</li> </ul>
7	• After confirmation of each parameter, press F1 ("Complete") key.	The "Address book code" window is displayed.	Registration completed.
8	Press Esc Key.	• The "Main Menu" screen is displayed.	

### (2) Address number selection

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to     "Transmit" and press     Enter key, on main menu.	• The "Transmit" window is displayed.	
2	Move the cursor to the service type to register the address number, and press      Enter key.	Selected service window is displayed.	
3	Move the cursor to     "Destination code" and     press Enter key.	The "Destination" window is displayed.	
4	Press F2 ("Address book code") key.	• The "Address book code" window is displayed.	
5	Select the address number by cursor key and press     Enter key.	The line of selected number is displayed in reverse.	
6	• Press F10 ("Previous") key.	The specified destination number etc. is displayed on the "Destination" menu.	<ul> <li>When the multi address function is used, press</li> <li>Enter key instead of</li> <li>F10 key, and select the number.</li> <li>After confirmation, press</li> <li>F10 ("Previous") key.</li> <li>Note 1</li> </ul>
7	• Press F10 ("Previous") key.	"Telex" window is displayed.	
8	Set the other request parameter and press F1 ("Send Call") key when you want to send a call.	The "Main Menu" screen is displayed.	Communication can be start.

Note 1) Using Multi address function, message can be sent up to 5subscribers 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 <b>"Set up"</b> 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 <b>Enter</b> key.	The "Scheduled transmission parameter" window is displayed.	See the example below.
4	Move the cursor to each item to set and press <b>Enter</b> 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 Tim	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:N	lext F10:Previous							

Fig.3.8.9 Example of "Scheduled transmission" Window

3

• 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	Move the cursor to     "read Out" and press     Enter key.	"Read-out" window is displayed. It shows 3 types of message list.	• "Inm-C":  "Inm-C message list"  "Egc":  "Egc message list"  "All":  "reception message list"  (Received all messages)
2	Select the type of message list you want to see.	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.)	• See Fig. 3.9a to 3.9c.
3	Move the cursor to the message you want to read and press Enter key.	<ul> <li>The message you want to see is displayed. (See Fig. 3.9e)</li> <li>Press F10 ("Previous") key to return to main menu when you do not need to print out.</li> </ul>	<ul> <li>Lower 2 lines show the description of the received message.</li> <li>Under line shows the characters received in error.</li> <li>(See Fig. 3.9e)</li> </ul>
4	• To <b>print</b> out the message, press <b>F5</b> ("Print out").	The message is printed out.	Press F10 ("Previous")     key to return to main     menu when you do not     need to save it.
5	• To save the message, press 6 ("save as") key.	• The "File name" is displayed.	<ul><li>Blank space cannot be used for file name.</li><li>Using received day for</li></ul>
6	<ul> <li>Enter the file name and press Enter key.</li> <li>Press F10 ("Previous") key to return main menu.</li> </ul>	"Now saving data. Please wait" is displayed	file name, is convenient for you.

```
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
                               1000
 9. 03-01-06 01:09
                    Routine
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 F			F5:P	rint o	ut 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:P	rint o	ut F10:Previous		

Fig.3.9c Example of "Reception Message list Window"

(2) To delete the message

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to     "read Out" and press     Enter key.	"Read-out" window is displayed. It shows three types of message list.	• "Inm-C":  "Inm-C message list"  "Egc":  "Egc message list"  "All":  "Reception message list" (Received all messages)
2	Select the type of message list you want to see.	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.)	• See Fig. 3.8a to 3.8c.
3	Press F1 key to go to     Delete mode.	"Delete mode" screen is displayed.	
4	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> <li>Asterisk marks (*) are displayed on the head of the lines you want to delete.</li> <li>To delete the all message, press F2 (select all) key.</li> </ul>	If you want to cancel the deleting, press Space bar once more to cancel it.  Then, Asterisk marks  (*) are cleared and deletion is cancelled.
6	<ul> <li>To delete the selected messages, press F7 ("Delete") key.</li> <li>Select OK .</li> </ul>	Warning Do you really want to delete selected messages?  OK Cancel  The messages are deleted.  "Message list" in read-out	Messages displayed on warning dialog boxes are: Do you really want to delete All messages? Do you really want to delete Inm-C messages? Do you really want to delete EGC messages?
		"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
                                                Urgency message, NAV warning
           2. 04-12-02 01:10
                                          1001
                               Safety
                                                INMARSAT system message
           3. 04-11-30 01:33
                               Urgent
                                          1002
              04-10-22 01:41
                               Distress 1003
                                                Coastal warning
            5.★04)-09-20 01:55
                                          1004
                                                Shore-ship distress alert
                               Routine
               04-05-30 01:22
                               Safety
                                          1005
             .*03-12-24 01:08
                               Distress 1006
                                                Urgency message, MET/NAV warning
              03-05-03 01:07
                               Routine
                                          1007
                                                Group call
               03-01-06 01:09
                               Distress 1000
                                                Download group identity
                  10-30 01:24
                               Distress 1000
                                                Coastal warning
                                      ↑ ↓ contd. (total:
                                                              Residual
                                                                            Kbytes)
Asterisk marks (*) are
                                    F2:Select all
                                                       F7:Delete
                              ct
                                                                       F10:Previous
displayed when you select the
messages by pressing "Space".
                                            Example of "EGC Message list (Delete)" Window
```

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: 00.0kt at 02:41 (UTC) Distress Ncs/les-info receive-Mode egC Transmit read-Out **Edit** call-Log 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 Msg. no. LES Size 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.

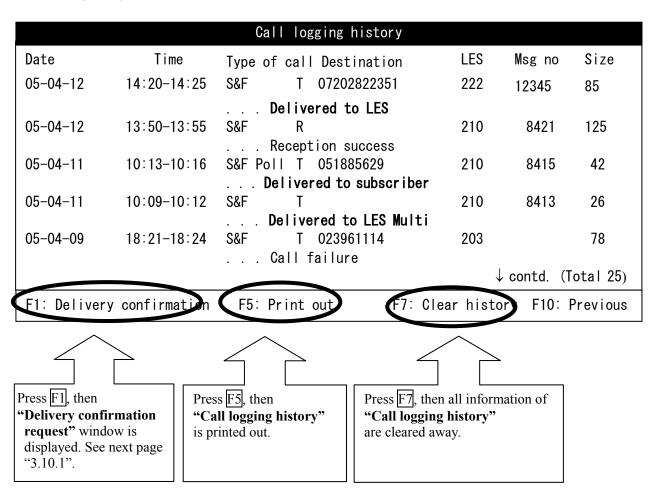


Fig.3.10 Example of "Call logging history" Window

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 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 <u>Telex</u>), 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.

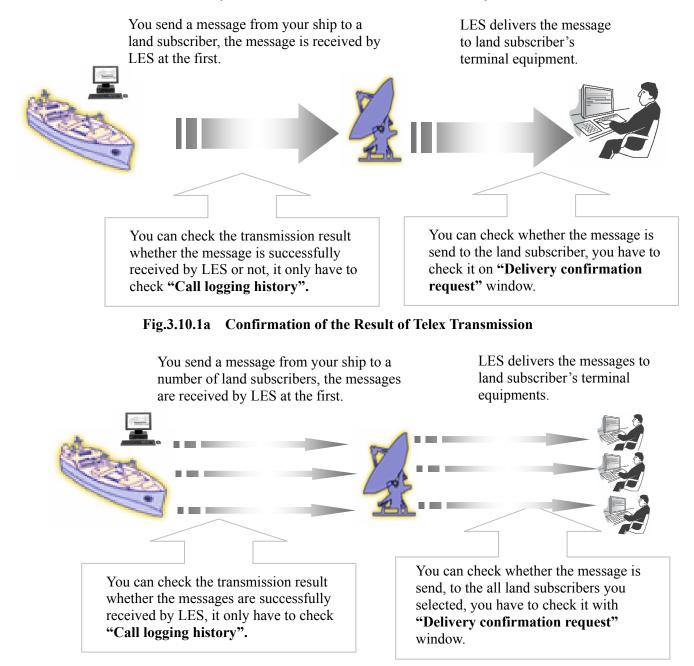


Fig.3.10.1b Confirmation of the Result of E-mail Transmission

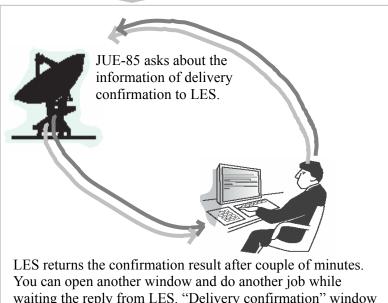
Delivery confirmation can be done on the result of all transmissions. Cursor will skip the received calls from LES. On the example window below, cursor stops first item, but does not stop on second one (because the message is received from LES, no use to confirm the detail). And, it stops again on third 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 c	all Destination	LES	Msg no	Size			
05-03-13	14:20-14:25	S&F	T 07202822351	222	12345	85			
		Delive	red to LES Multi						
05-03-12	13:50-13:55	S&F	R	210	8421	125			
		Recept	ion success						
05-03-10	10:13-10:16	S&F Poll	T 051885629	210	8415	42			
		Delive	red to subscriber						
05-03-08	10:09-10:12	S&F	R	210	8413	26			
		Recept	ion success						
05-03-06	18:21-18:24	S&F	T 023961114	203		78			
		Call f	ailure						
				↑↓ cor	nt d. (tota	l : 15)			
ENTER : Requ	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.



waiting the reply from LES. "Delivery confirmation" window is displayed at the time, when the reply from LES is reached.

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).

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

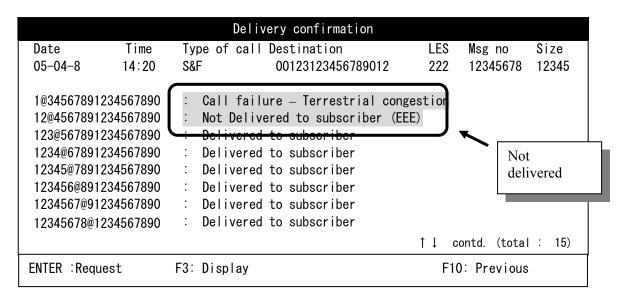


Fig.3.10.1e Example of "Delivery confirmation" Window for A Message Sent to A Number of Subscribers.

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, <u>1234567@91234567890</u>, 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  $\boxed{\mathbf{Ctrl}} + \boxed{\mathbf{A}}$ .

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 : 144 (NCS) LEs 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	Move the cursor to "Distress" and press     Enter key.	"Distress Alert"     window is displayed.	
2	Move the cursor to "Nature of distress" and press Enter key.	Nature of distress" wind the Nature of distress and the Nature of distress and the Nature of distribution of of distributio	tress
3	Move the cursor to the type of "Nature of distress", press Enter key.	"Nature of distress"     window is closed and     the cursor moved to     "Data source."	
4	Press Enter key, to change the setting of     "Data source" (Input method of position information)	The cursor is moved on right side.	
5	<ul> <li>Select "Data source" and then press         Enter key.     </li> <li>"GPS": Automatically inserted with GPS data (Position /Update/Course/Speed).</li> <li>"Manual": Input data (Position Update/Course/Speed). Update/Course/Speed).</li> </ul>	<ul> <li>The cursor is moved to "lEs" when you select "GPS".</li> <li>The cursor is moved to "Position", when you select "Manual".</li> </ul>	
6	<ul> <li>Enter the latitude of your ship and press</li> <li>Enter key.</li> <li>Enter longitude of your ship and Enter key.</li> <li>Example:</li> <li>North latitude 35 50 20</li> <li>East longitude 139 30 35</li> <li>N 3 5 5 0 2 0</li> <li>Enter</li> <li>N 1 3 9 3 0 3 5</li> <li>Enter</li> </ul>	The cursor is moved to "time of last position Update"	

Step	Operation	IME/DTE Response	Remarks
7	Press Enter key to change the MES Last updated time.	The cursor moves on right side.	
8	Enter the MES Last updated time and press Enter key.	• The cursor is moved to "Course"	
9	Press Enter key to change the course.	The cursor moves on right side.	
10	• Enter the course of your ship and press  Enter key.	• The cursor moves to "ship's Speed"	
11	Press Enter key to change the speed.	The cursor moves to right side.	
12	<ul> <li>Enter the speed, and then press Enter key.</li> <li>Ex): 12.0 knots</li> <li>120 Enter</li> </ul>	• The cursor moves to "IEs"	
13	Dragg F. A. hou to shou so the LES you	The common measure to	
13	Press Enter key to change the LES you want to send.	• The cursor moves to right side.	
14	Press F2 ( "LES list" ) key.	"LES list" window screen is displayed.	• When the JUE-87 is not synchronized to satellite, the blank list is displayed.
15	• Choose LES ID using ①, ↓ key and press Enter key.	• "Distress alert" window is displayed.	
16	<ul> <li>Send Distress Alert using Distress button,</li> <li>Refer to the article of the beginning of this manual, "Distress Alert Transmission Procedure."</li> </ul>		
17	• 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.

### 3.12.1 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	Hold down ALT key and press U key on Main menu.	• "Set up" window is displayed.	
2	Move the cursor to the item     "Land id registration for polling" then press Enter key.	"Land id registration for polling" window is displayed.	See the example in next page.
3	Move the cursor to the item you want to register, then press Enter key.		
4	Type Telex destination code and subscriber's number of polling user then press     Enter key.		<ul> <li>1st field: 3-digit destination code (country code)</li> <li>2nd field: Up to 11-digit subscriber's number</li> </ul>
5	<ul> <li>Type LES IDs of each ocean region then press         Enter key.     </li> <li>LES ID of all ocean regions is required for the registration.</li> </ul>	<ul> <li>The cursor is moved to next column, when data is registered.</li> <li>LES ID is not registered when incorrect data was entered. Enter correct data again.</li> </ul>	<ul> <li>1st field:     West AOR (000-063)</li> <li>2nd field:     East AOR (100-163)</li> <li>3rd field:     POR (200-263)</li> <li>4th field:     IOR (300-363)</li> </ul>
6	To return to Main menu, press F10 ("Previous") key twice or press ESC key.	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 :
                                                                 -2
                                                     LES: 0 -1
# 4 Destination code & subscriber's no :
                                                     LES: 0
                                                             -1
                                                                 -2
                                                                     -3
                                                                 -2
# 5 Destination code & subscriber's no :
                                                     LES: 0
                                                             -1
                                                                     -3
# 6 Destination code & subscriber's no :
                                                     LES: 0
# 7 Destination code & subscriber's no :
                                                     LES: 0
                                                                 -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

#### Example of position polling

MES receives the following message:

```
/Q/072:02822351/TELEX/
NNNN
```

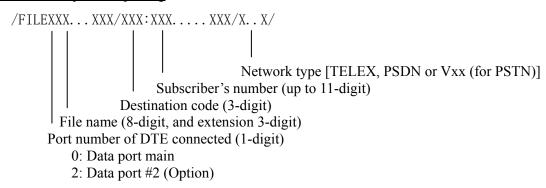
Then, MES transmits the following message to the land user, destination code: 072, subscriber's number: 02822351 via Telex:

```
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



#### Example of position polling

MES receives the following message:

```
/FILEOQBF. 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.
```

# 3

#### Command for file list polling

## 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

#### 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

#### 3.12.5 Parameter Setting Polling for Scheduled Transmission

Parameters of scheduled transmission are changeable from IME/DTE or the polling from land based user. Firstly, land based user should read out the parameters with parameter read out command. Land user will acquire the access code and parameters. The access code is changed by each command of reading out and is required to change the parameters. Secondly, land user should change the parameters. When the correct command is included in the receive message, the MES checks the access code then change the parameters.

#### Command for parameters read out polling

#### Example of parameter read out polling

MES receives the following message:

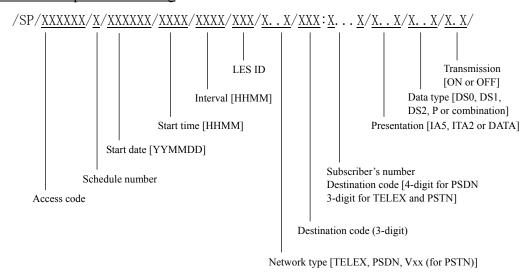
/SR/072:02822351/TELEX/

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

MES NUMBER: 412345678 **SCHEDULE** 1 START 96-10-10 19:00 12:00 INTERVAL LES 202 DESTINATION 123-123456789 NETWORK TELEX CHARACTER IA5 DATA DS1 DS2 TRANSMIT ON DELAY LOGGING OUT 00:00 ACCESS CODE: 123456

96-01-25

#### Command for parameter setting



#### Example of parameter setting

MES receives the following message:

/SP/123456/1/930515/1200/0600/101/V22B/001:1234567890/DATA/DS1/0N/

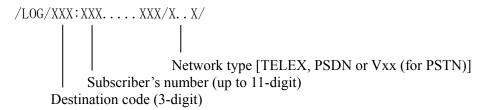
#### MES changes the parameters as follows:

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



#### 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 LOC	41994EG79						
	412345678						
96-10-10	14:10-14:13	S+F	T	07201822351	202	12345	10
		DELIV	VERED 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
		DELIV	VERED TO	LES			
96-10-08	14:34-14:37	S+F	T	07201822351	202	21345	10
		DELIV	VERED TO	SUBSCRIBER			
96-10-08	14:10-14:13	S+F	T	07201822351	202	20845	10
		DELIV	VERED 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 I	DELIVEREI	O 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 INMARSA-C MES via NCS common channel transmitted by NCS.

There are three basic services offered by EGC; the Safety NET<sup>TM</sup> service, the Fleet NET<sup>TM</sup> service and System service. Safety NET<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> and Fleet NET<sup>TM</sup> 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<sup>TM</sup> service utilizes a geographic area addressing technique to direct messages to ships within defined boundary. The Fleet NET<sup>TM</sup> 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
- (1) 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.

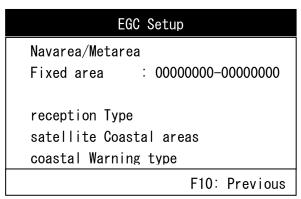


Fig.3.13.3 "EGC" Window

## 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	Move the cursor to "egC" and press Enter key.	The "EGC" window is displayed.	
2	• When you want to change the "Navarea/Metarea", press Enter key.	• The "Navarea/Metarea" window is displayed.	
3	• When you want to restrict the "Navarea/Metarea", move the cursor to the restrict "Navarea/Metarea" number and Enter key.	• The cursor is moved To "Enable" or "Disable".	
4	• Move the cursor to "Enable" or "Disable" and press Enter key.	The cursor is moved to next item.	
5	• Press F10 ("Previous") key.	The "EGC" window is displayed.	
6	To return to Main menu, press F10 ("Previous") key twice.	Main menu screen is displayed.	When you want to change the another item, move the cursor and press Enter key.

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

Fig.3.13.3.1a "Navarea/Metarea" Window

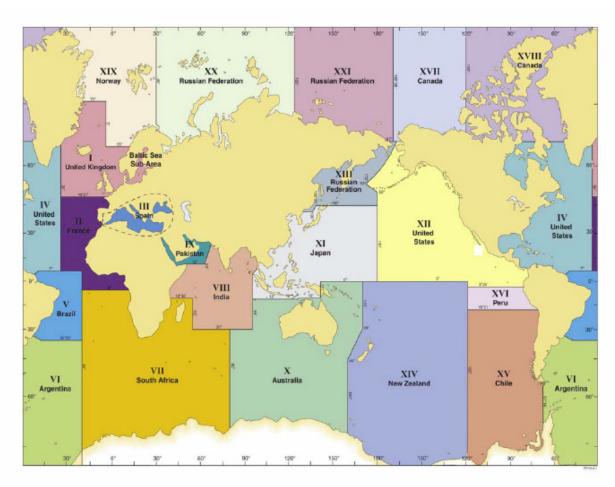


Fig.3.13.3.1b Navarea/Metarea

## 3.13.3.2 Setting of Fixed Area

Step	Operation	IME/DTE Response	Remarks
1	• Move the cursor to "egC" and press Enter key.	The "EGC" window is displayed.	
2	• When you want to change the fixed area, move the cursor to the "Fixed area" and press Enter key.	The cursor is moved to the "Fixed area" area.	
3	Press the new "Fixed area" and Enter key.	The new fixed area is displayed and the cursor is moved next to fixed area.	
4	• To return to Main menu, press F10 ("Previous") key twice.	Main menu screen is displayed.	When you want to change the other item, move the cursor and press Enter key.

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

**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 for fixed areas: Download group identity (ENID) : General call (All ships) :	Enable Enable Enable Enable Enable			
	F10:	Previous		

Fig.3.13.3.3 "EGC reception type" Window

Step	Operation	IME/DTE Response	Remarks
1	Move the cursor to "egC" and press Enter key.	The "EGC" window is displayed.	
2	Move the cursor to     "reception type" and     press Enter key.	The "EGC reception type" window is displayed.	
3	When you want to restrict the service message, move the cursor to restrict item and press Enter key.	• The cursor is moved to "Enable" or "Disable".	
4	• Move the cursor to "Enable" or "Disable" and press Enter r key.	The cursor is moved to next item.	
5	• Press F10 ("Previous") key.	The "EGC" window is displayed.	• When you want to restrict the other service message, return to step 3.
6	• To return to Main menu, press F10 ("Previous") or press Esc key.	Main menu screen is displayed.	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: B: C: D: E: F: G: H: J: K:	Enable	N: 0: P: Q: R: S: T: U: V: W:	Enable
L:   M:	Enable Enable	Y: Z:	Enable Enable
		F10:	Previous

Fig.3.13.3.4 "Satellite coastal areas" Window

Step	Operation	IME/DTE Response	Remarks
1	• Move the cursor to "egC" and press Enter key.	The "EGC" window is displayed.	
2	Move the cursor to "satellite Coastal area" and press     Enter key.	The "Satellite coastal areas" window is displayed.	• The JUE-87 can select the "A" through "Z" areas to the "Enable" or the "Disable".
3	• When you want to change the setting, move the cursor.	• The cursor is moved to "Enable" or "Disable".	
4	• Select the "Enable" or "Disable" and press Enter key.	The cursor is moved to next area.	
5	• Press F10 ("Previous") key.	The "EGC" window is displayed.	• When you want to change the other area setting, return to step 3.
6	• To return to Main menu, press F10 ("Previous") or press Esc key.	Main menu screen is displayed.	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 lce report Loran messages Meteorological forecasts Pilot and VTS service messages GNSS messages no message on Hand AIS service messages	: : : : : : : : : : : : : : : : : : : :	Enable Enable Enable Enable Enable Enable Enable Enable Enable
Navigational warnings meteorological Warnings search and Rescue (SAR) information and piracy attack warnings Additional navigational warnings	: 1 :	Enable Enable Enable Enable
	F10:	Previous

Fig.3.13.3.5 Coastal warning type Window

Step	Operation	IME/DTE Response	Remarks
1	• Move the cursor to "egC" and press Enter key.	The "EGC" window is displayed.	
2	• Move the cursor to "coastal Warning type" and press Enter key.	The "Coastal worning type" window is displayed.	
3	• When you want to restrict the Coastal warning, move the cursor to restrict item and press <b>Enter</b> key.	• The cursor is moved to "Enable" or "Disable".	
4	• Move the cursor to "Enable" or "Disable" and press Enter key.	The cursor is moved to next item.	
5	• Press F10 ("Previous") key.	The "EGC" window is displayed.	• When you want to restrict the other Coastal warning, return to step 3.
6	• To return to Main menu, press F10 ("Previous") or press Esc key.	Main menu screen is displayed.	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	Move the cursor to the "Distress" and press     Enter key.	"Distress" window is displayed.
2	Move the cursor to the "Data source" and press Enter key.	The cursor is moved to right side.
3	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> <li>Type the ship's latitude and press Enter key.</li> <li>Type the ship's Longitude and press Enter key.</li> <li>Ex. North: 35 50 20</li> <li>East: 139 30 35</li> <li>N 3 5 0 2 0 Enter</li> <li>E 1 3 9 3 0 3 Enter</li> </ul>	The cursor is moved to "Course".
5	When the ship's course is changed, press     Enter key.	The cursor is moved to right side.
6	When the ship's course is changed, press     Enter key.	The cursor is moved to "ship's Speed".
7	When the ship's Speed is changed, press     Enter key.	The cursor is moved to right side.
8	• Type the ship's Speed and press <b>Enter</b> key.	The cursor is moved to "IEs".
9	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 Cource 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	Hold down Alt key and press u key.	"Set up" window is displayed.
2	<ul> <li>Move the cursor to "Peripheral Function" and press Enter key.</li> </ul>	"Peripheral function" window is displayed.
3	• Move the cursor to "automatic Message print out" and press Enter key.	The cursor is moved to "oN", "oFf".
4	<ul> <li>Select "oN" or "oFf" and press Enter key.</li> <li>oN: The function is turned on.</li> <li>oFf: The function is turned off.</li> </ul>	The cursor is moved to next step.
5	• Press F10 ("Previous") key.	"Setup" window is displayed.
6	• 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	Hold down Alt key and press U key on Main menu.	The "Set up" window is displayed.	
2	Move the cursor to the item "Performance test initiation" and press Enter key.	<ul> <li>Initiation confirming window is displayed.</li> <li>"Performance test" window is displayed.</li> <li>Performance test</li> <li>Do you initiate performance test ? YES NO</li> </ul>	
3	Move the cursor to     "Yes" and press Enter key.	<ul> <li>The "Set up" window is displayed. MES status changes to "PV test" from "Ready".</li> <li>The following window is displayed within PV testing.</li> <li>Automatic test mode: Normal communication disabled. Do not press any distress button unless you are in distress.</li> </ul>	
4		When PV test is completed, test results are displayed automatically.	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	Hold down Alt key and press A key on Main Menu.	"Diagnostics" window is displayed.      Diagnostics  Data source contents Alarm history software Version distress button Test  F10: Previous
2	Move the cursor to "distress button Test" and press Enter key.	"Distress Button test mode" window is displayed.      Distress button test mode  Distress buttons are under test now. Press the distress button to test it. If real distress alert to be sent, Cancel the test mode.  F10: Cancel
3	<ul> <li>When the distress button is tested, press the distress button till the buzzer sounds for about 5 seconds or more.</li> <li>When the distress button test is terminated, press F7 ("Cancel") key.</li> </ul>	<ul> <li>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</li> <li>The buzzer sounding for about 30 seconds.</li> </ul>
4	(It passes 5 sec after pressing the distress button.)	<ul> <li>The buzzer in DTE and IME is sounding 0.5 sec ON, 0.5 sec OFF.</li> <li>The "Distress" lamp on IME is blinking 0.5 sec ON, 0.5 sec OFF.</li> <li>"Distress Button Test" window is displayed.</li> <li>—— Distress Button Test —— Now distress button testing ——</li> <li>F10: Cancel</li> </ul>

Step		Operation	IME/DTE Response
5	•	To start the distress test, press the distress button again.	<ul> <li>The buzzers in DTE and IME are sounding 5 sec continuously.</li> <li>The "DISTRESS" lamp on IME is illuminating 5 sec.</li> <li>— Distress Button Test — Distress button test succeeded.</li> <li>F10: Previous</li> <li>When the distress button is tested completely, the following window is displayed.</li> </ul>
			Distress button test mode  Distress buttons are under test now.  Press the distress button to test it  F10: Cancel
6	•	To return to Main menu, press F10 ("Previous") key and press F7 ("Cancel") key.	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

<sup>\*</sup> 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.

		Operation	IIVII	E/DTE response
1	• ]	Hold down Alt key and press U	• "Set up" window i	s displayed.
1		key on Main menu.		on n initiation ission tion for polling
		Move the cursor to "dnid seleCtion" and press Enter key.  Name ABC ABC	<ul><li>downloaded DNII</li><li>Confirm that "Ena</li></ul>	window is displayed and D can be confirmed. Ible" is selected to each column. Of ID number is for EPADR.  LES MEM 003 001 : Enable 103 001 : Enable
2		ABC	00001	203 001 : Enable
		ABC	00001	303 001 : Enable
		CDE	00002	012 002 : Disable
		ABCDEFGHIJKLMNOPQRSTUVWXY	*12345	003 100 : Enable ↑ ↓ contd. (total : 6)
		F1:Program information F2	2:EPADR information	F5:Print out F10:Previous

#### 3.16.4 Confirmation of Polling Program

Polling Program can be confirmed by following procedure.

Step	Operation		IME/DTE response
1	• Hold down Alt key and press U	•	"Set up" window is displayed.
1	key on Main menu.		
2	• Move the cursor to "dnid	•	"DNID Selection" window is displayed.
2	seleCtion" and press Enter key.		
	• Press F1 key at "DNID Selection	•	"Polling program information" window is displayed
	window"		and downloaded Polling Program can be confirmed.
3		•	Confirm that the status of the Polling Program (STS)
			is set to Active (Act).

		Pol	ling	prog	ram i	nforma	tior	1
OR		DNID			–			
							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

ITVL: Transmission Interval Frame

PKT: Number of transmitted Packet

DATE: Program activated date

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

<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

#### <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
	Hold down Alt key and press U	"Set up" window is displayed.
1	key on Main menu.	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
2	Move the cursor to "EPADR informAtion" and press Enter key.	"EPADR Information" window is displayed.  EPADR Information  EPADR Assignment EPADR Tx Data  F10:Previous
3	Move the cursor to "EPADR     Assignment" and press Enter key.	"EPADR Assignment" window is displayed.      EPADR Assignment  EPADR Assignment #1  EPADR Assignment #2  EPADR Assignment #3  EPADR Assignment #4  F10:Previous
4	Move the cursor to "EPADR     Assignment #1" and press Enter key.	"EPADR Assignment #1" window (Fig.3.16.5.1) is displayed.
5	• Press F9 key.	• Each time F9 key is pressed, other assignments ("EPADR Assignment #1, #2, #3 or #4" window) is displayed.

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

• 1Es:

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	•	Hold down Alt key and press U	•	"Set up" window is displayed.
		key on Main menu.		
	•	Move the cursor to "EPADR	•	"EPADR Information" window is displayed.
2		informAtion" and press Enter		· ·
		key.		
3	•	Move the cursor to "EPADR	•	"EPADR Assignment" window is displayed.
3		Assignment" and press <b>Enter</b> key.		
	•	Move the cursor to "EPADR	•	"EPADR Assignment #1" window (Fig.3.16.5.1) is
4		Assignment #1" and press Enter		displayed.
		key.		
	•	Press <b>F9</b> key.	•	Each time <b>F9</b> key is pressed, other assignments
5				("EPADR Assignment #1, #2, #3 or #4" window) is
]				displayed.
			•	Note 1
6	•	Set the each parameter of the	•	Note 2
U		assignment.	•	Note 3

Step	Operation IME/DTE response			
	Press F1 key.	The following warning message is displayed.		
		Warning		
7		EPADR Assignment #1 Request OK? OK Cancel		
		F10 Previous		
8	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
    - lEs (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	•	Hold down Alt key and press U	•	"Set up" window is displayed.
1		key on Main menu.		
2	•	Move the cursor to "EPADR	•	"EPADR Information" window is displayed.
		informAtion" and press Enter		
		key.		
3	•	Move the cursor to "EPADR Tx	•	"EPADR Tx Data" window is displayed.
3		Data" and press Enter key.		
	•	When you want to send position		
		data, move the cursor to		
4		"posItion" and press Enter key,		
		and move the cursor to "oN" and		
		press Enter key.		
	•	When you want to send other data,	•	Warning message window is displayed when the data
5		move the cursor to "File name"		capacity exceeds 39 bytes.
		and press <b>Enter</b> key, and select		
		file.		

#### 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.

		C	all logg	ing histo	ry			
Date	Time	Type	of call I	Destinati	on	LES	Msg no	Size
11-11-08	14:20-14:30	S&F	T O	720282235	51	003	12345	85
			Deliver	ed to LES				
11-11-08	13:20-13:30	SLCA	R		100	003	Accept	14
			Call su	ccessful				
11-11-08	12:20-12:30	SLCA	R		100	003		17
			Call fa	ilure				
11-11-08	11:20-11:30	SLCA	R		100	003		14
			Cancele	d by Dist	ress			
11-11-08	10:20-09:30	SLCA	R		100	003	Reject03	17
			Call su	ccessful				
						$\downarrow$	contd. (1	otal 25)
F1:Delivery	confirmation	F5:P	rint out		F7:Clear	histo	ry F10:	Previous

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		
03	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		
03	(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



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.

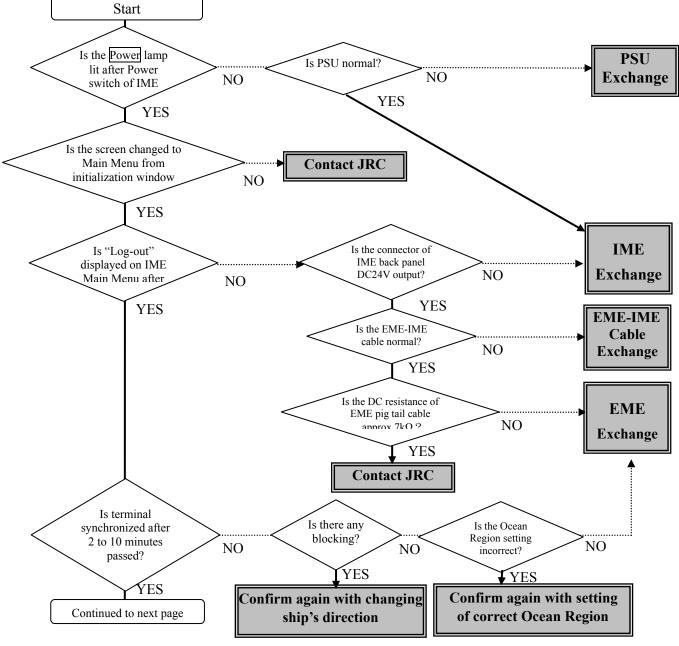


Fig4.2.1a Troubleshooting Flowchart (1/2)

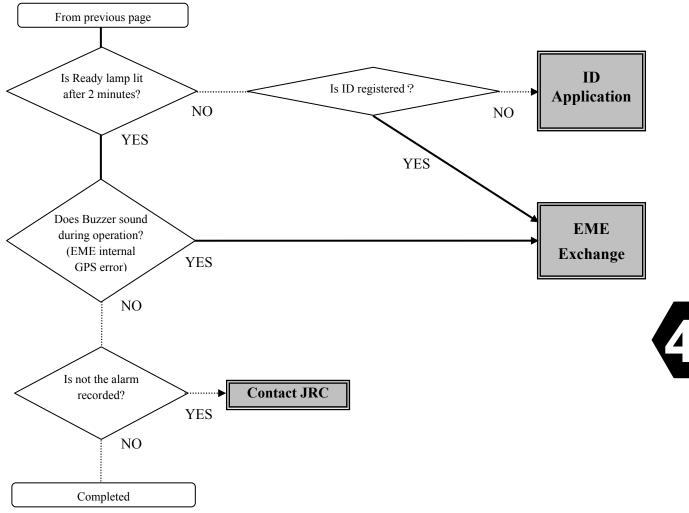


Fig4.2.1b Troubleshooting Flowchart (2/2)

#### 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	Hold down Alt key and press A key on Main menu.	"Diagnostics" window is displayed.	
2	• Move the cursor to the item "Alarm history" then press <b>Enter</b> key.	• "Alarm history" window is displayed.	
3	To return to Main menu, press F10 key twice or ESC key.	Main menu is displayed	

#### **Example of Alarm History**

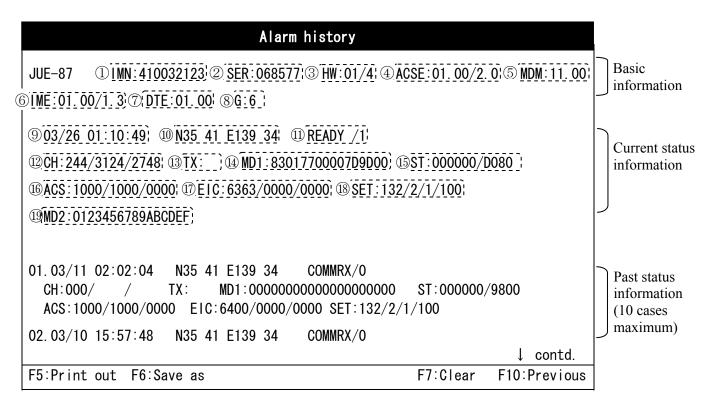


Fig.4.2.3 "Alarm history" window

**Table 4.2.3 Contents of Alarm history** 

No.	Display format (In case of Fig.4.2.3)	Conter	nt
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 type (1)  TDM Channel ID (XXX)  Receiving channel (YYYY)  Transmitting channel (ZZZZ)	
13	TX:XX (TX: )	EIRP	
<b>4</b>	MD1:UUVVVVWWWXXXXYY (MD1:83017700007D9D00)	AGC setting value (UU)  C/N0 (VVVV)  IQ balance (WWWW)  Master OSC (XXXX)  Modem ATC Wave Detect Power (YY)	

		1	ı	
			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
		Alarm(XXXXXX)	+ 0x004000	PLL1 UNLOCK alarm
		Alai III(AAAAA)	+ 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
	ST:XXXXXX/YYYY (ST:000000/D080)		+ 0x000040	SECURITY ALERT button1 alarm
<b>1</b> 5			+ 0x000020	SECURITY ALERT button2 alarm
			+ 0x000010	SECURITY ALERT button3 alarm
			+ 0x000008	SECURITY ALERT button4 alarm
			0x0000	Default menu
				(Add the following each status value)
			+ 0x8000	READY
			+ 0x4000	SYNC
			+ 0x2000	CARRIER
			+ 0x1000	LOG IN
			+ 0x0800	EGC Mode
			+ 0x0400	Reserved
		CL (WWW)	+ 0x0200	Reserved
		Status(YYYY)	+ 0x0100	Preheat
			+ 0x0080	DISTRESS button1detection
			+ 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 buttoh4 detection

		Signaling Channel Control Step	(XXXX)		
16	ACS:XXXX/YYYY/ZZZZ	Message Channel Control Step (YYYY)			
	(ACS:1000/1000/0000)	Process Control Step (ZZZZ)			
		EME-IME connection success Top 2		2 digit:EME->IME	
		rate (XXXX)	Last	2 digit:IME->EME	
(17)	EIC:XXXX/YYYY/ZZZZ	EME-IME connection error	Top 2	Top 2 digit: EME->IME	
11)	(EIC:6363/0000/0000)	counter (YYYY)	Last	Last 2 digit: IME->EME	
		EME-IME connection error	Top 2	2 digit:EME->IME	
		factor (ZZZZ)	Last	2 digit: IME->EME	
	SET:WWW/X/Y/ZZZ (SET:132/2/4/100)	LESsetting (WWW)			
		Prefered Ocean Region (X)			
10		GPS setting (Y)			
18		Data port type (ZZZ)		1st digit:DTE port main 2nd digit:DTE port #1 3rd digit:DTE port #2	
		TX I Amplitude(SS)			
		TX I DC Offset(TT)			
		TX Q DC Offset(UU)			
19	MD2:SSTTUUVVWWXXYYZZ	TX VCONT(VV)			
13	(MD2:0123456789ABCDEF)	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 previsions 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.

Warning Window overflow F10: Previous

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.

### CAUTION

Distress priority message is routed to RCC. Do you initiate a request? Yes No

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 <b>F10</b> 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.

### **ERROR**

Diskette drive not ready. Insert diskette and press ENTER key. F10: Previous

Fig.4.3.3 ERROR Window

**Table 4.3.3 ERROR Message** 

<u> </u>	1able 4.3.3 ERROR Messa	<u> </u>
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
File ERROR! Process aborted!		important document is highly recommended.
File can't be open		recommended.
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.	Can not access the DTE Flash ROM	Press ENTER key to re-read the Flash ROM.
Press ENTER key to retry.		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.

Now reading data. Please wait.

Fig.4.3.4 MES INFOMATION 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	Cancel the test mode when carry out real
Distress button test succeeded.	distress alert transmission.
If real distress alert to be sent, cancel the test mode.	
Distress Button Test	Do not turn off the power switch.
Now distress button testing.	
If real distress alert to be sent, cancel the test mode.	
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 ocean region by "Preferred
Confirm the preferred ocean region.	ocean region".
New file name:	

	1
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	Wait the announcement from LES.
announcement.	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.	

Ţ <del>-</del>	•
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		ES	Class 2		
			Transmission: 1626.5 to 1646.5MHz		
Frequency Ran	ge		Reception :1537.0 to 1544.2MHz		
Channel Spacin	1g.		5KHz		
G/T	<u> </u>		-23.0 dB/K minimum		
EIRP			Within 14 ±2 dBW (at 5 degrees elevation angle)		
Ditt			TX: 1200 symbols/sec.		
Modulation			RX: 1200 symbols/sec. BPSK		
			(BPSK: Binary Phase Shift Keying)		
			Type: Helical antenna		
Antenna			Pattern: Hemisphere (non directional)		
			Polarization: Right hand circular		
	Voltage		DC +24V (+19.2 V to +31.2 V)		
	Voltage	5	(When standard PSU, NBD-904 is used)		
Power Supply			Transmission: 100 W		
	Power	Consumption	Standby time: 15W (EME and IME)		
			160 W Max. (EME, IME, DTE and Printer)		
	Operative Temperature		-35°C to +55°C (EME operational) -15°C to +55°C (IME)		
	Storage Temperature		-40°C to +70°C		
F		e Humidity	95% (+40°C)		
Environmental Condition	Ice	<u> </u>	25 mm (EME)		
Condition	Precipitation		100 mm/hour (EME)		
	Wind		100 knots		
	Vibrati	on	Compatibility with IEC 60945		
Coding			Interleaved, convolution code ( $R = 1/2, K = 7$ )		
Data Rate		Transmission	600 bps		
		Reception	600 bps		
Max Transmiss			8K bytes		
Reception Mes	sage Sto		80K bytes (Inmarsat-C: 40K bytes, EGC: 40K bytes)		
		Internal GPS	JRC original		
		External GPS	Input sentence: GGA, RMC, GLL, GNS, ZDA, DTM Baud rate: 4800 bps		
Interface		LAN	RJ-45: 10 Base-T		
		DTE	ITU-T V24/28, 9600 bps, D-sub 9PIN connector		
		Printer	Centronics compatible parallel interface,		
	Printer		Connector: D-sub 25PIN connector		
International Protection		1	EME: IP 66-compliant		
			IME: IP22-compliant (except for while connecting a USB		
			device to USB drive)		
Dimensions	Dimensions		EME: 170 mm ( $\phi$ ) × 379 mm (H)		
Difficusions			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	$9 \times 7$ dot		
Maximum Number of	80 characters/line		
Character Per 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	$399 \text{ mm (W)} \times 376 \text{ mm (D)} \times 193 \text{ mm (H)}$		
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	DC power automatic backup at AC power failure			
	<ul> <li>DC input is only available when AC input is stopped.</li> </ul>			
	• DC output is only supplied through DC input (condition: over +18V and "REMOTE CONT" is short).			
Control Signal	• REMOTE CONT +/- (Input): When open, DC input is not available, when short, DC input is available.			
	<ul> <li>AC FAIL +/- (Output): When AC input is stopped, between + and - is open, when AC input is available, between + and - is short.</li> <li>(Output rating: DC 30V, 30mA)</li> </ul>			
Output	Floating type DC+24V, 8.5A (max, 5minutes) 6.5A (Continuous)			
Switch	• DC INPUT: turn on/off DC input + line.			
	DC OUTPUT: turn on/off DC output +/- line			
LED	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)			
	• 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			
Dimensions	Fuse: DC32V, 15A (DC+/- input)			
	$168 \text{ mm(W)} \times 250 \text{ mm(D)} \times 98 \text{ mm(H)}$			
Weight	2.6 kg			

### 5.2 Option

### 5.2.1 DTE (NDZ-227)

**Table 5.2.1 Principal Specification of DTE** 

	Table 5.2.1 Trincipal 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	$\mu$ 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

Tuble 3.2.0 I Thielpul 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

	14010 01210 0 11	ic sound status of External Buzz
	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)

<sup>\*1)</sup> Sound stops when the 'RESET' button on the panel of EXT BUZ is pressed.

<sup>\*2) 2.2</sup> kHz and 1.3 kHz tones sounds alternately.

<sup>\*3)</sup> Sounding time can be selected by the IME command.

### APPENDIX 1. INMARSAT SYSTEM COVERAGE AREAS

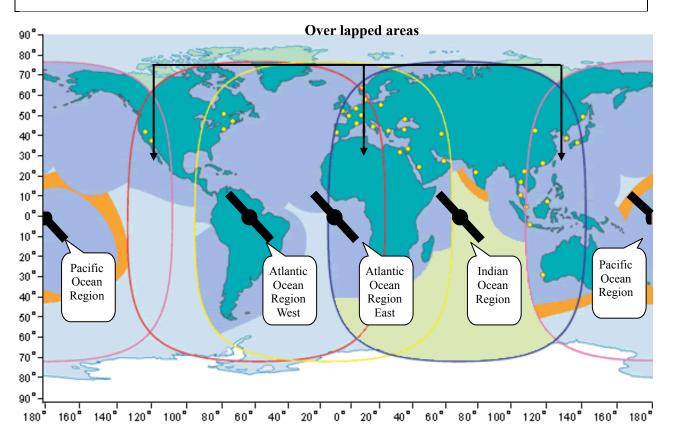


Fig.A1.1 All Ocean Region



Fig.A1.2 Atlantic Ocean Region West

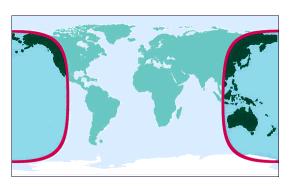


Fig.A1.4 Pacific Ocean Region

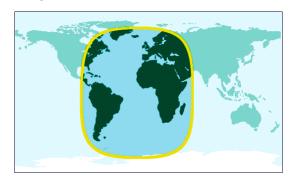


Fig.A1.3 Atlantic Ocean Region East

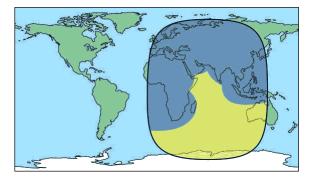


Fig.A1.5 Indian Ocean Region

#### APPENDIX 2. WHAT IS LRIT?

#### **A2.1 LRIT System Summary**

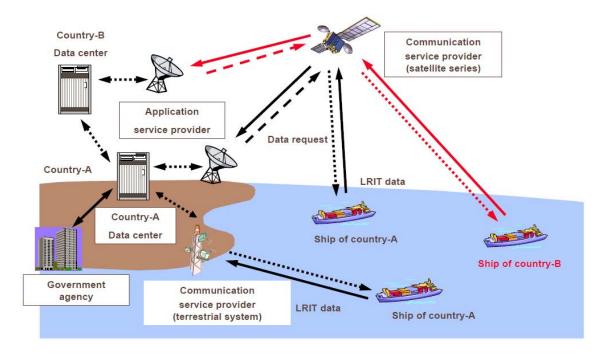
#### A2.1.1 What is LRIT?

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:
  - 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.
  - 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	_		
	A1 limited	Mounting LRIT is (Mounting AIS is o	•		
	A1 and A2	Adding function or mounting			
A Ship built before 31/DEC/2008	A1, A2 and A3	equipment of LRIT is required by first survey of the radio inspection after 31/DEC/2008	_		
(International navigation ship)	A1, A2, A3, and A4, but normally A1, A2, and A3 only.				
	A1, A2, A3 and A4	- Inmarcat C door not support on or	Adding function or mounting equipment is required by the first survey of the radio inspection after 1/JUL/2009		

(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
Azerbaidjan	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	Nofolk 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	0,2
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	Zimouowe	701

### 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
Azerbaidjan	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
	220	0.1 1	250	T :1 A1.	210
Cape Verde	238	Gibraltar	350	Libya Arab	218

Lithuania	370	Palau	680	Taiwan
Luxembourg	352	Panama	507	Tanzania
Macao	853	Paraguay	595	Thailand
Macedonia	389	Peru	51	Thuraya(SAT)
Madagascar	261	Philippines	63	Togo
Madeira	351	Poland	48	Tonga
Malawi	265	Portugal	351	Trinidad & Tobago
Malaysia	60	Puerto Rico	1	Tunisia
Maldives	960	Qatar	974	Turkey
Mali	223	Reunion	262	Turkmenistan
Malta	356	Romania	40	Turks & Caicos Is.
Marshall Is.	692	Russia	7	Tuvalu
Martinique	596	Rwanda	250	UAE
Mauritania	222	Saipan	1	Uganda
Mauritius	230	Samoa	685	Ukraine
Mayotte	262	San Marino	378	Uruguay
Mexico	52	Sao Tome & Principe	239	U.S.A.
Micronesia	691	Saudi Arabia	966	Uzbekistan
Moldova	373	Senegal	221	Vanuatu
Monaco	377	Serbia	381	Vatican City
Mongolia	976	Sierra Leone	232	Venezuela
Montenegro	382	Singapore	65	Viet Nam
Montserrat	1	Slovak	421	United Kingdom
Morocco	212	Slovenia	386	Yemen Rep
Mozambique	258	Solomon Is.	677	Zambia
Myanmar	95	Somalia	252	Zimbabwe
Namibia	264	South Africa	27	
Nauru	674	Spain	34	···
Nepal	977	Spanish Afric	34	•
Netherlands	31	Sri Lanka	94	4
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	vel
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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5.4.	Self	-printing function	A5-11

### **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

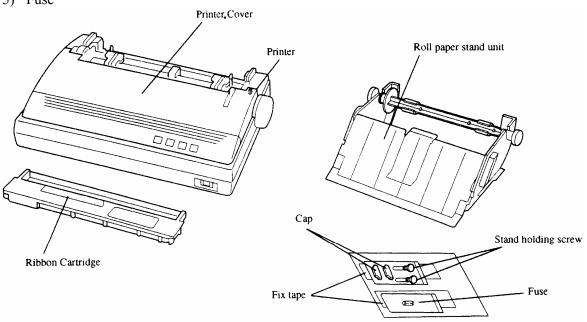
1) Printer 6) Fix tape 2 pairs

2) Ribbon Cartridge (Black) 7) Cap 2 pcs.

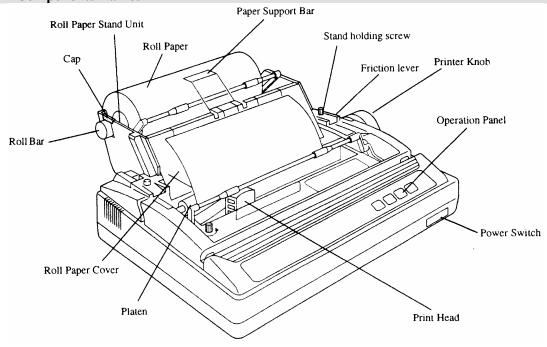
3) Printer Cover 8) Stand holding screw 2 pcs.

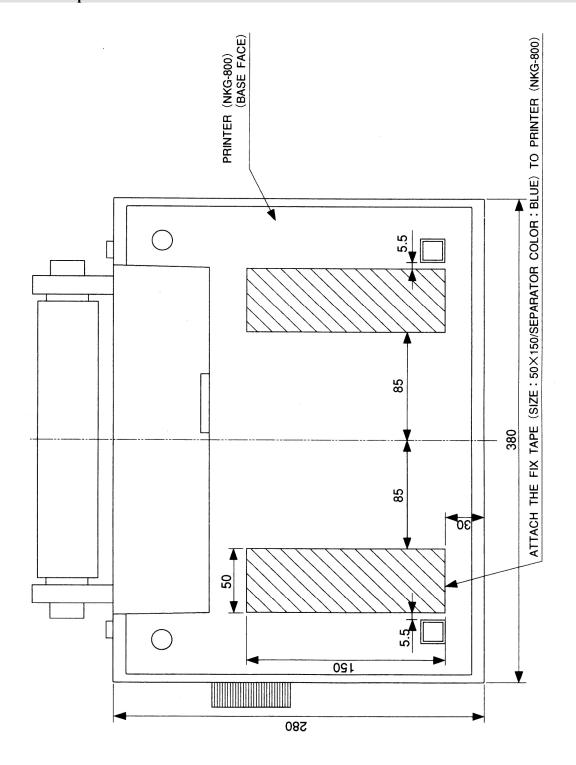
4) Roll Paper Stand Unit

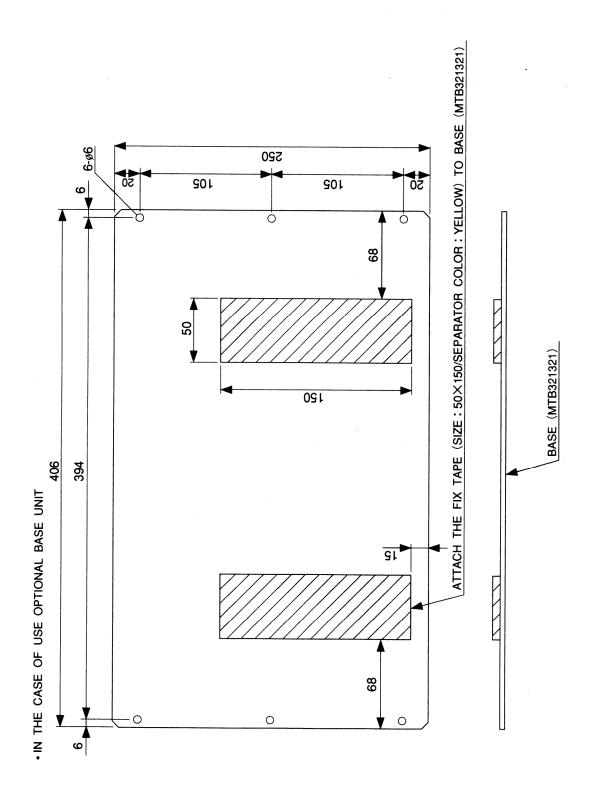
5) Fuse



### **A5.2.2** Components Names



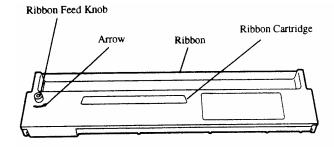


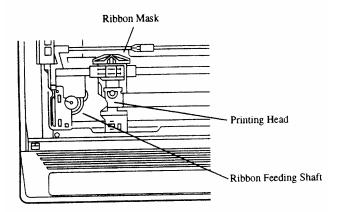


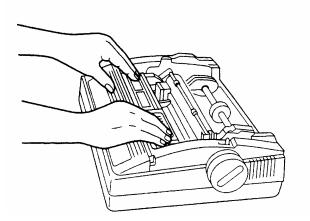
#### A5.3.2 Change of Ribbon Cassette-cartridge

#### 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.







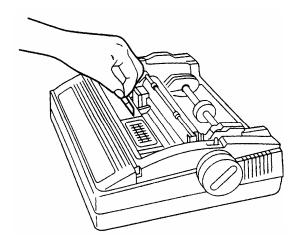
- 5) Move by hand the printing head to its home position (left end).
- 6) Put the ribbon cassette so as the ribbon is placed between the ribbon mask and printing head. At that time, arrange so as the ribbon-feeding shaft enters in a hole located under the ribbon cassette knob.
- 7) Push lightly from 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**

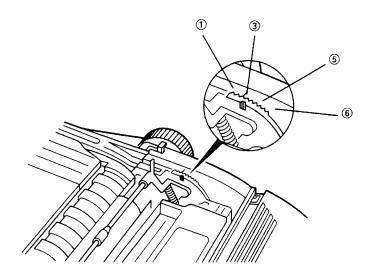


- 1) To change the ribbon, at first verify that the power to printer is turned OFF.
- 2) In case of paper stand has been mounted, loosen stand-holding screws, and slide the paper stand backward.
- 3) Remove the printer cover.
- 4) Seize the ribbon cassette knob, rise up vertically to remove.

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

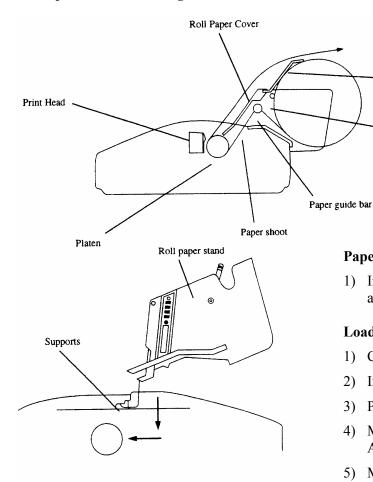
The printing pressure can be adjusted with the head adjustment lever located on right side in the printer.

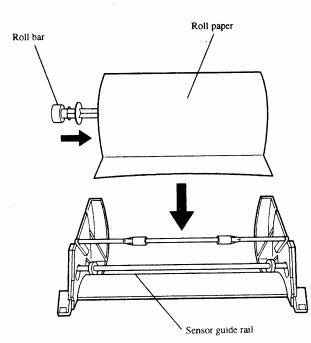
For one ply plain paper the position ③ is most suited. When shipped, this lever is set to this position. In case of 3 ply duplicating paper, either ⑤ or ⑥ becomes suitable position.



# A5.3.4 Roll Paper Loading

#### Paper holder mounting





### Paper holder mounting

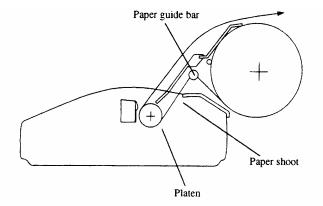
Paper Support Bar

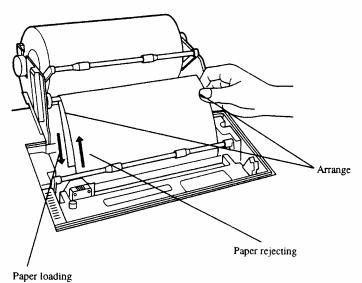
Sensor guide rail

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.

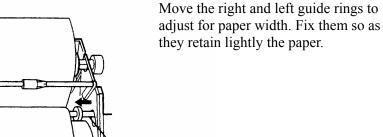




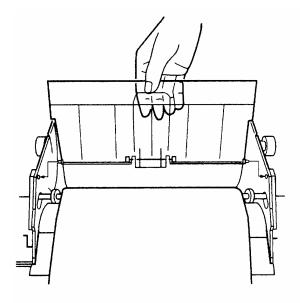
# Roll paper setting

- 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

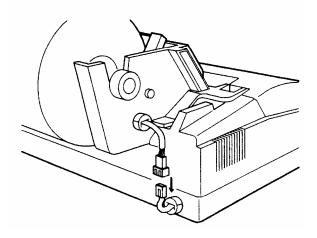


Guide ring



# Mount of roll paper cover

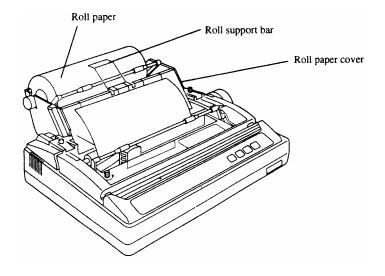
- 1) Mount the roll paper cover as shown in Fig.
- 2) Push up the paper support lever.



# Connection of paper end near sensor

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

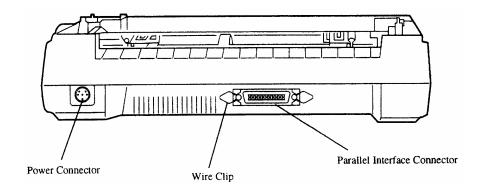
Upon accomplishment of the above, the state becomes as shown in Fig. below. Then mount the printer cover. Slide finally the paper stand forward and fix it by stand holding screws.



# **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]

```
Version, AMX4010
           TEST
SELF
Draft font
!* #$%&'(), -./-123456789:; <=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ^_abcdefghijklmn
*#$%&'(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ^_abcdefghijklmno
#$%&'(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ^_abcdefghijklmnop
$%&'(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ^_abcdefghijklmnopq
%&'(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ^_abcdefghijklmnopqr
Sans Serif font
&'(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ^_abcdefghijklmnopqrs'(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWVV7^ ~~~defghijklmnopqrst
                                                                    "Imnoparstu
(),-./-123456789:;<=>?@ABCDEFGHIJKLMNOPQRST
                                                                          rstuv
  - ./-123456789:;<=>?@ABCDEFGHIJKLMNOP^
                                                                             " V W
   /-123456789:; <=>?@ABCDEFGHIJKLND
    + font
       ~456789:; <=>?@ABCDEFGHJ
          789:; <=>?@ABCDEFGH7
```

# **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 <sup>6+</sup> )	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
室外装置 (Extanally Mounrted Eqipment)	0	0	0	0	0	0
室内装置 (Internally Mounted Equipment)	0	0	0	0	0	0
外部设备(Peripherals)  ·打印机(Printer)  ·选择(Options)  ·电线类(Cables)  ·手册(Documennts)	0	0	0	0	0	0

- O: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.)
- ×: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.)



# 公众号: 1号灯塔 各种说明书、软件 关注即可得到

アスベストは使用しておりません Not use the asbestos

CODE No.7ZPSC0444

For further information, contact:



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