

JUE-250

INMARSAT FleetBroadband FB250
Maritime Satellite Communication Terminal

OPERATION
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, troubleshooting, or adjustments.)

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, is also a very good method 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

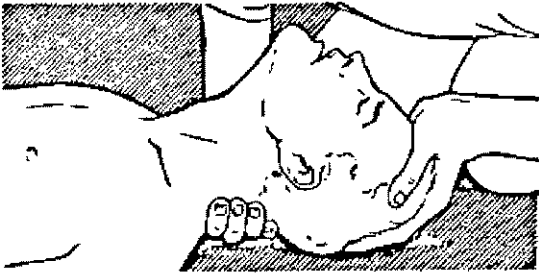
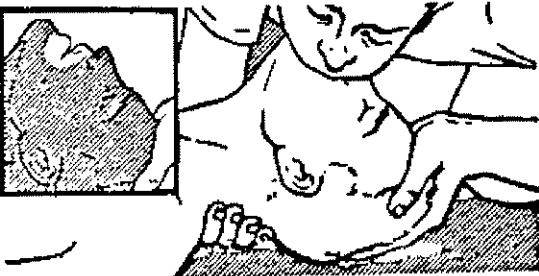
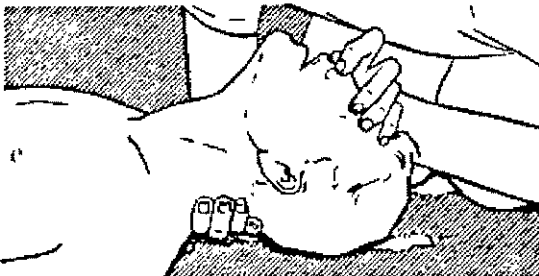
Unless there is impending danger leave the victim where he or she is, then begin artificial respiration. Once you begin artificial respiration, you must continue without losing rhythm.

- (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

- (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) Pay attention to the victim to notice if he or she starts to breath. If breathing returns, stop resuscitation.
- (5) 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.
- (6) Occasionally, when the victim comes back to consciousness, they immediately try to stand up. Prevent this and keep them in a laying position. Give them something warm to drink and be sure that they rest (do not give them any alcohol).

Administering artificial respiration by raising the head.

- 1  (1) Raise the back of head, and 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  (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  (3) Completely exhale into the lungs. Exhale into the lungs until the chest is inflated. You have to blow as rapidly as possible the first 10 times.

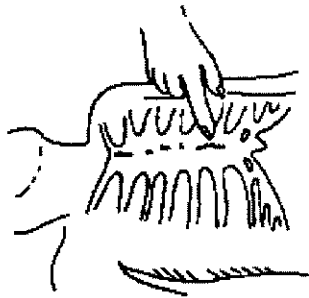
"Mouth to mouth" artificial respiration
Figure 1

☆If the victim has no pulse and is not breathing

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 it and keeping both arms straight each other (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 administer artificial respiration by blowing 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 him in a laying position and give him something warm to drink, be sure that he rests (do not give him any alcohol). In any case you have to entrust any major decision making to a doctor. Having understanding people around is essential to the victim's recovery from the mental shock of electrocution.

1



2



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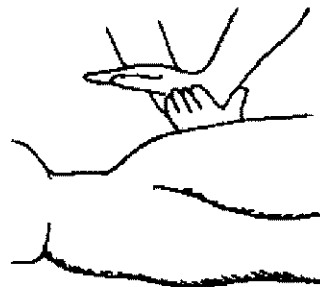


Figure 2 Heart massage in combination with artificial respiration.

PREFACE

Thank you for purchasing the JRC Inmarsat FleetBroadband Mobile Earth Station, the JUE-250.

The JUE-250 is an Inmarsat digital satellite communication terminal for Voice (4kbps Speech), and Audio (64kbps 3.1kHz Audio), maximum 284kbps Standard IP service, 32kbps, 64kbps, or 128kbps Streaming IP service, and Short Messaging Service (SMS).

The JUE-250 is packaged and shipped under strict quality control with inspection criteria to deliver the equipment with highest quality, performance, and reliability needed to meet our customer's requirements and satisfaction.

JRC believes that you will use this equipment satisfactorily for a long time.

- Please read this manual carefully and carry out proper operation.
- Please do not lose this useful manual, as you will have to refer to it from time to time.

BEFORE OPERATION

(1) About this operation manual

Before operating this equipment, read the manual carefully to ensure correct operation.
This book is useful for troubleshooting, too.

(2) Concerning the symbols

This manual uses the following symbols to explain the correct operation and to help prevent injury or damage to property.

The symbols and descriptions are as follows. Understand them before proceeding with this manual.

 **DANGER**

Indicates danger that, if ignored, will result in serious injury or even death.

 **WARNING**



Indicates warning that, if ignored, may result in serious injury or even death.

 **CAUTION**



Indicates caution that, if ignored, may result in injury or damage to property.

Examples of symbols





The  symbol indicates caution (including DANGER and WARNING).
The illustration inside the  symbol specifies the content of the caution more accurately. (This example warns of possible electrical shock.)



The  symbol indicates that performing an action is prohibited.
The illustration inside the  symbol specifies the content of the prohibited operation. (In this example disassembly is prohibited.)



The  symbol indicates operations that must be performed.
The illustration inside the  symbol specifies obligatory instructions. (In this example unplugging is obligatory.)

(3) Concerning warning labels

Warning labels are posted on the equipment.
Do not remove, damage or modify.

* Windows Internet Explorer is a registered trademark of Microsoft Corporation.

Netscape Navigator is a registered trademark of Netscape Communications Corporation.

About Warning Label

Below mentioned warning labels are put on the JUE-250, ADE and BDE.

Do not take off, destroy, or modify these labels.

<Warning Label of ADE >

<div>INMARSAT FB250</div> <div>MOBILE EARTH STATION</div> <div>MODEL JUE-250</div> <div>SERIAL NO. <div></div></div> <div><div><div></div></div> <i>Japan Radio Co., Ltd.</i> MADE IN JAPAN</div>	<div>ABOVE DECK EQUIPMENT</div> <div>MODEL GSC-451</div> <div>MASS 7.4kg</div> <div>DATE <div></div></div> <div>CE 0191</div>	<div><div><div></div></div> WARNING</div> <div><div>Distance V.S Radiation Levels</div><table><tr><th>Distance</th><th>Radiation</th></tr><tr><td>0.6m</td><td>10W/m²</td></tr><tr><td>0.2m</td><td>25W/m²</td></tr><tr><td>0.1m</td><td>100W/m²</td></tr></table></div>	Distance	Radiation	0.6m	10W/m²	0.2m	25W/m²	0.1m	100W/m²	<div>Compass safe distance</div> <div>Standard compass : 0.8m</div> <div>Steering compass : 0.5m</div> <div><div>DO NOT PAINT</div><div>RADOME</div></div>
Distance	Radiation										
0.6m	10W/m²										
0.2m	25W/m²										
0.1m	100W/m²										

<Warning Label of BDE >

INMARSAT FB250 MOBILE EARTH STATION MODEL JUE-250 SERIAL NO. GV IMEI 35887701 JRC Japan Radio Co., Ltd.	BELOW DECK EQUIPMENT MODEL GSC-452 MASS 2.2kg DATE CE 0191	<div style="text-align: center;">警告 WARNING</div> <div style="display: flex; align-items: center;"> <div> 保守員以外は、装置を 分解しないで下さい NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL </div> </div>
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Notes

IMEI 35887701 International Mobile Equipment Identity (IMEI) is an unique number used to identify an individual mobile equipment to a GSM or UMTS network.

CE 0191 Attestation number which means safe, high-quality product and suits EU instruction (Free circulation was permitted in the EU signatory).

BEFORE USING

- JRC is indemnified for any damages from incorrect operation, malfunction, and other troubles except as outlined in the product warranty and by limitation of law.
- Some functions depend on the hardware and software version of your terminal equipment connected with your JUE-250. Confirm your terminal equipment, hardware, and software versions before contacting the purchasing dealer, JRC agent, or one of the JRC branches.
- Your communication data are transmitted via the Inmarsat systems, therefore, there is a possibility that some errors may occur.

We strongly recommend important data be backed up to ensure safety and protection from loss. Usually, digital scrambling of the Inmarsat system protects your communication data privacy.

However we caution you to understand that your communication data might be intercepted by special technology and unauthorized access to the communication theory.

There are some additional and optional functions of the JUE-250 that is released in the near future evaluation.

- Specifications of the JUE-250 and its accessories may change without notice, for improvement.
- Some functions may not be supported by a product version. Please contact JRC for more information.

DURING OPERATION

DANGER



Do not touch any internal parts with your hands or tools.
It may cause fire, electrical shock or malfunction.

DURING OPERATION

WARNING



Please do not bring the power supply code close to the heat apparatus. The coating of the code may be relieved, and it causes a fire and the electric shock.



Do not approach the ADE while transmitting. It transmits microwave and strong microwave may cause injury.



If an external matter, such as metal fragments, water, liquid, etc., infringes into your JUE-250, turn off the power and contact the dealer or agent you purchased the equipment from or one of our JRC Branches. Continuous operation may cause fire, electrical shock or malfunction.



Install the JUE-250 correctly in accordance with the installation manual.

Inappropriate installation may cause incorrect operation; fire, electrical shock, or malfunction. The JUE-250 should be installed by the trained technician or engineer. The installation should be requested to the purchasing dealer, JRC agent or one of the JRC branches.



Lay ADE-BDE coaxial cable correctly in accordance with the Installation manual. (Especially waterproof should be treated correctly in accordance with the installation manual.) Pay particular attention to waterproof following the instruction of installation manual. Inappropriate installation may cause incorrect operation, fire, electric shock or malfunction. The installation has to be carried out under the supervision of trained technician or field engineer.



Use the specified power supply voltage only (+19VDC to +31VDC), otherwise trouble, fire, or electric shock or malfunction may occur.



Do not troubleshoot or repair the internal equipment of the JUE-250 by yourself. Any electrical work by any person other than our trained maintenance staff may cause fire or abnormal operation of this equipment or electrical shock for you. This equipment meets the technical standard of the Ministry of Internal Affairs and Communications.

WARNING



Do not adjust the internal circuit without a calibrated measuring instrument or exchange the parts because the internal circuit is adjusted finely to specifications. If the equipment works abnormally, please contact the purchasing dealer, JRC agent or one of the JRC branches.



Do not remove, destroy, or modify warning labels.

DURING OPERATION

CAUTION



Before using, read this operation manual.
Incorrect operation may cause improper working operation or malfunction.

<<Above Deck Equipment>>



Do not deliver mechanical shock and/or force, because each unit of your ADE is a precision instrument. Unwanted shock and force may cause malfunction.



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

<<Below Deck Equipment>>



Do not turn off the power switch of BDE except the case that maintenance or checking is required.
It may cause malfunction of the antenna drive and may cause troubles.



Do not turn off the **POWER** switch during sailing. It may cause malfunction of the antenna drive and may cause troubles.

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Inmarsat FleetBroadband JUE-250 Operation Manual

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1. Inmarsat Service systems

1.1 Outline

1.1.1 Coverage area

The Inmarsat Satellites cover the earth's surface except at the high latitude areas near the North Pole and the South Pole.

Inmarsat terminals are available for any type of vehicle or ship, and are capable of communicating day and night.

The Inmarsat coverage map displays the area of three satellite regions.

Atlantic Ocean Region: AOR

Pacific Ocean Region: POR*¹

Indian Ocean Region: IOR

*¹ Launching of the satellite is scheduled at 1st quarter of 2008.

A geostationary satellite is placed on each Ocean Region (excluded spare satellites).

The adjacent Ocean Regions have overlapped area of satellite regions. Suitable Ocean Region (satellite region) is automatically selected when JUE-250 positions in overlapped area.

Overlapped area

Inmarsat BGAN coverage

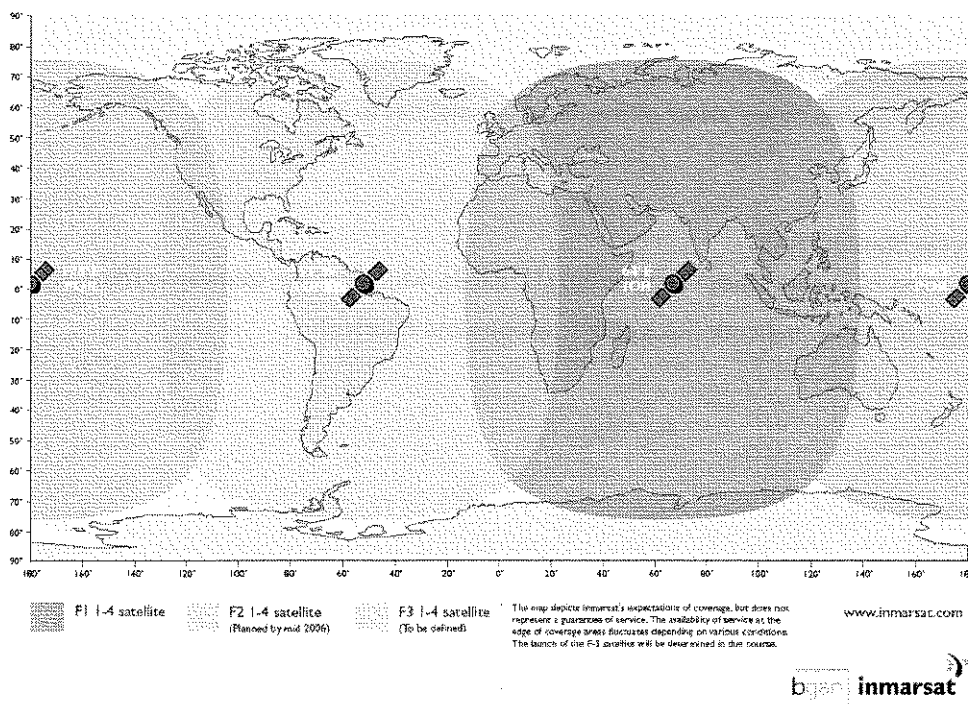


Fig.1.1.1 The coverage areas of Ocean Region

1.1.2 The Inmarsat FleetBroadband Service

The Inmarsat network system consists of NCS, NOC, SCC, TT&C, and SAS.

Functions of each facility are as follows:

1) Network Coordination Station (NCS)

The NCS is designed for each Inmarsat service (i.e. Inmarsat-A, B, C) in each ocean region, which manages and coordinates the traffic in the region. The NCS assigns communication channels between the Mobile Earth Stations (MES) and Satellite Access Station (SAS).

2) Network Operation Center (NOC)

The NOC located at the INMARSAT headquarters in London U.K., coordinates communication lines of the network 24 hours a day, 365 days a year. The NOC maintains contact via dedicated satellite and terrestrial links with the NCSs and SASs in all Ocean regions.

The NOC performs the following:

- Coordination with the Satellite Control Center (SCC) for operation of satellites.
- Coordination with NCS and/or SAS for system operation.
- Collection of any status data in operation .
- Coordination of any test of satellite's performance.

3) Satellite Control Center (SCC)

The SCC controls the positioning of the satellites above the equator.

4) Tracking Telemetry and Control Center (TT&C)

The TT&C supplies data on the status of the Inmarsat satellites to SCC.

5) Satellite Access Station (SAS)

The SASs located in Fucino (Italy) and Burum (Holland), which are the gateway systems operating inter-working with public network (including telephone and Internet).

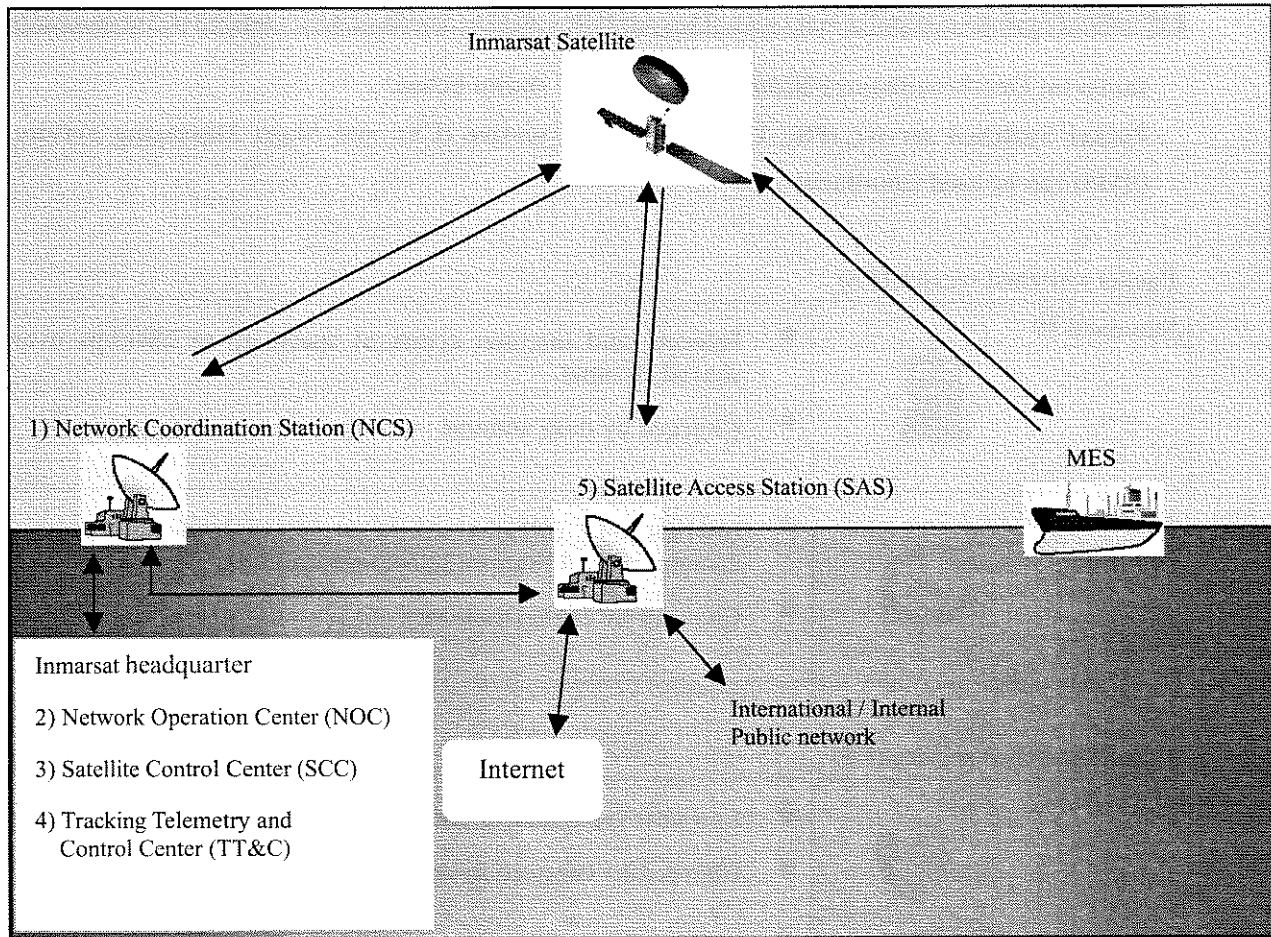




Fig.1.1.2 The Inmarsat FleetBroadband service Network

1.2 The Inmarsat FleetBroadband FB250 services explanations


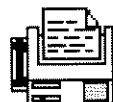
Inmarsat FleetBroadband FB250 provides service shown below.

Packet Switched service (PS), Circuit Switched service (CS), and Short Messaging Service (SMS) can be used simultaneously.


Packet switched service (PS)

Standard IP 	<ul style="list-style-type: none"> • Internet and intranet access at speed up to 284kbps over a shared channel. • Charged by data amount
Streaming IP 	<ul style="list-style-type: none"> • Internet and intranet access at guaranteed data rates on demand up to 128kbps (32,64, and 128kbps) • Charged by connection time.

Circuit switched service (CS)

4kbps Voice 	<ul style="list-style-type: none"> • Low cost voice service equal to Inmarsat mini-M voice • Charged by connection time
64kbps 3.1kHz Audio 	<ul style="list-style-type: none"> • High quality voice service to use FAX and analogue modem. • Charged by connection time

Short Message Service (SMS)

Short Message Service 	<ul style="list-style-type: none"> • Send and receive text messages up to 160 characters. • Charged by message.
---	---

Note

64kbps 3.1kHz Audio service is not available when antenna elevation angle (EL) value is less than 20 degrees.

2. Introduction of the JUE-250

2.1 Outline

The JRC JUE-250 is a FleetBroadband FB250 digital satellite communication system that meets the latest Inmarsat FleetBroadband FB250 SDM. JUE-250 is designed for easy operation and installation due to the lightweight Above Deck Equipment (ADE) and compact Below Deck Equipment (BDE), equipped with simple to operate telephone, FAX, IP services.

2.2 Features

Meeting the latest FleetBroadband SDM

The JUE-250 meets the latest Inmarsat FleetBroadband FB250 technical requirements (SDM) and is a suitable solution for satellite communications equipment for any type of vessel, navigating the world's oceans.

High quality and low communication cost

The JUE-250 provides following services using Broadband Global Area Network (BGAN) offered from Inmarsat.

- Low cost global voice service : 4kbps Voice
- G3FAX and legacy analogue modem service using 64kbps 3.1kHz Audio service
- Standard IP service (maximum speed is 284kbps)
- Streaming IP service (32k, 64k, and 128kbps)
- SMS (maximum number of characters are 160)

Stylish, Light weight, Space-saving, and Gyro-less

The JUE-250 can be installed on vessels of all sizes due to the stylish, compact and lightweight design of the ADE. The adoption of an active, Gyro-less three-axis antenna structure, makes this unit a perfect fit for small vessels.

With the use of a single coaxial cable as the control line between the ADE and BDE the installation of the JUE-250 is simple and easy.

The Rewindless antenna produces uninterrupted communication during course change.

Adaptive to various networks

The JUE-250 has multiple Interfaces including Ethernet, Audio, 2 wire (TEL1/2), USB, and Handset as standard equipment. An output port for WRF (Wide-band Radio Frequency) is also provided.

Self-diagnosis system

The built-in self-diagnosis system continually monitors the status of the JUE-250 and indicates the warning if an error is detected.

2.3 Cable connection system diagram and components List

2.3.1 Cable connection system diagram

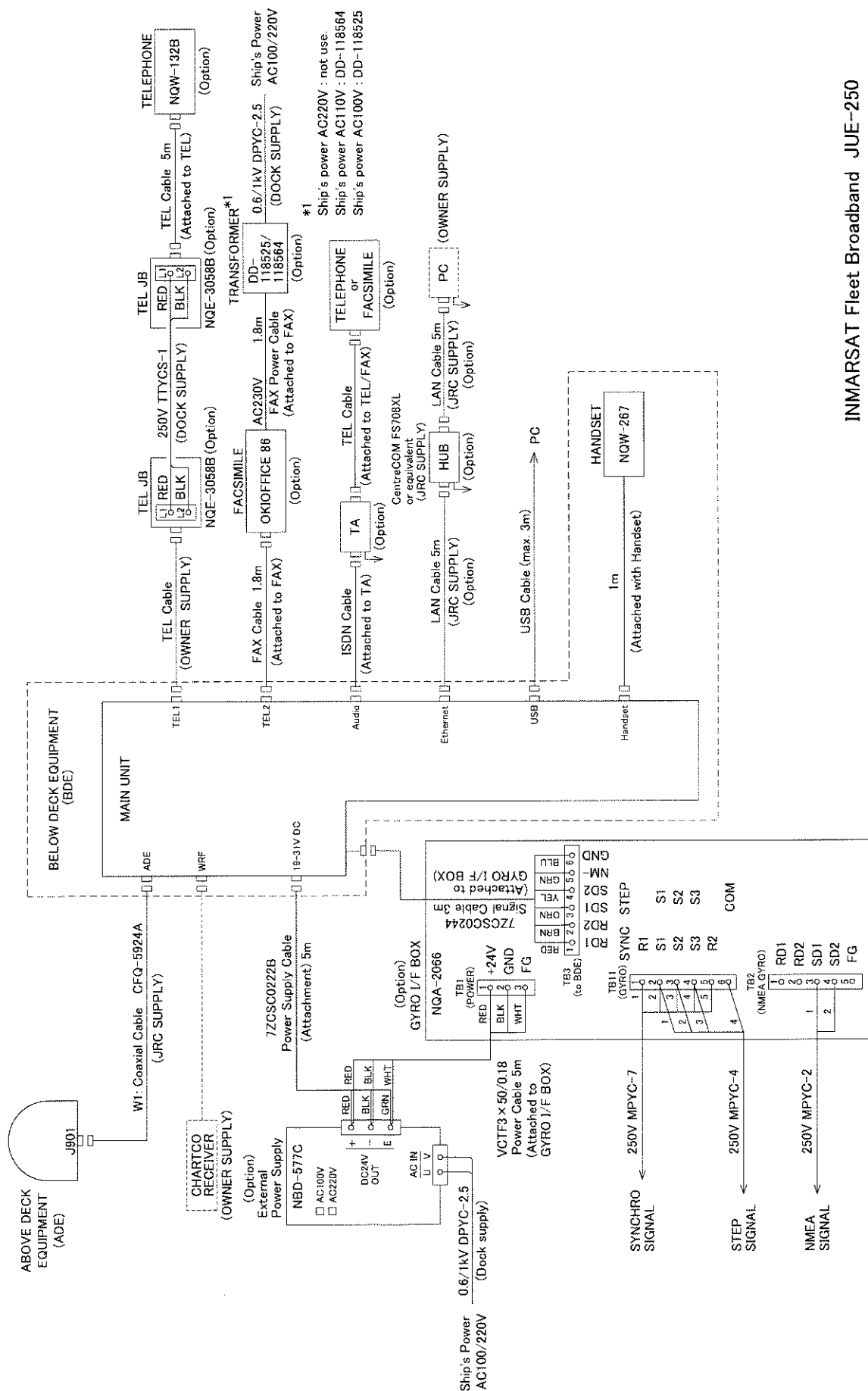


Fig. 2.3.1 Cable connection system diagram

2.3.2 Components list

Fig. 2.3.2 JUE-250 Components list

	Name of equipment	Type	Q'ty
JUE-250 (Standard Components)	ADE	GSC-451	1
	BDE	GSC-452	1
	Handset	NQW-267	1
	Coaxial cable	CFQ-5924A3	1
	Power cable (PSU to BDE)	7ZCSC0222B	1
	JUE-250 Operation Manual	7ZPSC0256	1
	JUE-250 Installation Manual	7ZPSC0258	1
	JUE-250 Quick Operation Guide	7ZPSC0260	1
	JUE-250 CD-ROM	7YZSC0007	1
Option	Telephone	NQW-132B	1
	Facsimile	OKI OFFICE 86	1
	Power transformer for Facsimile (100V to 230V)	DD-118525	1
	External Power supply Unit (EXT PSU)	NBD-577C	1
	Telephone Junction Box (TEL JB)	NQE-3058B	2
	RS232 Cable (BDE to PC)	7ZCSC0196	1
	GYRO I/F Box	NQA-2066	1
	Terminal adapter	MTA128ST	1

2.4 Dimensional drawing (JUE-250 standard components)

2.4.1 ADE (Above Deck Equipment) [GSC-451]

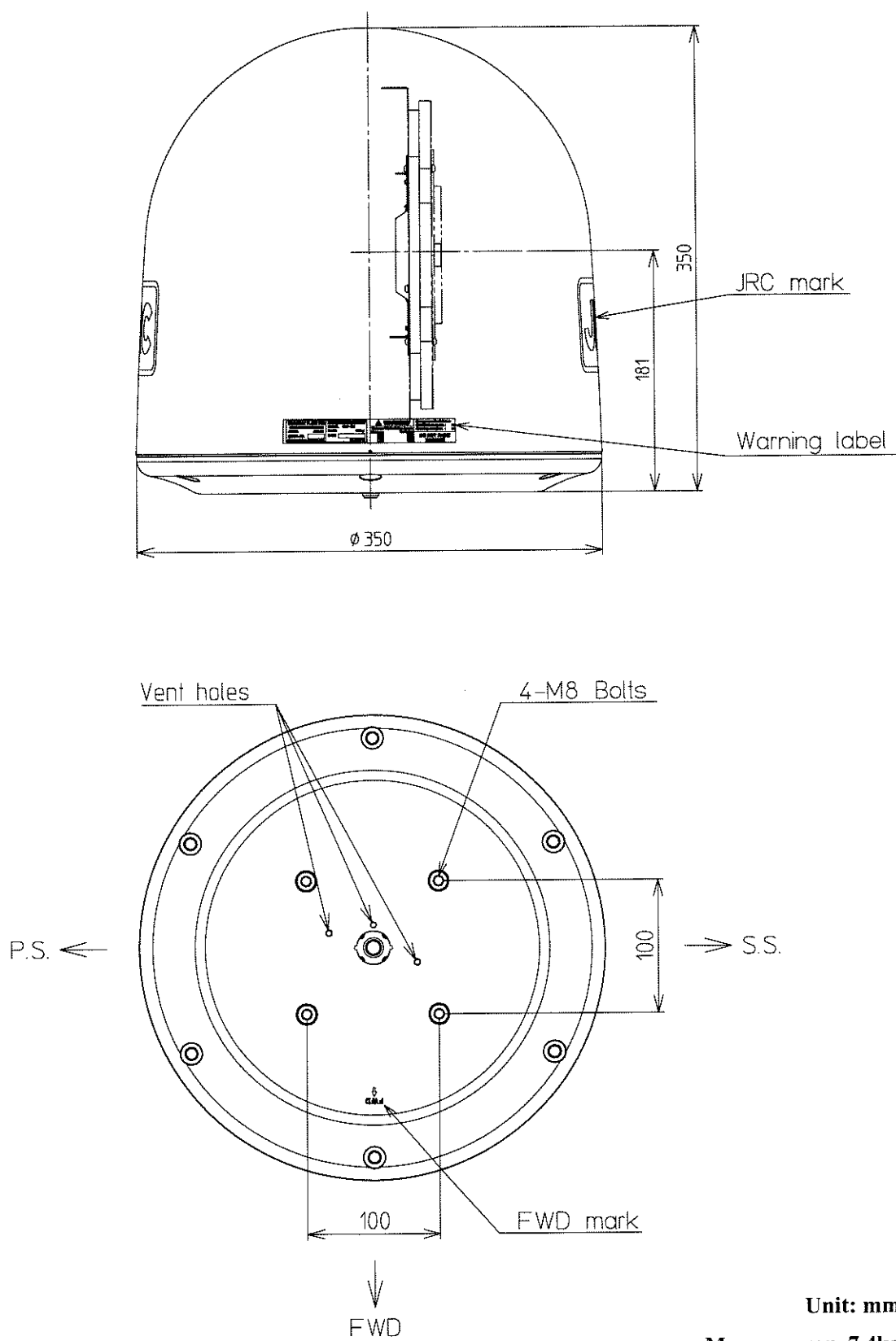
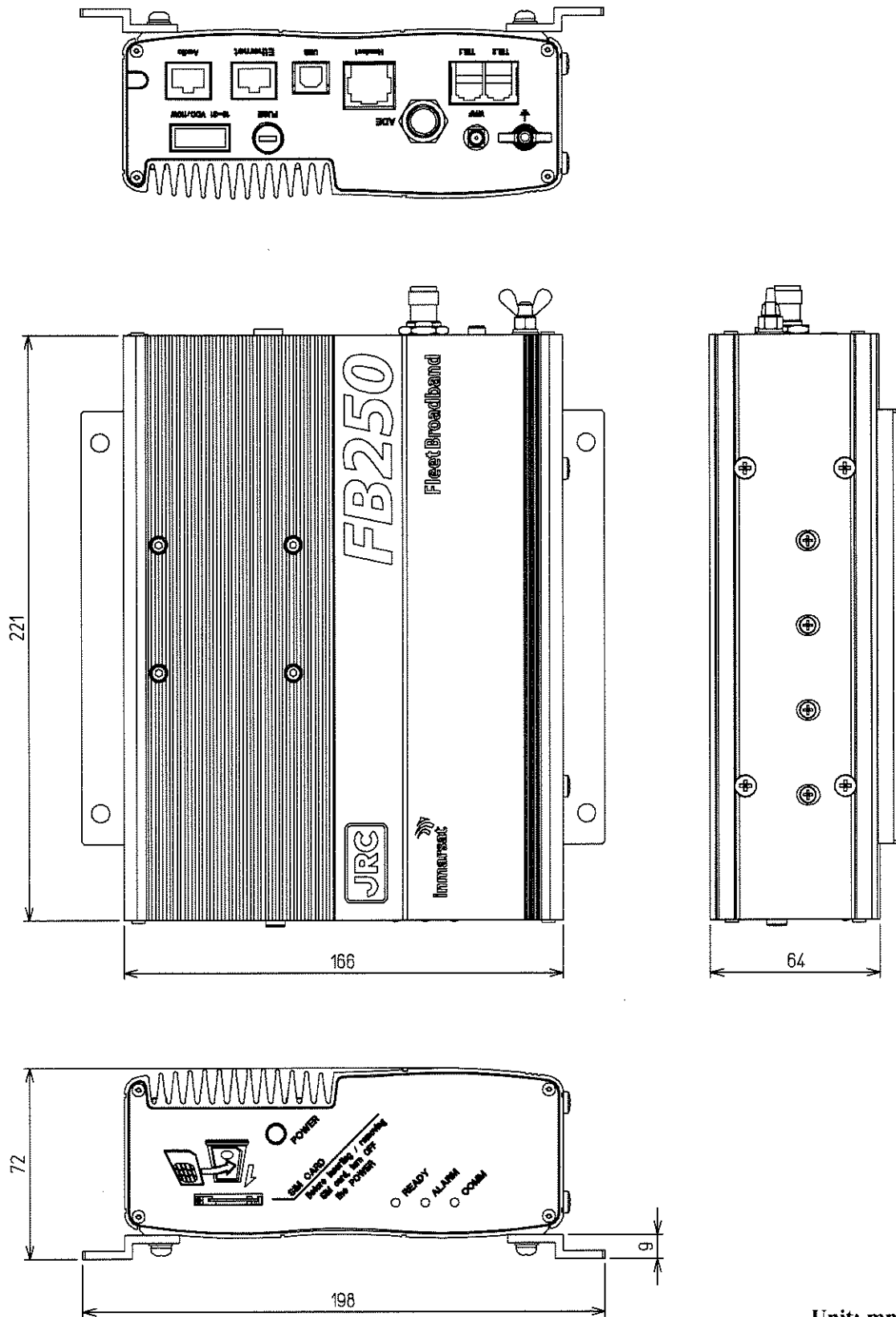


Fig. 2.4.1 ADE

2.4.2 BDE (Below Deck Equipment) [GSC-452]



Unit: mm
Mass. approx. 2.2kg

Fig. 2.4.2 BDE

2.4.3 Handset [NQW-267]

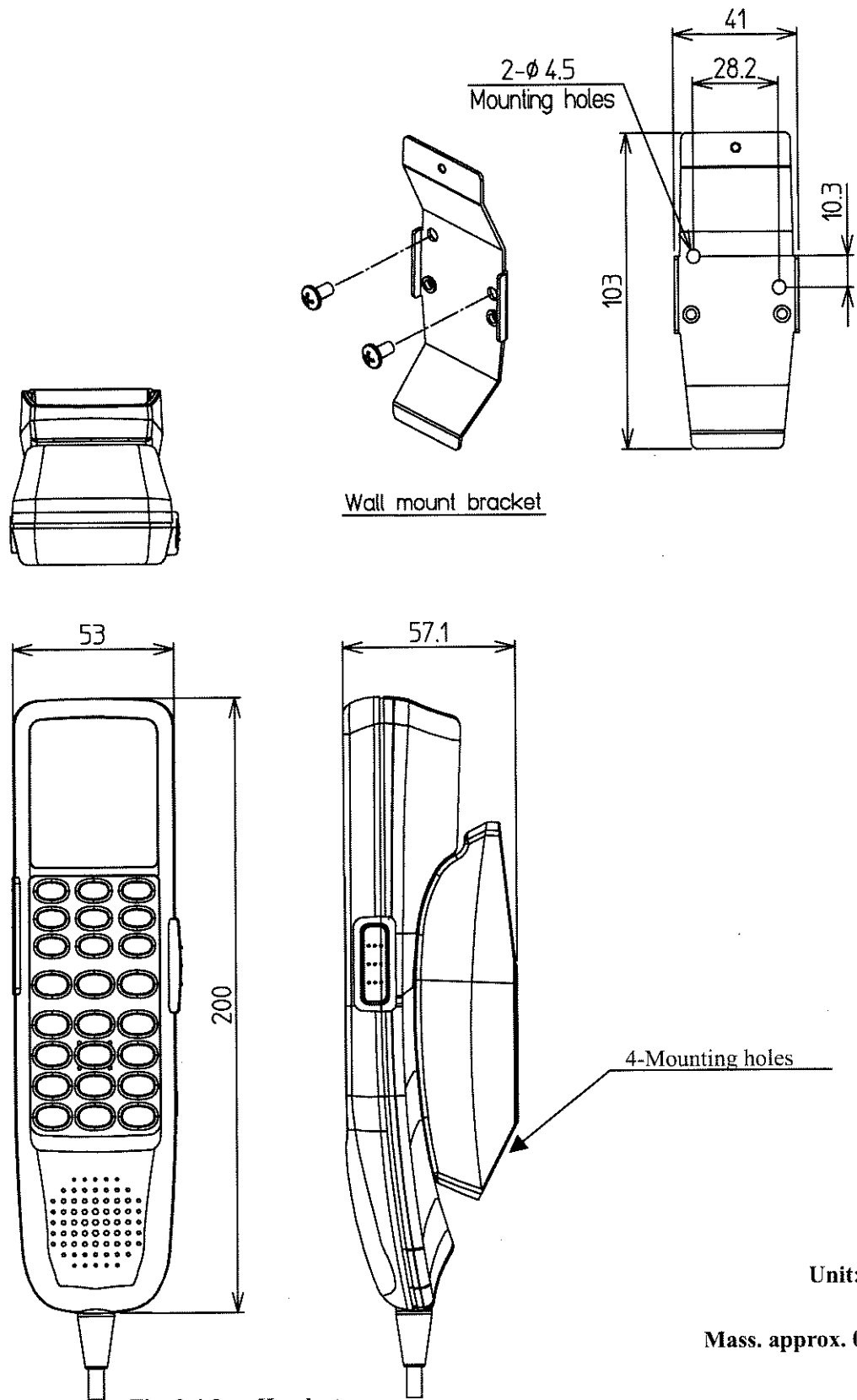
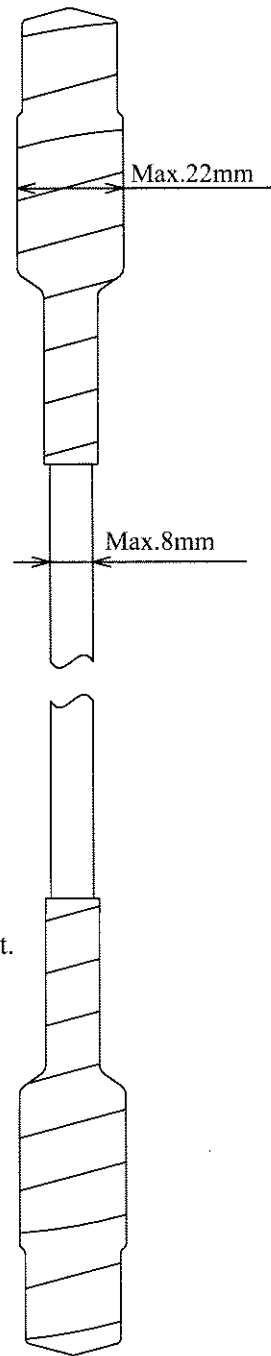


Fig. 2.4.3 Handset

2.4.4 Coaxial cable [CFQ-5924A3]



*CFQ5924A15 is available as optional component.

Unit : mm

Type	Length	Mass
CFQ-5924A3	30m(± 1.0 m)	Under 2.3kg
(CFQ5924A15)	(15m(± 0.5 m))	(Under 1.4kg)

(Minimum bending radius : 46mm)

Fig. 2.4.4 Coaxial cable

3. Appearance

In this section, the composition of the JUE-250 and terminal equipments are explained.

- 1) Above Deck Equipment (ADE): Antenna unit and radome (Antenna Cover)
- 2) Blow Deck Equipment (BDE): Main unit
- 3) Coaxial cable: A Cable connects ADE to BDE
- 4) Handset: Handset and cradle
- 5) Terminal equipments: Accessories used for communication (user supplied PC, FAX, and telephone)

3.1 ADE

Acrylonitrile Ethylene Propylene Rubber Styrene (AES) radome covers the antenna equipments, which is composed of:

- a) Antenna Unit contains Low Noise Amplifier (LNA),
- b) Above Deck Unit contains RF and GPS circuit
- c) Rotary joint
- d) Antenna pedestal

All signals (and power) pass through a single coaxial cable, which connects the ADE and BDE.

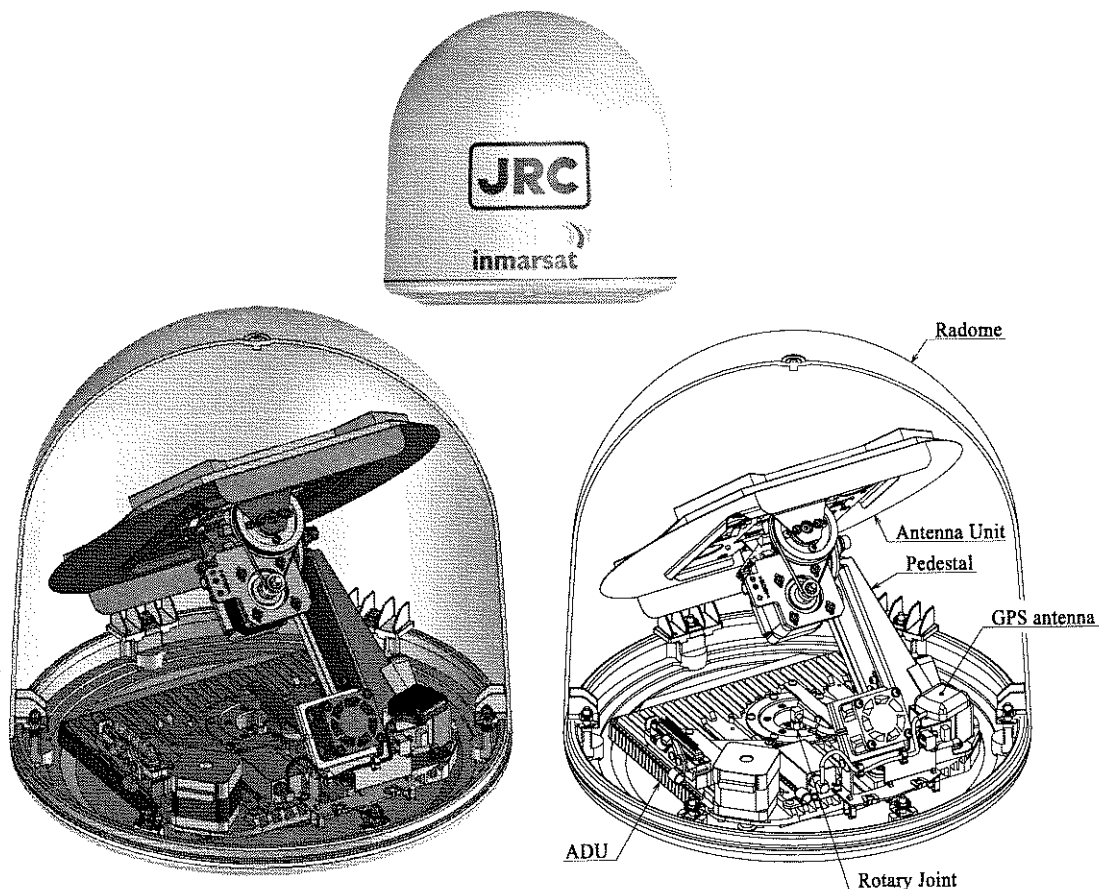


Fig. 3.1 ADE appearance and detailed skeleton view

3.2 BDE

Main unit

Main unit appearance

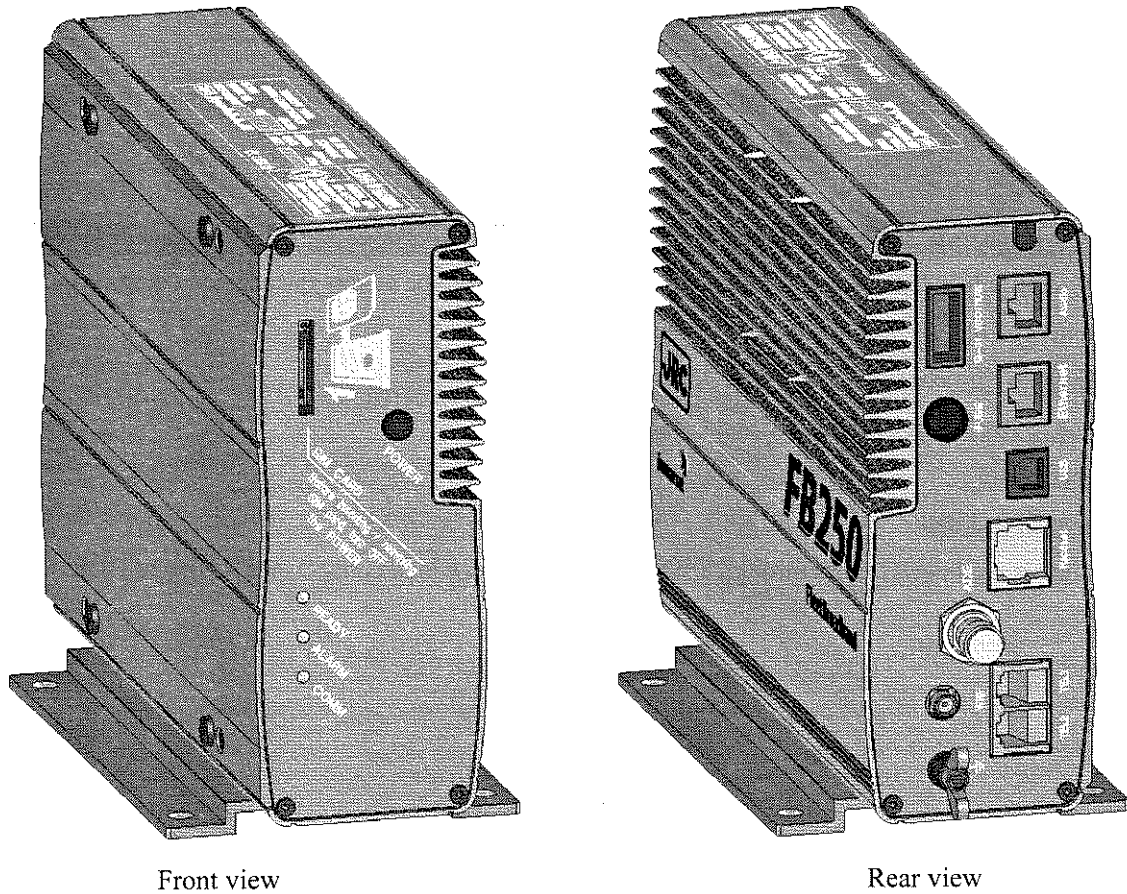


Fig. 3.2a Main unit appearance

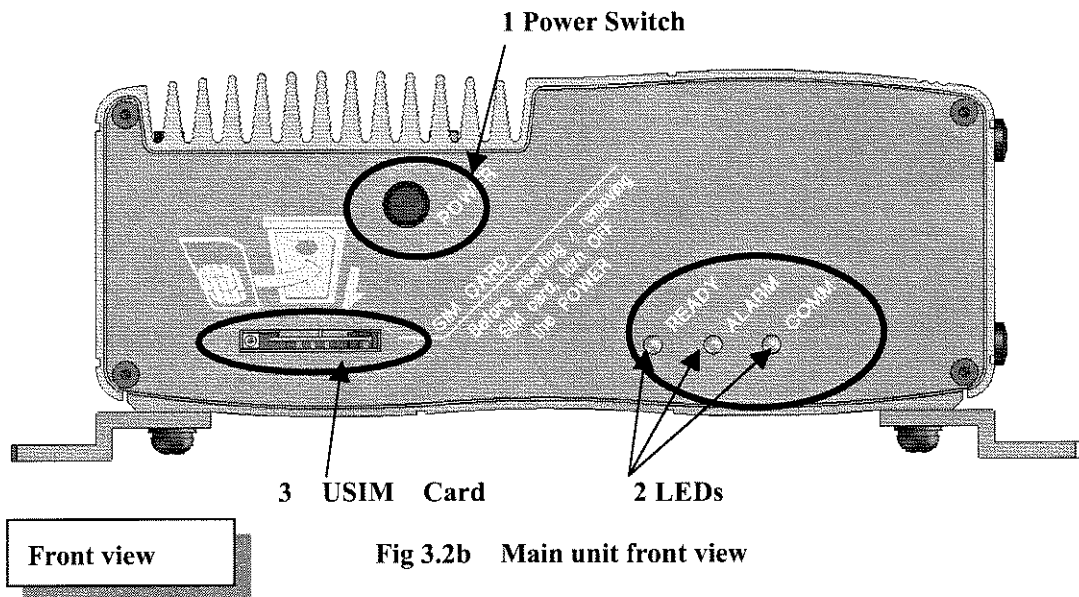


Fig 3.2b Main unit front view

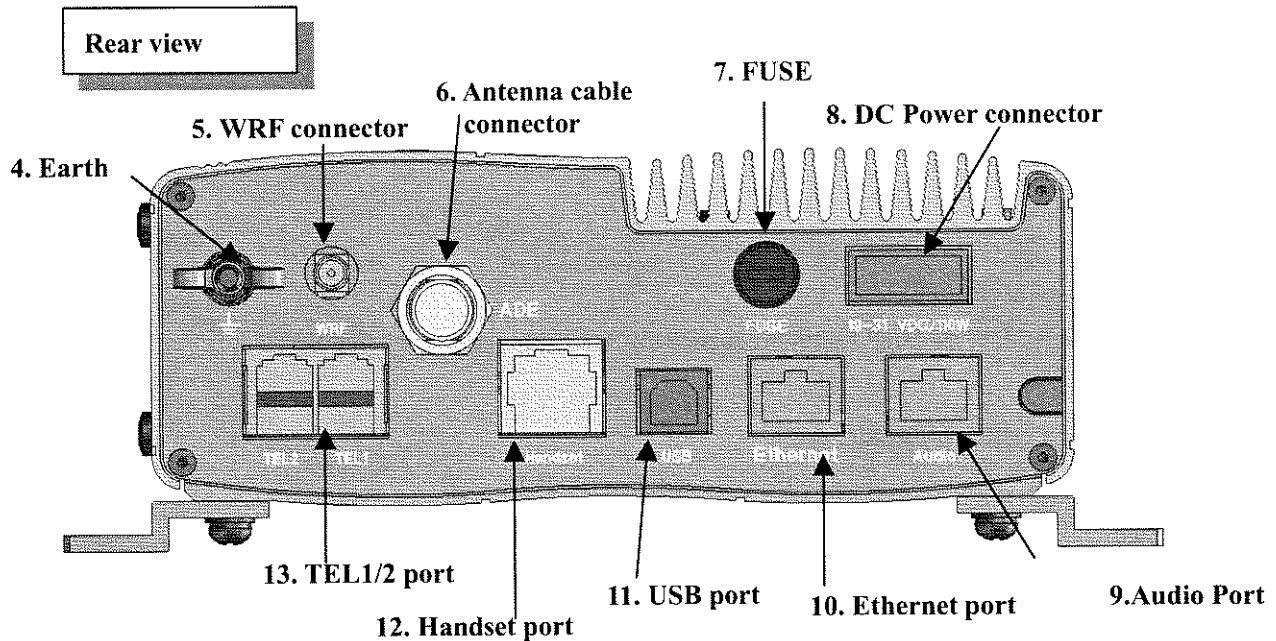


Fig. 3.2c Main unit rear view

- 1 Power Switch
Turns power on and off.
- 2 LEDs
Indicates the communication and JUE-250 status. They lit in the same way as LEDs on the Handset.

Ready lamp displays available services

Green light:

All communication services are available.

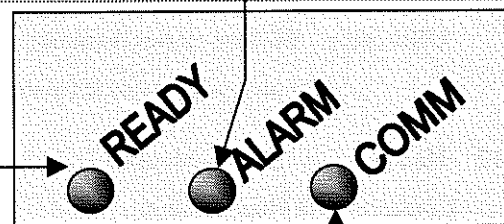
Blinking Green:

- When no service is available
- Activating (JUE-250 checking the status of itself)

(No light: power switch is OFF)

ALARM lamp indicates failure alert

Red light: Failure has occurred in the system.
(No light: The status is normal)



COMM lamp indicates communication starting.

Green light : Communications in progress
(No light: no communication is on the way now.)

3. Appearance

3 USIM card slot

Mounts a USIM card.

4 Earth

5 WRF connector

Connects with Wide-band Radio Frequency (WRF) communication equipments.

6 Antenna cable connector

Connects with the coaxial cable from the antenna (ADE).

7 FUSE

Trips when over current are detected.

8 DC power connector

Connects with the cable which supplies the power source to the main unit .

9 Audio port (RJ-45 type 8-PIN Modular Cable for ISDN)

Connects with equipment, which has an ISDN interface.

Offered services: 64kbps 3.1kHz Audio

10 Ethernet port (RJ-45 type 8-PIN Modular Cable for Ethernet)

Connects with an equipment which has an Ethernet interface.

Offered services: Standard IP, Streaming IP, and SMS.

11 USB port (USB Cable series B plug)

Connects with an equipment which has a USB interface.

Offered services: Standard IP, Streaming IP, and SMS.

USB cable PC side :series A (male)

Main unit side: series B (male)

12 Handset port (12-PIN Modular Cable)

Connects with Handset unit.

Offered service: 4kbps Voice

13 TEL 1/2 ports (RJ-11 type 6-PIN Modular Cable)

Connects the analog equipment, terminal telephones, and facsimile to the main unit.

Offered services: 4kbps Voice, 64kbps 3.1kHz Audio

3.3 ADE - BDE connecting cable

*** This cable can be connected to ADE and BDE in either direction.**

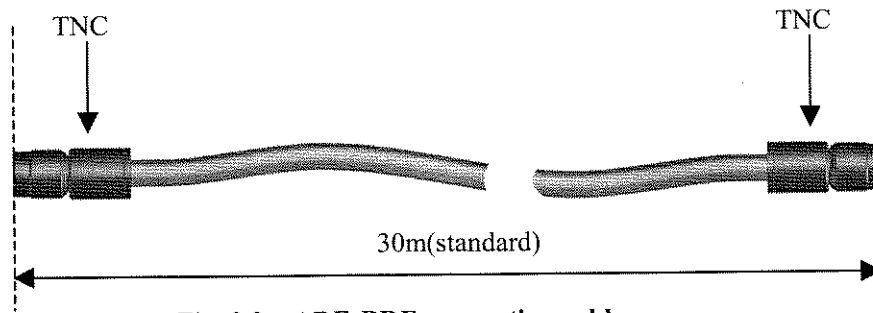


Fig. 3.3 ADE-BDE connecting cable

3.4 Handset

The Handset consists of main body and cradle (Handset rest)

The Handset is fixed on the cradle by a strong magnet.

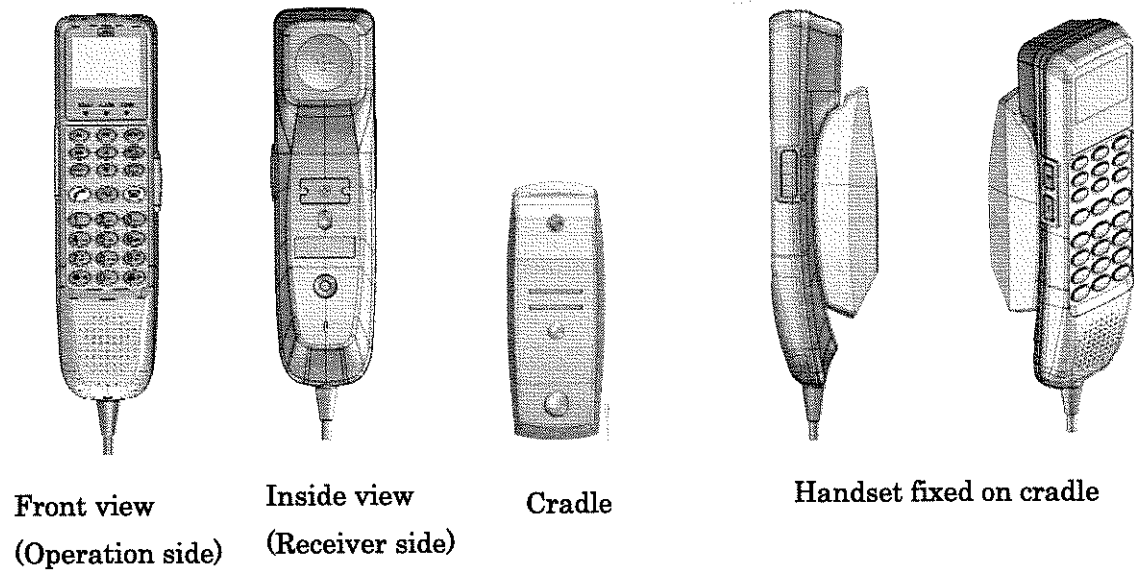


Fig 3.4a Handset and cradle

Handset consists of three sections:

3.4.1. LCD / LED section

LCD screen displays JUE-250 user information.

LEDs indicate communication/apparatus status.

3.4.2. Functional section

Buttons in this section control most of the functions of the JUE-250.

3.4.3. Alpha-Numeric section

Numeric mode is used to enter number sequences like phone numbers. Alpha mode is used to enter letters.

These two modes are switched by pressing **Aa** button of the Function section.

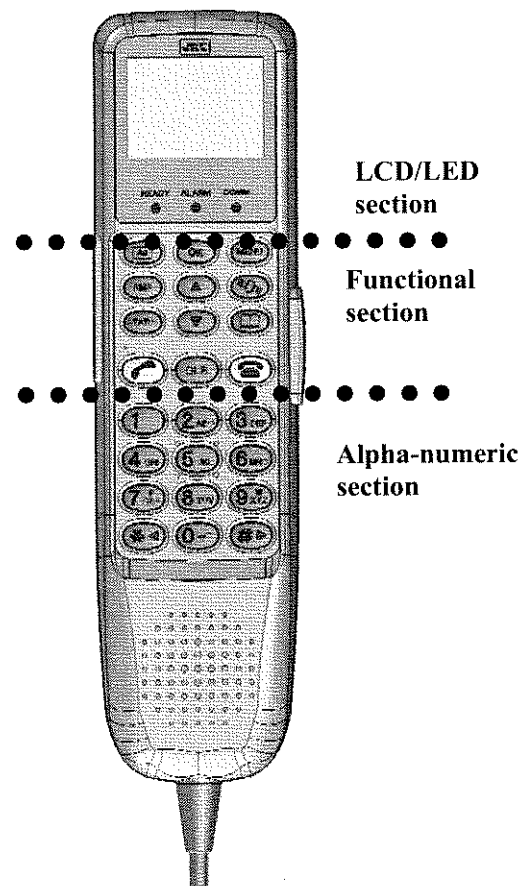









Fig. 3.4a Section of Handset

3.4.1 LCD/LED section

Functions of the LCD screens of the Handset.

Common items for all screens are:

- 1 [Operational button](Displays ,  and )
- 2 [Enter mode](Displays **Aa**, , , and )
- 3 [Condition of reception](Displays )
- 4 [Selected satellite or terminal](W180.0, HDST-VOICE., etc.)
- 5 [Current time](UTC or LTC)
- 6 [Status (Idle status, sending or receiving, etc.)](CS PS READY, COMM (SND), etc.)

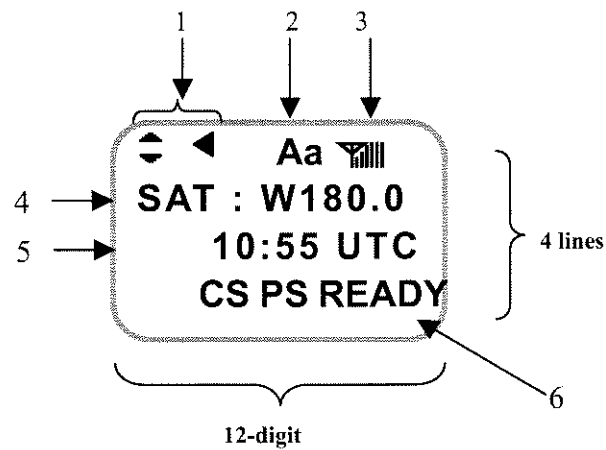


Fig. 3.4.1a Explanation of LCD section

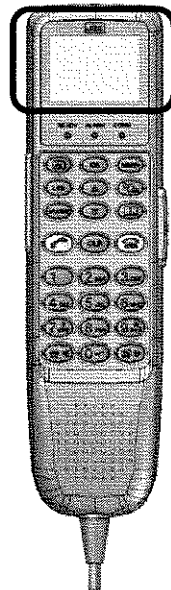
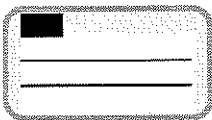































Fig. 3.4.1b LCD section

Table 3.4.1 Explanation of items displayed on screens

3. Appearance

Displayed items	Contents																
1 Operational button 	Displays when the scrolling-up/down or switching-left/right is available. Scroll the screen when up/down ▲ is displayed, with ▲ ▼ buttons. Switch the screen when left/right ▲ is displayed, with *◀ #▶ buttons.																
2 Enter mode 	1) Displays Aa mark for alphabet enter mode, nothing for numerous enter mode. 2) Displays  when Phone Book menu is selecting. 3) Displays  when Redial menu is selecting. 4) Displays  when call is on hold.																
3 Condition of reception 	Displays a bar graph of signal reception level by seven (7) grades. <table><tr><th>Number of bars</th><th>Communication</th></tr><tr><td>0 </td><td>Impossible (no reception)</td></tr><tr><td>1 </td><td>Impossible to communicate</td></tr><tr><td>2 </td><td>Impossible to communicate</td></tr><tr><td>3 </td><td>Possible to communicate but unstable</td></tr><tr><td>4 </td><td>Possible to communicate but unstable</td></tr><tr><td>5 </td><td>Possible to stable communicate</td></tr><tr><td>6 </td><td>Possible to stable communicate</td></tr></table>	Number of bars	Communication	0 	Impossible (no reception)	1 	Impossible to communicate	2 	Impossible to communicate	3 	Possible to communicate but unstable	4 	Possible to communicate but unstable	5 	Possible to stable communicate	6 	Possible to stable communicate
Number of bars	Communication																
0 	Impossible (no reception)																
1 	Impossible to communicate																
2 	Impossible to communicate																
3 	Possible to communicate but unstable																
4 	Possible to communicate but unstable																
5 	Possible to stable communicate																
6 	Possible to stable communicate																
4 Selected Satellite or terminal 	Displays selected satellite /communicating terminals. Satellite (Displays in idle time) Displays in units of 0.1 degree, in the range of W180.0 to E180.0 (displays in idle time). Communicating terminal (displays in communication) It can be switched by ▼▲, when multiple service is used. <table><tr><th>Terminal name</th></tr><tr><td>HDST-VOICE</td></tr><tr><td>TEL1-VOICE</td></tr><tr><td>TEL1-FAX</td></tr><tr><td>TEL2-VOICE</td></tr><tr><td>TEL2-FAX</td></tr><tr><td>ISDN-VOICE</td></tr><tr><td>ISDN-FAX</td></tr><tr><td>USB-STANDARD</td></tr><tr><td>USB-STREAMIN</td></tr><tr><td>ETH- STANDARD</td></tr><tr><td>ETH- STREAMIN</td></tr><tr><td>ETH -SMS</td></tr></table>	Terminal name	HDST-VOICE	TEL1-VOICE	TEL1-FAX	TEL2-VOICE	TEL2-FAX	ISDN-VOICE	ISDN-FAX	USB-STANDARD	USB-STREAMIN	ETH- STANDARD	ETH- STREAMIN	ETH -SMS			
Terminal name																	
HDST-VOICE																	
TEL1-VOICE																	
TEL1-FAX																	
TEL2-VOICE																	
TEL2-FAX																	
ISDN-VOICE																	
ISDN-FAX																	
USB-STANDARD																	
USB-STREAMIN																	
ETH- STANDARD																	
ETH- STREAMIN																	
ETH -SMS																	

5 Current time 	Display can be selected from UTC (Universal Time coordinated) and LTC (Local Time coordinated). Refer to [8.9.1.2 Local Time setting](p102).																																				
6 Status 	<p>Displays the status of equipment. Normally, this area displays below contents under waiting communication or under transmitting.</p> <p>“COMM(SND)”(under transmitting)</p> <p>”COMM(RCV)”(under receiving)</p> <p>”LOCK”(under terminal locked)</p> <table><tr><th>Status</th><th>Displayed txt.</th><th>Contents</th></tr><tr><td>Abnormal</td><td>ADE?</td><td>ADE is abnormal condition</td></tr><tr><td>Normal</td><td>CS PS READY</td><td>Communication is possible. (Circuit switch service and Packet switch service are available)</td></tr><tr><td>Normal</td><td>CS READY</td><td>Communication is possible. (Circuit switch service only available)</td></tr><tr><td>Normal</td><td>PS READY</td><td>Communication is possible. (Packet switch service only available)</td></tr><tr><td>Normal</td><td>COMM (SND)</td><td>Communicating with other device, called from the ship.</td></tr><tr><td>Normal</td><td>COMM (RCV)</td><td>Communicating with other device, called from the land.</td></tr><tr><td>Abnormal</td><td>POSITION?</td><td>GPS does not receive the radio wave from satellite. It is not always failure. The other factors including blocking can be considered.</td></tr><tr><td>Abnormal</td><td>GYRO?</td><td>GYRO is abnormal condition.</td></tr><tr><td>Normal</td><td>HEADING?</td><td>GYRO of Sync/Step requires Heading value</td></tr><tr><td>Normal</td><td>LOCK</td><td>The operation of Handset is protected with Terminal Lock.</td></tr><tr><td>Normal</td><td>NOT READY</td><td>Communication is impossible.</td></tr></table>	Status	Displayed txt.	Contents	Abnormal	ADE?	ADE is abnormal condition	Normal	CS PS READY	Communication is possible. (Circuit switch service and Packet switch service are available)	Normal	CS READY	Communication is possible. (Circuit switch service only available)	Normal	PS READY	Communication is possible. (Packet switch service only available)	Normal	COMM (SND)	Communicating with other device, called from the ship.	Normal	COMM (RCV)	Communicating with other device, called from the land.	Abnormal	POSITION?	GPS does not receive the radio wave from satellite. It is not always failure. The other factors including blocking can be considered.	Abnormal	GYRO?	GYRO is abnormal condition.	Normal	HEADING?	GYRO of Sync/Step requires Heading value	Normal	LOCK	The operation of Handset is protected with Terminal Lock.	Normal	NOT READY	Communication is impossible.
Status	Displayed txt.	Contents																																			
Abnormal	ADE?	ADE is abnormal condition																																			
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Abnormal	GYRO?	GYRO is abnormal condition.																																			
Normal	HEADING?	GYRO of Sync/Step requires Heading value																																			
Normal	LOCK	The operation of Handset is protected with Terminal Lock.																																			
Normal	NOT READY	Communication is impossible.																																			

3. Appearance

Lighting of LEDs

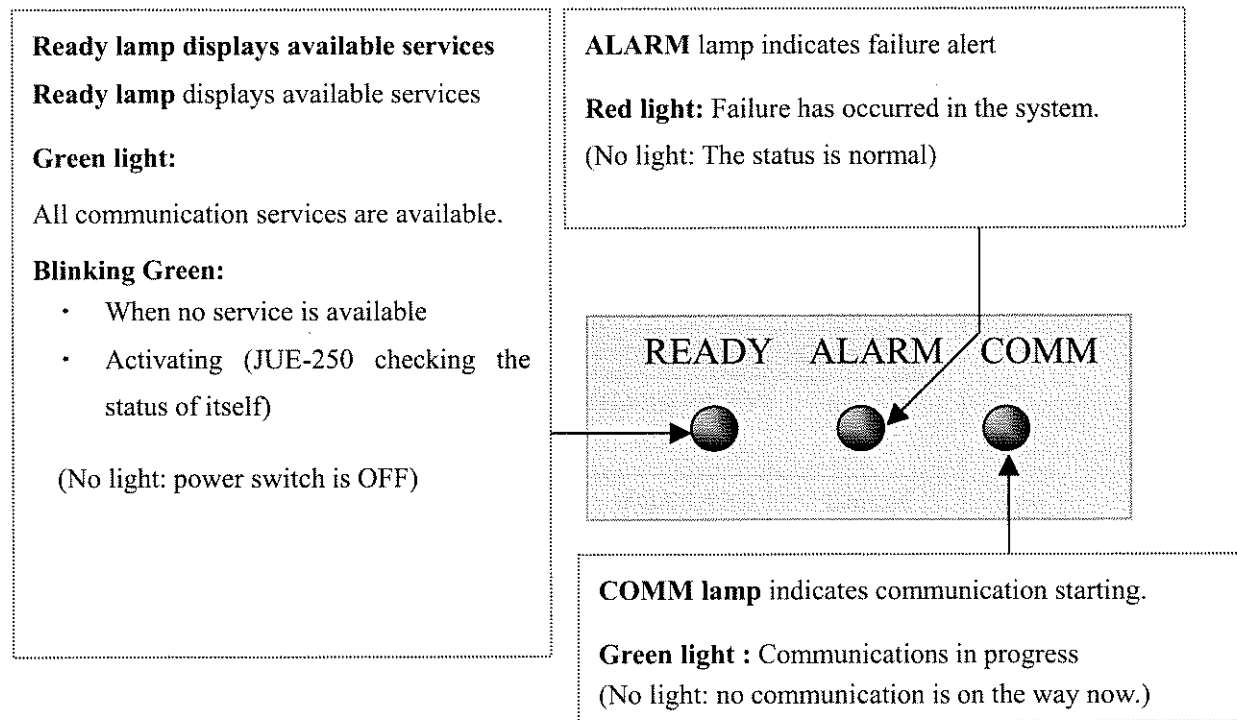
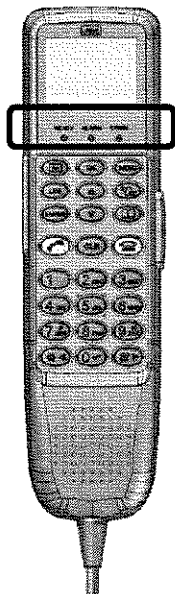


Fig. 3.4.1c Indication of LEDs















LEDs on the Handset are lit in the same way as the main unit, except just after the startup.

3.4.2 Function button section

This section describes function buttons except those for entering characters.

Buttons and its function

-  **Switching button** Switches enter mode, between alphabets and numbers.
-  **SMS button** Reads, creates, sends, and deletes Short Message Service (SMS).
-  **STATUS button** Makes direct access to STATUS menu.
-  **OK button** Registers entered contents.
-  **Scroll up button**
Scrolls up the screen / makes direct access to Redial menu.
-  **Scroll down button**
Scrolls down the screen/makes direct access to Redial menu.
-  **Menu button** Makes direct access to TOP Menu.
-  **Satellite button** Makes direct access to Satellite menu.
-  **Phone Book button** Makes direct access to PHONE BOOK menu.
-  **Off Hook(Call starting)button** Makes a call and receives a call.
-  **Clear button** Clears (cancels) the entry immediately before.
-  **On Hook(Call finishing)button** Hangs up the call.

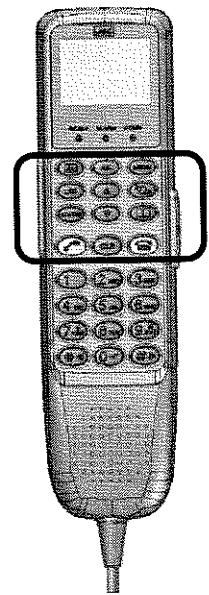


Fig. 3.4.2 Function button section

3.4.3 Alpha-numeric button section

Buttons and usage

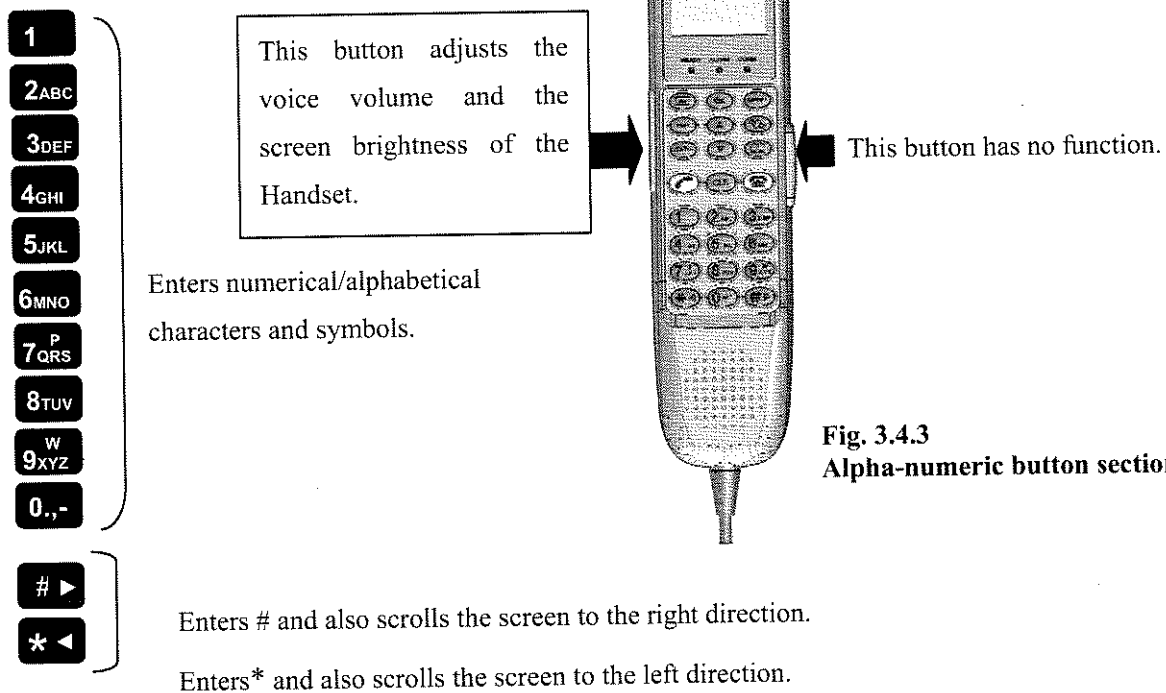


Fig. 3.4.3 Alpha-numeric button section

3.5 Communication terminals

3.5.1 Terminal requirements

* Series connection (of terminal telephone and FAX) is not available on one port.

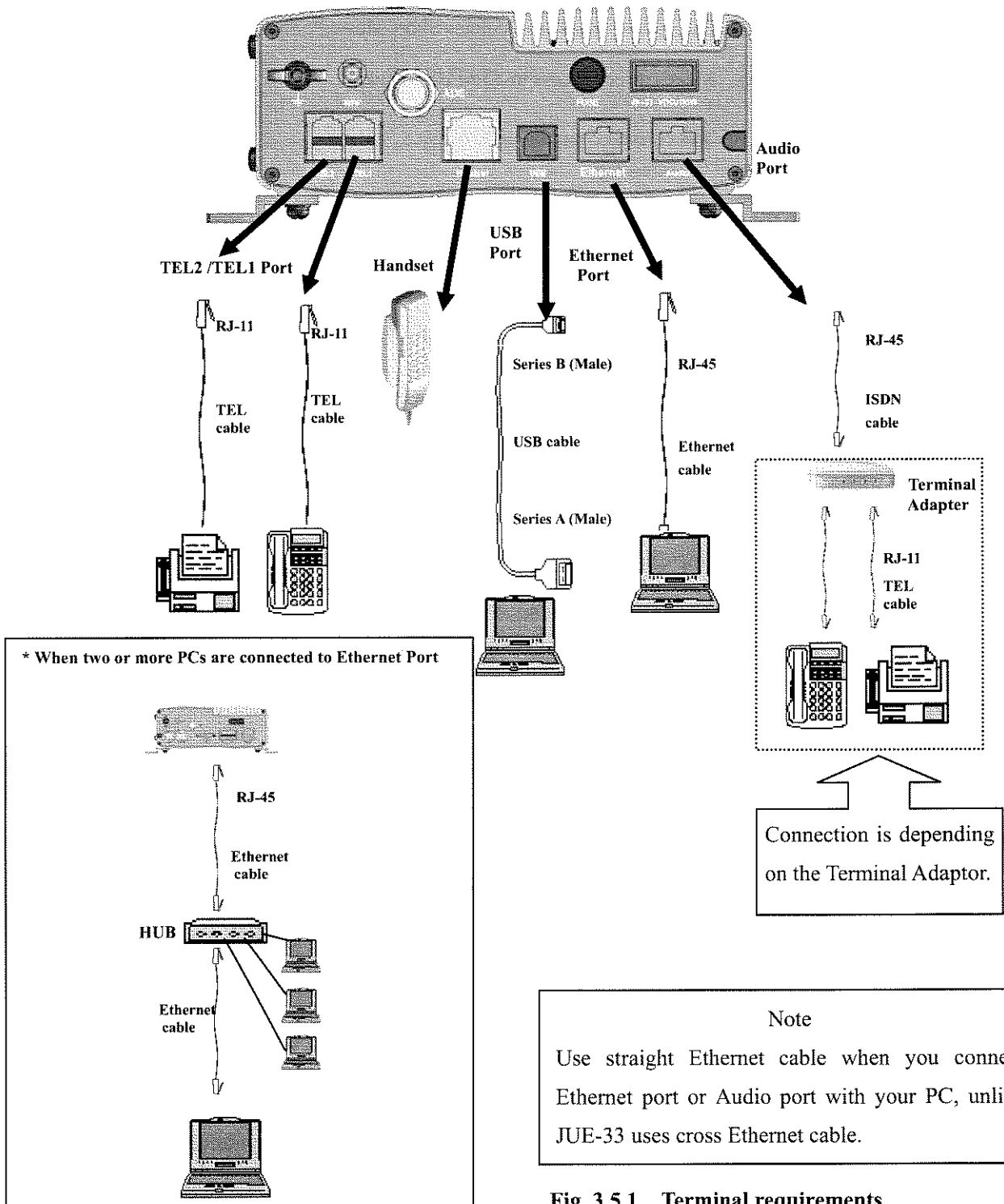


Fig. 3.5.1 Terminal requirements

3.5.2 Usage environment**Table 3.5.2 Usage environment****PC**

Item	Contents
OS	Microsoft Windows XP or Vista
Interface	Ethernet, USB

ISDN Terminal Equipment

Item	Contents
Switch type	Euro ISDN
Coding type of voice	A-law
Interface	S/T

3.6 Handset menu

On the JUE-250, various menu screens can be displayed and set, from Handset.

GUEST User ^{*1)} cannot utilize the menus of ADMIN User ^{*2)}.

^{*1)} GUEST User: General user

^{*2)} ADMIN User : User who is authenticated to make settings of the JUE-250.

Handset menu

For more detail, refer to [8. Handset Menu System](p83).

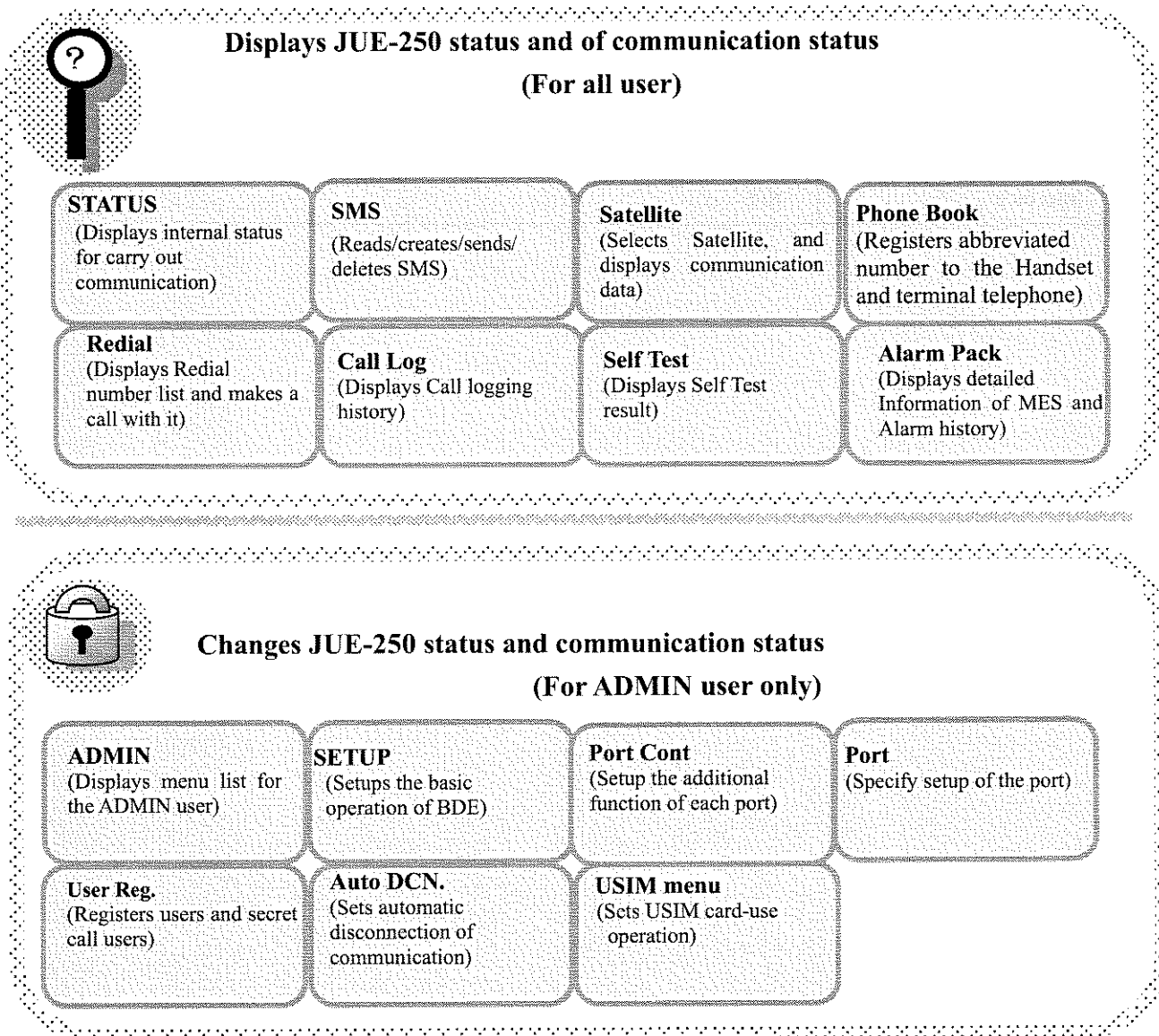


Fig. 3.6a Handset menus (Classified by user authority)

4. Getting started

In section 4.1, connecting the Handset and terminal devices to Main unit, and setting USIM card are described.

NOTE

JUE-250 has two types of satellite tracking mode, **Signal tracking mode** and **Gyro tracking mode**. Press **MENU+3** button (Satellite menu) on the Handset. [3.Heading] is displayed when the JUE-250 is set as Gyro tracking mode.

Section 4.2 describes initial setting for communication by Handset.

Before carry out connection and initial setting, installation of Launchpad is also required to your PC. Detail of the LaunchPad is as follows.

About the LaunchPad

LaunchPad is the application, which runs on the PC for the BGAN/FBB network.

It displays status/setting of the equipment, connects/disconnects Standard/Streaming IP service and sends/receives SMS, etc. on your PC.

Operation using Launchpad is partly introduced in this manual.

Install the LaunchPad into your PC with referring to enclosed LaunchPad Installation/Operation manual, preliminarily.

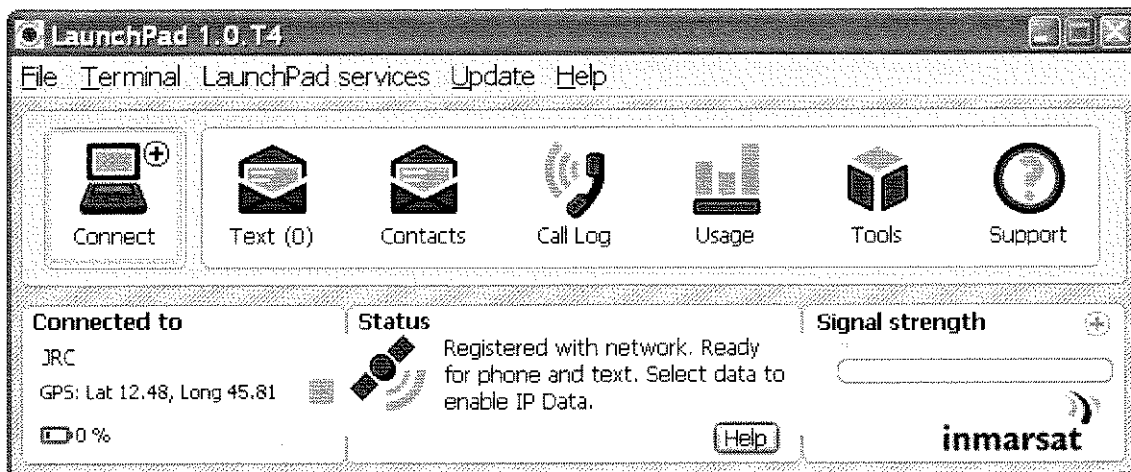


Fig.4. The main window of LaunchPad

4.1 Connecting terminals, setting USIM card and power on

4.1.1 Connecting terminals with cables

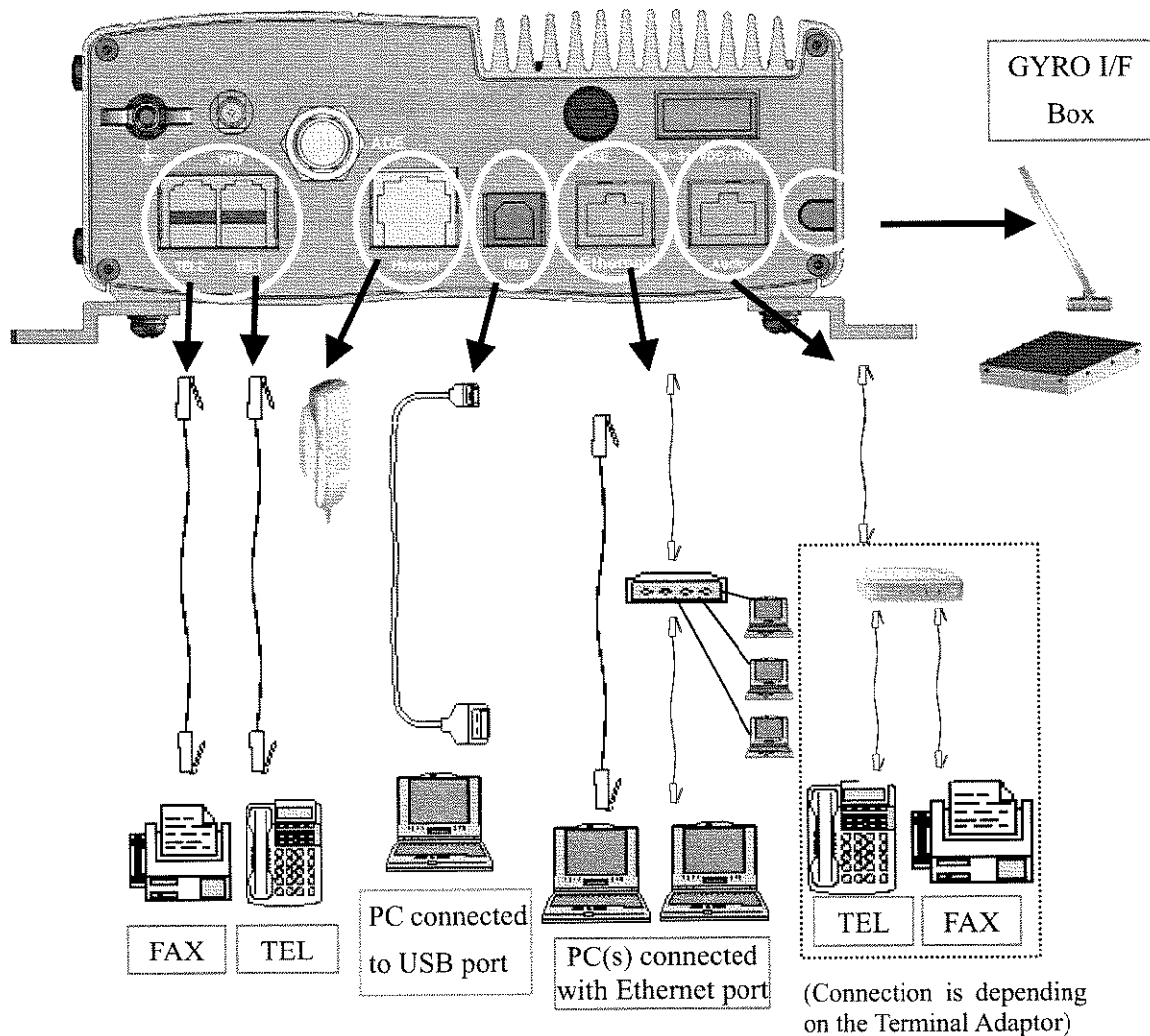


Fig.4.1.1 The Cable connection of each terminal

Note

Use straight Ethernet cable when you connect Ethernet port with your PC, unlike JUE-33 uses cross Ethernet cable.

Connecting terminal telephone and FAX to TEL1/2port

Connect terminal telephone/FAX to TEL1 and TEL2 port with 2 wire, 6-PIN modular cable (RJ-11 type).

Connecting Handset to Handset port

Connect adapter of Handset to Handset port.(12-PIN modular cable)

Connecting PC to USB port

Connect PC to USB port with USB cable.

Connecting PC to Ethernet port

Connect PC to Ethernet port with Ethernet cable.

When you connect two or more LAN PCs via HUB, use straight LAN cable and connect each device. Read the manual of HUB first, then buy suitable cables.

Connecting terminal adapter to Audio port

Connect terminal adapter to Audio port with ISDN cable.

(Subsequent connection depends on the type of terminal adapter)

4. Getting started

4.1.2 Setting/removing USIM card

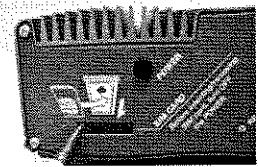
Before turning on the power, setting USIM card is required in every time.

Note

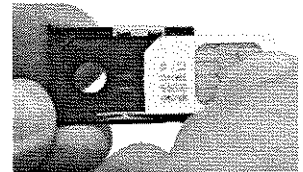
- JUE-250 will not work without a valid USIM card, which is furnished from the Distribution Partner.
- Do not set/remove the USIM card during power switch is turned on.
- Make sure that power switch is correctly turned off, before you set/remove the USIM card to/from main unit.

USIM card setting procedure (Before power switch is turned on)

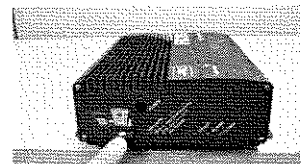
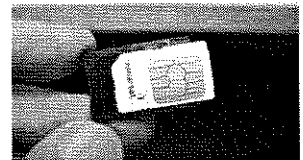
- 1) Release the USIM cardholder by pressing the eject button (yellow button located left edge of USIM card slot) with ball pen chip or like that.



- 2) A black holder will eject from USIM card slot. Then withdraw it.
Install the USIM card in the cardholder making sure it snaps into place.
Make sure that the USIM card's gold contacts are facing out from the holder.



- 3) With the card in the holder, gently insert the holder with the card's gold contacts facing down.



USIM card removing procedure (After power switch is turned off)

- 1) Release the USIM cardholder by pressing the eject button (yellow button located left edge of USIM card slot) with ball pen chip or like that.
- 2) A black holder will eject from USIM card slot. Then withdraw it.
- 3) Remove the USIM card from the holder.
- 4) Insert the empty holder back into USIM card slot.

4.1.3 Power on

Before turning on the power, check the following;

- Check the obstacles between antenna and satellite.
- Check that USIM card is correctly set.



CAUTION



Do not turn off the **POWER** switch during sailing. Malfunction of the antenna drive and other troubles may results.

Power ON

Turn the “POWER” switch of the main unit to “ON”.

All LEDs on the front panel will light up in a moment. Then, the ALARM and COMM lamps will go out, only the green READY lamp will be still blinking.

To power off, turn the “POWER” switch to “OFF”.

Then, the READY lamp begins blinking in green, while the disconnect process is carried out. After, the disconnect process has been completed, the power supply is turned off.

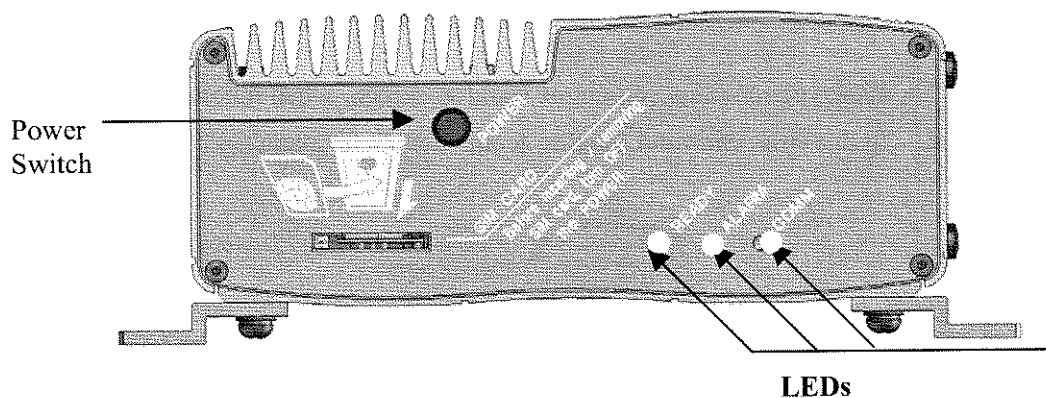


Fig.4.1.3a Power switch and LEDs of Main unit

Satellite Search (acquisition) function works automatically

When JUE-250 is turned on, the system automatically detects the satellite position by calculating ship's position based on GPS (built-in) data, turns the antenna towards the satellite.

After acquiring the satellite, the JUE-250 automatically controls the antenna angle to maximize receiving signal strength.

LCD screen of Handset displays “CS PS READY” when communication is available.

4. Getting started

Note

- When REC is less than 55, the communication may fail due to the circuit design, by decreasing rate of successful call, even if “CS PS READY” is displayed on LCD screen (refer to 8.1.3 position status display)

The LCD screen of Handset may not turn to “CS PS READY” after 5 minute since powered on. This status is for stabilize the main unit, not abnormal.

Note

Confirm that the differ is not so much, between the GPS data of Handset and the positioning data of GPS located in a ship , when the signal from satellite cannot receive.
(Refer to [8.1. 3 Position status display]).

Contact the purchasing dealer, JRC agent or one of the JRC branches with confirming above matter, when the satellite search function does not work.

“SEARCH NG” is displayed in status column of Handset screen, when automatic satellite search function is failed. In this case, carry out satellite acquisition again manually.

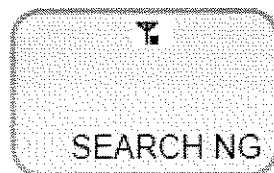
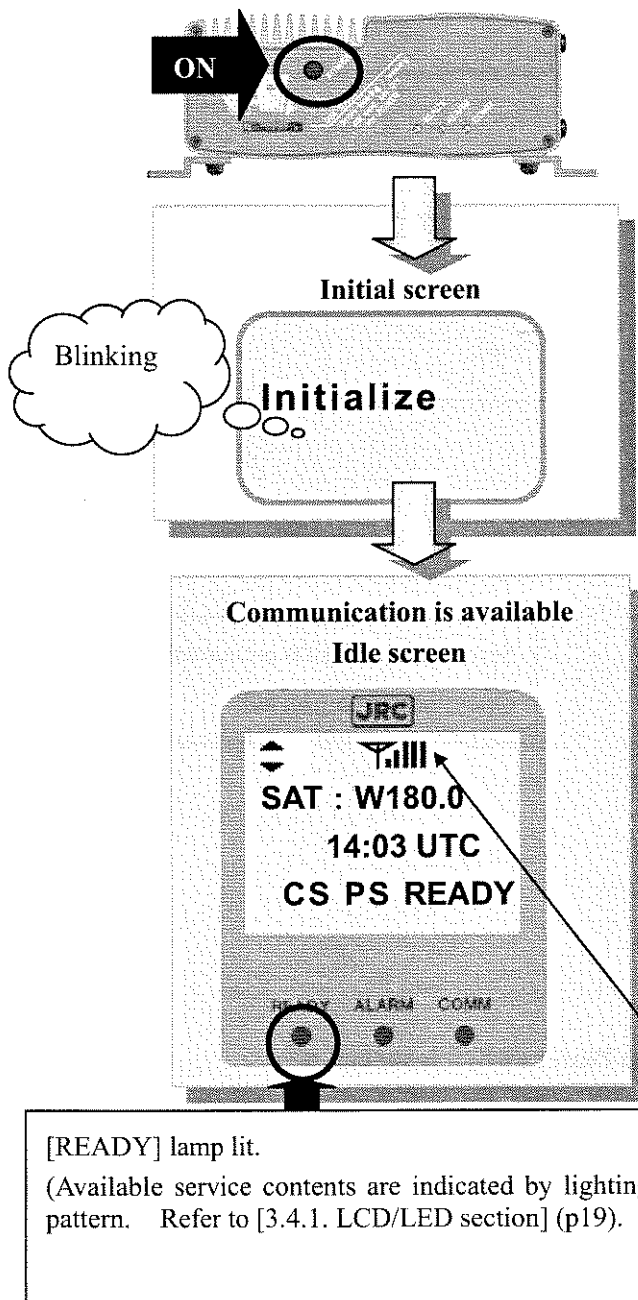


Fig. 4.1.3b SEARCH NG screen

4.1.4 Screen display of Handset



Turn on JUE-250 by pushing power switch of Main unit.

A LED of Main unit starts blinking.
About 10 seconds later, initial screen is displayed and a LED is started blinking on Handset.

The characters of initial screen blink when satellite search is executed.

* Antenna bars display communication status

0 : Impossible to communicate (no reception)

1 to 2: Impossible to communicate

3 to 4: Possible to communicate but unstable

5 to 6: Possible to stable communicate

Go to initial setting of next chapter.

Fig.4.1.4a Screen transition when Power switch is turned on

4. Getting started

(Screen transition when power switch is turned off)

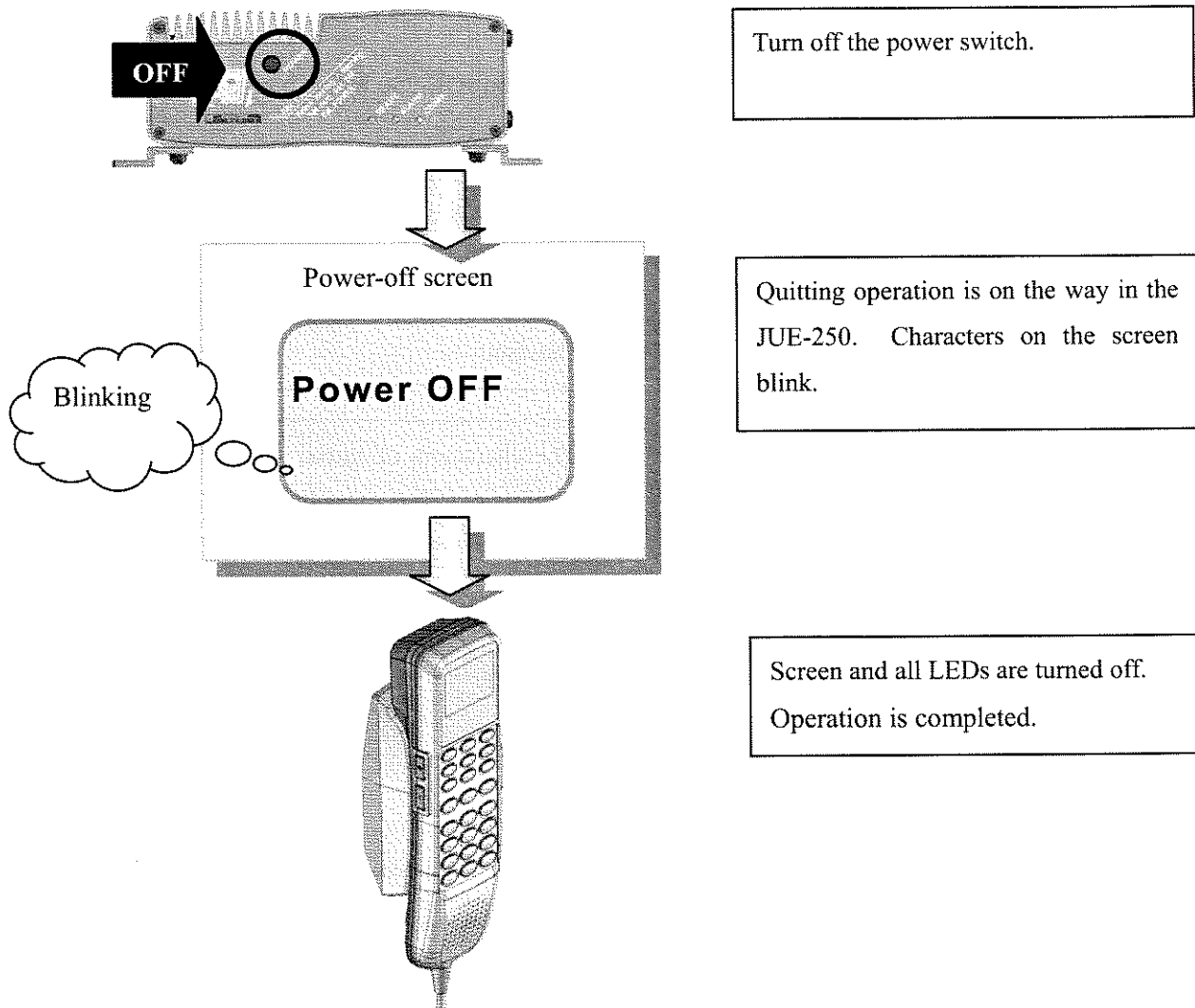


Fig.4.1.4b Screen transition when Power switch is turned off

NOTE

Carry out available countermeasure referring to [8.10.Other screens: TX alarm screen] (p118), when JUE-250 displays the below screen during communication.

These screens indicate a failure has occurred on the communication system of the JUE-250.

TX Alarm screen

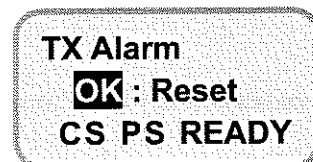


Fig. 4.1.4c TX alarm screen

4.2 Initial setting for communication

Setting flow

Mode setting of GUEST user and ADMIN (Chapter 4.2.1, p36)

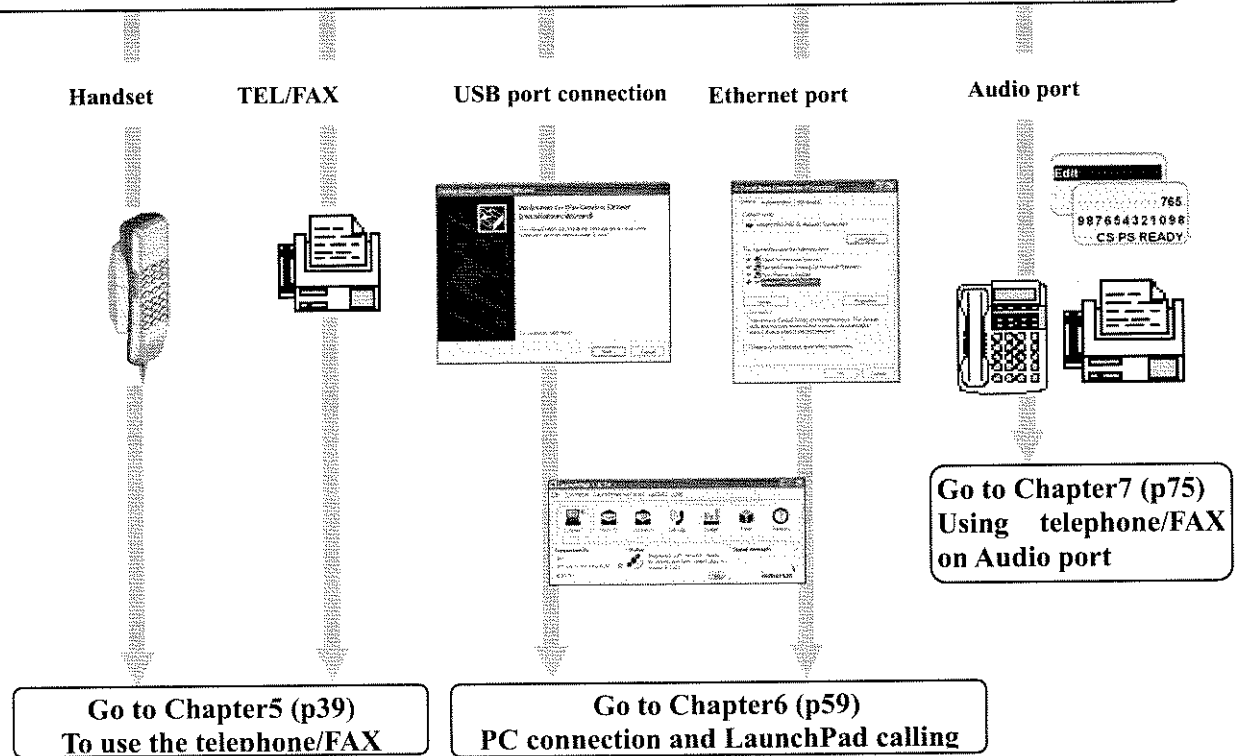


Fig. 4.2a Setting flow

* To setting of JUE-250, switch the user mode to ADMIN first.

NOTE

Following screen pops-up for a moment and returns to previous action/screen when wrong operation/entering is carried out from Handset.

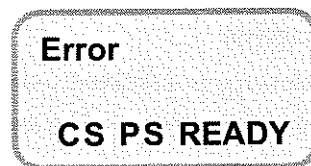


Fig. 4.2b Setting error screen

4.2.1 Mode setting of GUEST and ADMIN

GUEST user can perform the daily operation of the JUE-250.

ADMIN user can access additional functions like setup of the JUE-250 and information control as a system manager.

When power switch is pressed only, the user logs in as a GUEST user;

To operate the ADMIN user-limited menu described [5.1.5] or after [8.9] of this Manual, Log-in with secret code of ADMIN user is required.

Note

Default secret code of ADMIN is "0001".

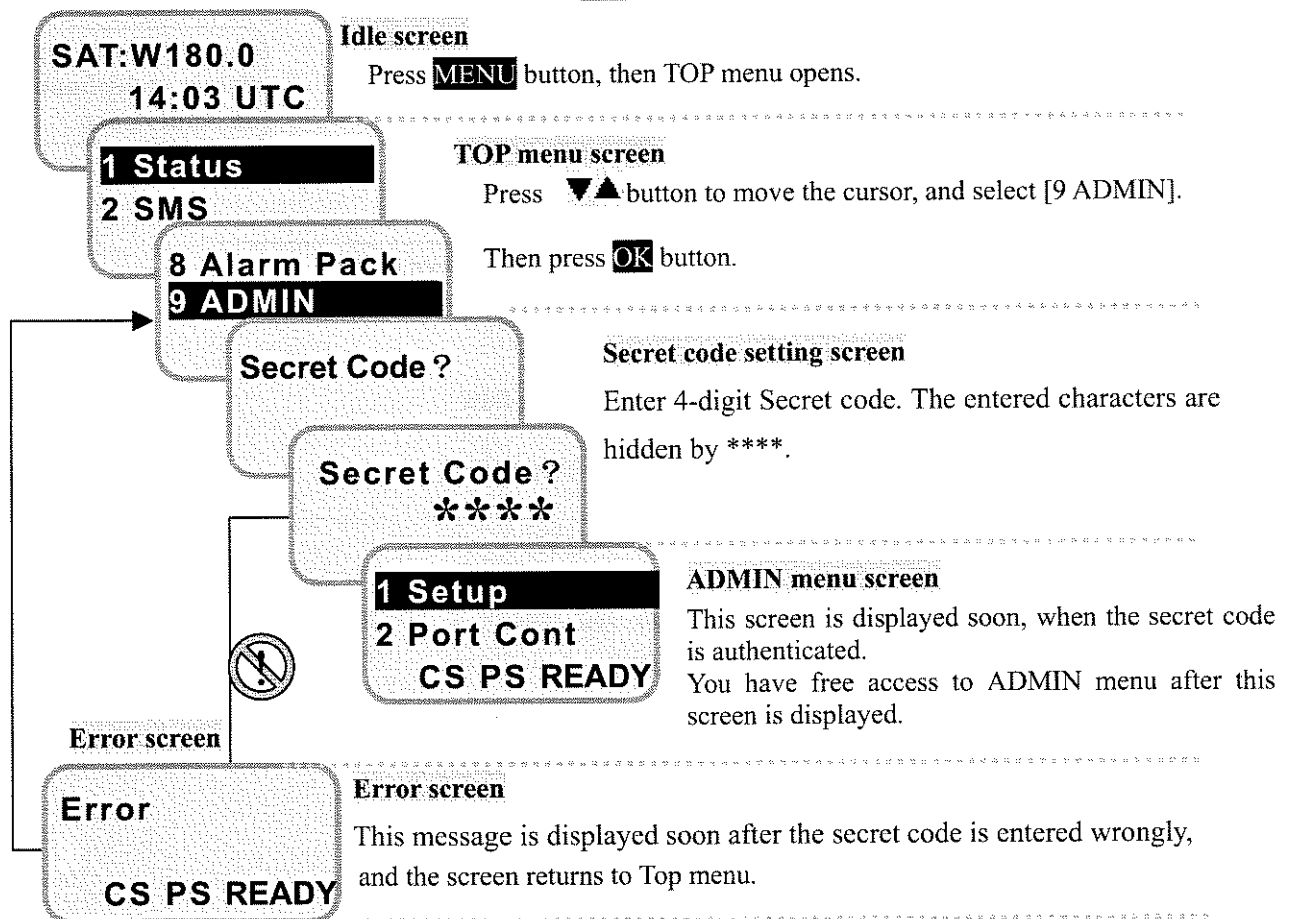


Fig. 4.2.1 Mode setting of GUEST/ADMIN user

Note

* Return to Idle screen by pressing **CLR** button several times to quit ADMIN user mode.

4.2.2 Setting Service type

In this section, setting the Service types for [TEL1] and [TEL2] ports are explained.

Select the Service type of the port with following the terminal device (telephone or FAX) being connected to each port.

Open [9 ADMIN menu] by the sequence of [4.2.1].

Select [2 Port Cont] menu, then [Port Cont setting item selection menu] will open.

Select the port from [TEL1] / [TEL2], and select the service type from [VOICE] (for telephone), or [FAX], and then press **OK** button. The screen returns to [9 ADMIN] screen.

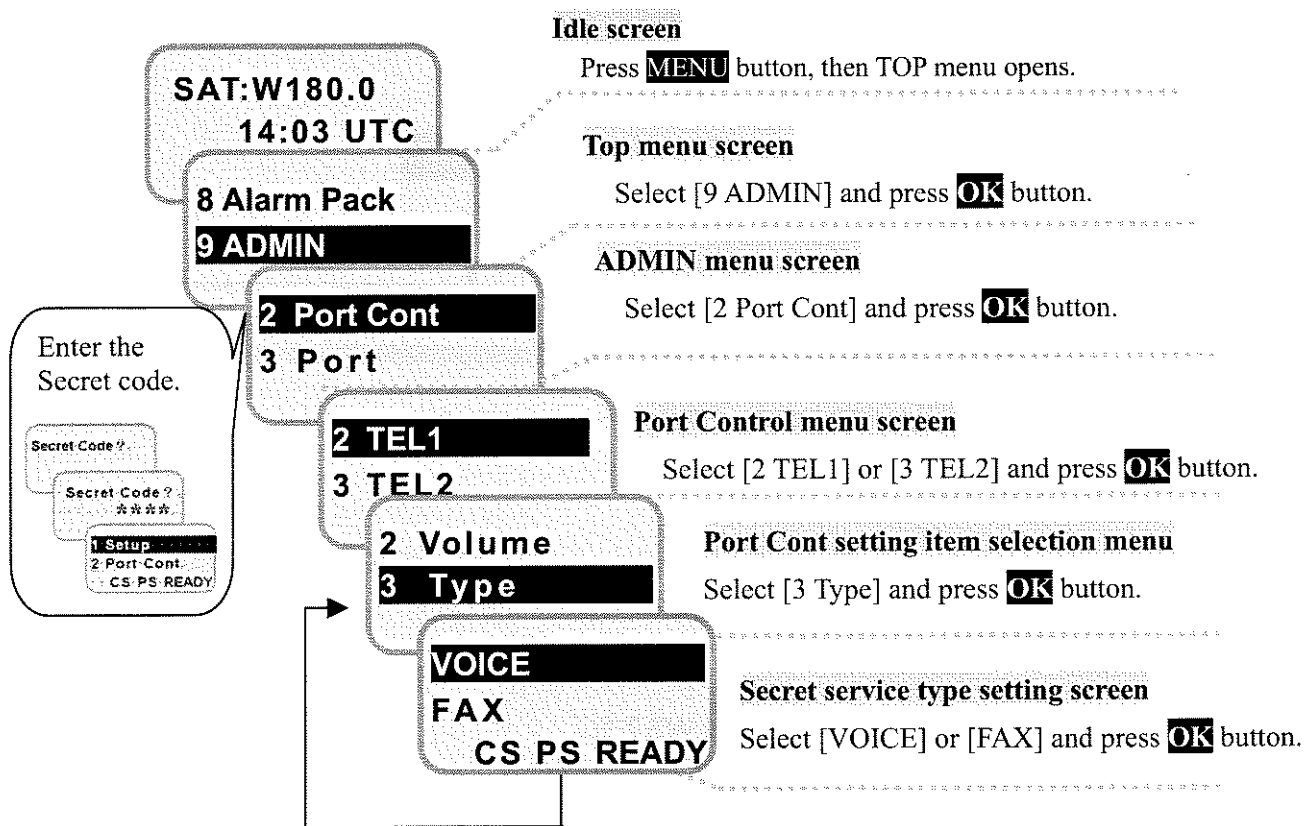


Fig. 4.2.2 Setting service type menu

4. Getting started

4.2.3 Satellite display

In this section, setting of Satellite search type is explained. Select [3 Satellite] from [Top menu], and select [1 Satellite] from displayed [Satellite] menu screen.

Current setting is displayed with * mark on its line head.

To change it, move the cursor by ▼▲ buttons, and press **OK** button.

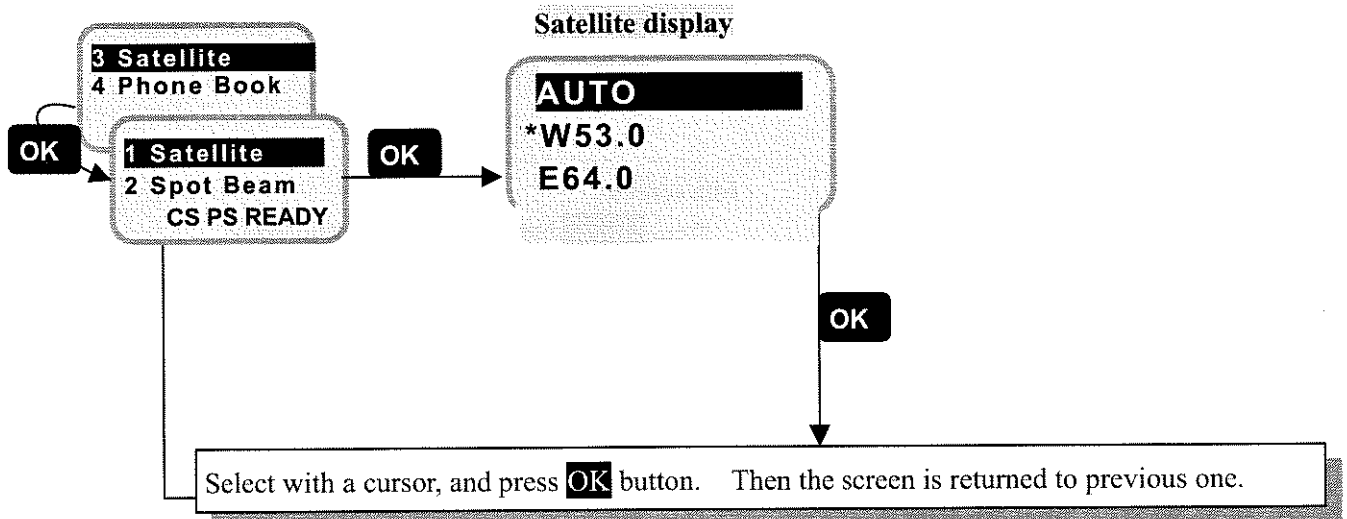


Fig. 4.2.3a Flow of Satellite selection

If the antenna cannot catch the satellite for some reason, "SEARCH NG" is displayed in the lowest line of Handset screen (status area). Select the satellite again.

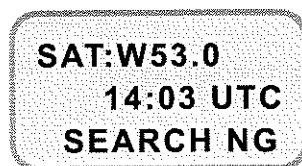


Fig. 4.2.3b SEARCH NG status of Idle screen

5. How to use the telephone / FAX

In chapter 5.1(p41), the telephone functions with Handset listed below are explained.
(The capped number of each function is the chapter No.)

- | | |
|---|---|
| 5.1.1 Making a call/ Answering the phone | 5.1.7 Passing a call from Handset to terminal telephone |
| 5.1.2 Using Phone Book (Speed Dial) | 5.1.8 Using a Secret Code |
| 5.1.3 Using Redial menu | 5.1.9 Entry, change and deletion of Phone Book |
| 5.1.4 Adjusting voice volume and brightness | 5.1.10 Displaying Call Log |
| 5.1.5 Adjusting ringer volume/pattern, and voice volume | |
| 5.1.6 Holding on the line | 5.2 Using telephone/FAX with TEL 1/2 port |

In chapter 5.2 (p57), functions using the JUE-250 from FAX or terminal telephone are explained.

Dial-up procedure of the JUE-250

(Available for Handset, FAX, and terminal telephone)

The telephone and FAX number dialed last are memorized in MES. Redialing of telephone and FAX are simple. Refer to the procedure below.

- Regular calling **00** **Country Code** **Area Code** **Subscriber's number** **#**

Example) Placing a call to +81-422-45-9111, in Japan → **0081422459111** **#**
- Speed Dialing **Speed Dialing number** ***** **#**

Example) Calling by a Speed Dial number 05 → **05** ***** **#**
- Redial calling **00** ***** **#** (Last dialed number is redialed)
- Secret Code calling **Secret Code** **00** **Country Code** **Area Code** **Subscriber's number** **#**

Example) Placing a call with secret code **4321**, to +81-422-45-9111 in Japan. → **4321008142245911** **#**

You can carry out the above-mentioned dialing from idle screen of Handset directly.

In the case of Secret Code transmission, release the lock first, then follow the above procedures.

Dial-up procedure for forced setting of service type

Just adding * or ** on the head of dialing sequence, user can easily set the service type (Voice or FAX) to TEL1/2 port, regardless of setup done at [8.9.2.1 Port Cont setting item selection menu (p105)].

This is temporal setting, and available for only transmission (ship to shore).

Setting Voice service (4kbps Voice) to TEL1/2 port

- Regular calling *00 Country Code Area Code Subscriber's number #
- Speed Dialing * Speed Dialing number #
- Redial calling *00 * #
- Secret Code calling * Secret Code 00 Country Code Area Code Subscriber's number #

Setting FAX service (3.1kHz Audio FAX) to TEL1/2 port

- Regular calling **00 Country Code Area Code Subscriber's number #
- Speed Dialing ** Speed Dialing number * #
- Redial calling **00 * #
- Secret Code calling ** Secret Code 00 Country Code Area Code Subscriber's number * #

Before using Handset

You can operate the JUE-250 with the Handset both on-hooked and off-hooked to the cradle.

1. Off-hook the Handset from the cradle(Off-hook mode)

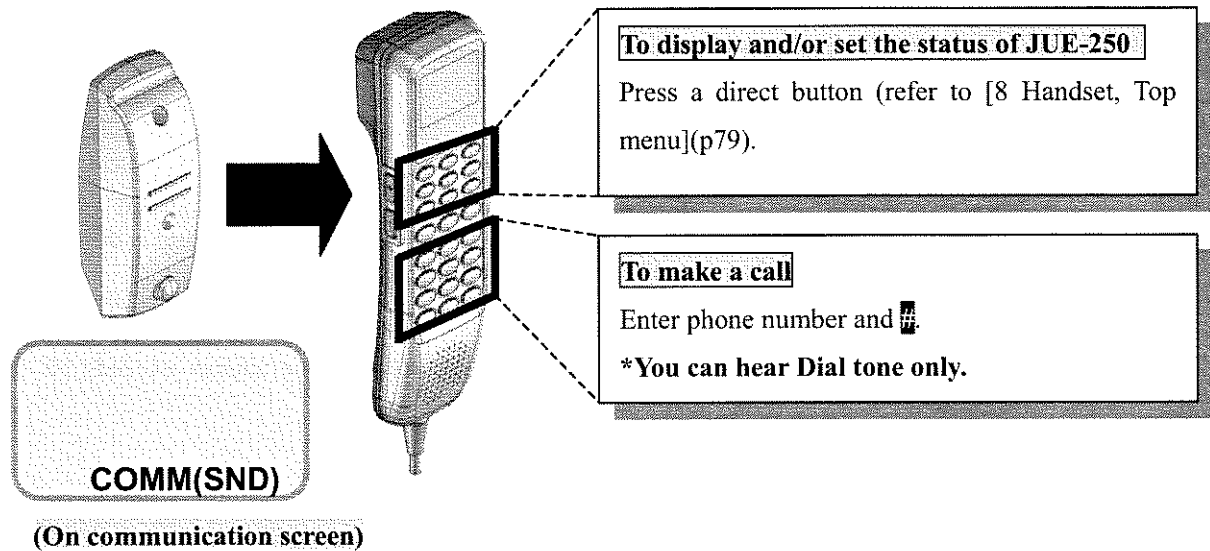


Fig. 5a Operation on Off-hook mode

2. On-hook the Handset on the cradle(On-hook mode)

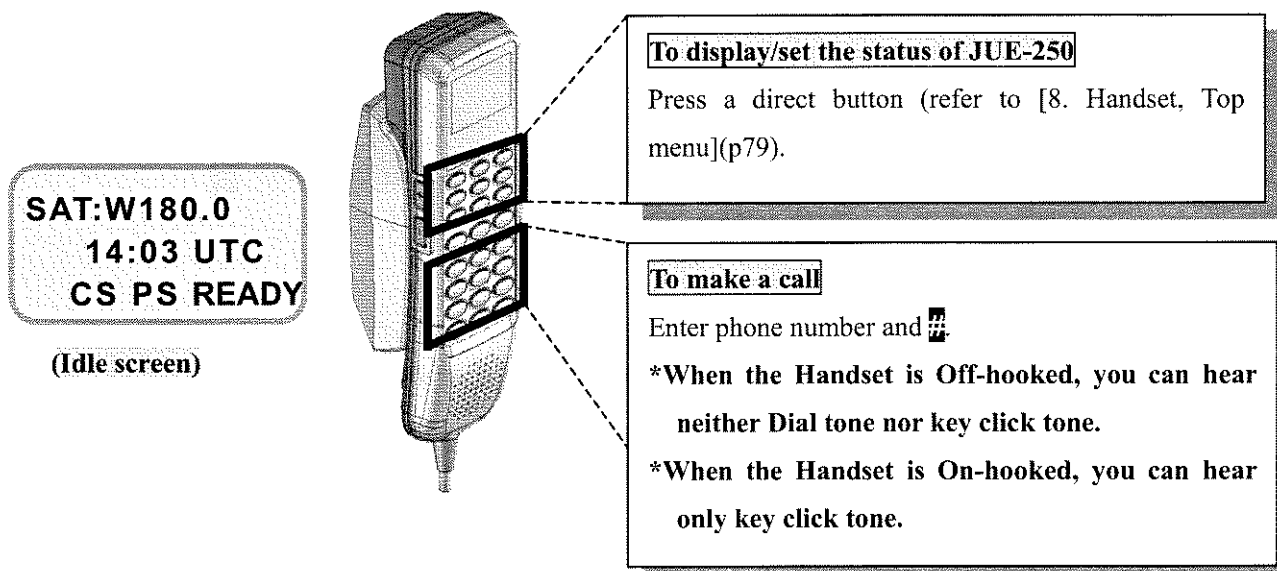


Fig. 5b Operation on On-hook mode

In this Chapter, operations based on the On-hook mode are explained.

5.1 Handset

5.1.1 Making a call / Answering the phone

Making a call

Hook off the Handset and press the number followed by **#** button.

When the party answers the call, [Communication screen] is displayed. Converse with the party.

Return Handset to the cradle when the telephone call ends. [Disconnection screen] is displayed for 15 seconds with Cause Code and duration of communication. After the call has been completed, the display returns to [Idle screen].

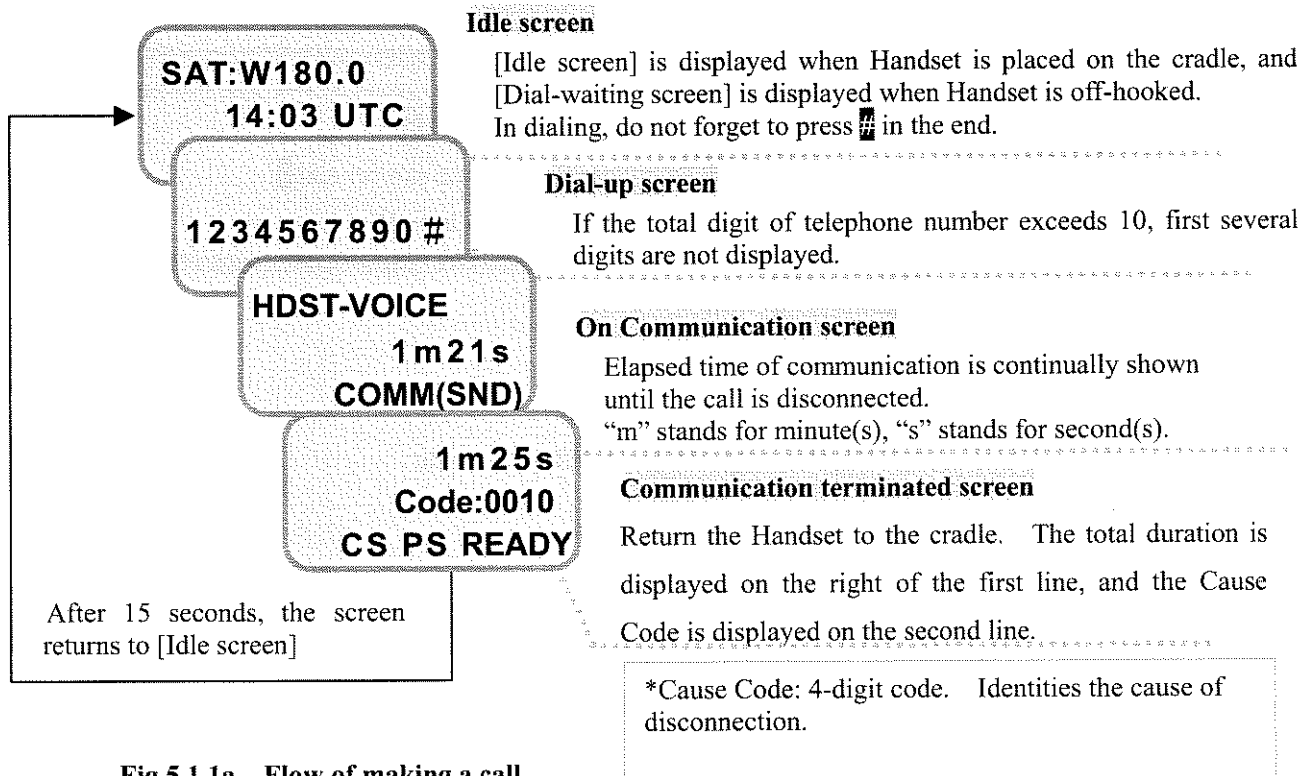


Fig.5.1.1a Flow of making a call

■ Dial-up procedure **00 Country Code Area Code Subscriber's Number #**

Example) Placing a call to +81422-45-9111 in Japan→**0081422459111**

Answering the phone

If the JUE-250 receives a call, ring tone will sound and the screen changes to [Arrival screen].

Take up the Handset from the cradle, then you can talk with the party. The screen will change to [On communication screen]. After the disconnection, return the Handset to the cradle.

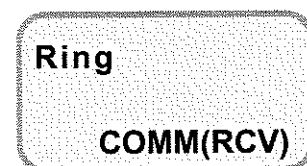


Fig.5.1.1b Arrival screen

NOTE

Voice of landside might be distorted or interrupted if the JUE-250 is used under a remarkably noisy environment, for example, in a small and high-speed ship.




5.1.2 Using Phone Book (Speed Dialing)


Register the phone numbers before the Phone Book (Speed Dialing) is used.
Refer to [5.1.9 Entry, change and deletion of Phone Book](p51).

To make a call with Speed dial from Handset

Press  button.

[Phone Book address screen] is displayed. This will work with Handset in either On-hook or Off-hook mode.

Scroll the screen with   buttons, select the address with the cursor and press  button.

(It is also available to enter abbreviated number (which have been registered) and pressing  button.

Example) Placing a call to Mr. SMITH, who has been registered in Phone Book No.06.

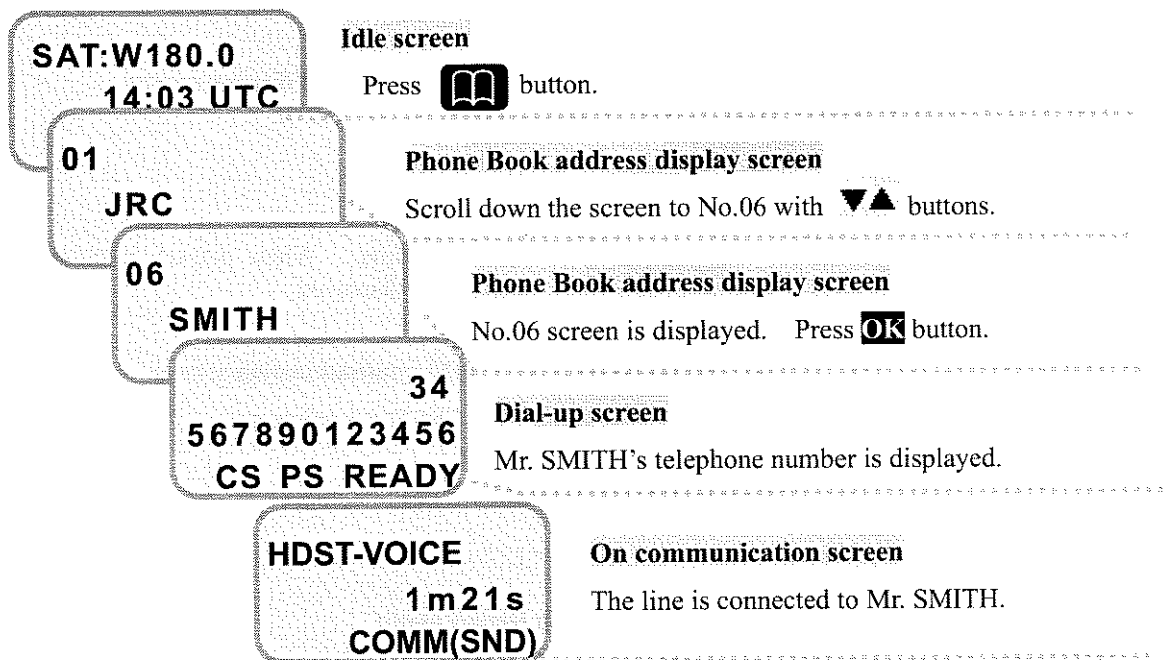


Fig.5.1.2 Flow of using Phone Book (Speed Dial)

Quick procedure for Speed dialing

■ Speed Dialing

Speed Dialing number  

Example) Placing a call to Speed Dialing No.18 → 18  

5.1.3 Using Redial menu

Redial menu displays the dial number of the last 30 calls.

Example) To display +81-422-45-9111 with the Redial list, scroll through the screen with ▼▲ buttons, and place a call to the number using the Redial function.

(Dialing number: 81422459111)

Press ▼▲ buttons with the display on [Idle screen], the screen will change to [Redial List screen].

Press ▼▲ buttons until desired dial number is displayed.

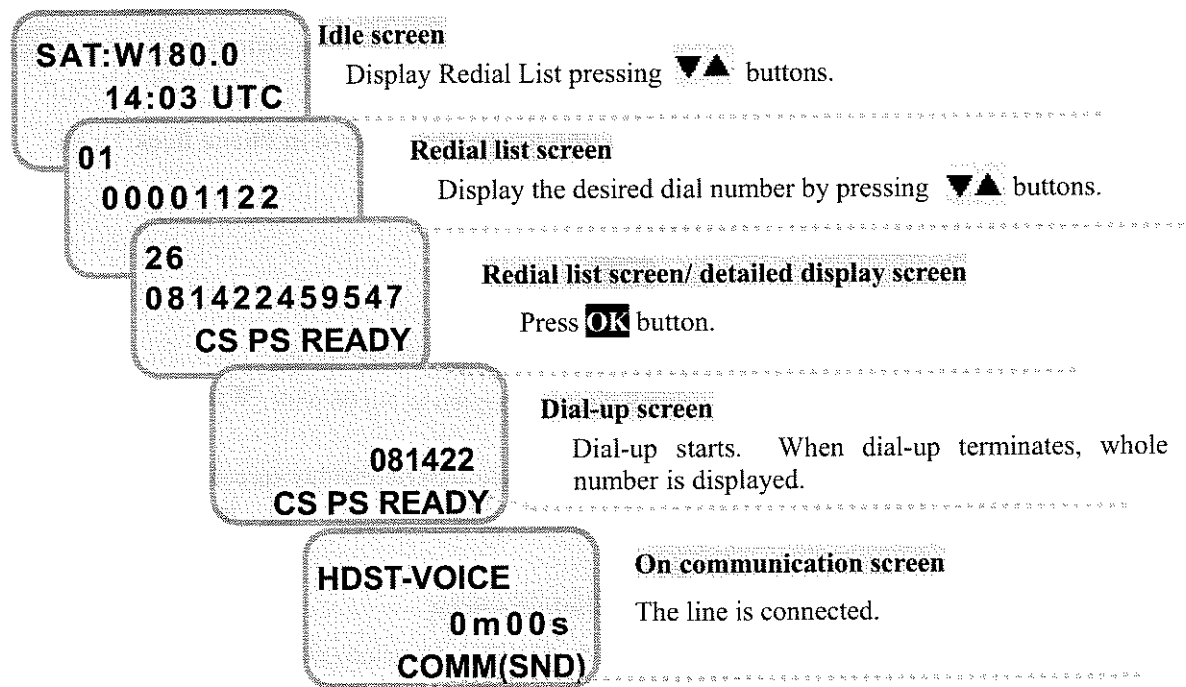


Fig.5.1.3 Flow of using Redial menu

5.1.4 Adjusting voice volume and the screen brightness

Quick adjustment of voice volume

To adjust the voice volume, press $\boxed{+}\boxed{-}$ buttons on the left side of the Handset, during the communication.

Handset status: Off- hook mode

Quick adjustment of screen brightness

To adjust the brightness of the screen, press $\boxed{+}\boxed{-}$ buttons on the left side of the Handset, with the Handset placed on the cradle. If the Handset is off-hooked, adjust in the same way after pressing MENU buttons.

Handset status: On- hook mode

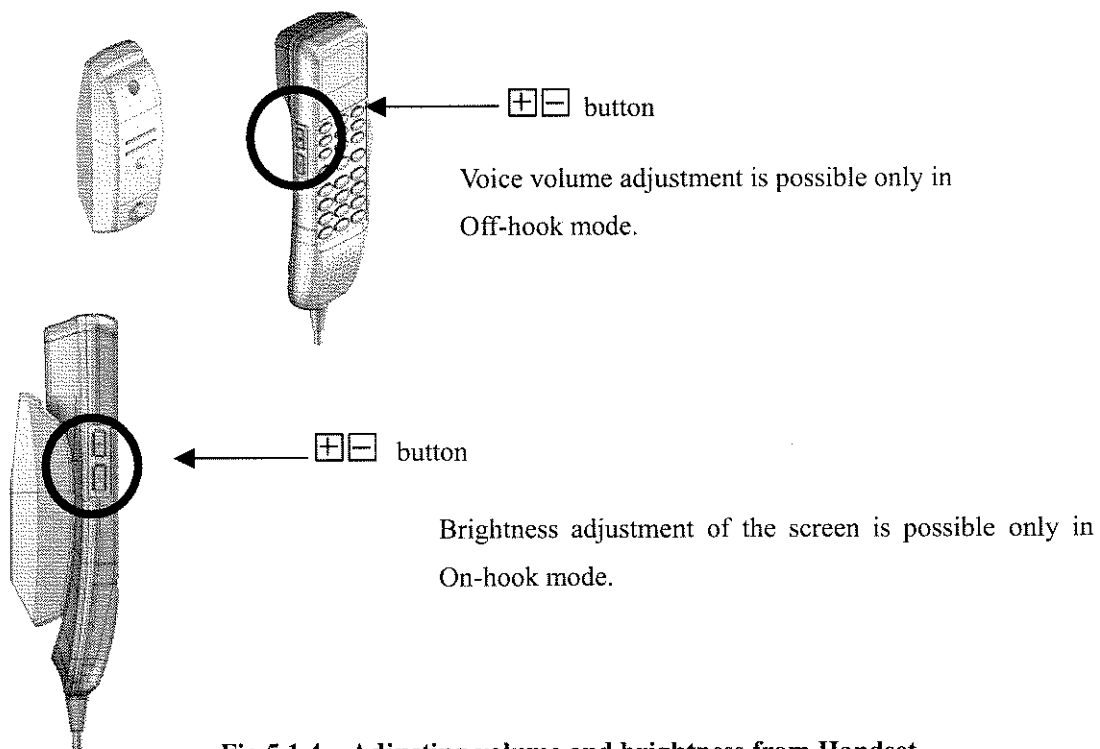


Fig.5.1.4 Adjusting volume and brightness from Handset

These adjustments are absolutely temporary.

To adjust voice volume and screen brightness firmly, refer to the [5.1.5 Adjusting ringer volume and pattern, and voice volume](p46).

5.1.5 Adjusting ringer volume and pattern, and voice volume

(ADMIN user only)

Adjusting the Ringer Volume (in Port menu screen)

Ringer volume can be adjusted from the menu of the Handset.

Refer to below flow chart, open the menu screens and begin setup (factory values are TBD).

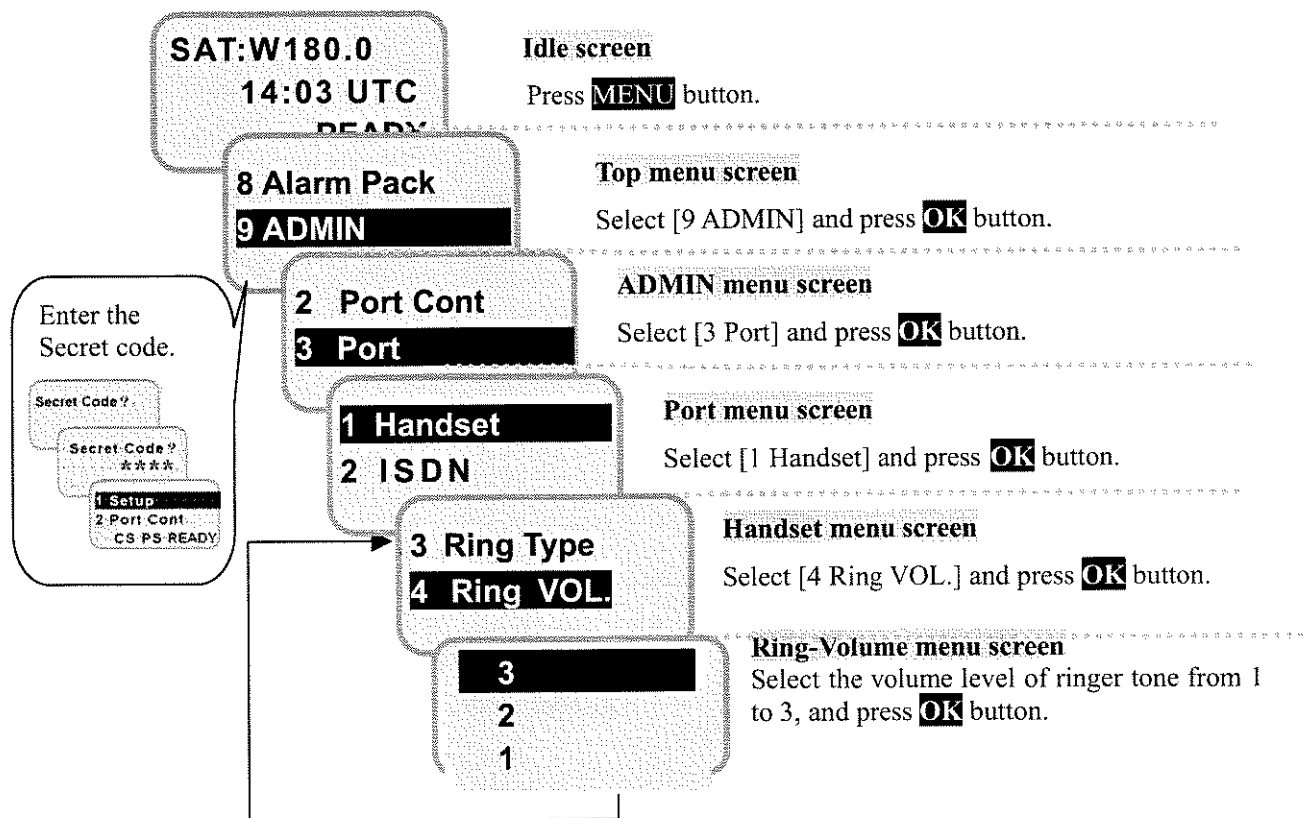


Fig.5.1.5a Flow of setting ringer volume

Selecting the Ring Type (in Port menu screen)

The pattern of ringer tone can be selected from six types, in the same way as above.

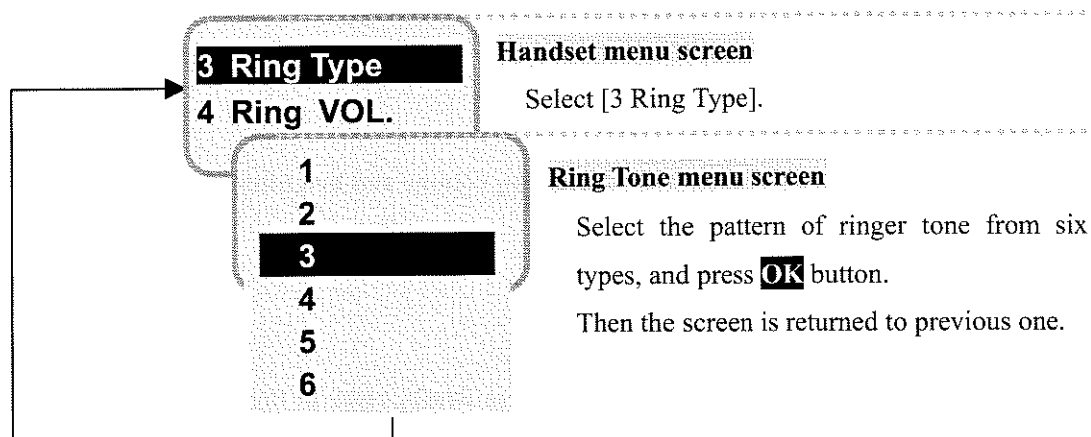


Fig.5.1.5b Flow of setting pattern of Ring Type

Adjusting the voice volume and the screen brightness

Voice volume can be adjusted using the \oplus \ominus buttons on the left side of Handset (refer to [5.1.3 Using Redial list](p42)).

To change the default voice volume, follow the way shown below.

Setting voice volume from Handset screen (in Port menu screen)

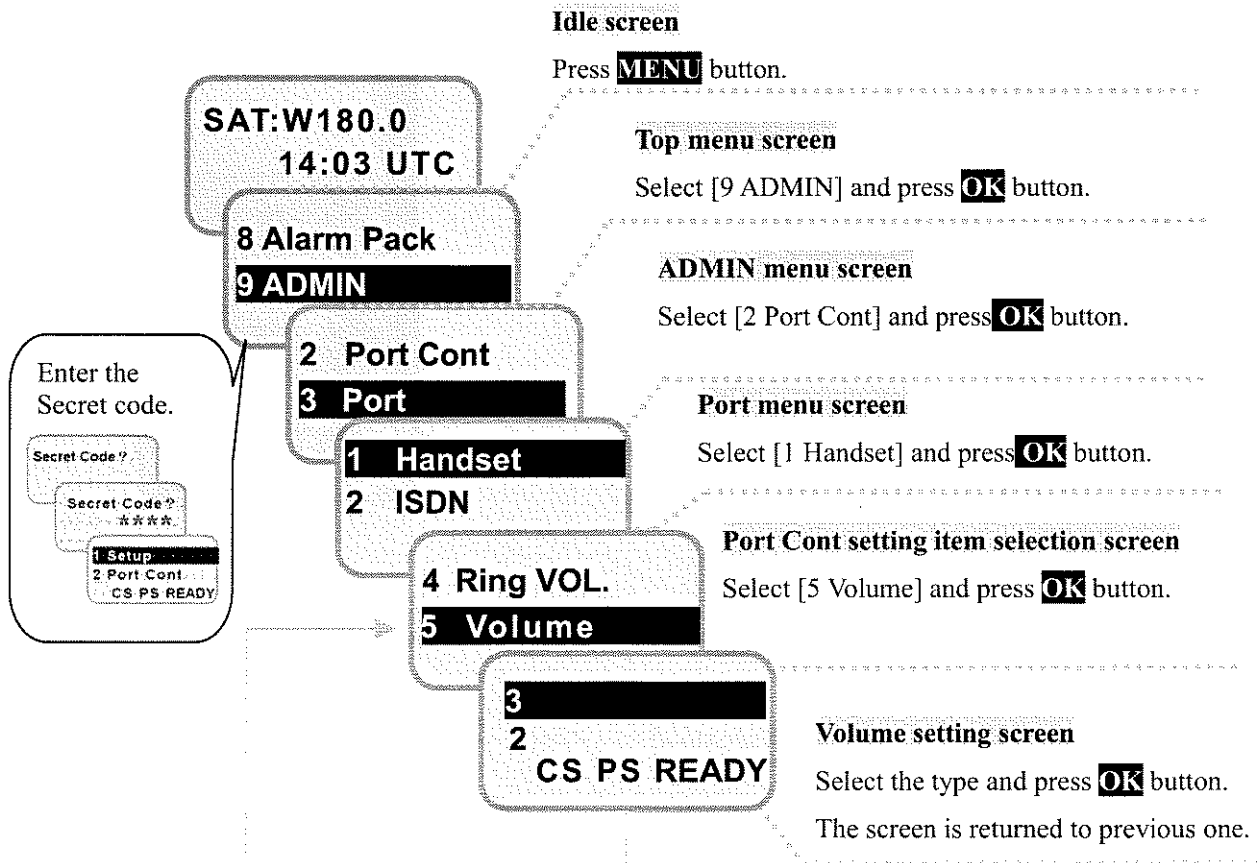


Fig.5.1.5c Flow of setting voice volume

Setting backlight brightness (in Port Menu screen)

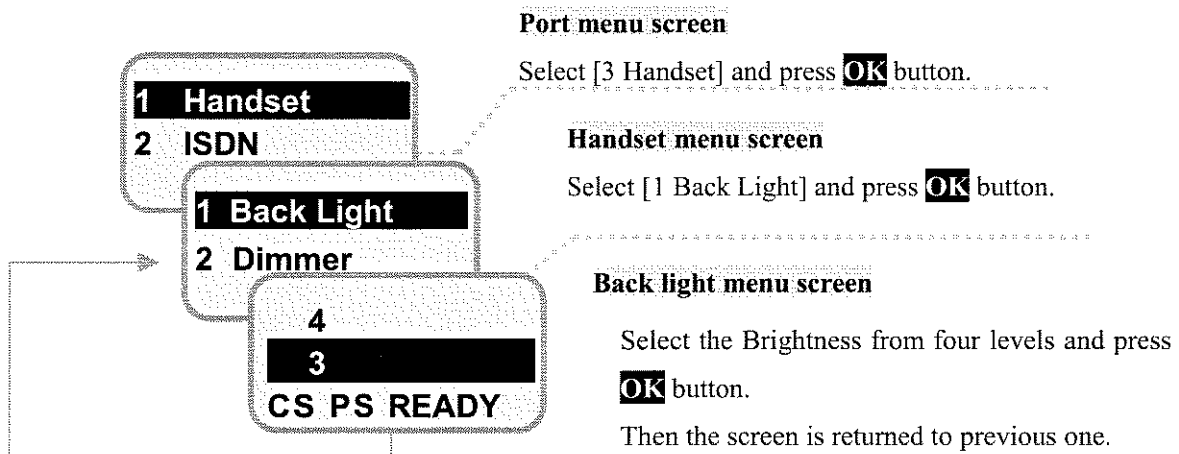



Fig.5.1.5d Flow of setting backlight brightness

5.1.6 Holding on the line

To hold on, press the **Off-hook** button () of the Handset. To restart conversation, press it again.

*The line is not disconnected even the Handset is returned to the cradle, when this button is pressed.

*When a call is held on, the party cannot hear your voice, but you can hear the party's.

Off-hook button

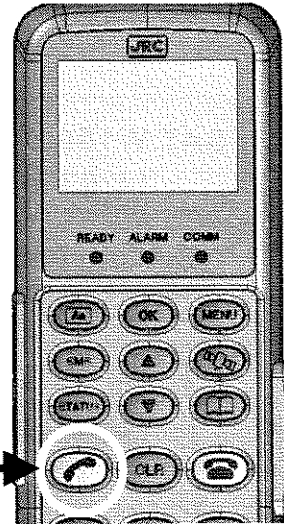


Fig.5.1.6 Hold on the line (by Off-hook button)

5.1.7 Passing a call from Handset to terminal telephone

To pass a call to one of the terminal telephones (connected to BDE), press the extension number during communication.

Extension numbers of the JUE-250 are designated as follows.

Terminal telephone connected with TEL port 1.....#1.

Terminal telephone connected with TEL port 2.....#2.

Handset.....#3.

HDST-VOICE


12m29s

COMM(SND)

On communication screen

Press the **extension number** (to be transferred). Press **#1** to transfer to the terminal telephone connected with TEL port 1.

Press **#2** to transfer the telephone connected with TEL port 2.

Press the on-hook button () or place the Handset on the cradle, after you heard the beep tone.

Ring tone sounds on both of Handset and transferred terminal telephone. It stops when transferred telephone is off-hooked.

2m39s

Code:1001

CS PS READY

Disconnection screen

When the line is disconnected, the screen will change to [Disconnection screen], and then Cause Code and total duration is displayed.

Fig.5.1.7 Flow of transferring a call from Handset to one of the terminal telephones

5.1.8 Using a Secret Code

Setup procedure

Turn on the Secret Code

To use the Secret Code, port setting is required.

Note

Once the Secret Code is set on a telephone terminal, call without entering Secret Code is impossible.
(Only receiving a call is possible).

To make it possible, unlock the setting.

Carry out below procedure.

(Repeat the same procedure for other terminals if Secret Code setup is required for them.)

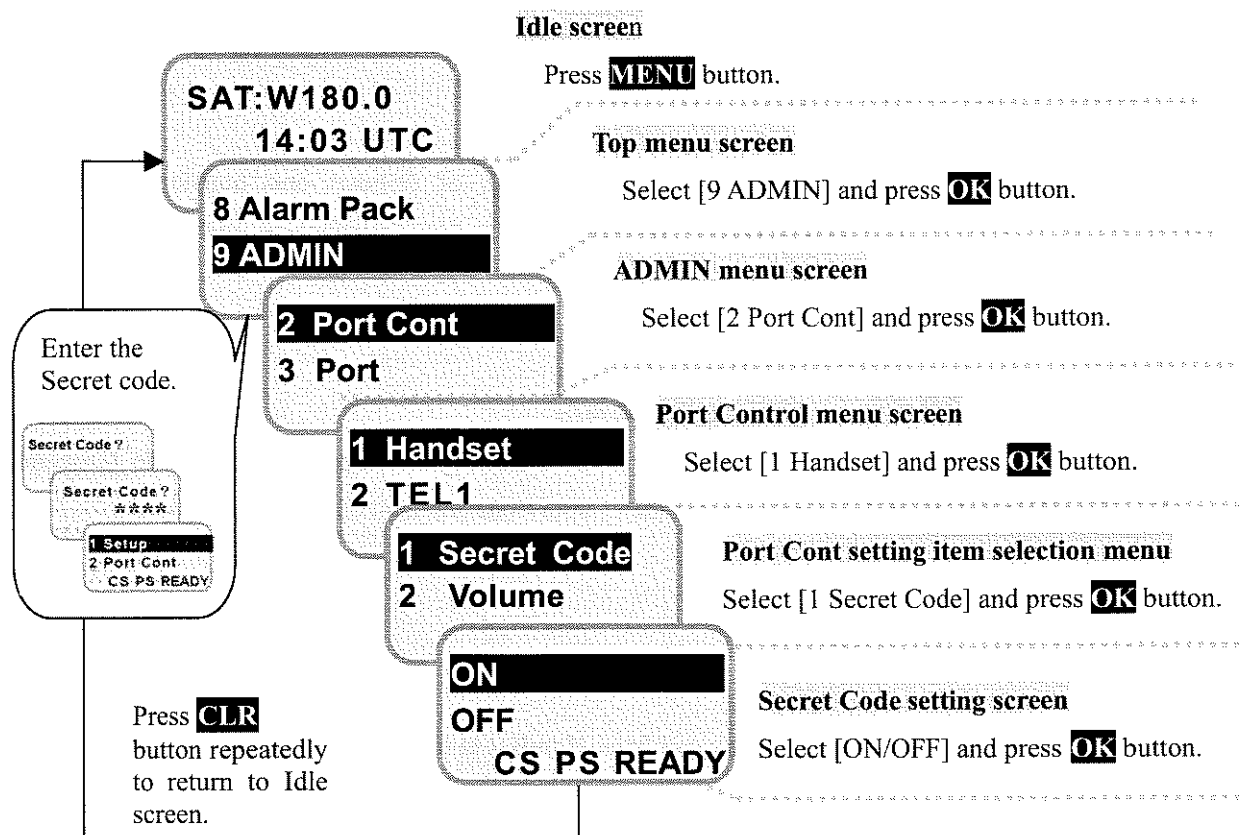


Fig.5.1.8a Flow of setting the Secret Code

Operation is locked up when you returned to TOP menu again.

You can operate on other screens until then.

Secret Code calling

*If you have not set up the Secret Code, open previous page and set it up.

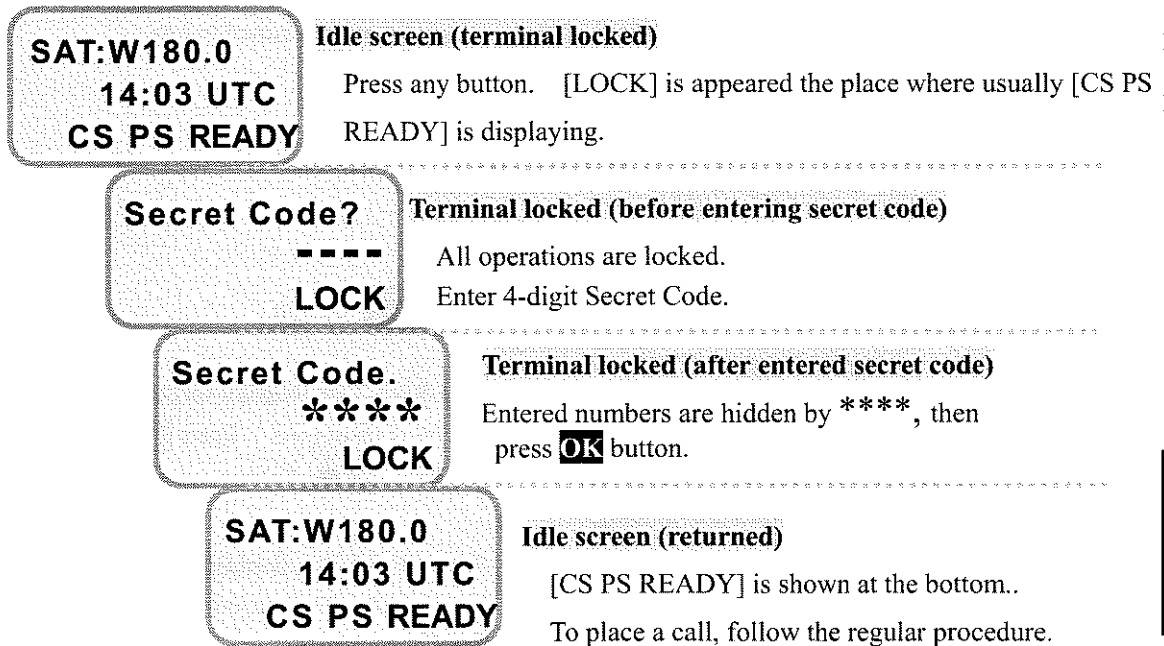


Fig.5.1.8b Operating flow of Secret Code call

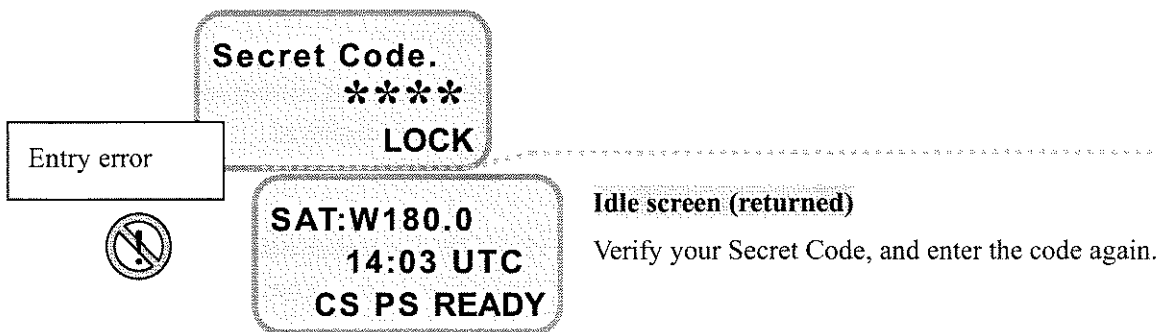
If an incorrect code is entered

Fig.5.1.8c Screen transition when entered Secret Code is incorrect

*The screen transition is same to entering correct Secret Code, but when any button is pressed, it turns to the Terminal Locked screen.

5.1.9 Entry, change and deletion of Phone Book

■ Telephone number entry

Calling procedure with Speed Dial number is explained at [5.1.2 Using Phone Book (Speed Dial)](p43). The procedures of registration and setting are explained below.

Example) Entering a phone number to Speed Dial No.25.

(Name) JOHN (Phone Number) 012345678901234

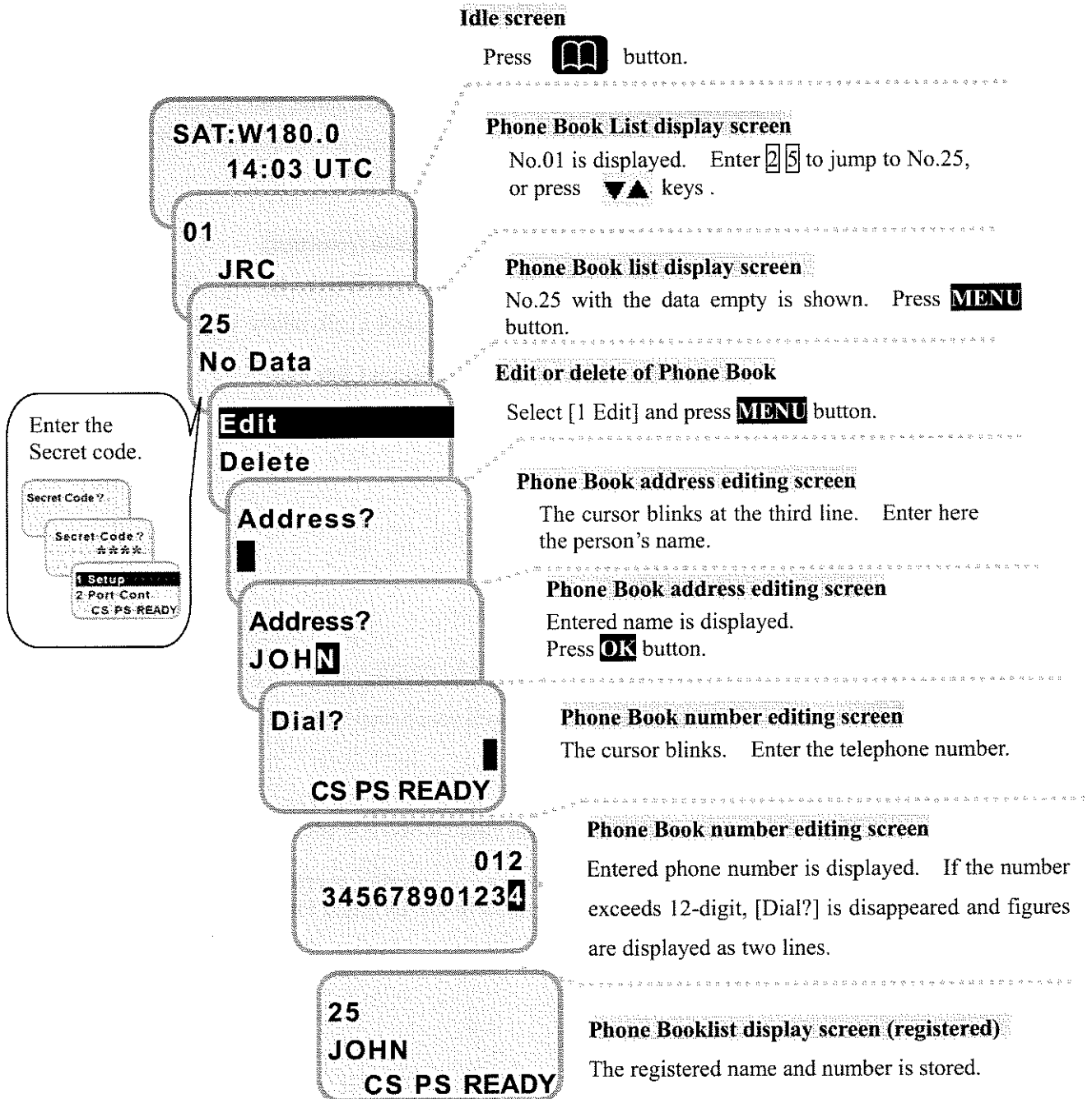


Fig.5.1.9a Flow of telephone number registration to Phone Book

■ Changing party name and telephone number

Example) Speed Dial number: 15, person's name: TOMMY, phone number: 0123456789.

Change the phone number to 09870987654321098765.

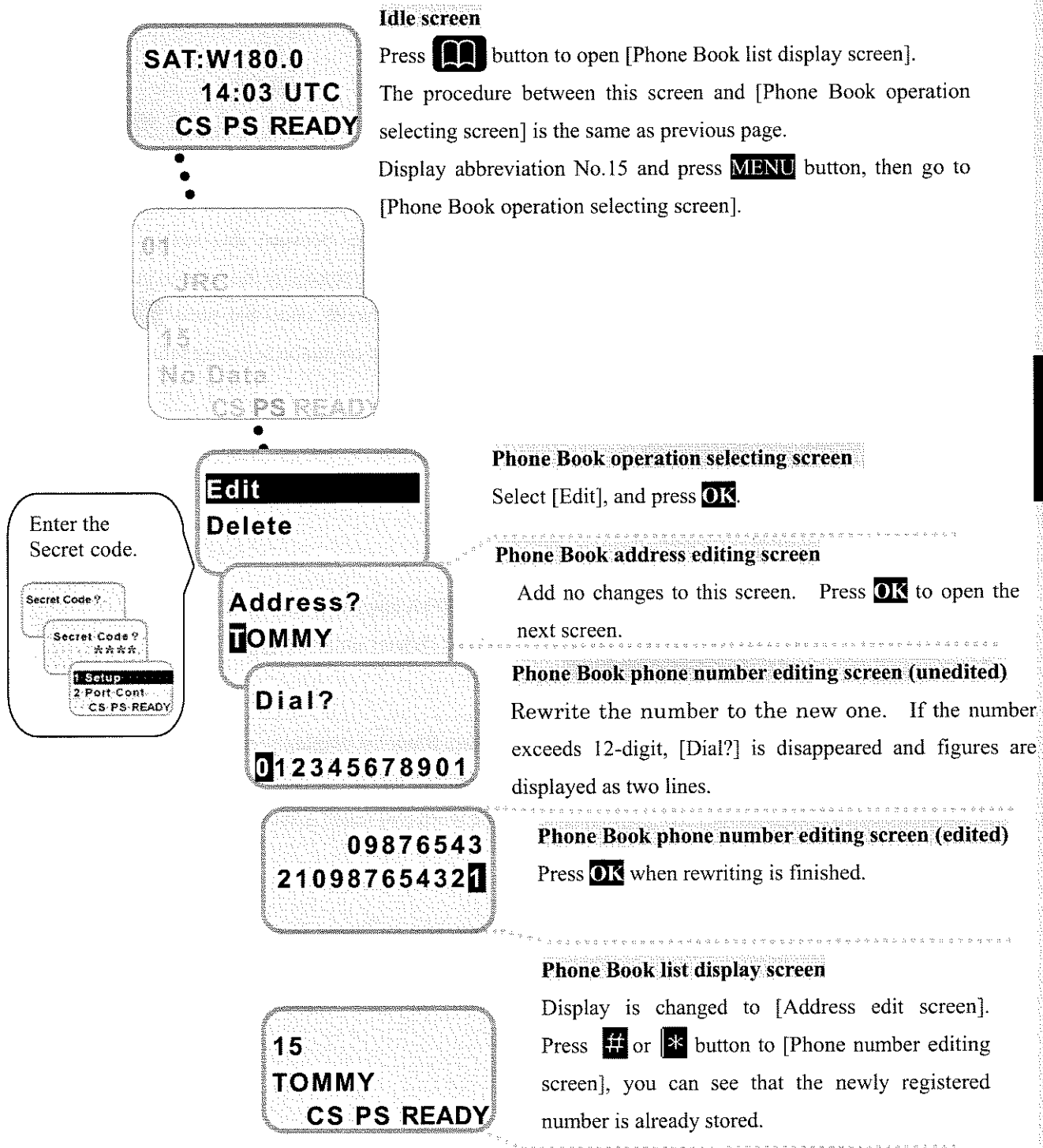


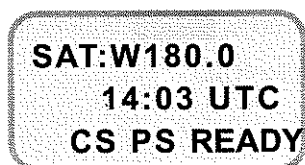
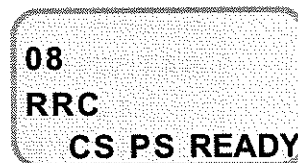
Fig.5.1.9b Flow of changing telephone number and name on Phone Book

5. How to use the telephone/FAX

■ Deleting/Changing data

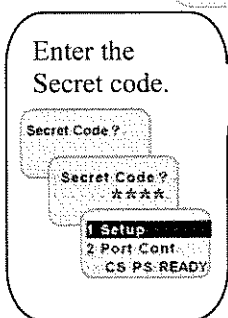
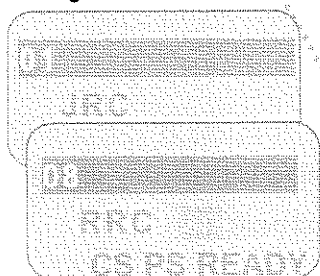
When [Delete] is selected on the [Phone Book operation screen], the data selected is deleted at once and the screen turns to the [Phone Book address/Telephone number screen] with no data.

Example) Deleting Speed Dial No.08, company's name "RRC".



Idle screen

Press button and go to [Phone Book list display screen]. The procedure between this screen and [Phone Book operation selecting screen] is the same as previous page. Display abbreviation No.08 once and press button, then go to [Phone Book operation selecting screen].



Phone Book operation selecting screen

Select [2.Delete] and press .



Phone Book list display screen

The phone number in No.08 is already deleted.
The word [No Data] is shown in [No.08].

Fig.5.1.9c Flow of deleting data on Phone Book

5.1.10 Displaying Call Log

Call Log (Call Logging History) stores maximum 100 records of outgoing/incoming calls.

- | | |
|---------------------|--|
| 1. VOICE | Making and receiving a call from/to Handset and the terminal telephone connected to TEL1/2 port |
| 2. FAX | Sending and receiving a facsimile from/to the fax connected to TEL1/2 port |
| 3. STANDARD | Sending and receiving data from/to the PC connected to USB, Ethernet, and Audio port with using Standard IP service |
| 4. STREAMING | Sending and receiving data from/to the PC connected to USB, Ethernet, and Audio port with using Streaming IP service |
| 5. SMS | Sending and receiving a SMS from/to the PC connected to USB, Ethernet, and Audio port |

Calls are classified into three transmission types, BOTH (send and receive transmission), SND (send only), and RCV (receive only).

To check the contents, follow the instruction shown in next page.

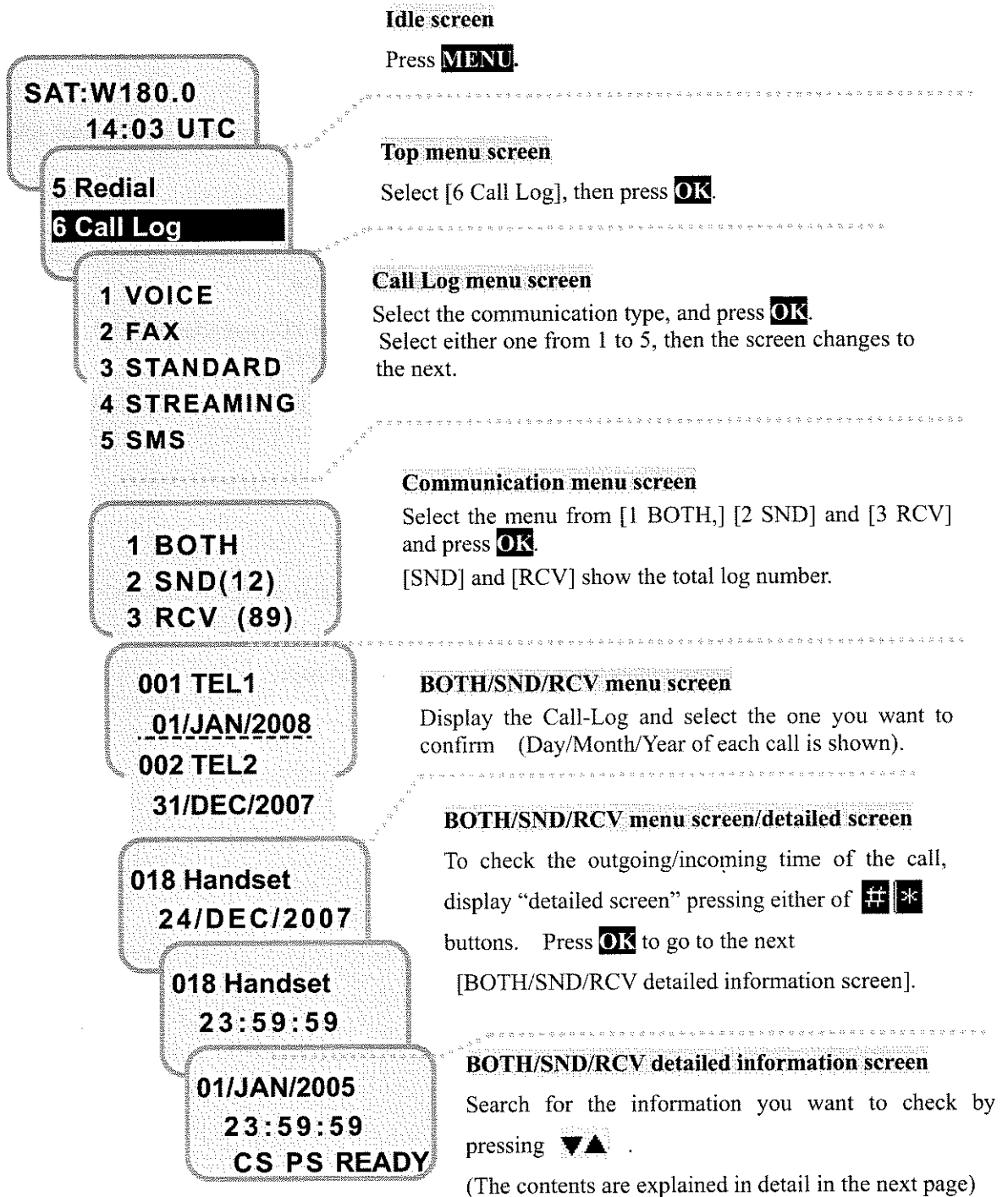


Fig.5.1.10a Flow of displaying Call Log

BOTH/SEND/RCV detailed information screen

01/JAN/2008 Day/Month/Year of the call
23:59:59	... Hour/Second/Minute of the call
012345678901Party's telephone number
23456789	
SAT: W180.0Satellite used
240m59s* ¹
JRCSecret Code User's Name* ²
SND	...Either sent/received data is displayed
0A1F	...4-digit Cause code

Fig.5.1.10b BOTH/SND/RCV detailed information screen

*¹ Communication duration is displayed for VOICE/FAX/STREAMING service, the amount of sent/received data is displayed for STANDARD service, and the message size is displayed for SMS service.

*² Secret Code User's name is displayed for Secret Code transmission only.

When Secret Code is not used, it displays only [----].

5.2 Using telephone/FAX with TEL1/2 port

The telephone and FAX number dialed last are memorized in MES. Redialing of telephone and FAX are simple. Refer to the procedure below.

Dial-up procedure of the JUE-250 (Available for Handset, FAX, and terminal telephone)

■ Regular calling

00 **Country Code** **Area Code** **Subscriber's number** **#**

Example) Placing a call to +81-422-45-9111, in Japan→**0081422459111** **#**

■ Speed Dialing

Speed Dialing number ***** **#**

Example) Calling by a Speed Dialing number 05 →**05** ***** **#**

■ Redial calling

00 ***** **#** (Last dialed number is redialed)

■ Secret Code calling

Secret Code **00** **Country Code** **Area Code** **Subscriber's number** **#**

Example) Placing a call with secret code **4321**, to +81-422-45-9111 in Japan. →**43210081422459111** **#**

You can carry out the above-mentioned dialing from idle screen of Handset directly.

In the case of Secret Code transmission, release the lock first, then follow the above procedures.

Dial-up procedure for forced setting of service type

Just adding ***** or ****** on the head of dialing sequence, user can easily set the service type (Voice or FAX) to TEL1/2 port, regardless of setup done at [8.9.2.1 Port Cont setting item selection menu (p105)].

This is temporal setting, and available for only transmission (ship to shore).

<p>• Setting Voice service (4kbps Voice) to TEL1/2 port</p>	
■ Regular calling	* 00 Country Code Area Code Subscriber's number #
■ Speed Dialing	* Speed Dialing number #
■ Redial calling	* 00 * #
■ Secret Code calling	* Secret Code 00 Country Code Area Code Subscriber's number #
<p>• Setting FAX service (3.1kHz Audio FAX) to TEL1/2 port</p>	
■ Regular calling	* * 00 Country Code Area Code Subscriber's number #
■ Speed Dialing	* * Speed Dialing number * #
■ Redial calling	* * 00 * #
■ Secret Code calling	* * Secret Code 00 Country Code Area Code Subscriber's number * #

The content of above-mentioned table is the same as the one of the first page of this chapter.

6. PC connection and LaunchPad calling

The procedure for initiation from the Handset has been explained in Chapter 4.2.(p35).

This section explains the connection for USB and Ethernet port to PCs, and procedures for making a call using LaunchPad.

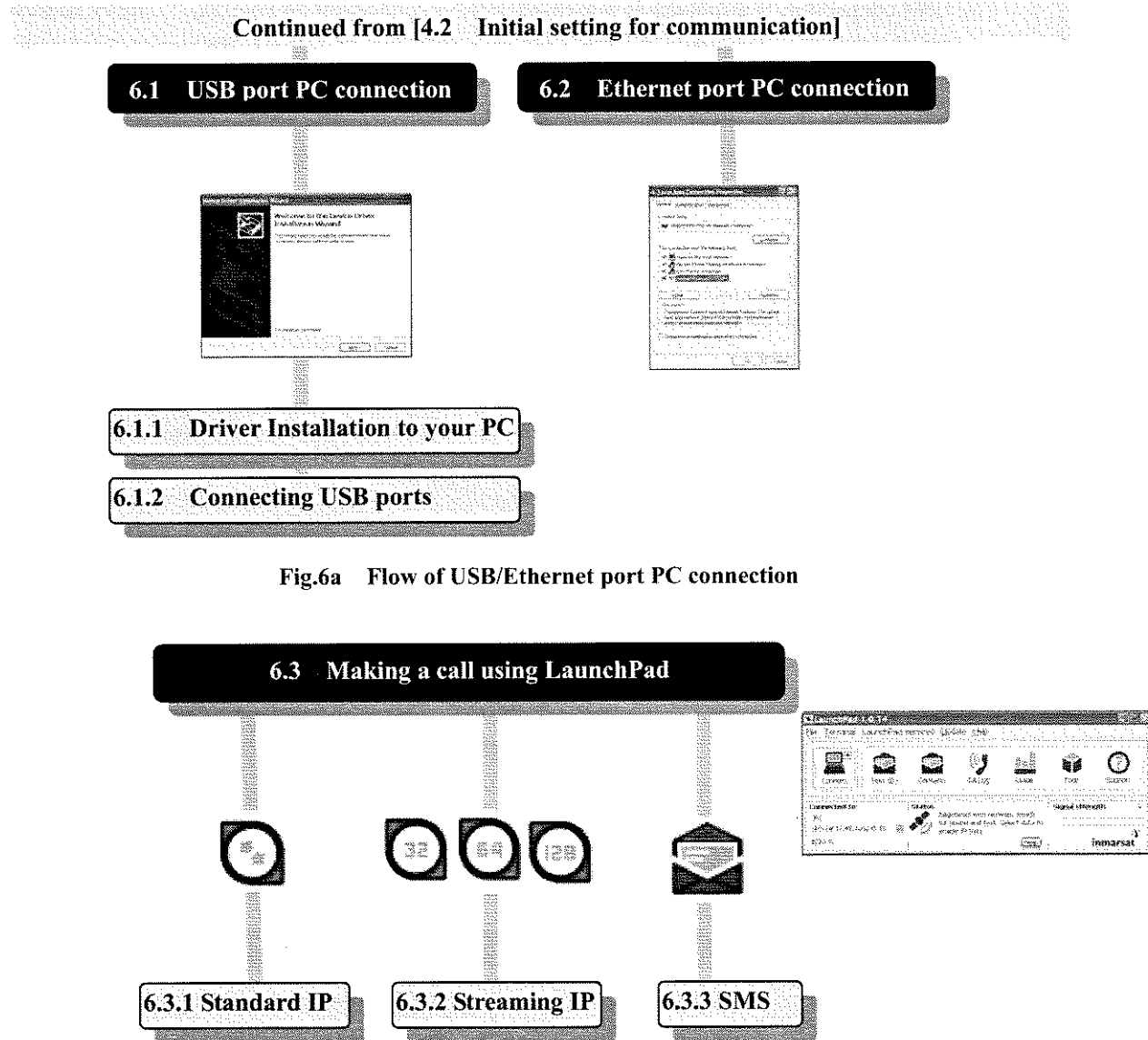


Fig.6a Flow of USB/Ethernet port PC connection

Fig.6b Flow of Making a call using LaunchPad

In this Chapter, Windows XP is supposed to be used.

6.1 USB port PC connection

To connect PC with JUE-250 USB port, below works are required.

1. Driver installation (attached CD-ROM is used)
2. Connecting the USB ports (main unit port to PC port)

Note

- The USB connection is displayed as a network (LAN) connection on your PC. The IP address range is the same as described in [6.2 Ethernet port PC connection, IP addressing on the JUE-250](p67)

6.1.1 Driver installation to your PC

Note

- Do not connect USB ports of main unit and PC, until [1. Driver installation] is terminated.
- The user who execute below works should log-in with the authority belongs to Administrator group of the PC network.

1. Set the attached CD-ROM into CD-ROM drive of your PC.
2. Double click [JapanRadio-jpblan-jpfil-1145-1001-02-03-03-36.exe] in the CD-ROM.
3. [Installer Language] window is displayed.
Select "English" and click [OK].

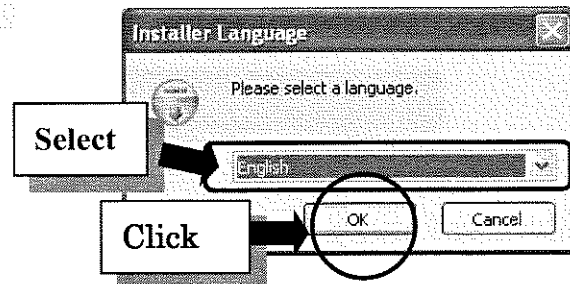


Fig.6.1.1a [Installer Language] window

4. [License Agreement] window is displayed.
Click [I Agree].

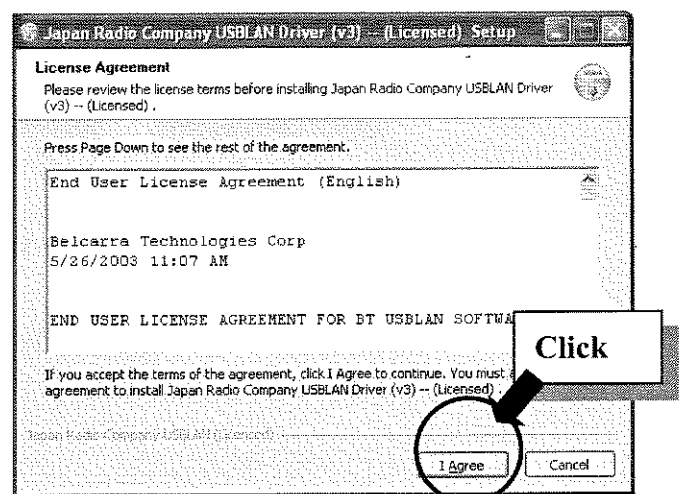


Fig.6.1.1b [Installer Language] window

5. [Choose Install Location] window is displayed.

Click [Next].

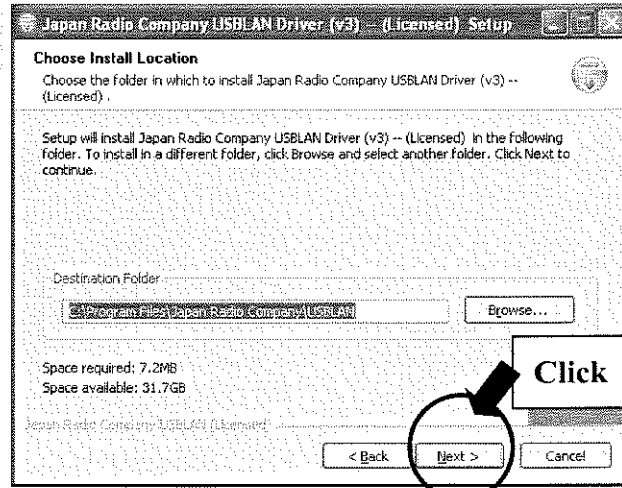


Fig.6.1.1c [Choose Install Location] window

6. [Choose Components] window is displayed.

Click [Install].

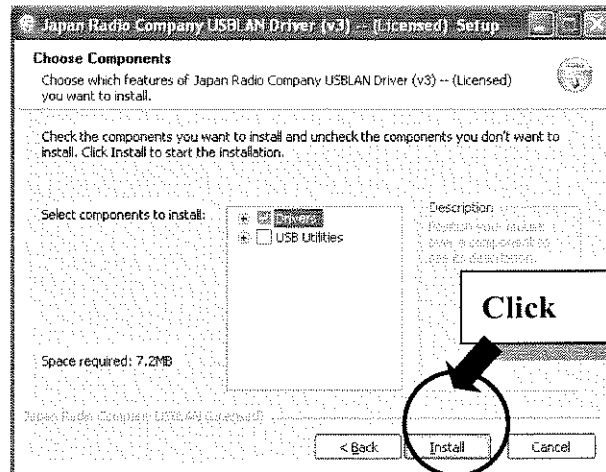


Fig.6.1.1d [Choose Components] window

7. [Installing] window is displayed and installation is started.

Wait until the end of installation is shown.

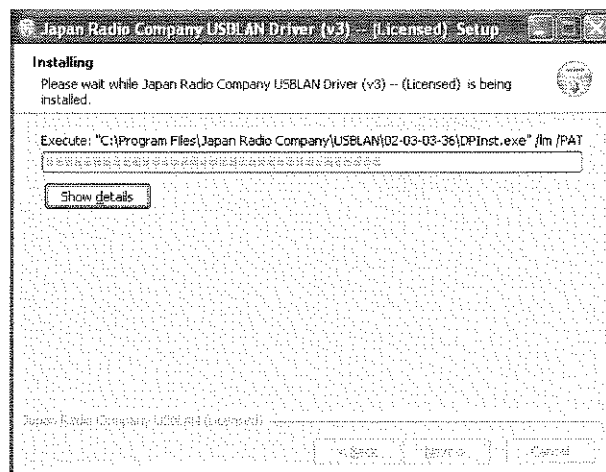


Fig.6.1.1e [Installing] window

8. [Welcome to the Device Driver Installation Wizard!] window is displayed.

Click [Next].

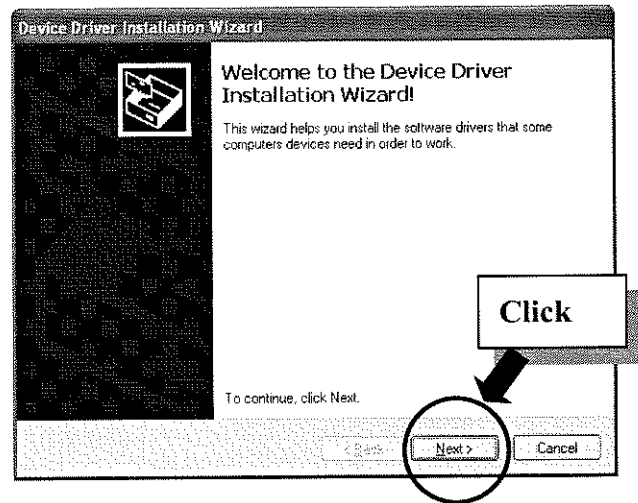


Fig.6.1.1f [Welcome to the Device Driver Installation Wizard!] window

8. [Software Installation] window is displayed.

Click [Continue Anyway].

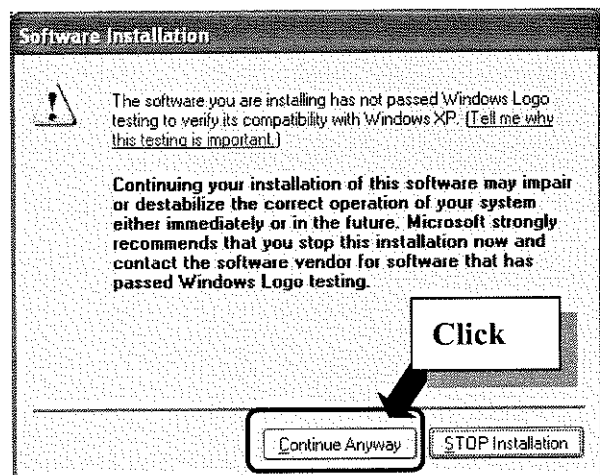


Fig.6.1.1g [Software Installation] window

7. [Completing the Device Driver Installation Wizard] window is displayed.

Click [Finish].

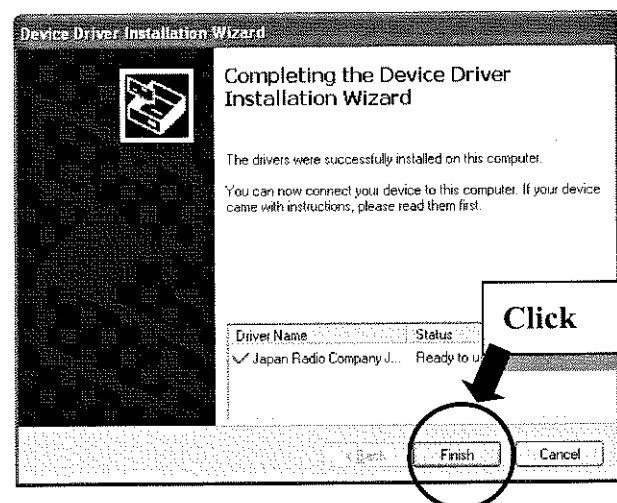


Fig.6.1.1h [Completing the Device Driver Installation Wizard] window

8. [Installation Complete] window is displayed.

Click [Next].

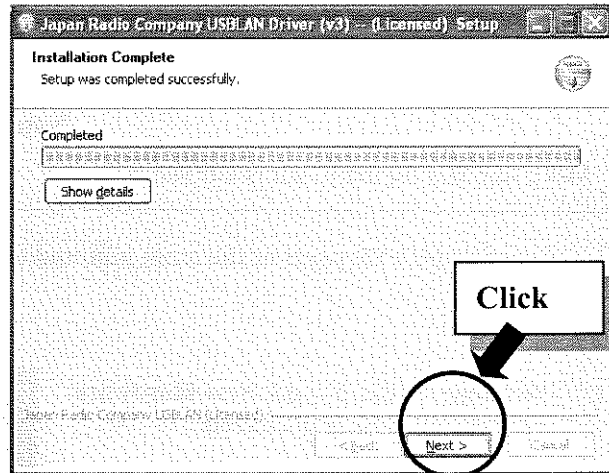


Fig.6.1.1i [Installation Complete] window

9. [Completing the Japan Radio Company USBLAN Driver (v3)-(Licensed) Setup] window is displayed.

Click [Finish].

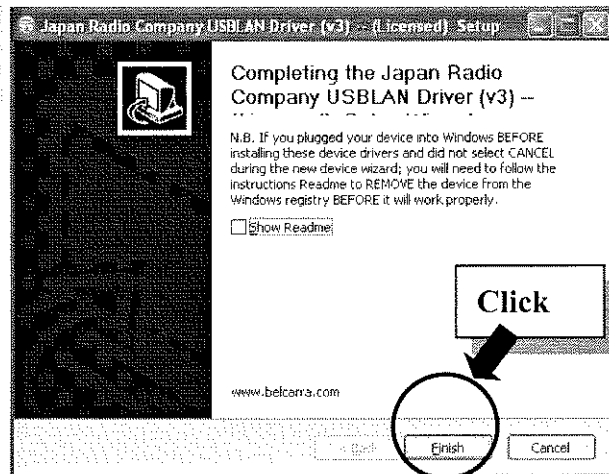


Fig.6.1.1j [Completing the Japan Radio Company USBLAN Driver (v3) - (Licensed) Setup] window

6.1.2 Connecting USB ports

Note

Make sure that the main unit is idle status.

1. Connect the USB ports of the main unit and of the PC, with USB cable.

2. [Welcome to the Found New Hardware Wizard] window is displayed.

Check [No, not this time] and click [Next].

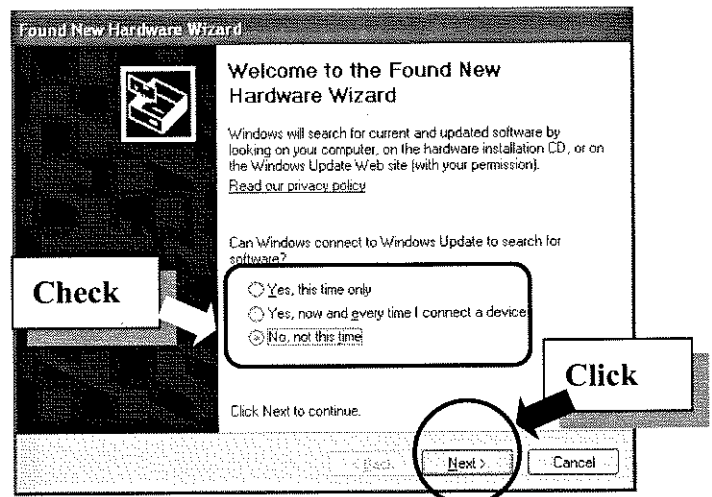


Fig.6.1.2a [Welcome to the Found New Hardware Wizard] window

3. [This wizard helps you install software for:....] window is displayed.

Check [Install the software automatically [Recommended]].

Then, click [Next].

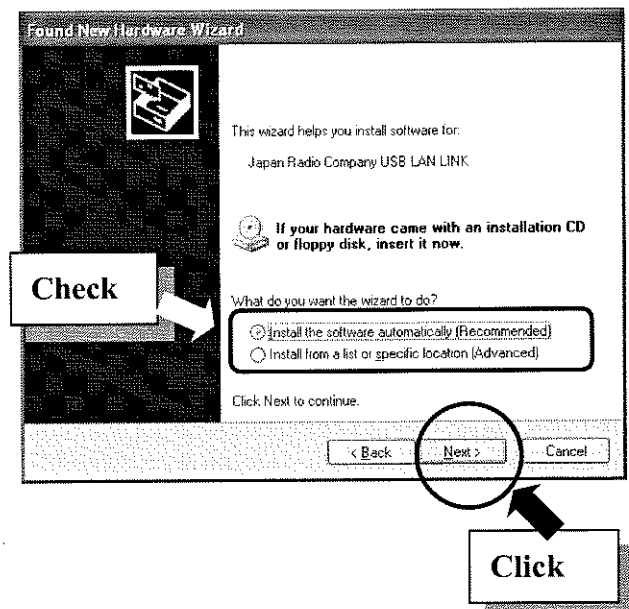


Fig.6.1.2b [This wizard helps you install software for:....] window

4. [The software you are installing for this hardware:...]
window is displayed.

Click [Continue Anyway].

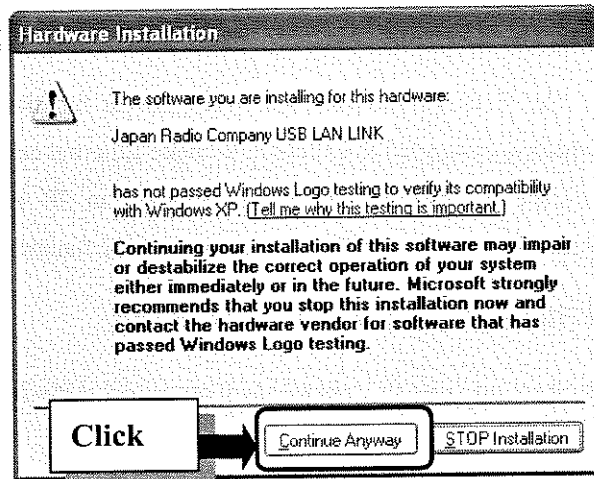


Fig.6.1.2c [The software you are installing for this hardware:...]
window

5. [Completing the Found New Hardware
Wizard] window is displayed.

Click [Finish].

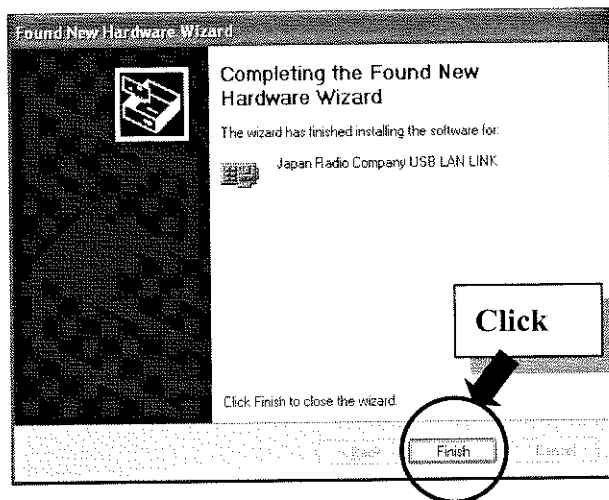


Fig.6.1.2d [Completing the Found New Hardware Wizard]
window

6.2 Ethernet port PC connection

The JUE-250 provides the DHCP server function, which allocates necessary IP address to the PC which is connected to Ethernet, to make Ethernet communication with Main Unit possible.

User is requested to setup [Obtain an IP automatically] and [Obtain DNS server address automatically] on the PC, to make use of the function.

1. Turn on the power switch of main unit.

2. Start up your PC, click [My Computer]>[My Network]>[Display the Network Connection].

Then right-click [Local Area Connection] and click [Properties].

3. Click [General] tab, select [Internet Protocol (TCP/IP)] (text is highlighted), then click [Properties].

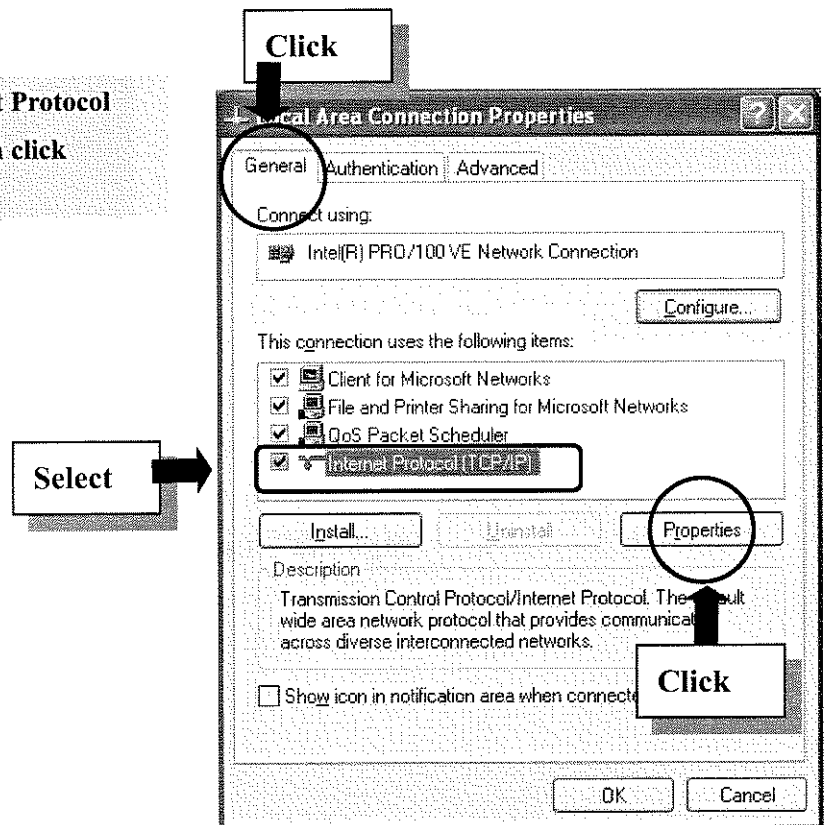


Fig. 6.2a Local Area Connection Properties window

4. Make sure both of [Obtain an IP address automatically] and [Obtain DNS server address automatically] are checked, then click [OK].

5. Reboot your PC.

Make sure these checkmarks

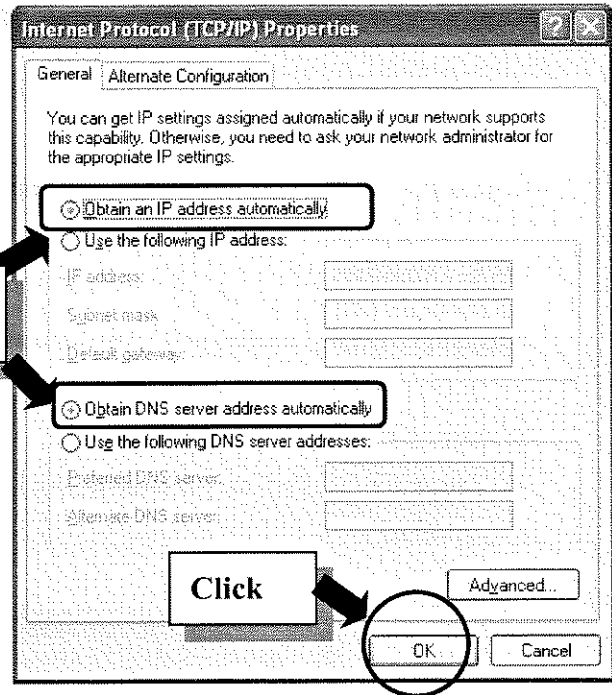


Fig. 6.2b Internet Protocol (TCP/IP) Properties window

IP addressing on the JUE-250

- In normal operation, the terminal uses its built-in DHCP server to allocate IP address automatically. If you want to manually set up IP addressing, you can use the terminal's default range of IP addresses, as shown below.

Terminal IP address	192.168.128.100
Default range of IP addresses	192.168.128.101 to 192.168.128.254
Subnet mask	255.255.255.0
DNS	<p>If you use BGAN.INMARSAT.COM as your APN, the default DNS addresses are 172.30.66.7 and 172.30.34.7</p> <p>If you use another APN, your Distribution Partner supplies you with a DNS address for your APN.</p>

- To test connectivity between your PC and the terminal, ping **192.168.128.100** from your PC. If a reply is received, your PC is connected to the terminal.
- The terminal allocates an IP address to each user connected to the Ethernet or USB interface, up to a maximum of 11 users, and then maps the IP address to a network address for full Network Address Translation (NAT) and Port Address Translation (PAT). Each user can therefore open a separate data connection from the terminal, and does not have to share network connections. The relevant setting for the JUE-250 are allocated along with the IP address.

6.3 Making a call using LaunchPad

By using LaunchPad, communications with services of Standard IP, Streaming IP, or SMS are available very easily and quickly.

Installation of LaunchPad is preliminarily required for this chapter, set the attached CD into your PC.

6.3.1 Standard IP

Standard IP Connection/Disconnecting procedures are mentioned below.

[Connection]

1. Open LaunchPad by clicking on the LaunchPad icon on your desktop, and click [Connect] button.

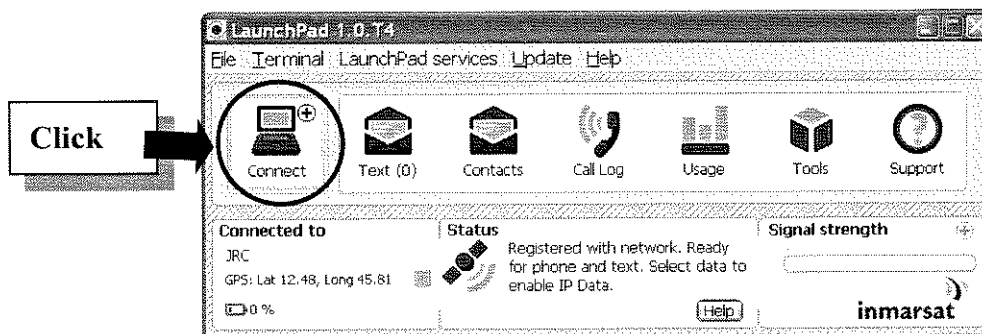


Fig.6.3.1a Main window of LaunchPad

2. Click [Connect Standard] icon, and then connection to Standard IP service is started.

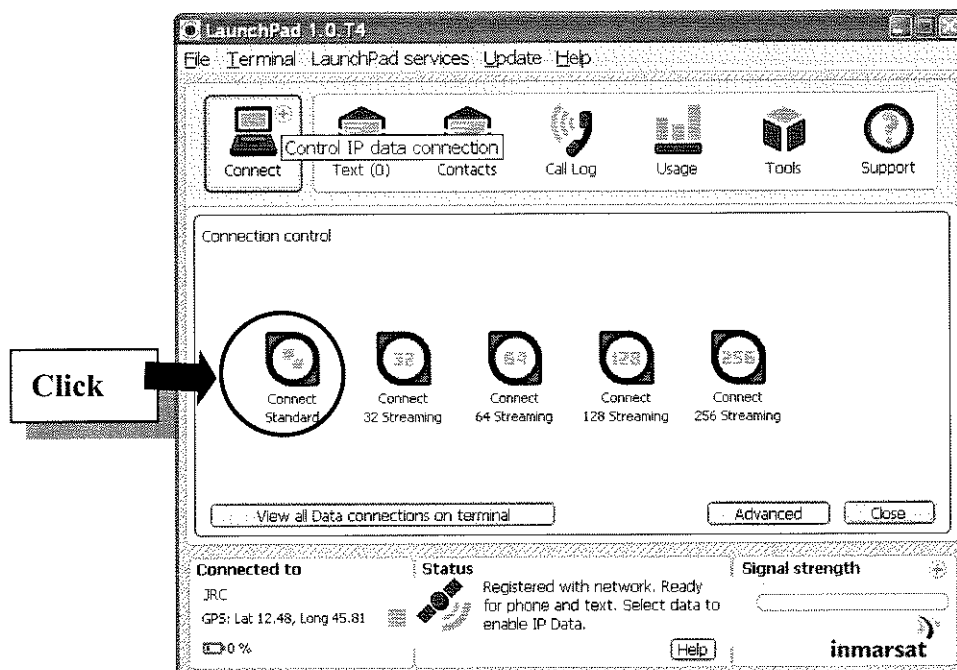


Fig.6.3.1b [Connection control] window

[Connecting] screen is displayed during Standard IP Data connection is requesting.

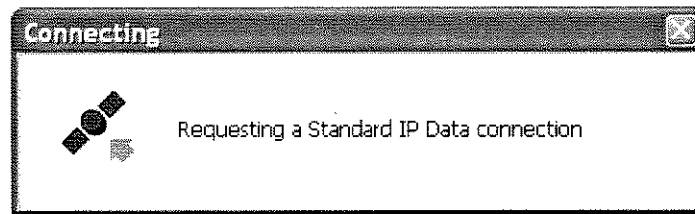


Fig.6.3.1c [Connecting] window

3. If connection is succeeded, [Connect] icon is changed to [Disconnect], [Connect Standard] icon is changed to [Disconnect Standard], and text of [Status] column is changed to [Standard Data connection open...].

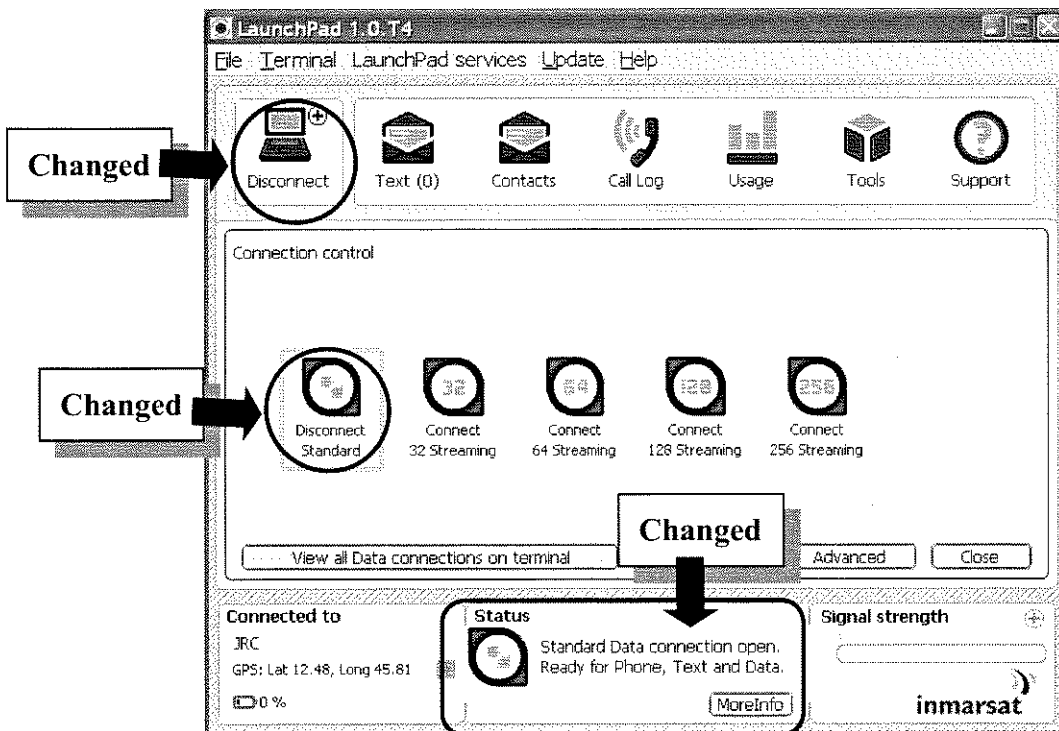


Fig.6.3.1d [Connection control] window (connection succeeded)

[Making a call]

Standard Data connection is opened. Use your desirable tool.

[Disconnection]

Click [Disconnect] icon.

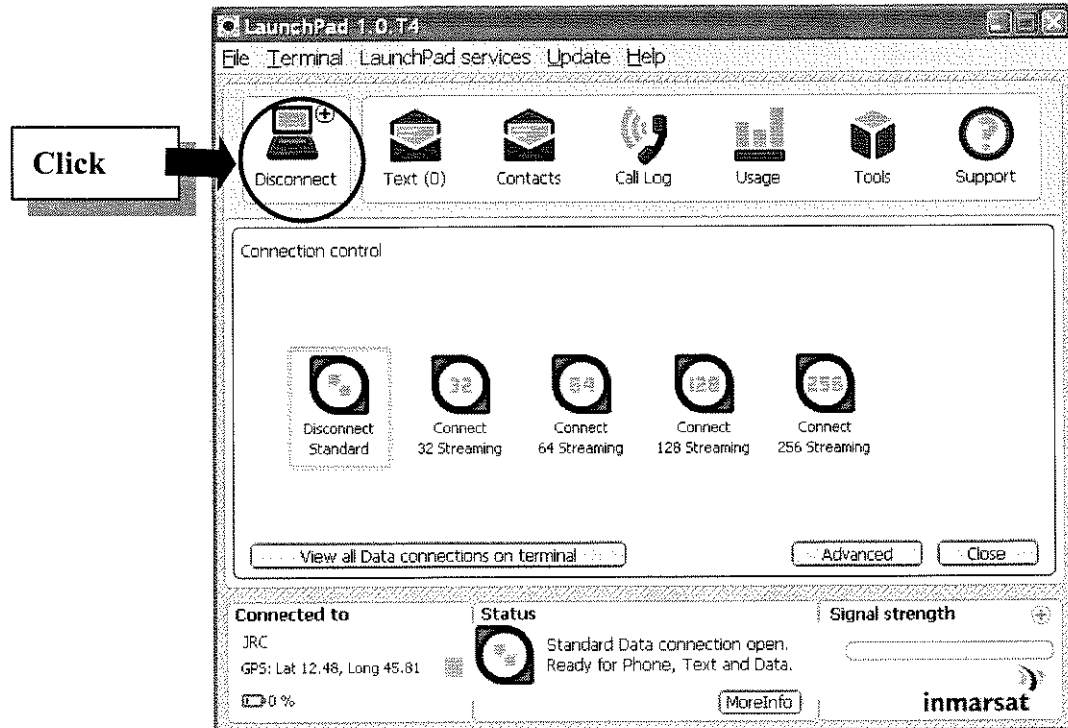


Fig.6.3.1e [Connection control] window (to disconnect the service)

6.3.2 Streaming IP

(Below procedure is for 32kbps Streaming IP service. For 64kbps or 128kbps, difference is only using icons) .

[Connection]

1. Open LaunchPad by clicking on the LaunchPad icon on your desktop, and then click [Connect] icon .

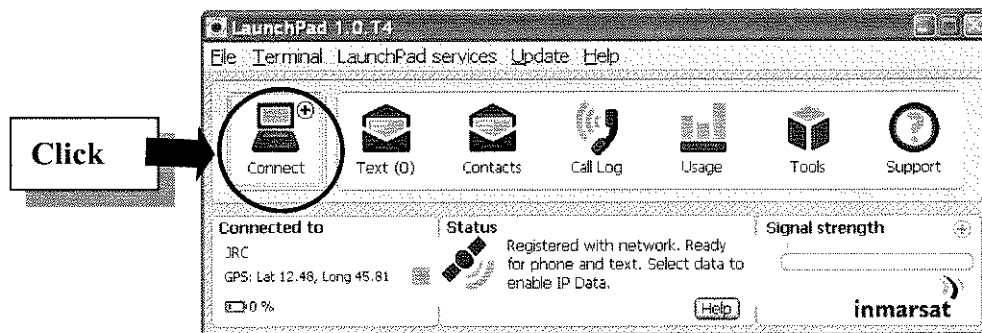


Fig.6.3.2a Main window of LaunchPad

2. Click [Connect 32 Streaming] icon, then connection to Streaming 32kbps IP service is started.

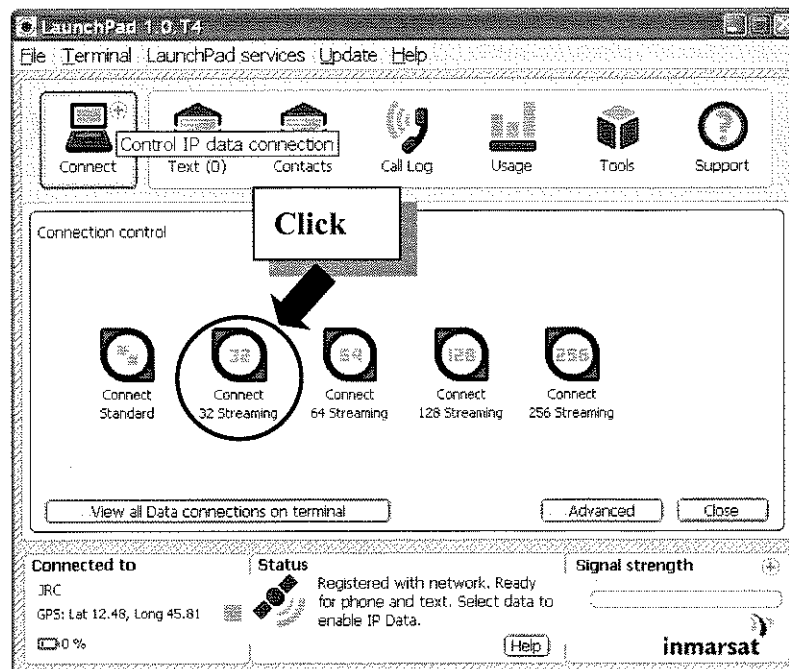


Fig.6.3.2b [Connection control] window

3. Confirmation window is displayed, then click [Yes].

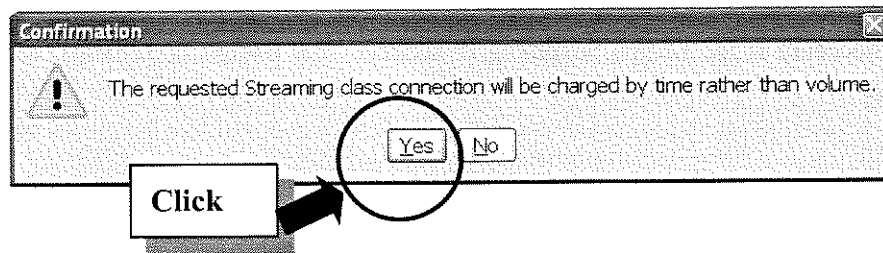


Fig.6.3.2c Confirmation window

[Connecting] screen is displayed during Streaming IP Data connection is requesting.

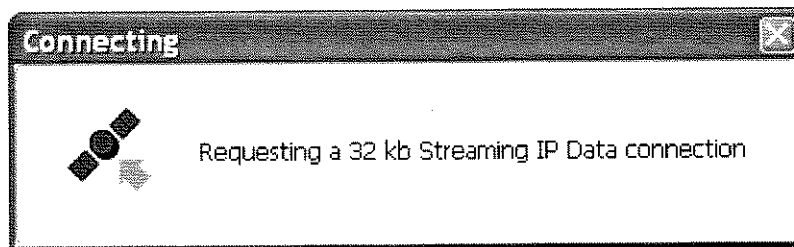


Fig.6.3.2d [Connecting] window

4. If connection is succeeded, [Connect] icon is changed to [Disconnect], [Connect 32 Streaming] icon is changed to [Disconnect 32 Streaming], and text of [Status] column is changed to [Standard Data connection open...].

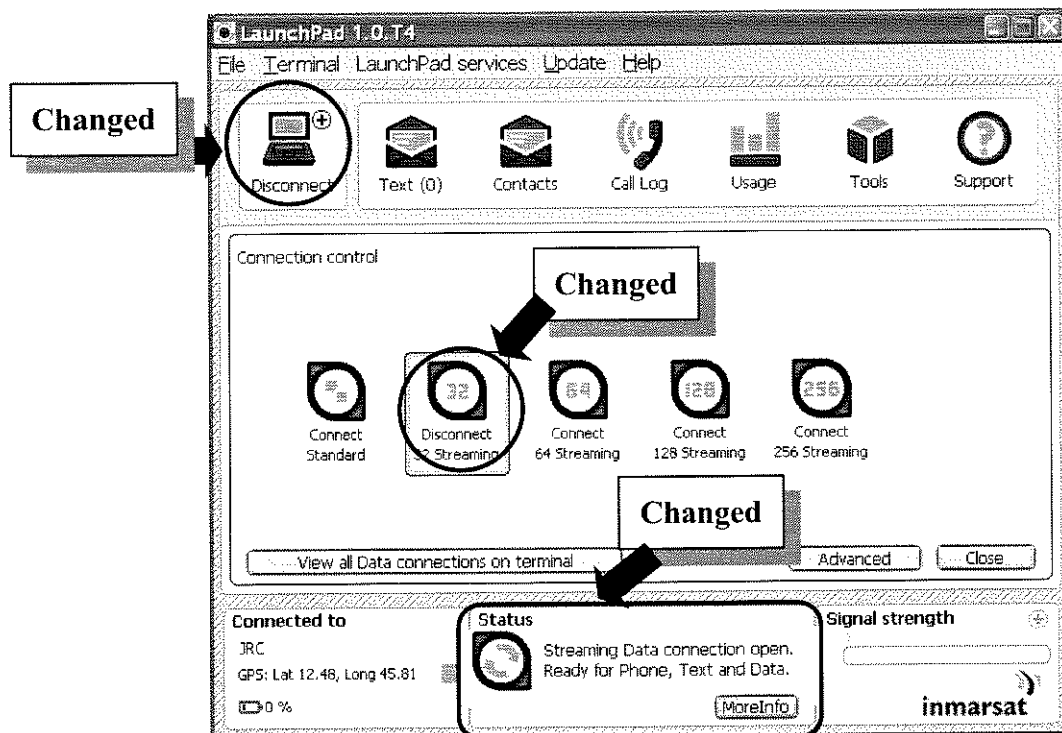


Fig.6.3.2e [Connection control] window (connection succeeded)

[Making a call]

Streaming Data connection is opened. Use your desirable tool.

[Disconnection]

Click [Disconnect] icon.

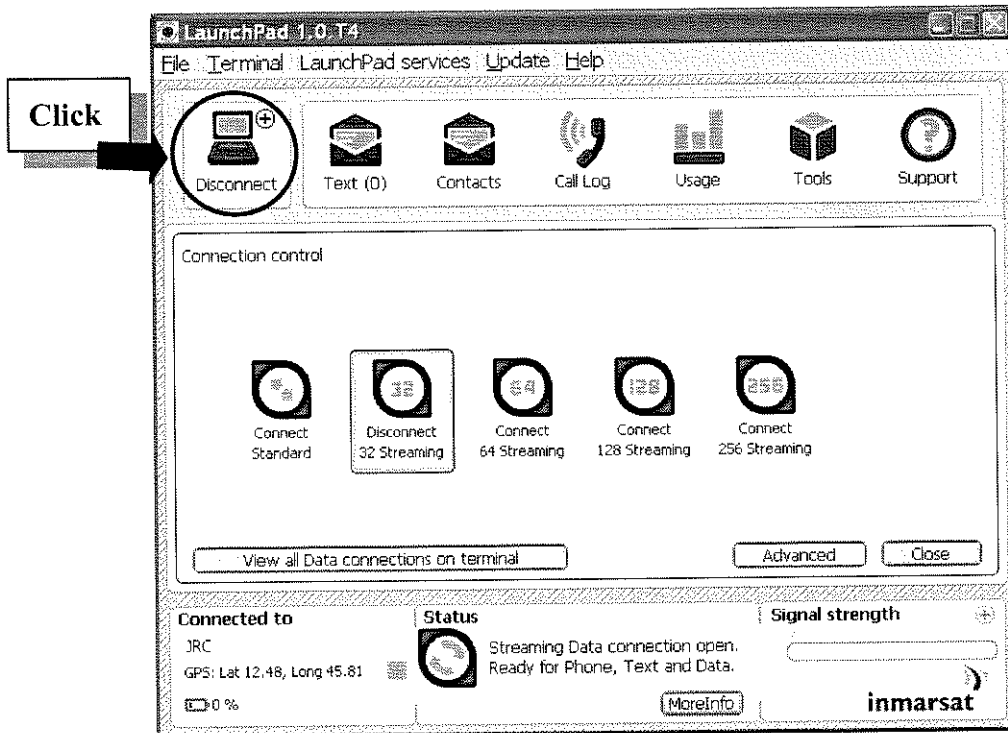


Fig.6.3.2f [Connection control] window (for disconnection)

6.3.3 SMS

Sending SMS procedures are mentioned below.

6.3.3.1 Sending SMS

1. Open LaunchPad by clicking on the LaunchPad icon on your desktop, and click [Text] button.

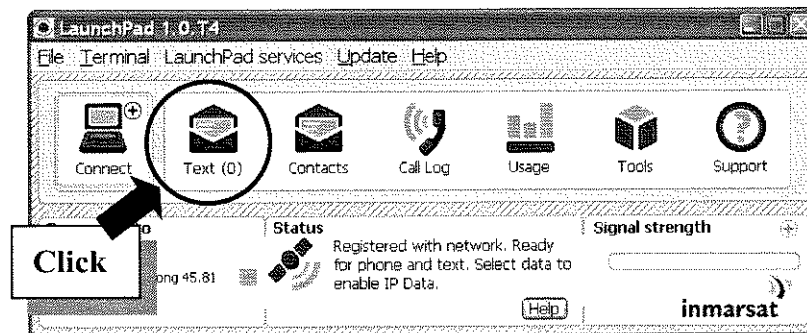


Fig.6.3.3.1a Main window of LaunchPad

2. Position the cursor to the large column of [Compose new message] field, and create the message. And position the cursor to [To.....] column and enter the destination number. Finally, click [Send] button.

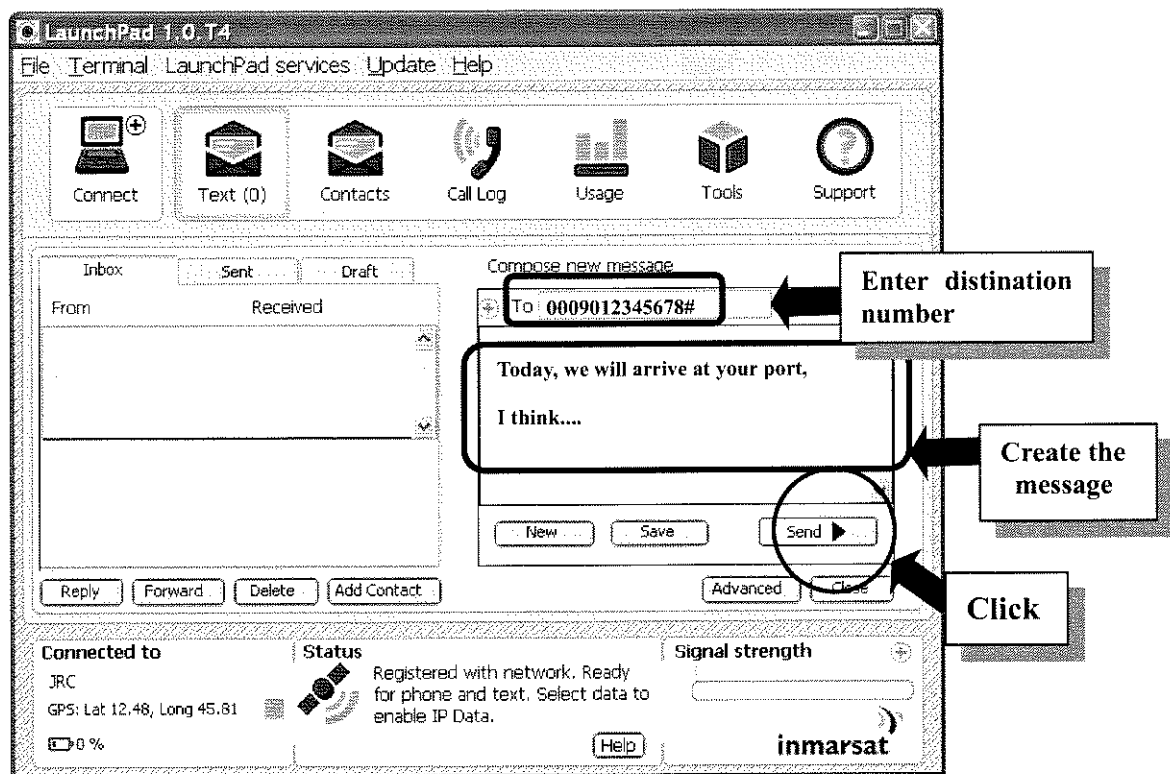


Fig.6.3.3.1b Text window

7. Using telephone/FAX on Audio port

Satellite is already selected in Chapter4. In this section, a continued setting for using telephone/FAX on Audio port is explained.

Continued from [4.2 Initial setting for communication]

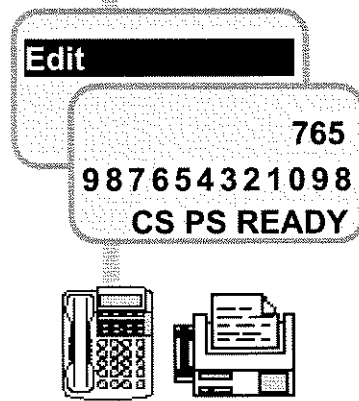


Fig. 7a Setting flow using telephone/FAX on Audio port

Audio port acts as a ISDN Basic Rate Interface (BRI) Network Termination (NT) and provides a S/T (SO) interface. (Note that only 1B channel (1 call) can be supported at any time). The specification of this port is,

Item	Specification
Network Switch Type	Euro ISDN
Coding Type of voice	A-law
Max. number of unit	8 TEs (Max. current is 50mA)
Connector	RJ-45 (S/T Interface)
Supported service	-Inmarsat 4kbps Voice -Inmarsat 64kbps 3.1kHz Audio

NOTE

- Audio port and Ethernet port use the same connector type (RJ-45). Be careful not to connect the wrong port.
- Audio port supports only Inmarsat 4kbps Voice and Inmarsat 64kbps 3.1kHz Audio services. Terminals using UDI/RDI services like Video Phone or G4 FAX are not supported.

7. Using telephone/FAX on Audio port

When a TE originates a call, JUE-250 originates a call in according to a “transfer capability” informed from TE. When the “transfer capability” from TE is “Speech”, JUE-250 originates “Inmarsat 4kbps Voice” call. When the “transfer capability” from TE is “3.1kHz Audio”, JUE-250 originated “Inmarsat 64kbps 3.1kHz Audio” call.

When a call arrives to JUE-250, JUE-250 informs a Multiple Subscriber Number (MSN) programmed by user to TE. TE can identify an arriving service using this MSN.

You should setup following items:

- (1) MSN and “transfer capability” of TE according to TE’s manual
- (2) MSN of JUE-250

[Connection sample]

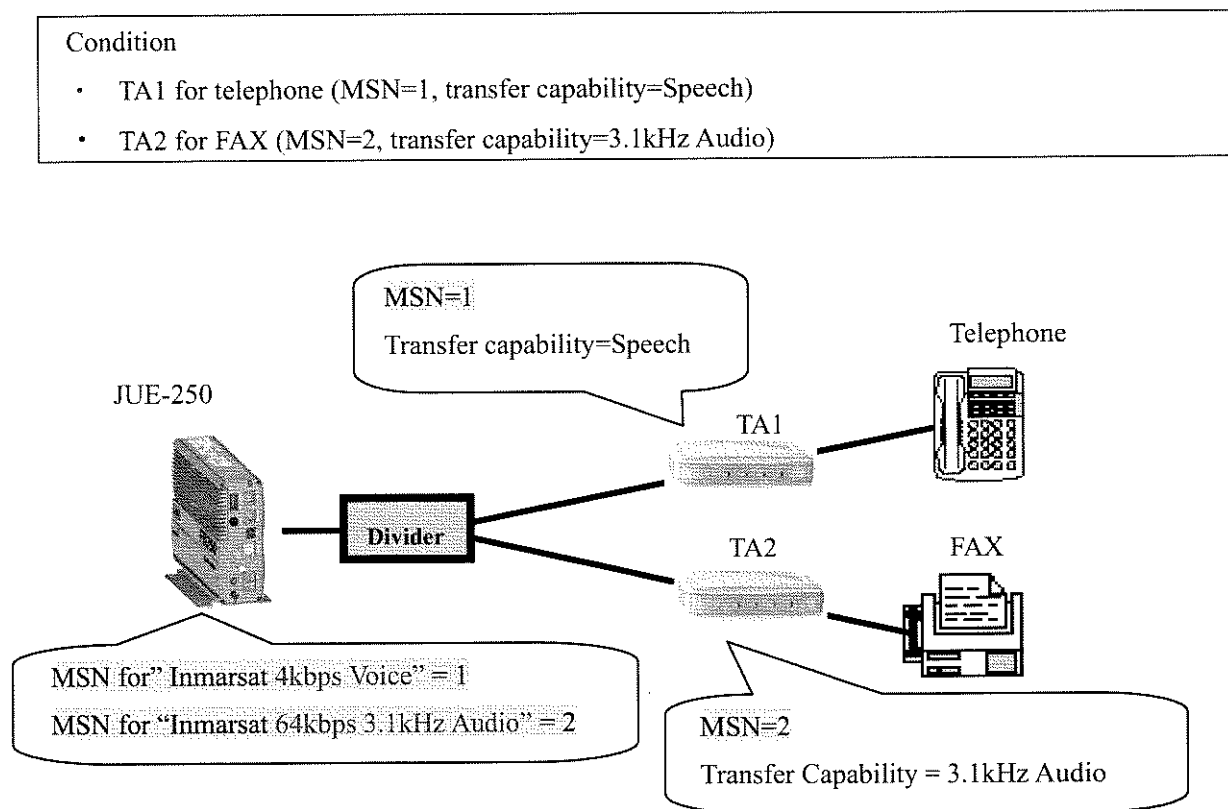


Fig.7b Connection sample of Audio port

Setting MSN using Handset [MSN edit menu]

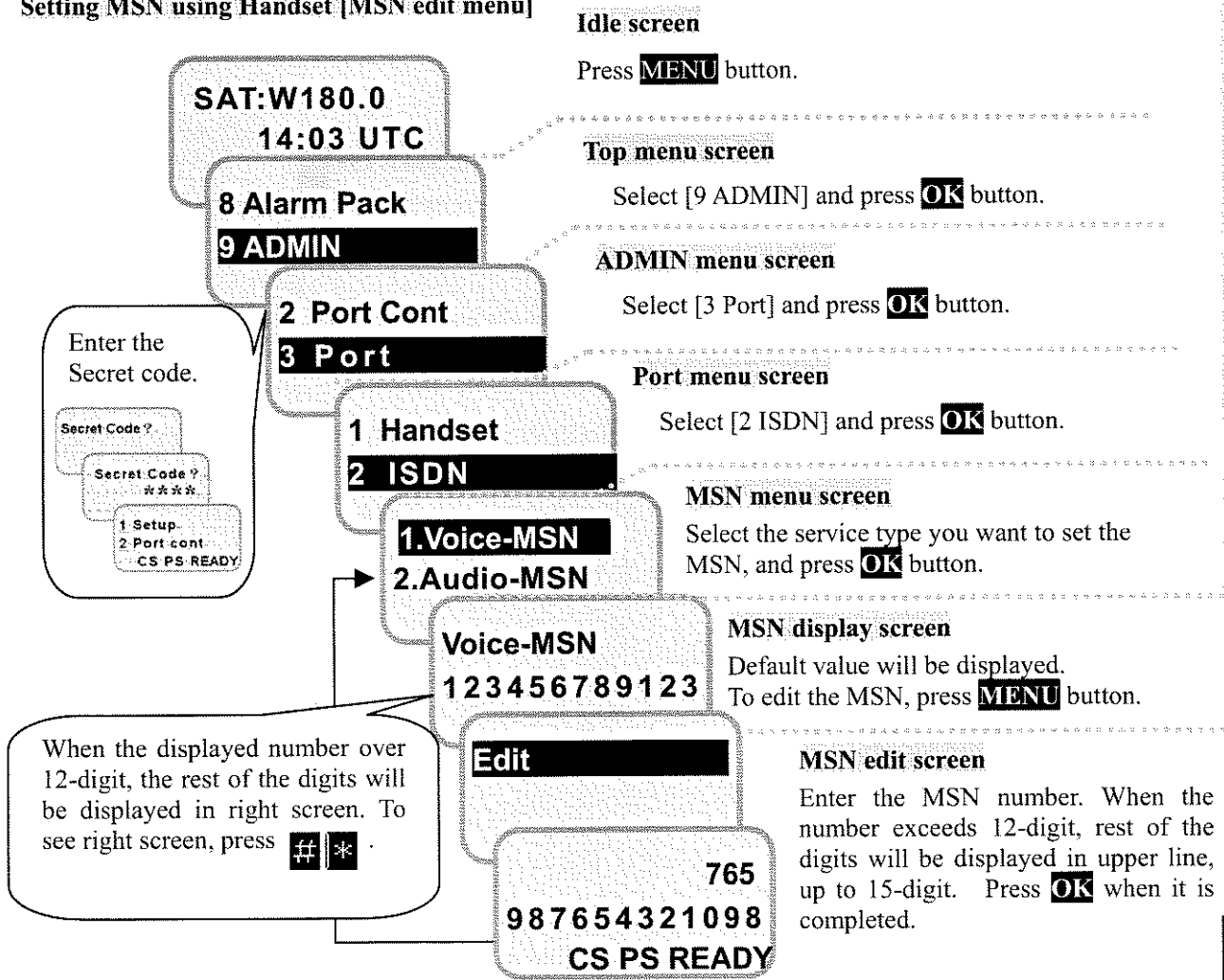


Fig. 7c Flow of Setting MSN using Handset [MSN menu]

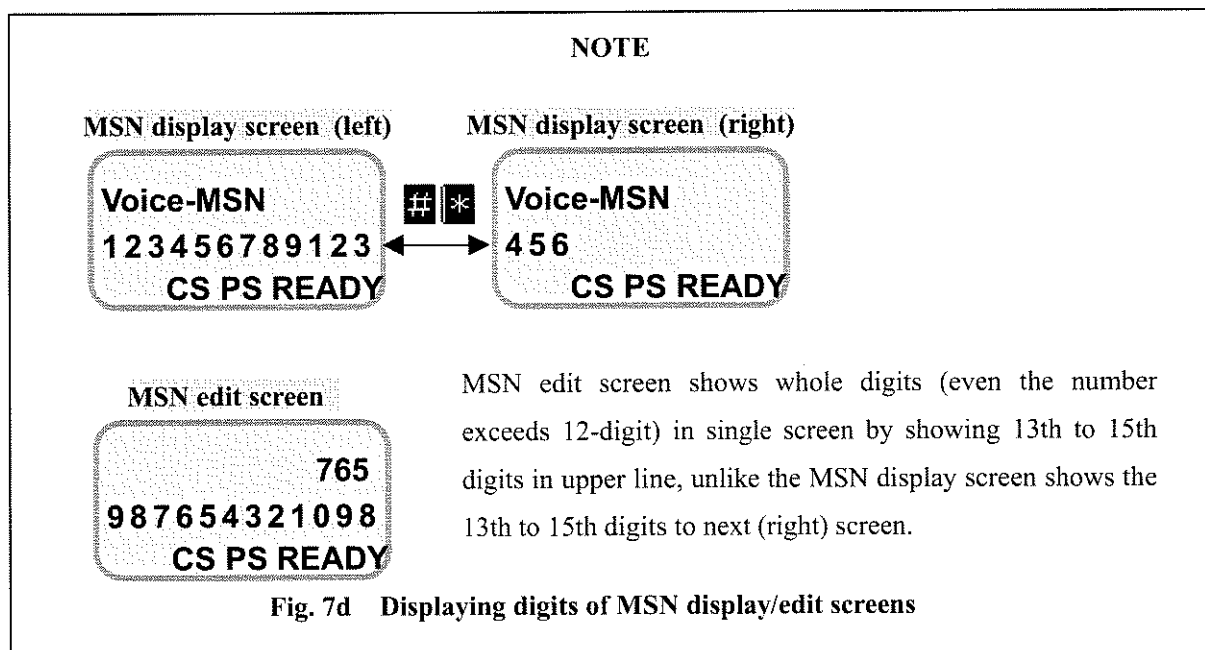


Fig. 7d Displaying digits of MSN display/edit screens

7. Using telephone/FAX on Audio port

Dial-up procedure from Audio port

00 **Country Code** **Area Code** **Subscriber's number** **##**

Example) Placing a call to +81-422-45-9111, in Japan→**0081422459111##**

8. Handset Menu system

All screens of Handset of the JUE-250 and their functions are as follows.

Table. 8. Contents of Handset menu

Chapter No/Name of screen	Contents
-TOP menu	Displays the list of items of this group.
8.1 Status menu	Displays the list of the items of equipment status.
8.2 SMS menu	Creates, sends, receives, and deletes the SMS.
8.3 Satellite menu	Displays the list of the items of Satellite status.
8.4 Phone Book menu	Displays the Phone Book.
8.5 Redial menu	Displays the list of Redial number.
8.6 Call Log menu	Displays the list of Call Log.
8.7 Self Test menu	Displays the list of Self Test items.
8.8 Alarm Pack menu	Displays the list of Alarm Pack Log.

Accessible for
All user

-8.9 ADMIN menu	Displays the list of setting/ browsing items available for ADMIN user only	
8.9.1 Set up menu	Sets up Delivery date Time difference, Local Time display On/Off of LED Tracking type	Accessible for ADMIN user Only
8.9.2 Port Cont menu (Port Control)	Sets up Use of Secret code of Handset/terminal telephone Voice volume of Handset/terminal telephone Type of terminal telephone (VOICE or FAX)	
8.9.3 Port menu	Sets up Backlight of screen/Dimmer of LEDs Pattern/Volume of Ringer tone On/Off of key click sound (ISDN) MSN of Voice/Audio	
8.9.4 User Reg. (User Registration)	Sets up Users who use secret code	
8.9.5 Auto DCN. (Auto Disconnect)	Sets up Maximum connection time of each communication terminal	
8.9.6 USIM menu	Sets up Communication mode using USIMcard	
Other screen (Pop-up screen)	Alarm message pops up when BDE status is changed.	

TOP menu

To open TOP menu, just push MENU button

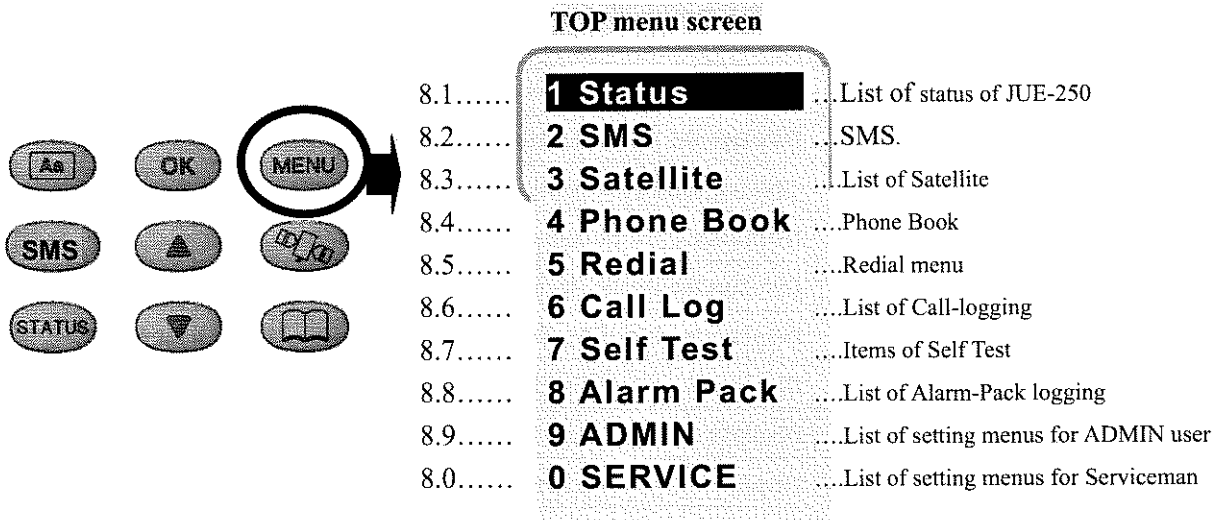


Fig. 8a To open Top menu screen

Note) [0 SERVICE] is the menu for serviceman only, ordinary user cannot log-in although TOP menu screen displays this menu all the time.

Direct button makes quick access to each menu

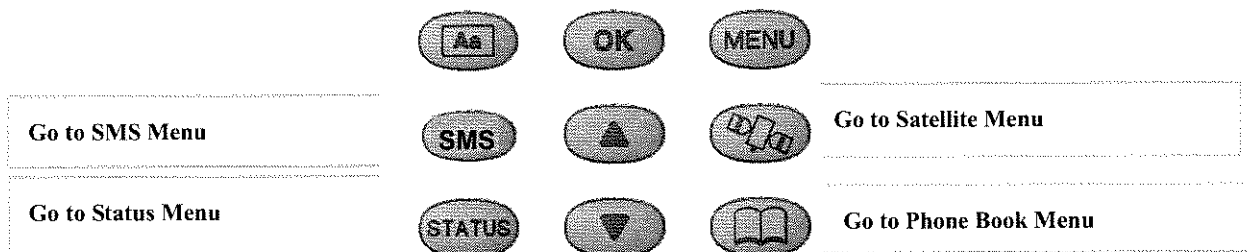


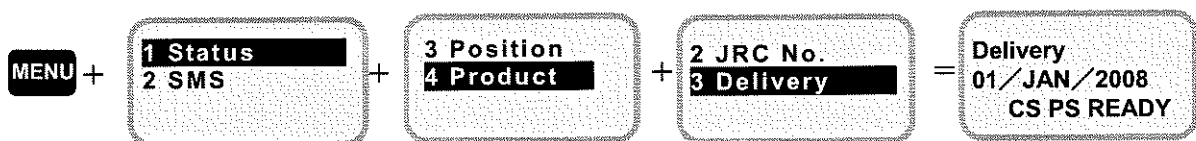
Fig. 8b Direct buttons

Short cut function also makes quick access to each menu

(Available for almost all of the screens)

Press **MENU** button and the number of each item, then you can display desired screen directly.

Example) To display [Delivery setting value screen], press **MENU** + **1** + **4** + **3**



Delivery setting value screen

Fig. 8.1c Quick access with Short cut function

■ Press **CLR** button to return to the previous screen.

■ Press **[Phone]** button to return to Idle screen instantly.

In this section, menus for all users are described.

8.1 Status menu

(Short cut is **MENU+1**)

In this menu, user can display the status of the JUE-250, Receiving/Transmitting status, latitude/longitude of the ship and the version of each device.

The figure shown below is the whole flow chart of this menu. Each item is selectable.

Press **OK** button to fix. To return to Top menu, press **CLR** button several times.

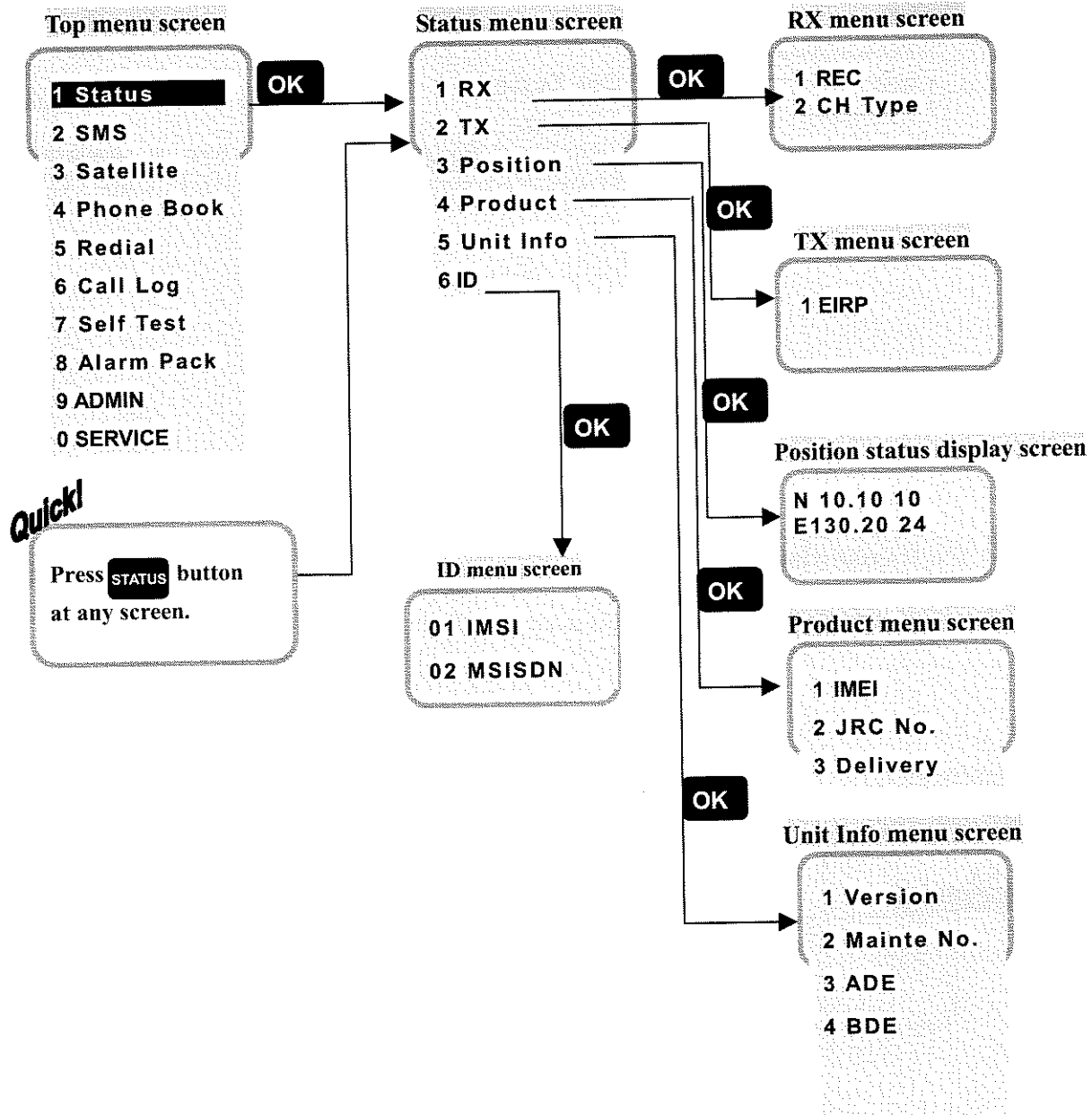
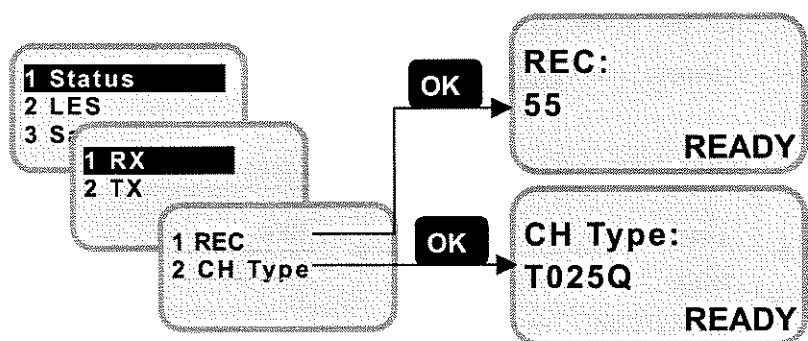


Fig. 8.1 Configuration of Status menu

8.1.1 RX(Reception) menu**(MENU+1+1+1 to 3)**

In this menu, user can display the Reception level (REC), Channel type (CH TYPE), and Channel status (CH).

**REC level display screen**

RECeiving level is displayed in number value. Communication is not available when the value is less than 55.

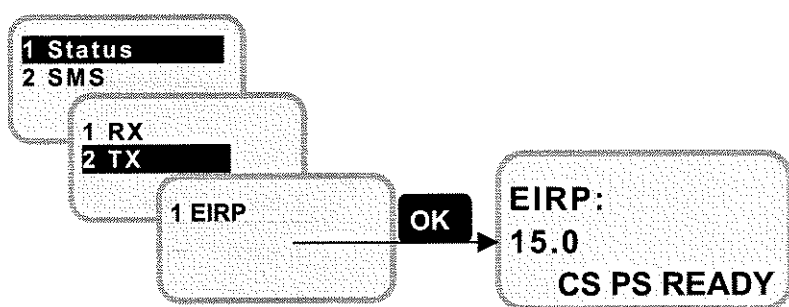
CH Type setting value display screen

Channel type is displayed from among T025Q, T1Q, T1X, and T45X.

Fig. 8.1.1 RX(Reception) Menu

8.1.2 TX(Transmission) menu**(MENU+1+2)**

In this menu, user can display the Transmission level (EIRP).

**EIRP display screen**

EIRP (Transmission level) is displayed in number..

Fig. 8.1.2 TX(Transmission) menu

8.1.3 Position status display

(MENU+1+3)

In this menu, user can display the latitude and longitude of ship's position.
 N stands for North latitude, S for South latitude, E for East longitude, and W for West longitude.
 N and S are displayed in upper line, and E and W in the lower.
 Status of GPS positioning consists of the four terms listed below.

Table 8.1.3 Position acquisition status of GPS

1 COLD START	The position is not fixed yet.	
2 UNFIX		
3 2-D FIX (2 dimensional positioning)	The position has been fixed by three satellites, but altitude is not.	FIX status
4 3-D FIX (3 dimensional positioning)	The distance to satellites are measured simultaneously, the ship's latitude, longitude, and altitude are fixed.	

UNFIX screen is displayed when GPS status is COLD START or UNFIX.

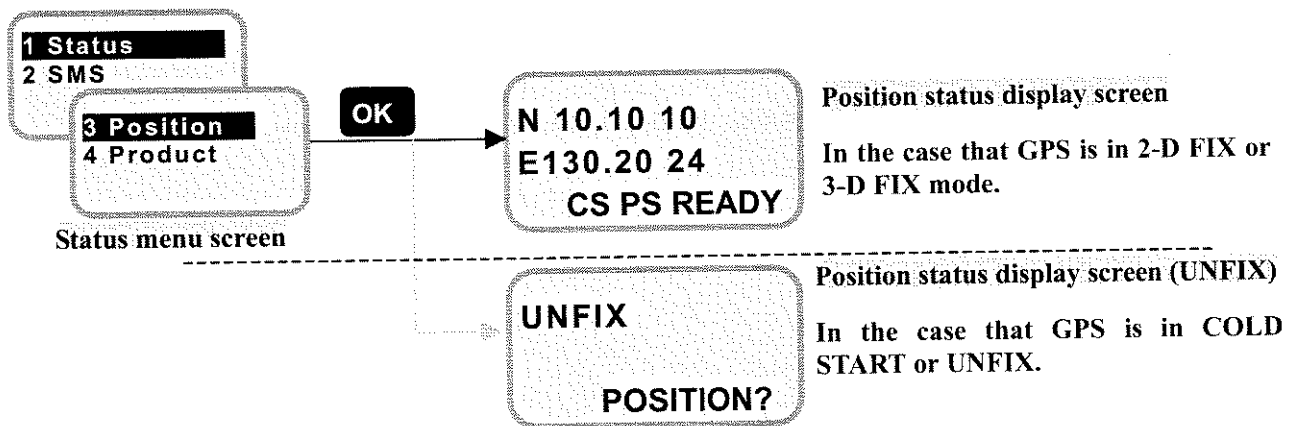


Fig. 8.1.3a Position status display screens

In BGAN, a position display to the user by GPS might be limited by the INMARSAT network.
 In that case, [NO DISP] is displayed in the screen.

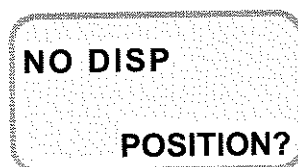


Fig. 8.1.3b [NO DISP] screen

8.1.4 Product menu(**MENU** + **1** + **4** + **1** to **3**)

In this menu, user can display the IMEI (International Mobile Equipment Identity), JRC No, (manufacturer's serial No.), and Delivery date of the JUE-250.

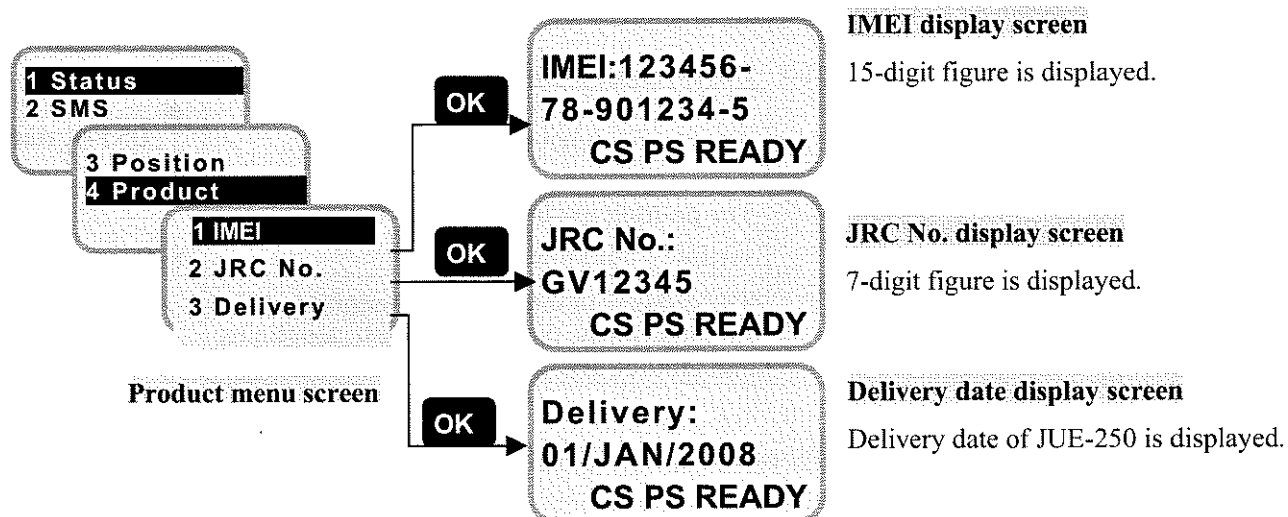


Fig. 8.1.4 Product menu status display screens

8.1.5 Unit Info menu

(MENU+1+5+1 to 4)

In this menu, user can display the software version, maintenance No. and status of ADE/BDE.

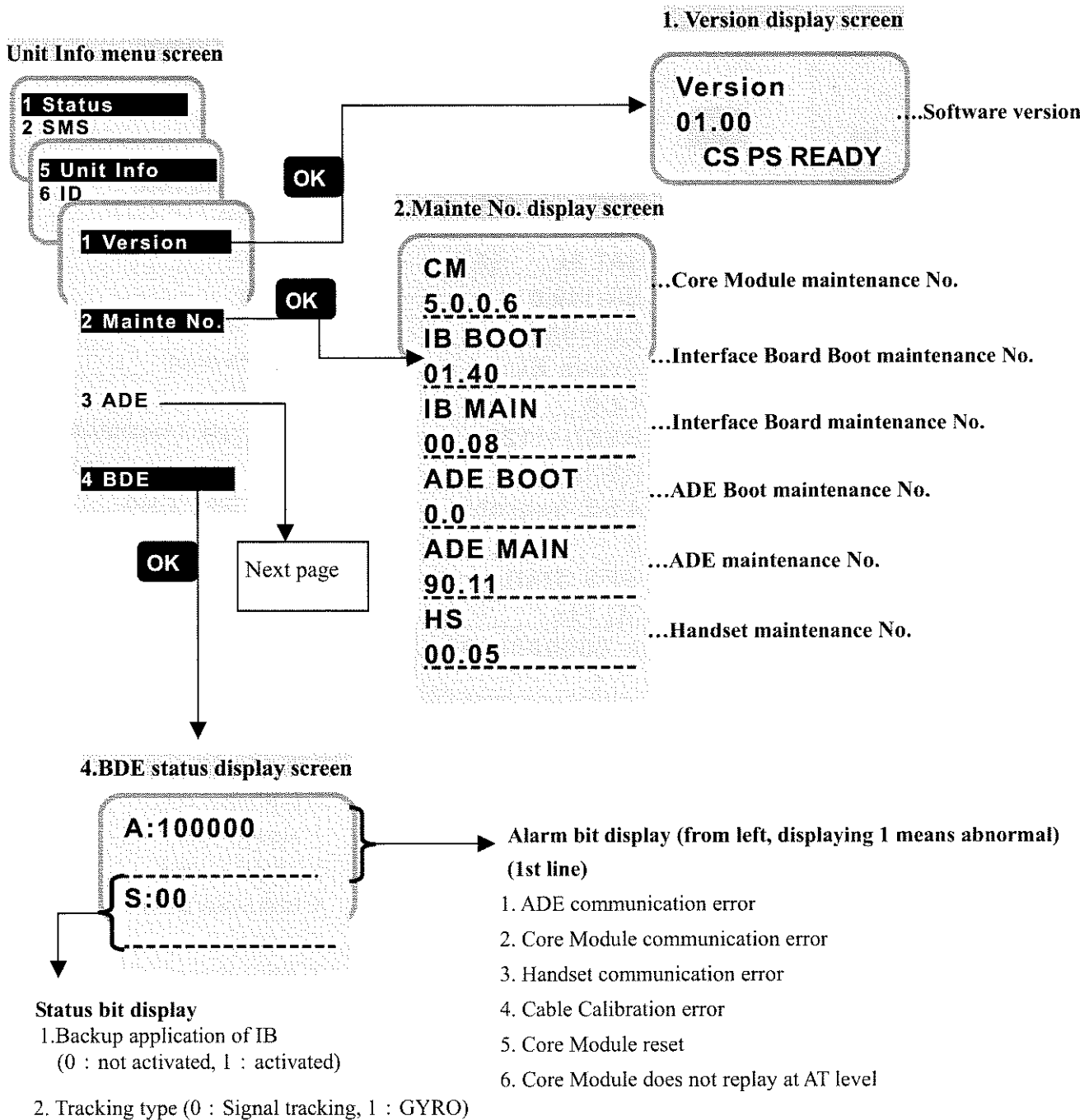


Fig. 8.1.5a Each status display screen of Unit Info (1/2)

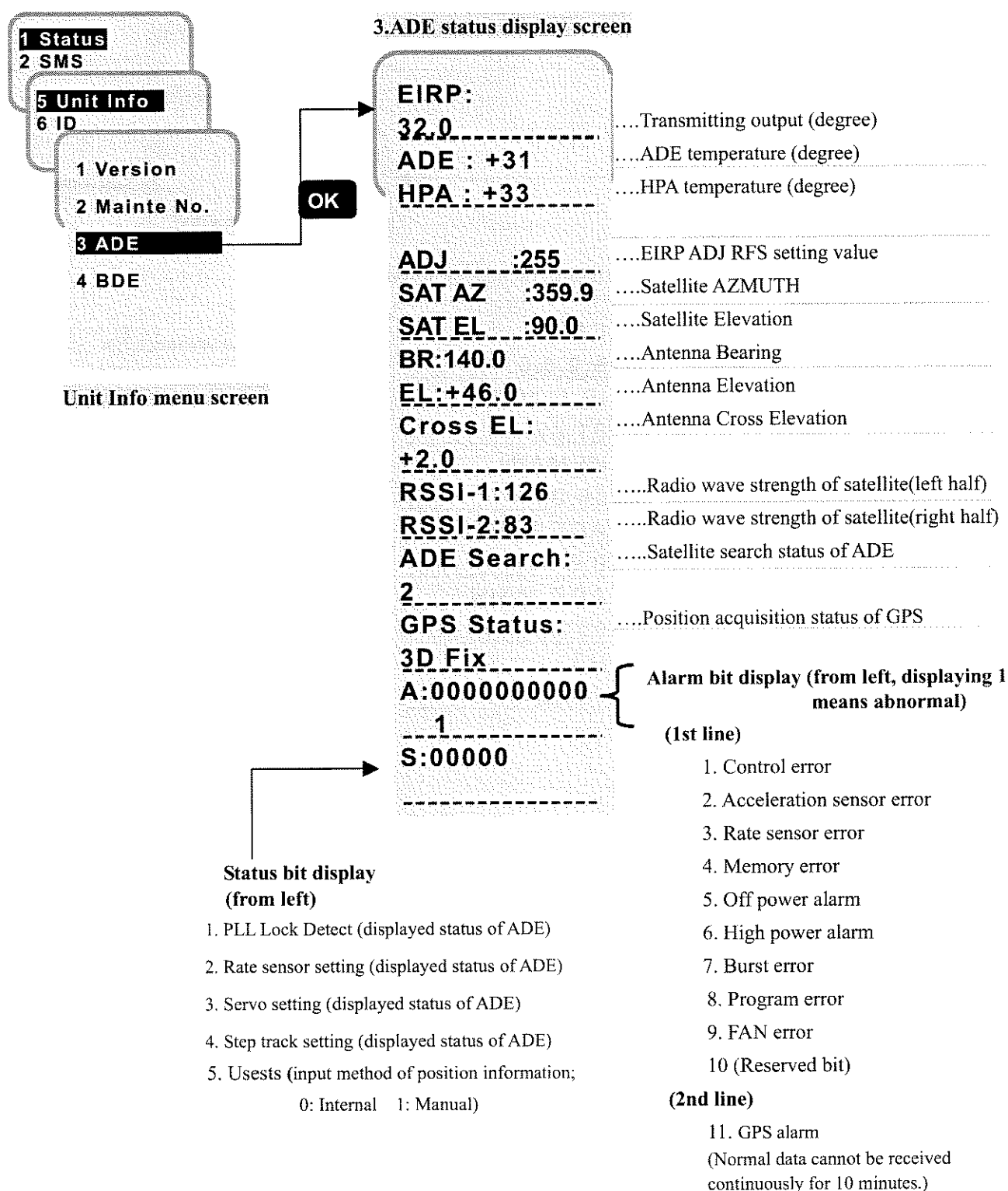
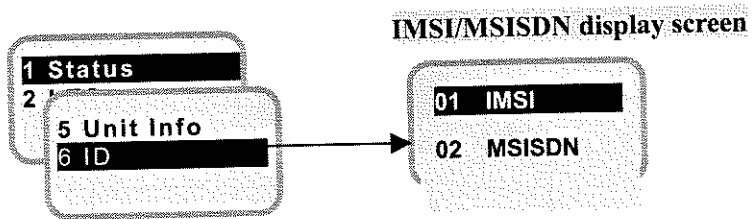


Fig. 8.1.5b Each status display screen of Unit Info(2/2)

8.1.6 ID menu (T.B.D)

(MENU+1+6)

In this menu, user can display the ID of IMSI/MSISDN.



IMSI (International Mobile Subscriber Identity)

MSISDN (Mobile Subscriber ISDN Number)

Fig. 8.1.6 ID menu status display screens

8.2 SMS menu (T.B.D.)

(MENU+2)

In this menu, user can read, create, send, and delete SMS.

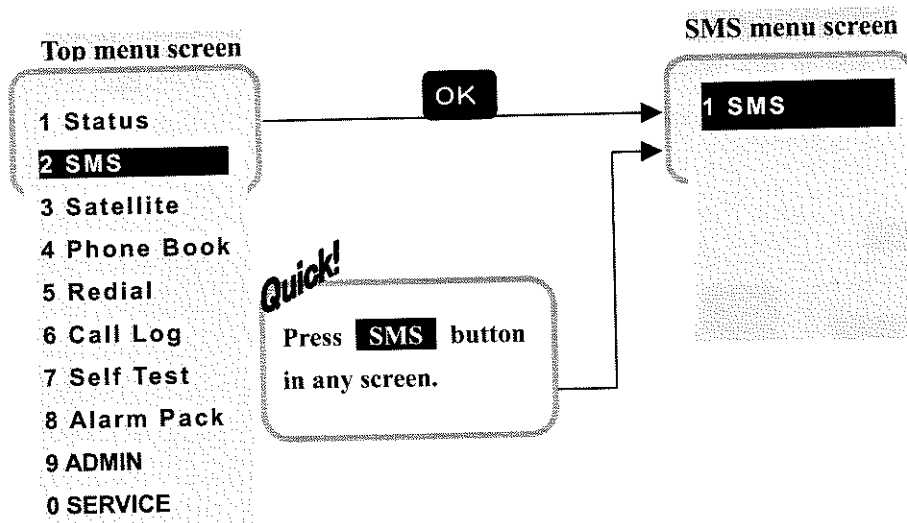


Fig. 8.2 SMS menu screen

8.3 Satellite menu**(MENU+3)**

In this menu, user can display the status of satellite including ocean region, and spot beam No.

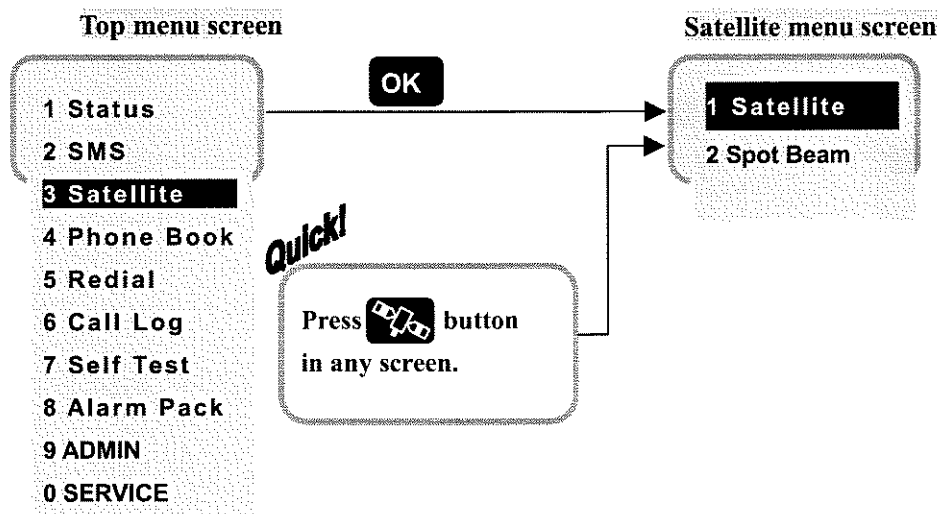


Fig. 8.3 Satellite menu screen

8.3.1 Satellite display**(MENU+3+1)**

Currently selected satellite is denoted by “*”.

Satellite can be changed in this screen. Select the preferred satellite and press **OK** button. The JUE-250 will search the most suitable satellite if “AUTO” is chosen.

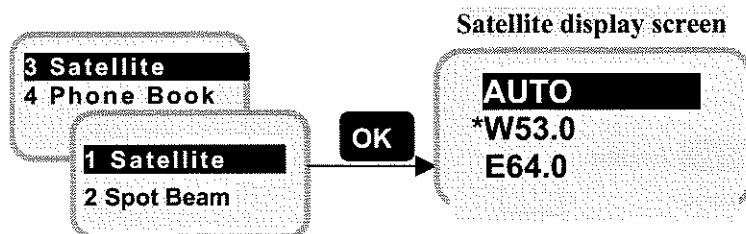


Fig. 8.3.1 Satellite selection screen

8.3.2 Spot Beam setting value display**(MENU+3+2)**

In this menu, user can display the setting value of Spot Beam.

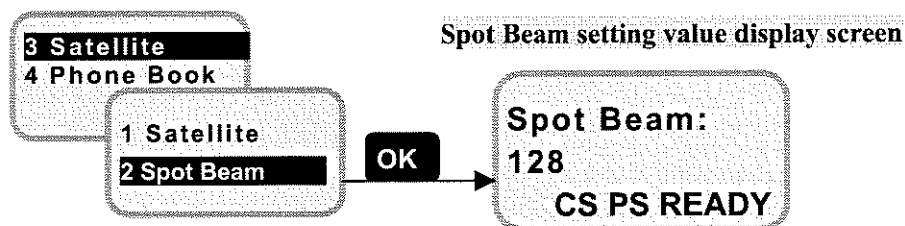


Fig. 8.3.2 Spot Beam setting value display screen

8.4 Phone Book (Speed dial) menu

(MENU+4)

In this menu, the user can display and edit the Phone Book. Refer to [5.1.2 Using Phone Book (Speed dial)](p42) about dial-up procedure.

Press **[Book icon]** button from [Idle screen], or select [4.Phone Book] from Top menu screen, then [Address display screen] is displayed. This screen displays abbreviated number and person's name.

Press **[*]** or **[#]** to display the full number. The screen is switched to [Telephone number display screen].

Press **[MENU]** button with [Address display screen] or [phone number display screen] opened, to register, change, or delete the data. The screen is changed to [Operation selecting screen](Press **[OK]** button at this step or off-hook the Handset, to go to [Dial-up screen]). However, Secret Code authentication screen is displayed prior to this screen, when you have not logged-in as ADMIN user. Enter the secret code to go to [Operation selecting screen], or press **[CLR]** key to cancel the job and return to the previous screen.

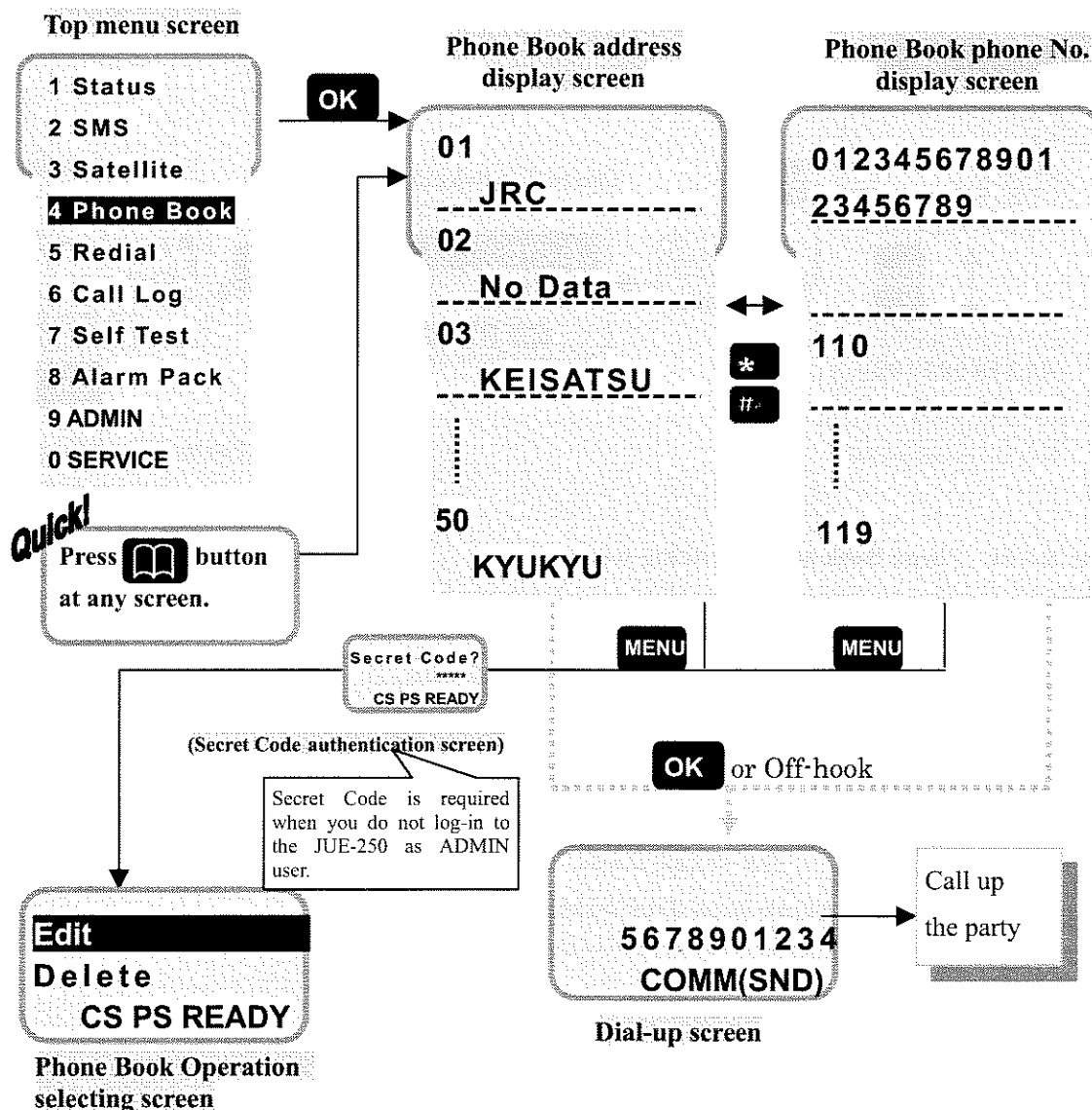


Fig. 8.4 Flow of Phone Book menu

8.4.1 Editing the Phone Book address**(MENU+4+MENU)**

In this menu, the user can register, change, and delete the address (name of party) and telephone number.

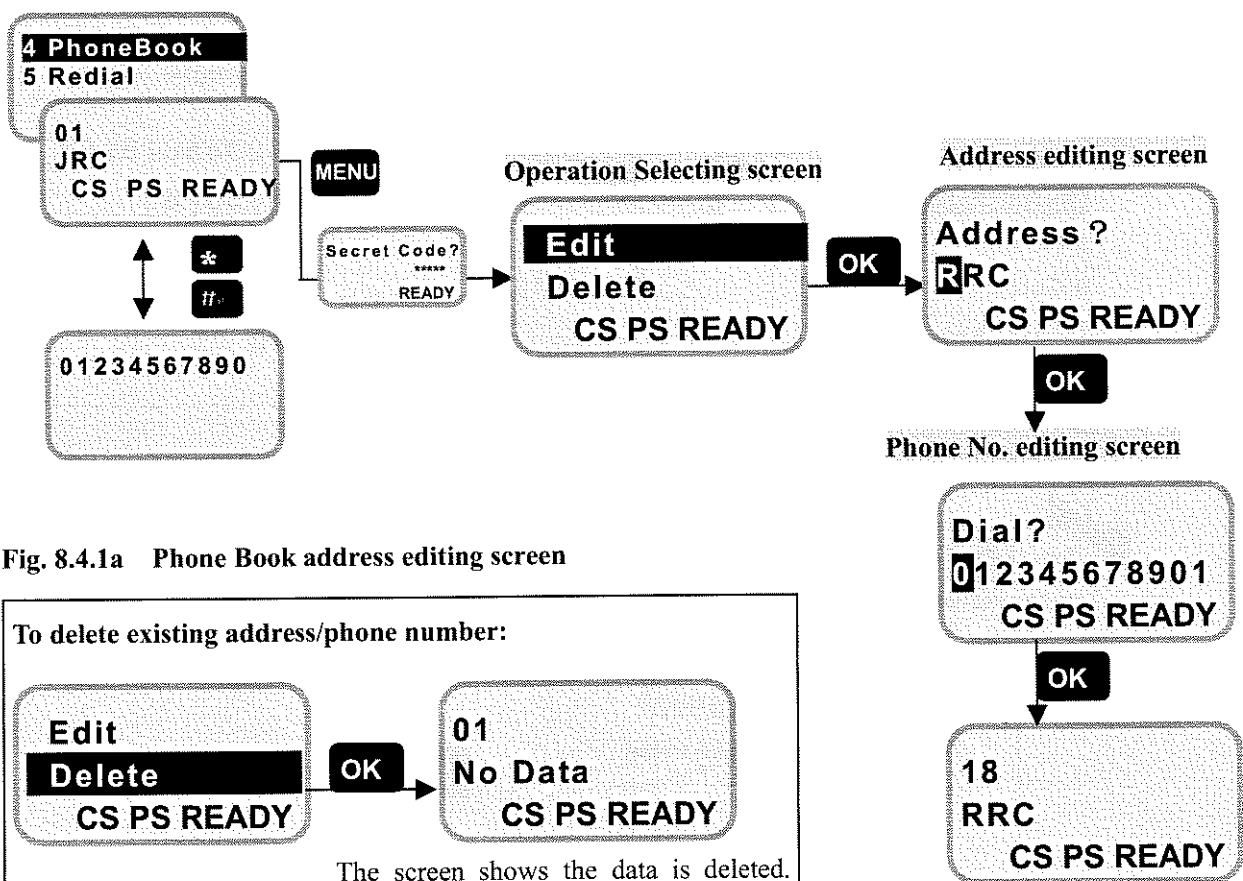
Press **MENU** button with the [Address display screen] or [Telephone number display screen] opened, then [Operation selecting screen] is displayed.

Select [Edit] and press **OK**, selected party is changed to [Address/Phone number editing screen]. The blinking cursor let you to enter the new address.

Enter the new address, press **OK** then enter the new number with alphanumeric buttons.

If [Delete] is selected, the data in the address is deleted instantly, and the screen is returned to [Address/Telephone number list display screen]. Only [No Data] is indicated for the address.

Example) Editing an existing address/ Phone number (blank address/phone number is displayed when data is filled in newly).



Overwritten screen is displayed.

8.5 Redial menu

(MENU+5)

In this menu, the user can display the Redial numbers up to 30.

First, [Redial history list screen] is displayed.

The screen displays Redial history number (01 to 30), and telephone number (if the number is longer than 10-digit, first several digits are not displayed).

To confirm the whole telephone number, press [*] or [#] to display [Redial history detailed screen]. The screen will show the full telephone number.

Scroll the screen with ▼▲ button to display the number dialed before and after.

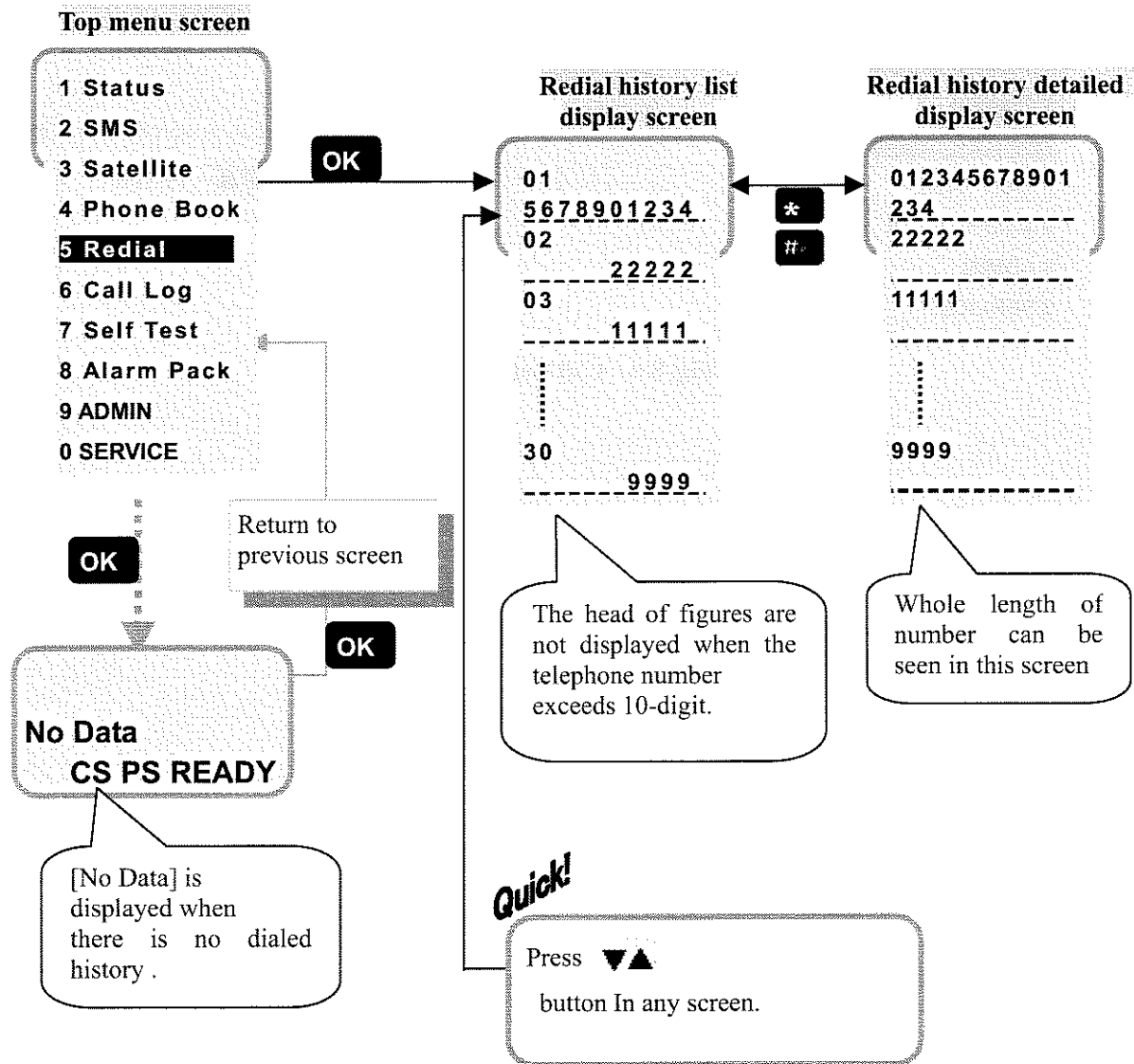


Fig. 8.5 Redial menu screen

8.6 Call Log (Communication history) menu**MENU+6+1~5**

In this menu, user can display the Call Log (Communication history) of respective communication type.

Call Log is displayed in 5 service types, VOICE, FAX, STANDARD, STREAMING, and SMS. They are divided into three kinds of screens, BOTH (send and receive), SND (send only), and RCV (receive only).

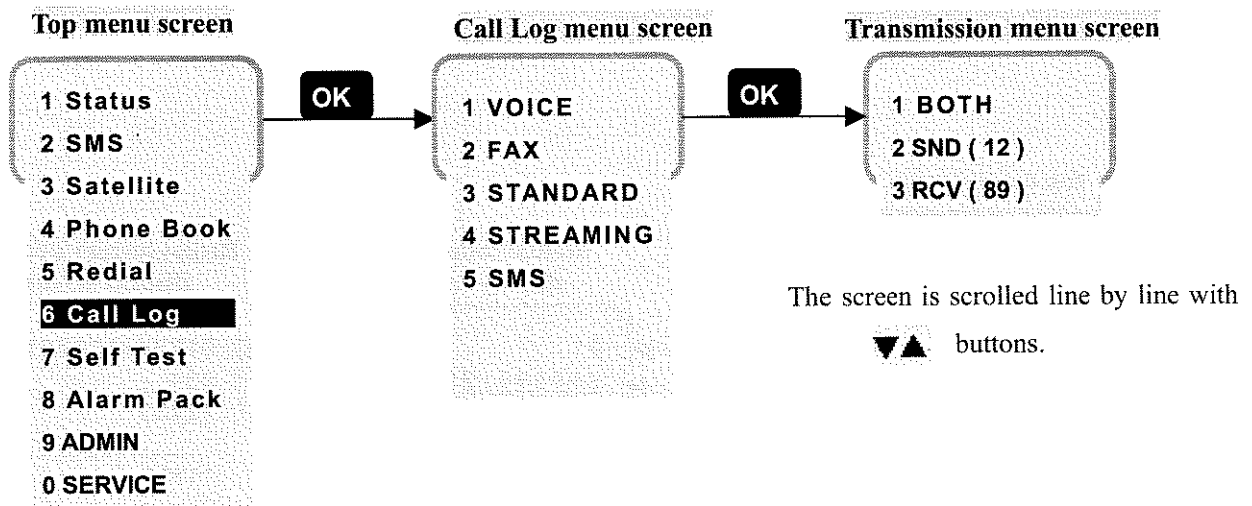


Fig. 8.6 Call Log menu screen

8.6.1 BOTH/SND/RCV list menu

(MENU)+6+1+1 to 3

In this menu, user can display the detailed information of selected communication log.

The seventh row indicates the duration for [VOICE], [FAX], and [STREAM] (e.g. [240m59s]:240 minutes 59 seconds). If [STANDARD] has been selected, total amount of transmitted and/or received data (e.g. [100MB]) is shown. If [SMS] has been selected, size of the message (e.g. [160B]) is shown.

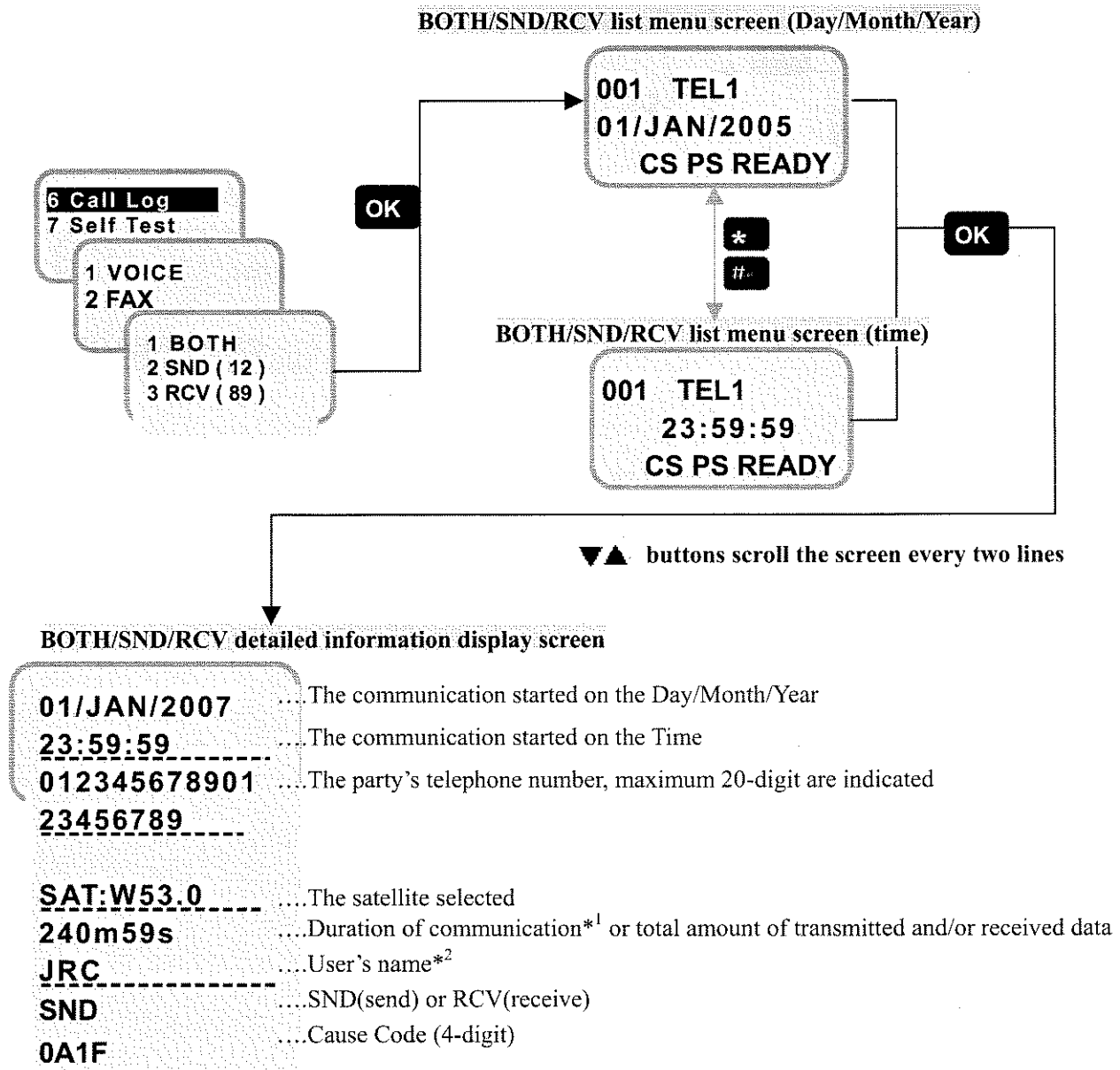


Fig. 8.6.1 BOTH/SND/RCV list menu

*¹ Displays duration of communication time for VOICE, FAX, STREAM(ING) service, total amount of transacted data for STANDARD communication, and size of the message of SMS.

*² Displays the user name who carried out Secret Code transmission.

8.6.2 Call Log authentication and deletion**(MENU+6+2+MENU)**

In this menu, ADMIN user can delete the Call-Log. To delete, ADMIN user must once press through [Call-Log authentication screen] entering secret code..

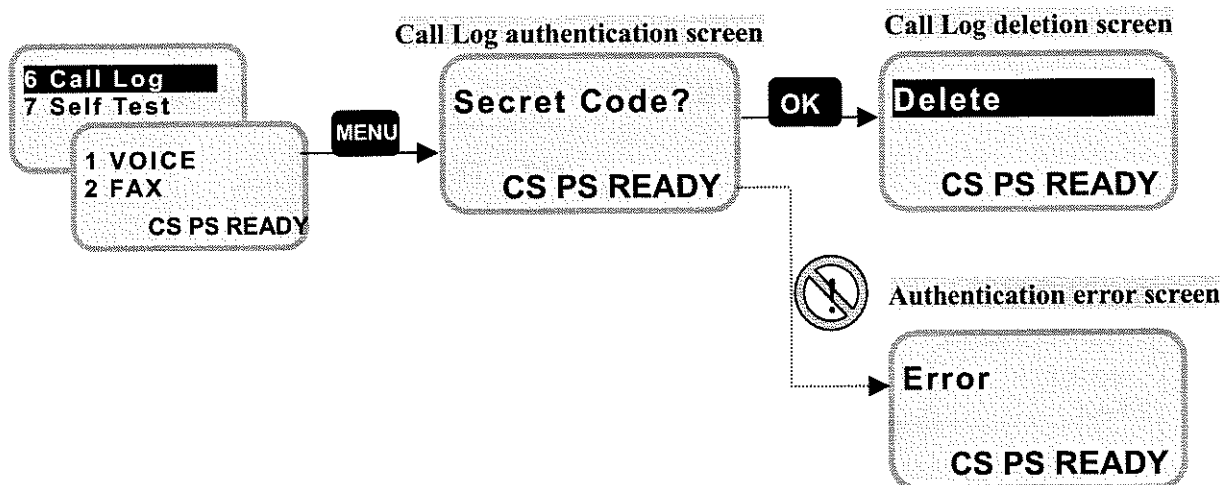


Fig. 8.6.2 Call Log authentication and deletion screen

8.7 Self Test menu

(MENU+7)

In this menu, user can display the results of Self Test, which diagnoses the communication status of ADE and Handset.

[GOOD] means the status is good, [FAIL] means communication with the unit is impossible for some reason.

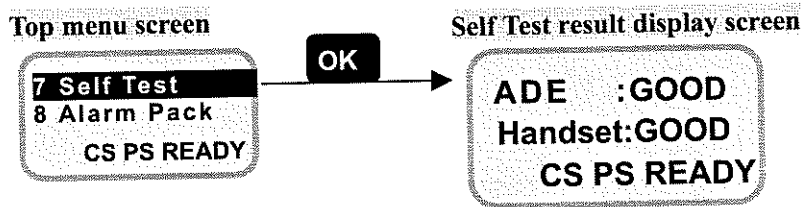


Fig. 8.7 Self Test menu screen

8.8 Alarm Pack menu

(MENU+8)

In this menu, user can display the latest 10 alarms.

Select [Alarm Pack] from Top menu screen and press **OK** button, then [Alarm history view menu screen] (Displays the Day/Month/Year) is displayed. It displays from the latest one.

To confirm the more detailed time, [Alarm history detailed menu] (displays recorded Hour/Minute/Second of each alarm) is displayed with the ***** or **#** button pressed.

In both screens, select the preferred number and press **OK** button with selecting history number by cursor.

Then [Unit selection menu] screen is displayed with the ***** placed on the device where alarm had occurred. Select the device then press **OK** button.

Then [alarm display screen] of respective unit is displayed.

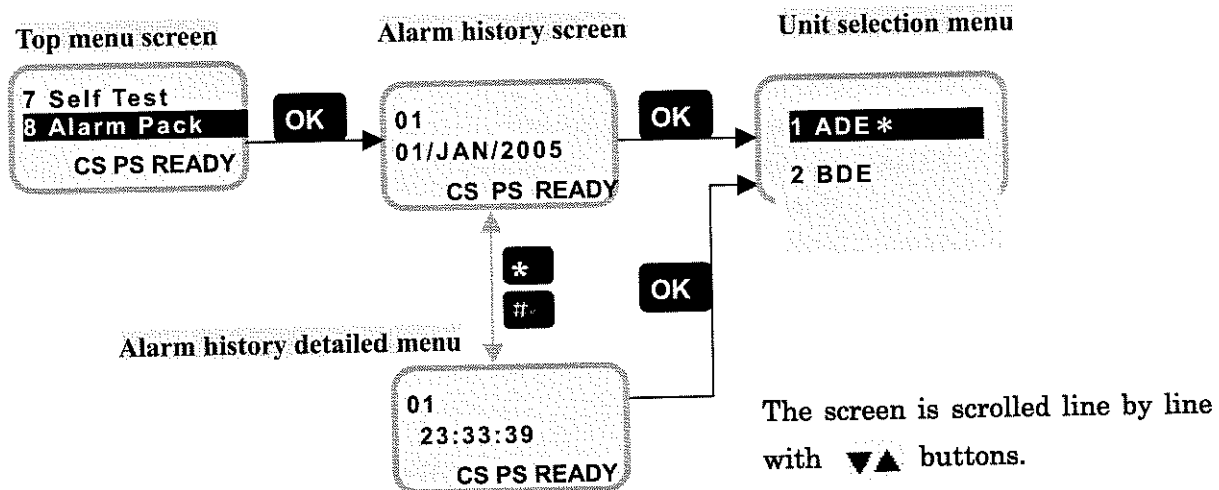


Fig. 8.8 Alarm Pack menu screen

8.8.1 Unit selection menu for Alarm Pack

(MENU+8+1)

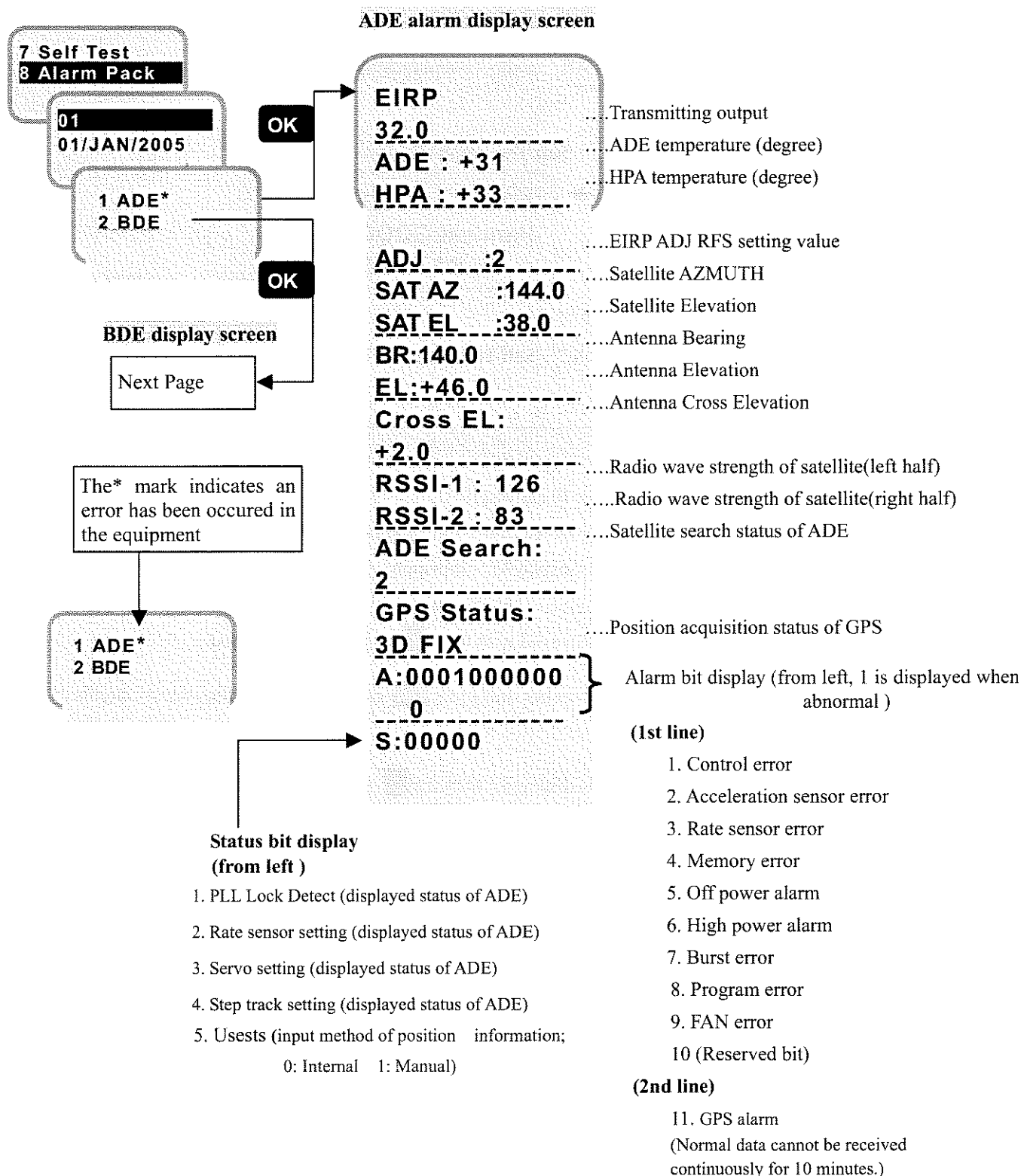


Fig. 8.8.1a Unit selection menu for Alarm Pack (ADE)

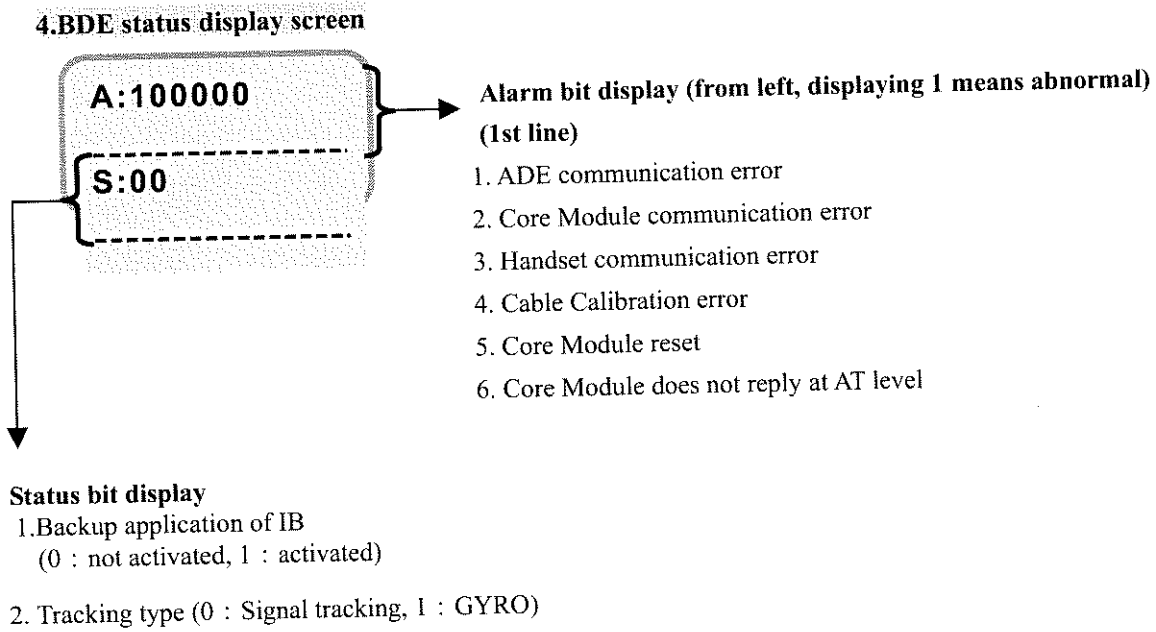


Fig. 8.8.1b Unit selection menu for Alarm Pack (BDE)

8.9 ADMIN menu

MENU+9

[ADMIN menu] which displays all menus for sets up status of the JUE-250.

Select [9 ADMIN menu] from [Top menu], and display each menu screen.

Identification screen is opened when user without ADMIN authority enters in this menu.

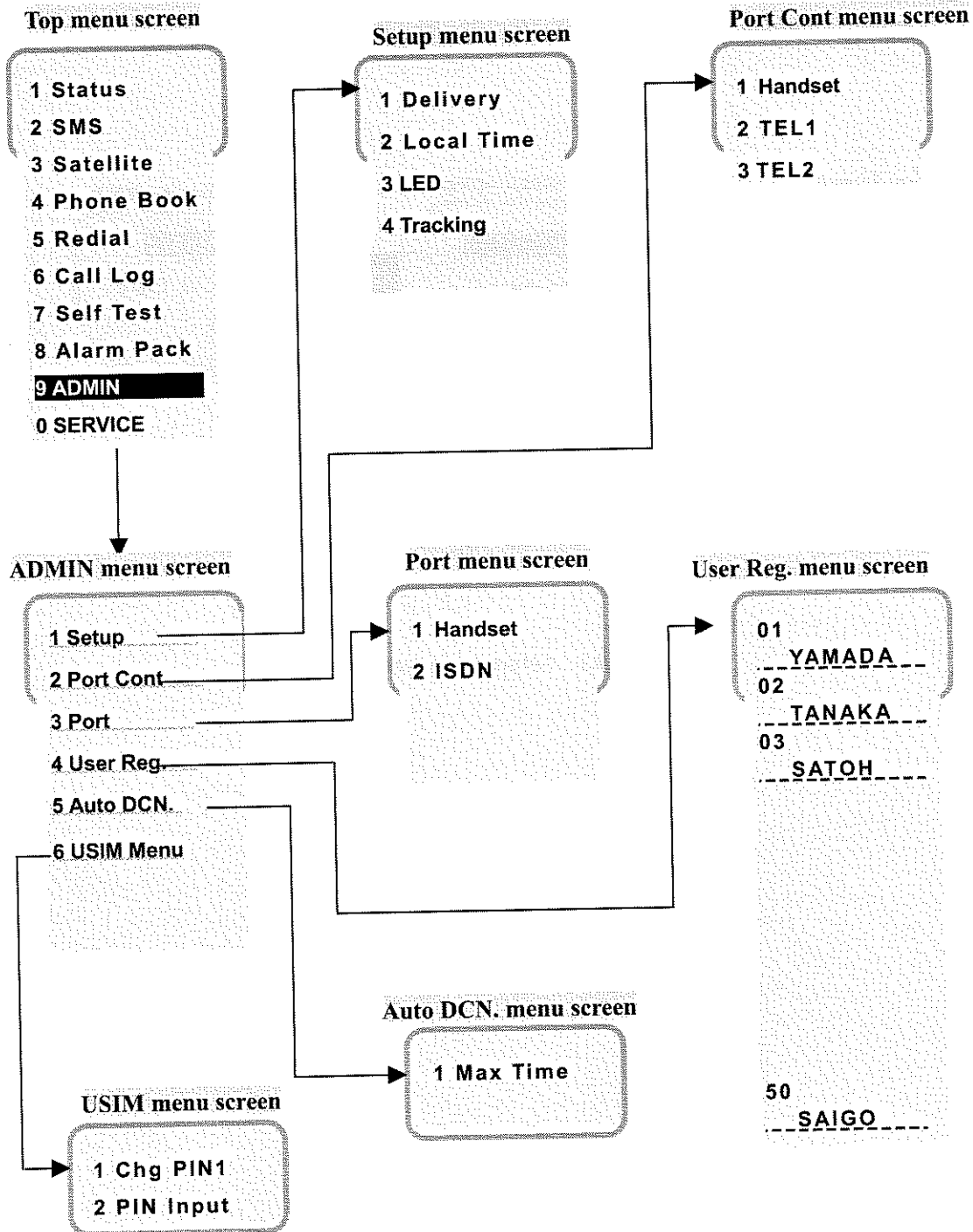


Fig. 8.9 Flow of ADMIN menu

8.9.1 Setup menu**(MENU+9+1)**

[Set up menu] consists of;

- 1 **Delivery:** Delivery date of the JUE-250
- 2 **Local Time:** Time difference between Local time and Universal time
- 3 **LED:** Setting of Brightness level of main unit LEDs
- 4 **Tracking:** Selecting tracking system, AUTO (signal tracking) or GYRO tracking

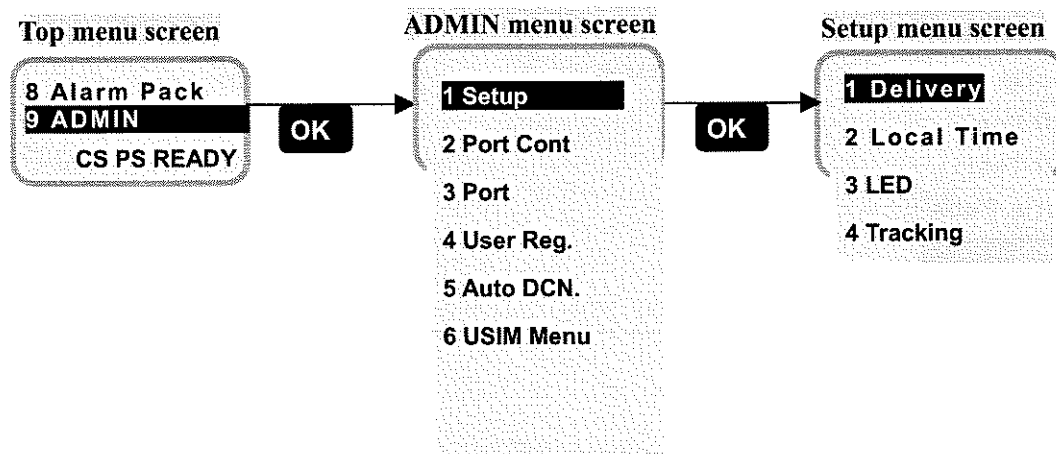


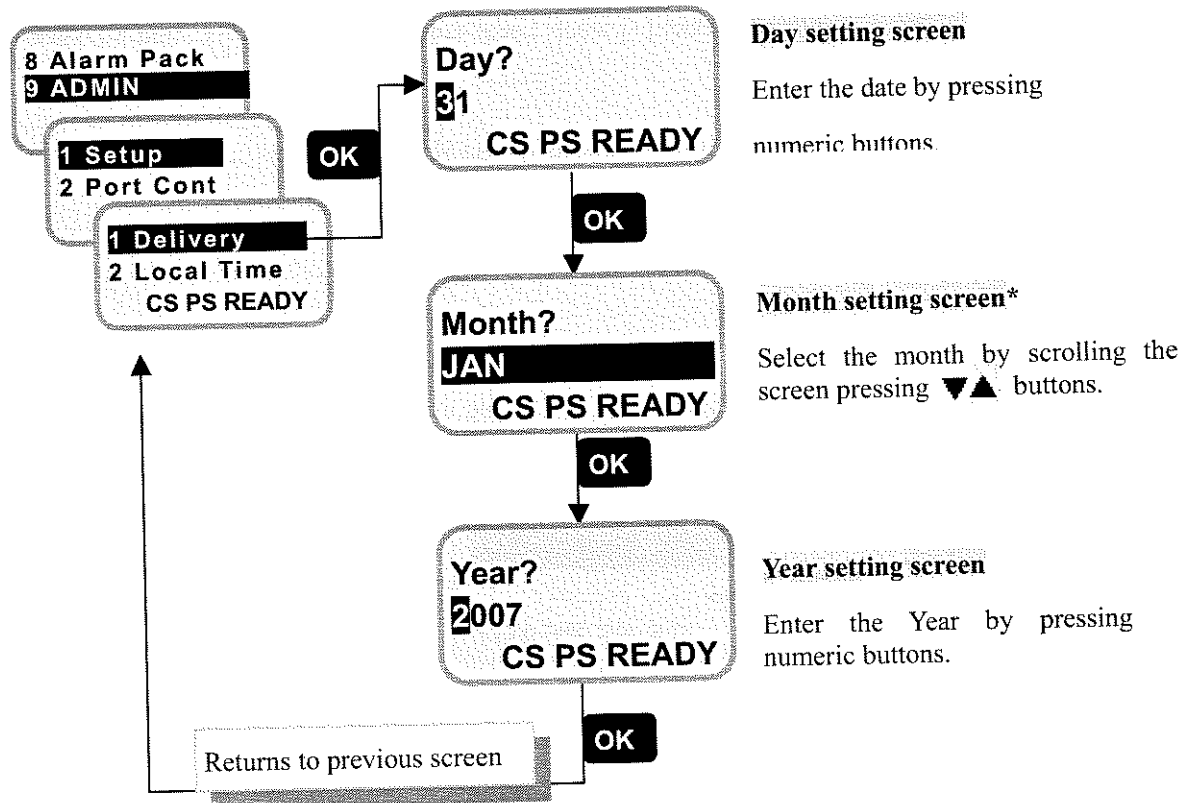
Fig. 8.9.1 Setup menu screen

8.9.1.1 Delivery setting

(MENU+9+1+1)

In this menu, the user can set up the delivery date of the JUE-250.

Select [1.Delivery] from Setup menu to display setting screens in order of Day, Month, and Year.



Screen display moves line by line with ▼▲ buttons.

Fig. 8.9.1.1 Delivery menu screens

* ▲ button displays Months in the order of [DEC-NOV-OCT-...] and the ▼ button reverses the order.

Delivery date does not only record the day when the JUE-250 was installed and communication commenced, but it helps to determine the guarantee term etc.

Accurate setting is recommended.

8.9.1.2 Local Time setting**(MENU+9+1+2)**

In this menu, the user can set up the time differences between UTC (Universal Time Coordinated) and Local time.

To display screens, select [2. Local Time] from [1.Setup].

First, \pm setting screen is displayed. Select [+] when Local time is faster than UTC, and [-] when it is slower. Then press **OK** button.

Next, enter the time difference in [Time difference setting screen] by hours /minutes, with numeric buttons.

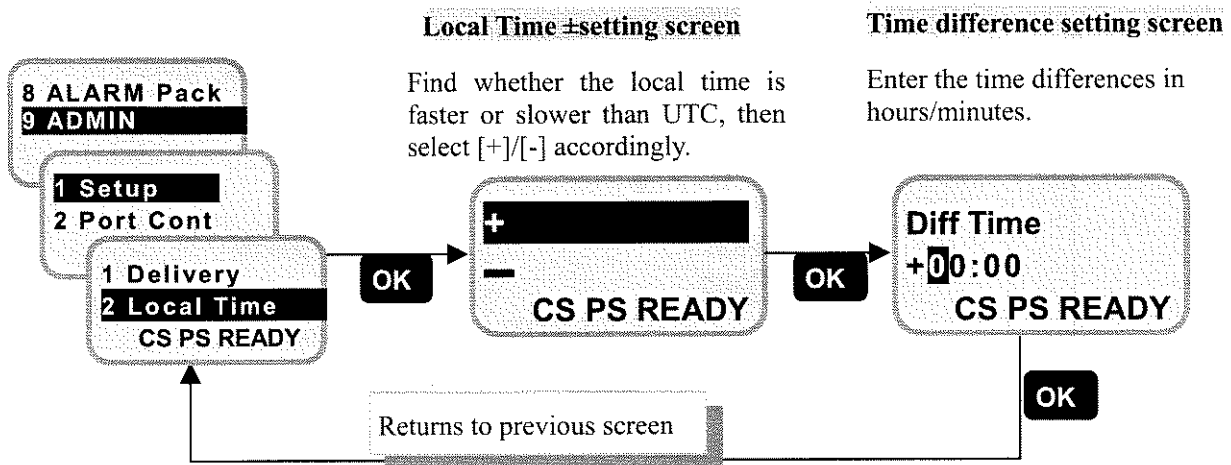


Fig. 8.1.9.1.2a Local Time menu screen

Example) Changing the display of Idle screen from UTC(14:03) to LT(23:03).

(Enter time difference +9hour)

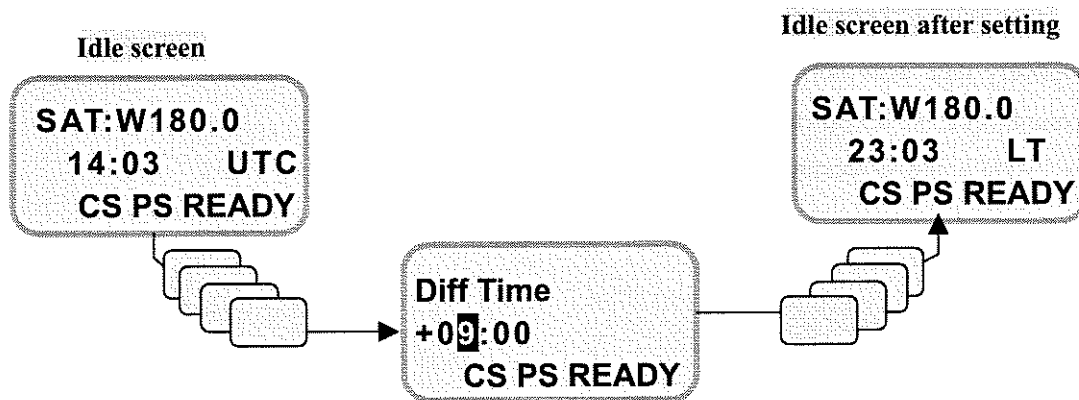


Fig.8.9.1.2b Example of setting Local Time

8.9.1.3 LED setting

(MENU+9+1+3)

In this menu, the user can set the ON/OFF of LEDs on main unit.

Select [3. LED] from [Setup menu]. Then present setting is displayed on [LED menu setting screen].

To change the setting select ON or OFF by ▼▲ buttons and press **OK**.

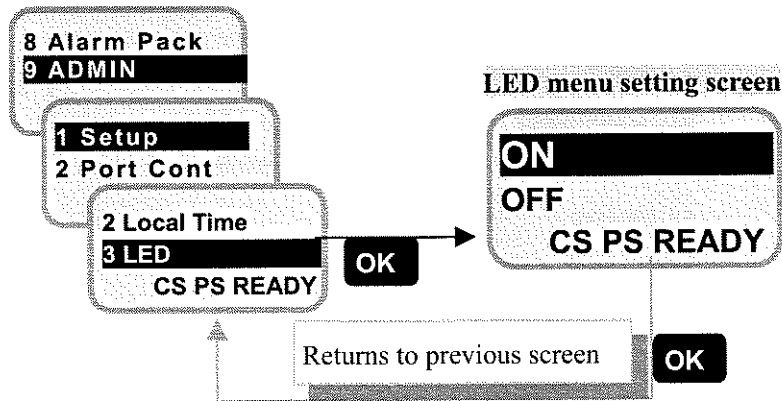


Fig. 8.9.1.3 LED Setting screen

8.9.1.4 Tracking setting

(MENU+9+1+4)

In this menu, user can set the tracking system from [AUTO] (signal tracking) or [GYRO].

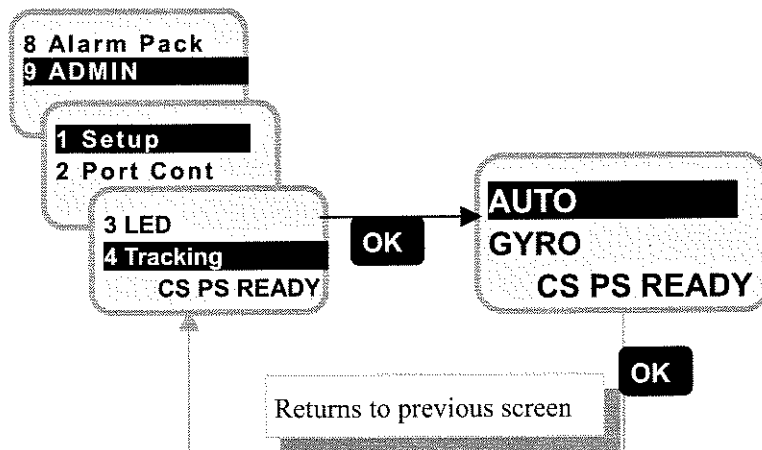


Fig. 8.9.1.4 Tracking Setting screen

8.9.2 Port Cont menu**(MENU+9+2)**

In this menu, the user can set the use/non-use of Secret Code(On or Off), change voice volume (Normal or High) at the all port, and select service type (Voice or FAX) at the TEL1/TEL2 port.

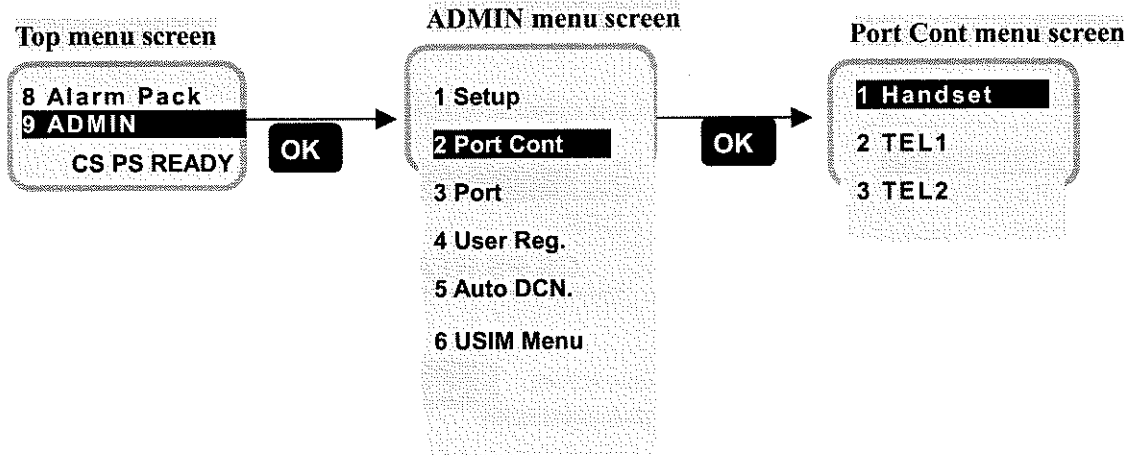


Fig. 8.9.2 Port Cont menu screen

8.9.2.1 Port Cont setting item selection menu

(MENU+9+2+1 to 3)

In this menu, user can select setting items (on/off of using Secret code, voice volume, and service type).

Setting item of [Secret (code)] and [Volume] are common to each port, but [Type] (service type) is only available on TEL1/2 port.

Select the service type to TEL1/2 port, following the connection you want to set.

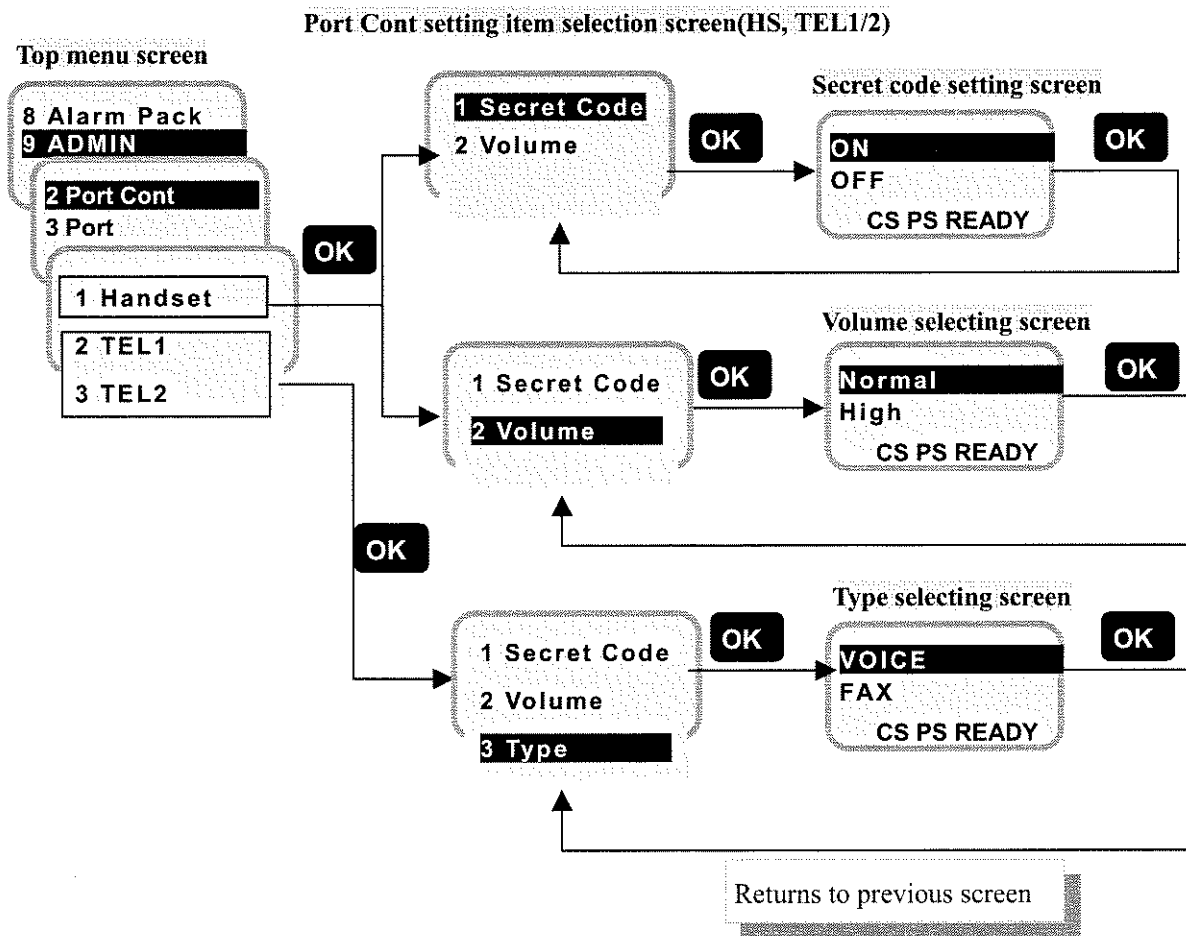


Fig. 8.9.2.1 Flow of Port Cont setting item selection menu

8.9.3 Port menu**(MENU+9+3)**

In this menu, the user can change brightness of screen (backlight)/LEDs, pattern/volume of ringer tone, voice volume, and on/off of key click sound of Handset.

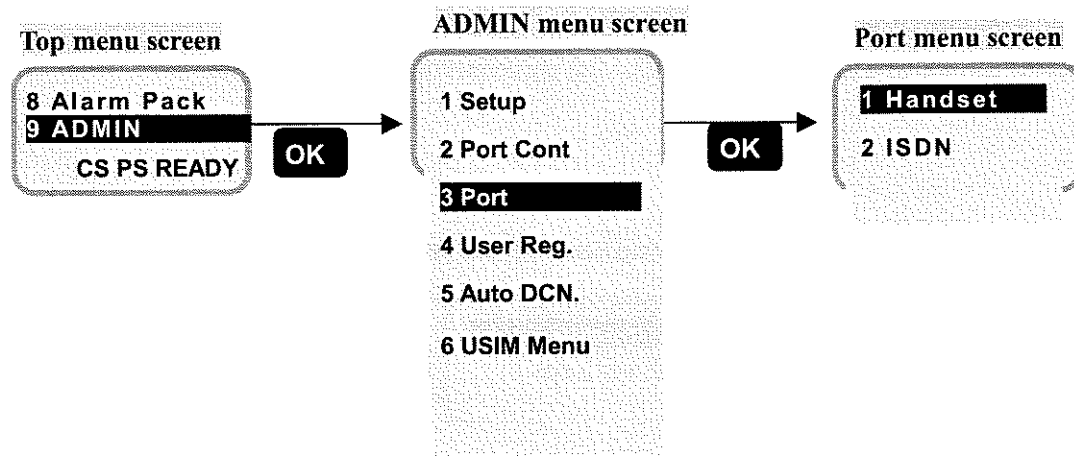


Fig. 8.9.3 Port menu screen

8.9.3.1 Port setting item selection menu

(MENU+9+3+1 to 2)

In this menu, the user can select setting item of Handset (brightness of screen backlight /LEDs, and volume /pattern of ringer tone, voice volume, and Multiple Subscriber Number. of Voice/Audio).

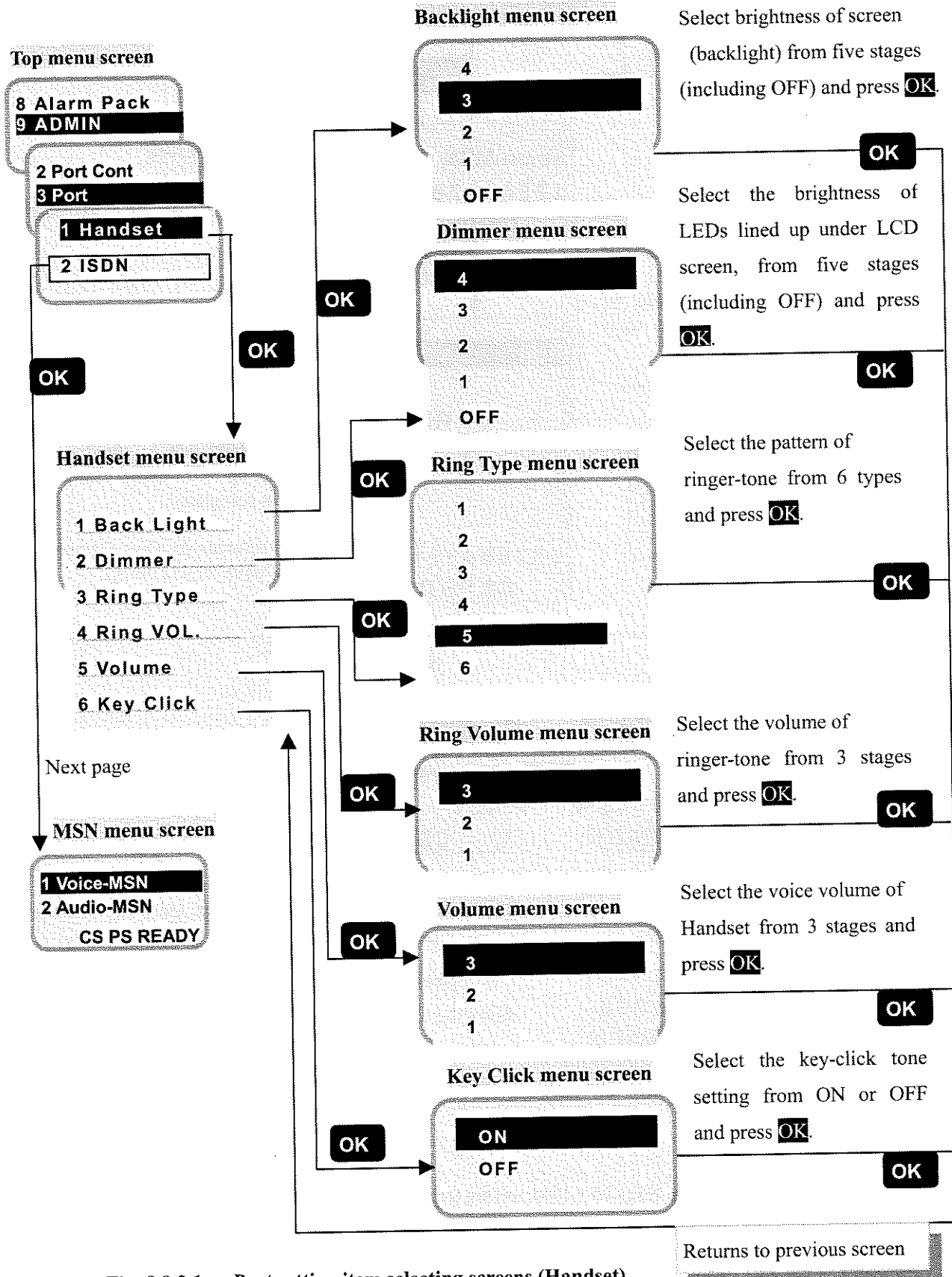


Fig. 8.9.3.1a Port setting item selecting screens (Handset)

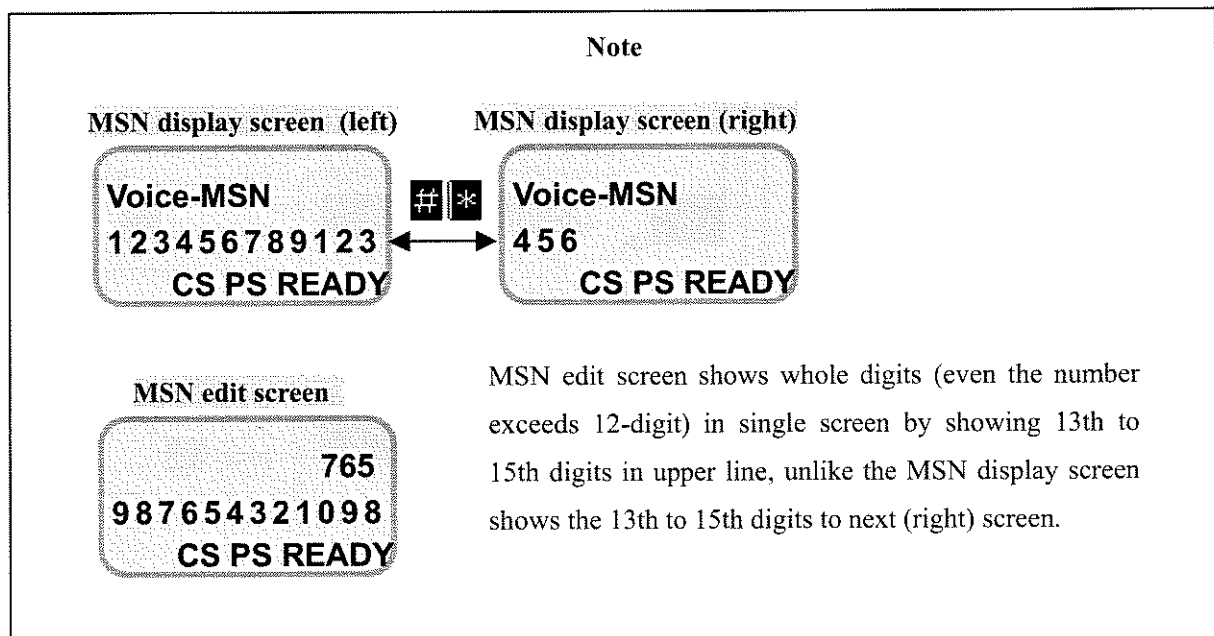
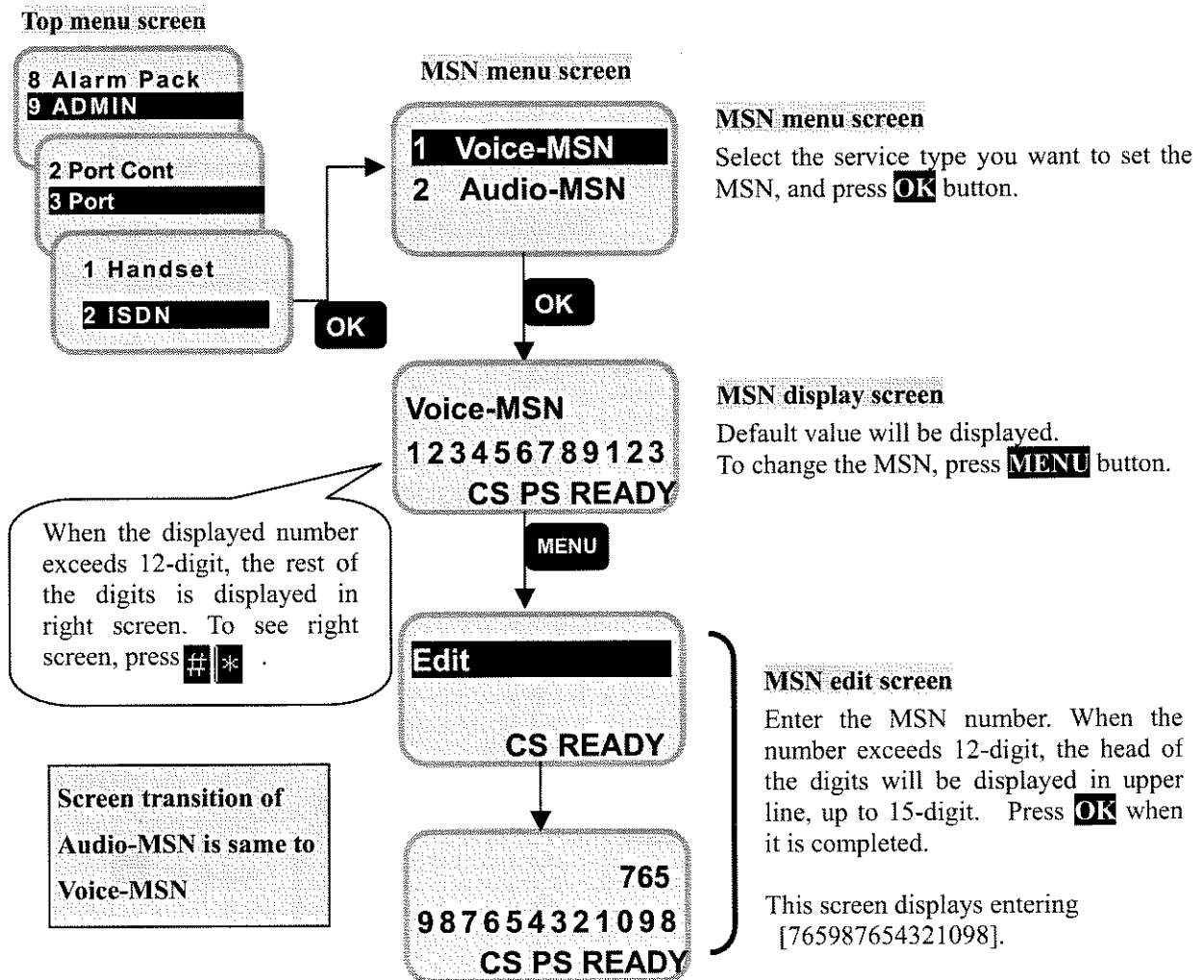


Fig. 8.9.3.1b Port setting item selecting screens (ISDN)

8.9.4 User Reg. menu

(MENU+9+4)

In this menu, the user can register User name and Secret Code.

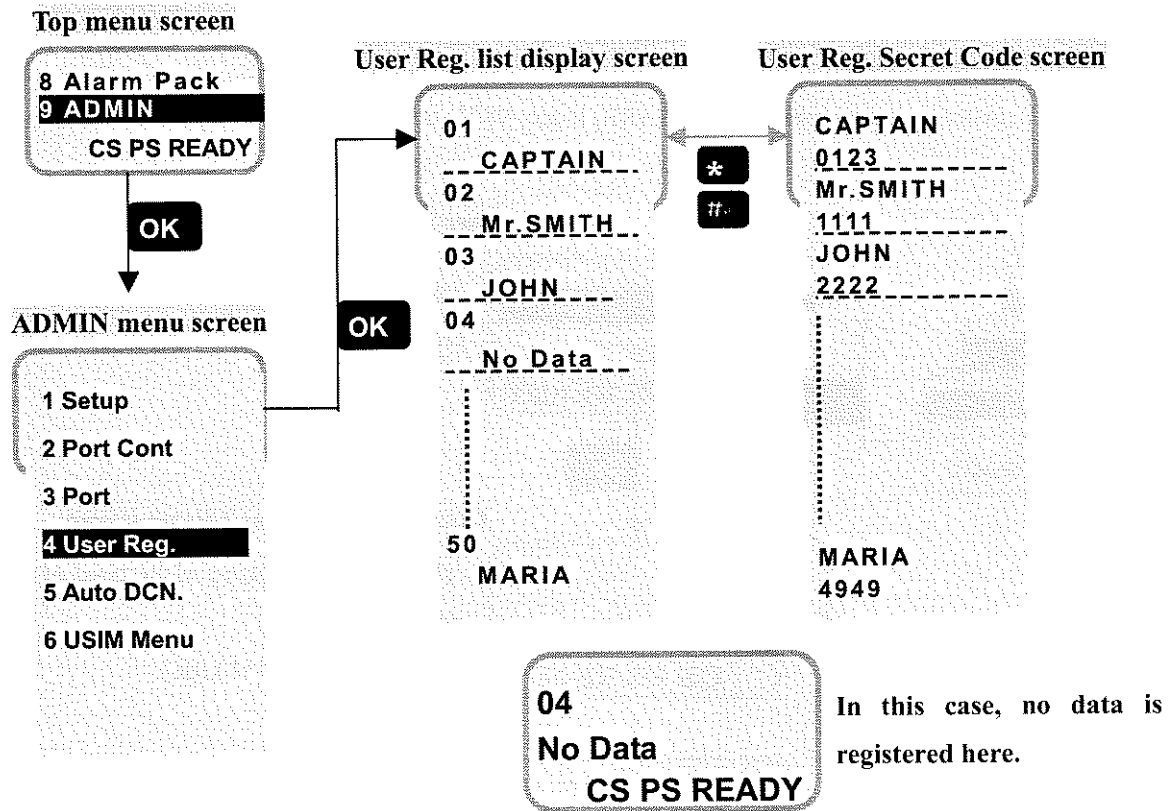


Fig. 8.9.4a User Reg. menu screen transition

Usually, ADMIN user is registered in No.01, and Guest users on No.02 and after.

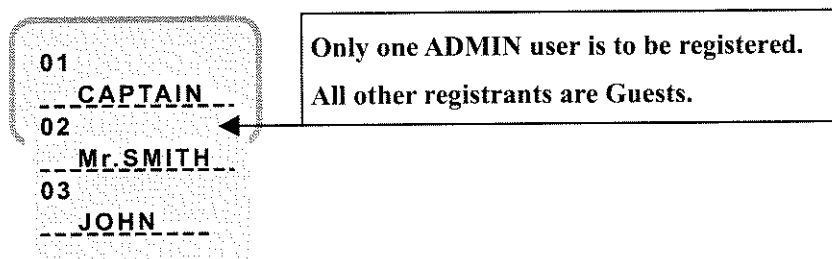


Fig. 8.9.4b Example of ADMIN and GUEST user registration

8.9.4.1 User Reg. operation selecting menu

(MENU+9+4)

To register, edit, and delete the User name or Secret Code, press **MENU** with [User Reg. menu list screen] or [Secret Code list display screen] displayed (enter 4-digit Secret Code).

[Registering new user]

Example) Registering a new user (Name: MARK, Code: 9871) on No.02.

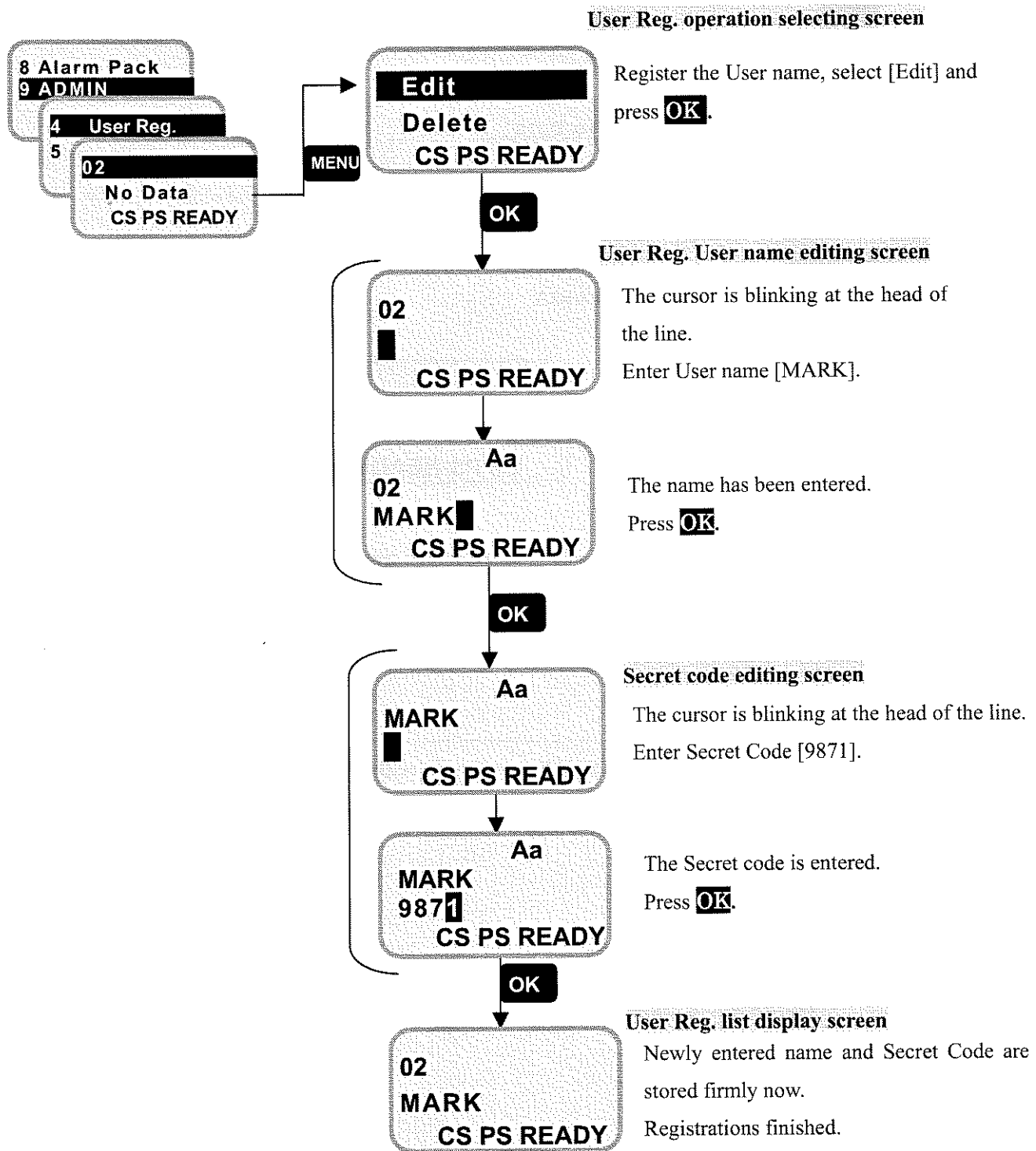


Fig. 8.9.4.1a Flow of User Reg. operation selecting menu

[Edit User name and/or Secret Code]

Even when either the User name only or the Secret Code only is to be changed, both of the edit screens are displayed.

On the edit screen where change is not necessary, just press **OK** button and go to the next screen.

Example) Changing the Secret Code of MARK (No.02), from 9871 to 8765.

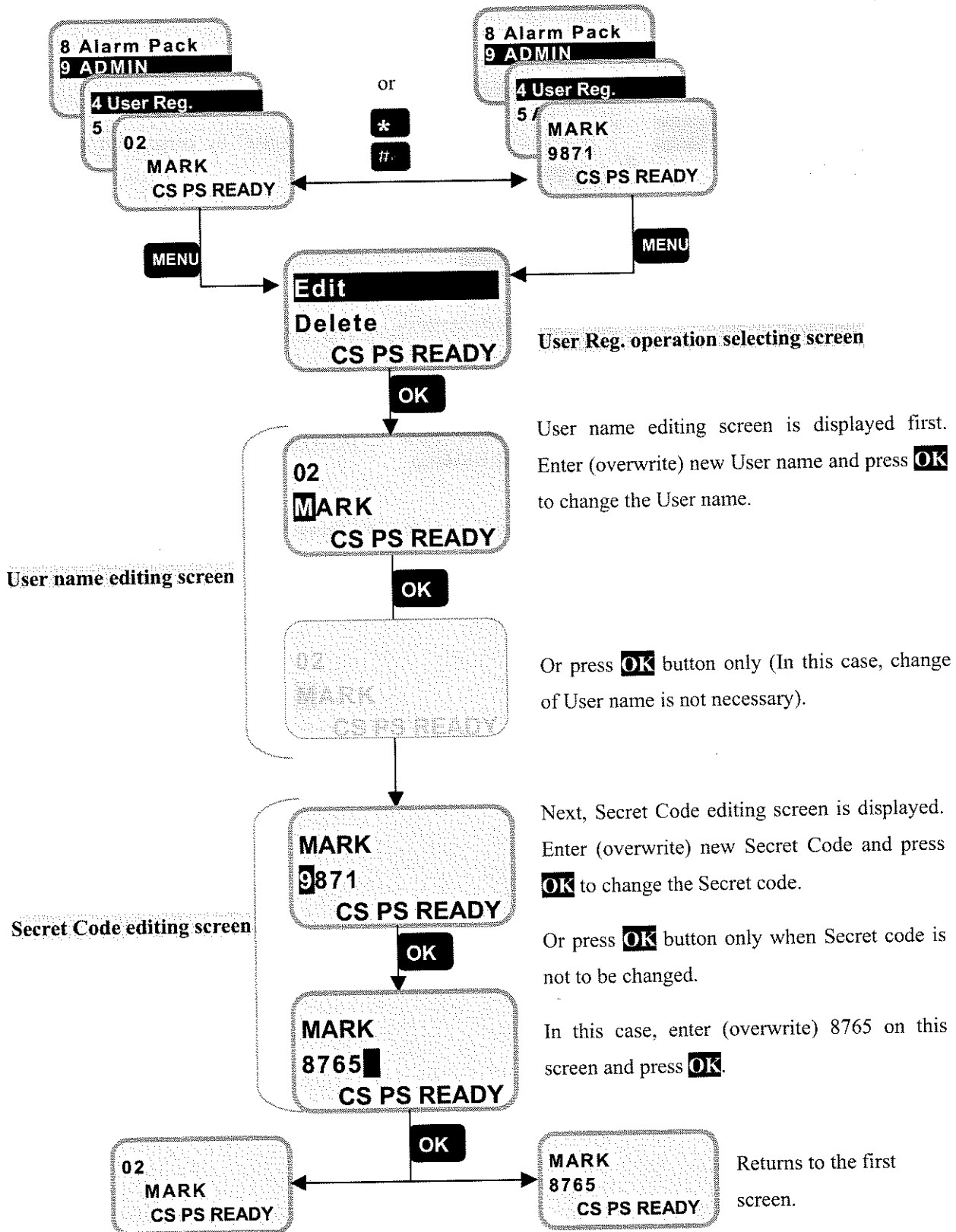


Fig. 8.9.4.1b Overwriting procedure of User name and Secret Code

[Deleting User name and Secret Code]

Example) Deleteing the data of No.02

Press **MENU** with the User Reg. list displayed.

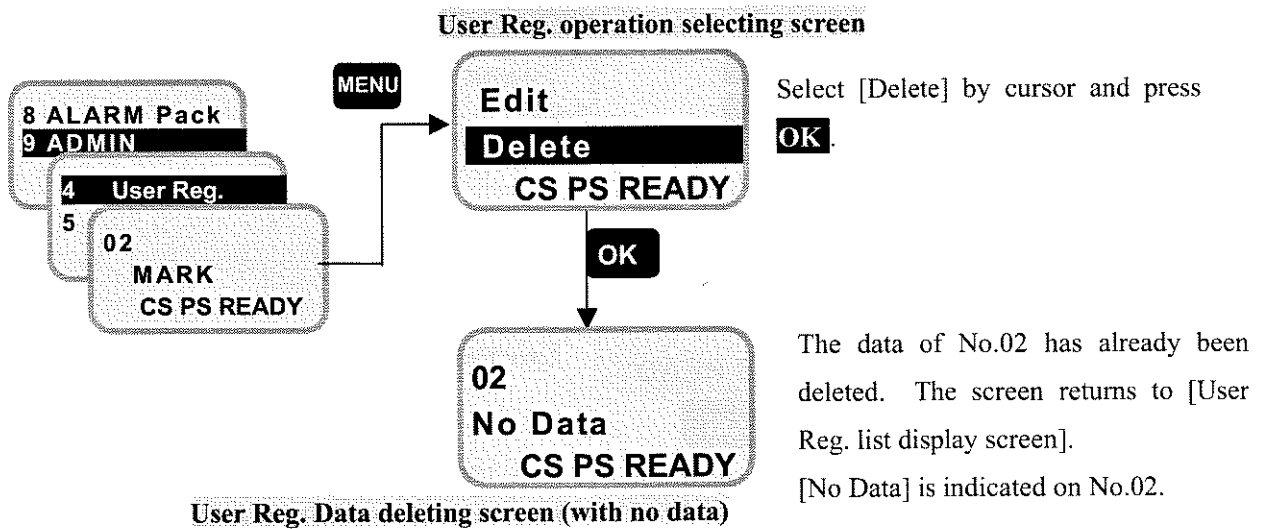


Fig. 8.9.4.1c Deleting User name and Secret Code

[Note] Beware that once the data is deleted, it won't be recovered again.

8.9.5 Auto DCN.(Auto disconnection) menu

(MENU+9+5)

In this menu, the user can set the limit of connection time (Max Time).

Select [5. Auto DCN.] menu from [ADMIN] menu.

Setting Max Time (Max Connecting time) is useful to prevent the user from accidentally forgetting to disconnect the line. Max Time can be set on respective terminal equipment.

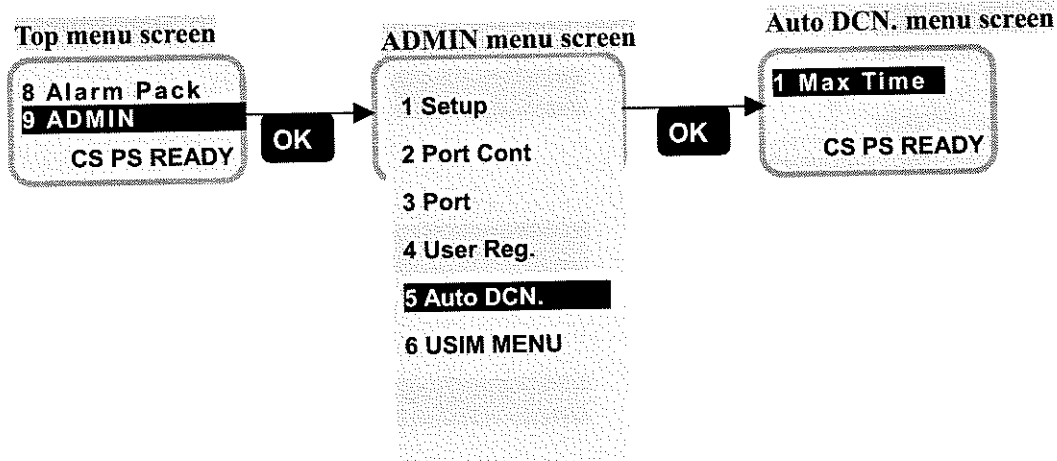


Fig. 8.9.5 Sequence of opening Auto DCN. menu screen

8.9.5.1 Max Time menu

(MENU+9+5+1 to 6)

Setting screen of Max Time (connecting time limit) is displayed when service type is set at [Max Time menu] screen. Time unit is minute. Enter 1 to 3-digit number and then press **OK**. Then the screen returns to previous one.

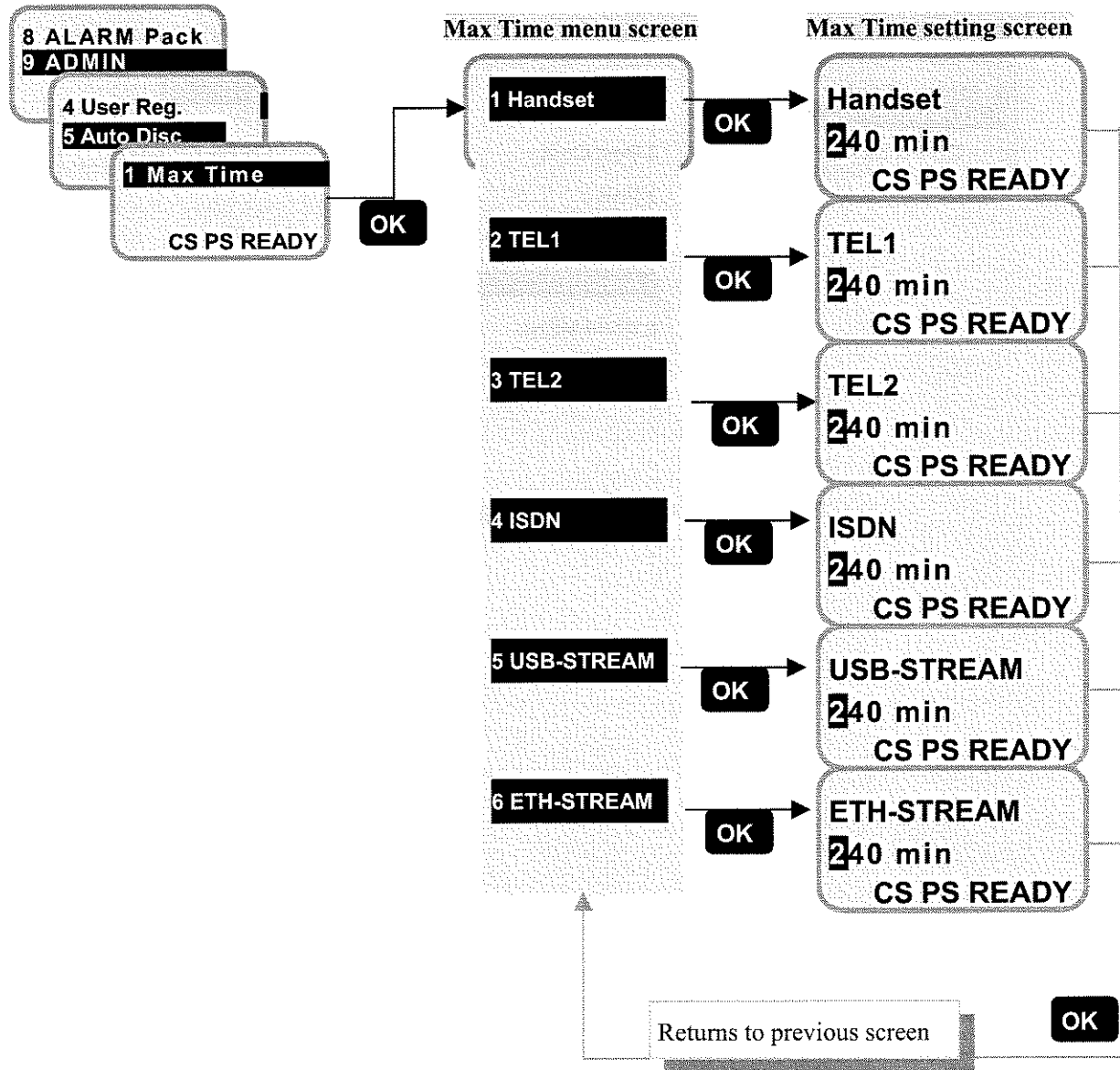


Fig. 8.9.5.1 Max Time menu screen and Max Time setting screen

Set "0min." on above setting screen when unlimited connection is required.

8.9.6 USIM Menu

(MENU+9+6)

In this menu, the user can set up the items of USIM card.

The screen is displayed when [6 USIM Menu] is selected from ADMIN menu.

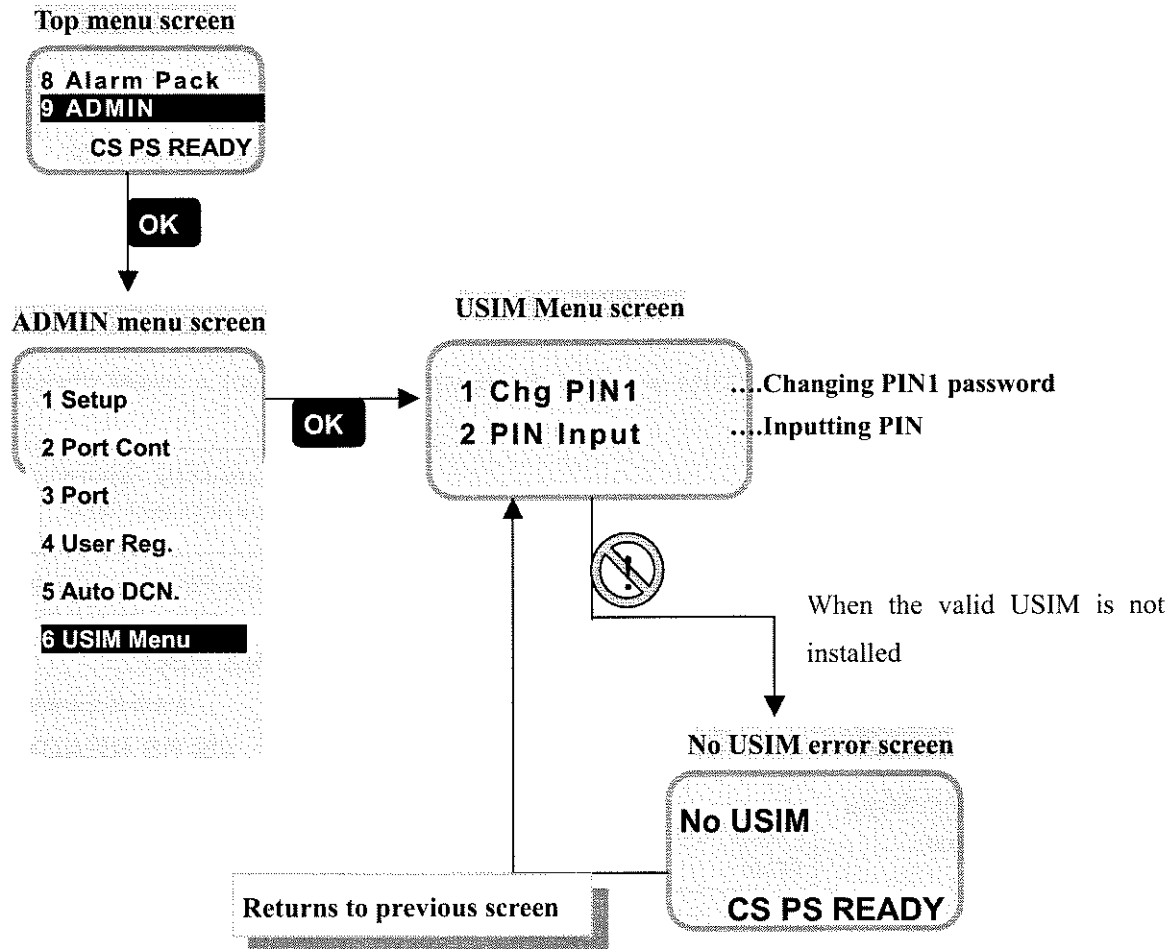


Fig. 8.9.6 USIM menu screen and No USIM error screen

8.9.6.1 Chg PIN1 menu

MENU + **9** + **6** + **1**)

In this menu, the user can change the PIN1 which is used for USIM card operation.

First, enter the original 4 to 8-digit PIN to [PIN1 authentication screen].

Entered figures are hidden by * * * * *

Then [New PIN1 input screen] will be displayed. Enter the new PIN1 and press **OK**.

Then the menu prompts reenter the new PIN1. Enter the new PIN1 again and press **OK**.

It returns to [USIM Menu screen] when the new PIN1 is accepted.

If the count of input failure reaches three, [USIM PUK1] screen is displayed to renew PIN.

Enter 8-digit USIM PUK1 you have gotten from card company when you purchased the USIM card and press **OK**.

When entered USIM PUK1 is incorrect, screen returns to [USIM PUK1 authentication] screen after Retype PIN1 is entered into [USIM new PIN1 retype screen]. USIM card is invalid when this count of input failure reaches 10.

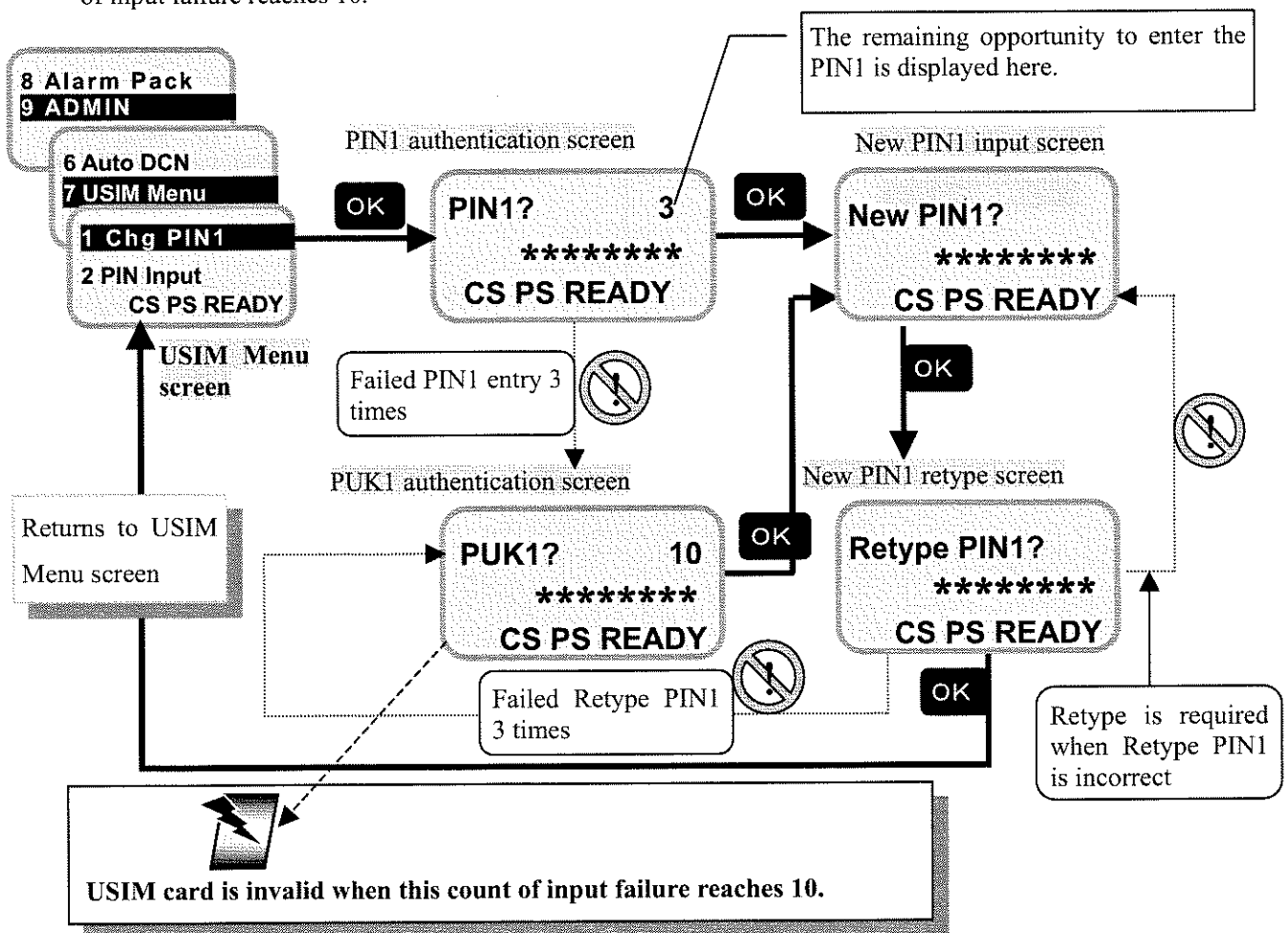


Fig. 8.9.6.1 Flow of Chg PIN1 menu

8.9.6.2 PIN Input setting

(MENU+9+6+2)

In this menu, the user can set enable/disable of PIN entry.

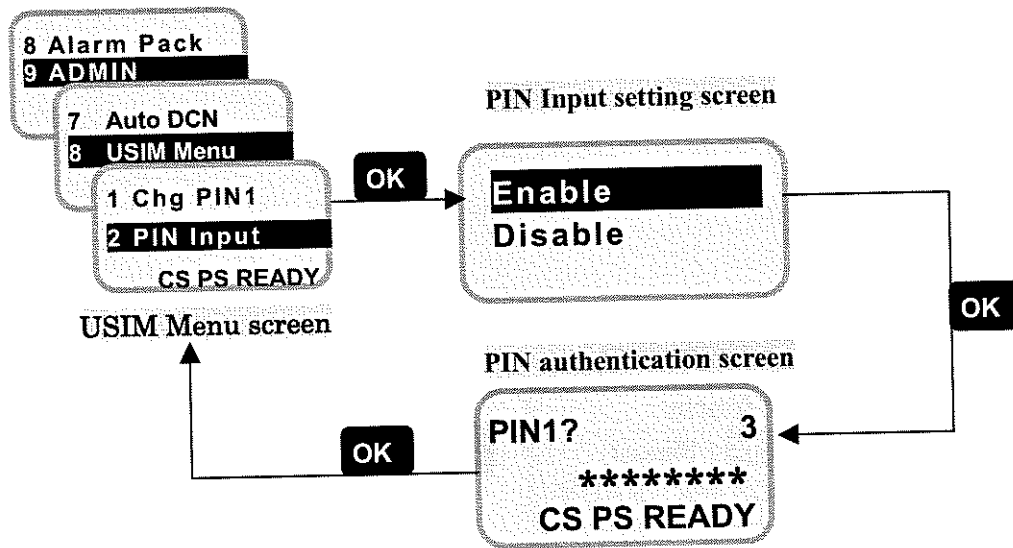


Fig. 8.9.6.2 PIN Input setting screen

PIN1 input is requested again to operate with USIM card, when the power switch is turned OFF and ON, if [Enable] is selected at [PIN1 input setting screen].

PIN input is not necessary to operate with USIM card, when power switch is turned OFF and ON, if [Disable] is selected at [PIN1 input setting screen].

* If incorrect PIN1 is entered 3 times, the screen turns to [PUK1 authentication screen](refer to previous page, [8.9.6.1. Chg PIN1 menu]). And if incorrect PUK1 is entered 10 times, the USIM card becomes invalid.

8.10 Other screen**(Short cut is not available)**

This screen is displayed when a fault is detected.

TX alarm screen

The screen pops up when TX alarm (the transmission stopped because of a trouble in transmitting system) is raised.

Press **OK** to reset the alarm, the screen returns to [Idle screen].

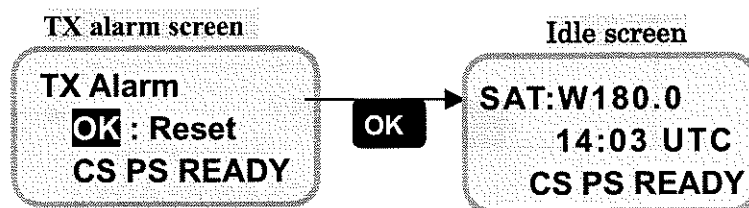


Fig.8.10.1 TX alarm screen


9. Maintenance

The life of the JUE-250 depends on how well the equipment is maintained. Check the following items from time to time to ensure the best performance of your JUE-250.


- 1) Keep the input voltage within the specified range (+19VDC to +31VDC).
- 2) When the equipment is in good order, at times record the transmitting power (EIRP) and the receiving level (REC). During the operation, compare the EIRP and REC level with the recorded normal values. This deed helps you to locate a fault before it develops into a serious one.

9.1 Daily maintenance


The following table shows daily maintenance items using general tools.



WARNING



Do not troubleshoot or repair the internal equipment of the JUE-250 by yourself. Any electrical work by any person other than our trained maintenance staff may cause fire or abnormal operation of this equipment or electrical shock for you. This equipment meets the technical standard of the Ministry of Internal affairs and Communications.



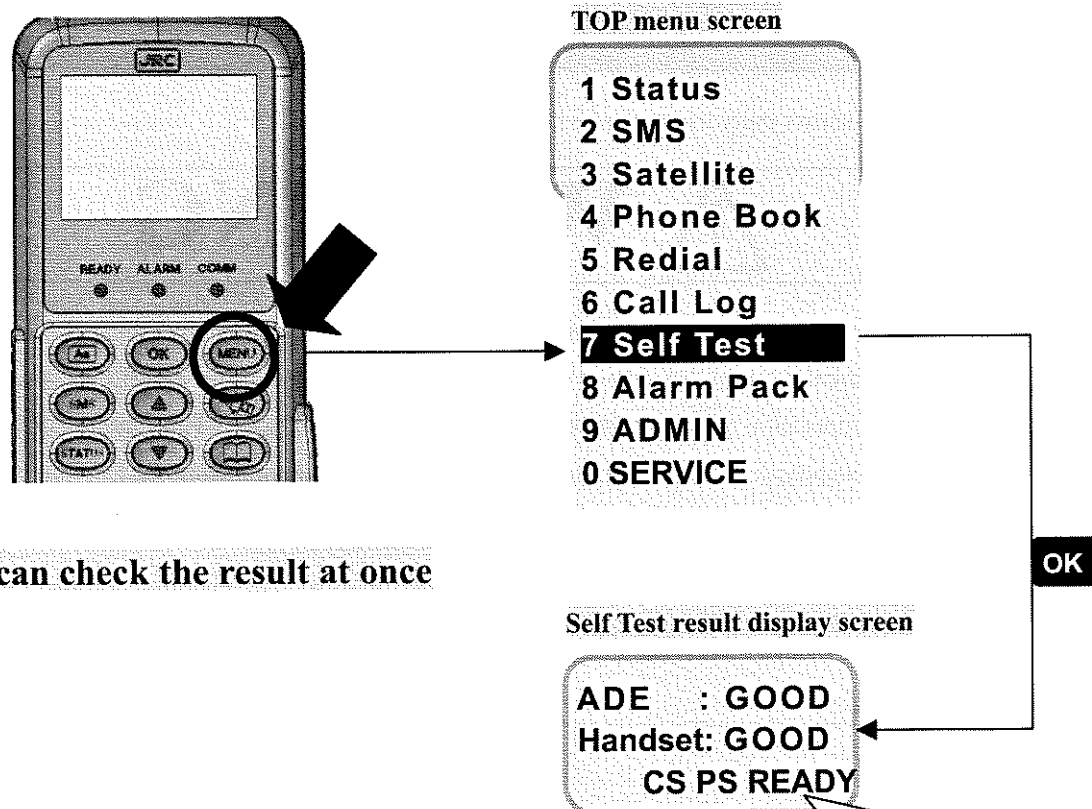
Do not adjust the internal circuit without a calibrated measuring instrument or exchange the parts because the internal circuit has been adjusted finely to specifications. If the equipment works abnormally, please contact the dealer, JRC agent, or one of the JRC branches.

Table 9.1 Daily maintenance

No.	Item	Maintenance
1	Cleaning	Clean the panel, knob, switch, top cover, and the button cover with a soft cloth. No lubricant is required for gears of the antenna pedestal because these gears are designed to work without additional lubrication.
2	Fastening	Fasten the loose screw, nut, knob, switch, and the connector.

9.2 Self Test

The JUE-250 has a self-diagnosis function (Self Test) to check the internal circuitry.
 The result of Self Test can be browsed on the Handset.
 Procedure for displaying Self Test screen is as follows.

Start the Self Test

You can check the result at once

(This sequence is the same as [8.7 Self Test Menu].)

[GOOD] means no problem,
 [FAIL] means your JUE-250
 has some problem.

Turn off and on the main unit when [FAIL] is displayed, and retry the Self test. In case [FAIL] is displayed on the Result column again, stop using the JUE-250 and contact the dealer or JRC sales office.

10. After-sales service

When ordering repair

When a fault has been detected and it still persists, stop operation and contact the purchasing dealer, JRC agent or one of the JRC branches.

During the guarantee term;

JRC will repair the equipment or exchange any parts proven to be malfunctioning under normal use. The user is requested to have operated the equipment as instructed in the operation manual.

In the following cases, guarantee service is not accepted.

- Installation report has not been sent to JRC immediately after the JUE-250 was commissioned.
- The equipment has been subjected to accident, abuse, or misuse, shipping damage, alternations, incorrect and/or non-authorized service.
- The trouble, failure, malfunctioning and whatever is due to Act of God, fire, flood, explosion, accident, strikes, labor troubles or other industrial disputes, war (declared or undeclared), armed conflict, civil disturbance, embargoes, blockades, legal restrictions, riots, insurrections or any other cause beyond the control of JRC and the purchaser.

Service out of the guarantee term;

If the function is recoverable by a repair, JRC will arrange a changed service on customer's demand.

To request a guarantee or non-guarantee service, please inform us of;

+Ship's name, model name, date of manufacture, serial number, and MES ID.

+How trouble arose. Go into details as much as possible.

+Name of the office, organization etc of the vessel, the contact place and the telephoned /fax number.

Recommendation of professional maintenance

The performance of the set may degrade due to the aging of parts and so on, although the rate depends on how the equipment is used.

Maintenance by professional service engineer other than daily check by ship's crew is recommended.

For this professional maintenance, please contact the dealer, JRC agent or JRC branch office. This is a changed service.

Disposal of the JUE-250

Follow the rule of the pertinent local government when you abandon the JUE-250(ADE).

For details, contact the dealer, our service office (Refer to the list of offices at the end of the volume) or a concerned local government.

11. Specification

MAIN (ADE, BDE)

1. MES Type	Class 8.9	
2. Frequency	Transmit	1626.5 to 1660.5 MHz
	Receive	1525.0 to 1559.0 MHz
3. Maximum E.R.P		+15.1dBW + 1/-2dB
4. G/T		-15.5dBK
5. Modulation		QPSK
		$\pi/4$ -QPSK
		16QAM
6. Antenna	type	0.30 ϕ flat
	Polarization	Right-hand circular (RHCP)
	Radome	AES
7. Primary power	Voltage	+19VDC to +31VDC
	Current	Under 2 A, as the time of receipt
	Maximum	Under 4.5A, as the time of transmitted, and optional equipment is connected.
8. Dimension	ADE	ϕ 350mm x h 350mm
	BDE	h 166mm x 64mm x d 221mm
Weight	ADE	7.4kg
	BDE	2.2kg
9. Environmental Conditions		
1) Temperature	ADE	-25°C to +55°C
	BDE	-15°C to +55°C
2) Relative Humidity		Up to +40°C, 95%
3) Oscillation*		IEC 60945 Edition
4) Ship's Motion	Motion: Amplitude	Period
	Roll	+30° 8 s
	Pitch	+10° 6 s
	Yaw	+8° 50 s
	Surge	+0.2g
	Sway	+0.2g
	Heave	+0.5g
	Turning Rate	+6° /s 1 deg / s ²
	Headway	30knots
5) Solar Radiation	Infrared Radiation	500 watts / m ²
	Ultraviolet Radiation	54watts / m ²
(ADE)		

11. Specification

6) Icing (ADE)	Up to 25mm
7) Precipitation	Up to 100mm / hour
8) Wind	Up to 100knots in operation

JRC NETWORK

If your JUE-250 has problems in operation, please contact the dealer, a JRC or JRC branch office.
For assistance in finding a Service Center, please access one of the following web sites.

JRC web site

JRC Japan:	www.jrc.co.jp
JRC Amsterdam:	www.jrcams.nl
JRC Seattle:	www.jrcamerica.com

(Edition 1.0, 2007.12.05)

アスベストは使用しておりません

Not use the asbestos

CODE No.7ZPSC0256

For further information, contact:



Since 1915

Japan Radio Co., Ltd.

URL <http://www.jrc.co.jp>

Marine Service Department

Telephone : +81-3-3492-1305

Facsimile : +81-3-3779-1420

e-mail : tmsc@jrc.co.jp

AMSTERDAM Branch

Telephone : +31-20-658-0750

Facsimile : +31-20-658-0755

e-mail : service@jrcams.nl

SEATTLE Branch

Telephone : +1-206-654-5644

Facsimile : +1-206-654-7030

e-mail : service@jrcamerica.com

01ETM

ISO 9001, ISO 14001 Certified

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