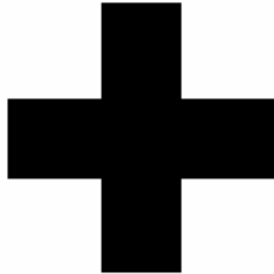


JUE-250

**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

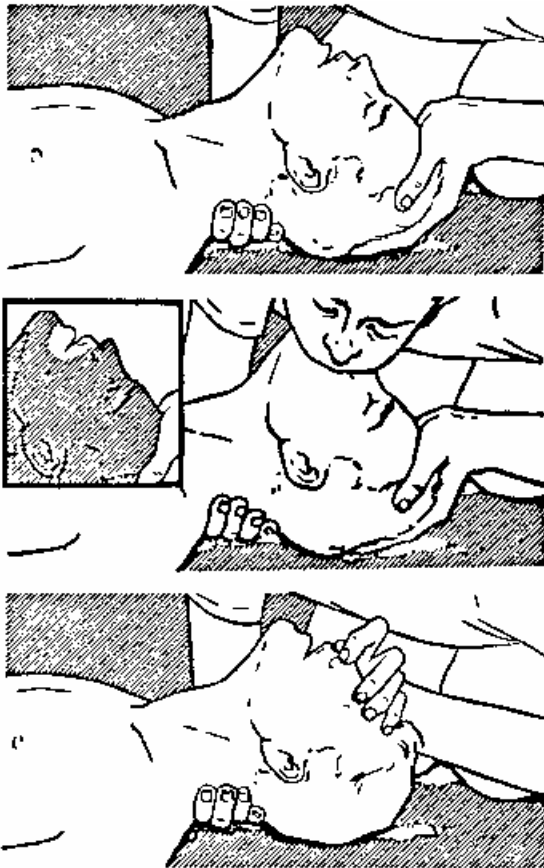
Unless there is impending danger leave the victim where he or she is, then begin artificial respiration. Once you begin artificial respiration, you must continue without losing rhythm.

- (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 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 Cover the victim's mouth by opening your mouth widely, then push your cheek against the victim's nose, **(2)** or pinch the victim's nose to prevent air from leaking out of it. **(3)**

3 Completely exhale into the lungs. Exhale into the lungs until the chest is 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:

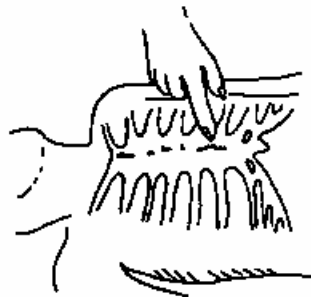
Perform the heart massage about 15 times then administer artificial respiration by blowing in twice. Repeat this routine.

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



3



4

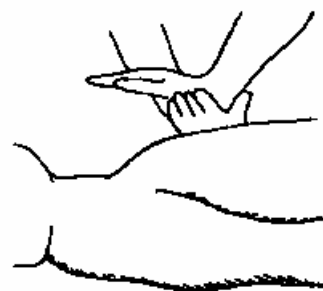


Figure 2 Heart massage in combination with artificial respiration.

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, 8kbps, 16kbps, 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 >

INMARSAT FB250 MOBILE EARTH STATION MODEL JUE-250 SERIAL NO. JRC Japan Radio Co., Ltd.	ABOVE DECK EQUIPMENT MODEL GSC 131 MASS 7.1kg DATE MADE IN JAPAN CC 0191	WARNING Distance V.S Radiation Levels Distance 0.6m 0.2m 0.1m Radiation 10W/m² 25W/m² 100W/m²	Compass safe distance Standard compass : 0.8m Steering compass : 0.5m DO NOT PAINT RADOME
--	--	--	--

<Warning Label of BDE >

INMARSAT FB250 MOBILE EARTH STATION MODEL JUE-250 SERIAL NO. GV IMEI 35887701 JRC <i>Japan Radio Co., Ltd.</i>	BELOW DECK EQUIPMENT MODEL GSC-452 MASS 2.2kg DATE MADE IN USA CE 0191	 警告 WARNING  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.
---	---	--

Note 1)

Note 2)

Notes

1) IMEI 35887701

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

2) **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.
- 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 shall be released in the near future for evaluation.

- Specifications of the JUE-250 and its accessories may change without notice, for improvement.

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 to the purchasing dealer.
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.



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.



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 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 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. Malfunction of the antenna drive and other troubles may results.



Do not mount the Handset near CRT device or other devices; otherwise performance of the devices may be affected by the Handset's magnetic field.



Do not set/remove the SIM card during power switch is turned on.

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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.

- Europe, Middle East, Africa (EMEA) Ocean Region
- Asia-Pacific (APAC) Ocean Region
- America (Americas (AMER))Ocean Region

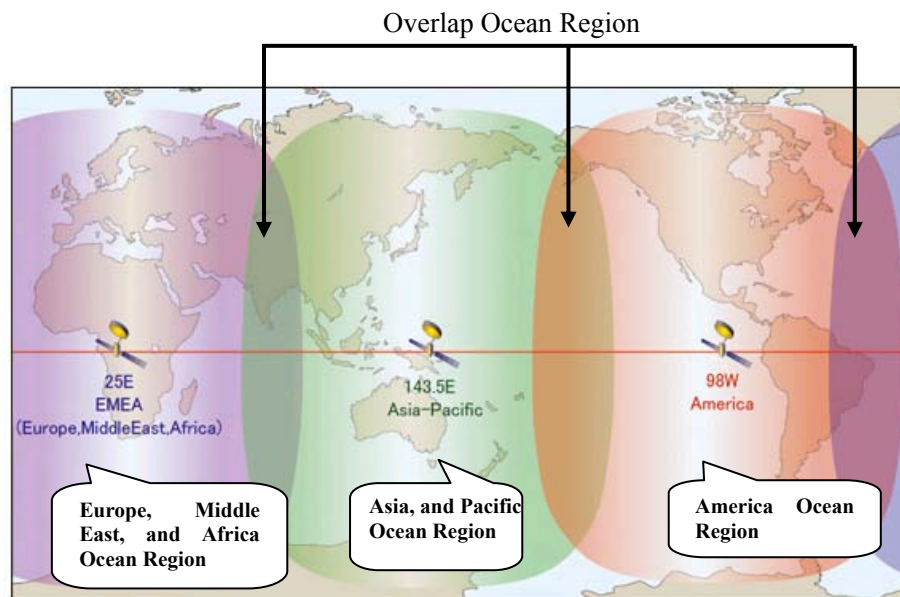


Fig.1.1.1 The coverage areas of Ocean Region (after Feb.28, 2009)

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).

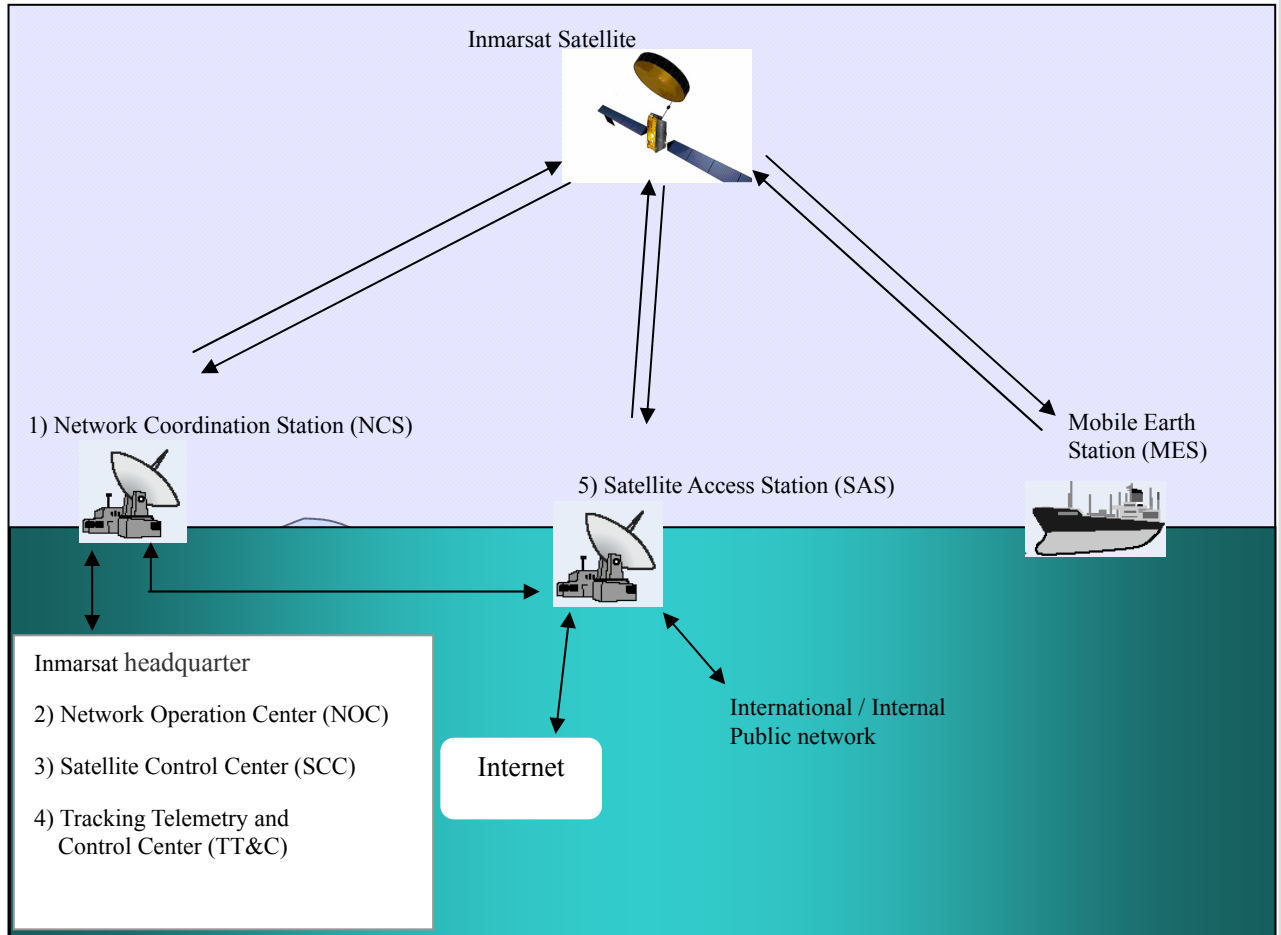


Fig.1.1.2 The Inmarsat FleetBroadband service Network

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 	- Internet and intranet access at speed up to 284kbps over a shared channel. - Charged by data amount
Streaming IP 	- Internet and intranet access at guaranteed data rates on demand up to 128kbps (8,16,32,64, and 128kbps) - Charged by connection time.

Circuit switched service (CS)

4kbps Voice 	- Low cost voice service equal to Inmarsat mini-M voice - Charged by connection time
64kbps 3.1kHz Audio 	- High quality voice service to use FAX and analogue modem. - Charged by connection time

Short Message Service (SMS)

Short Message Service 	- Send and receive text messages up to 160 characters. - Charged by message.
---	---

1.3 Important reminder for using JUE-250

Note

- 64kbps 3.1kHz Audio service is not available when antenna elevation angle (EL) value is less than 20 degrees.
- Communication failure due to MCA wireless system interference could occur at the coast of Japan urban area.
- Although 8k,16k,32k,64kbps Streaming IP service and CS service can be used in the same time, use of 128kbps Streaming IP and simultaneous CS service is not possible.

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 (8k, 16k, 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

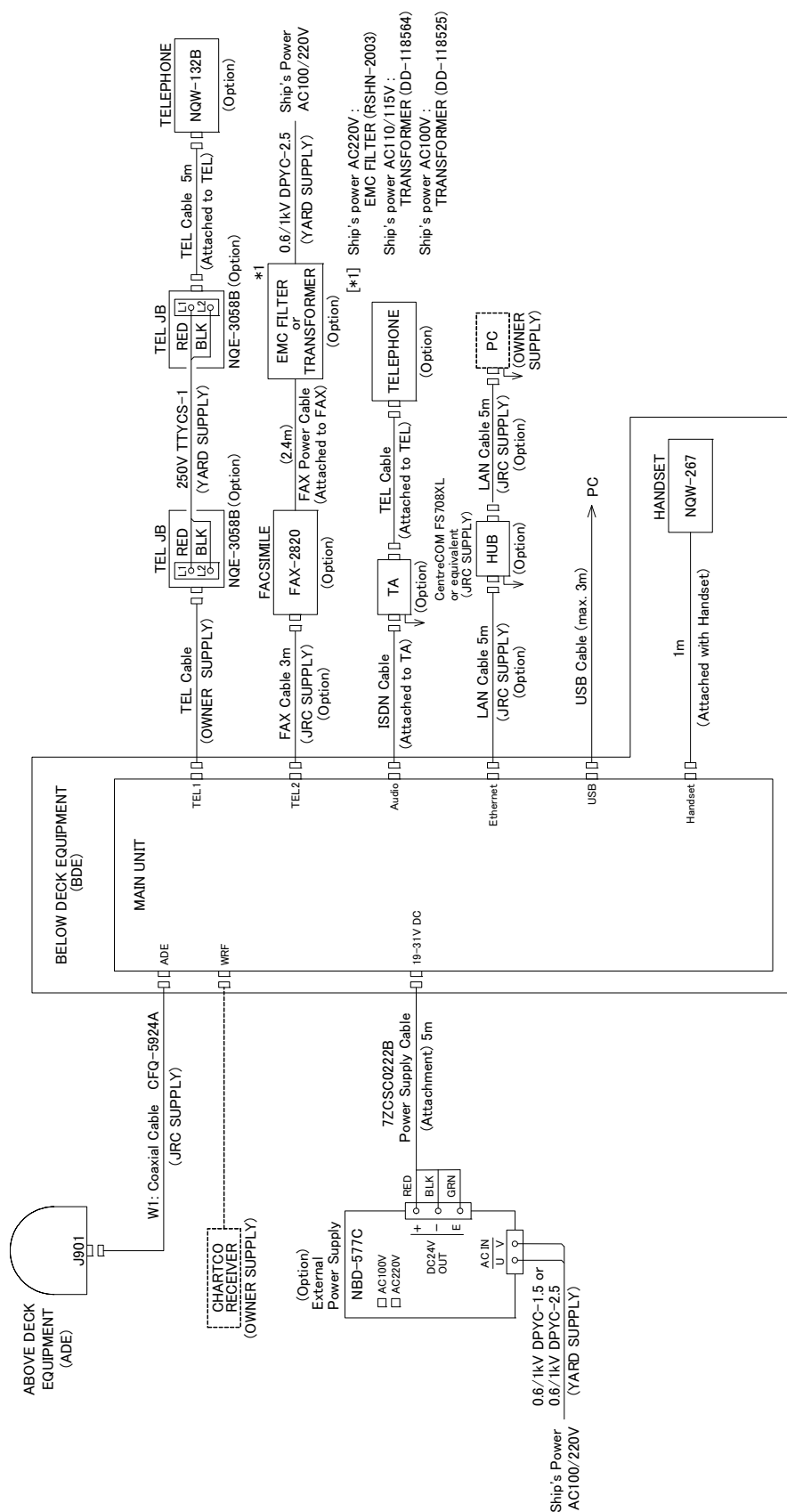


Fig. 2.3.1 Cable connection system diagram

2.3.2 Components list**Table 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(30m)*	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	7YZSC0007A	1
	Supplied parts for BDE installation	7ZXSC2502	1
	Spare fuse for BDE		3
	SIM card case		1
Option	Telephone	NQW-132B	1
	Facsimile	brother FAX-2820	1
	Power transformer for Facsimile (100V to 230V)	DD-118525	1
	EMC filter for Facsimile (for 230V direct coupling)	RSHN-2003 (for brother FAX-2820)	1
	External Power supply Unit (EXT PSU)	NBD-577C	1
	Telephone Junction Box (TEL JB)	NQE-3058B	2
	GYRO I/F Box	NQA-2066A	1

*CFQ5924A15 (15m) and CFQ-3923A5 (50m) are available as optional components.

2.4 Dimensional drawing (JUE-250 standard components)

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

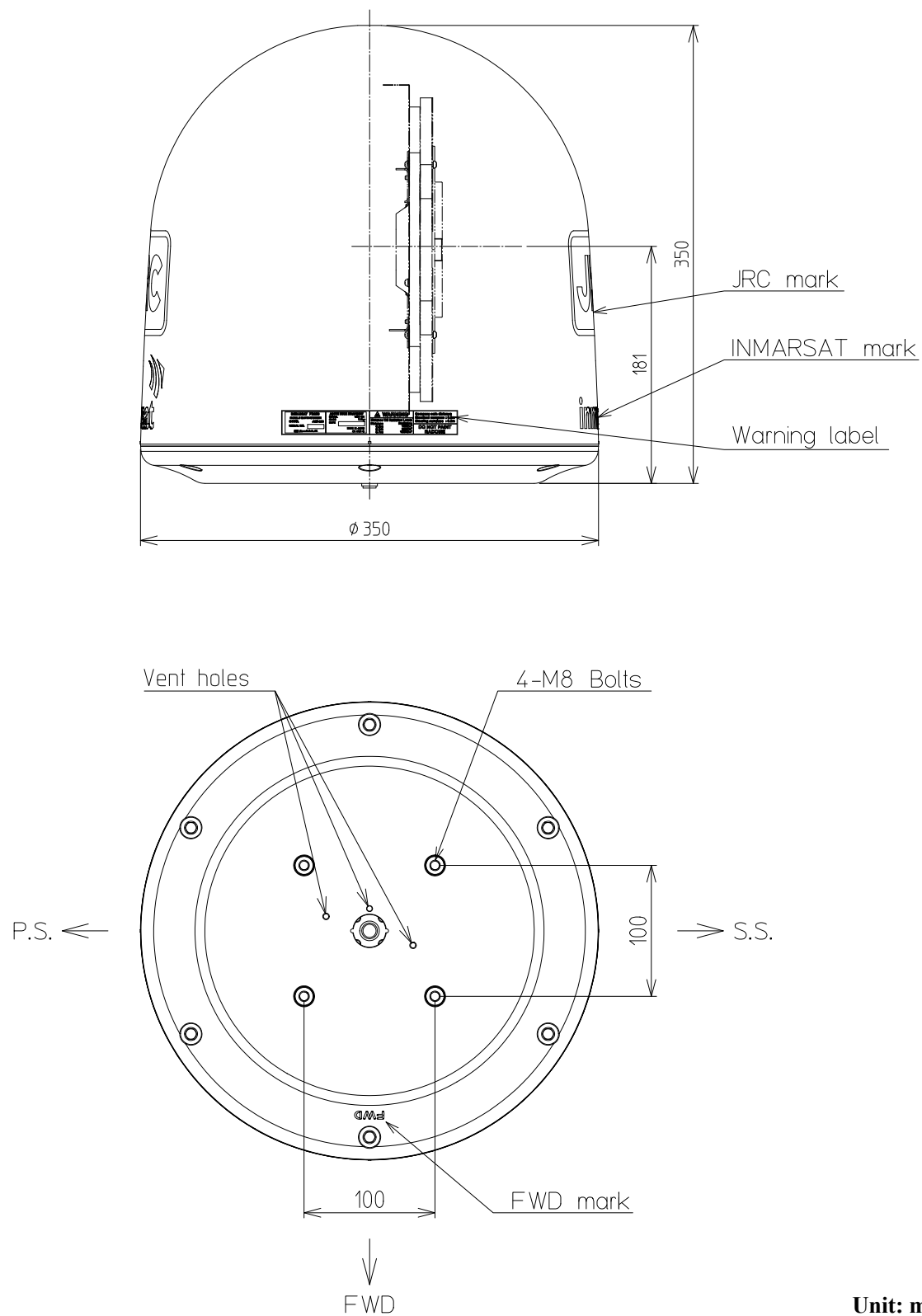
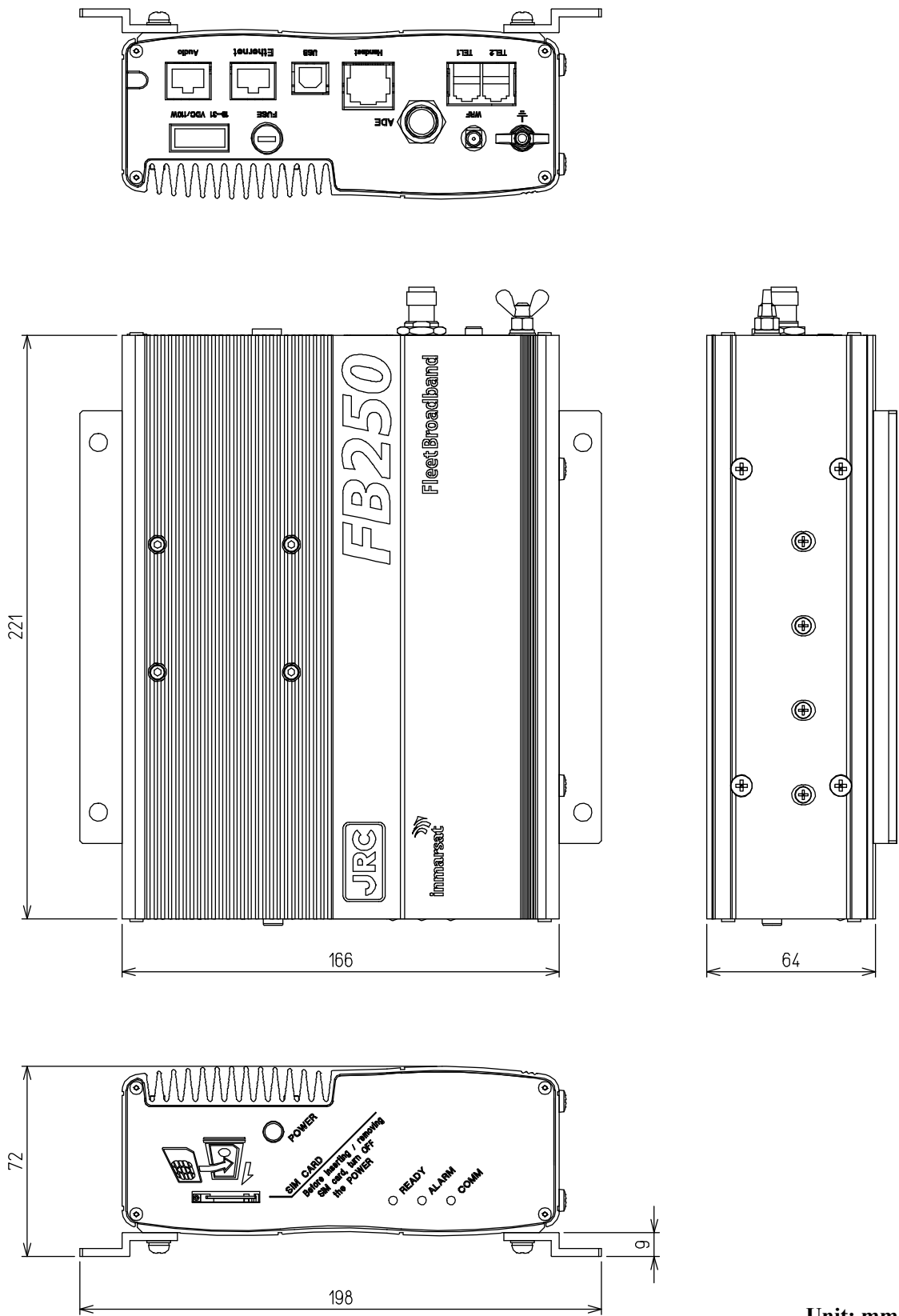


Fig. 2.4.1 ADE

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]

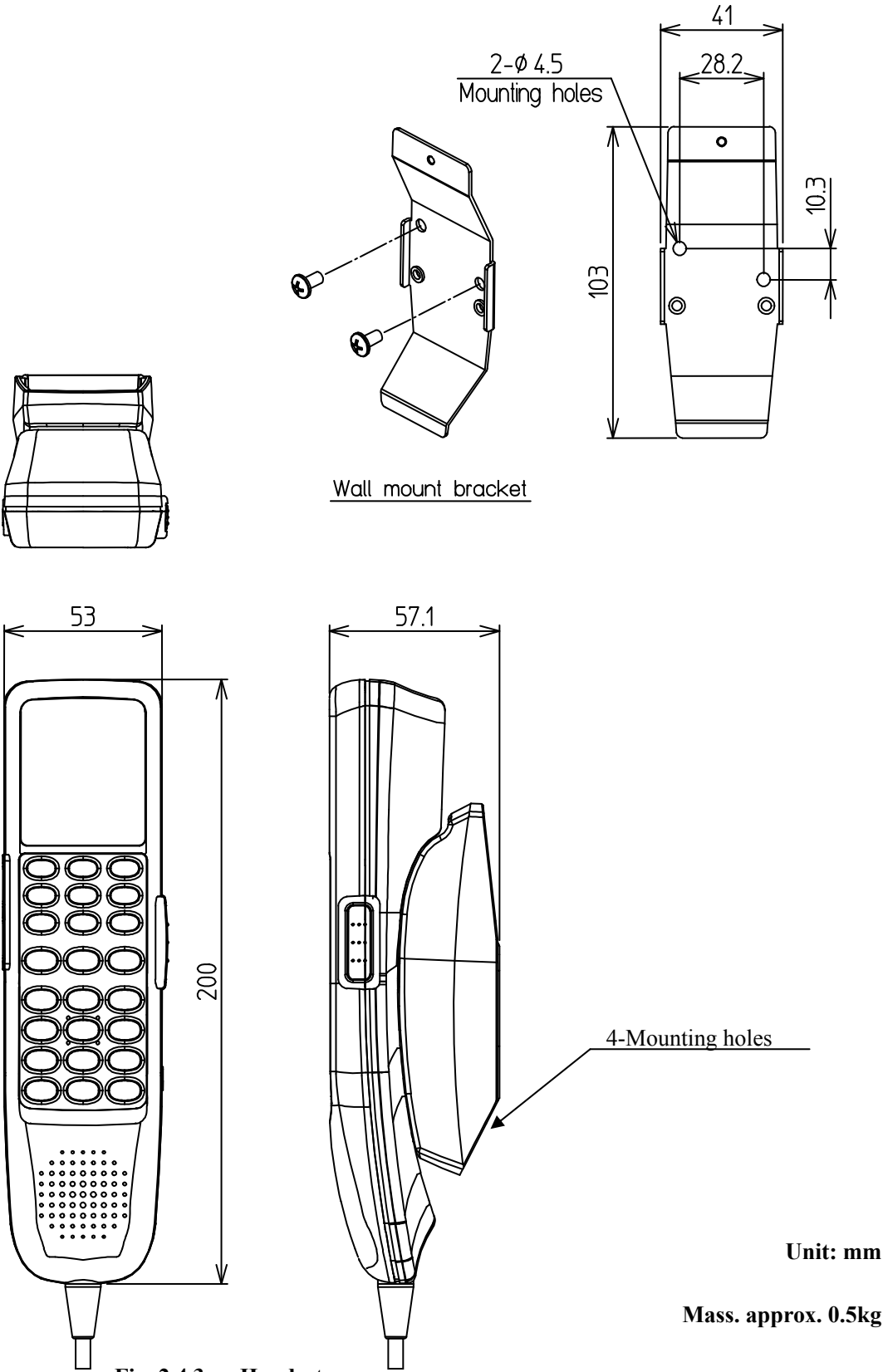
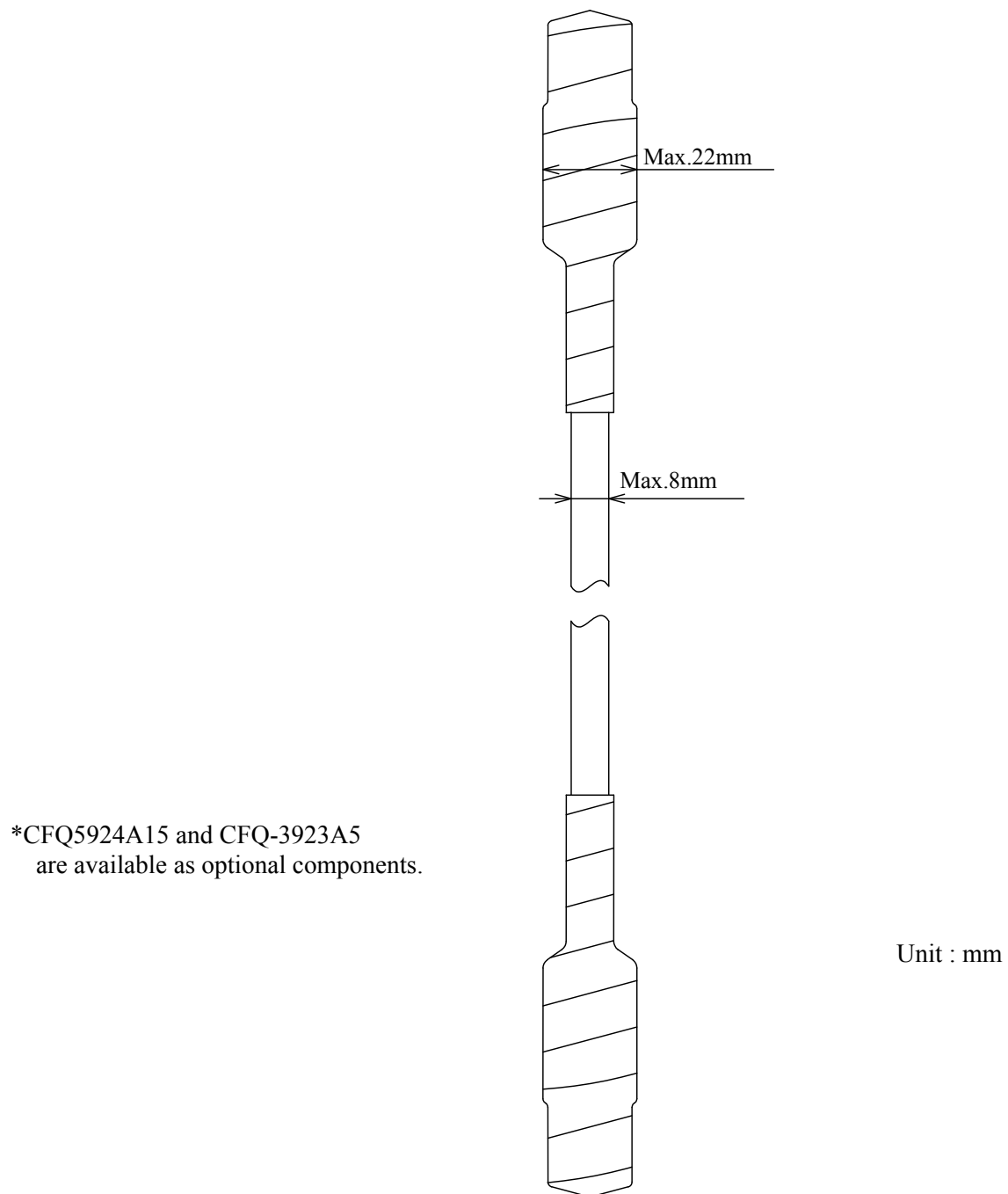


Fig. 2.4.3 Handset

2.4.4 Coaxial cable [CFQ-5924A3]



Type	Length	Mass	Minimum bending radius
CFQ-5924A3	30m(± 1.0 m)	Under2.5kg	46mm
(CFQ5924A15)	(15 m (± 0.5 m))	(Under 1.4kg)	(46mm)
(CFQ-3923A5)	(50 m (± 1.5 m))	(Under30.0kg)	(150mm)

Fig. 2.4.4 Coaxial cable

2. Introduction of JUE-250

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.

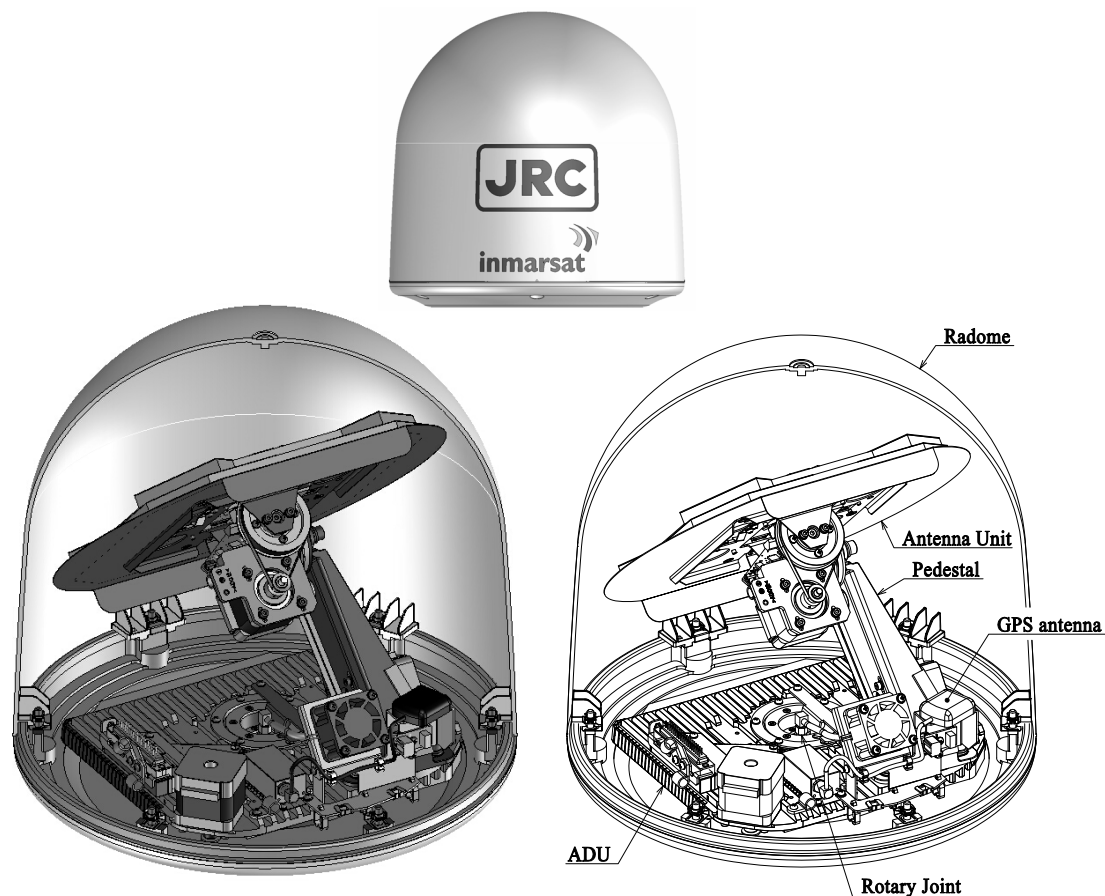


Fig. 3.1 ADE appearance and detailed skeleton view

3.2 BDE

Main unit

Main unit appearance

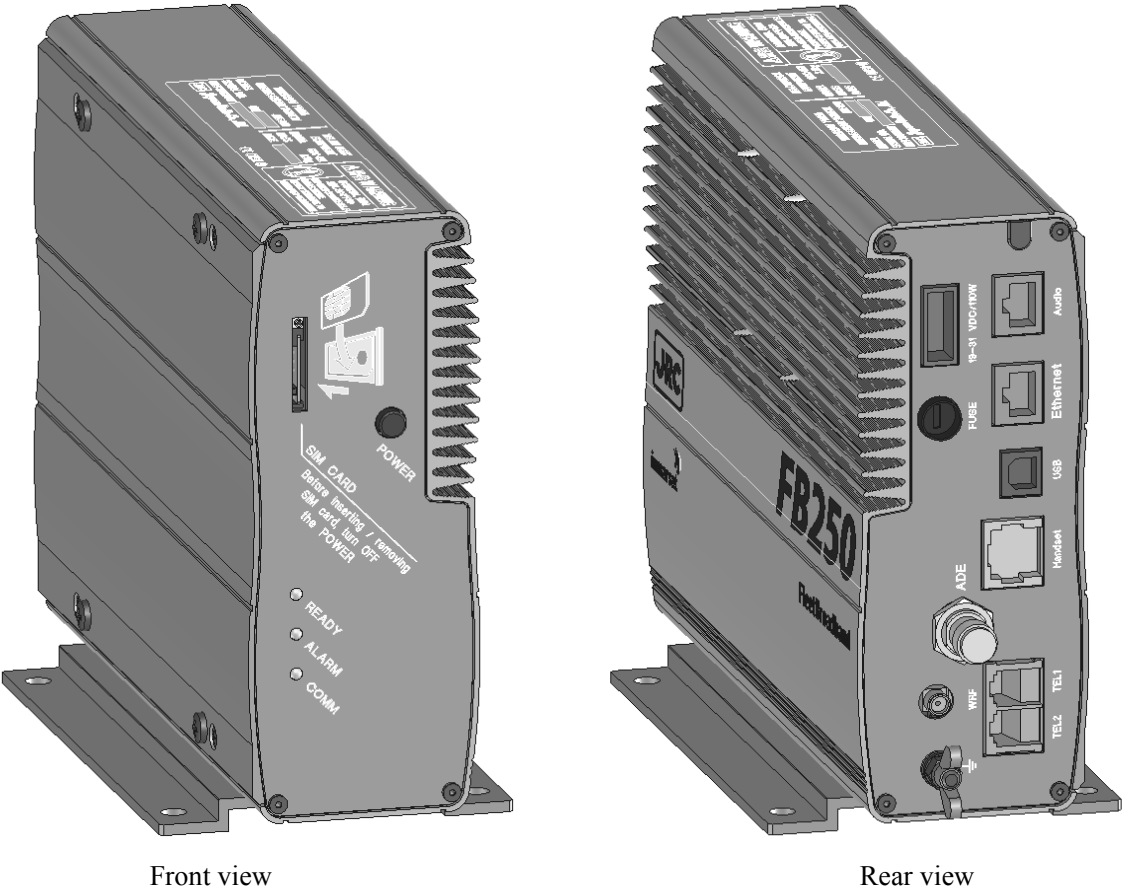
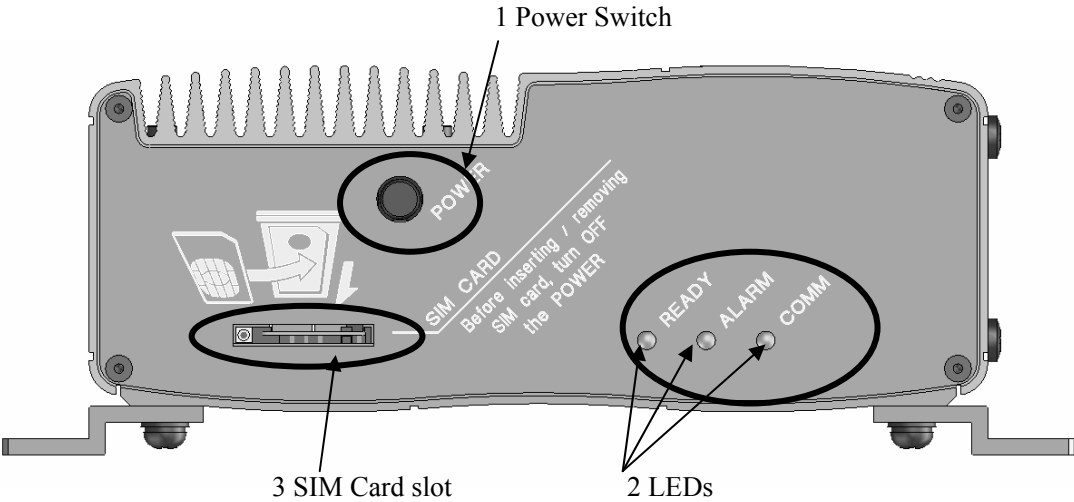


Fig. 3.2a Main unit appearance



Front view

Fig 3.2b Main unit front view

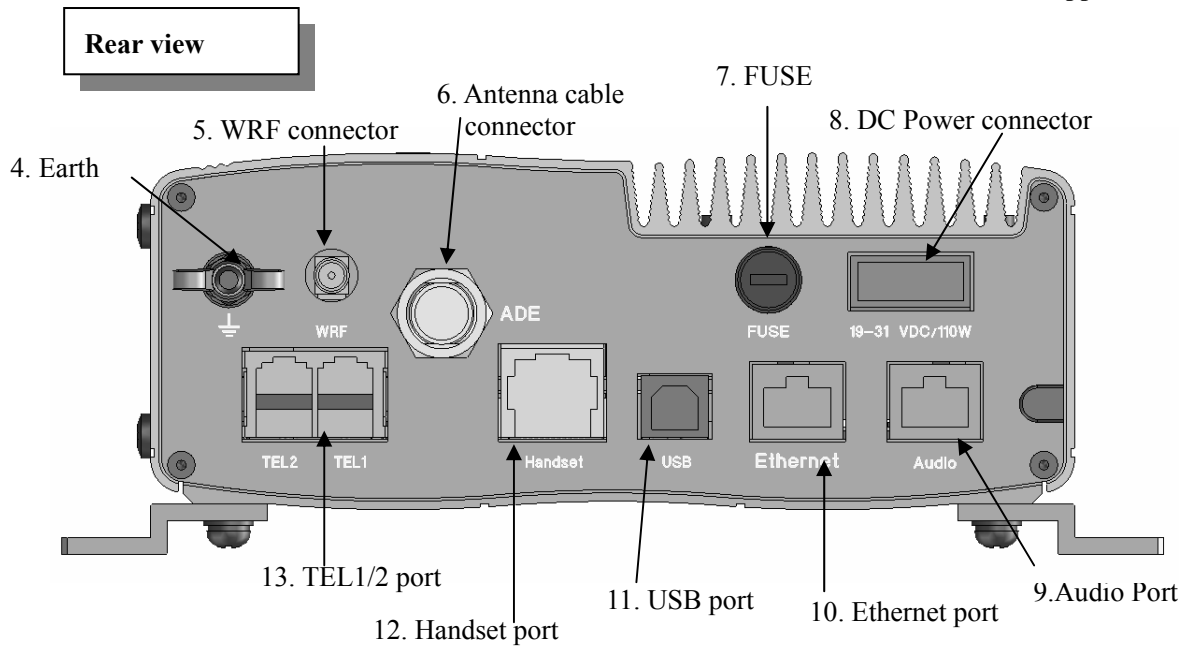


Fig. 3.2c Main unit rear view

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.

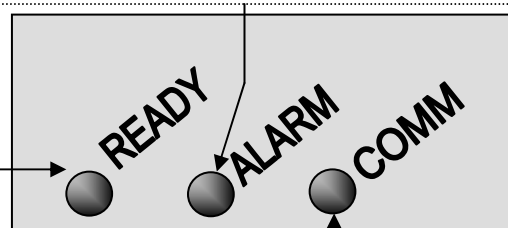
Blinking Green:

- When no service is available
- Activating (JUE-250 checking the status of itself)
- After power switch is turned off, until the power is run out completely.

(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 : In CS service communication

(No light: In PS service communication,
or no communication is on the way now.)

3. Appearance

3 SIM card slot

Mounts a SIM card.

4 Earth

5 WRF connector

Connects with Wide-band Radio Frequency (WRF) communication equipment such as Chartco etc.

6 Antenna cable connector

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

7 Fuse

Melt down when over current are detected.

Replacement procedure: Loosen the folder head to counterclockwise direction with slotted screwdriver, and pull out the folder when it is ejected. Replace the fuse to new one and set it in the folder. Insert the folder and tighten it clockwise direction until folder is securely locked in place.

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: 4kbps Voice

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)

* The connection using USB hub is not supported yet.

12 Handset port (12-PIN Modular Cable)

Connects with Handset unit.

Offered service: 4kbps Voice and SMS

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 and 64kbps 3.1kHz Audio

3.3 ADE - BDE connecting cable

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

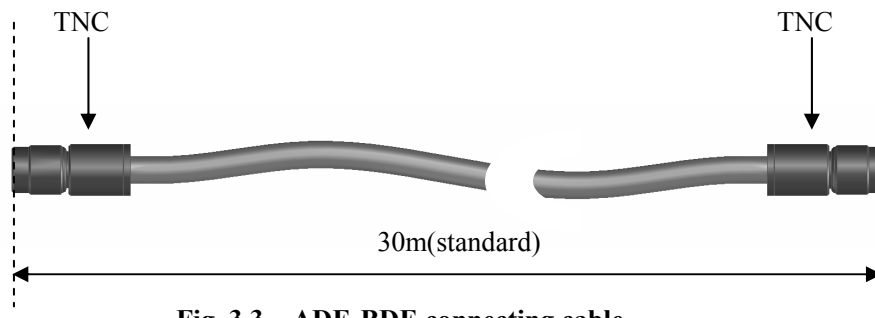


Fig. 3.3 ADE-BDE connecting cable

3. Appearance

3.4 Handset

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

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

⚠ CAUTION

⊘

Do not mount the Handset near CRT device or other devices; otherwise performance of the devices may be affected by the Handset's magnetic field.

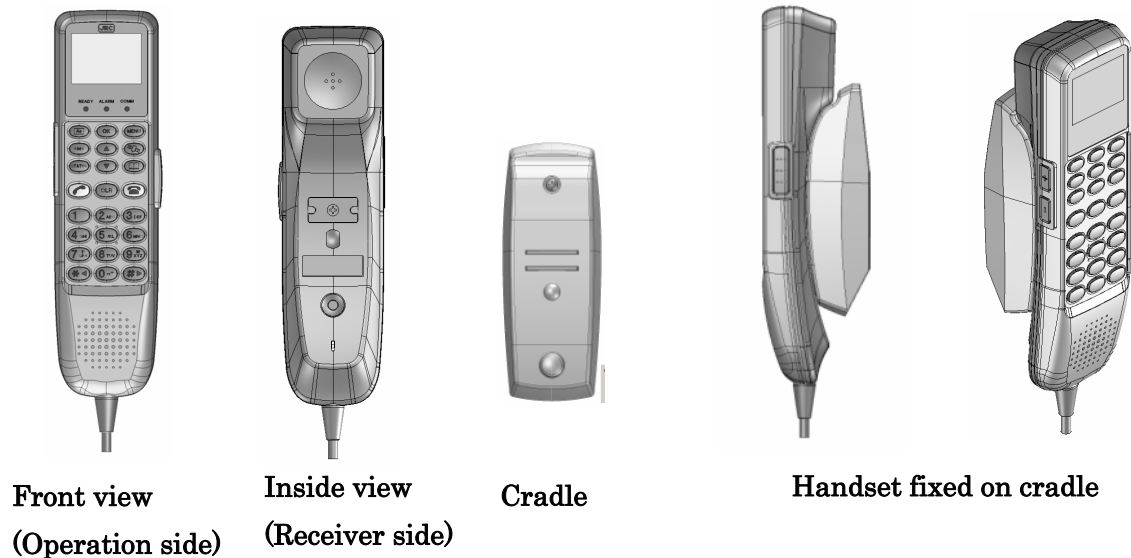


Fig 3.4a Handset and cradle

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.

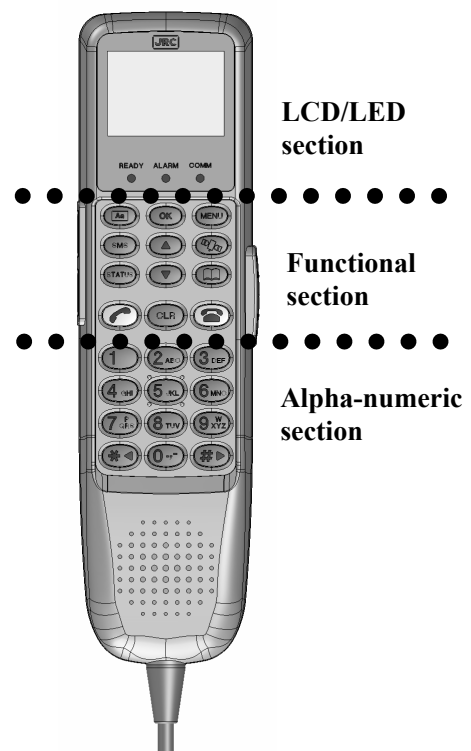


Fig. 3.4b Section of Handset

3.4.1 LCD/LED section

Functions of the LCD screens of the Handset.

Common items for all screens are:

- 1 [Operational button] Displays operatable keys: ,  or 
- 2 [Enter mode] Displays which key enter mode is accepted, **Aa** (alphabet mode), or nothing (numeric mode) is displayed. (Only in SMS editing mode, **aA** is displayed)
- 3 [Each status] Displays every status of telephone/MES-setting function: , , , or 
- 4 [Condition of reception] Displays  style icon
- 5 [Connecting IP service] Displays  style icon
- 6 [Selected satellite or terminal] Displays APAC E143.5, HDST-VOICE, etc.
- 7 [Current time] Displays UTC/LT, or communicating time.
- 8 [Status of equipment] Displays CS PS READY, COMM (SND), etc.
- 9 [FAX out of service area] Displays  style icon

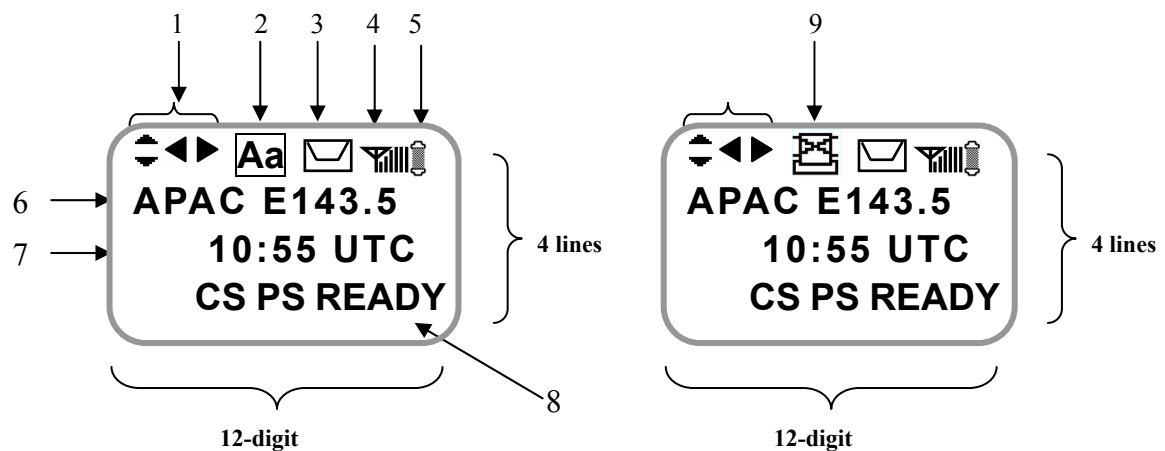


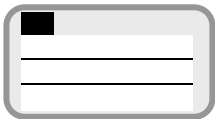
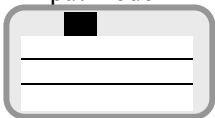
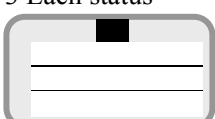
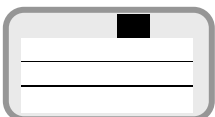
Fig. 3.4.1a Explanation of LCD section

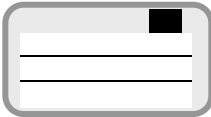
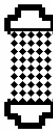
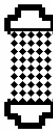
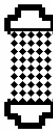
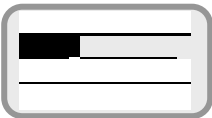
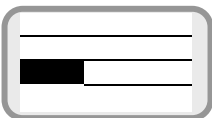


Fig. 3.4.1b LCD section

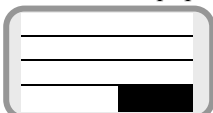
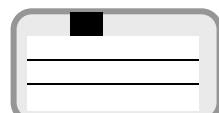
3. Appearance

Table 3.4.1 Explanation of items displayed on screens

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 Input mode 	Displays Aa mark for alphabet input mode. If these icons are not displayed, numeric input mode only available. (Except in SMS menu, aA is displayed as lower case letter mode and Aa is displayed as upper case letter mode.)																
3 Each status 	1) Displays 📖 when Phone Book menu is selecting. 2) Displays 📖 when Redial menu is selecting. 3) Displays 📞 when call is on hold. 4) Displays 📧 when SMS message is arrived This 📧 icon is : - Not displayed even new message is received, when another icons (📖, 📖, and 📞) are need to be displayed in this area. - Disappeared when Inbox menu (refer to [8.2.2 Inbox menu](p93)) is selected and [Inbox list view screen] is once opened, regardless of the newly arrived message is read or not. - Disappeared when Power OFF with displaying it, and ON afterwards. - Kept displaying even the new message is read, when it is executed by an external access such as LaunchPad. *SMS cannot be received at all when SIM has no empty space to store. Confirm its capacity at Capacity screen of [8.2.5 Setting menu](p96).																
4 Condition of reception 	1)Displays a bar graph of signal reception level by seven (7) grades. <table border="1"> <thead> <tr> <th>Number of bars</th><th>Communication</th></tr> </thead> <tbody> <tr> <td>0 📶</td><td>Impossible (no reception)</td></tr> <tr> <td>1 📶</td><td>Possible to communicate but unstable</td></tr> <tr> <td>2 📶</td><td>Possible to communicate but unstable</td></tr> <tr> <td>3 📶</td><td>Possible to communicate stably</td></tr> <tr> <td>4 📶</td><td>Possible to communicate stably</td></tr> <tr> <td>5 📶</td><td>Possible to communicate stably</td></tr> <tr> <td>6 📶</td><td>Possible to communicate stably</td></tr> </tbody> </table>	Number of bars	Communication	0 📶	Impossible (no reception)	1 📶	Possible to communicate but unstable	2 📶	Possible to communicate but unstable	3 📶	Possible to communicate stably	4 📶	Possible to communicate stably	5 📶	Possible to communicate stably	6 📶	Possible to communicate stably
Number of bars	Communication																
0 📶	Impossible (no reception)																
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3 📶	Possible to communicate stably																
4 📶	Possible to communicate stably																
5 📶	Possible to communicate stably																
6 📶	Possible to communicate stably																

5 Connecting IP service 	1)Displays an icon which shows connecting IP service . <table><tr><th>Icon style</th><th>IP service type</th></tr><tr><td></td><td>Standard IP service only.</td></tr><tr><td></td><td>Streaming IP service only.</td></tr><tr><td></td><td>Both of above IP services.</td></tr></table>	Icon style	IP service type		Standard IP service only.		Streaming IP service only.		Both of above IP services.
Icon style	IP service type								
	Standard IP service only.								
	Streaming IP service only.								
	Both of above IP services.								
6 Selected Satellite or terminal 	Displays selected satellite /communicating terminals. - Satellite (Displays when CS communication is not used) It displayed in units of 0.1 degree, and in the range of W180.0 to E180.0 - Communicating terminal (displays in communication) <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></table>	Terminal name	HDST-VOICE	TEL1-VOICE	TEL1-FAX	TEL2-VOICE	TEL2-FAX	ISDN-VOICE	
Terminal name									
HDST-VOICE									
TEL1-VOICE									
TEL1-FAX									
TEL2-VOICE									
TEL2-FAX									
ISDN-VOICE									
7 Current time 	Display can be selected from UTC (Universal Time coordinated) and LT (Local Time). Refer to [8.9.1.2 Local Time setting](p110).								

3. Appearance

8 Status of equipment 	Displays the status of equipment. Normally, this area displays below contents under waiting communication or under transmitting.		
Displayed only in Secret code using status	Status judgment	Displayed txt.	Contents
Displayed only in SMS menu The items in this table are arranged in displaying priority.	Normal	LOCK	The operation of Handset is protected with Terminal Lock
	Normal	nnn/NNN	Displays the used amount (nnn) and total capacity (NNN) of input characters of SMS
	Abnormal	ADE?	ADE is abnormal condition
	Abnormal	SIM?	SIM is abnormal condition
	Abnormal	POSITION?	GPS does not receive the radio wave from satellite. It is not always failure. The other factors including blocking can be considered.
	Normal	HEADING?	GYRO of Sync/Step requires Heading value
	Abnormal	GYRO?	GYRO is abnormal condition.
	Normal	COMM (SND)	Called from the ship.
	Normal	COMM (RCV)	Called from the land.
	Normal	SAT SEARCH	Searching Satellite.
	Normal	REGISTERING	It is displayed from the Satellite search is completed and until READY status is started.
	Abnormal	SEARCH NG	Satellite search has been failed.
	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	NOT READY	Communication is impossible.
2 FAX out of service area 	Displays  icon at an area where can not use FAX service. FAX is unable to use at the areas the Satellite Elevation (SAT EL) is lower than 20 degrees. Note:  mark has higher priority than  icon.		

Lighting of LEDs**Ready lamp displays available services****Green light:**

Communication services are available.

Blinking Green:

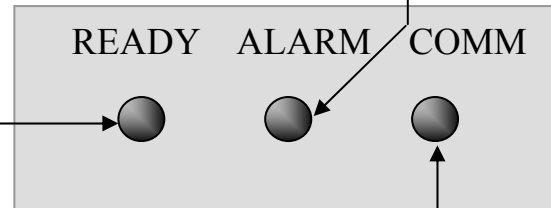
- When no service is available
- Activating (JUE-250 checking the status of itself)
- After power switch is turned off, until the power is run out completely.

(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 : In CS service communication

(No light: In PS service communication, or no communication is on the way now.)



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. Appearance

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

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

This button adjusts the voice volume and the screen brightness of the Handset.

Enters numerical/alphabetical characters and symbols.



This button has no function.

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.

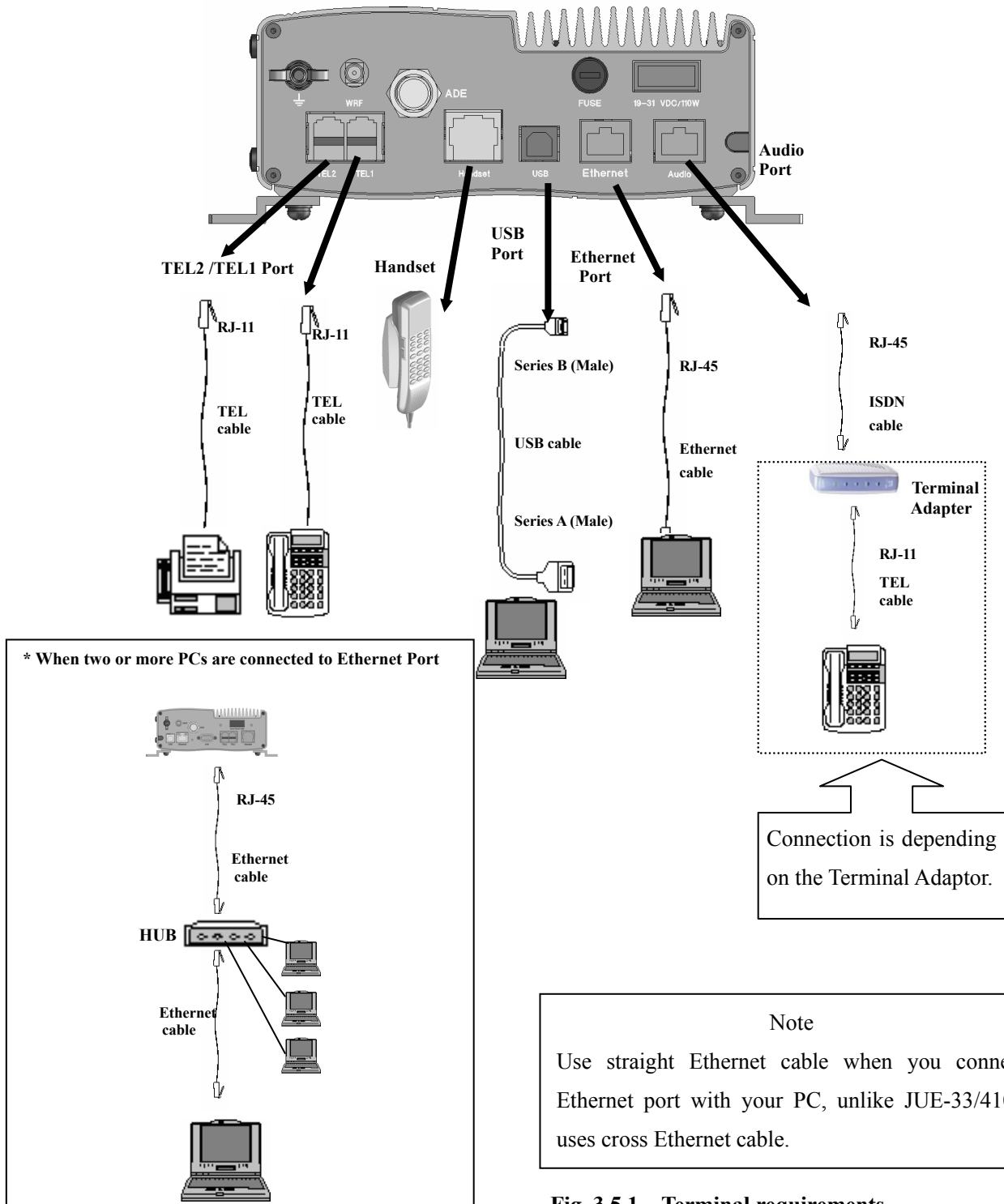


Fig. 3.5.1 Terminal requirements

3. Appearance

3.5.2 Usage environment

Table 3.5.2 Usage environment

	Item	Contents
PC	OS	Microsoft Windows XP Windows Vista
	Interface	Ethernet, USB
ISDN Terminal Equipment	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 authorized to make settings of the JUE-250.

Handset menu

For more detail, refer to [8. Handset Menu System](p79).

Displays JUE-250 status and of communication status(For all user)

STATUS

(Displays internal status for carry out communication)

SMS

(Reads/creates/sends/deletes SMS)

Satellite

(Selects Satellite, and displays spot beam No.)

Phone Book

(Registers abbreviated number to the Handset and terminal telephone)

Redial

(Displays Redial number list and makes a call with it)

Call Log

(Displays Call logging history)

Self Test

(Displays Self Test result)

Alarm Pack

(Displays detailed Information of JUE-250 and Alarm history)

Changes JUE-250 status and communication status (For ADMIN user only)

ADMIN

(Displays menu list for the ADMIN user)

Setup

(Setups the basic operation of BDE)

Port Cont

(Setup the additional function of each port)

Port

(Specify setup of the port)

User Reg.

(Registers users and secret call users)

Auto DCN.

(Sets automatic disconnection of communication)

SIM menu

(Sets SIM card-use operation)

Fig. 3.6 Handset menus (Classified by user authority)

4. Getting started

In section 4.1, connecting the Handset and terminal devices to Main unit, and setting SIM 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.

You can use LaunchPad for the Packet swatting service (Standard/Streamming IP communication). To use the LaunchPad installation are required to your PC, preliminary (of course).

About the LaunchPad

LaunchPad is the application software, which controls BDE from a PC.

By using LaunchPad, displaying the status/setting of JUE-250, connecting/disconnecting Standard/Streaming IP service, and sending /receiving SMS, etc. are available on your own PC.

In this chapter, the main parts of operations are explained.

Install the LaunchPad to your PC from attached CD-ROM, before you enter into this chapter.

NOTE

- Refer to Appendix D of this manual to install the LaunchPad.
- LaunchPad version 1.4.1 or later supports the Windows Vista/XP.

About the TCP accelerator (TCP PEP)

TCP accelerator (TCP PEP) is a PC application software which improves the performance of TCP applications (transfer rate) over FleetBroadband network.

Install TCP accelerator (TCP PEP) to your PC using attached CD-ROM if necessary.

NOTE

- If using TCP accelerator is not made by Inmarsat, or depending on the type of application, transfer rate may not be improved.
- The TCP accelerator version R181-003 or later supports the Windows XP/Vista.

4. Getting started

4.1 Connecting terminals and power on

4.1.1 Connecting terminals with cables

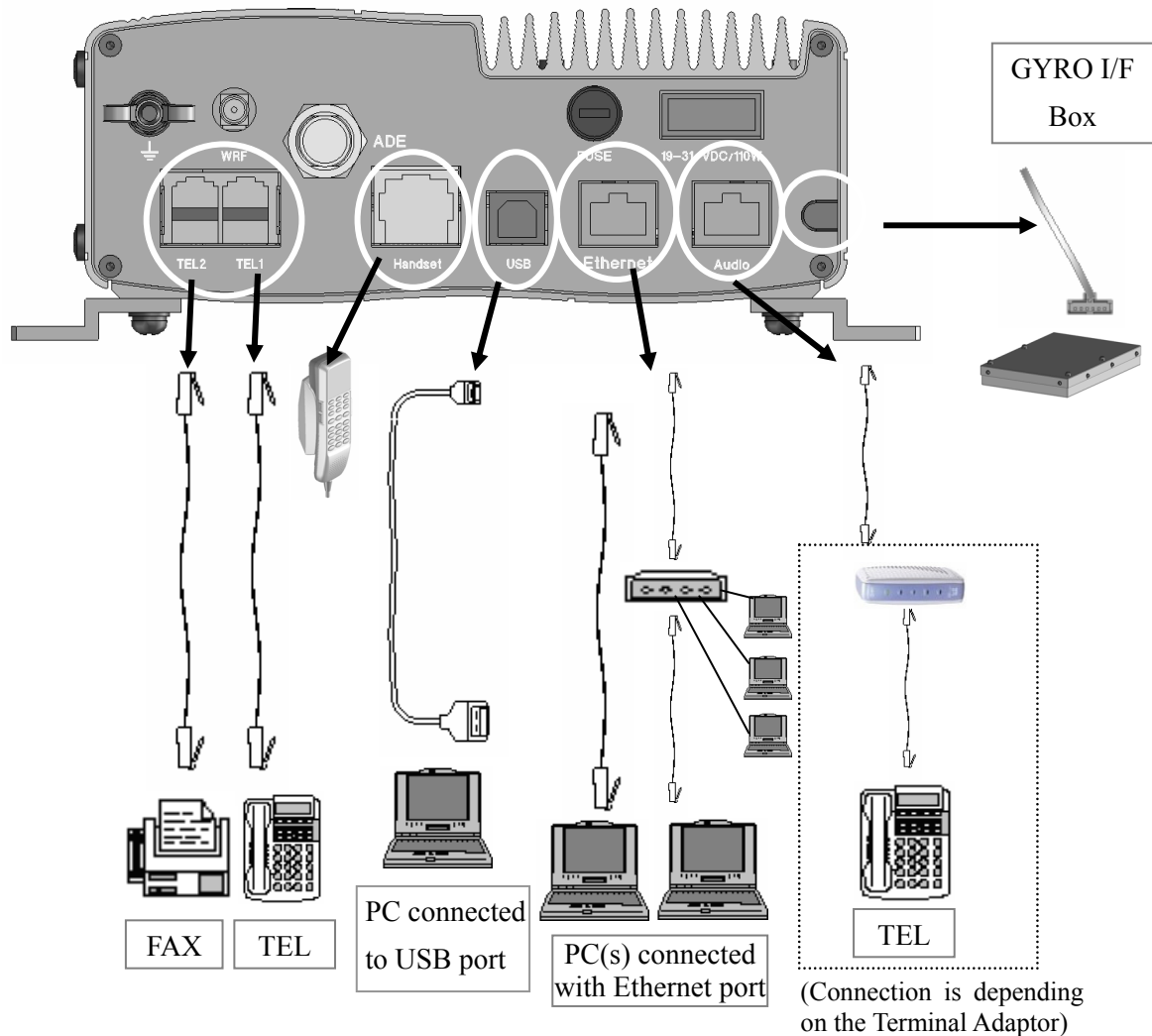


Fig.4.1.1 The Cable connection of each terminal

Note

Use straight Ethernet cable when you connect Ethernet port with your PC, unlike JUE-33/410F 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 SIM card

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

Note

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

CAUTION



Do not set/remove the SIM card during power switch is turned on.

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

- 1) Release the SIM cardholder by pressing the eject button (yellow button located left edge of SIM card slot) with ball pen chip or like that.
- 2) A black holder will eject from SIM card slot. Then withdraw it. Install the SIM card in the cardholder making sure it snaps into place. Make sure that the SIM 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.



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

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

4.1.3 Power ON

Before turning on the power, check the following;

- Check the obstacles between antenna and satellite.
- Check that SIM card is correctly set.
- Check that the breaker of inboard power supply is turned on.
- Check that the coaxial cable from ADE is connected to BDE, certainly.
- Check that the Handset is connected to BDE, certainly.

 CAUTION	
	Do not turn off the POWER switch for long hours 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.

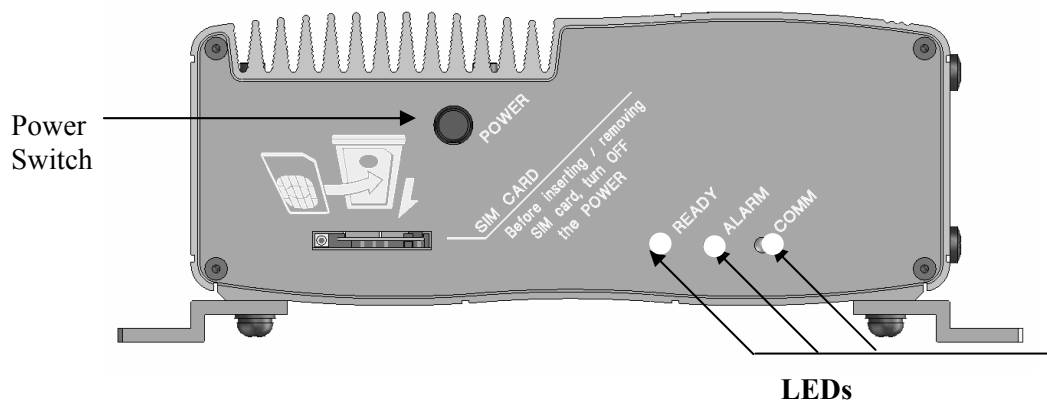


Fig.4.1.3a Power switch and LEDs of Main unit

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 the REC level is low, 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.

Initialization of the unit may take more than 5 minutes to complete. During this time, "CS PS READY" may not be displayed on the screen.

Note

Please confirm that the GPS position reported by the ship's onboard GPS and the display on the handset match should the receive level of the unit.

(Refer to [8.1.3 Position status display],p83).

Contact the purchasing dealer 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.

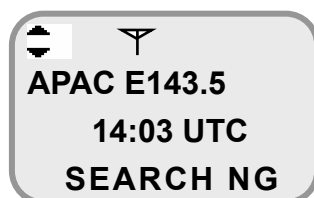


Fig. 4.1.3b SEARCH NG status of Idle screen

4.1.4 Screen display of Handset

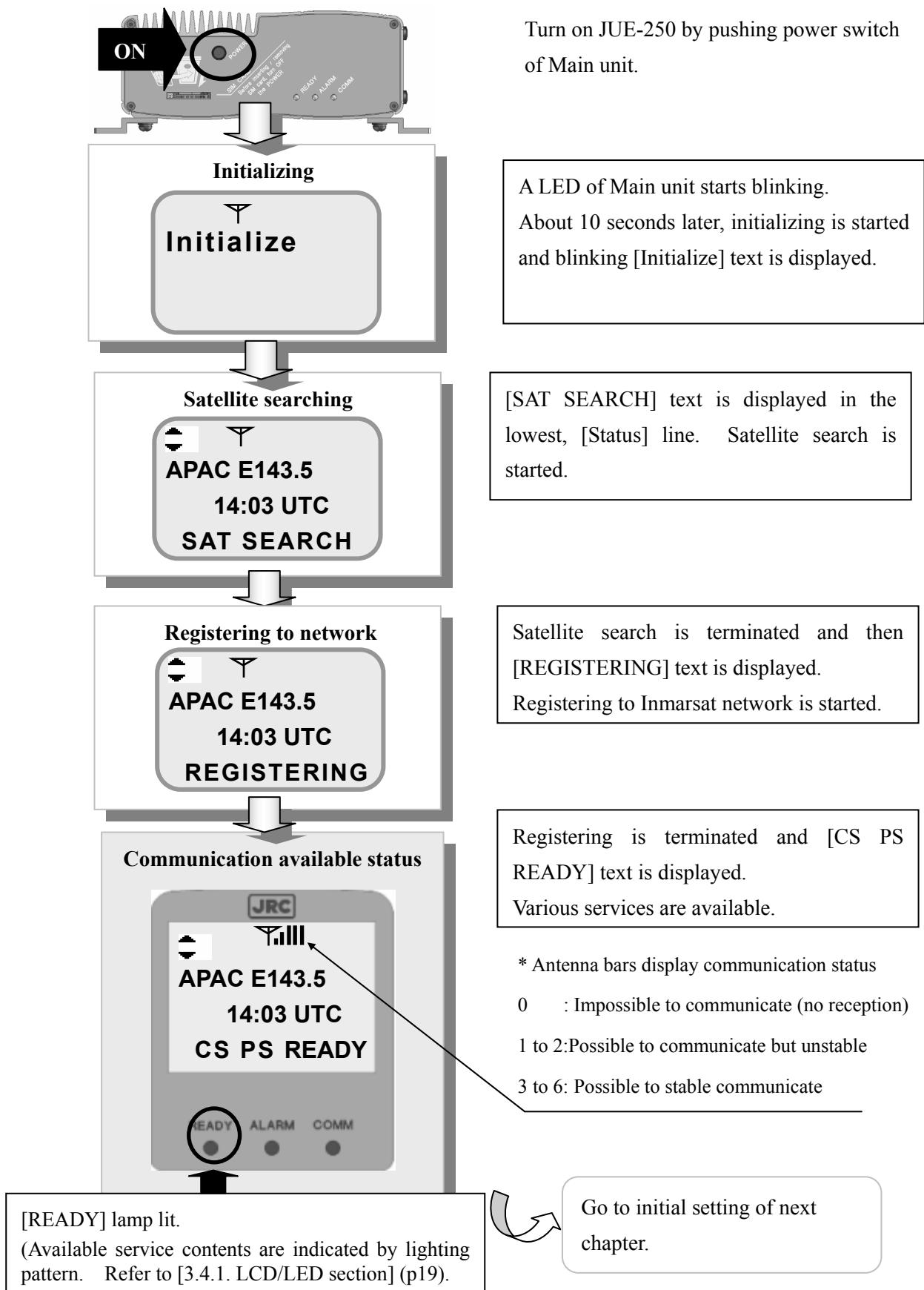


Fig.4.1.4a Screen transition when Power switch is turned on

4. Getting started

(Screen transition when power switch is turned off)

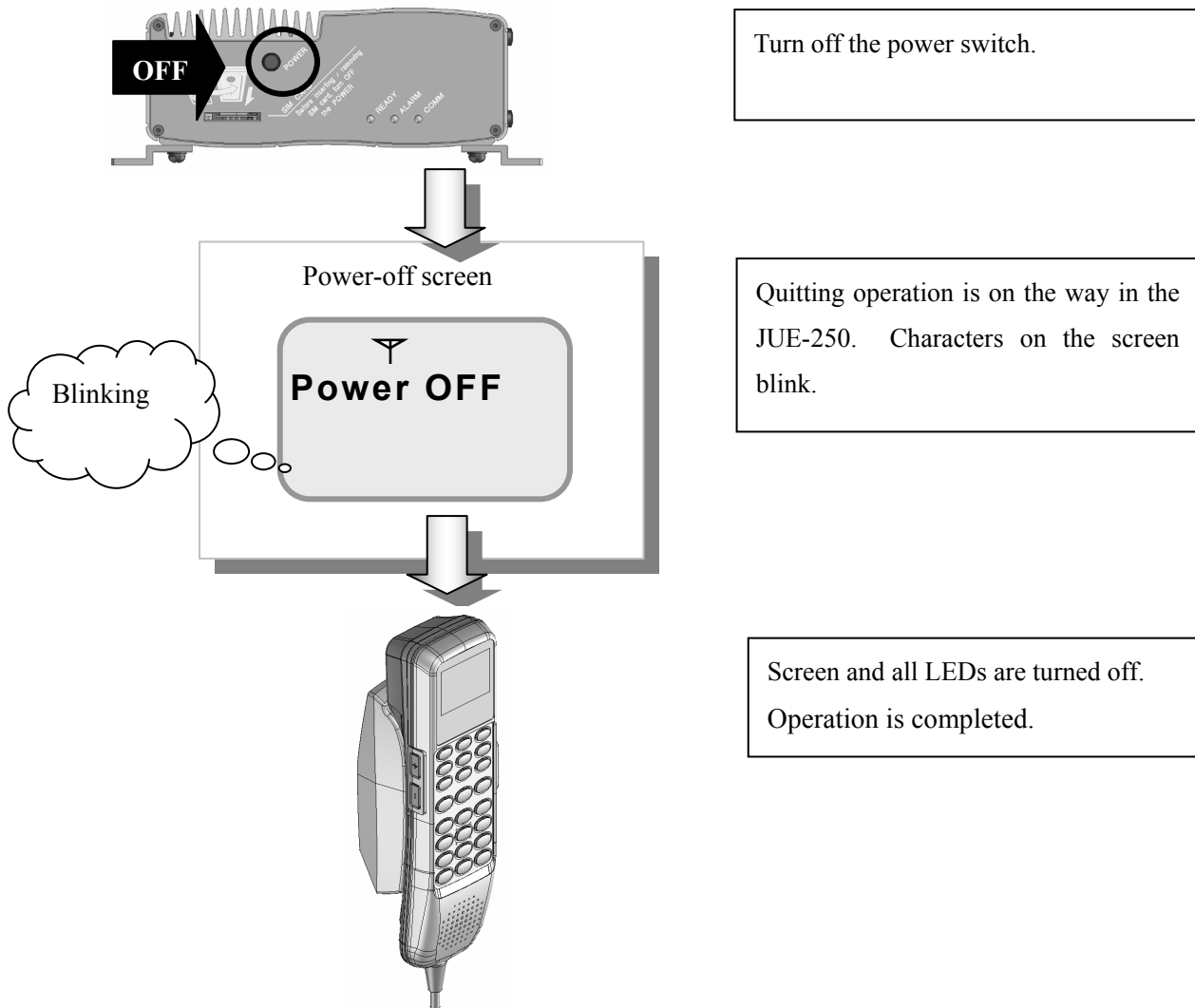


Fig.4.1.4b Screen transition when Power switch is turned off

NOTE

Carry out available countermeasure referring to [8.10.Other screens: TX alarm screen] (p128), 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

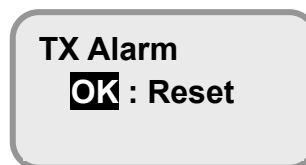


Fig. 4.1.4c TX alarm screen

4.2 Initial setting for communication

Setting flow

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

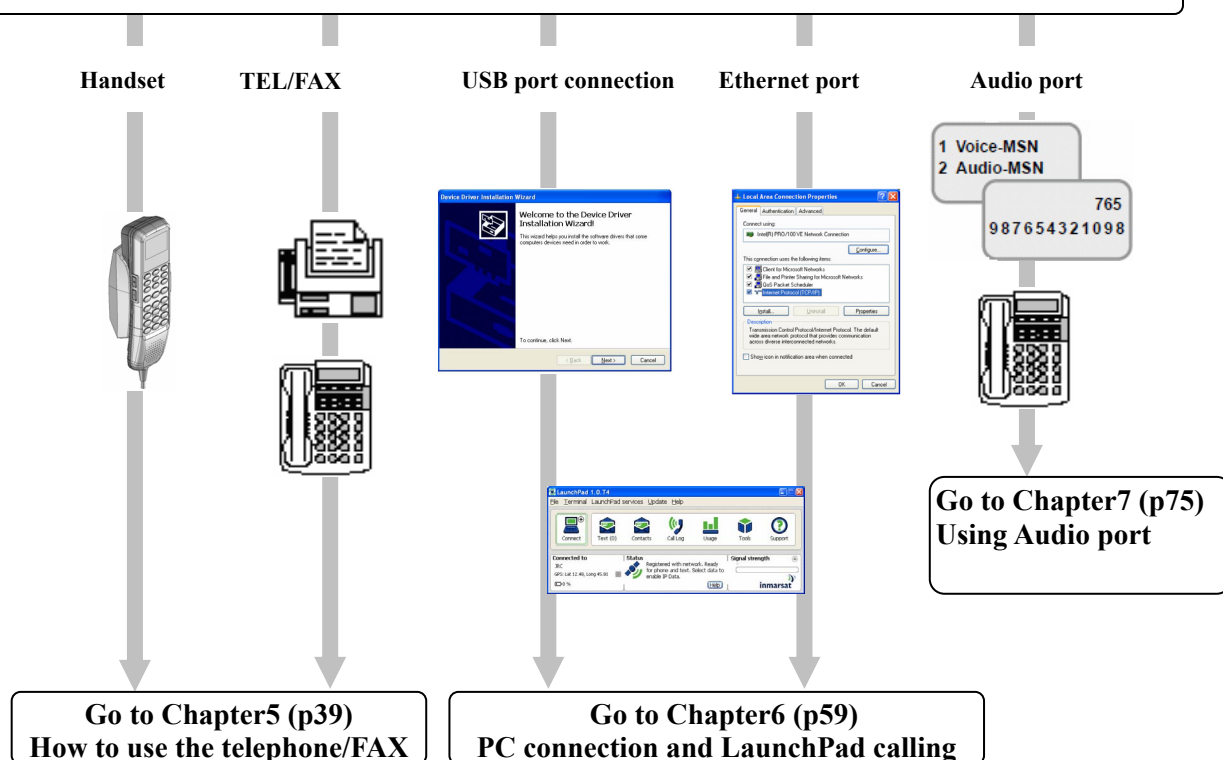


Fig. 4.2a Setting flow

* To setting of JUE-250, switch the user mode to ADMIN first, because ADMIN user authority is required when registering ID.

NOTE

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

Error

Fig. 4.2b Setting error screen

4. Getting started

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.

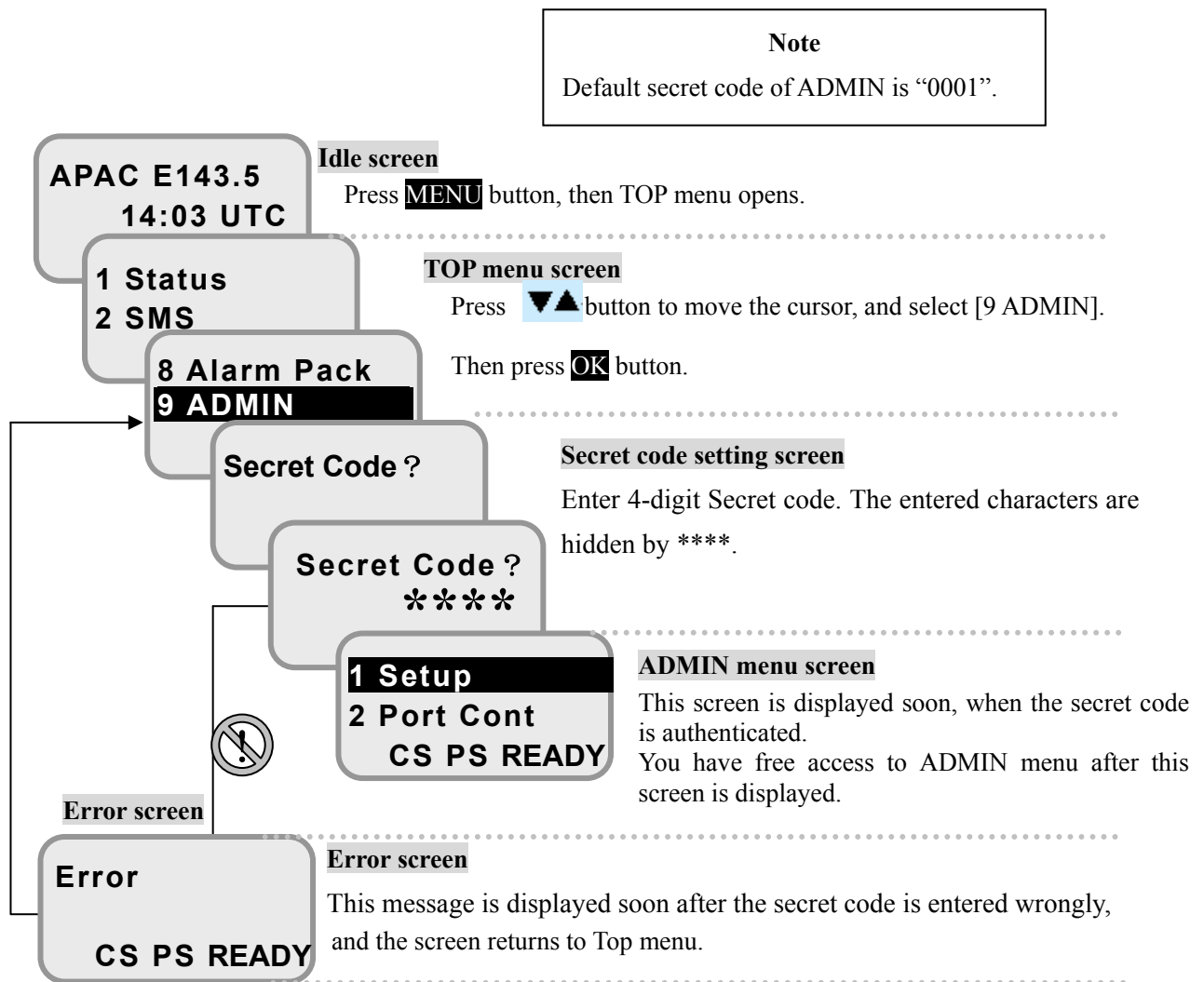


Fig. 4.2.1 Mode setting of GUEST/ADMIN user

Note

* Return to Idle screen by pressing **CLR** button several times or pressing (Off-hook) button once to quit ADMIN user mode.

4.2.2 Setting service type (ADMIN user only)

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 [Port Cont setting item selection] screen.

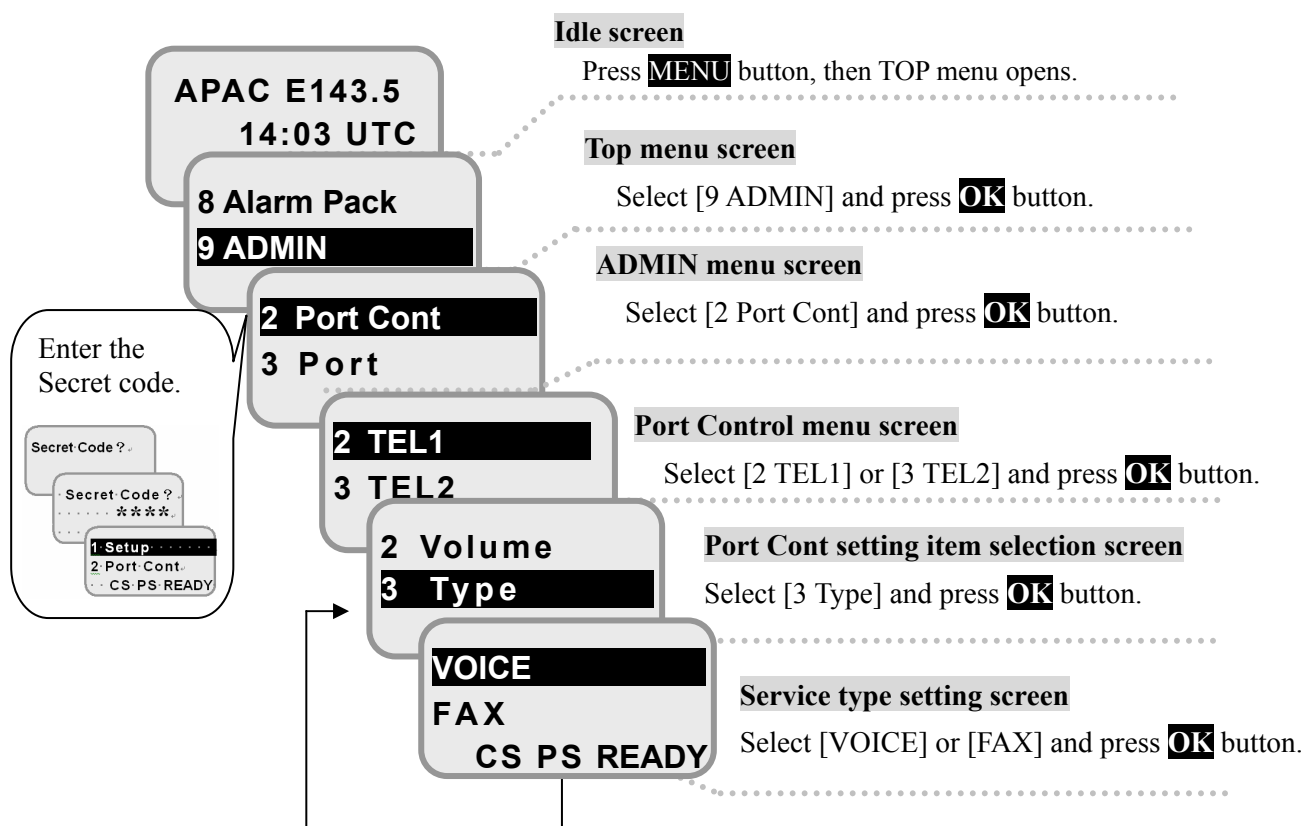


Fig. 4.2.2 Setting service type menu

4. Getting started

4.2.3 Satellite search selection

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.

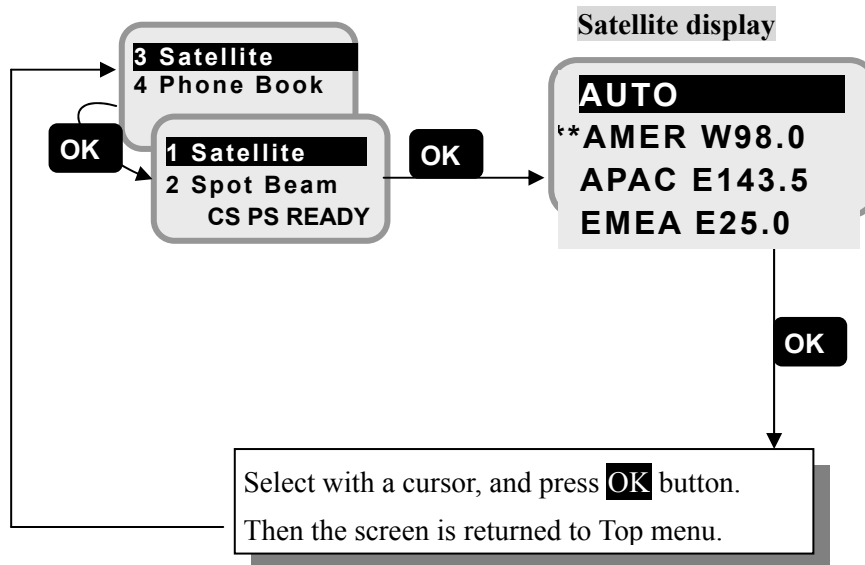


Fig. 4.2.3a Flow of Satellite selection

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.

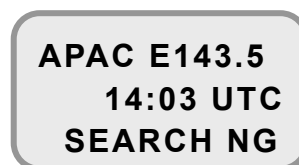


Fig. 4.2.3b SEARCH NG status of Idle screen

5. How to use the telephone / FAX

In chapter 5.1(p42), 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 Forwarding 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 (ADMIN user only) | |
| 5.1.6 Holding on the line | |

In chapter 5.2 (p57), functions of TEL/FAX using the TEL1/TEL2 ports are explained.

Dial-up procedure of the JUE-250

(Available for Handset and terminal telephone)

The telephone number dialed last is memorized in main unit. Redialing of telephone is simple. Refer to the procedure below.

Table 5a. Dial-up procedure of the JUE-250

- 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, which is stored in each port is redialed)
- Secret Code calling

 - Using terminal telephone **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** **#**
 - Using Handset

Press any button to display the Secret Code input request screen, and then carry out regular calling.

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 (p113)].

This is temporary setting, and available for only transmission.

Table 5b. Dial-up procedure of the JUE-250, for forced setting of each service type

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)

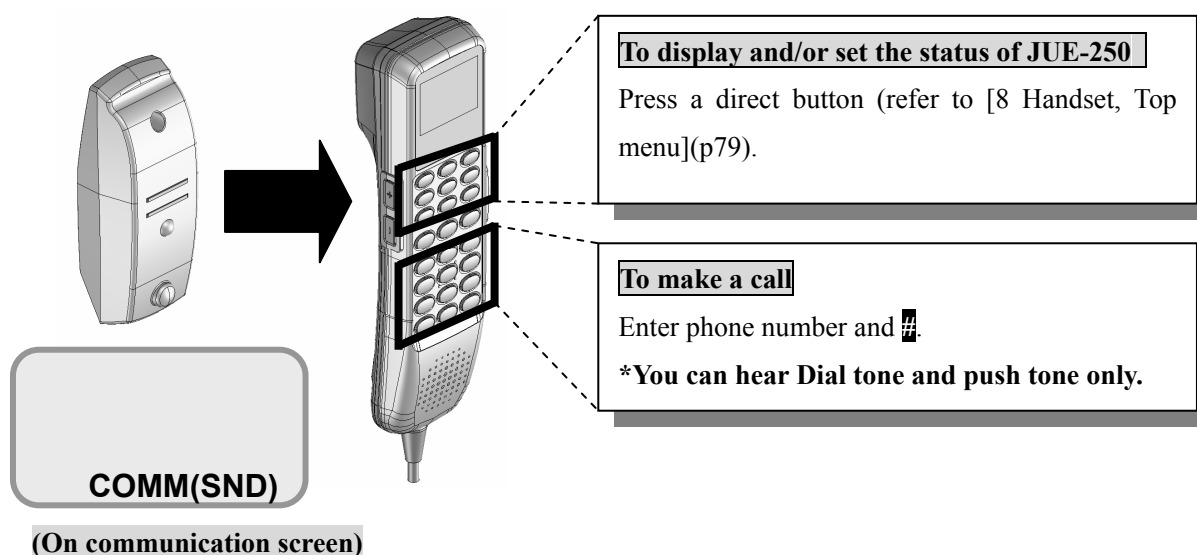


Fig. 5a Operation on Off-hook mode

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

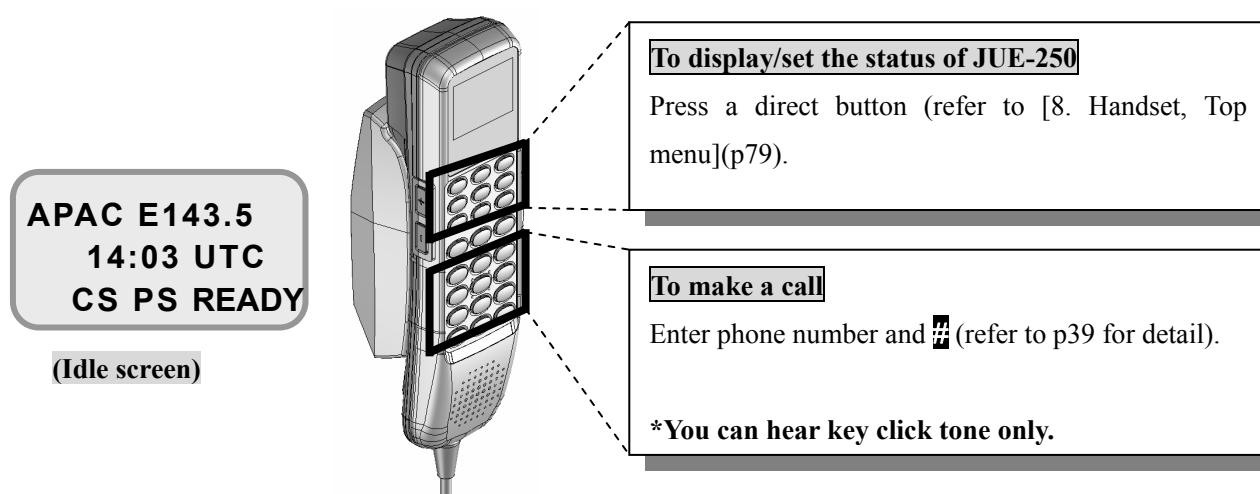


Fig. 5b Operation on On-hook mode

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

Handset displays Secret code request screen first, when the Secret code setting is turned on.

Use each function after entering Secret code.

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].

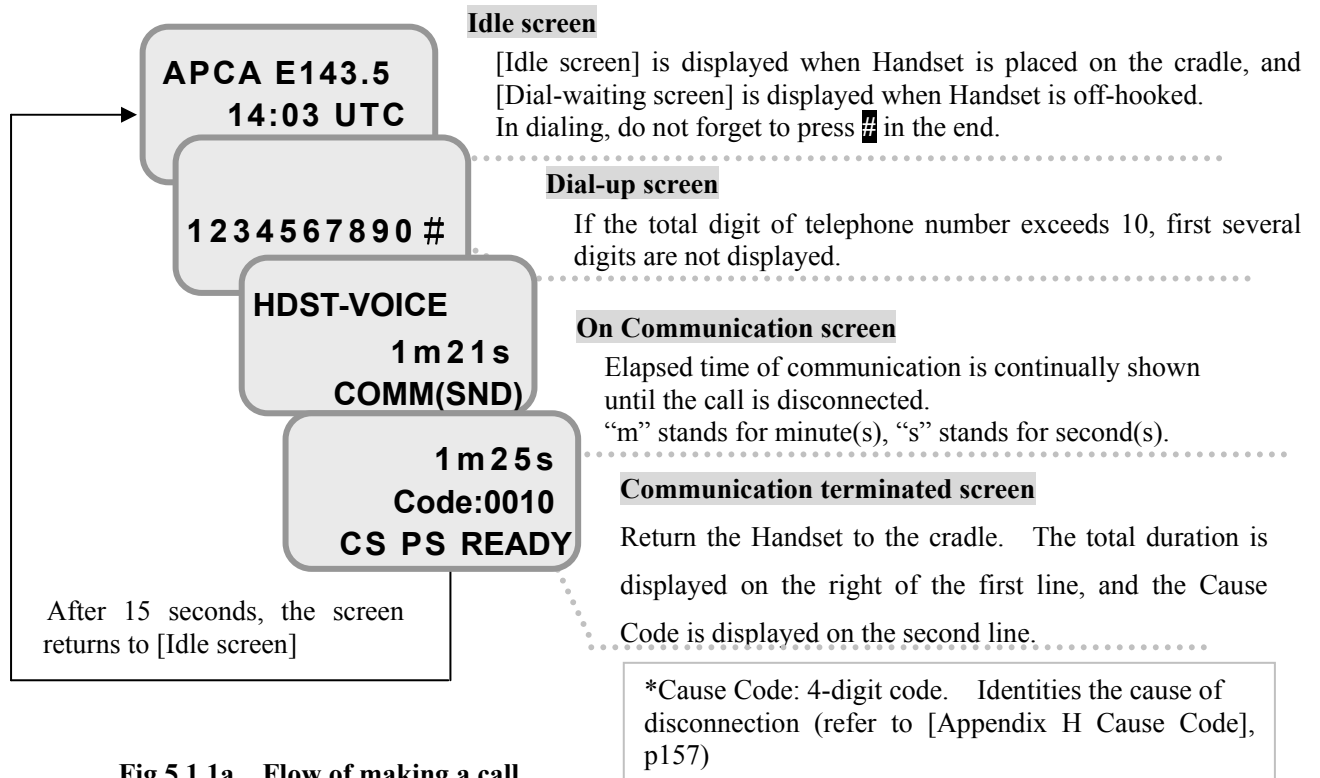


Fig.5.1.1a Flow of making a call

■ 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.

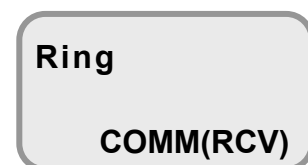


Fig.5.1.1b Arrival screen

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 dial)

Register the phone numbers before the Phone Book (Speed dial) is used.
Refer to [5.1.9 Entry, change and deletion of Phone Book](p52).

To make a call with Speed dial from Handset

Press  button in Idle screen.

[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 **OK** button.

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

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

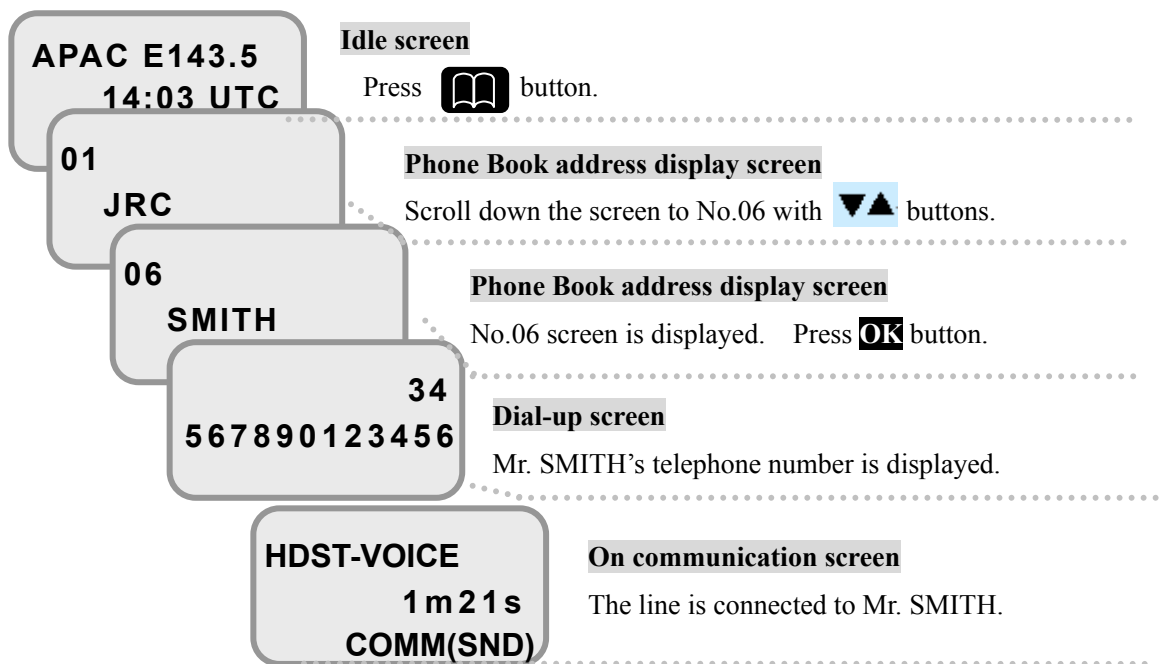


Fig.5.1.2 Flow of using Phone Book (Speed Dial)

Quick procedure for Speed dialing

■ Speed Dialing

Speed Dialing number  

Example) Placing a call to Speed Dialing No.01 → **01**  

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 0081-422-45-9111 with the Redial list, scroll through the screen with  buttons, and place a call to the number using the Redial function.

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

Press  buttons until desired dial number is displayed.

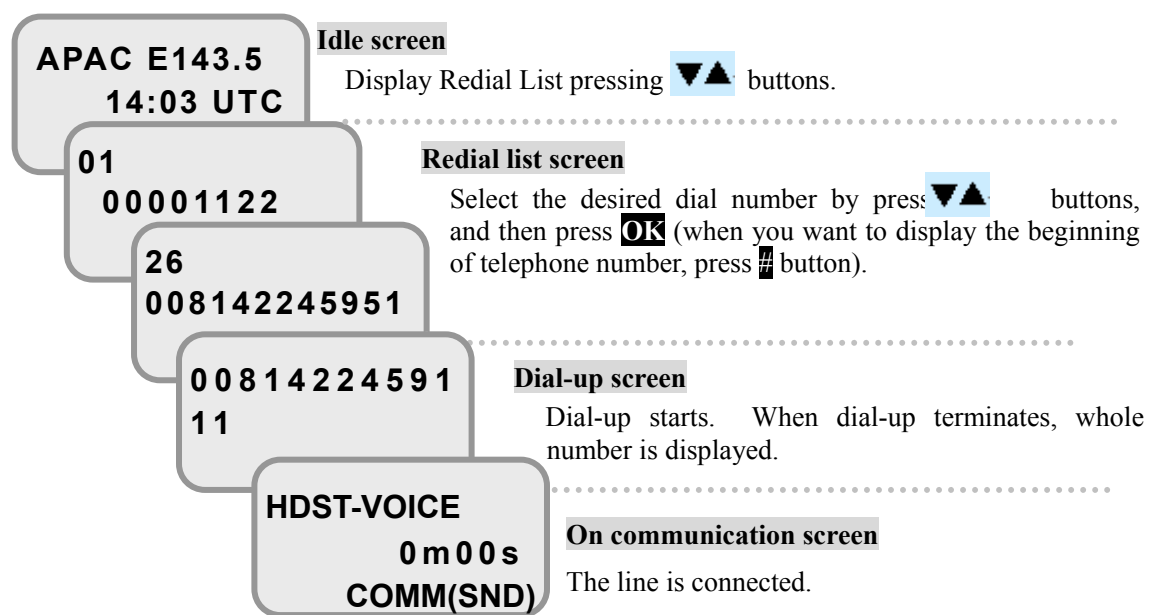


Fig.5.1.3 Flow of using Redial menu

5.1.4 Adjusting voice volume, backlight brightness, and ringer volume

Quick adjustment of voice volume (Handset status: Off-hook mode)

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

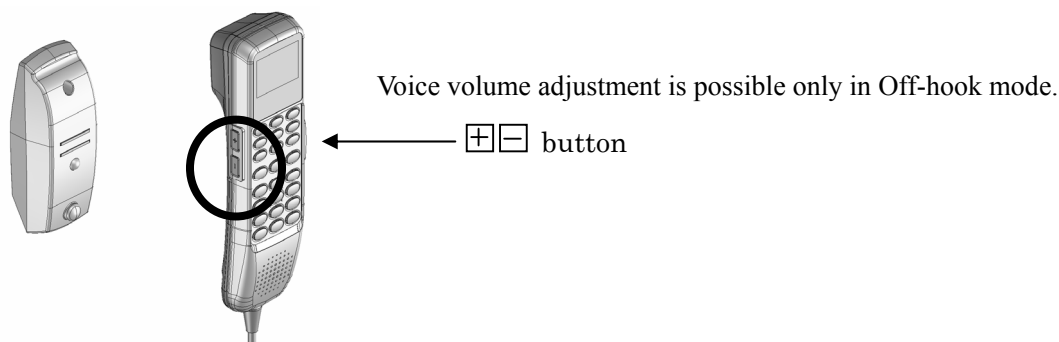


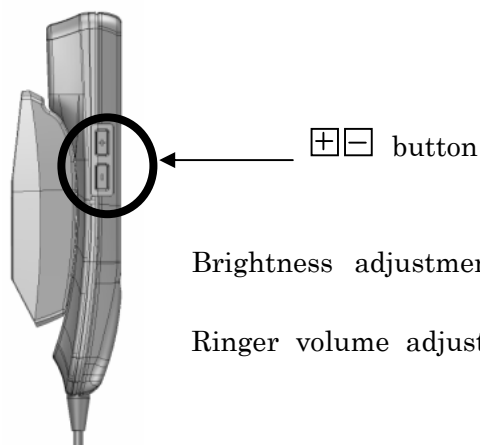
Fig.5.1.4a Quick adjustment of voice volume using $\boxed{+}\boxed{-}$ buttons

Quick adjustment of backlight brightness (Handset status: On-hook/Off-hook mode)

To adjust the brightness of the screen, press $\boxed{+}\boxed{-}$ buttons on the left side of the Handset. Both modes are available, On-hook mode (placing the Handset on the cradle, or pick up the Handset and operating a Menu button) or Off-hook mode.

Quick adjustment of ringer volume (Handset status: On-hook mode)

To adjust the ringer volume, press $\boxed{+}\boxed{-}$ buttons on the left side of the Handset, while it is ringing.



Brightness adjustment of the screen is possible only in

Ringer volume adjustment is also possible while it is ringing only in

Fig.5.1.4b Quick adjustment of backlight brightness and ringer volume using $\boxed{+}\boxed{-}$ buttons

These adjustments are only temporary. To make permanent adjustments, please refer to the [5.1.5 Adjusting ringer volume and pattern, and voice volume (ADMIN user only)](p46).

5. How to use the telephone/FAX

5.1.5 Adjusting ringer volume /pattern/voice volume/backlight brightness (ADMIN user only)

Adjusting the ringer volume

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

Refer to below flow chart, open the menu screens and begin setup.

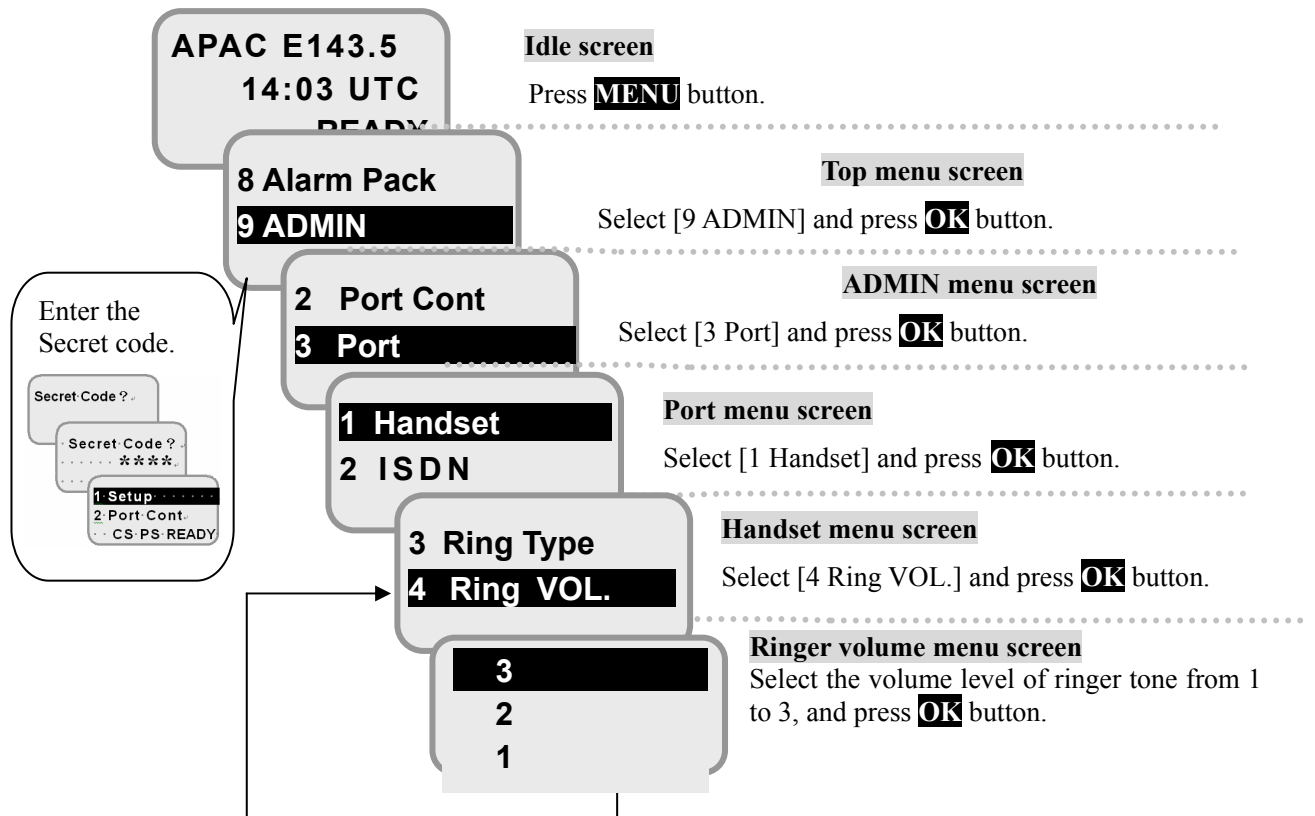


Fig.5.1.5a Flow of setting ringer volume

Selecting the ringer pattern

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

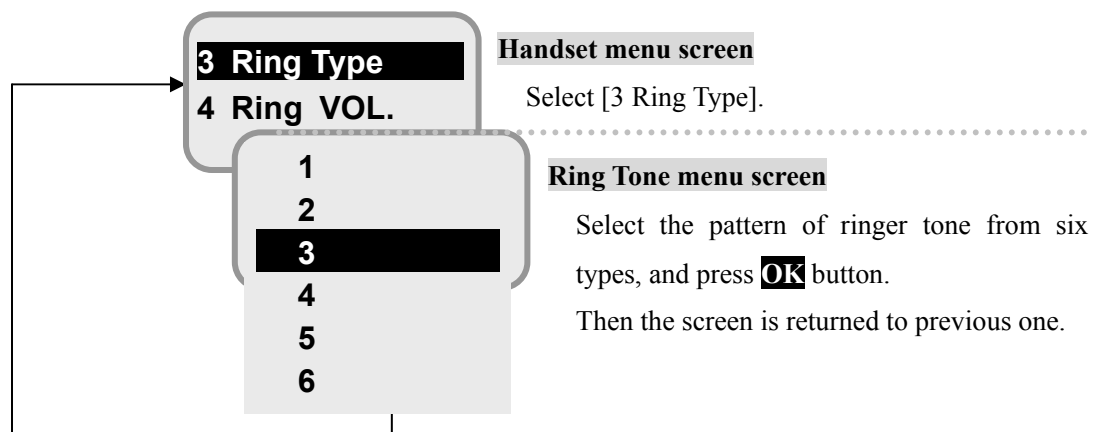


Fig.5.1.5b Flow of setting pattern of Ring Type

Adjusting the voice volume and the backlight brightness by the buttons of Handset

Voice volume can be adjusted using the $\boxed{+}$ $\boxed{-}$ buttons on the left side of Handset (refer to [5.1.4 Adjusting voice volume and the backlight brightness](p45).

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

Setting voice volume from Handset screen

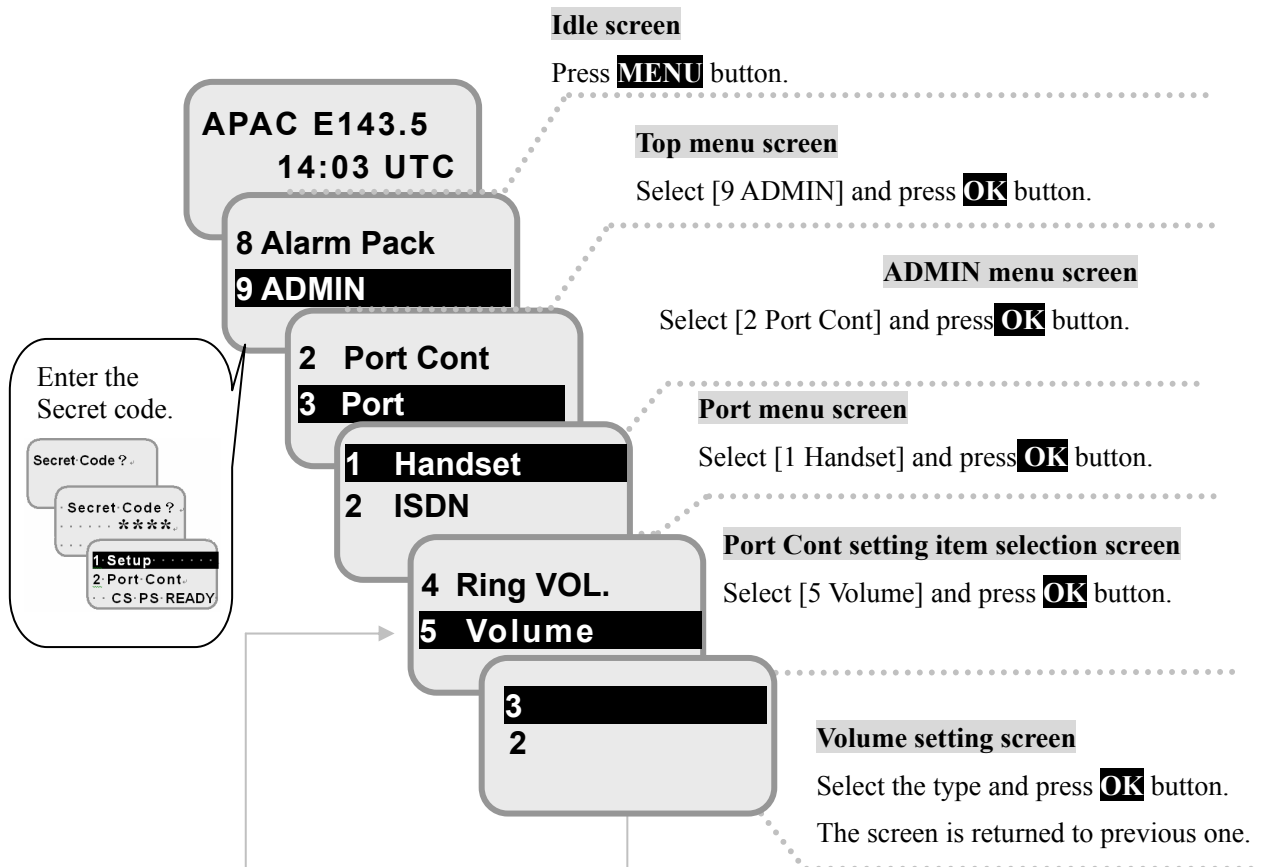


Fig.5.1.5c Flow of setting voice volume

Setting backlight brightness

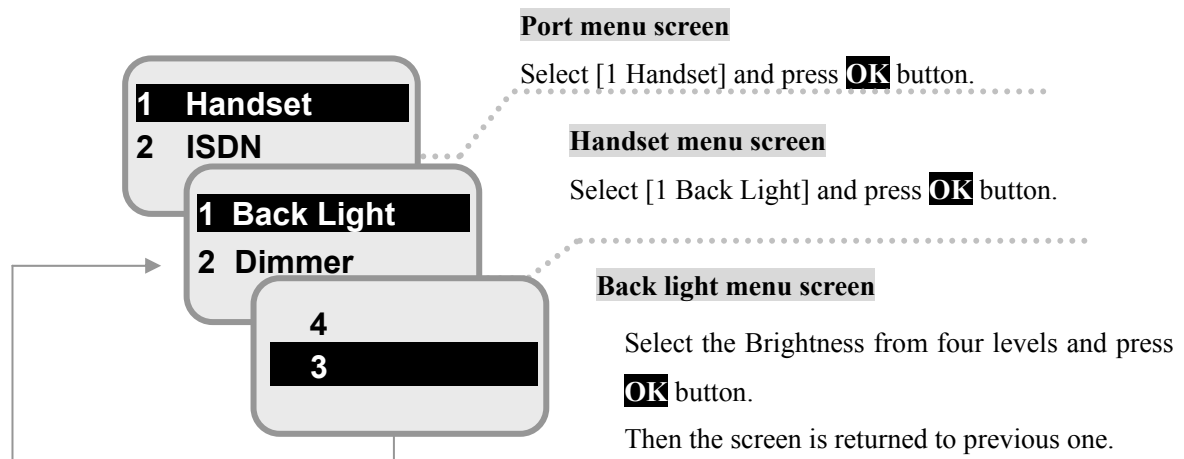


Fig.5.1.5d Flow of setting backlight brightness

5. How to use the telephone/FAX

5.1.6 Holding on the line

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

* The line is not disconnected even though the Handset is returned to the cradle when the OFF HOOK button is pressed during a conversation.

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

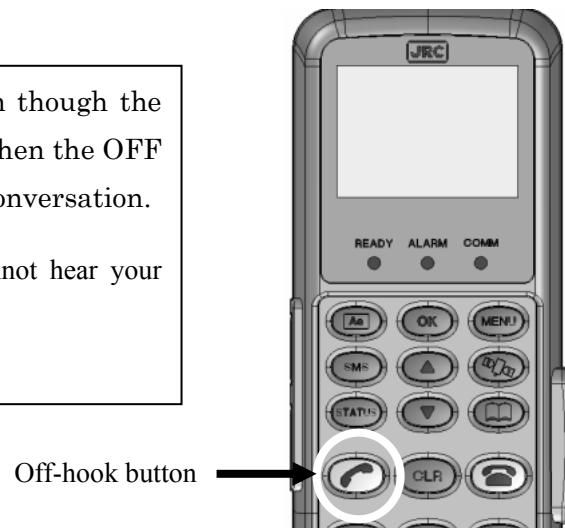


Fig.5.1.6 Hold on the line (by Off-hook button)

5.1.7 Forwarding a call to other terminal

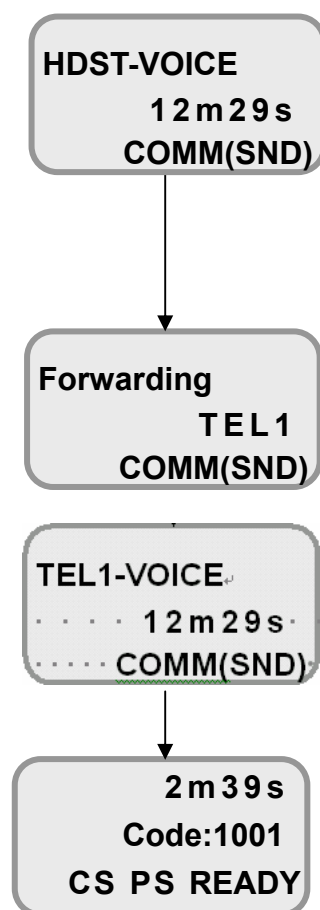
To pass a call to one of the terminal telephones (connected to BDE), press the extension number during communication.

Extension numbers of the JUE-500 are designated as follows.

Terminal telephone connected with TEL port 1.....**+1.

Terminal telephone connected with TEL port 2.....**+2.

Handset.....**+0.

**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.

Forwarding screen (during ringing)

Ring tone sounds on both of Handset and transferred terminal telephone.

The screen will change to [Forwarding screen], and then forwarded destination (TEL1 or TEL2) is displayed.

Forwarding screen (after the call is picked up by destination)

Ring tone sound stops when the forwarded destination picks up the call. The screen displays the duration of the call.

Disconnection screen

When the forwarded destination disconnects the line, 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

Table 5.1.7. Forwarding key operation list

Object	Operation	Performance
Forwarding to TEL1	**1+[On-hook]	TEL1 is called up
Forwarding to TEL2	**2+[On-hook]	TEL2 is called up
Forwarding to Handset	**0+[On-hook]	Handset is called up
(Invalid input→ Forwarding mode cancel)	**3 to 9	Forwarding mode is cancelled and returned to [on communication status]
Canceling forwarding mode	**#	Forwarding mode is cancelled and returned to [on communication status]

Forwarding is cancelled by pressing any key from 0 to 9 and * or #, with hearing the busy tone which prompts on-hook. User will hear a dial tone when the forwarding mode is

5.1.8 Using a Secret Code

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.)

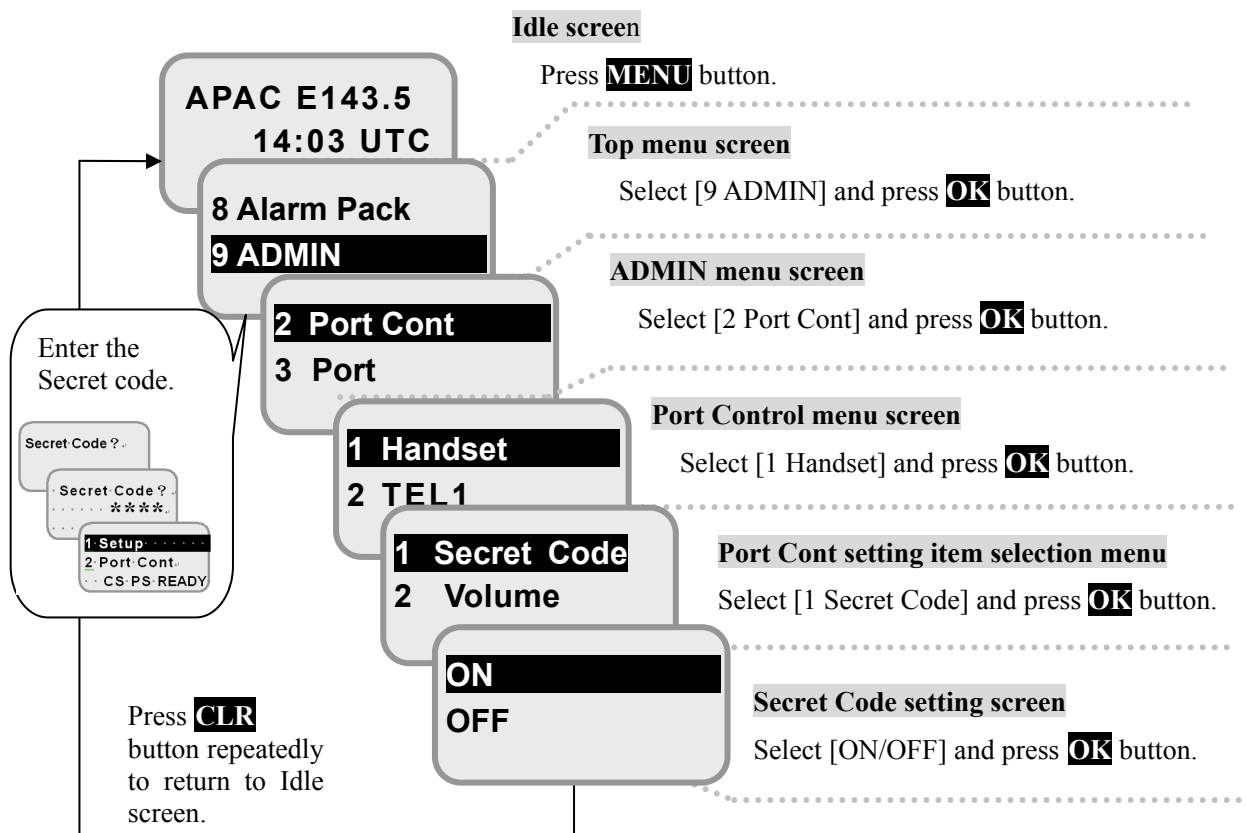


Fig.5.1.8a Flow of setting the Secret Code

Secret Code calling

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

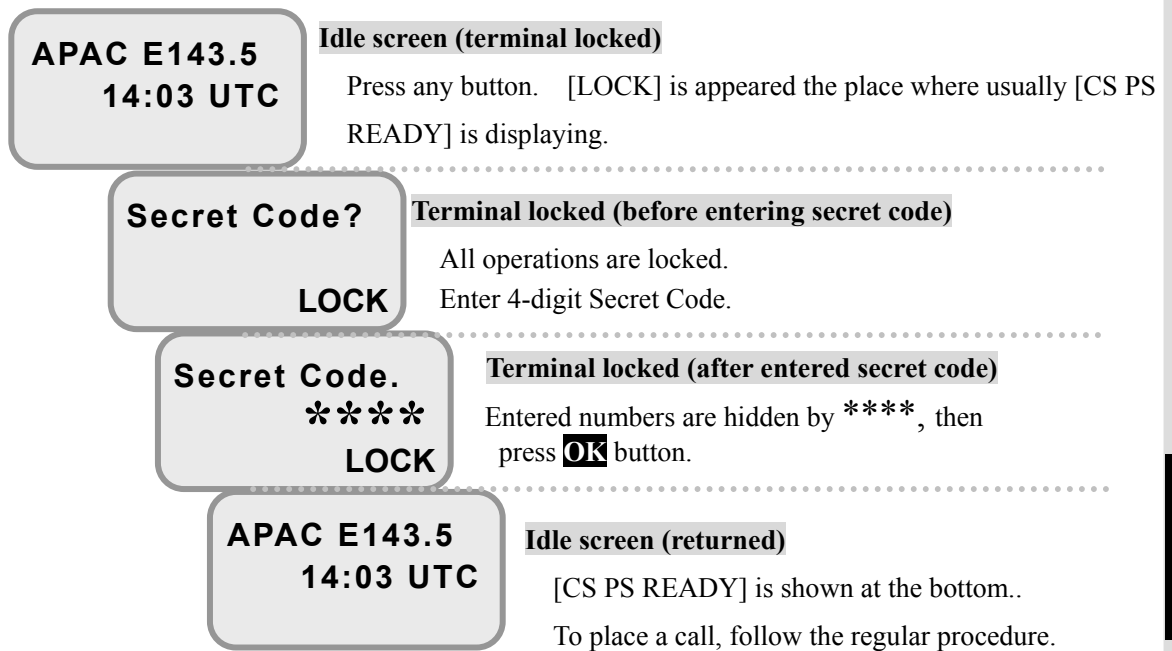


Fig.5.1.8b Operating flow of Secret Code call

*When Secret code is entered, the screen transits to idle screen.
However, if incorrect Secret code is entered, it returns to terminal lock screen when any key is pressed.

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). Maximum 99 Speed Dial numbers can be registered. The procedures of registration and setting are explained below.

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

(Name) JOHN (Phone Number) 012345678901234

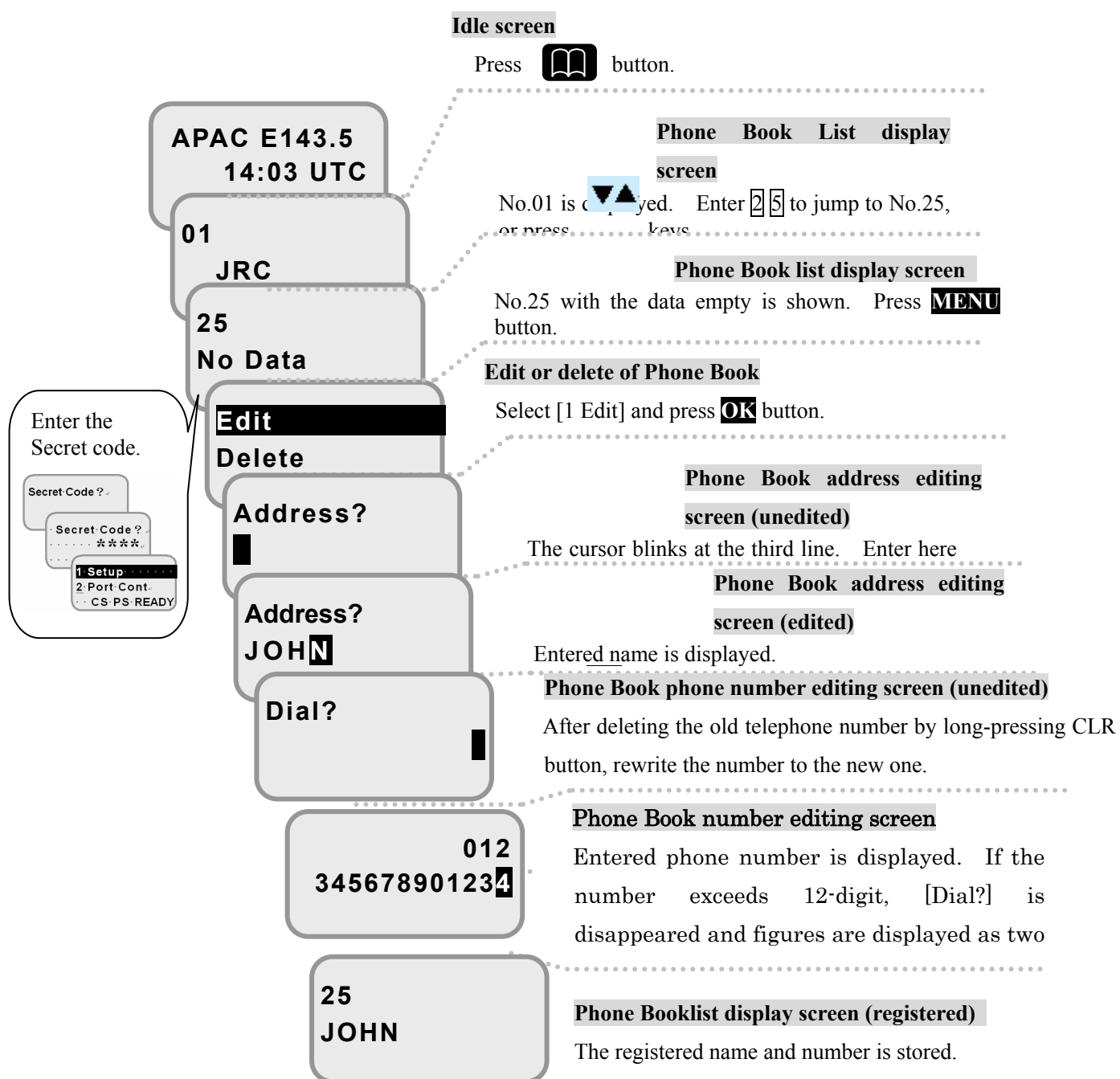


Fig.5.1.9a Flow of telephone number registration to Phone Book

■ Changing party name and telephone number

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

Change the phone number to 09870987654321098765.

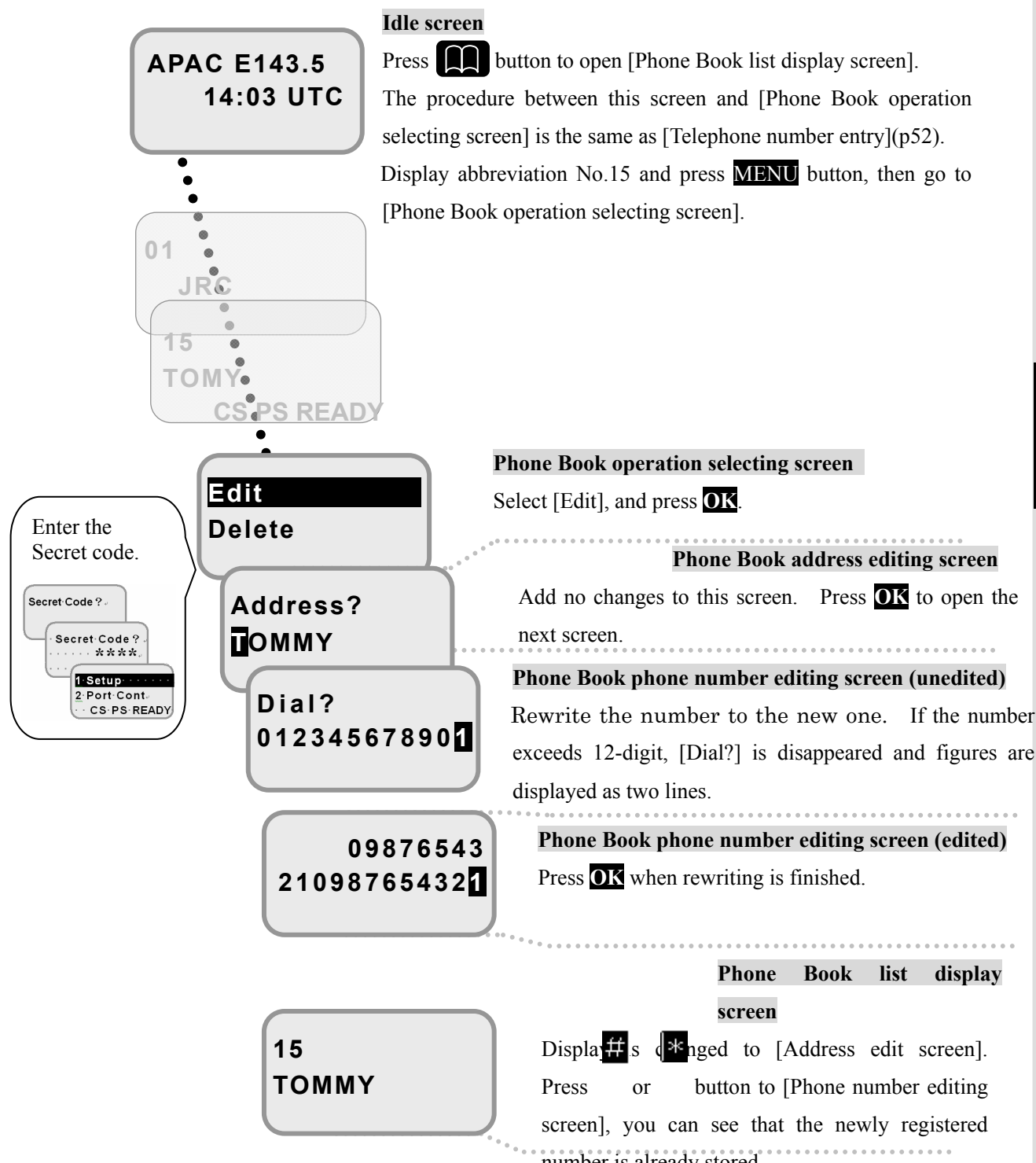


Fig.5.1.9b Flow of changing telephone number and name on Phone Book

5. How to use the telephone/FAX

■Deleting data

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

08
RRC

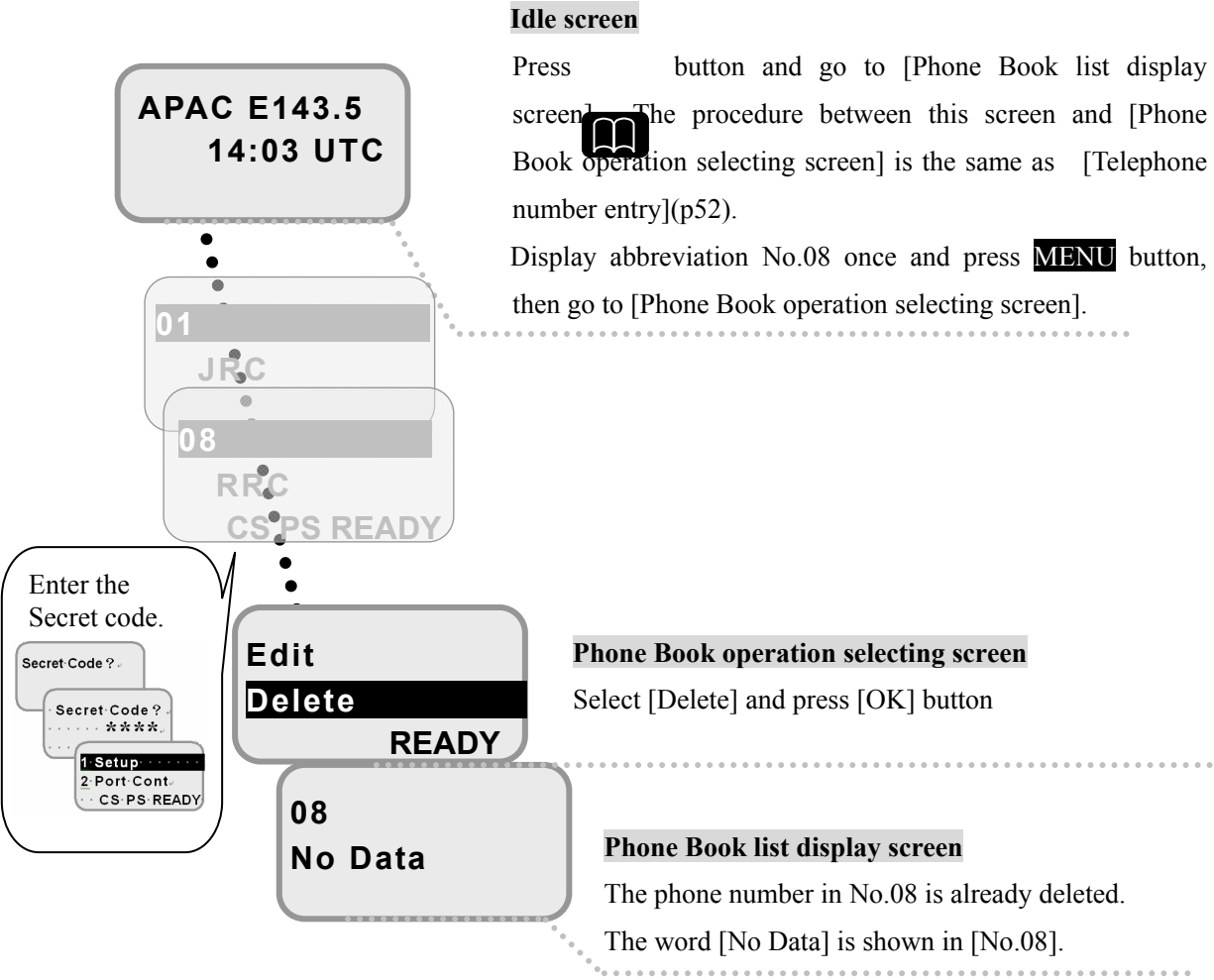


Fig.5.1.9c Flow of deleting data on Phone Book

5.1.10 Displaying Call Log

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

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

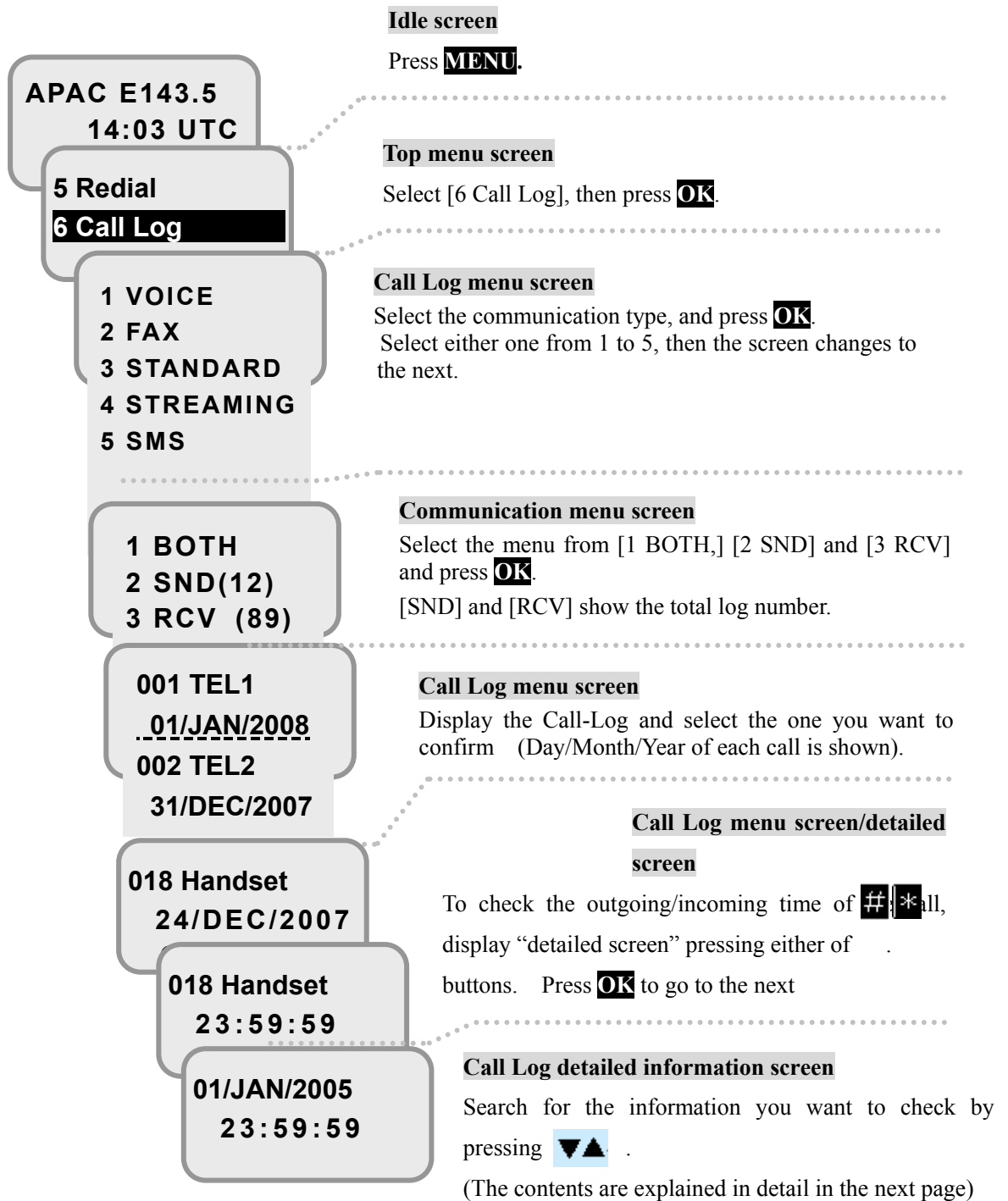


Fig.5.1.10a Flow of displaying Call Log

Call Log detailed information screen (VOICE/FAX service is selected)

01/JAN/2008	 Day/Month/Year of the call
23:59:59	... Hour/Second/Minute of the call (UTC fixed)
012345678901	Party's telephone number (maximum 21-digit)
23456789	
SAT:	Satellite used
APAC E143.5	Communication duration
240m59s	
JRC	Secret Code User's Name*
SND	Either sent/received data is displayed
0A1F	4-digit Cause code

Fig.5.1.10b Call Log detailed information screen (VOICE/FAX service is selected)

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

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

The contents of Call Log detailed information screen are difference depending on the service.

Refer to [8.6 Call Log (Communication history) menu] (p101).

5.2 Using telephone/FAX with TEL1/2 port

The telephone number dialed last is memorized in BDE. Redialing of telephone is simple. Refer to the procedure below.

Table 5.2a. Dial-up procedure of the JUE-250**Dial-up procedure of the JUE-250 (Available for Handset 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 which is stored in each port is redialed)
- S 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 #**

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 (p113)].

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

Table 5.2b. Dial-up procedure of the JUE-250, for forced setting of each service type

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 * #

The contents of above-mentioned table are the same as the one of the second page of this chapter, table 5b.

6. PC connection and LaunchPad calling

This section explains the connection for USB and Ethernet port to PCs, and procedures for making a call using LaunchPad. Install the LaunchPad into your PC from attached CD-ROM, before you use LaunchPad at [6.3 Making a call using LaunchPad].

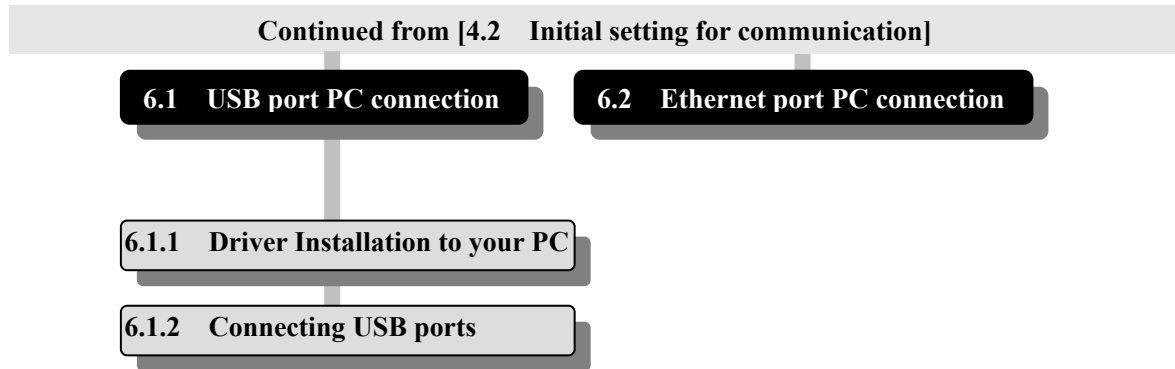


Fig.6a Flow of [USB/Ethernet port PC connection]

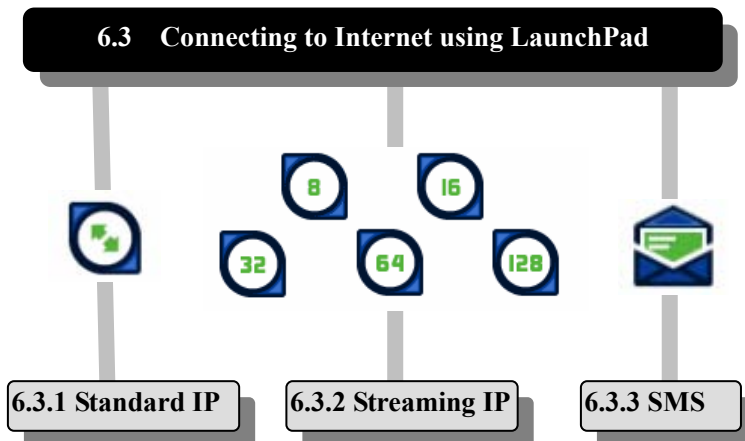


Fig.6b Flow of [Connecting to Internet using LaunchPad]

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-jpfilnt-1145-1001-02-03-36.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 [License Agreement] window

5. [Choose Install Location] window is displayed.

Click [Next].

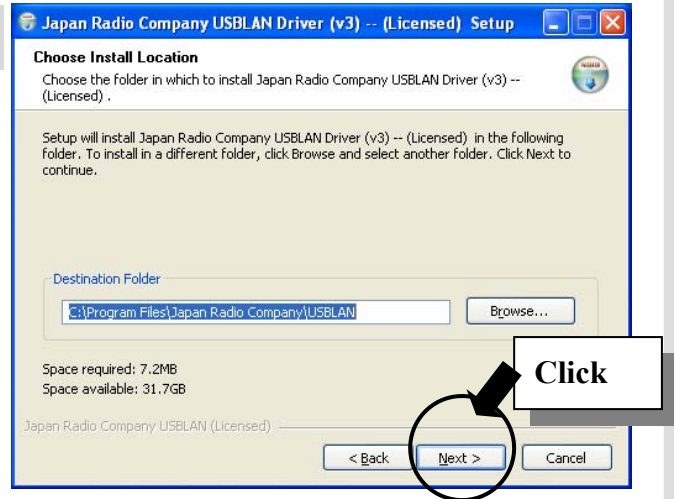


Fig.6.1.1c [Choose Install Location] window

6. [Choose Components] window is displayed.

Click [Install].

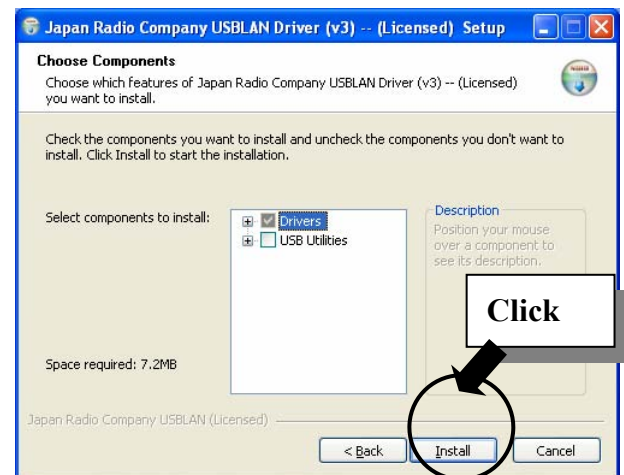


Fig.6.1.1d [Choose Components] window

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

Wait until the end of installation is shown.

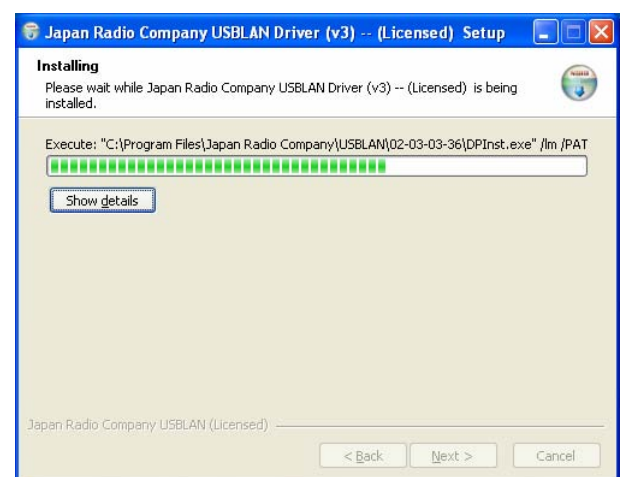


Fig.6.1.1e [Installing] window

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

9. [Software Installation] window is displayed.

Click [Continue Anyway].



Fig.6.1.1g [Software Installation] window

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

Click [Finish].



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

11. [Installation Complete] window is displayed.

Click [Next].

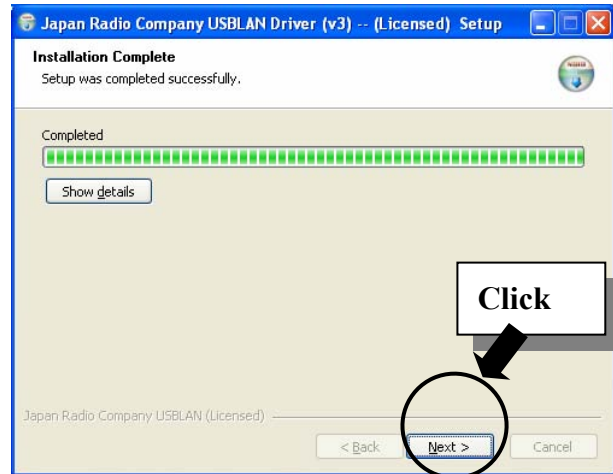


Fig.6.1.1i [Installation Complete] window

12. [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].

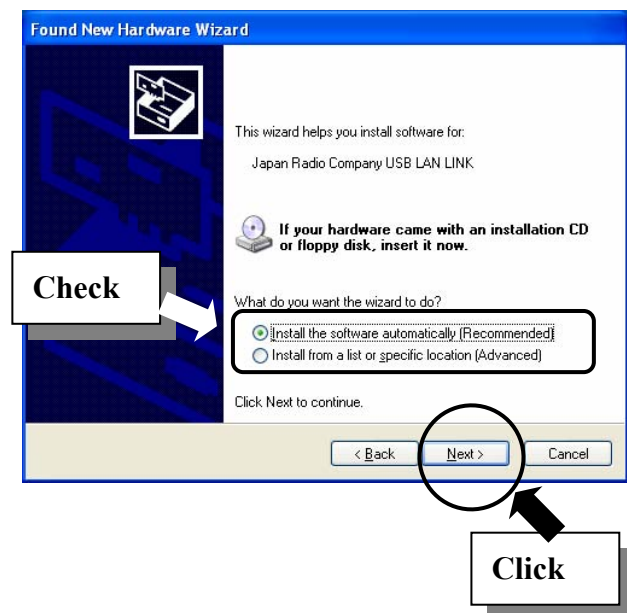


Fig.6.1.2b [This wizard helps you install software for:....] window

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].

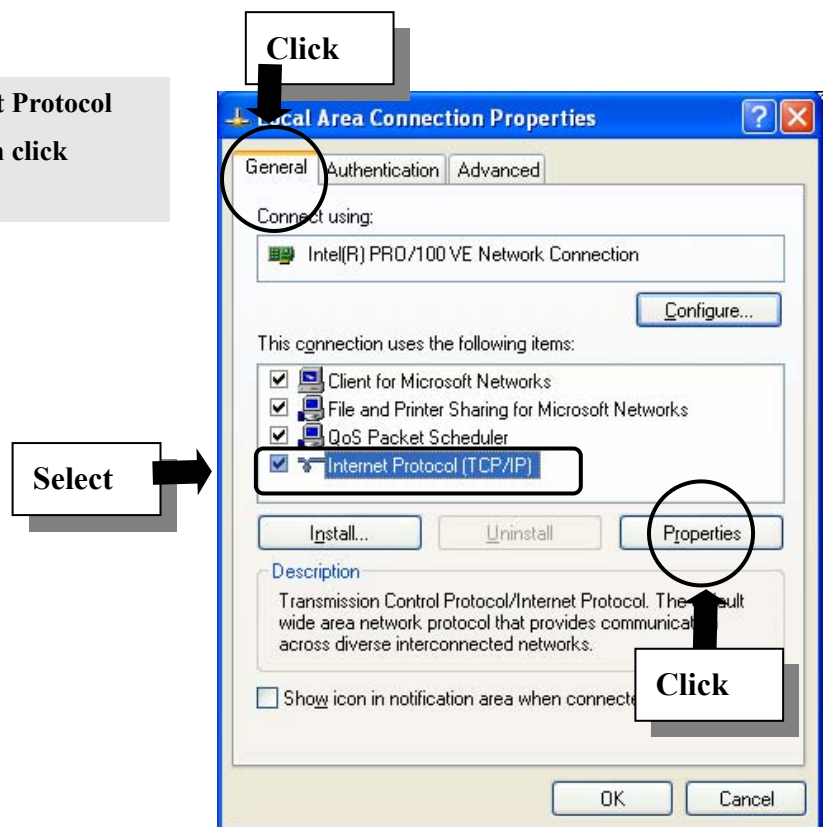


Fig. 6.2a Local Area Connection Properties window

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

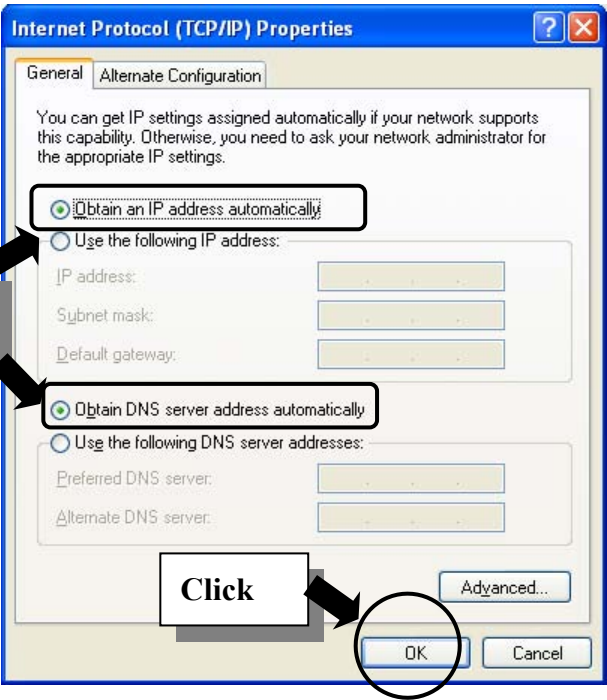


Fig. 6.2b Internet Protocol (TCP/IP) Properties window

IP addressing on the JUE-250

- In normal operation, main unit uses its built-in DHCP server to allocate IP address automatically, to the PC. If you want to manually set up IP addressing, you can use DNS, as shown below. For the IP address range refer to [8.9.3.3 Ethrenet setting menu] (p117).

DNS	If you use BGAN.INMARSAT.COM as your APN, the default DNS addresses are 172.30.194.8 and 172.30.194.11 (as of December 2009) If you use another APN, your Distribution Partner supplies you with a DNS address for your APN.
-----	---

- To test connectivity between your PC and the terminal, ping **to the terminal IP address** from your PC. If a reply is received, your PC is connected to the terminal.
- The main unit allocates an IP address to each user connected to the Ethernet or USB interface, up to a maximum of 10 users (only 1 user can connect USB), and then maps the IP address to a network address for full Network Address Translation (NAT). Each user can therefore open a separate data connection from the main unit, and does not have to share network connections.

6.3 Connecting to Internet using LaunchPad

By using LaunchPad, communications with services of Standard IP, Streaming IP, or SMS can be used very easily and quickly. Installation of LaunchPad is preliminarily required for this chapter, set the attached CD into your PC and install it.

6.3.1 Standard IP

Standard IP Connection/Disconnecting procedures are mentioned below.

[Connection]

1. Open LaunchPad by double-clicking on the LaunchPad icon on your desktop, and click [+], which is located on the [Connect] button.

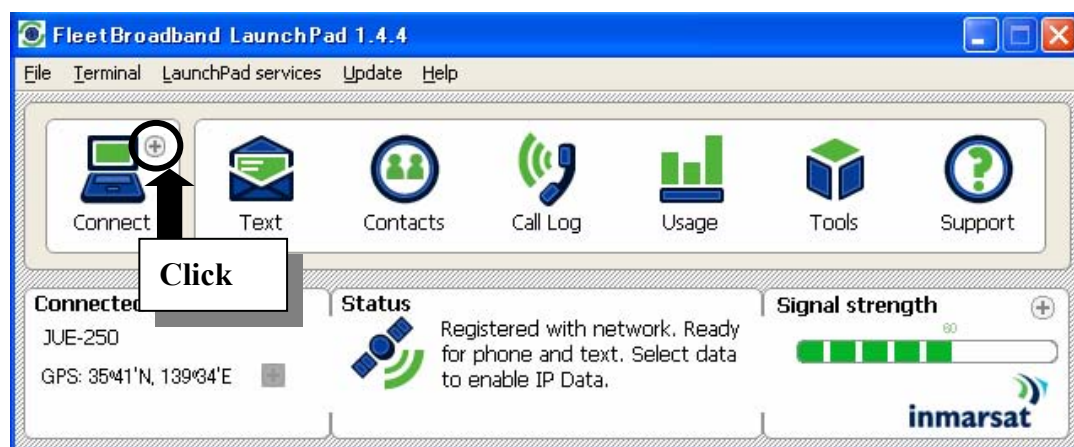


Fig.6.3.1a Main window of LaunchPad

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

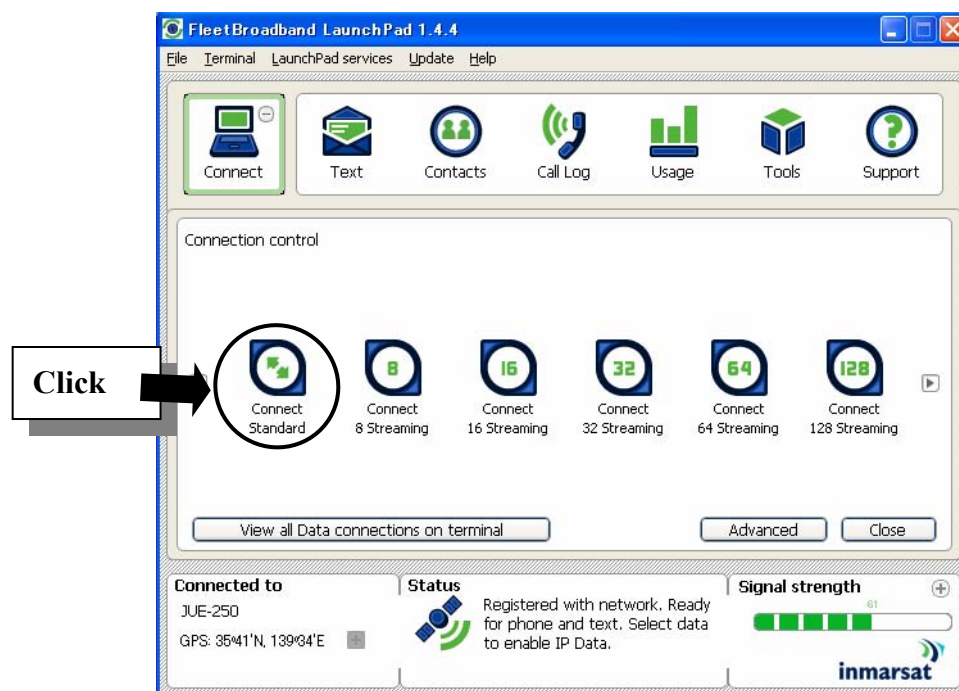


Fig.6.3.1b [Connection control] window

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

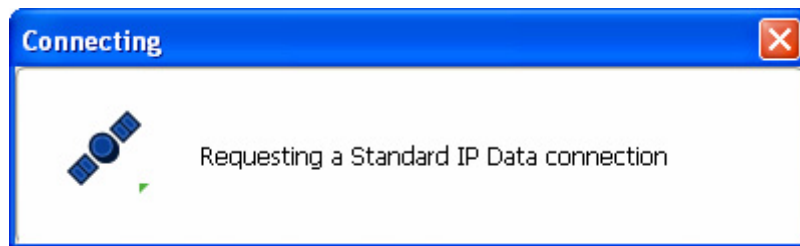


Fig.6.3.1c [Connecting] window

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...].

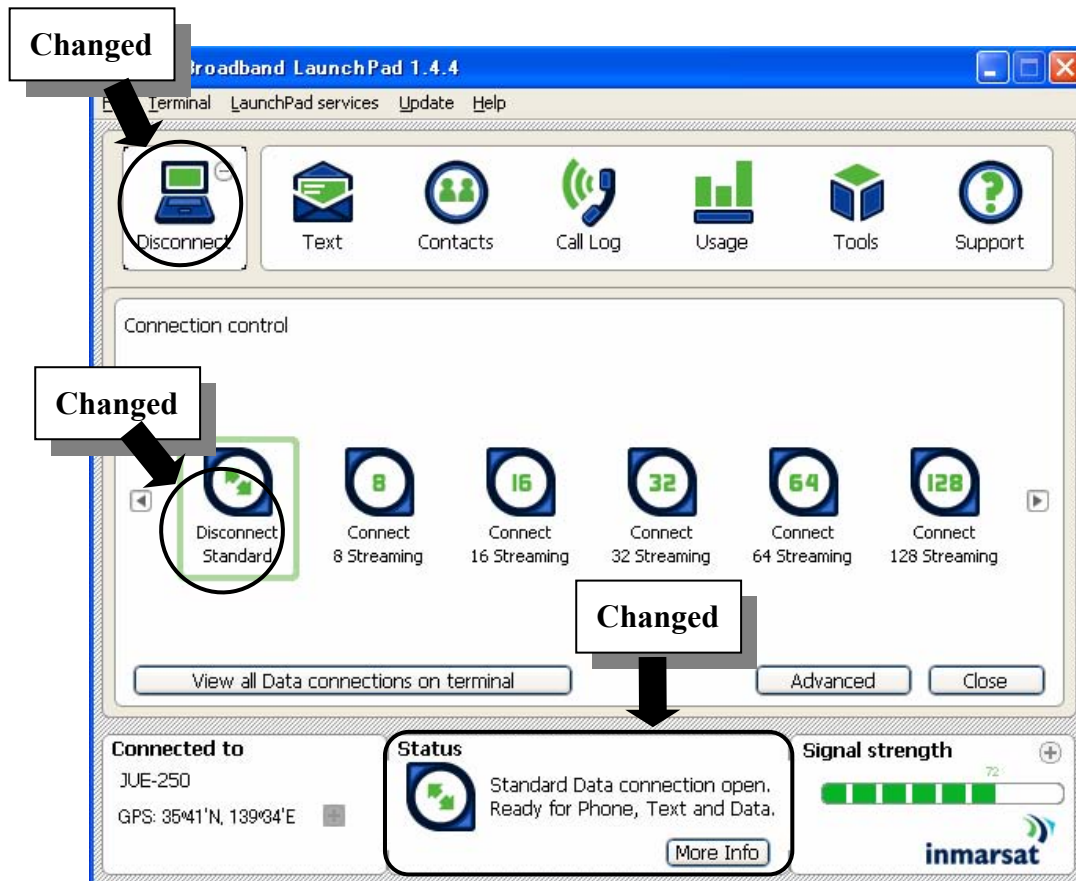


Fig.6.3.1d [Connection control] window (connection succeeded)

[Connecting to Internet]

Standard Data connection is opened. Use your desirable tool.

[Disconnection]

Click [Disconnect] icon.

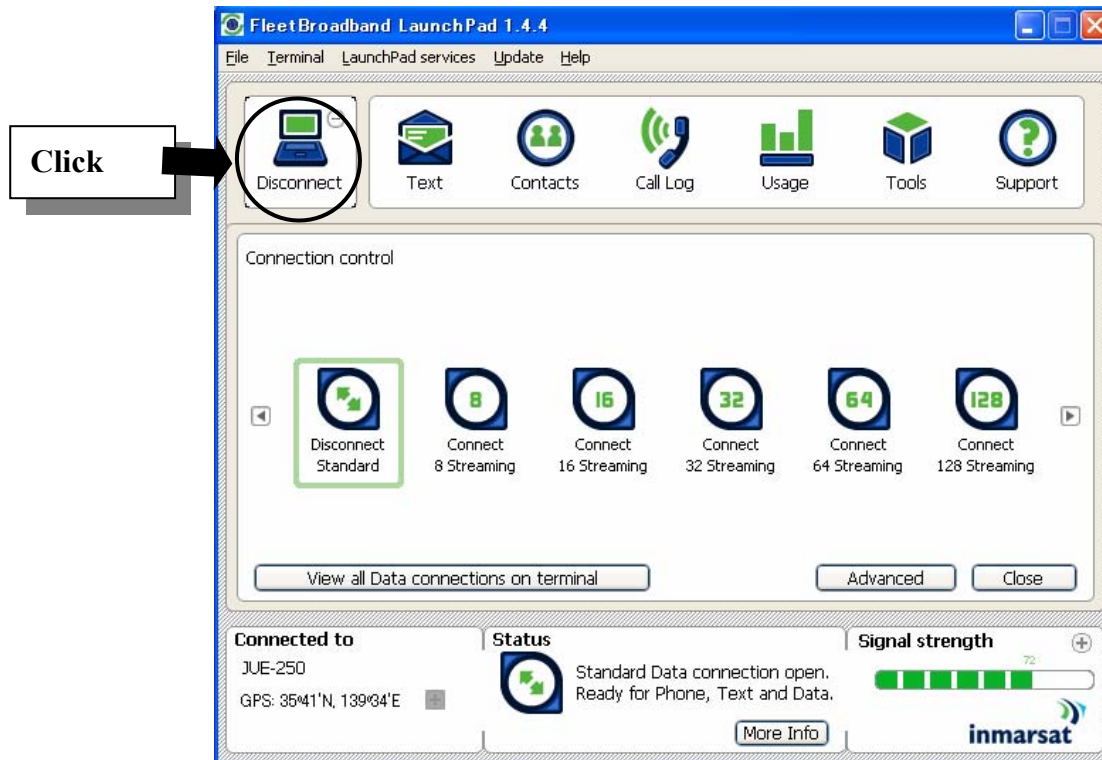


Fig.6.3.1e [Connection control] window (to disconnect the service)

6.3.2 Streaming IP

(Below procedure is for 32kbps Streaming IP service. For 8kbps, 16kbps, 64kbps or 128kbps, difference is only using icons) .

[Connection]

1. Open LaunchPad by double-clicking on the LaunchPad icon on your desktop, and then click [+], which is located on the [Connect] button.

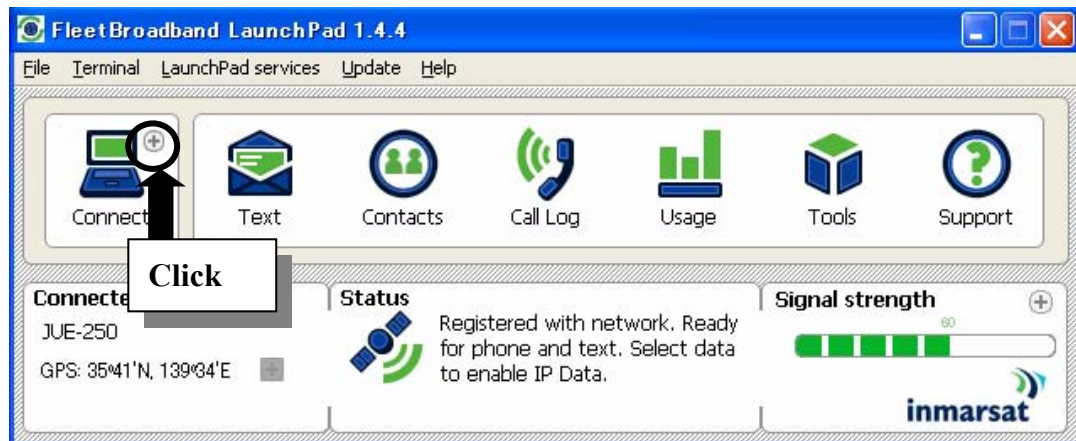


Fig.6.3.2a Main window of LaunchPad

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

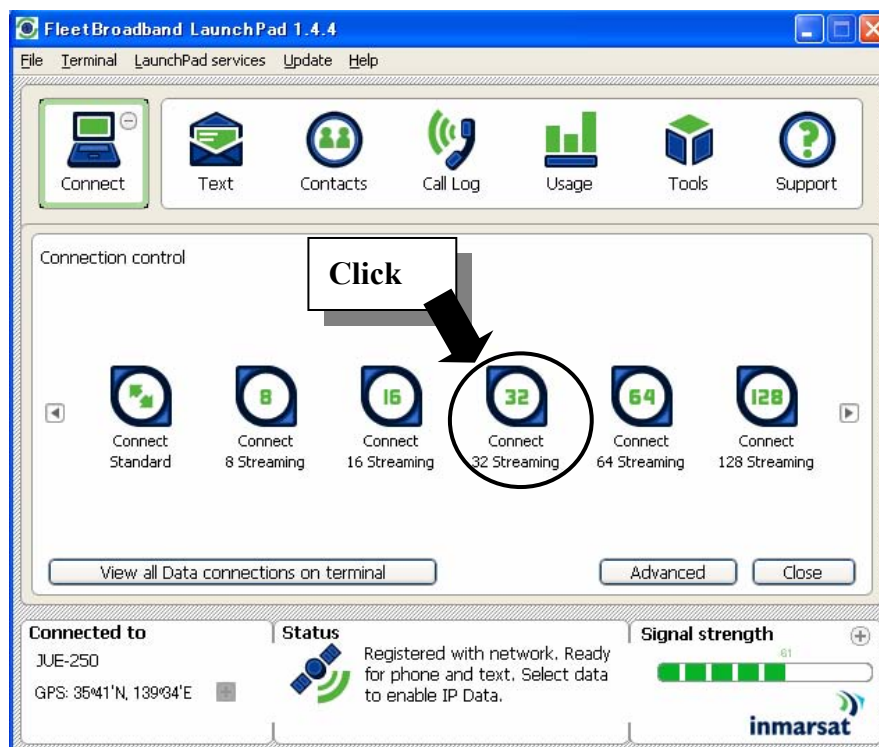


Fig.6.3.2b [Connection control] window

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

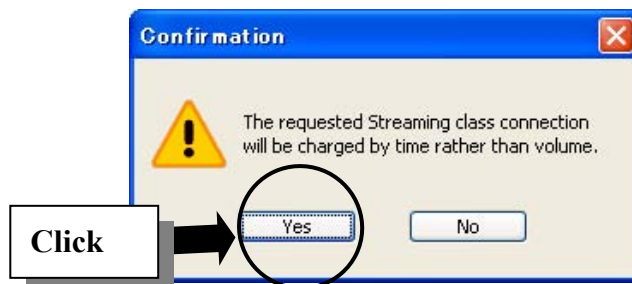


Fig.6.3.2c Confirmation window

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

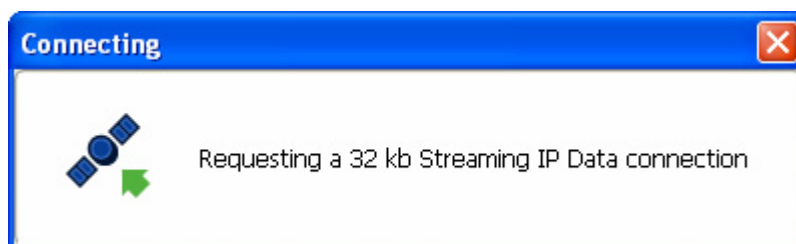


Fig.6.3.2d [Connecting] window

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 [Streaming Data connection open...].

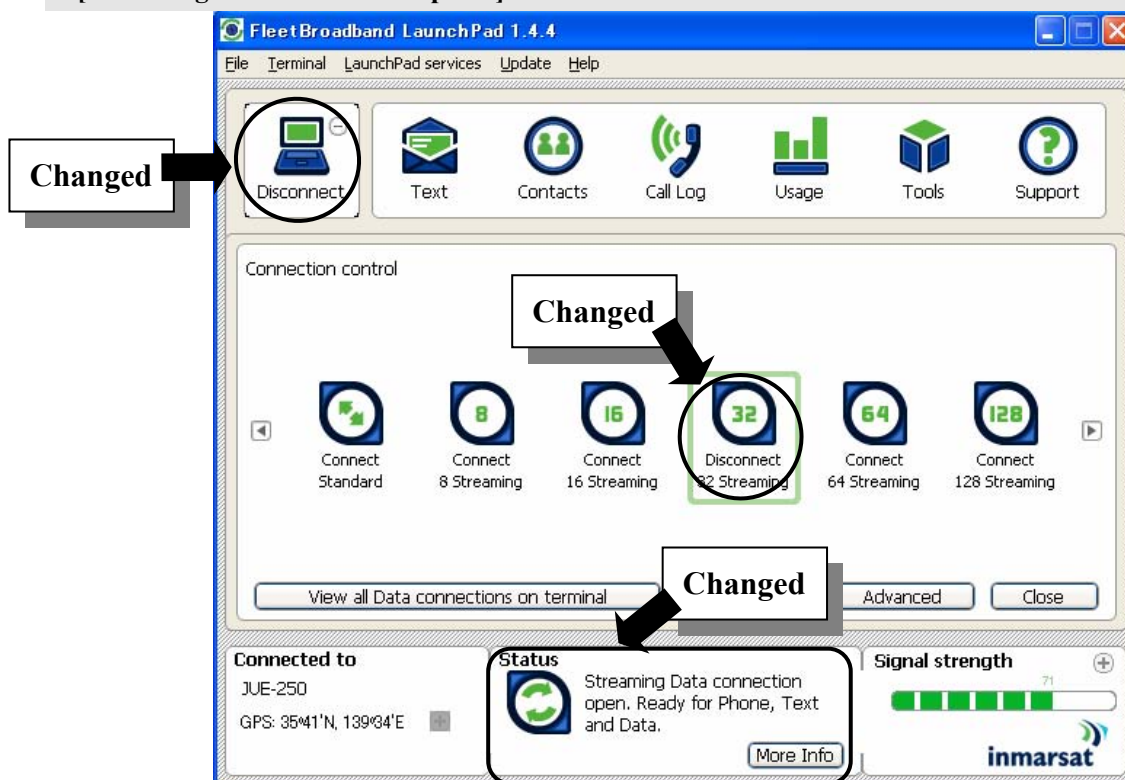


Fig.6.3.2e [Connection control] window (connection succeeded)

[Connection]

Streaming Data connection is opened. Use your desirable tool.

[Disconnection]

Click **[Disconnect]** icon.

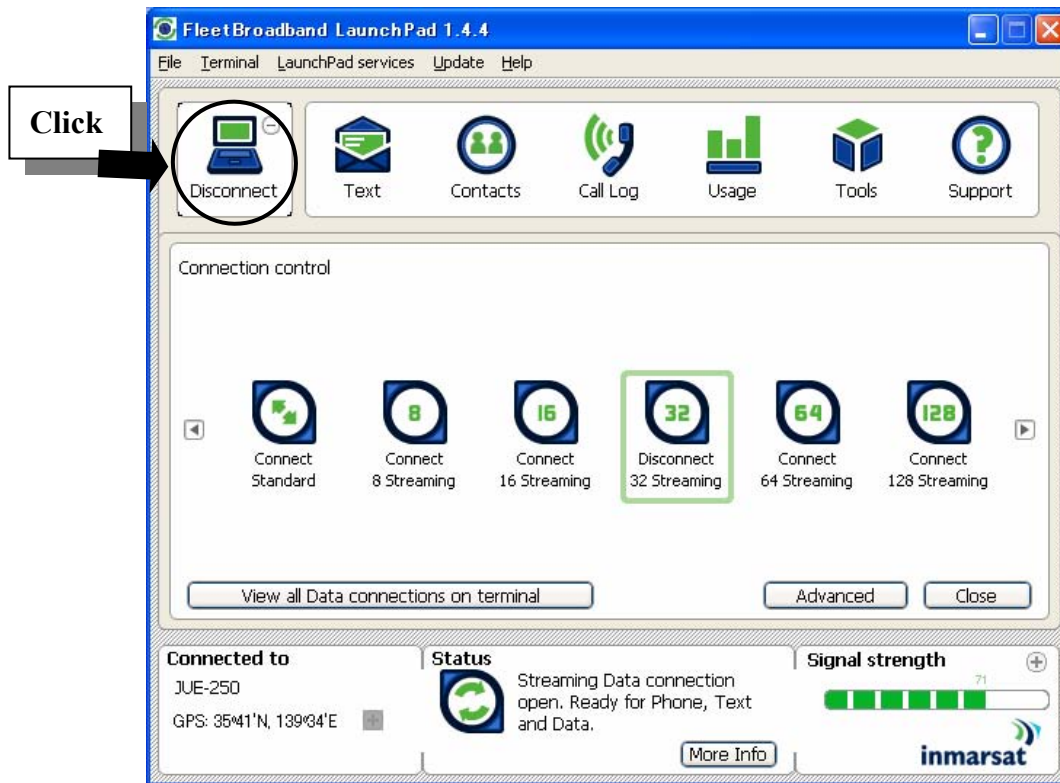


Fig.6.3.2f [Connection control] window (for disconnection)

6.3.3 SMS

Sending SMS procedures are mentioned below.

[Sending]

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

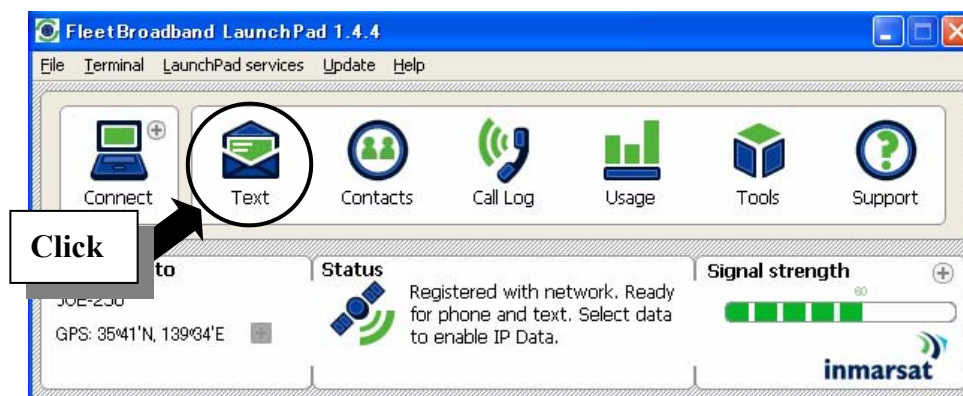


Fig.6.3.3a Main window of LaunchPad

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.

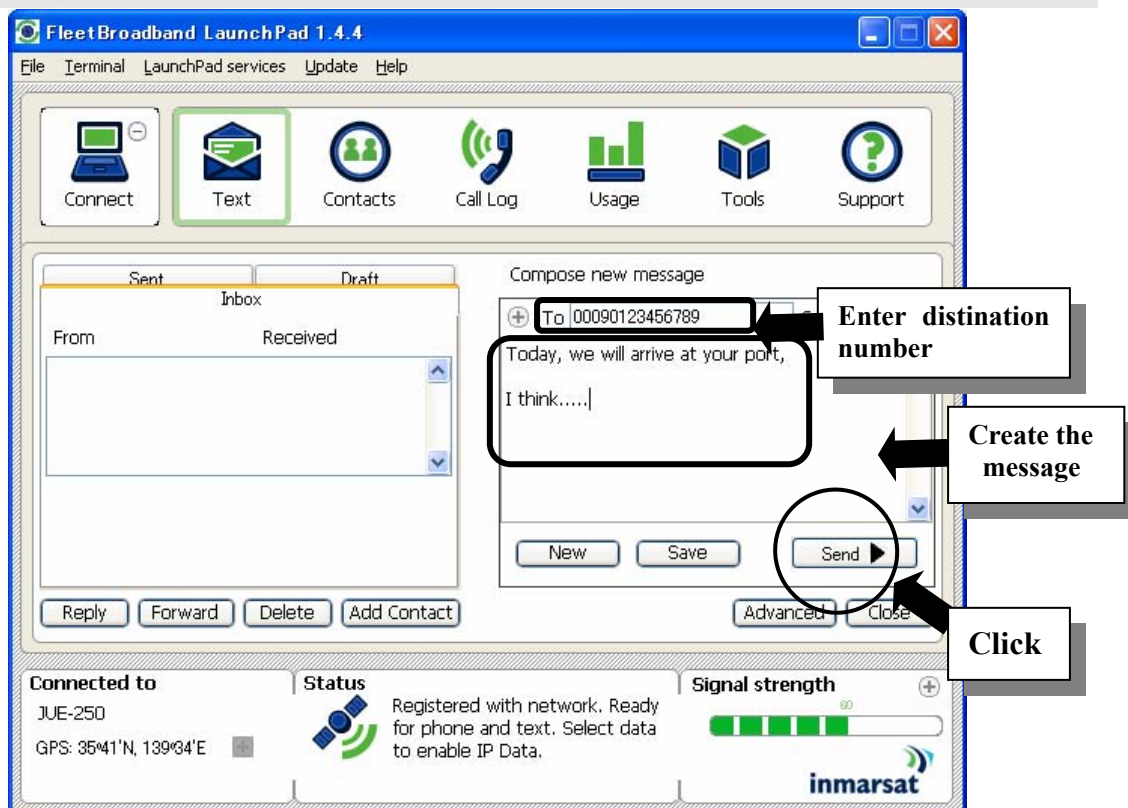


Fig.6.3.3b Text window

7. Using Audio port

In this section, a continued setting for using telephone on Audio port is explained.

Continued from [4.2 Initial setting for communication]

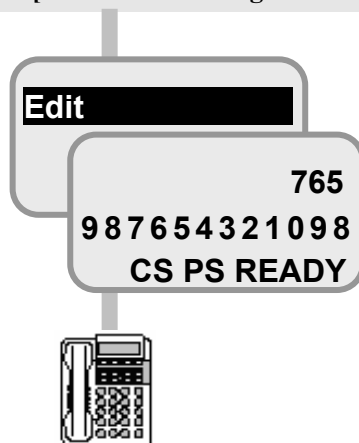


Fig. 7a Setting flow using telephone on Audio port

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 shown in below table.

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

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 services.
Terminal using Inmarsat 64kbps 3.1kHz Audio services like fax are not supported.
Terminals using UDI/RDI services like Video Phone or G4 FAX are not supported.

7. Using Audio port

When a TA originates a call, JUE-250 originates a call in according to a “transfer capability” informed from TA. When the “transfer capability” from TA is “Speech”, JUE-250 originates “Inmarsat 4kbps Voice” call.

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

You should setup following items:

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

[Connection sample]

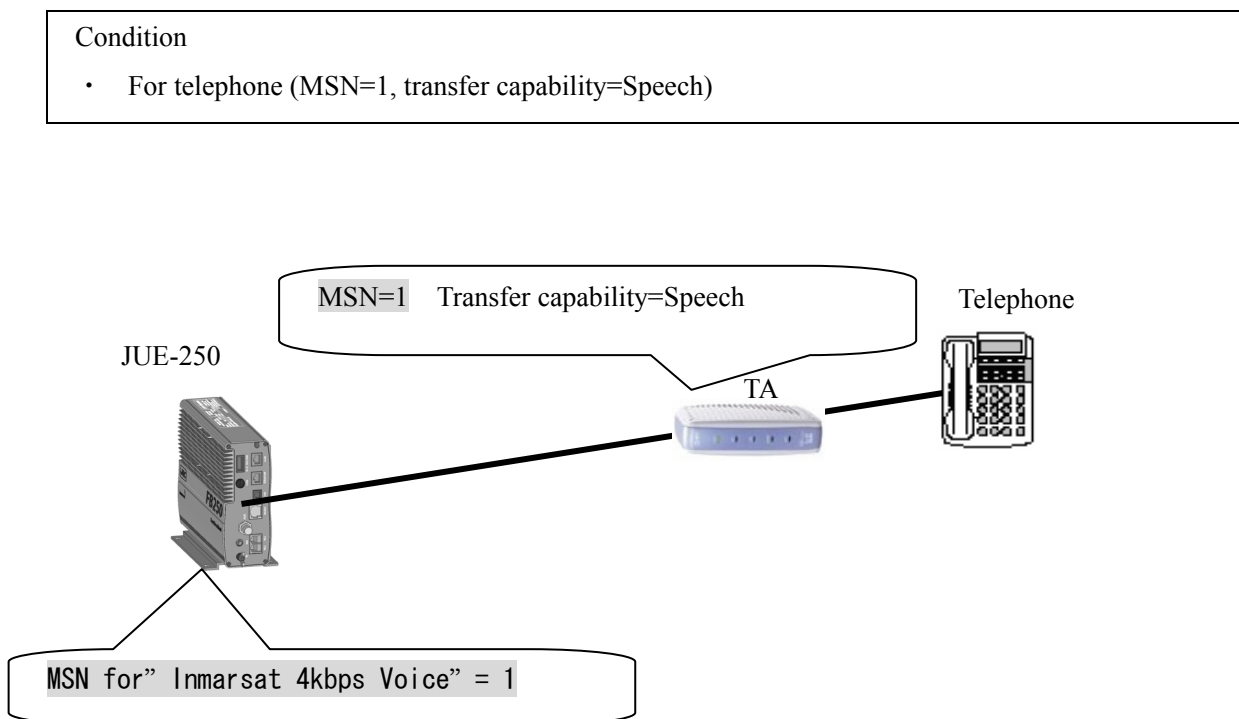


Fig.7b Connection sample of Audio port

Setting MSN using Handset [MSN edit menu]

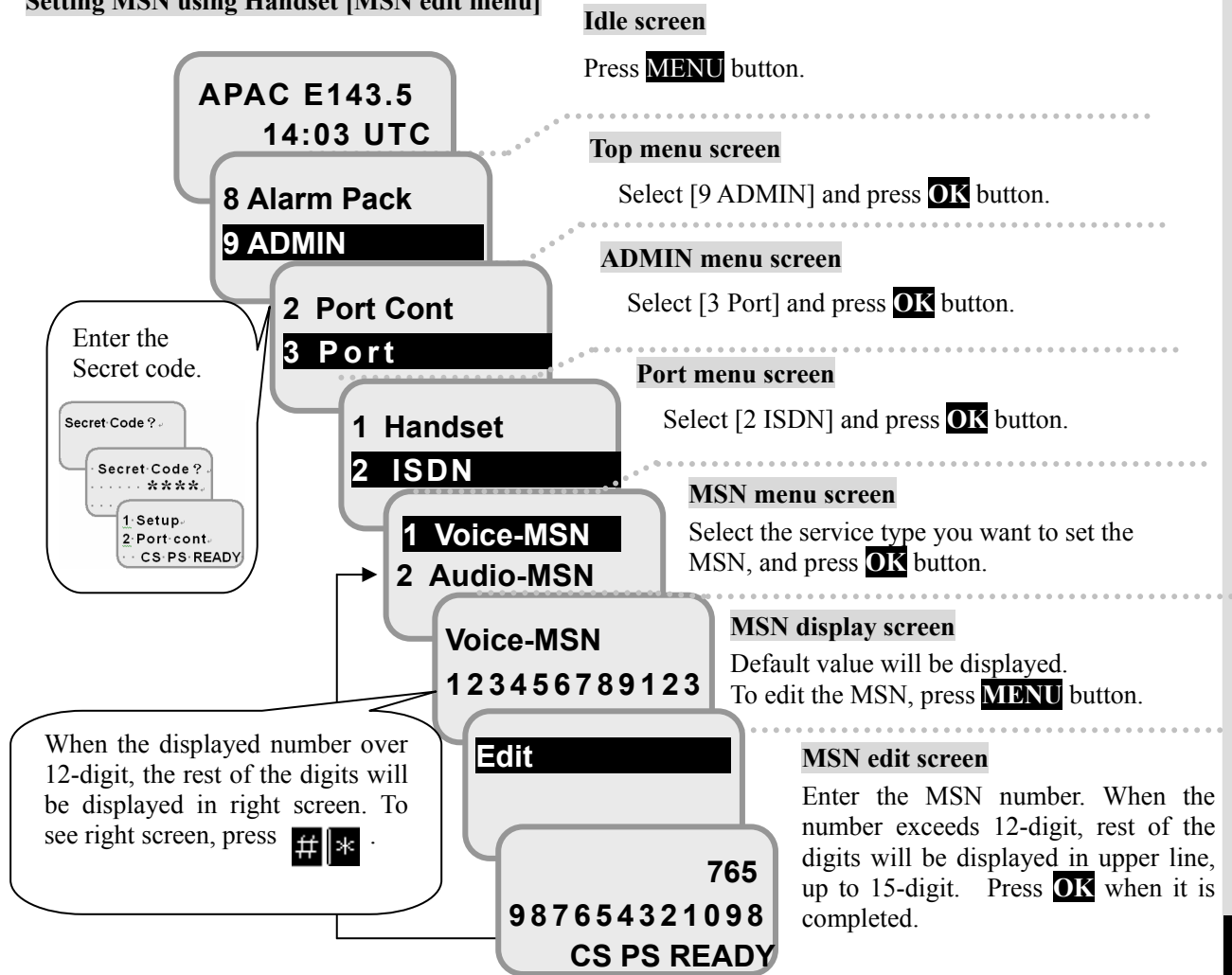
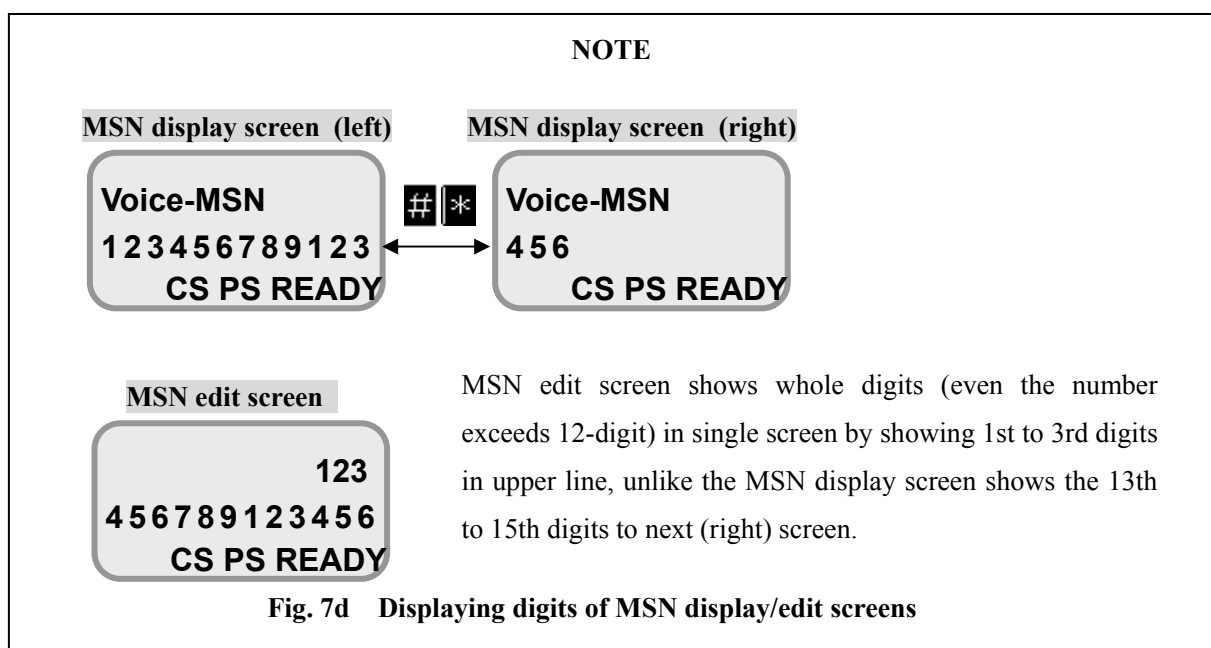


Fig. 7c Flow of Setting MSN using Handset [MSN menu]



7. Using 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** **#**

NOTE

The telephone connected to Audio port cannot forwarding a call to TEL1 port, TEL2 port, or Handset port.

Also, a call using Secret Code and forced setting service are not supported yet.

Regarding the Redial calling and the Speed Dialing, it is depending on the specification of your Terminal Adapter.

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	Displays, 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
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 (Handset) Backlight of screen/Dimmer of LEDs Pattern/Volume of Ringer tone On/Off of key click sound (ISDN) MSN of Voice/Audio (Ethernet) IP address/use or non use of DHCP function
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 SIM menu	Sets up Communication mode using SIM card

**Accessible for
ADMIN
user Only**

(This screen is popped up in all menu)

8.10 Other screen (TX alarm screen)	Alarm message pops up when BDE status is changed.
--	--

* In chapter 8, the description of status line in Handset screen is omitted for the clear-cut explanation unless the special case.

TOP menu

To open TOP menu, just push MENU button

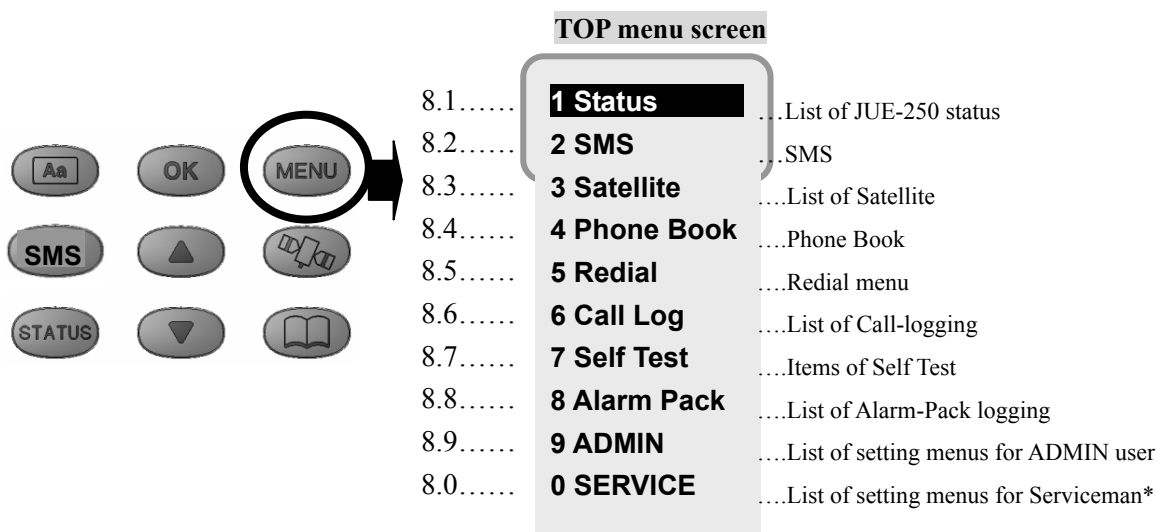


Fig. 8a To open Top menu screen

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

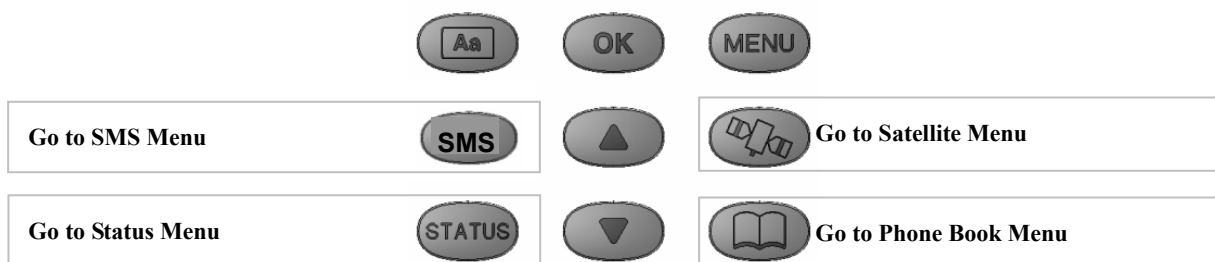


Fig. 8b Direct buttons

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. 8c Quick access with Short cut function

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

■ Press 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.

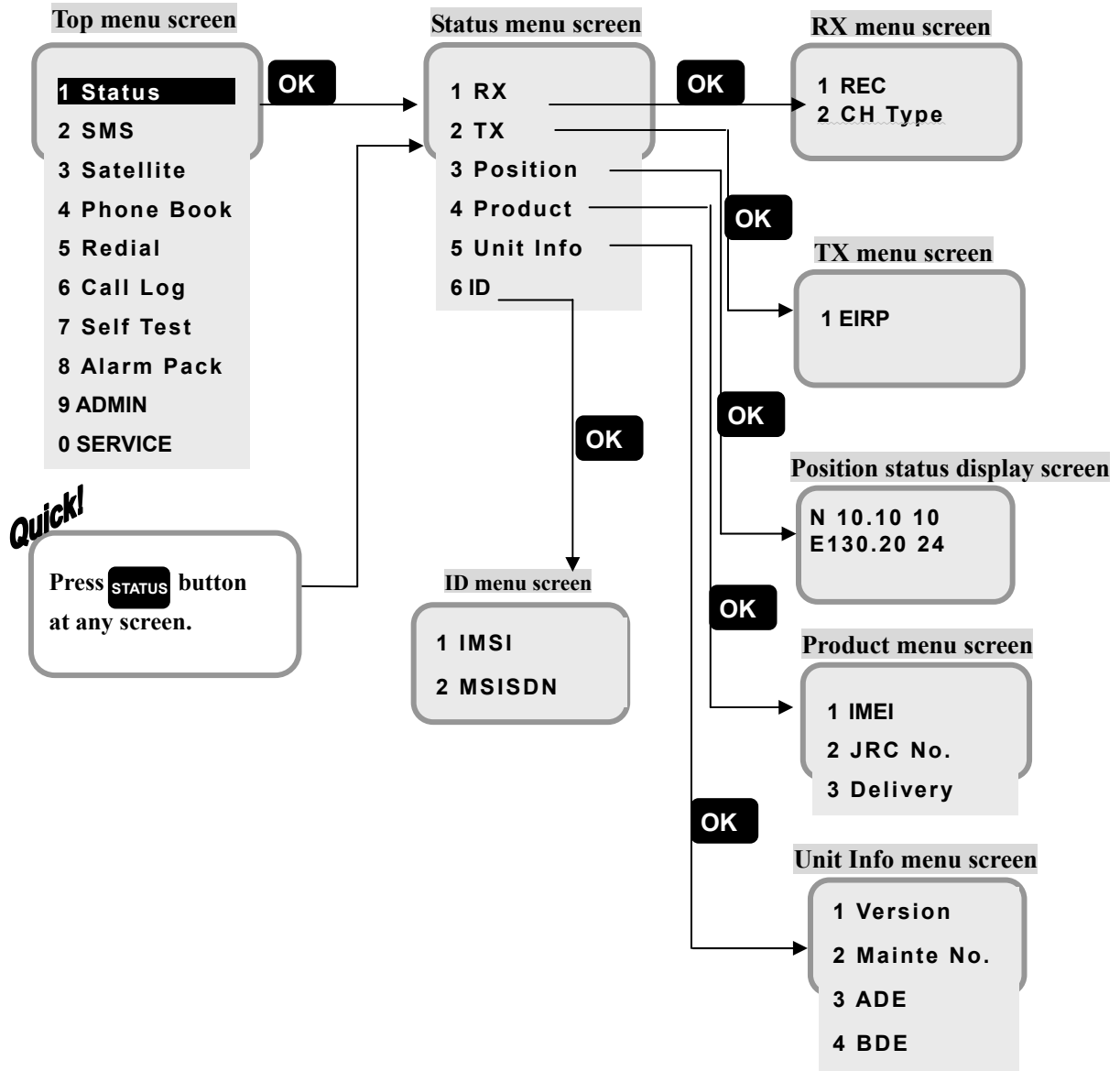
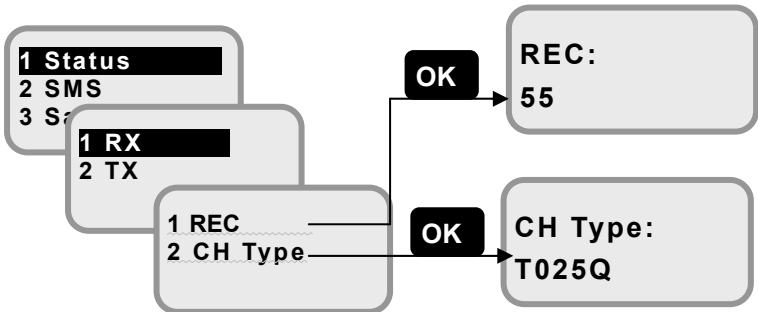


Fig. 8.1 Configuration of Status menu

8.1.1 RX(Reception) menu

(**[MENU]**+**[1]**+**[1]**+**[1]** to **[3]**)

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



REC level display screen

RECeiving level is displayed in number value.
Communication is not available when low value is displayed.

CH Type setting value display screen

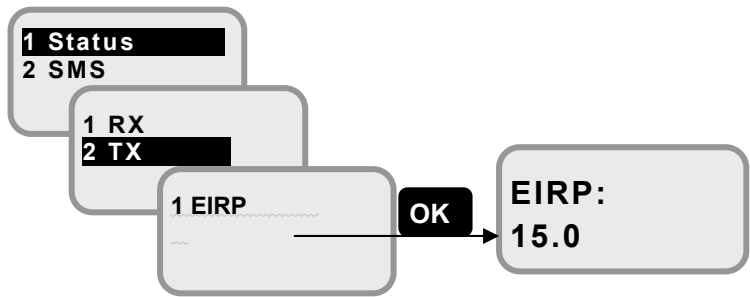
Channel type is displayed from T025Q, T1Q, T1X, and T45X.

Fig. 8.1.1 RX(Reception) Menu

8.1.2 TX(Transmission) menu

(**[MENU]**+**[1]**+**[2]**+**[1]**)

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.

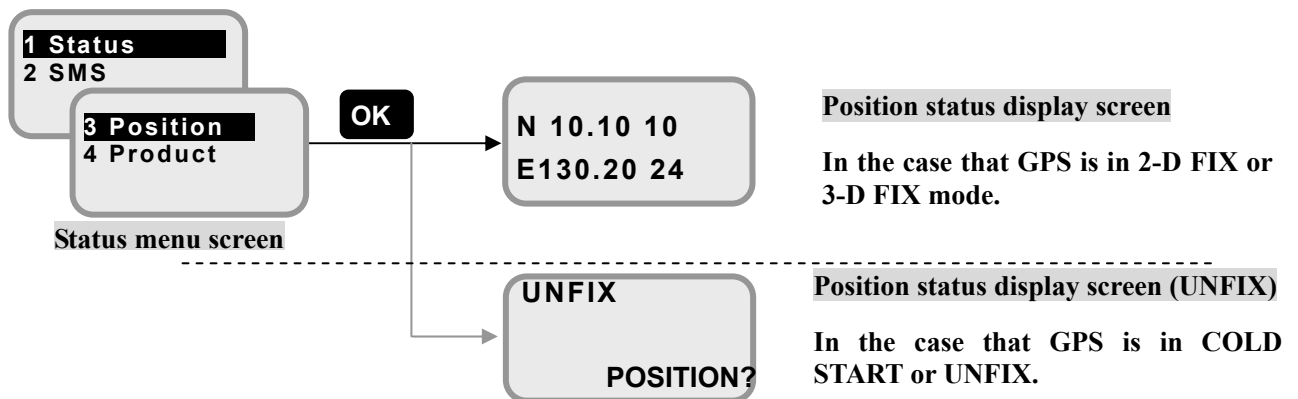
N and S are displayed in upper line, and E and W in the lower.

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.	
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**

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.

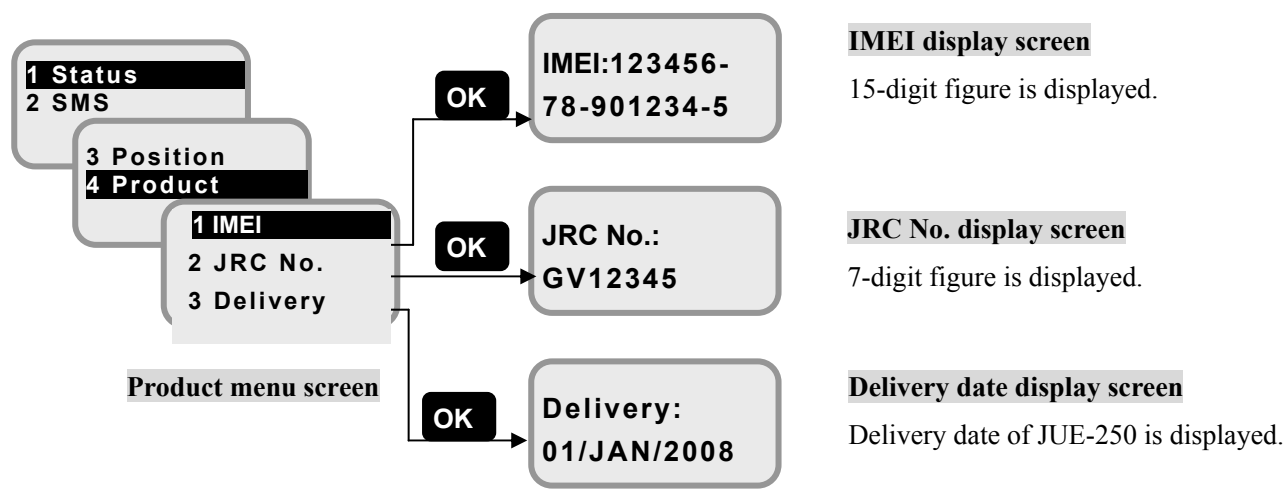


Fig. 8.1.4 Product menu status display screens

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.

Refer to Appendix [A.4 Unit Info menu] (p138) when GYRO is used.

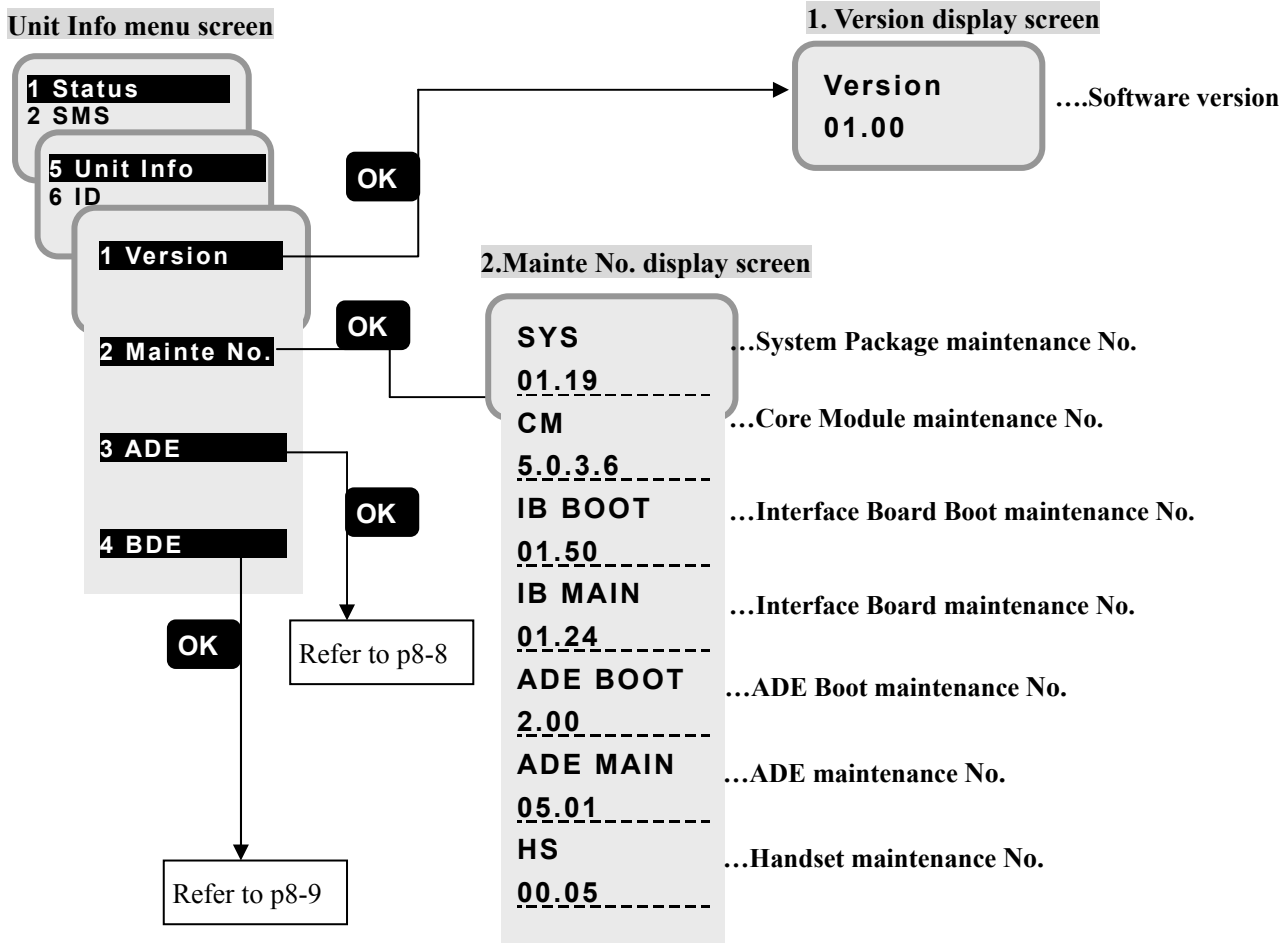


Fig. 8.1.5a Each status display screen of Unit Info (1/3)

8. Handset Menu system

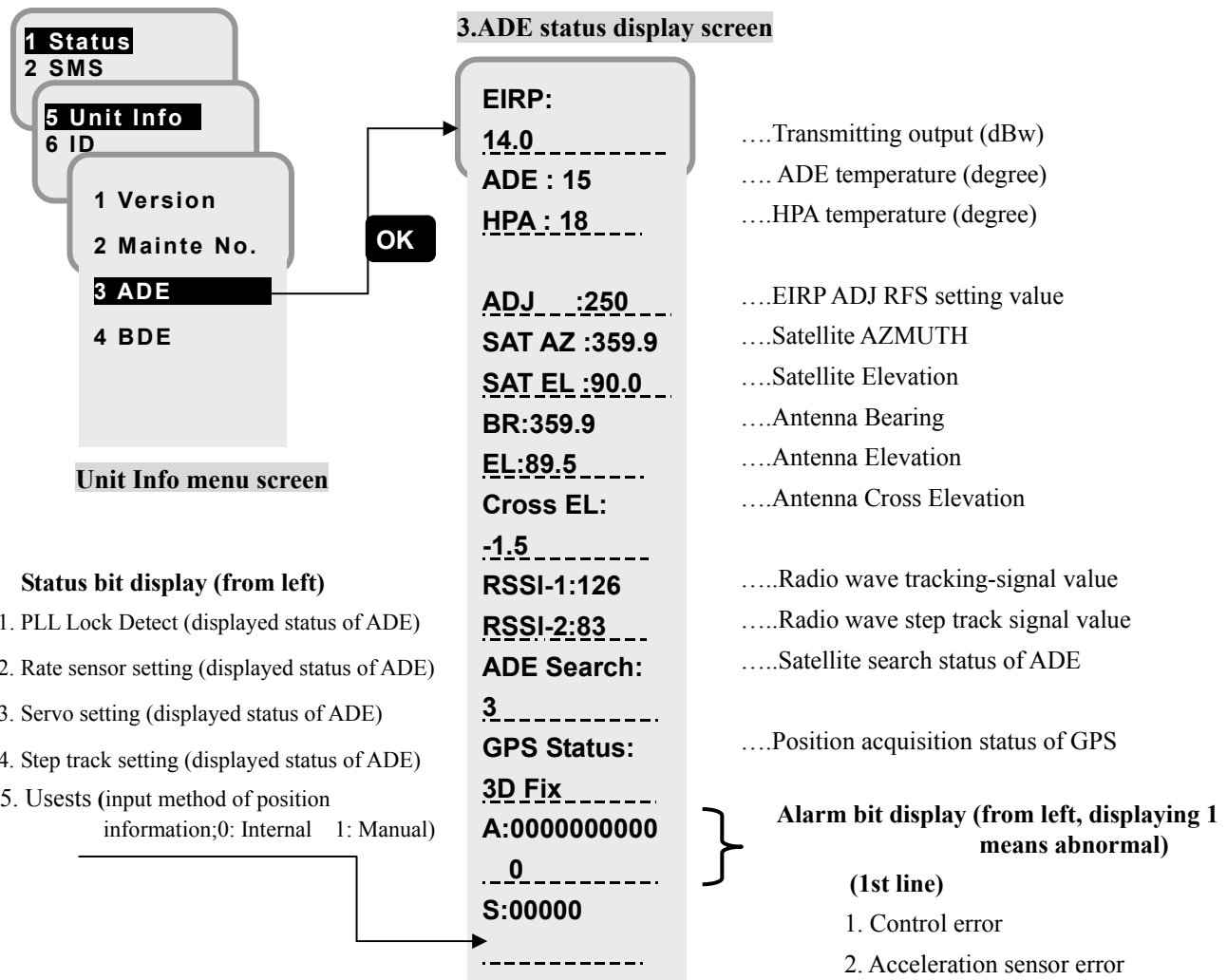


Fig. 8.1.5b Each status display screen of Unit Info (2/3)

*Explanation of software update error display (p87)

Below numbers are displayed to XX, YY, ZZ. [,] is displayed as delimiter when the number is 1-digit(e.g. 3,0,0,).

XX:Status when failed

0. Initial status
1. IB checking
2. IB updating
3. ADE transferring
4. ADE boot requesting
5. ADE boot verifying
6. ADE erasing
7. ADE resetting
8. ADE erase verifying
9. ADE data sending
10. ADE transfer ending
11. ADE expanding
12. ADE rom re-writing
13. ADE rom verifying

YY: Error No. when IB software upgrade is failed

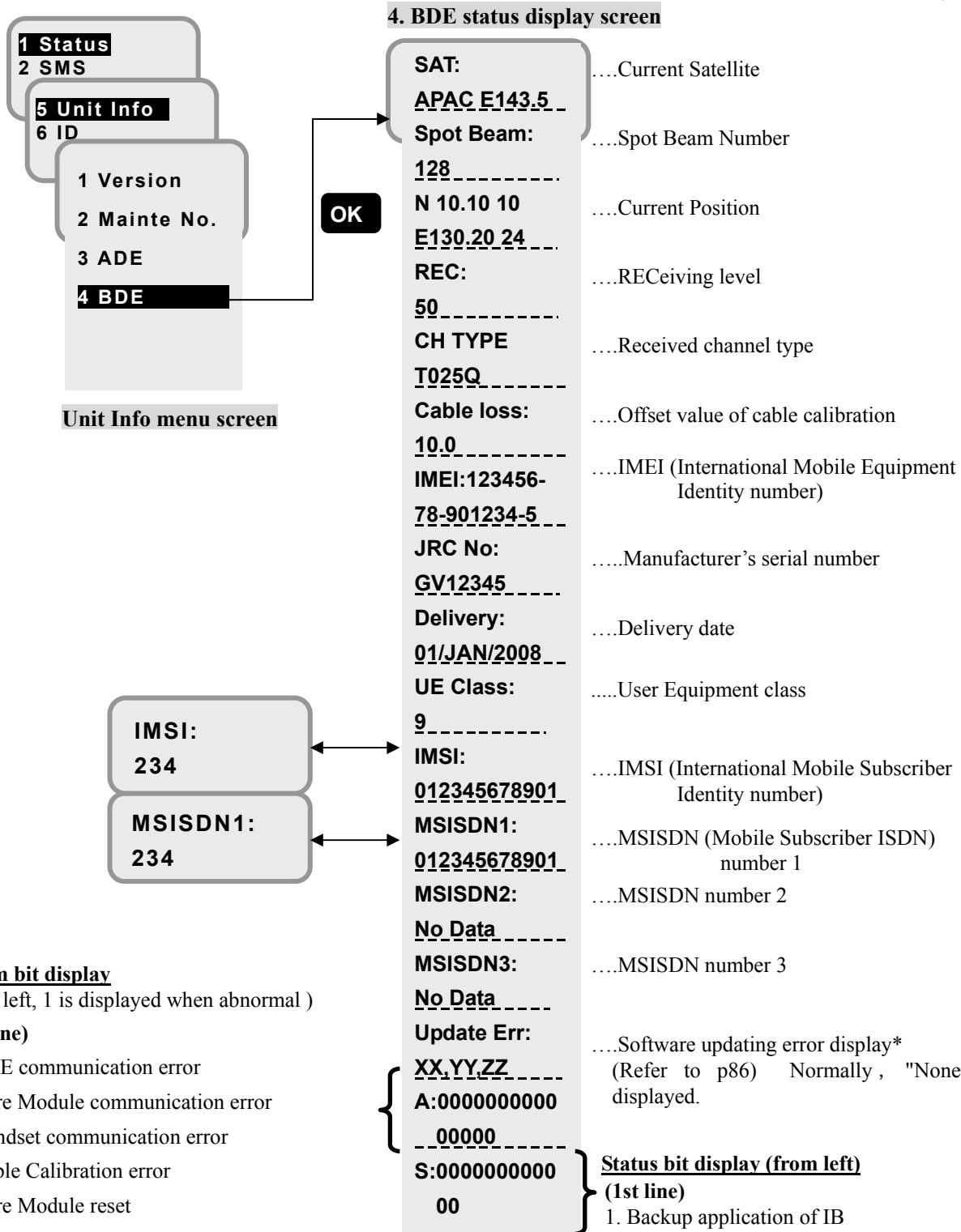
0. No error
1. File name error
3. IB image error (CRC/ID/length)
4. Data forwarding error
5. CM no reply
6. IB backup is failed

ZZ : Error No. when ADE software upgrade is failed

0. No error
2. File name error
4. Data forwarding error
5. CM no replay
7. ADE image error (CRC/ID/length)
8. ADE communication error
9. ADE verify error

When both of the software, IB (YY) and ADE (ZZ) upgraded with no error, below screen is displayed.

Update Err:
None

**Alarm bit display**

(from left, 1 is displayed when abnormal)

(1st line)

- ADE communication error
- Core Module communication error
- Handset communication error
- Cable Calibration error
- Core Module reset
- Core Module does not reply at AT level
- GYRO communication error
- GYRO I/F interruption does not occur although Sync is selected
- GYRO I/F detected non-existed signal when Sync is selected
- GYRO I/F detected non-existed signal when Step is selected

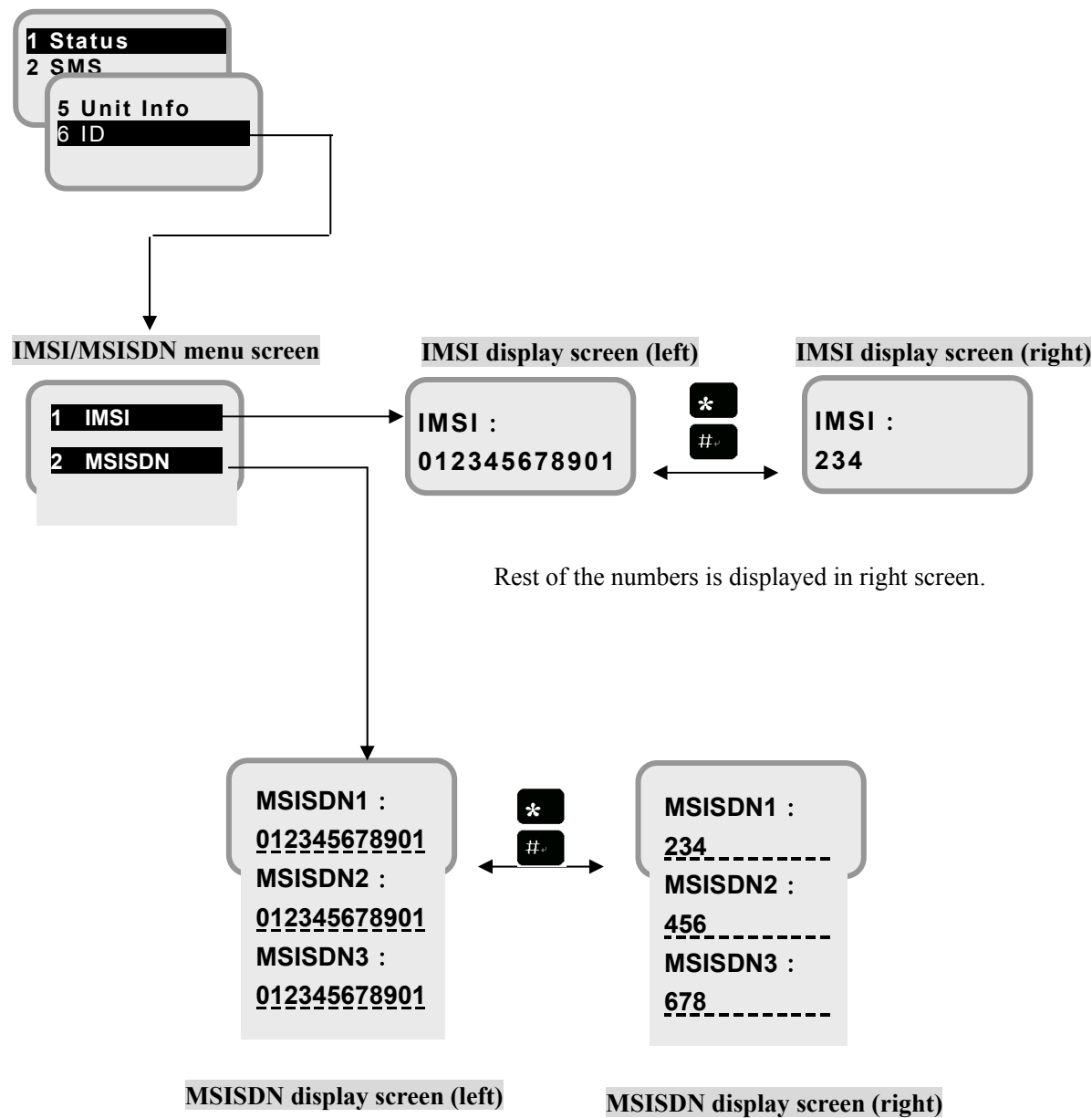
(2nd line)

- GYRO I/F detected signal on R1 R2when Step is selected
- GYRO I/F WDT over flow
- GYRO I/F program memory error
- IB software update is failed
- ADE software update is failed

Fig. 8.1.5c Each status display screen of Unit Info(3/3)

8.1.6 ID menu (MENU+1+6+1 to 2)

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**(MENU+2)**

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

Note

Delete unnecessary message constantly because receiving SMS new message and sending message from Handset are become impossible when the memory usage amount becomes equal to total message capacity.

Capacity confirmation method: [8.2.5 setting menu] (p96)

Deleting method for New (received) message: refer to [8.2.2 Inbox menu](p93)

Sent message: refer to [8.2.3 Sent menu] (p94)

Draft message: refer to [8.2.4 Draft menu] (p95)

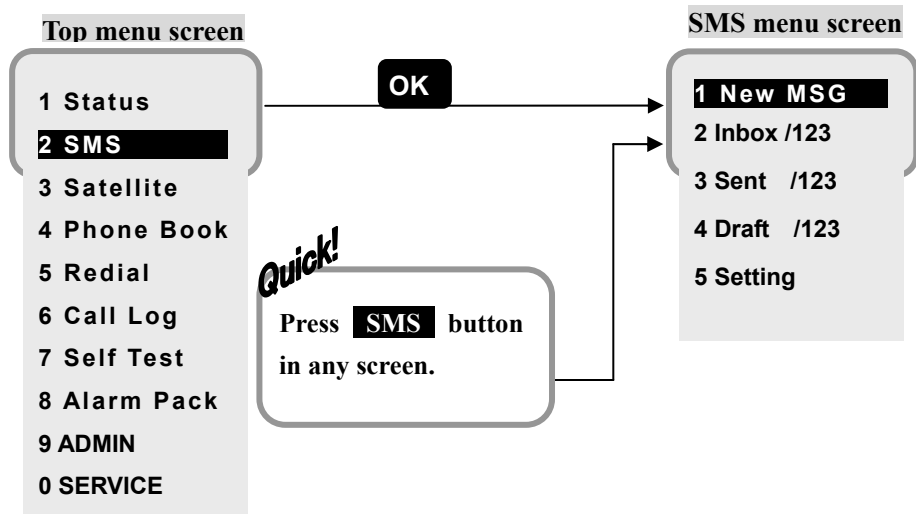


Fig. 8.2a SMS menu screen

How to input the message from Handset

- To toggle the input mode, press **Aa** button.

Input mode is transited within **Aa**(Capital input mode), **aA**(alphabet input mode), and **1234567890*** (nothing is displayed, it is numeric mode).

Refer to the next page about the detail of the characters applied by each mode.



Fig. 8.2b To toggle the input mode

- To fix the input character, press **#>** key.

Input character blinks and not fixes until **#>** key is pressed.



Fig. 8.2c To fix the input character

8. Handset Menu system

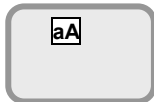
Capital input mode



When **Aa** is displayed in [Input mode] area, below characters are being input.

Pushed times	1	2	3	4	5	6	7	8	9	10	11	12	13
(Key) 0	.	,	—	?	!	“	‘	¥	\$	&	:	;	#
1	*1	*2	@	—	(	)	<	>	%	+	*	/	=
2	A	B	C	a	b	c							
3	D	E	F	d	e	f							
4	G	H	I	g	h	i							
5	J	K	L	j	k	l							
6	M	N	O	m	n	o							
7	P	Q	R	S	p	q	r	s					
8	T	U	V	t	u	v							
9	W	X	Y	Z	w	x	y	z					

Alphabet input mode



When **aA** is displayed in [Input mode] area, below characters are being input.

Pushed times	1	2	3	4	5	6	7	8	9	10	11	12	13
(Key) 0	.	,	—	?	!	“	‘	¥	\$	&	:	;	#
1	*1	*2	@	—	(	)	<	>	%	+	*	/	=
2	a	b	c	A	B	C							
3	d	e	f	D	E	F							
4	g	h	i	G	H	I							
5	j	k	l	J	K	L							
6	m	n	o	M	N	O							
7	p	q	r	s	P	Q	R	S					
8	t	u	v	T	U	V							
9	w	x	y	z	W	X	Y	Z					

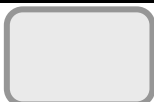
*1 =space

Press 1 key once, a space is entered in cursor position.

*2 =new line

Press 1 key twice, the linefeed is executed at cursor position.

Numeric mode



When nothing is displayed in [Input mode](numeric mode) area, it is numeric mode.

8.2.1 New MSG menu

(MENU+2+1)

In this menu, user can create, send, and save (as unsent) new messages. Unsent messages are saved in the [4. Draft] menu.

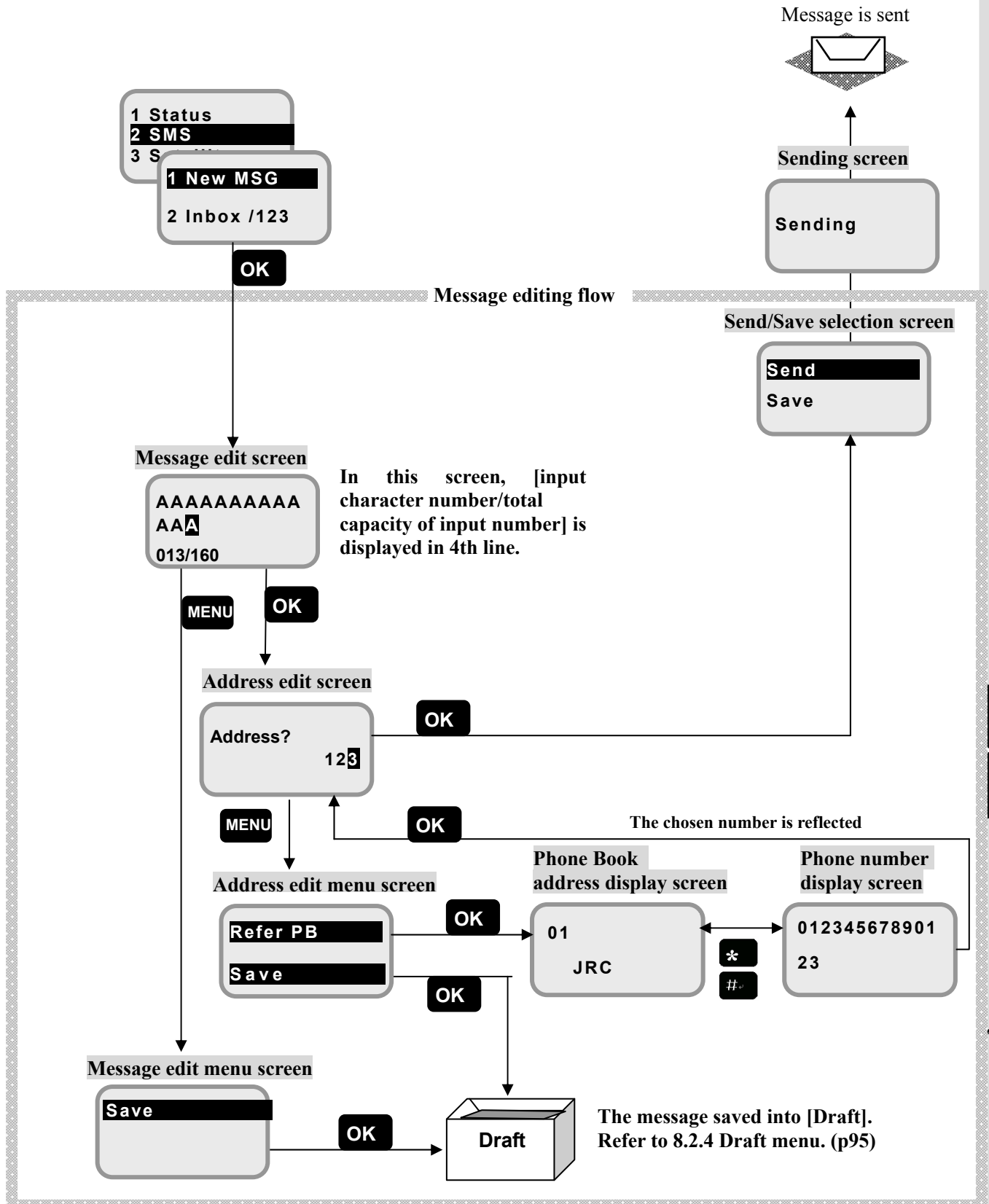


Fig. 8.2.1a New Msg menu

When the sending is succeeded: the sent message is saved in [Sent] of SMS menu

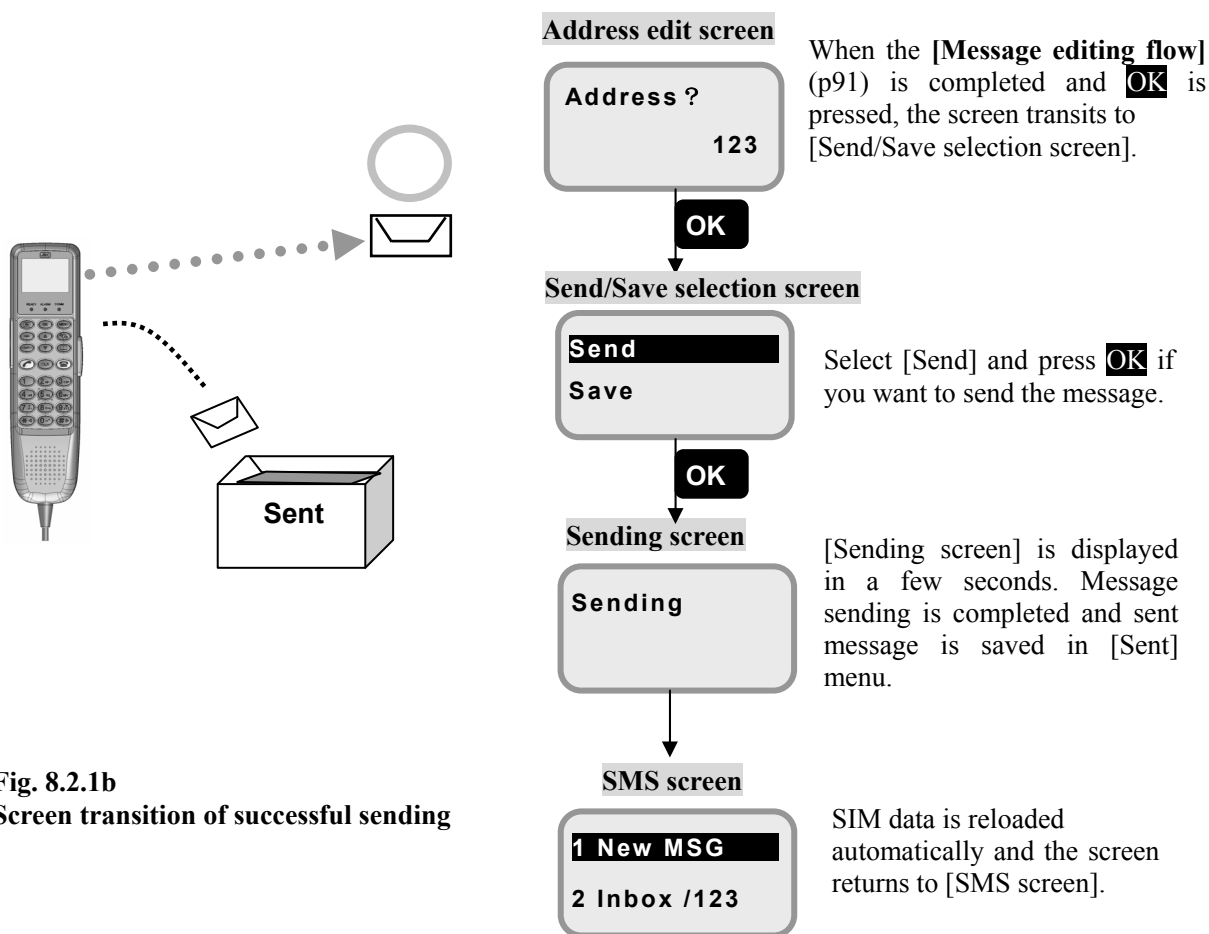


Fig. 8.2.1b
Screen transition of successful sending

When the sending is failed: the sent message is saved in [Draft] of SMS menu

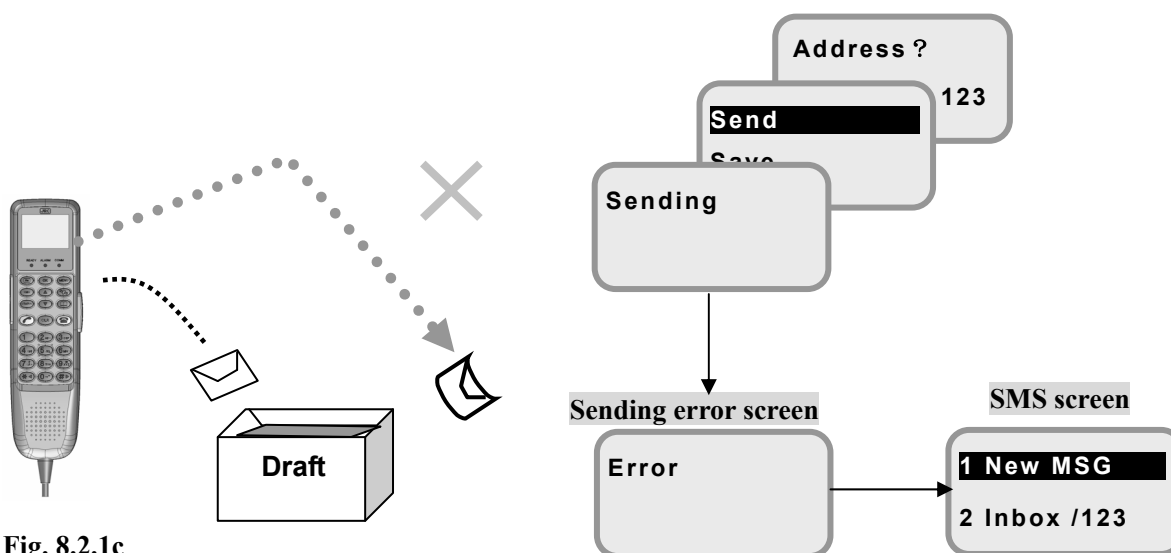


Fig. 8.2.1c
Screen transition of failed sending

When sending message is failed, [Error screen] is displayed.

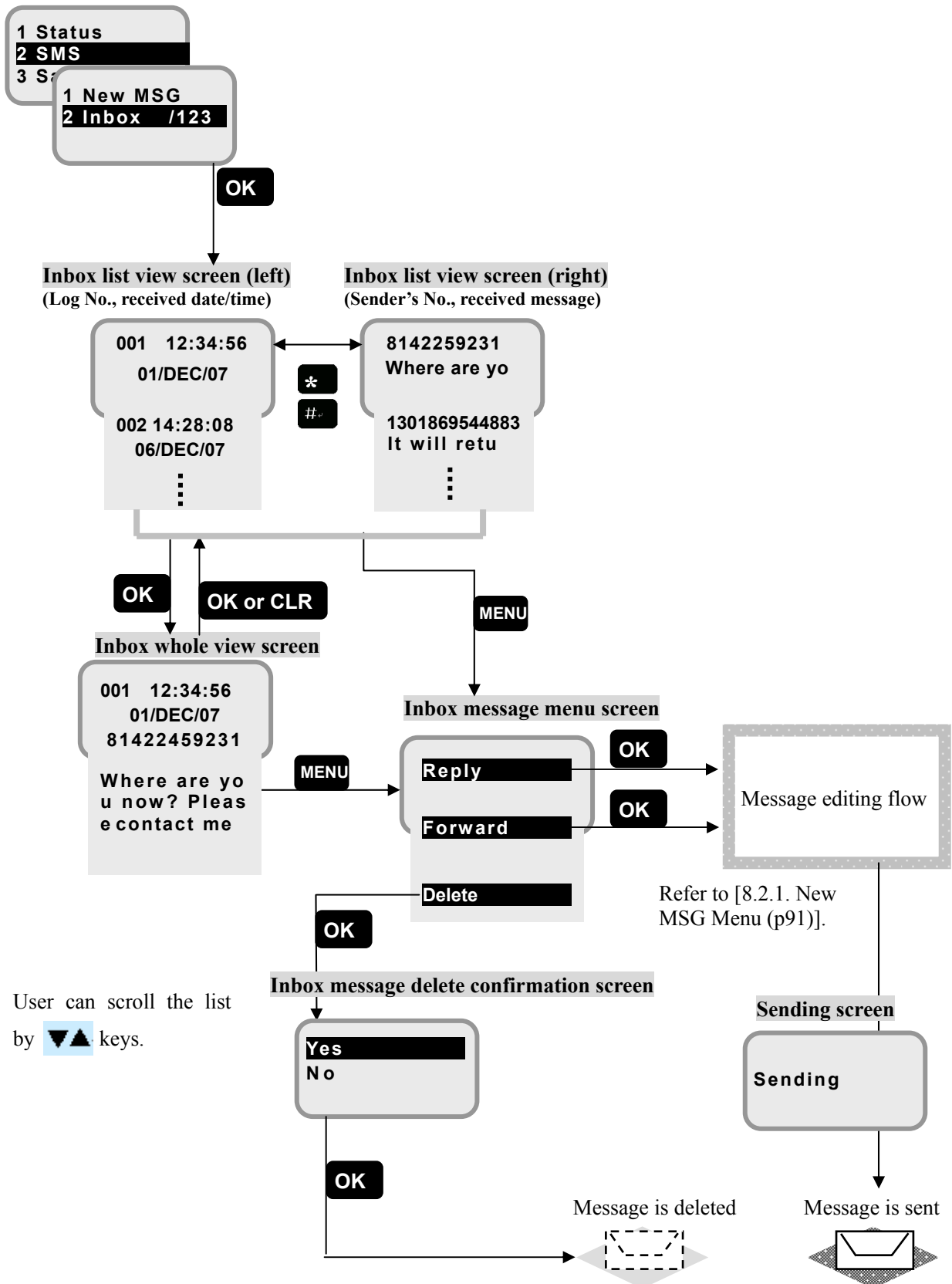
Follow below procedure to resend the message:

[1. New MSG] **OK**->[Continue?] **Yes**->[Message editing screen] **OK**->[Address editing screen]->[Send]**OK**.

8.2.2 Inbox menu

(MENU+2+2)

In this menu, user can read, reply, forward, and delete the received messages.



User can scroll the list by  keys.

Fig. 8.2.2 Inbox menu

8.2.3 Sent menu

(**MENU** + **2** + **3**)

In this menu, user can read, resend, forward, and delete the sent messages.

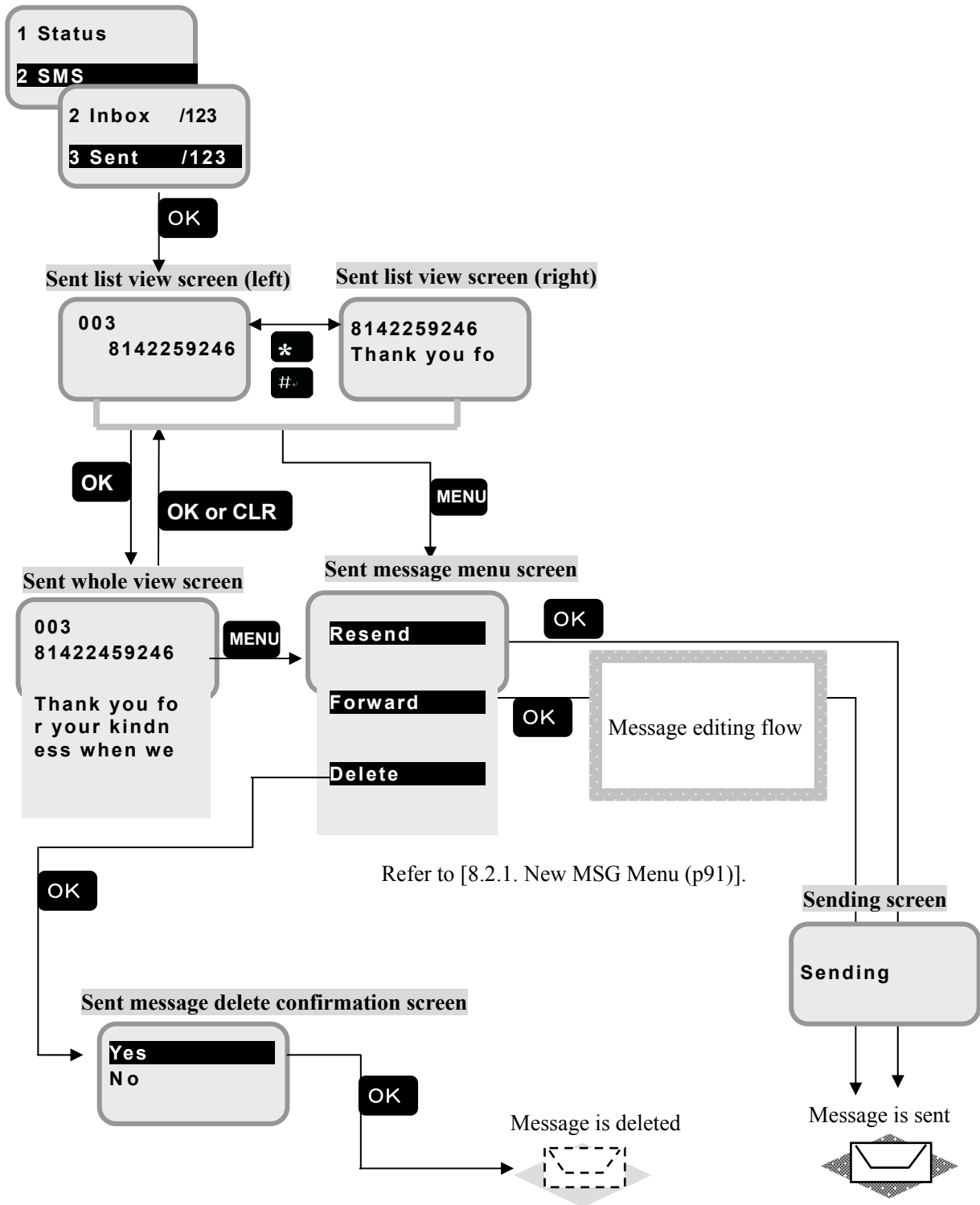


Fig. 8.2.3 Sent menu

8.2.4 Draft menu

(MENU+2+4)

In this menu, user can read, edit, send, and delete the unsent messages.

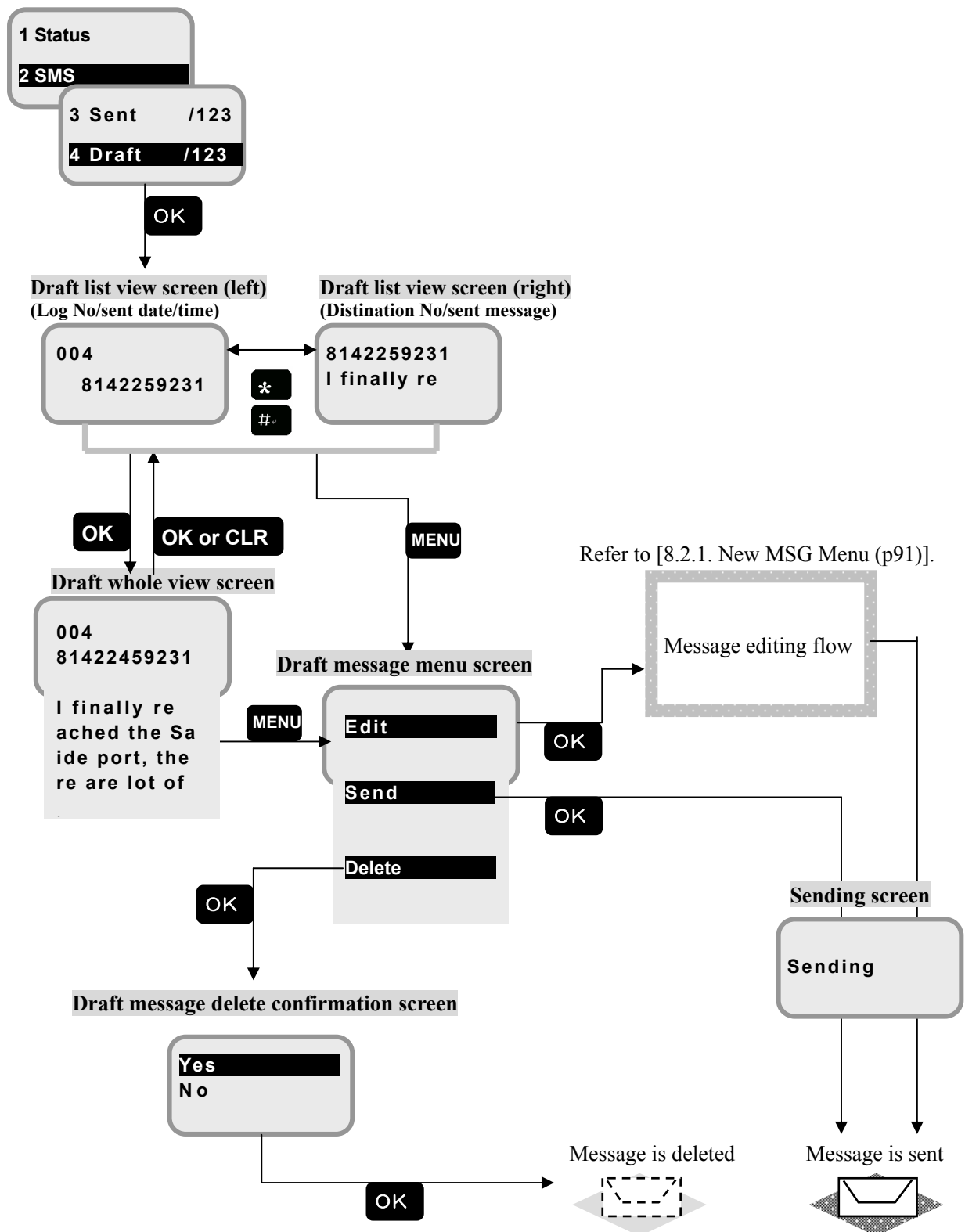


Fig. 8.2.4 Draft menu

8.2.5 Setting menu

(MENU+2+5)

In this menu, user can read the used amount of mailboxes, delete all messages at once, and set the details of SMS service.

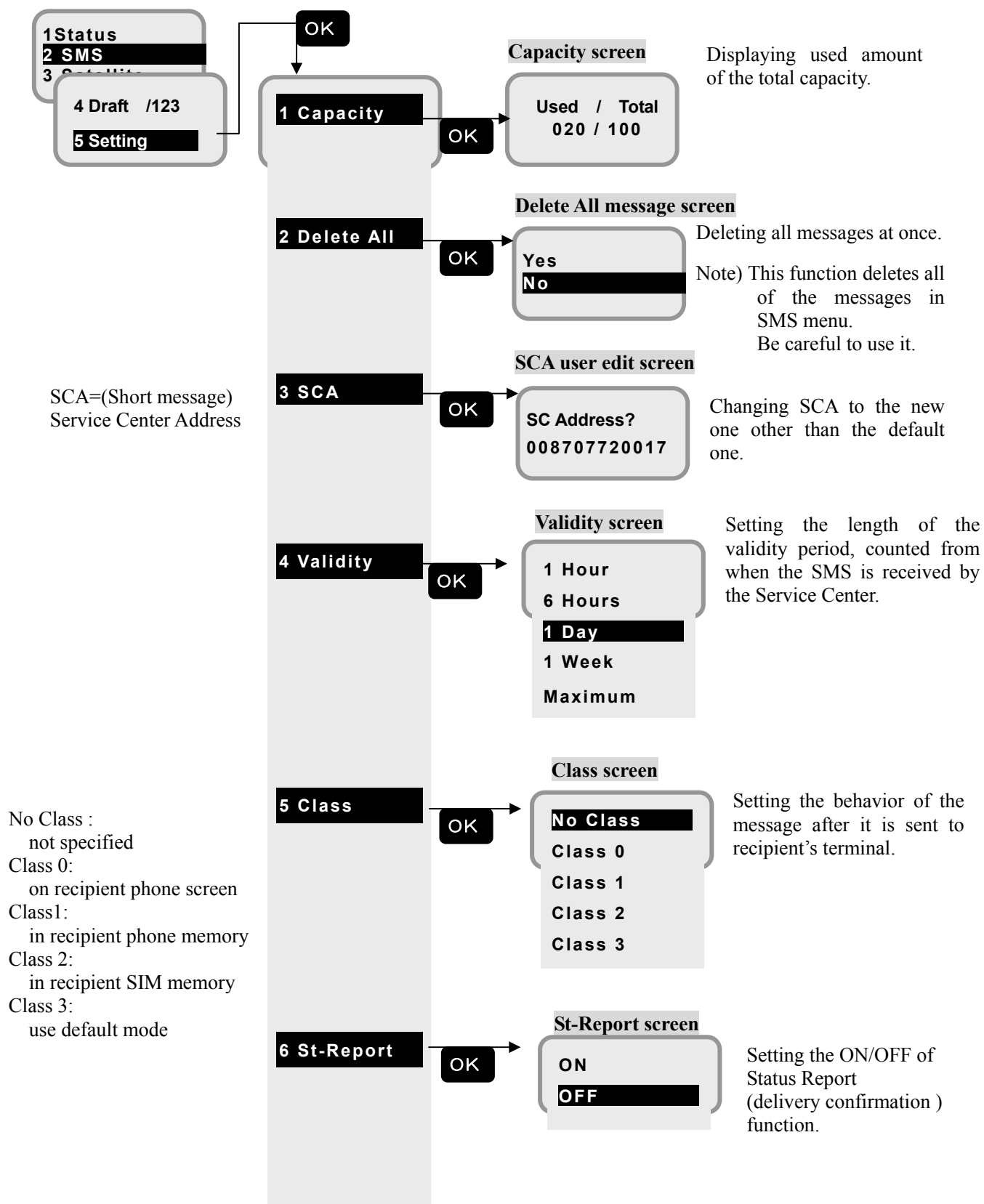


Fig. 8.2.5 Setting menu

8.3 Satellite menu

(**[MENU]**+**[3]**)

In this menu, user can display the status of satellite including ocean region, and spot beam No.
Refer to Appendix [A.5 Satellite menu], when GYRO is used.

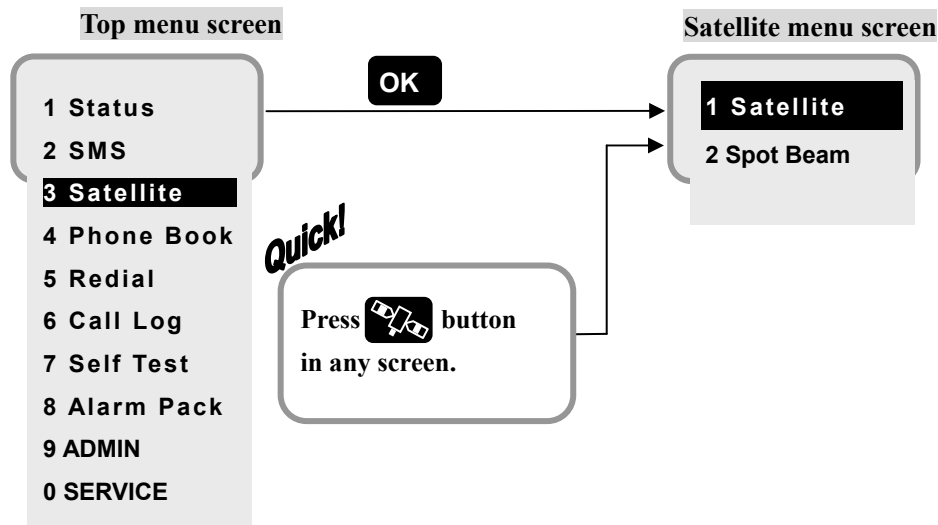


Fig. 8.3 Satellite menu screen

8.3.1 Satellite display

(**[MENU]**+**[3]**+**[1]**)

In this menu, satellite can be changed. Currently selected satellite is denoted by “*”.*
Select the preferred satellite and press **OK** button. The JUE-250 will search the most suitable satellite if “AUTO” is chosen.

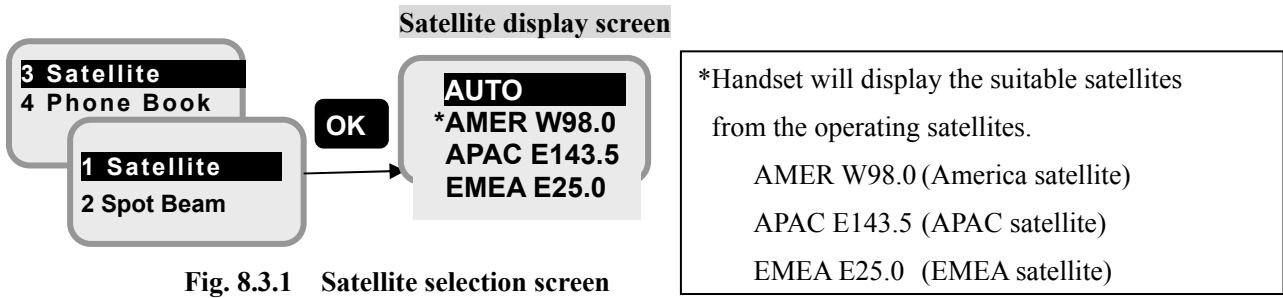


Fig. 8.3.1 Satellite selection screen

8.3.2 Spot Beam ID display

(**[MENU]**+**[3]**+**[2]**)

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

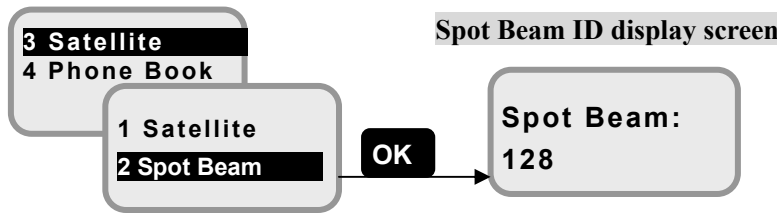


Fig. 8.3.2 Spot Beam ID display screen

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)](p43) 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], then press **[CLR]** key, or On Hook button, to cancel the job and return to the previous screen.

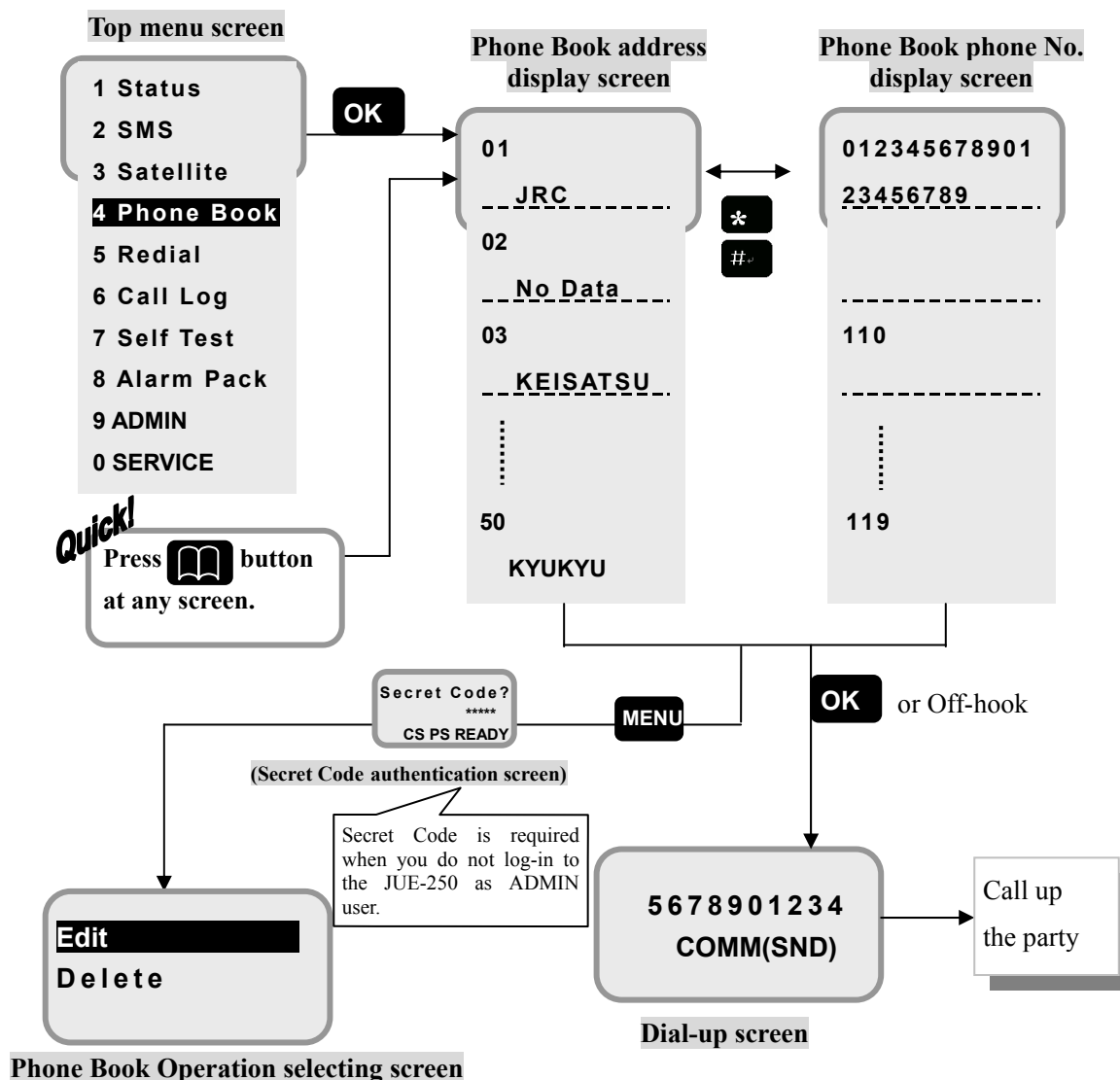


Fig. 8.4 Flow of Phone Book menu

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).

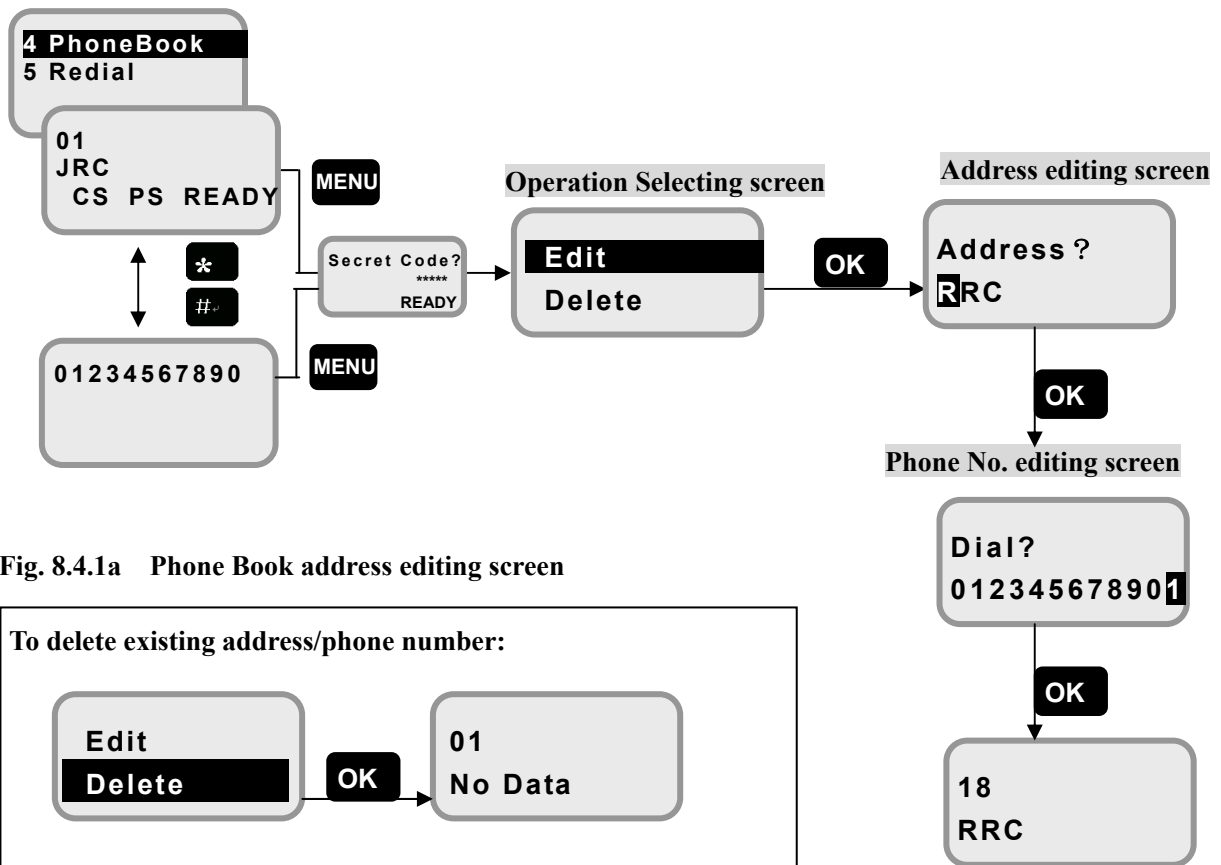
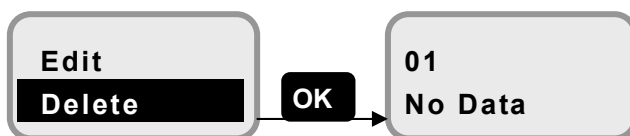


Fig. 8.4.1a Phone Book address editing screen

To delete existing address/phone number:



The screen shows the data is deleted.

Fig. 8.4.1b Phone Book data deleted screen

Overwritten screen is displayed.

8.5 Redial menu

(**MENU**+ **S**)

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.

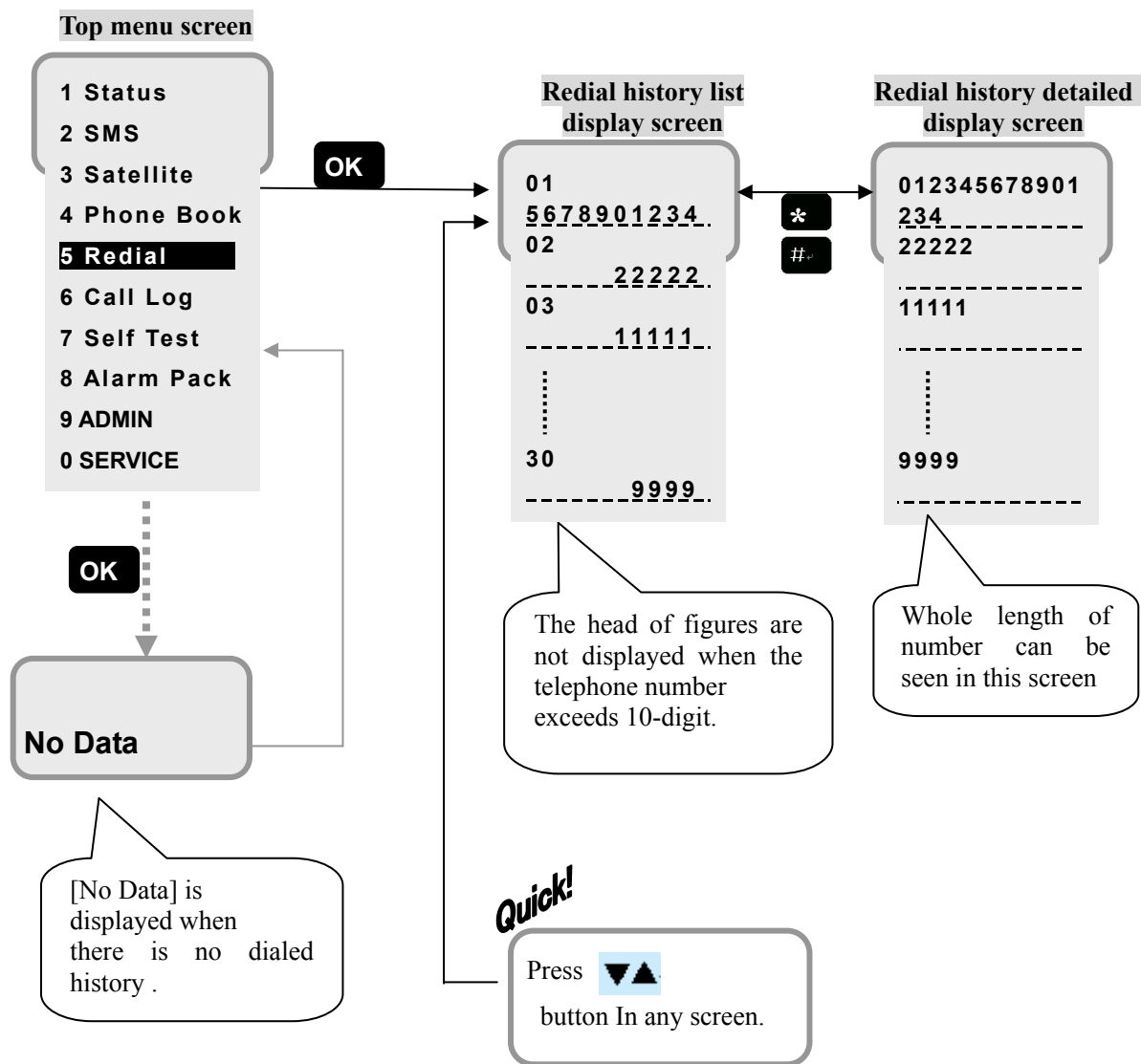


Fig. 8.5 Redial menu screen

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).

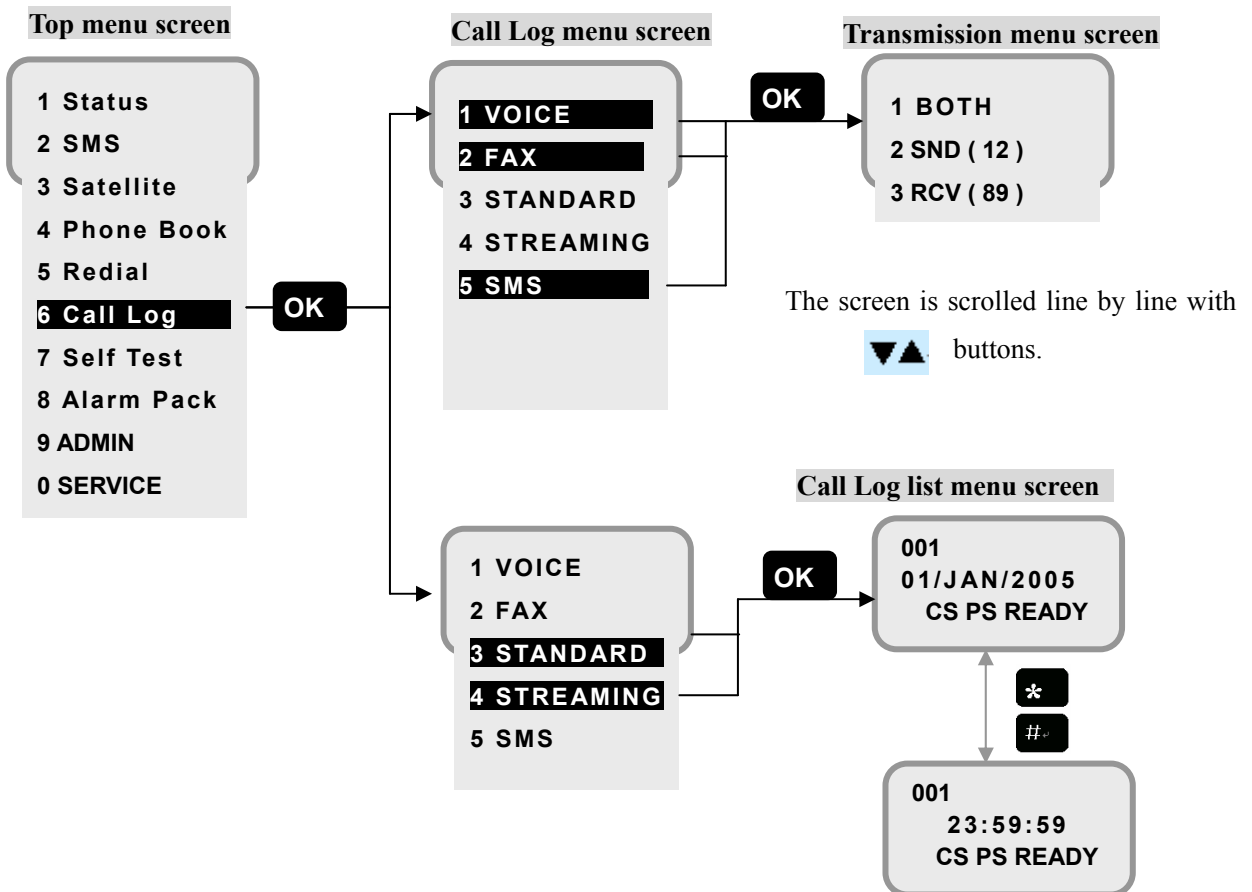


Fig. 8.6 Call Log menu screen

- * [SND] and [RCV] call log stores maximum 100 data, respectively.
[BOTH] call log stores latest 100 data of above both directions.
- * When [3 STANDARD] or [4 STREAMING] is selected, [Transmission menu screen] is not displayed and the screen is transited to [List menu screen] directly, because they have no direction like [SND] or [RCV].

8.6.1 Call Log list menu

(MENU)+6+1+1 to 5)

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

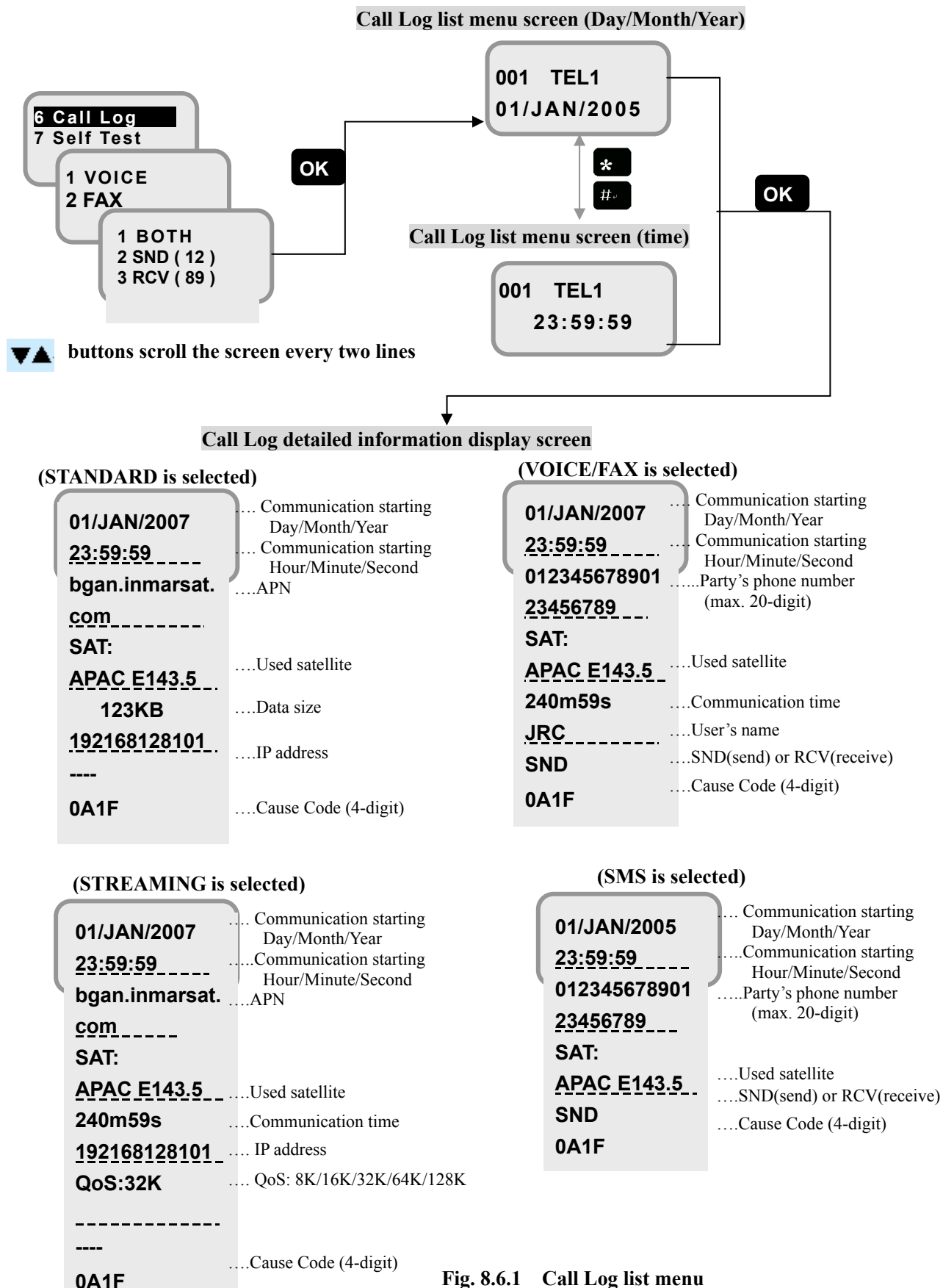


Fig. 8.6.1 Call Log list menu

8.6.2 Call Log authentication and deletion**(MENU+6+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..

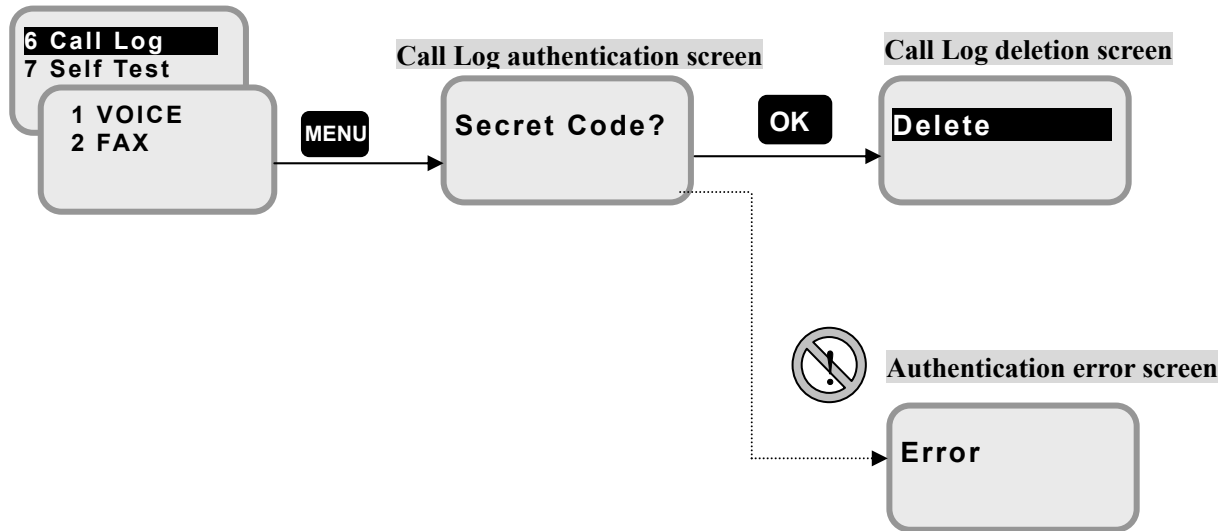


Fig. 8.6.2 Call Log authentication and deletion screen

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.

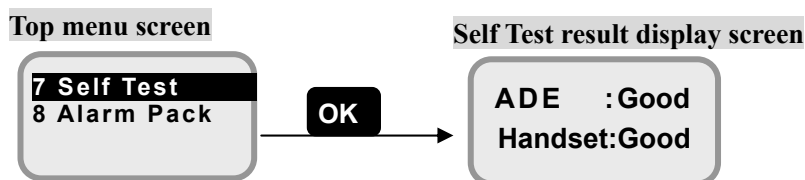


Fig. 8.7 Self Test menu screen

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.

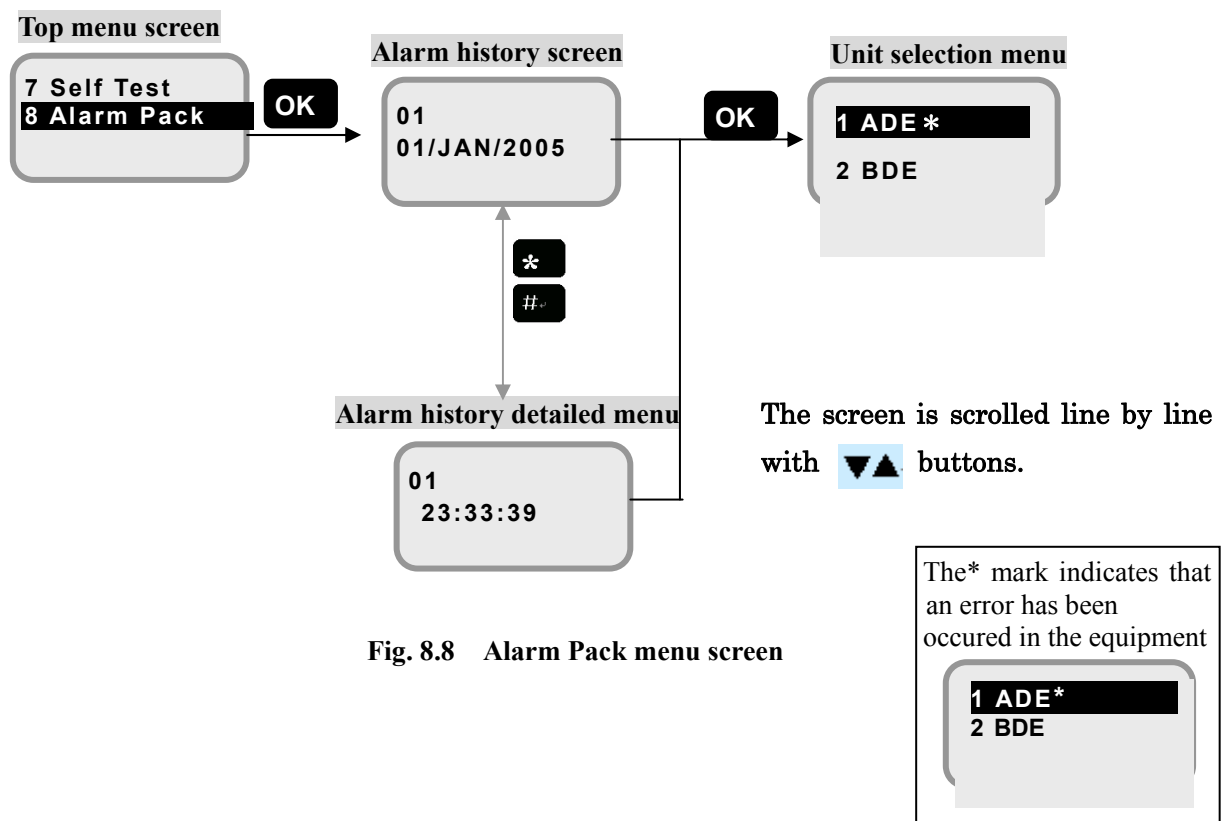


Fig. 8.8 Alarm Pack menu screen

8.8.1 Unit selection menu for Alarm Pack

(MENU+8)

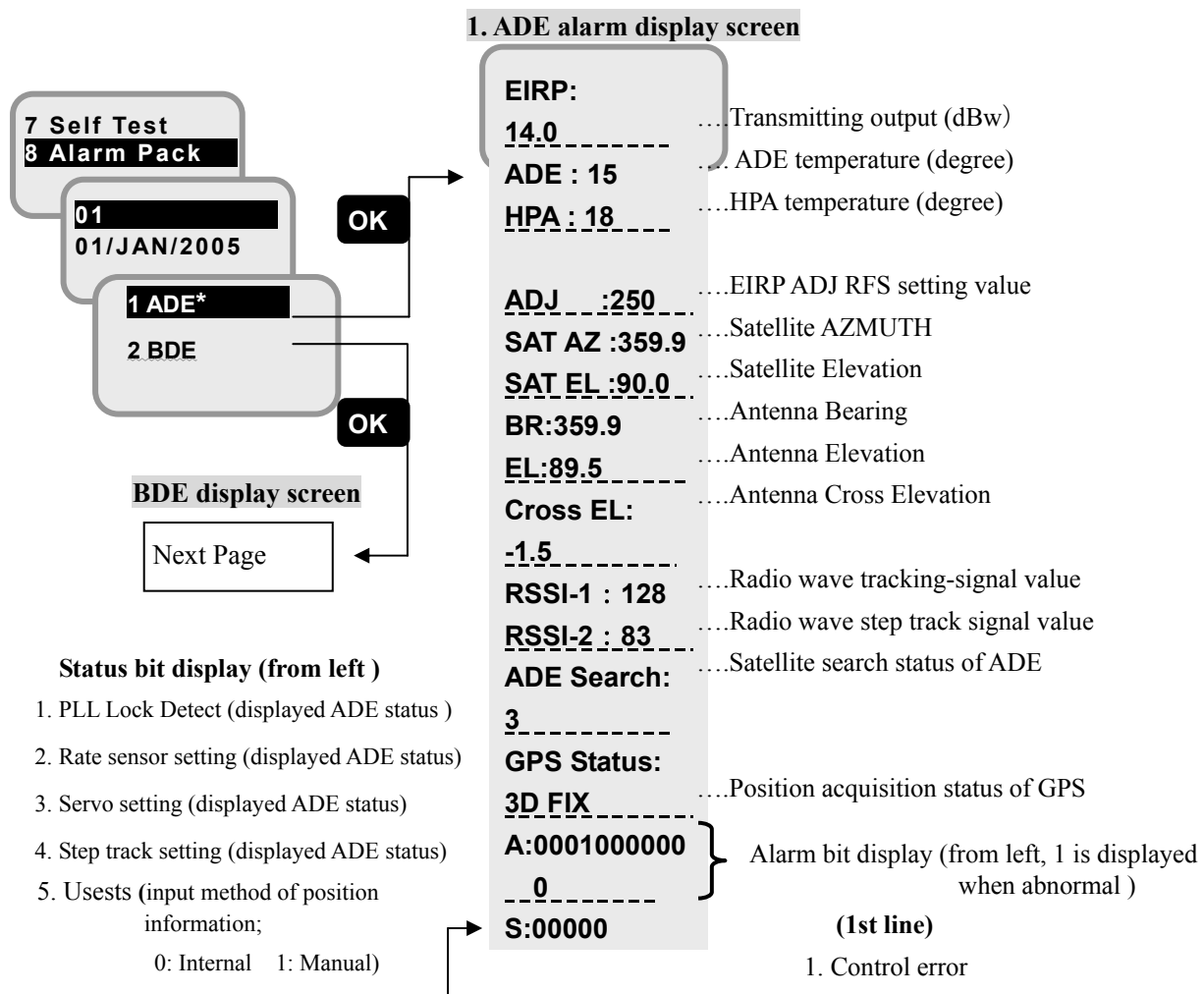


Fig. 8.8.1a Unit selection menu for Alarm Pack (ADE)

*Explanation of software update error display (p106)

Below numbers are displayed to XX, YY, ZZ. [.] is displayed as delimiter when the number is 1-digit(e.g. 3,0,0.).

XX:Status when failed

0. Initial status
1. IB checking
2. IB updating
3. ADE transferring
4. ADE boot requesting
5. ADE boot verifying
6. ADE erasing
7. ADE resetting
8. ADE erase verifying
9. ADE data sending
10. ADE transfer ending
11. ADE expanding
12. ADE rom re-writing
13. ADE verifying

YY: Error No. when IB software upgrade is failed

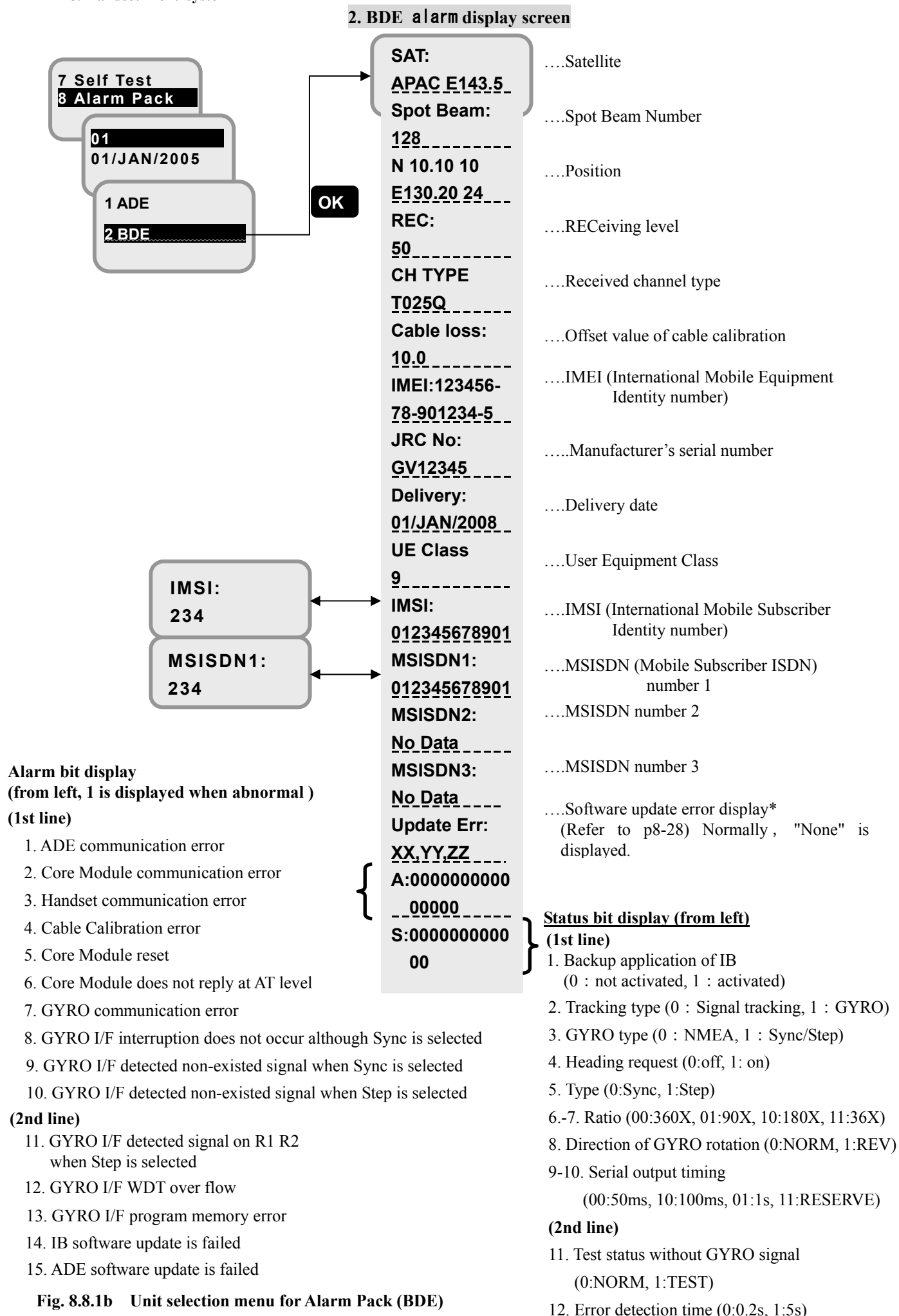
0. No error
1. File name error
3. IB image error (CRC/ID/length)
4. Data forwarding error
5. CM no reply
6. IB backup is failed

ZZ : Error No. when ADE software upgrade is failed

0. No error
2. File name error
4. Data forwarding error
5. CM no replay
7. ADE image error (CRC/ID/length)
8. ADE communication error
9. ADE verify error

When both of the software, IB (YY) and ADE (ZZ) upgraded with no error, below screen is displayed.

**Update Err:
None**



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.

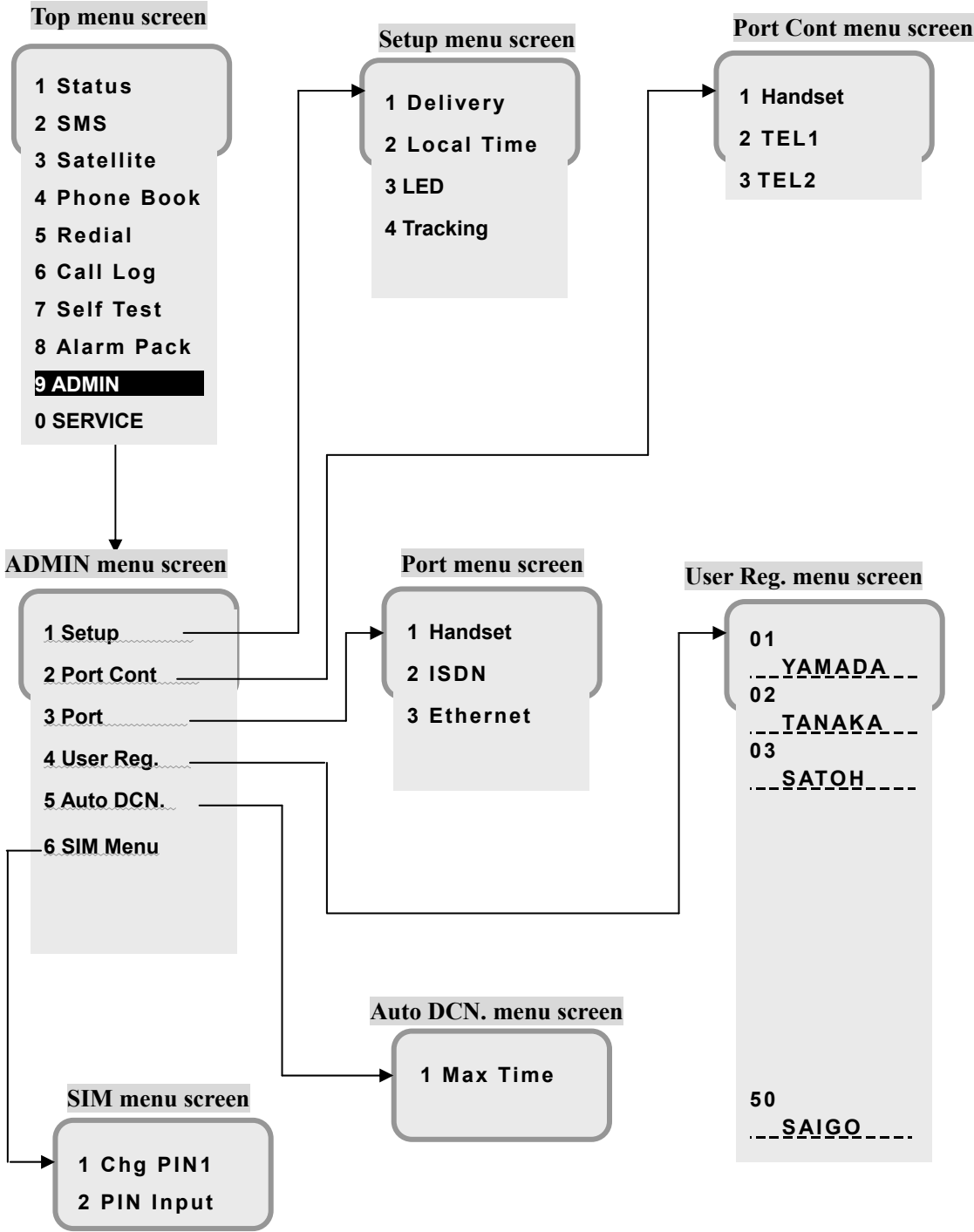


Fig. 8.9 Flow of ADMIN menu

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

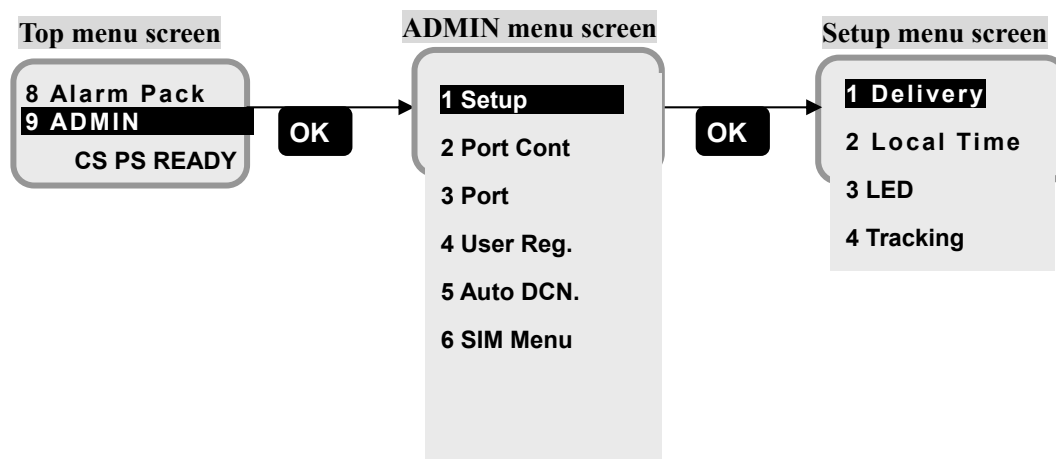


Fig. 8.9.1 Setup menu screen

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.

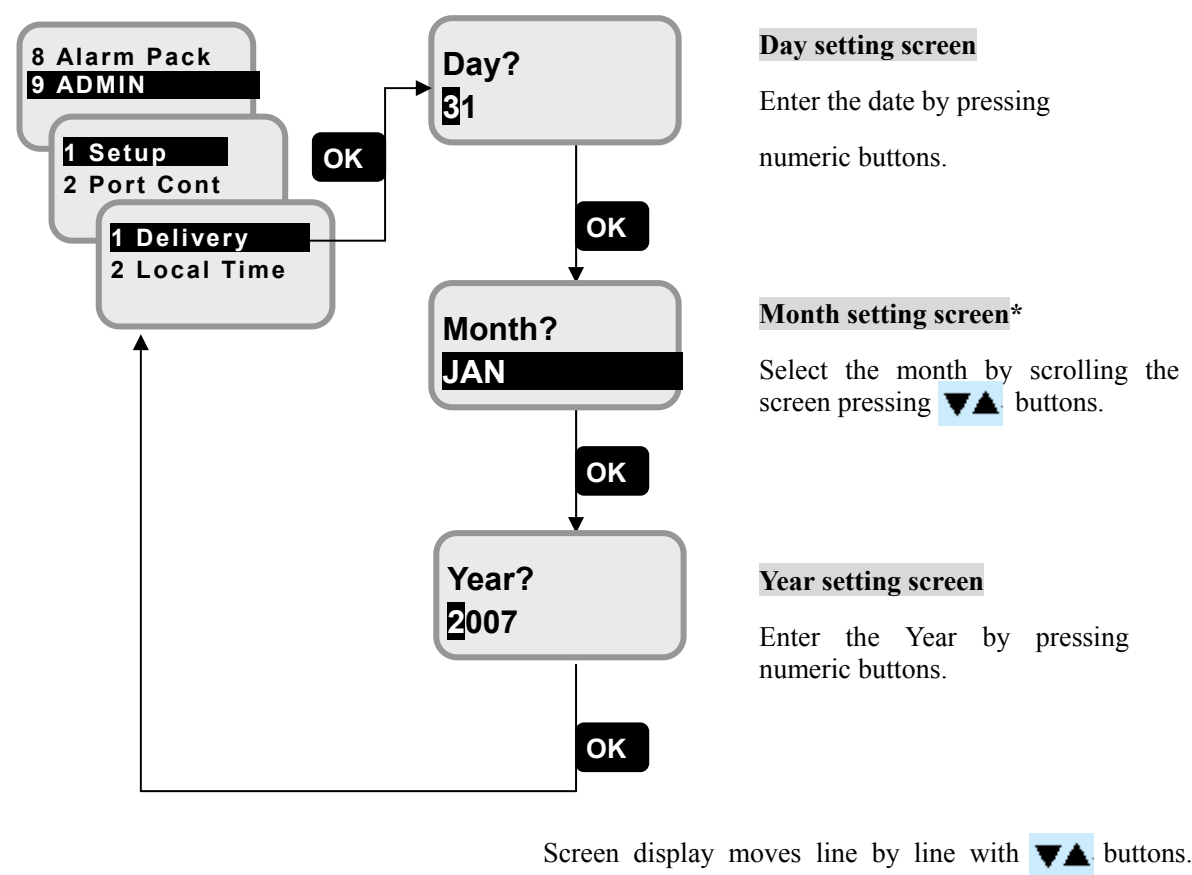


Fig. 8.9.1.1 Delivery menu screens

* 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.

To return the time display to UTC, set the time difference to 00.00.

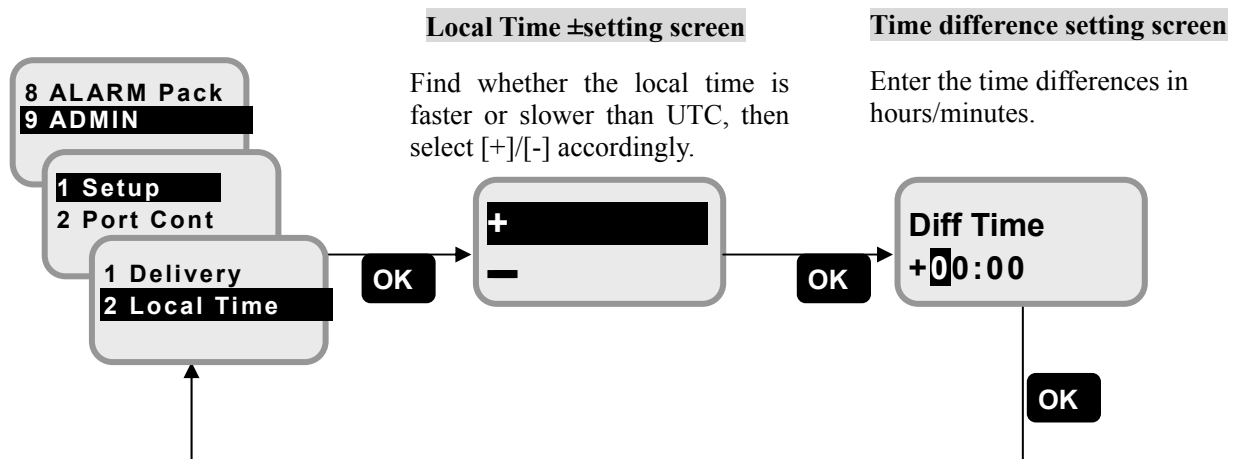


Fig. 8.9.1.2a Local Time menu screen

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

(Enter time difference +9hours)

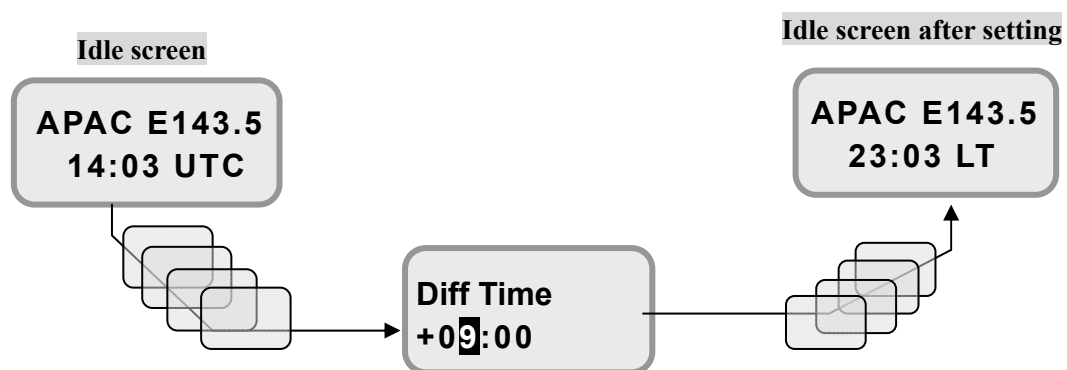


Fig.8.9.1.2b Example of setting Local Time

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**.

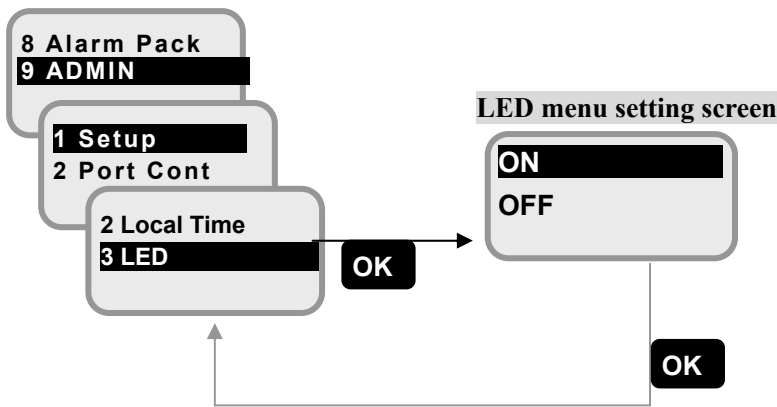


Fig. 8.9.1.3 LED Setting screen

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].
And also the GYRO type can be set.
Refer to Appendix [A.2 Procedure of setting GYRO tracking system], when GYRO is used.

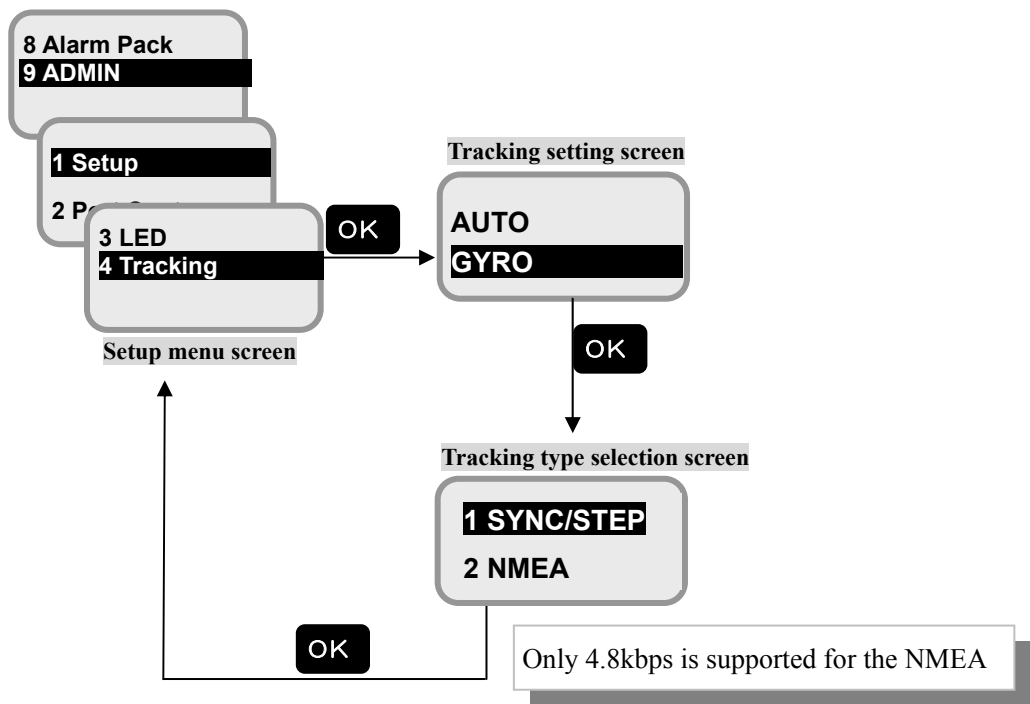


Fig. 8.9.1.4 Tracking Setting screen

8.9.2 Port Cont menu

(**MENU**+**9**+**2**)

In this menu, the user can execute the various setting to communication ports (Handset, TEL1, or TEL2) respectively.

1. Secret Code: Sets operation limit to each port
2. Volume: Sets volume of voice output to each port.
3. Type: Sets service type (Voice or FAX) to TEL1 or TEL2.

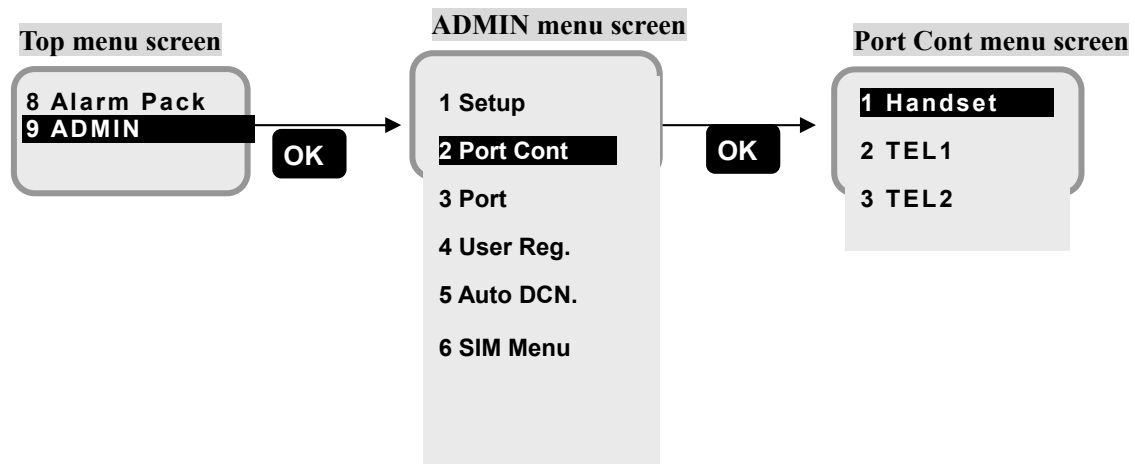


Fig. 8.9.2 Port Cont menu screen

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.

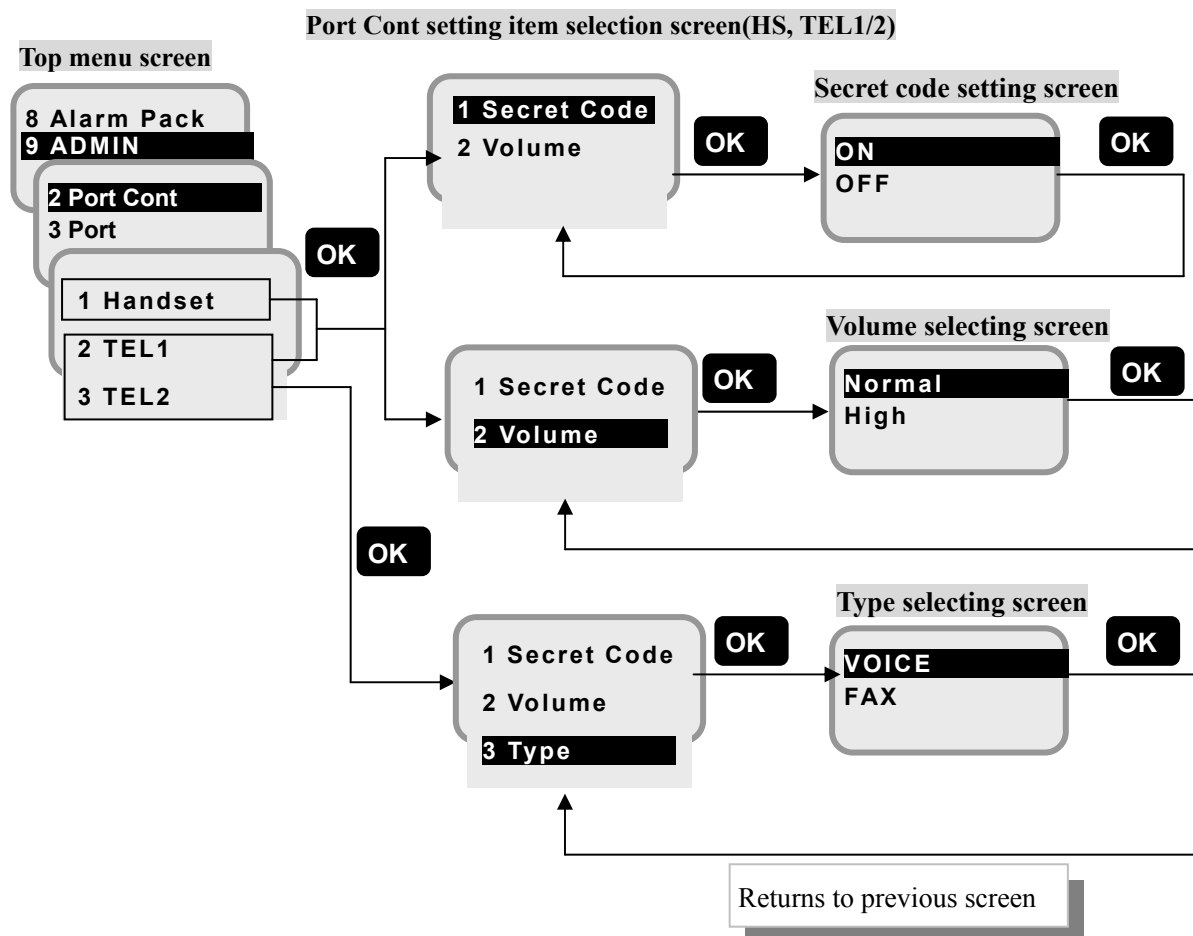


Fig. 8.9.2.1 Flow of Port Cont setting item selection menu

8.9.3 Port menu

(**MENU**+**9**+**3**)

In this menu, the user can set the advanced setting of Handset, ISDN port, and Ethernet port.

1. Handset (8.9.3.1)

- Selecting brightness of Back Light
- Selecting LED brightness
- Selecting pattern of ringer tone
- Selecting loudness of voice volume
- Setting ON/OFF of key click sound

2. ISDN (8.9.3.2)

- Assigning Multiple Subscriber's Number (MSN)

3. Ethernet (8.9.3.3)

- Assigning JUE-250 IP address
- Setting ON/OFF of DHC function

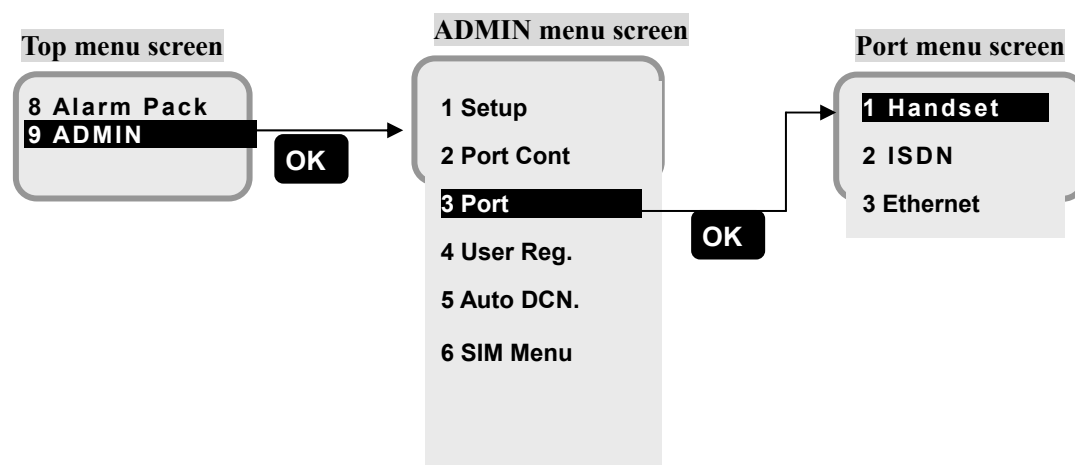


Fig. 8.9.3 Port menu screen

8.9.3.1 Handset advanced setting menu

(MENU+9+3+1+1 to 6)

In this menu, the user can set the advanced settings of Handset (brightness of LCD screen backlight/LEDs, volume /pattern of ringer tone, voice volume, and key click sound).

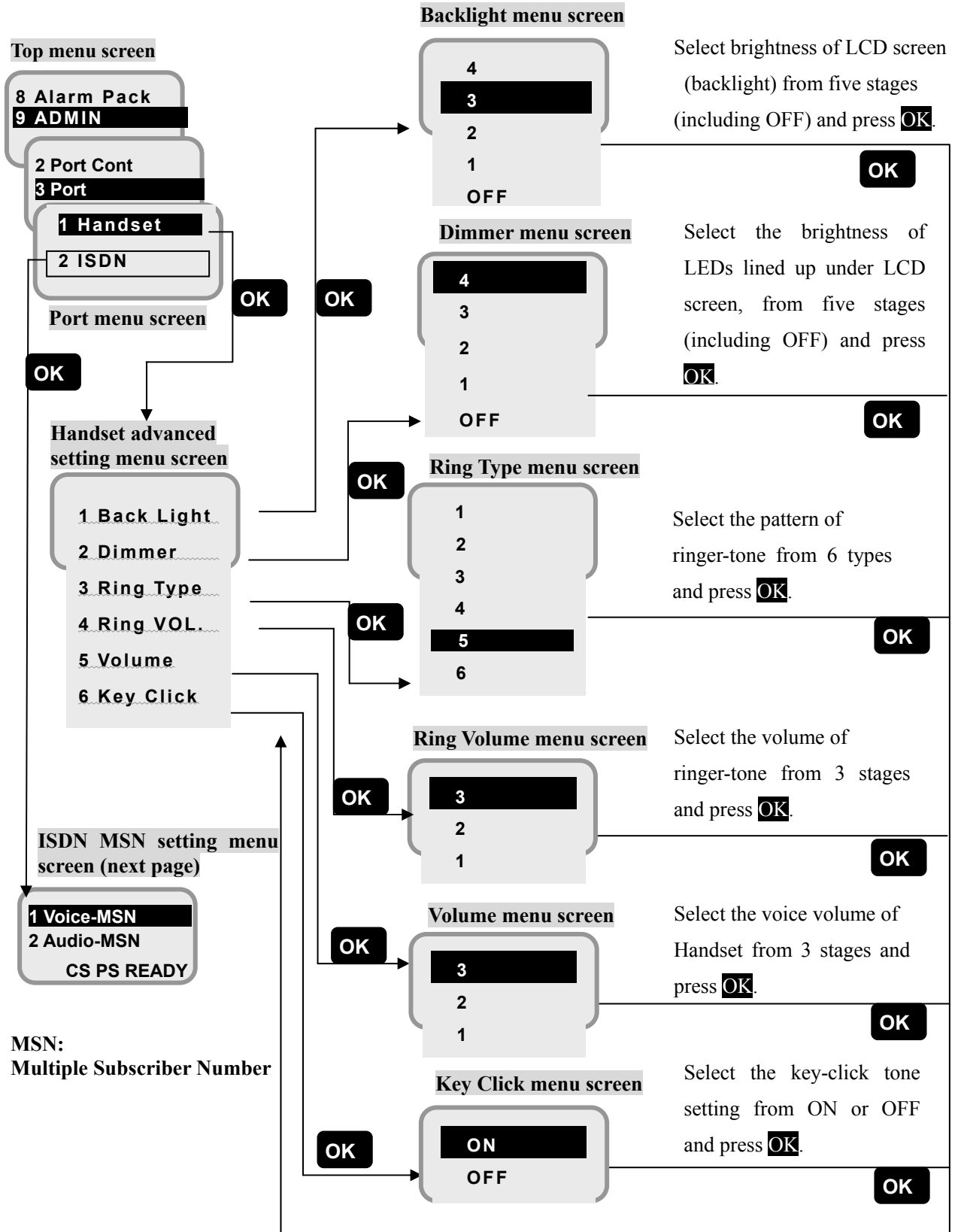


Fig. 8.9.3.1 Handset advanced setting menu

8.9.3.2 ISDN MSN setting menu

(**MENU**+**9**+**3**+**2**+**1** to **2**)

In this menu, the user can set the MSN of ISDN port.

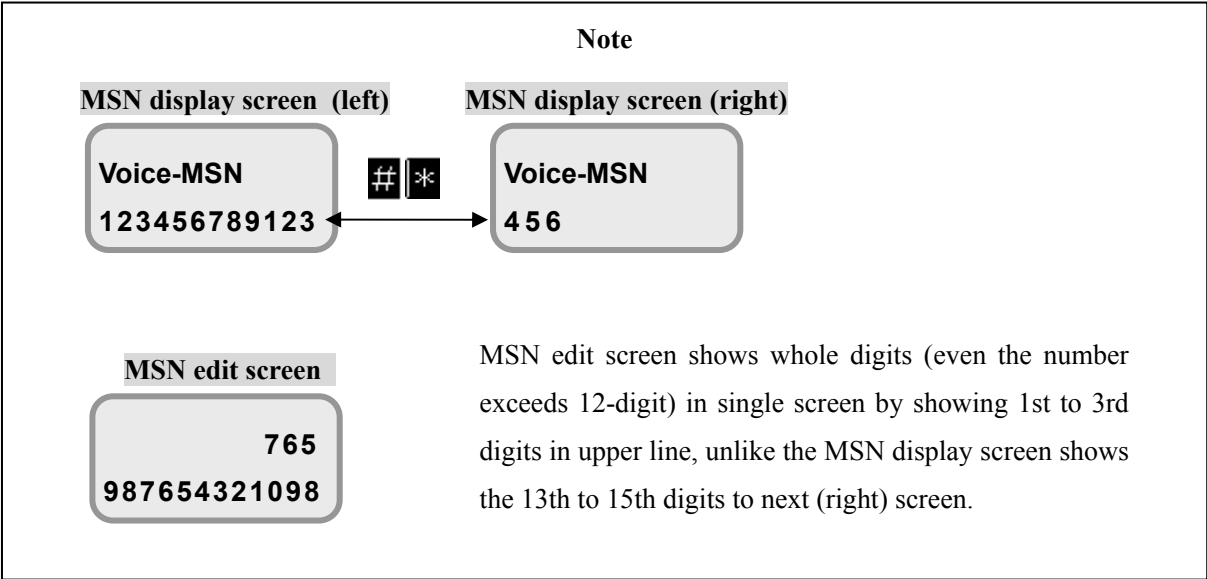
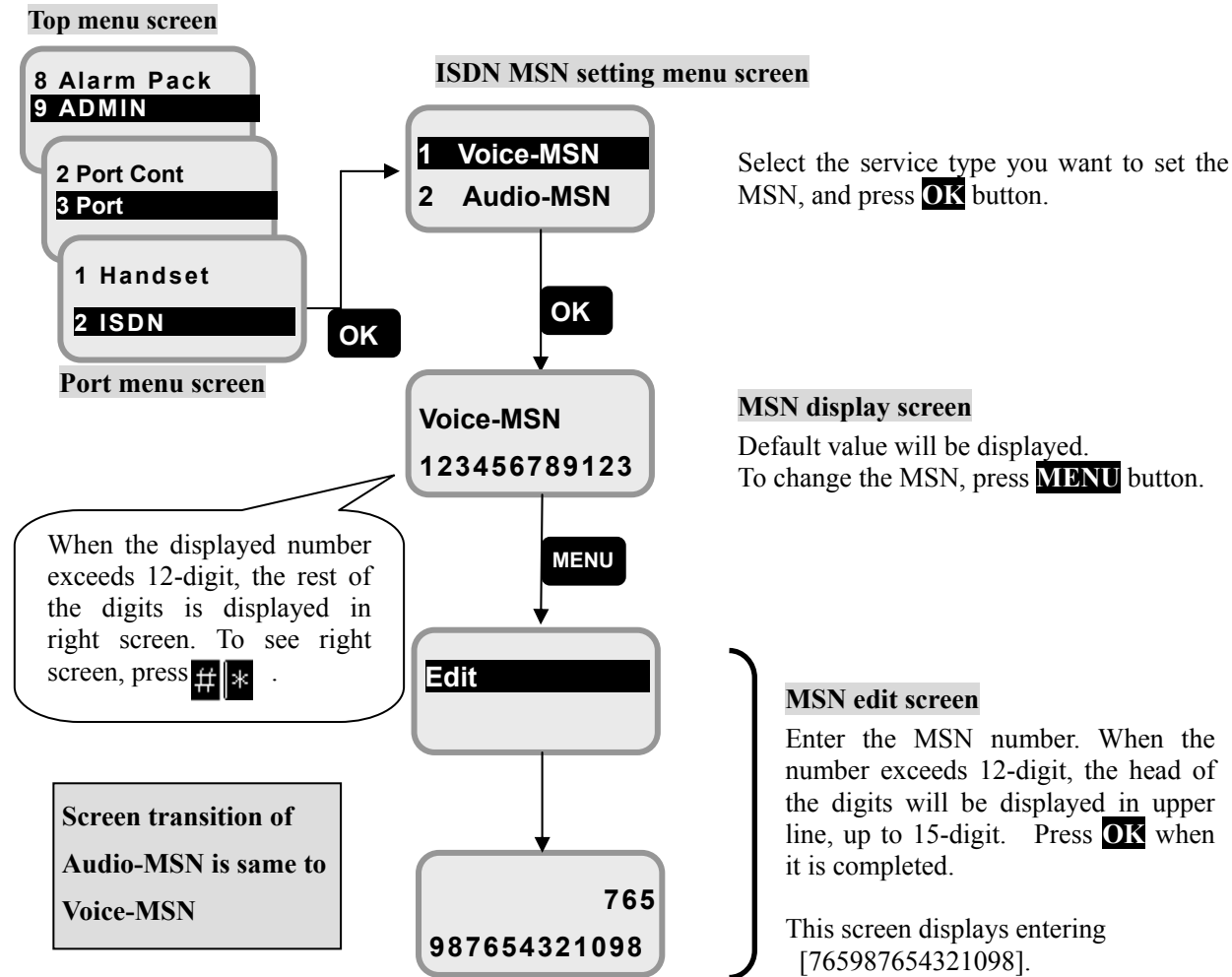
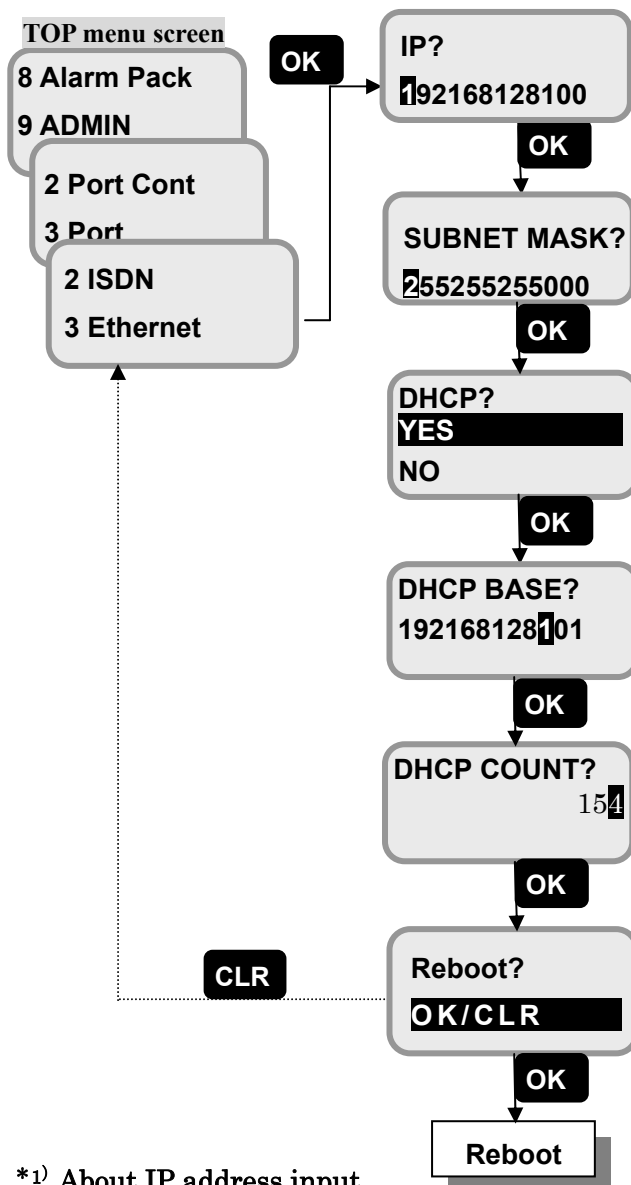


Fig. 8.9.3.2 ISDN MSN setting menu

8.9.3.3 Ethernet setting menu

(MENU+9+3+3)

In this menu, the user can change the IP address and set the use/non-use of DHCP function of Ethernet port.

**IP address ^{*1)} editing screen**

Press any numeric key, then initially displayed numbers are once erased altogether.

Then enter the new IP address and press **OK** button.

SUBNET MASK setting screen

Set the SUBNET MASK and press **OK** button.

DHCP ^{*2)} setting screen

Set the DHCP function use/non-use.

Select [YES (use DHCP)] or [NO (non-use DHCP)] by the cursor and press **OK** button.

DHCP ^{*2)} allocation setting screen

Enter the minimum IP address for the DHCP allocation and press **OK** button.

DHCP ^{*2)} range setting screen

Enter the total amount of the IP address number for the DHCP allocation and press **OK** button.

Reboot confirmation screen

To fix above settings, Press **OK** button. Handset screen display is turned off and then reboot is started.

To cancel above setting, press **CLR** button. The screen returns to PORT menu screen.

***1) About IP address input**

IP address is configured with 4 strings of 3 digits numbers, which delimited by a period. Add [0] or [00] for the string which is less than 3 digits.

Ex.) [192.168.128.1] shall be input as [192168128001]

Possible input range of IP address :

10.0.0.1 – 10.255.255.254

172.16.0.1 – 172.31.255.254

192.168.0.1 – 192.168.255.254

Use of “all ones” or “all zeros” for the host field of the IP address is not supported.

***2) About DHCP function**

The upper 9 digit number at [DHCP allocation setting screen] is equaled to the IP address at the [IP address setting screen].

Maximum number for the [DHCP range setting screen] is [254].

8.9.4 User Reg. menu

(**[MENU]**+**9**+**4**)

In this menu, the user can register User name and Secret Code. Input range of Secret Code is 0001 to 9000.

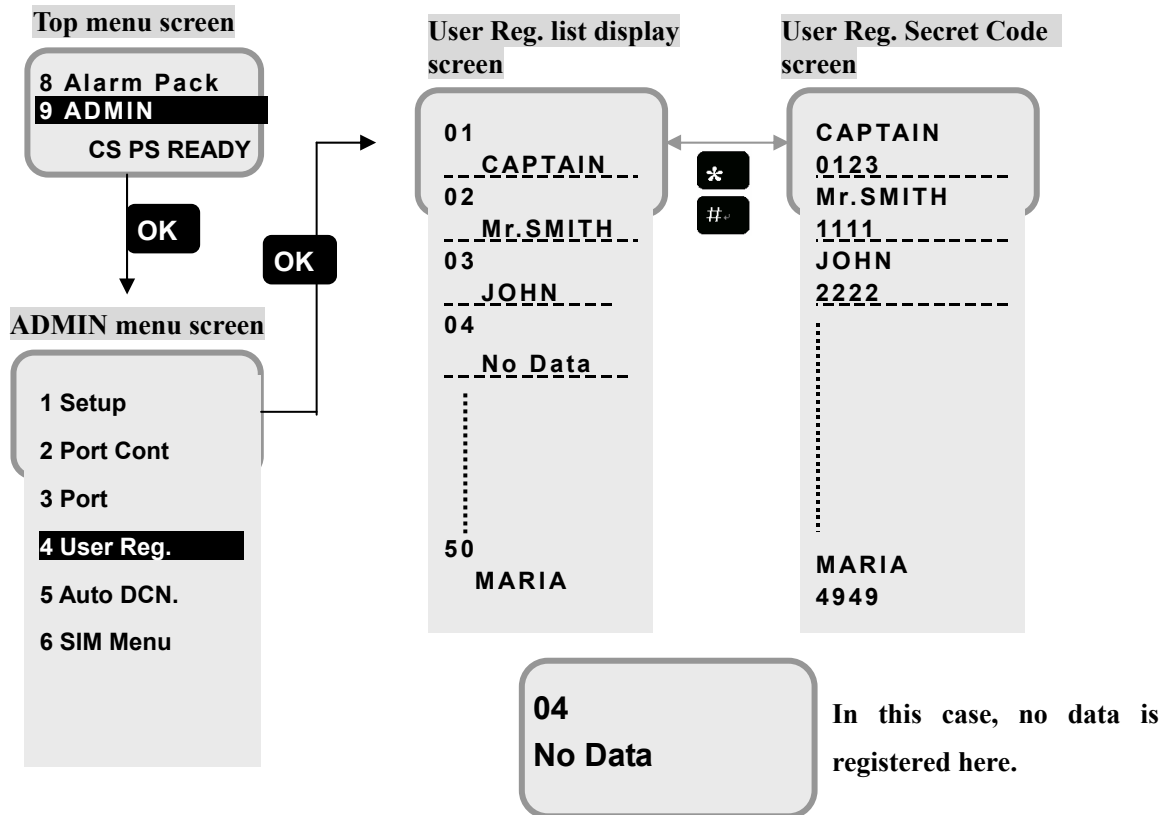


Fig. 8.9.4a User Reg. menu screen transition

Only one person who registered firstly, as [01], can be ADMIN user.

Persons registered from [02], are to be GUEST users.

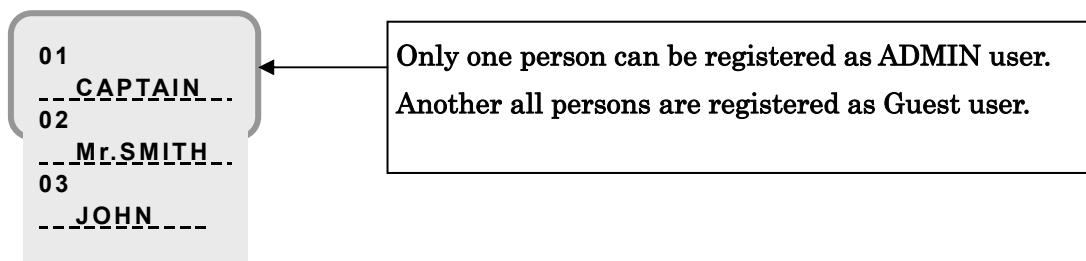


Fig. 8.9.4b Example of ADMIN and GUEST user registration

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.

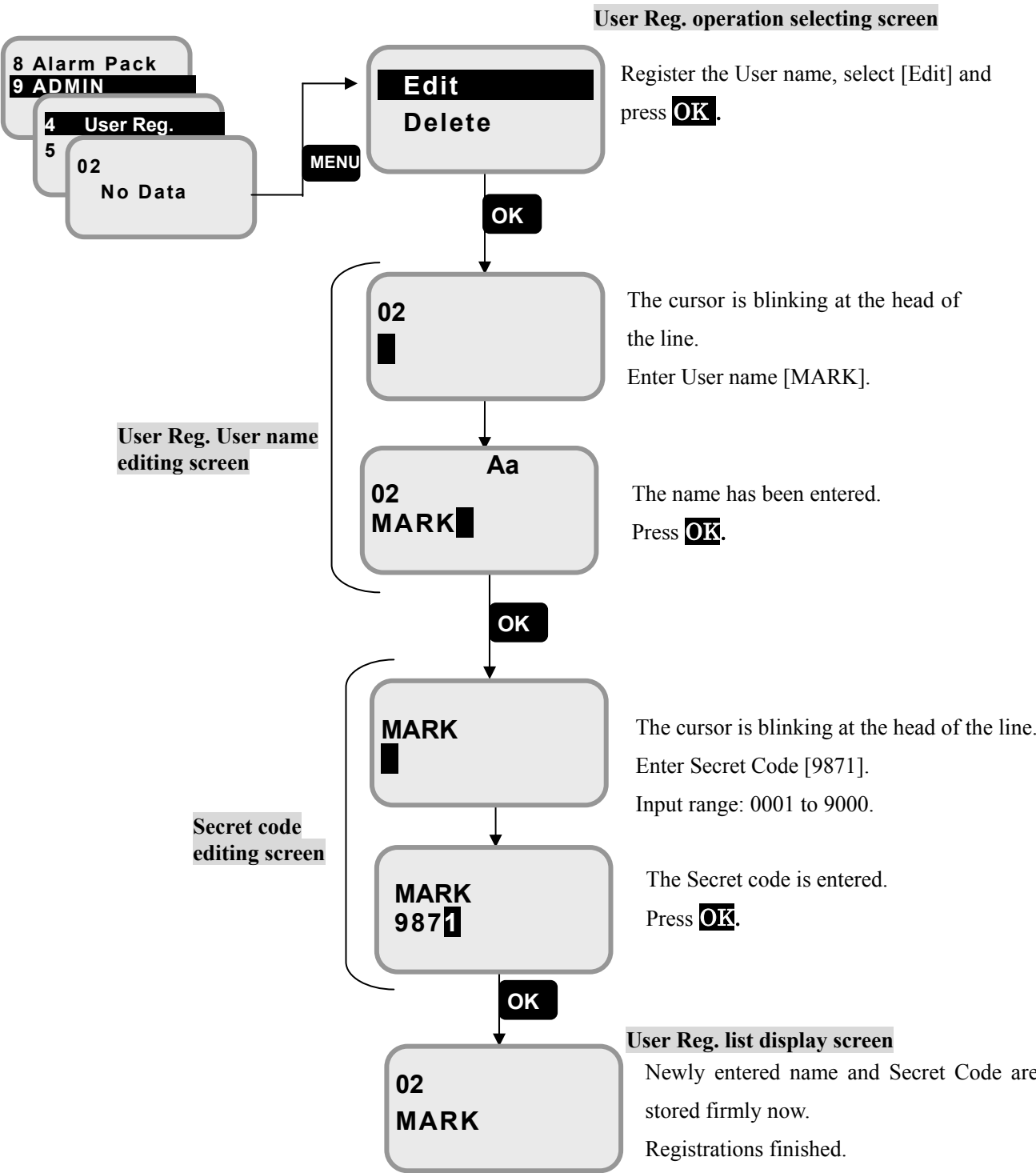


Fig. 8.9.4.1a Flow of User Reg. operation selecting menu

[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.

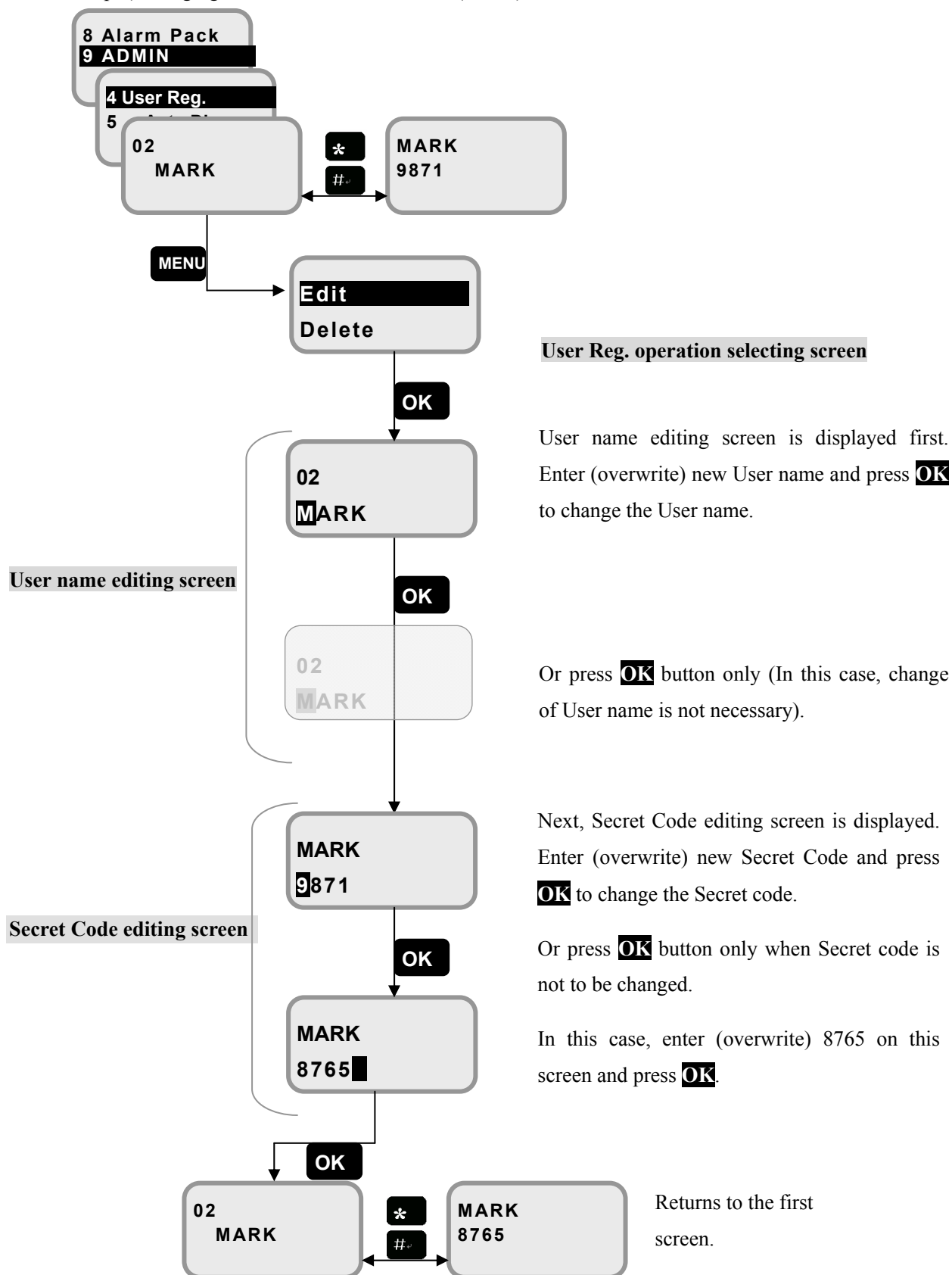


Fig. 8.9.4.1b Overwriting procedure of User name and Secret Code

[Deleting User name and Secret Code]

Example) Deleteing the data of No.02

Press **MENU** with the User Reg. list which displays No.02.

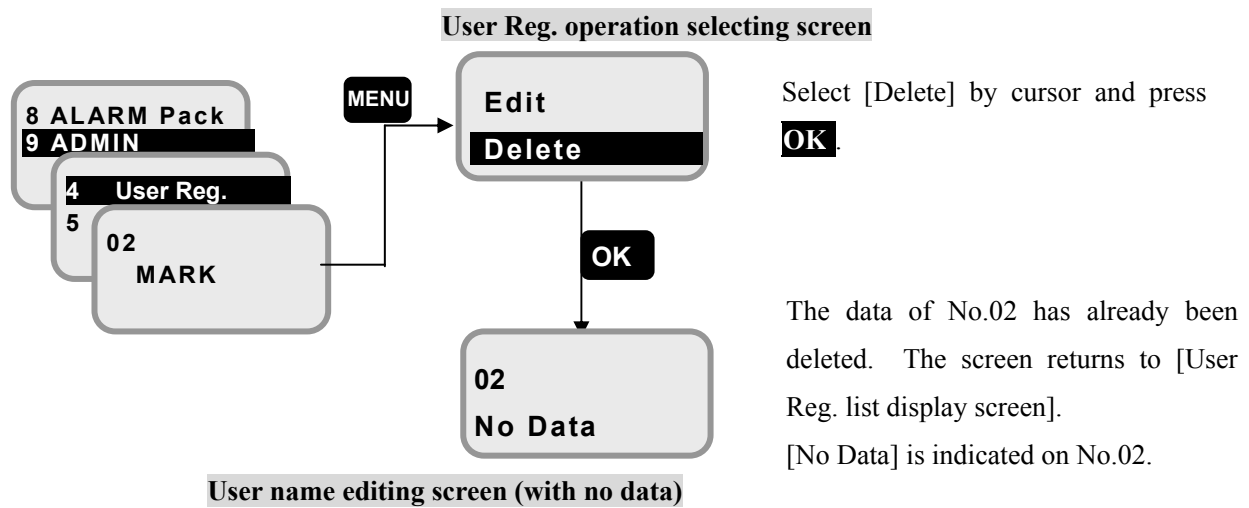


Fig. 8.9.4.1c Deleting User name and Secret Code

[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.

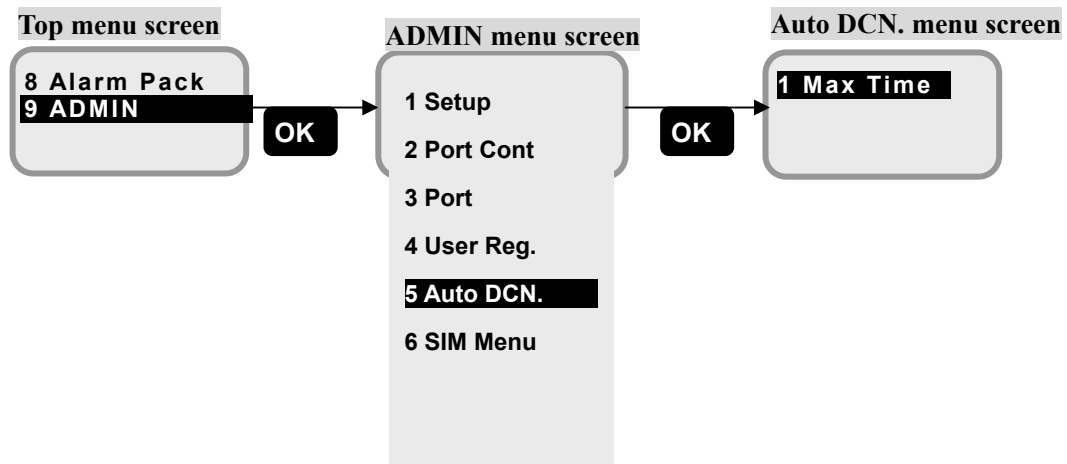
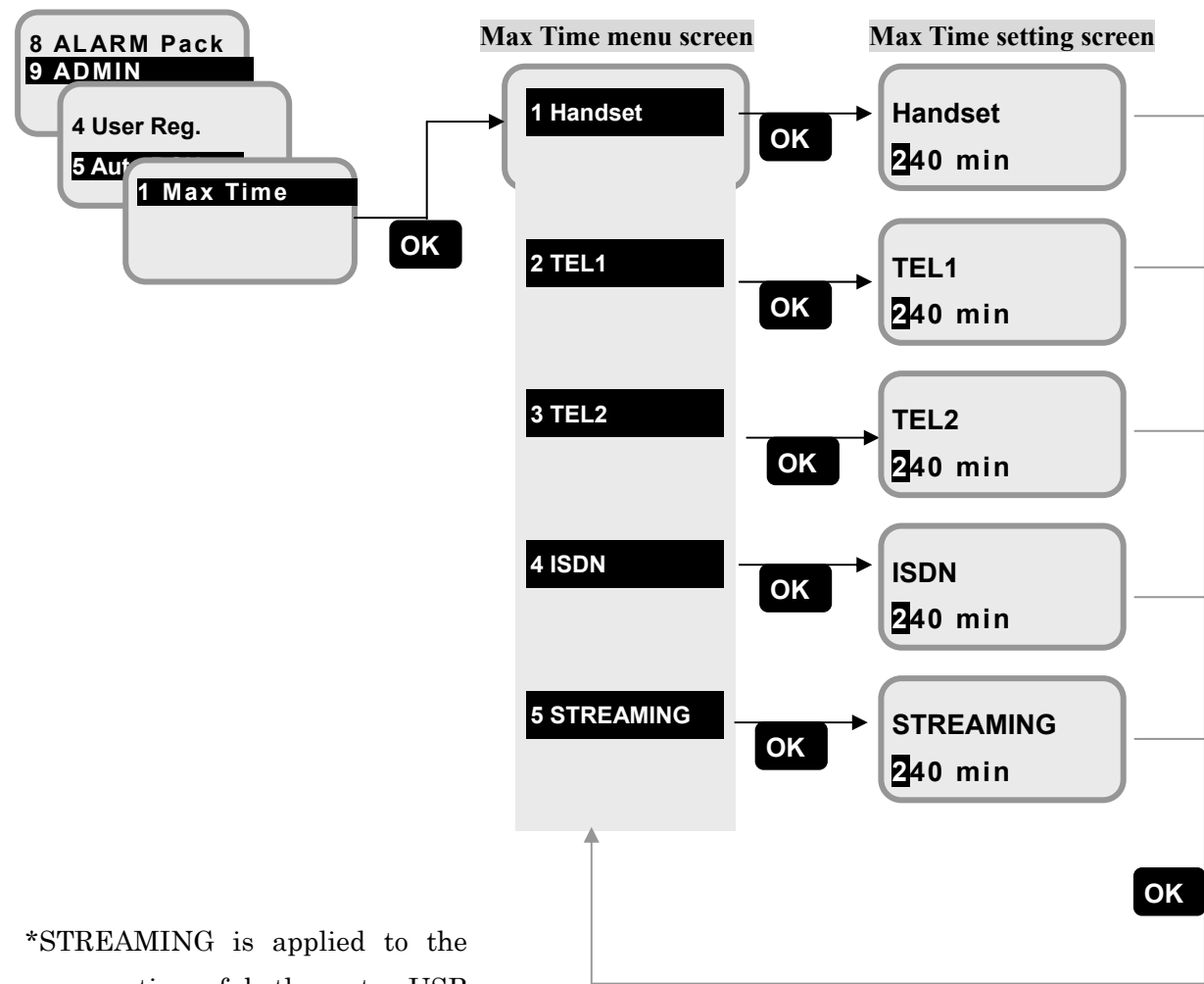


Fig. 8.9.5 Sequence of opening Auto DCN. menu screen

8.9.5.1 Max Time menu (MENU+9+5+1+1 to 5)

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.



*STREAMING is applied to the connection of both ports, USB and Ethernet.

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 SIM Menu

(MENU+9+6)

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

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

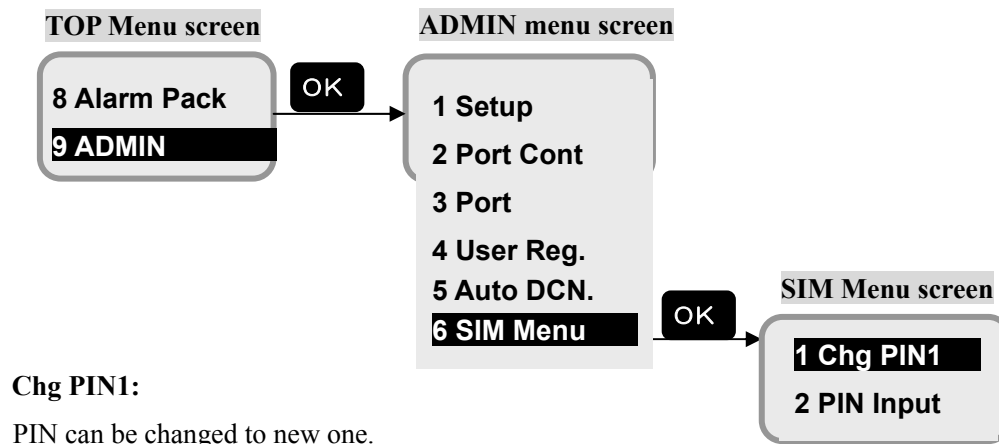


Fig. 8.9.6 SIM Menu screen

8.9.6.1 Chg PIN1 Menu

MENU+9+6+1)

In this menu, the user can change the Personal Identification Number (PIN), which is necessary for SIM card operation.

(To operate this menu, user should set PIN Input to [Enable] in [8.9.6.2 PIN Input setting menu (p126)], preliminarily.)

PIN changing procedure

- 1) Select [1 Chg PIN1] and press **OK**, then **SIM PIN1 input screen** is displayed. Input existed PIN (4-digit) and press **OK** (entered figures are hidden by ****).
- 2) New PIN input screen is displayed. Input new PIN and press **OK**.
- 3) New PIN retype screen is displayed. Retype new PIN again and press **OK**.

About releasing method of PIN locking (it occurs when the input error exceeds three times), refer to [Releasing PIN locking and new PIN setting procedure (p127)].

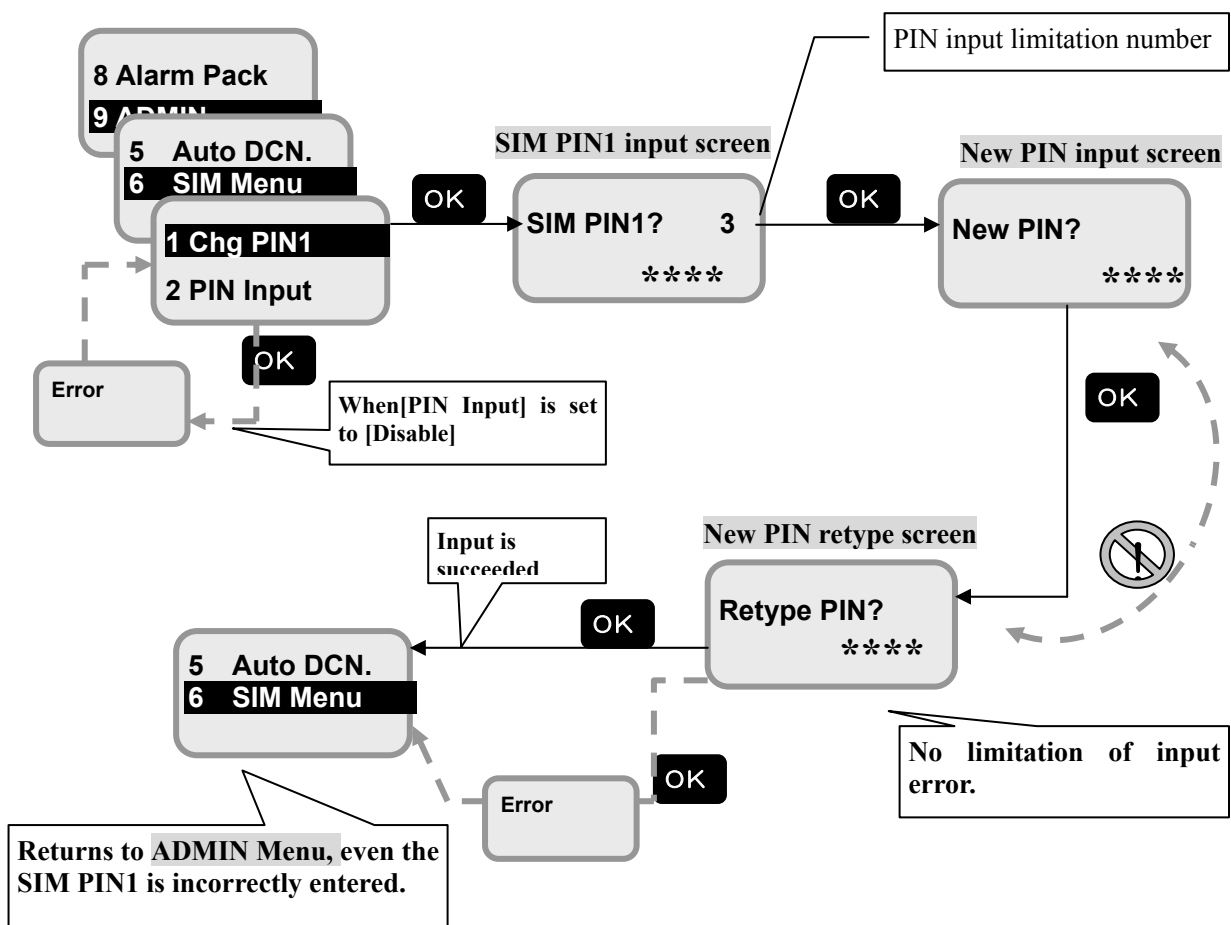


Fig.8.9.6.1 Chg PIN1 menu (changing procedure of PIN)

8.9.6.2 PIN Input setting(**MENU** + **9** + **6** + **2**)

In this menu, Enable/Disable of PIN entry can be set.

Setting [Enable], PIN entry is required when turning OFF/ON of the power source.

Setting [Disable], PIN entry is not required when turning OFF/ON of the power source.

Set [Enable] prior to changing the PIN at previous chapter, [8.9.6.1 Chg PIN1 menu]

PIN Input setting procedure

- 1) Select [2 PIN Input] and press **OK**, then PIN Input setting screen is displayed. Select Enable or Disable of PIN entry, and press **OK**.
- 2) **SIM PIN1 input screen** is displayed. Input exist PIN (4-digit) and then press **OK**.

About releasing method of PIN locking (it occurs when the input error exceeds three times), refer to [Releasing PIN locking and new PIN setting procedure (p127)].

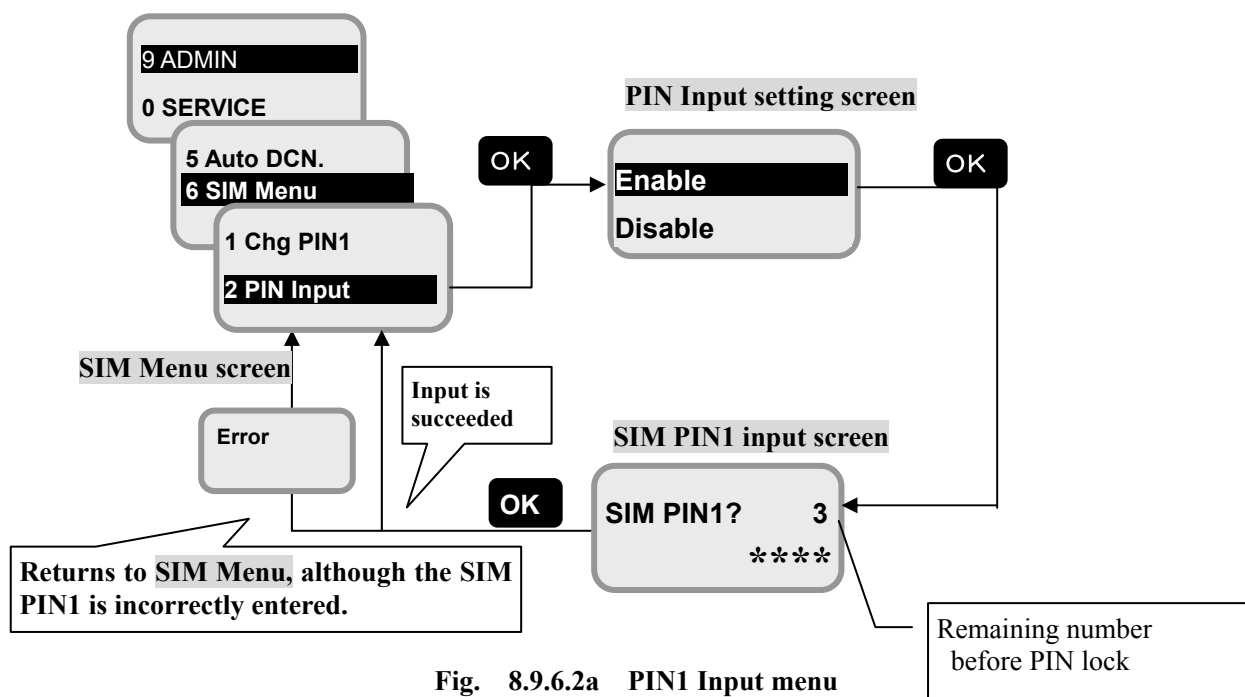
PIN Input setting procedure

Fig. 8.9.6.2a PIN1 Input menu

Releasing PIN locking and new PIN setting procedure

When the PIN is locked, **SIM PUK1 input screen** is displayed.

Input 8-digits of SIM PUK which you obtained at purchasing SIM card.

(If the input error of SIM PUK is occurred 10 times continuously, the SIM card is invalid.)

The screen transition hereafter is the same to **PIN changing procedure**.

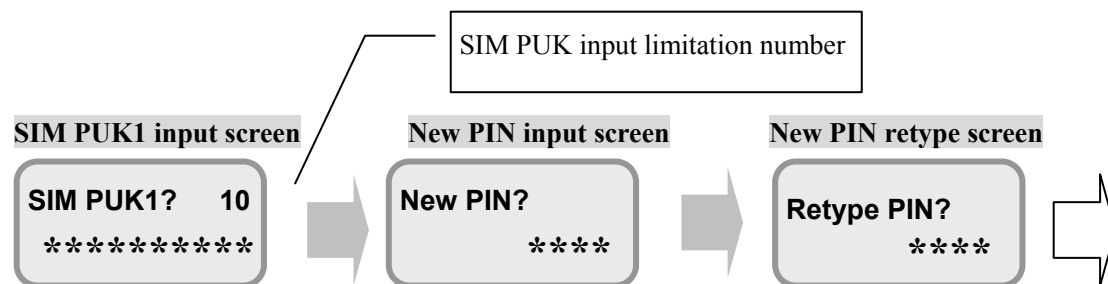


Fig. 8.9.6.2b Releasing PIN locking and new PIN setting procedure

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].

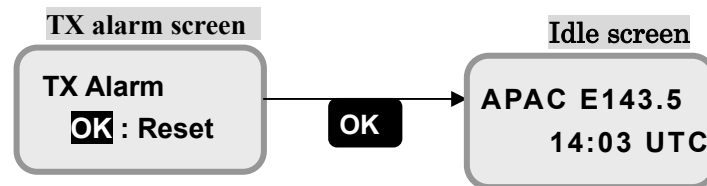


Fig.8.10 TX alarm screen

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.

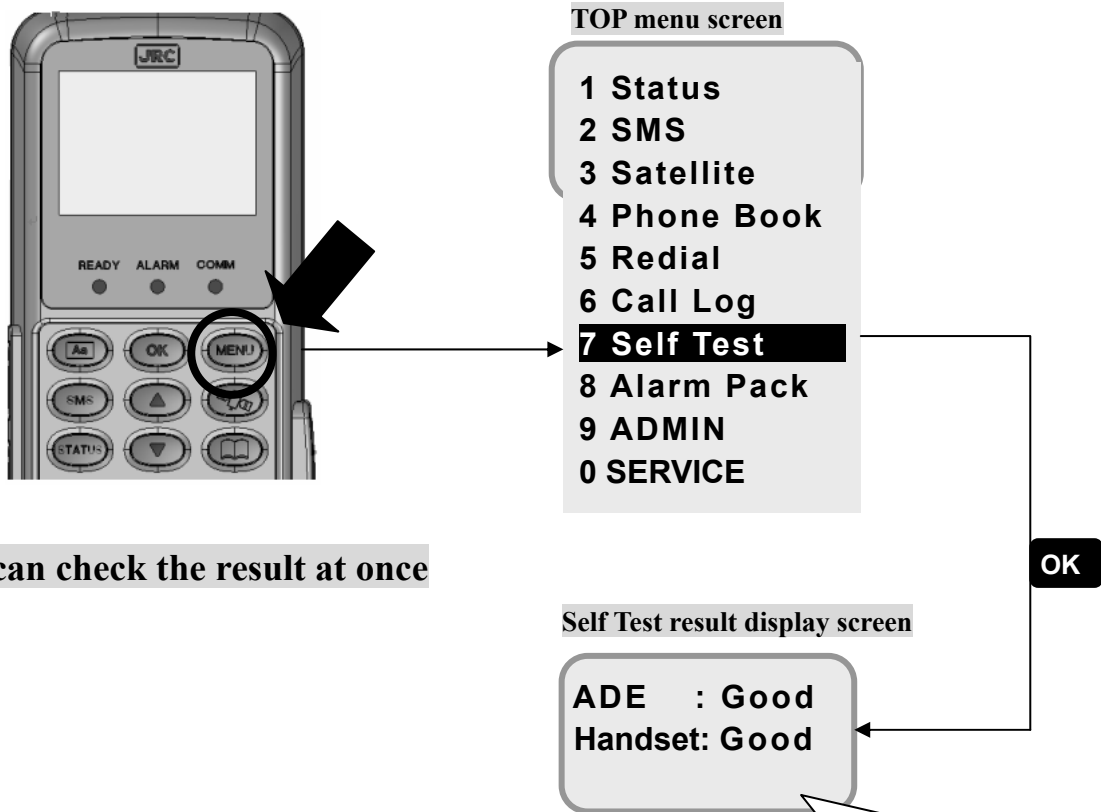
Table 9.1 Daily maintenance

No.	Item	Maintenance
1	Cleaning	Clean the panel, switch, top cover, and the button cover with a soft cloth.
2	Fastening	Fasten the loose screw, nut, 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.

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. 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 or a concerned local government.

11. Specification

MAIN (ADE, BDE)

1. MES Type	Class 9	
2. Inmarsat type approval	B9JR01	
3. Frequency	Transmit	1626.5 to 1660.5 MHz
	Receive	1525.0 to 1559.0 MHz
4. Maximum E.I.R.P		+15.1dBW + 1/-2dB
5. G/T		-15.5dBK
6. Modulation	QPSK	For voice communication
	$\pi/4$ -QPSK	
	16QAM	
7. Antenna	Type	0.30 ϕ flat
	Polarization	Right-hand circular (RHCP)
	Radome	AES
8. 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.
9. Dimension	ADE	Φ 350mm x h 350mm
	BDE	h 166mm x 64mm x d 221mm
10. Weight	ADE	7.4kg
	BDE	2.2kg

11. Specification

11. 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) Vibration	IEC 60945 4th Edition compliant		
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 / s²
	Headway	30knots	
5) Solar Radiation (ADE)	Infrared Radiation	500 watts / m²	
	Ultraviolet Radiation	54watts / m²	
6) Icing (ADE)	Up to 25mm		
7) Precipitation	Up to 100mm / hour		
8) Wind	Up to 100knots in operation		

Appendix A Changing procedures of using GYRO tracking

A.1 Cable connection system diagram (Corresponded to Chapter 2.3.1)

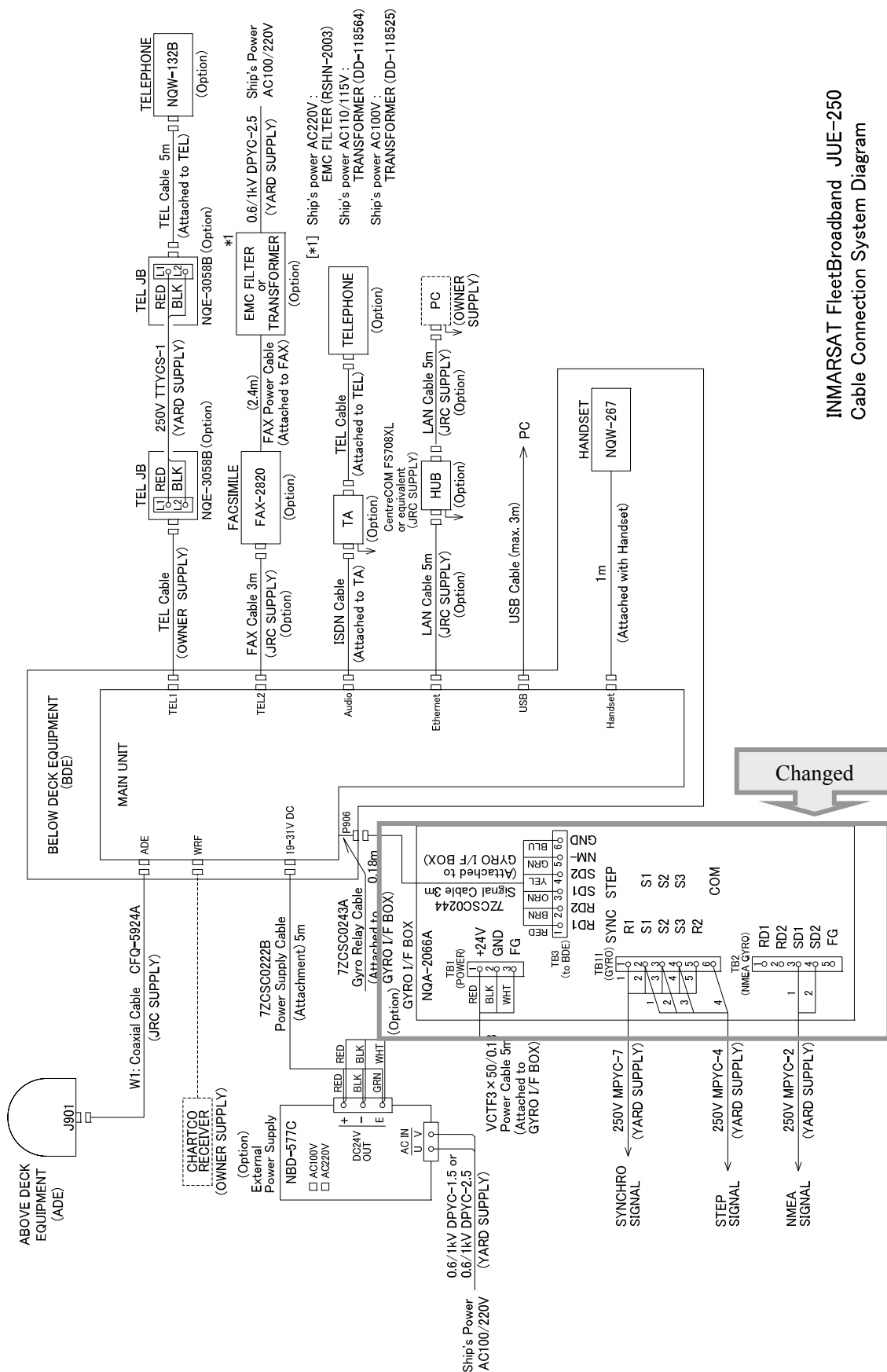


Fig. A.1 Cable connection system diagram (when GYRO is used)

A.2 Procedure of setting GYRO tracking system (Corresponded to Chapter 8.9.1.4)

Procedure of changing tracking system from [Auto](signal tracking) to [GYRO(NSK)] or [GYRO(NMEA)] is described in this chapter.

(In JUE-250, the tracking system is easily changed from Handset, although setting of dip switch must be changed in JUE-33).

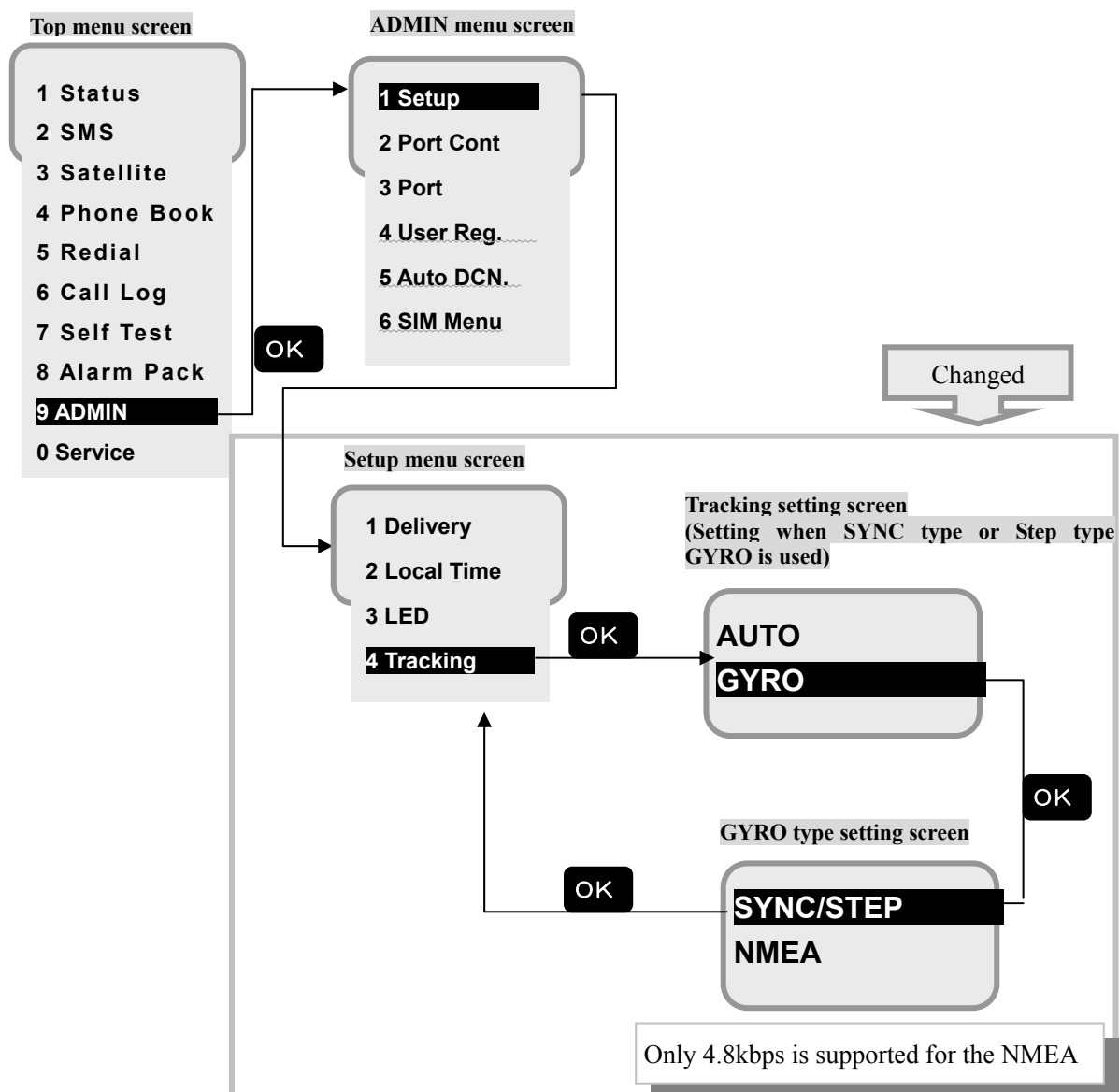
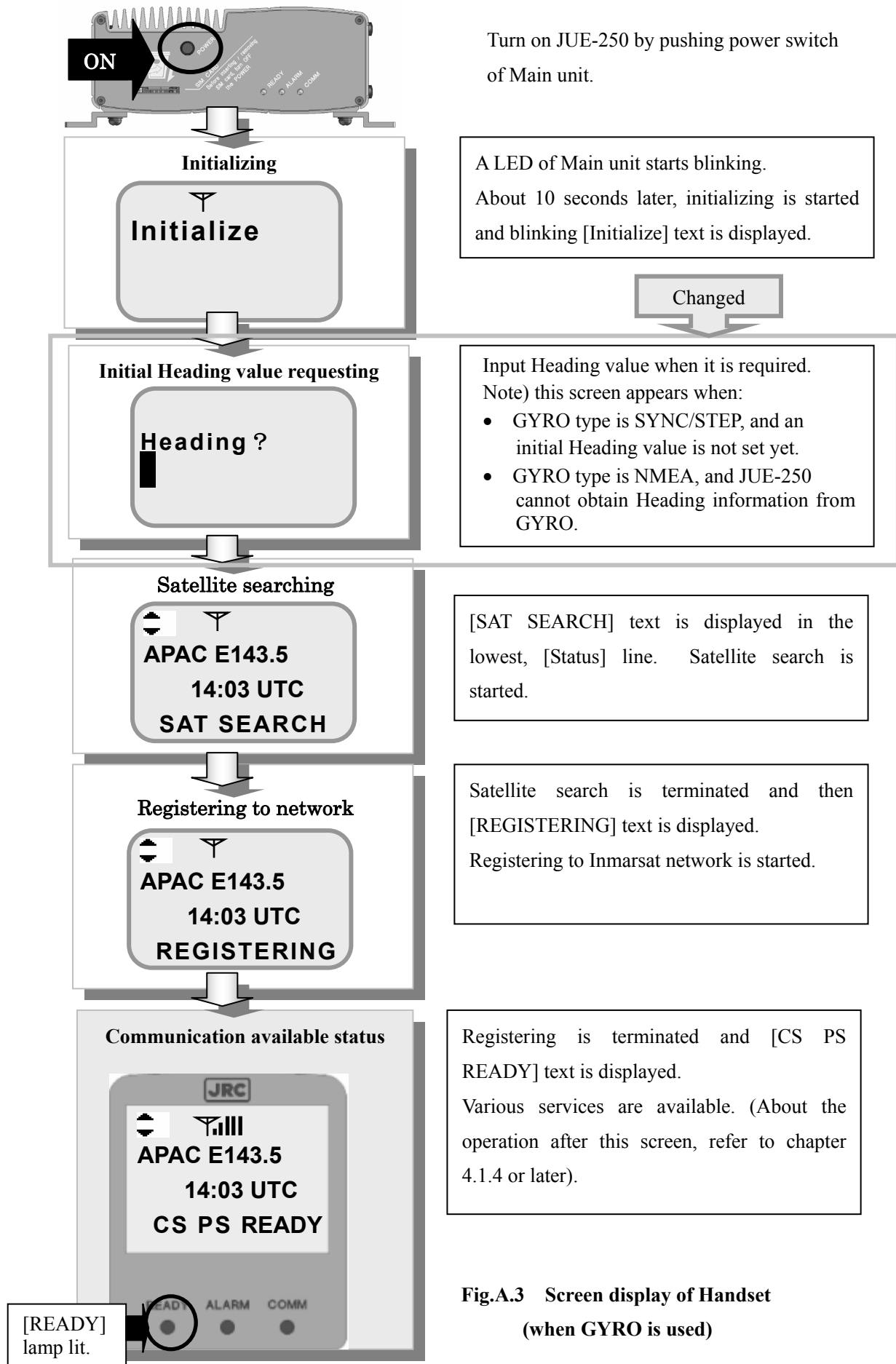


Fig.A.2 Procedure of setting GYRO tracking system

A.3 Screen display of Handset (Corresponded to Chapter 4.1)

**Fig.A.3 Screen display of Handset
 (when GYRO is used)**

A.4 Unit Info menu (Corresponded to Chapter 8.1.5)

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

By set to GYRO tracking, [2 Mainte No.] and [4 BDE] screens are changed.

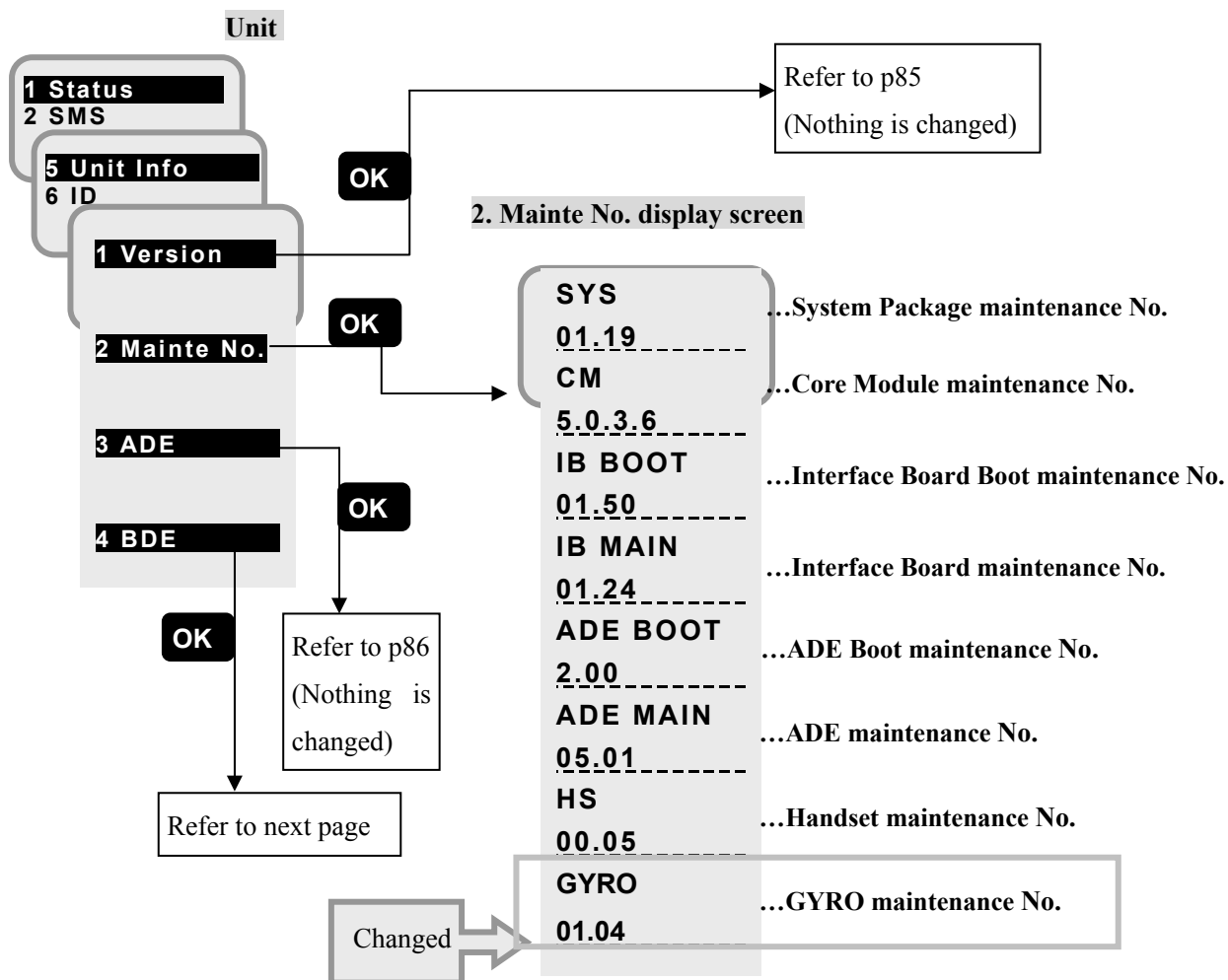


Fig.A.4a Mainte No. display screen (when GYRO is used)

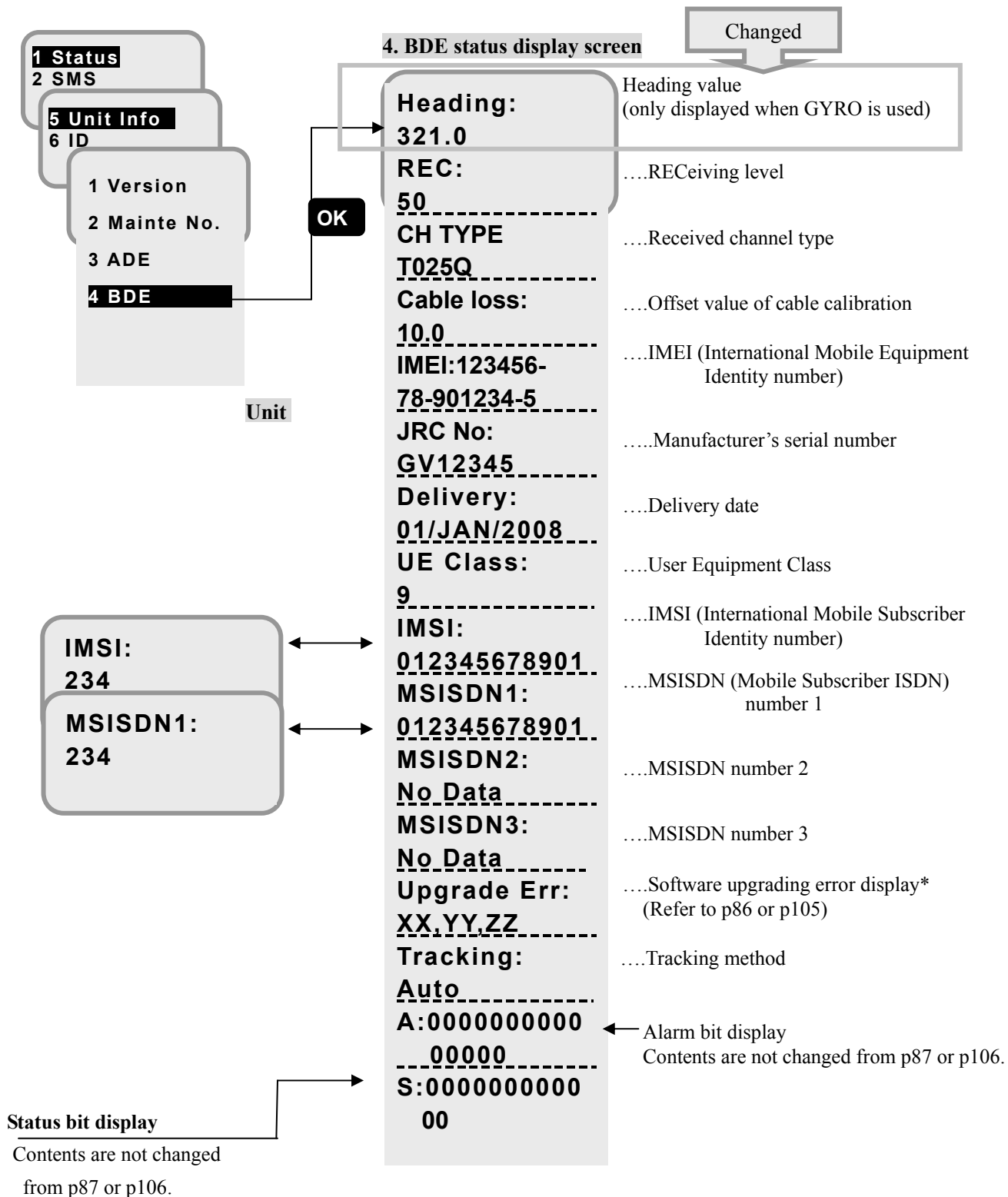


Fig.A.4b BDE status display screen (when GYRO is used)

*About [Unit selection menu for Alarm Pack (corresponded to Chapter 8.8.1), the screen is changed in the same way.

A.5 Satellite menu(Corresponded to 8.1.3)**(MENU+ 3)**

Editing the Heading value is required after changed to GYRO tracking system.

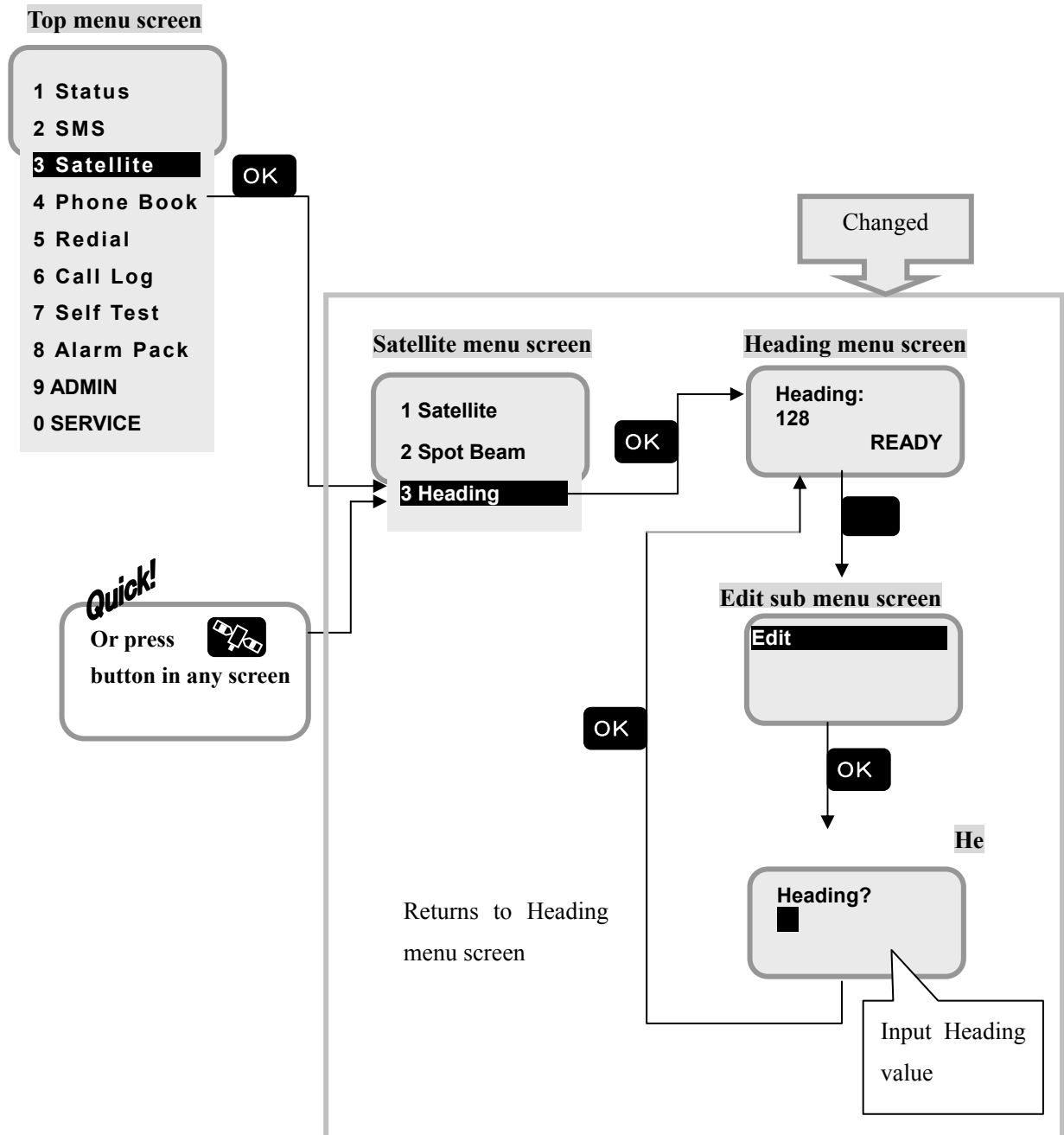


Fig.A.5 Heading menu screen of Satellite menu (when GYRO is used)

Appendix B Handset menu tree

B.1 Menu for all users (1)

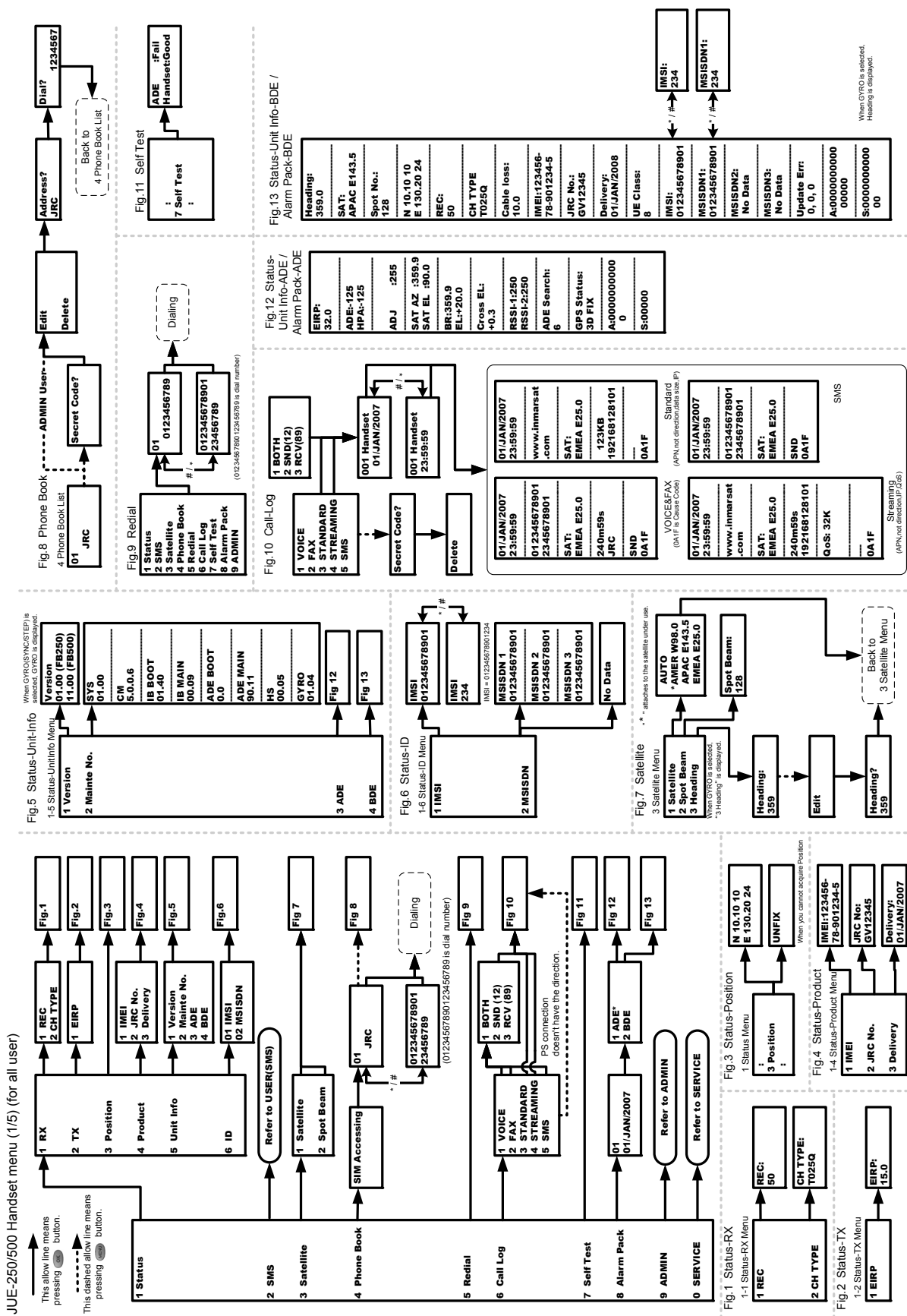


Fig.B.1 Menu for all users (1)

B.2 Menu for all users (2) SMS menu detail

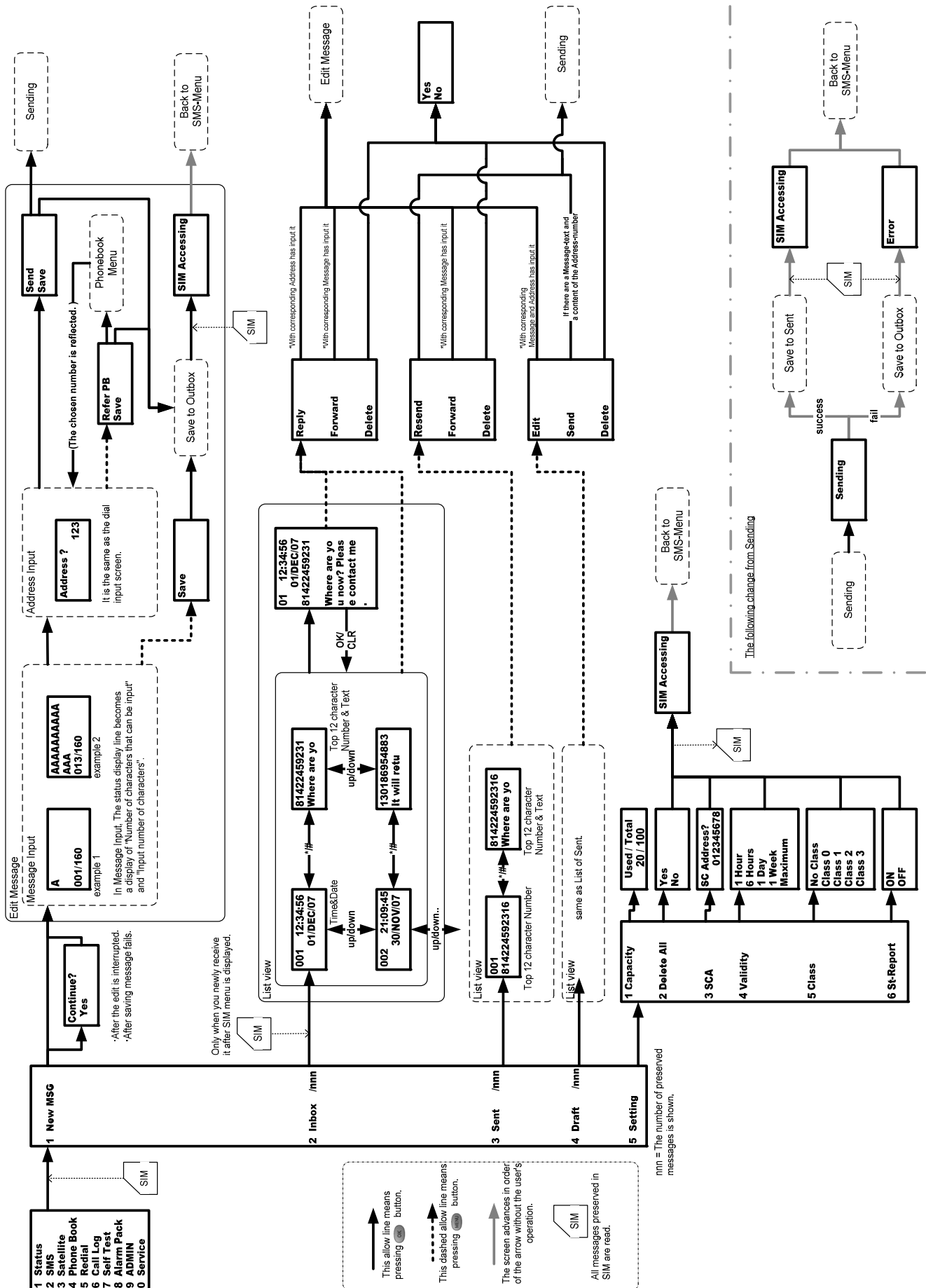


Fig.B.2 Menu for all users (2) SMS menu detail

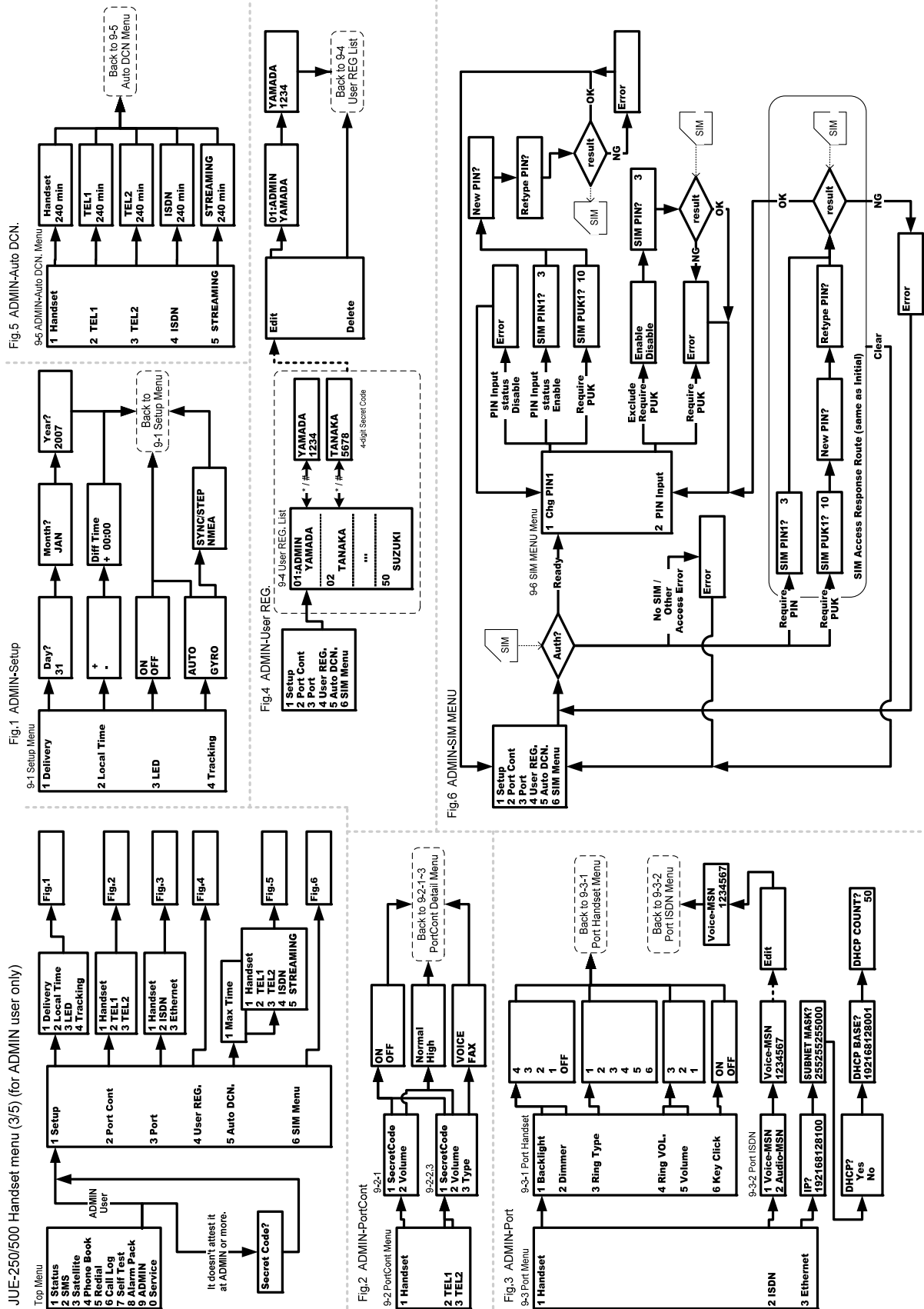


Fig.B.3 Menu for ADMIN users

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Appendix C JUE-250 software updating procedure

Update JUE-250 software with following procedure a) to d).

a) Confirm the connection

JUE-250 software updating is executed by a PC with dedicated application for PC.

Prepare a PC and connect it to your JUE-250. (For details, refer “**1. Confirm the connection**”)

* Windows XP/Vista OS is required.

b) Download the latest software for JUE-250

Confirm the website to check whether the latest software is uploaded or not, from the PC connected to Internet. Download if the latest software is uploaded. (For details, refer “**2. Download the soft ware for JUE-250**”)

c) Update JUE-250 software

Update the JUE-250 software by the downloaded software. (For details, refer “**3. Update JUE-250 software**”)

d) Confirm the updated software version

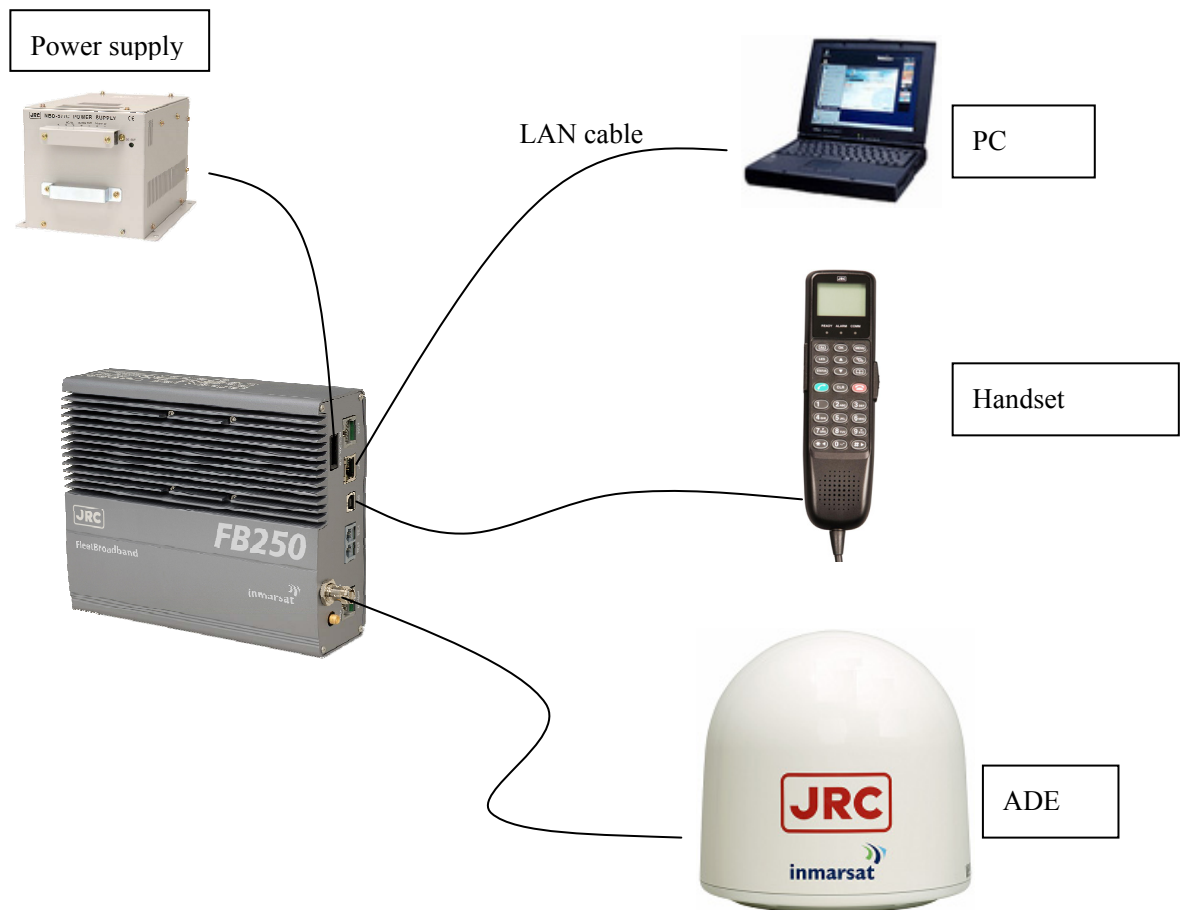
Confirm the software version after updating, to check that JUE-250 software is correctly updated or not. (For details, refer “**4. Confirm the updated software version**”)

1. Confirm the connection

PC dedicated software is used for JUE-250 software updating.

Prepare a PC and connect it to Ethernet port of JUE-250, with LAN cable.

About the connecting procedure, refer to [6.2 Ethernet port PC connection] (p66) in this manual.

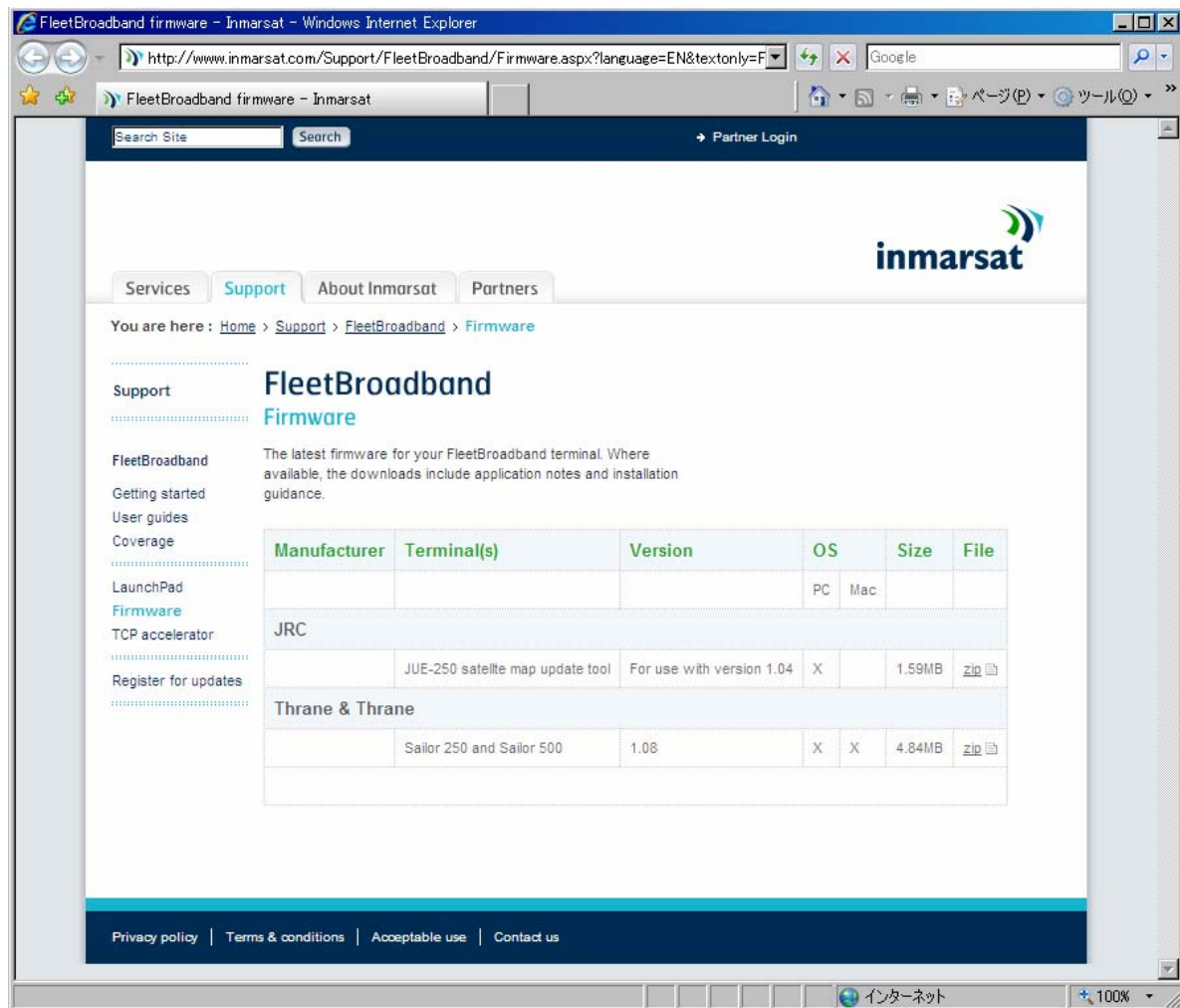


2. Download the latest software for JUE-250

The latest software of JUE-250 is uploaded on the HP of Inmarsat.

The URL is as follows:

<http://www.inmarsat.com/Support/FleetBroadband/Firmware.aspx>



If the software's version on the HP is larger than the JUE-250's software version, download the software from HP.

Software version of JUE-250 main unit can be displayed on Handset screen with following operation:

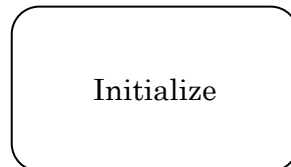
<1> Status - <5> Unit Info - <2> Mainte No.- SYS

3. Update JUE-250 software

Note

- Do not turn OFF the power supply of JUE-250 and/or PC during the software forwarding or updating
- Software forwarding or updating takes up to 20 minutes.

1. Activate your JUE-250 and confirm that initialization is completed.
* [Initialize] is displayed during initialization on the Handset screen.

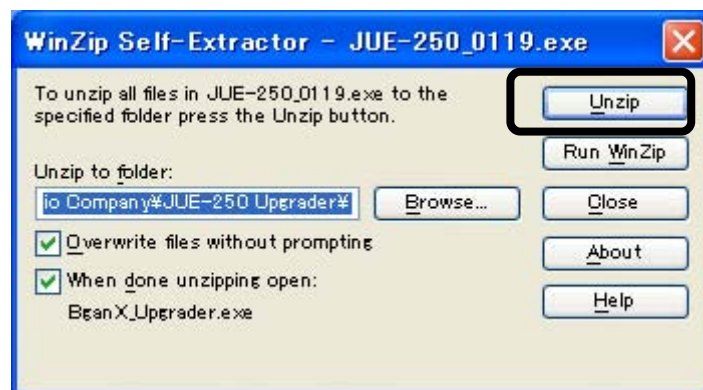


2. Execute the downloaded software file [JUE-250_0XXX.exe]. Double click the icon.



3. Following dialog box is displayed. Click [Unzip] button.

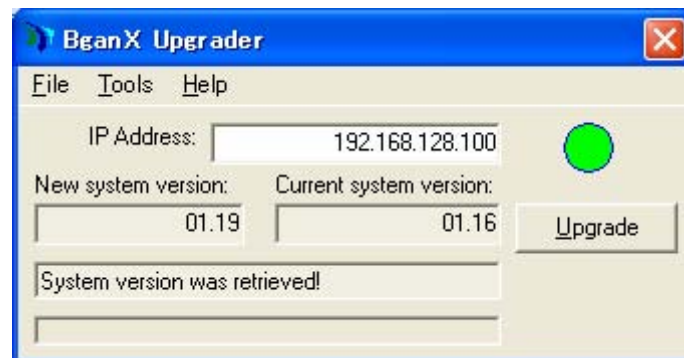
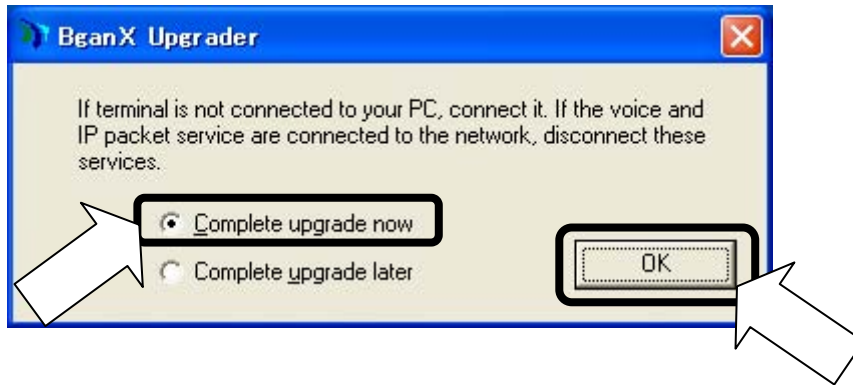
Default unzip folder is C:\Program Files\Japan Radio Company\JUE-250 Upgrader\.



4. Following dialog box is displayed. Click [OK] button.



5. Select [Complete upgrade now] and click [OK] button. [JUE-250 Upgrader] is activated.



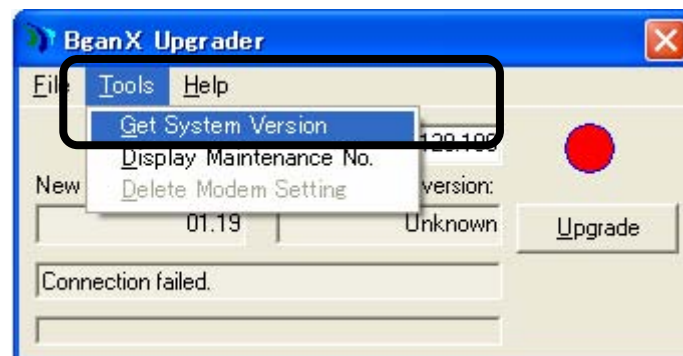
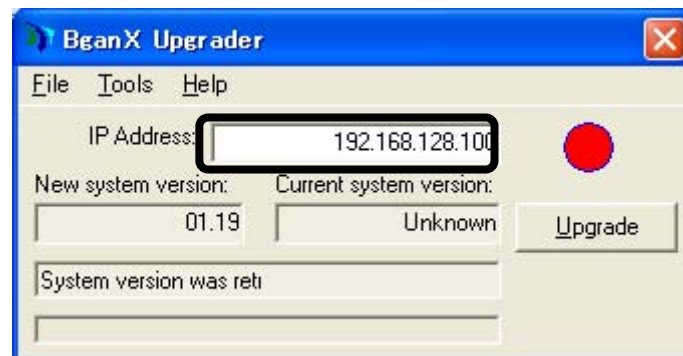
5.1. If the PC cannot connect with BDE

If your PC cannot connect with BDE, below screen is displayed.

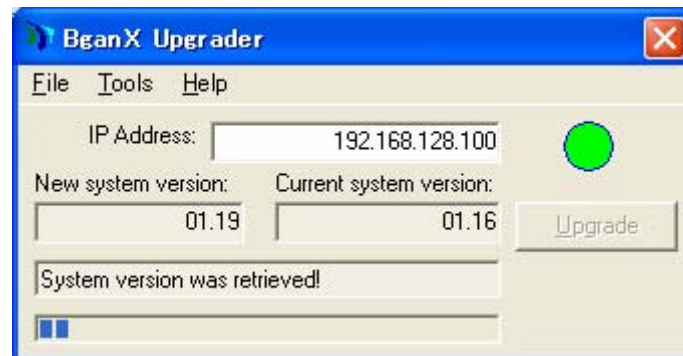
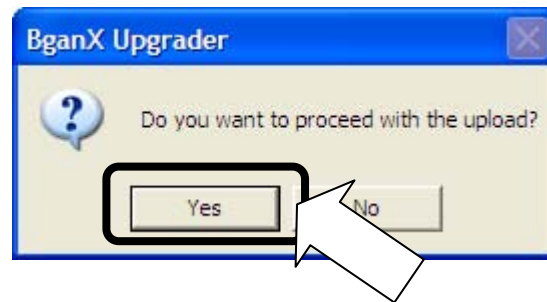
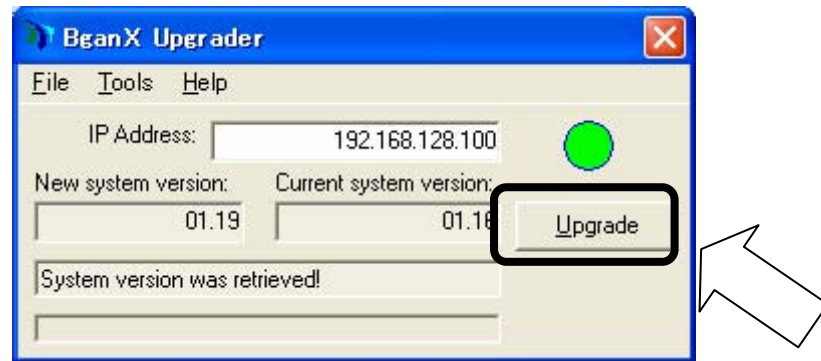


In this case, assumable cause is changed BDE's IP address.

Set the current BDE's IP address into the textbox which displays below IP address, and then select [Tool] – [Get System Version] from Window's menu. Current BDE' IP address can be referred at the Handset menu, <9> ADMIN - <3> Port - <3> Ethernet.

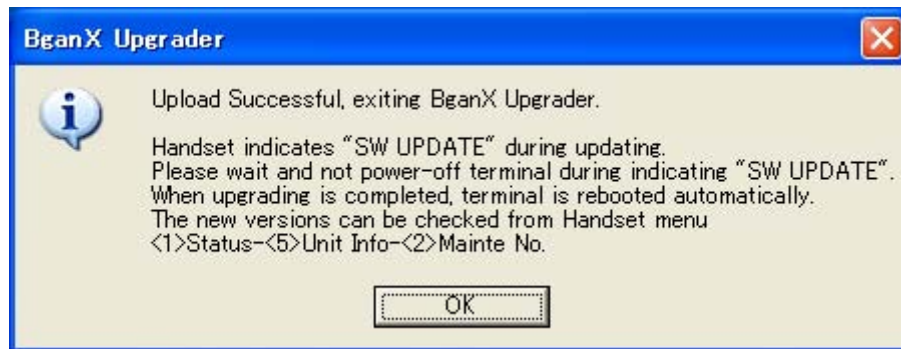


6. [Upgrade] button turns to active when installation is ready. Click [Upgrade] button. After that, click [Yes] button in confirmation window. Forwarding of the file is started.



7. Following dialog box is displayed when file forwarding is completed. JUE-250 reboots automatically after several tens of seconds, and starts software updating.

Click [OK] button to close this dialog box.



8. [SW UPDATE] is displayed on the Handset screen during software updating.

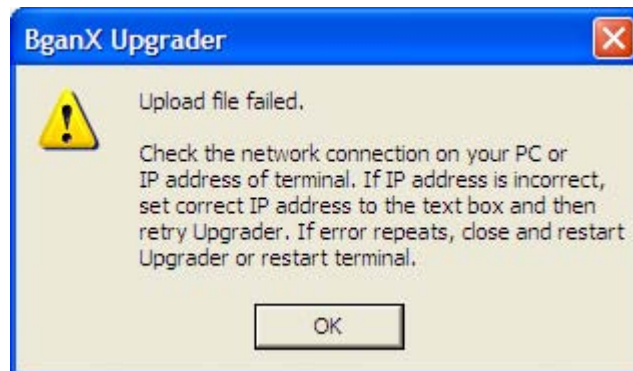


9. JUE-250 reboots when software updating is successfully completed.

9.1. When software update is failed

Update is failed when following phenomenon is generated.

- A) [Upload file failed] dialog box is displayed on the PC.



- B) b) [BDE Update Error] or [ADE Update Error] is displayed on the Handset screen.

BDE Update
Error X

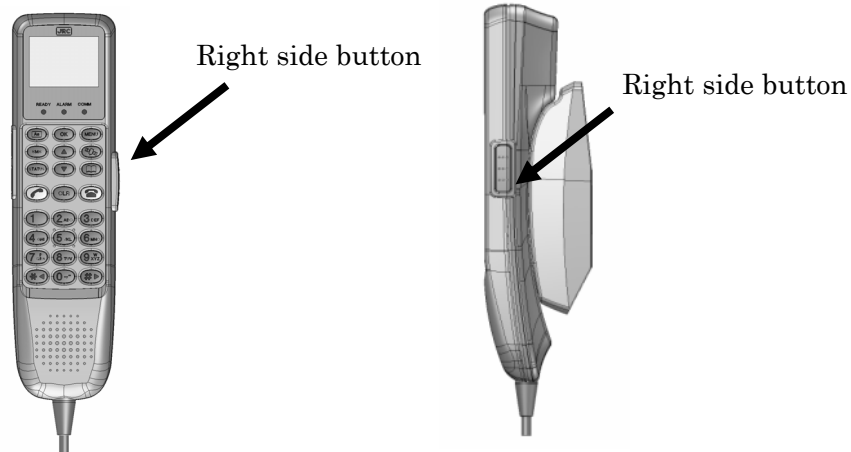
ADE Update
Error X

- C) c) Although the software is transferred and JUE-250 rebooted, updating is not completed even past 20 minutes or more since its start.

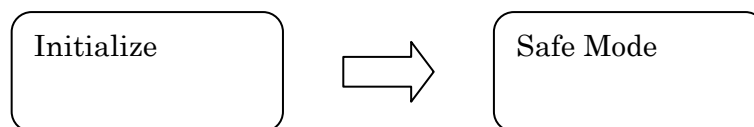
To improve above a) to c), update again with referring to [Recovery procedure when software update is failed] (next page).

9.2. Recovery procedure when software update is failed

1. Turn OFF the power supply of JUE-250.
2. Quit [JUE-250 Upgrader], if it is still activating.
3. Turn ON the power supply of JUE-250 with pressing the right side button of the Handset.



4. Leave your finger from PTT button when Ready LED of main unit starts to blink.
5. Confirm the Handset screen transition, it displays [Initialize] and [Safe Mode].

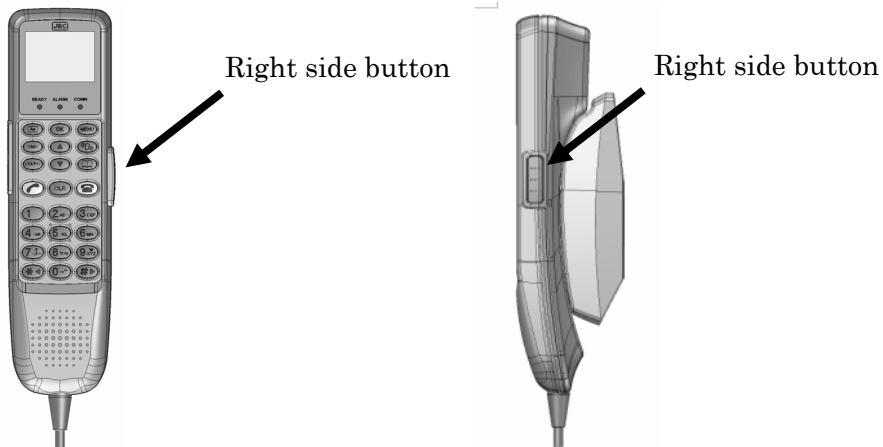


6. Repeat from the 2nd procedure of [3 . Update JUE-250 software].

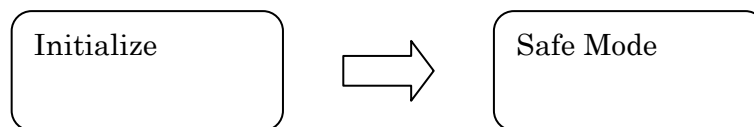
9.3. Software downgrading procedure

If you have any problems caused by upgrading, you can downgrade the software.

- A) Turn OFF the power supply of JUE-250.
- B) Quit [JUE-250 Upgrader], if it is still activating.
- C) Turn ON the power supply of JUE-250 with pressing the right side button of the Handset.



- D) Leave your finger from PTT button when Ready LED of main unit starts to blink.
- E) Confirm the Handset screen transition, it displays [Initialize] and [Safe Mode].

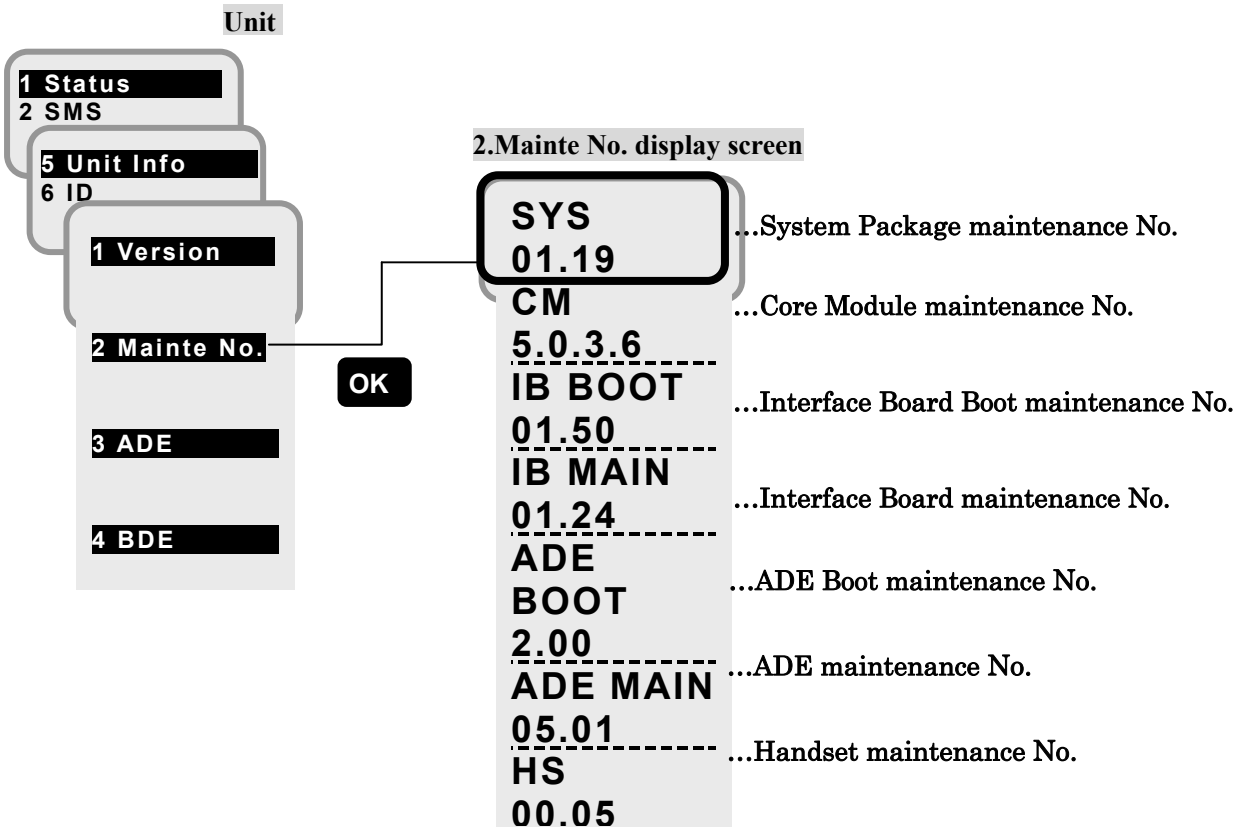


- F) Repeat from the 2nd procedure of [3 . Update JUE-250 software]. Use [JUE-250_1xxx.exe] in CD-ROM of JUE-250 to execute, instead of the downloaded file [JUE-250_1xxx.exe].

4. Confirm the updated software version

Check that the software version is correctly updated or not, from the following the Handset menu, <1>
Status - <5> Unit Info - <2> Mainte No. - SYS

When the update is succeeded, SYS No. is changed to the same number as the [0xxx] of the software file
[JUE-250_0xxx.exe]



Appendix D FB LaunchPad Installation Procedure

Note

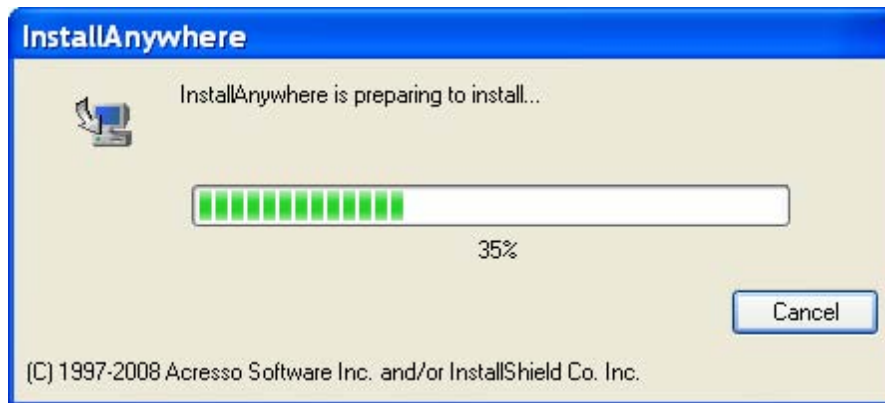
- Launch Pad can be running on Windows XP/Vista
- If the FB LaunchPad 1.0.x version or 1.1.x version is installed to your PC, uninstall it prior to this installation.

D.1. If there is no FB LaunchPad already installed.

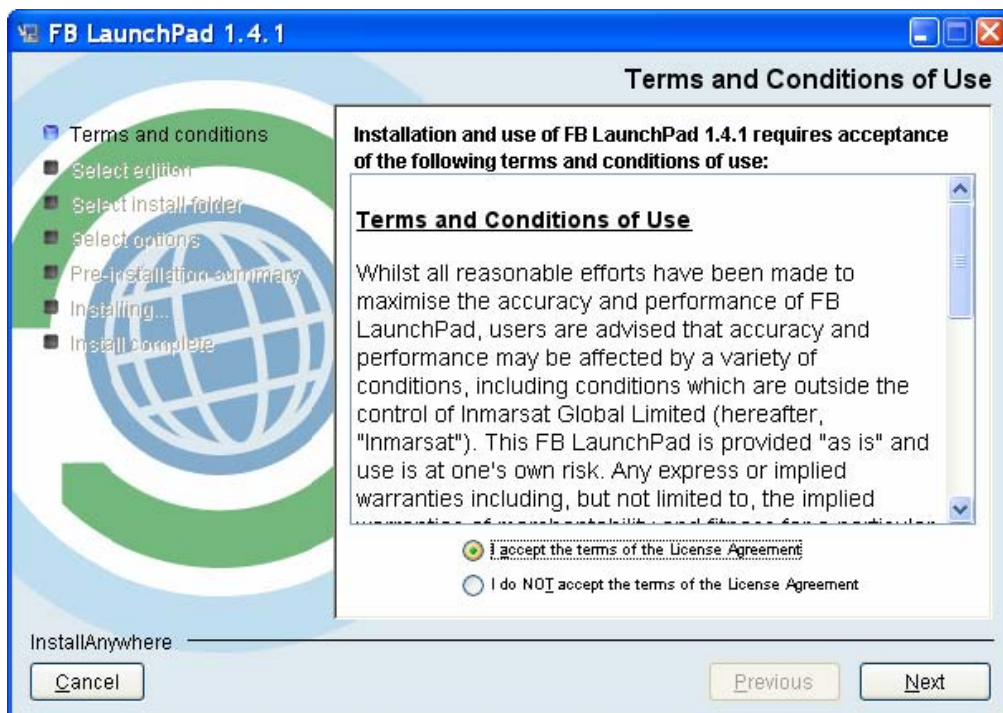
1. Double-click the icon to open the FB LaunchPadInstaller.exe, which is stored in the attached CD-ROM:



2. Following screen is displayed when setup installation is started:



3. Following screen is displayed when setup installation is completed. Click the radio button next to "I accept the terms of the License Agreement", then click **Next**.



4. Select the edition. Click the radio button next to "Personal", then click **Next**.



5. Select the install folder. Click **Next**.

Note

Don't change the default install folder.



6. Click **Next**.



7. Following screen is displayed and Pre-installation summary is shown. Click **Install** if the summary is acceptable.



8. Following screen is displayed when installation is started.



9. Following screen is displayed when the installation is completed. Click **Done** to close the installer. Now, FB LaunchPad installation is completed.



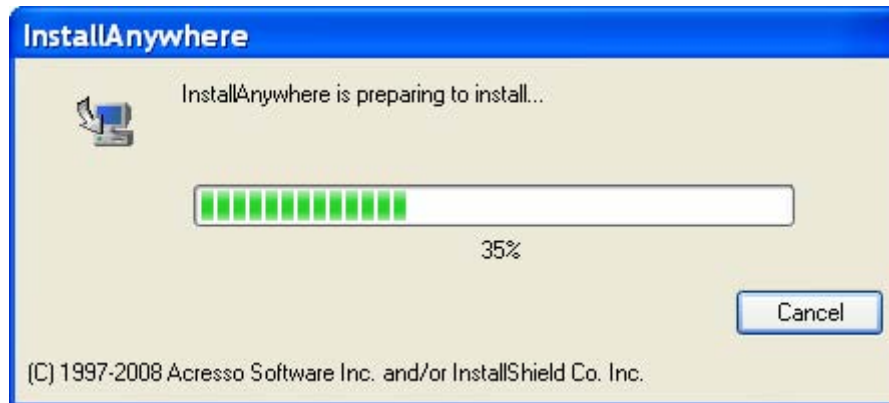
D.2. If FB LaunchPad 1.4.X version is already installed

The user data in the LaunchPad later than or equal to 1.4.0 version can be retained by this procedure.

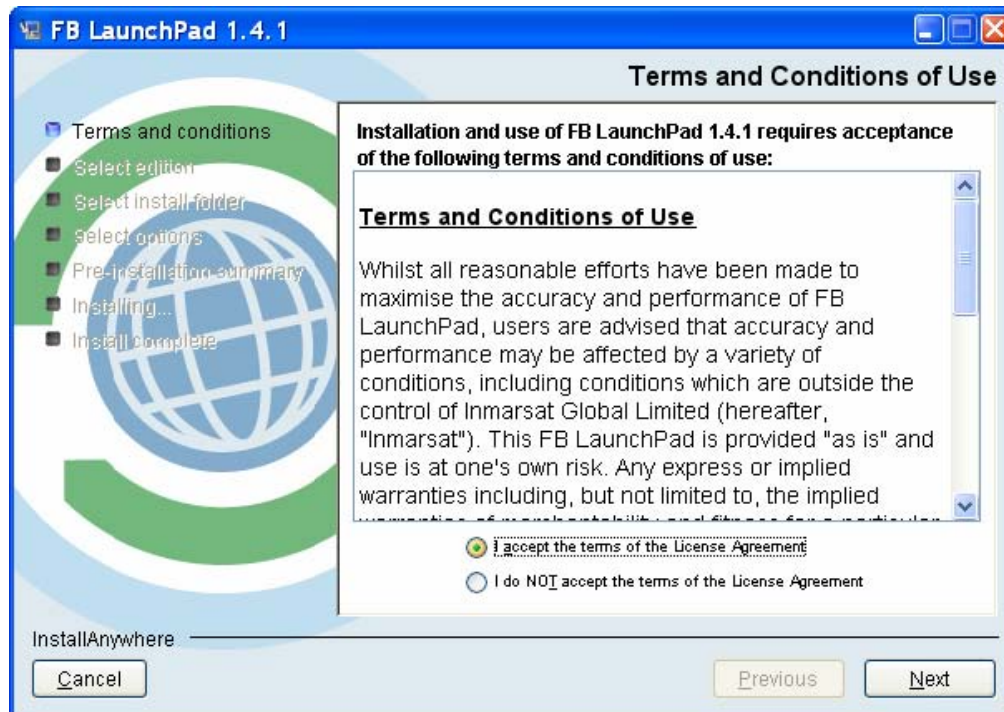
1. Double-click the icon to open the FB LaunchPadInstaller.exe, which is stored in the attached CD-ROM:



2. Following screen is displayed when setup installation is started:

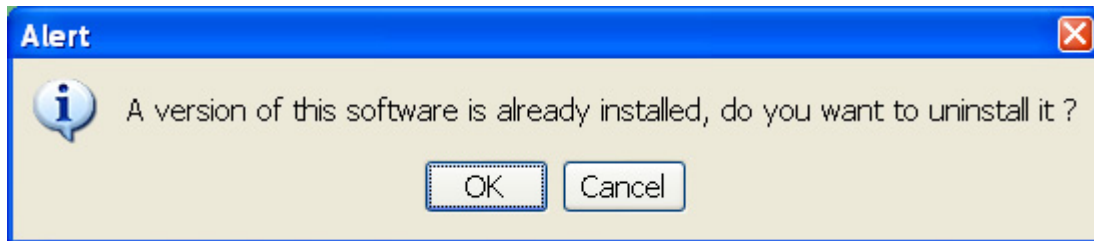


3. Following screen is displayed when setup installation is completed. Click the radio button next to "I accept the terms of the License Agreement", then click **Next**.



Appendix D FB LaunchPad Installation Procedure

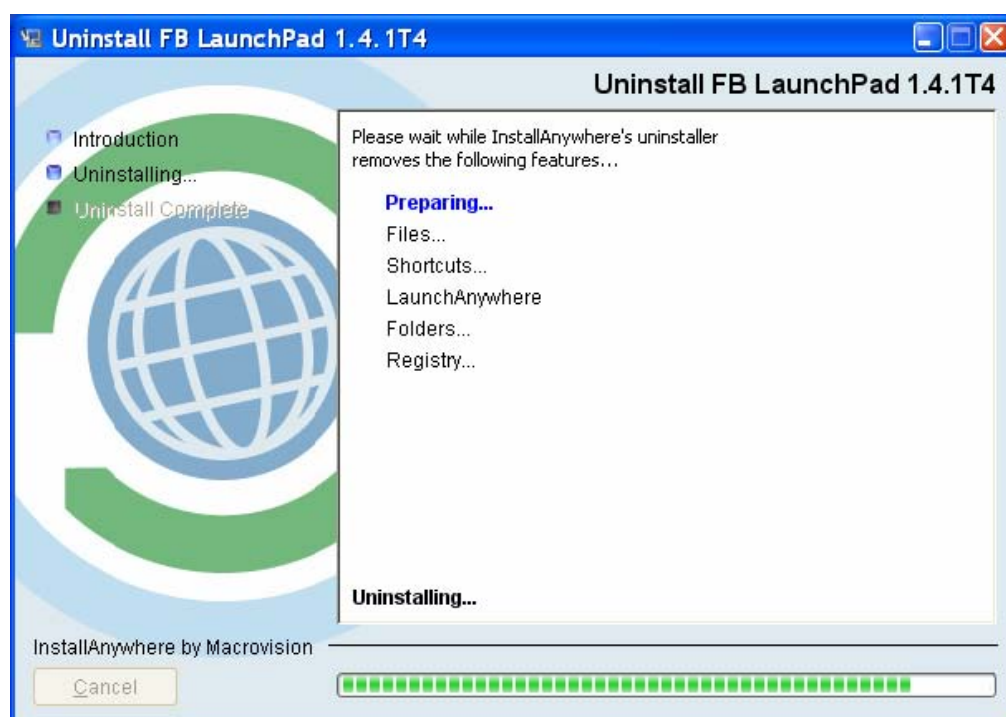
4. Select “OK”. Uninstaller will activate to uninstall the old version.



5. Click **Uninstall**.



6. Following screen is displayed when uninstall is started.



7. Following screen is displayed when uninstall is completed. Click **Done** to close the uninstaller. Installer will activate again.



8. Select the edition. Click the radio button next to "Personal", then click **Next**.



9. Select the install folder. Click **Next**.

Note

Don't change the default install folder.



10. Click **Next**.



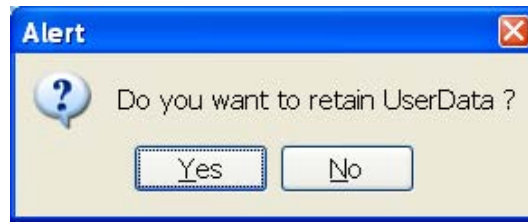
11. Following screen is displayed and Pre-installation summary is shown. Click **Install** if the summary is acceptable.



12. Following screen is displayed when installation is started.



13. At the last of the installation, following window will be popped-up. Select **Yes** if you need to retain UserData.



14. Following screen is displayed when the installation is completed. Click **Done** to close the installer. Now, FB LaunchPad installation is completed.



NOTE

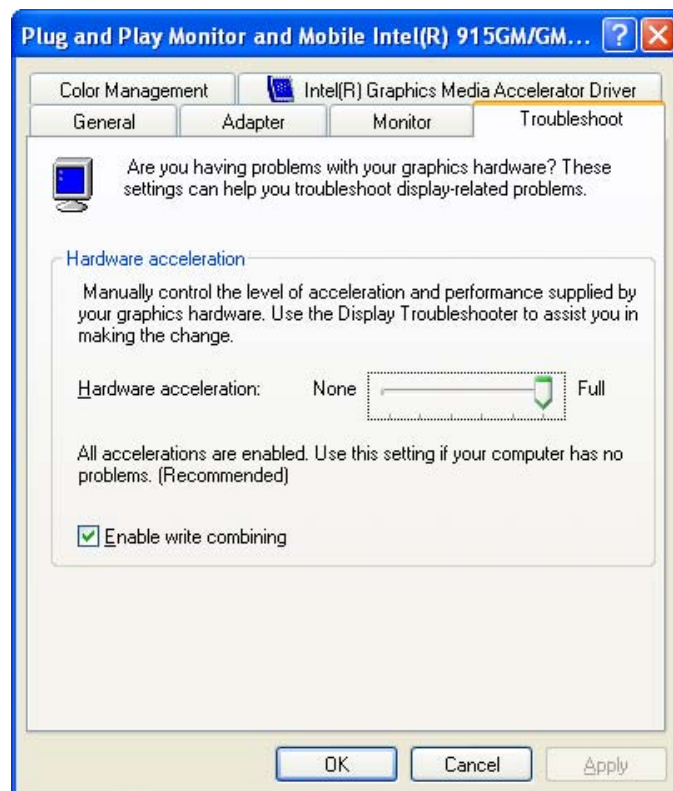
After the activation of the Launch Pad, the initial screen may turn to abnormal as shown below.



In this case, set the **[Hardware acceleration]** in the Graphic accelerator setting screen of Windows to **[None]**.

[Hardware acceleration] can be displayed by:

Windows menu [Start] - [Control Panel] - [Display] -[Setting] tab - [Advance] button- [Troubleshoot] tab



Appendix E TCP Accelerator Installation Procedure

1. About TCP Accelerator

TCP Accelerator (also known as TCP PEP) is a free software which has been tested and proven to improve the performance of TCP applications over the FleetBroadband network. TCP Accelerator boosts the upload speed of all TCP traffic by up to 300% (depending on file size), with an average increase across all applications of 40% - 80%.

TCP Accelerator is of particular benefit to activities which send short bursts of data over the network, such as Internet browsing and email.

The adjustments made by TCP Accelerator include:

- Modifying TCP window settings by changing the window size to allow a larger amount of data to be carried at any point in time over the network.
- Optimising the MTU size for the FleetBroadband network
- Negating TCP slow start behaviour, further deteriorated by the round trip time between the terminal, satellite and ground segment.

2. Installing and configuring TCP Accelerator

2.1 Minimum system requirements

The following are the mandatory hardware and software requirements for successful installation of TCP Accelerator on your computer:

Hardware requirements

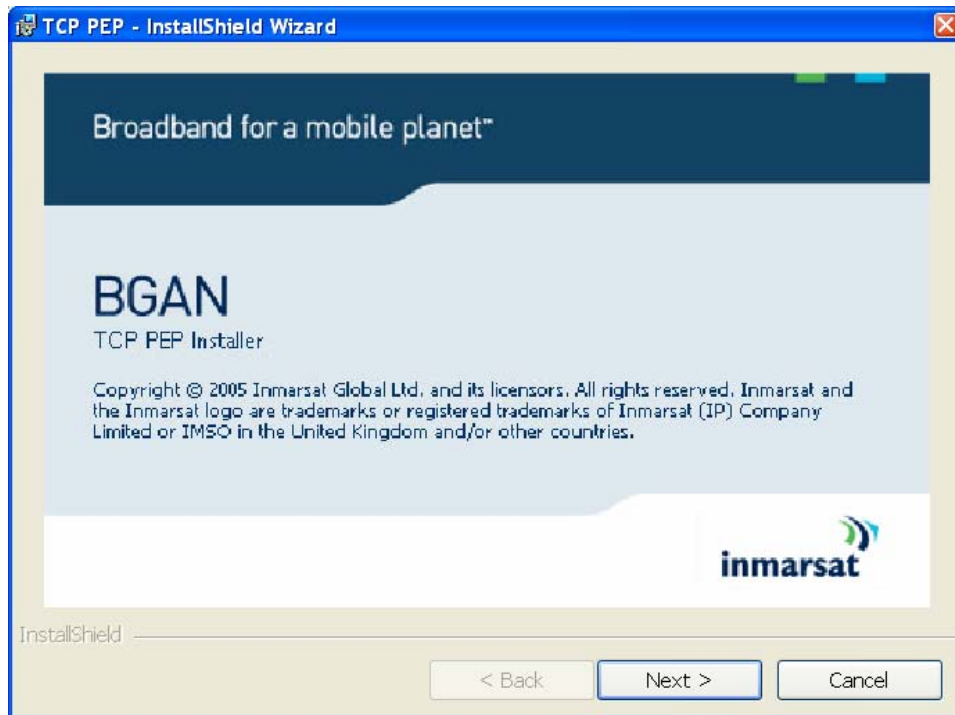
- Intel Pentium IV, or equivalent.
- 256 MB RAM.
- 20 MB hard disc space.

Software requirements

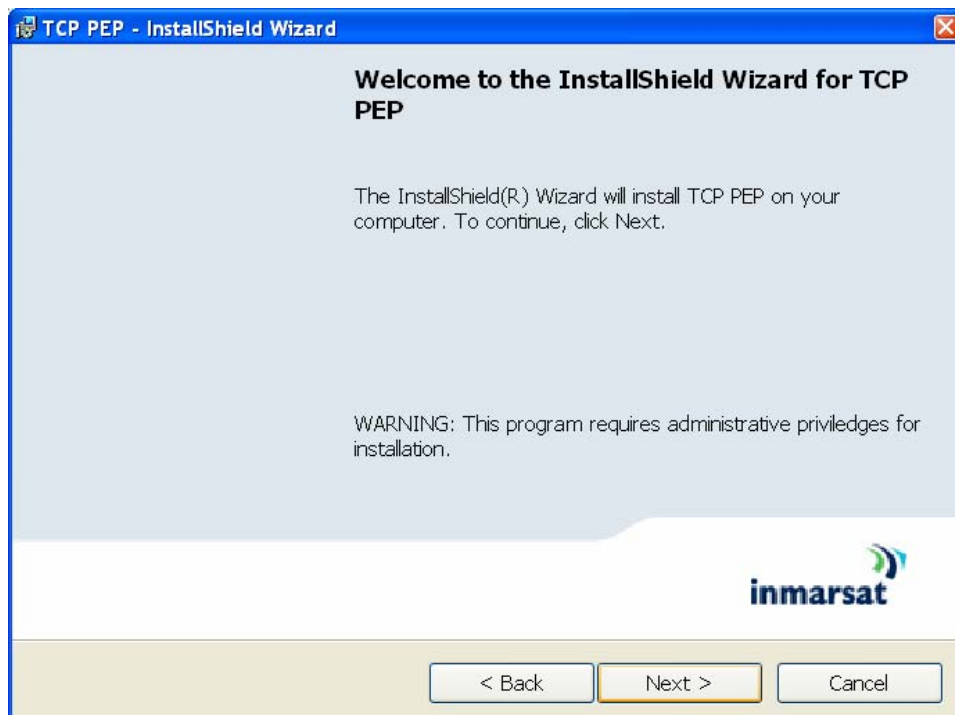
- Windows XP/Vista installed on your computer.
- NOTE: Windows XP 64bit is not supported

2.2 Installing TCP Accelerator

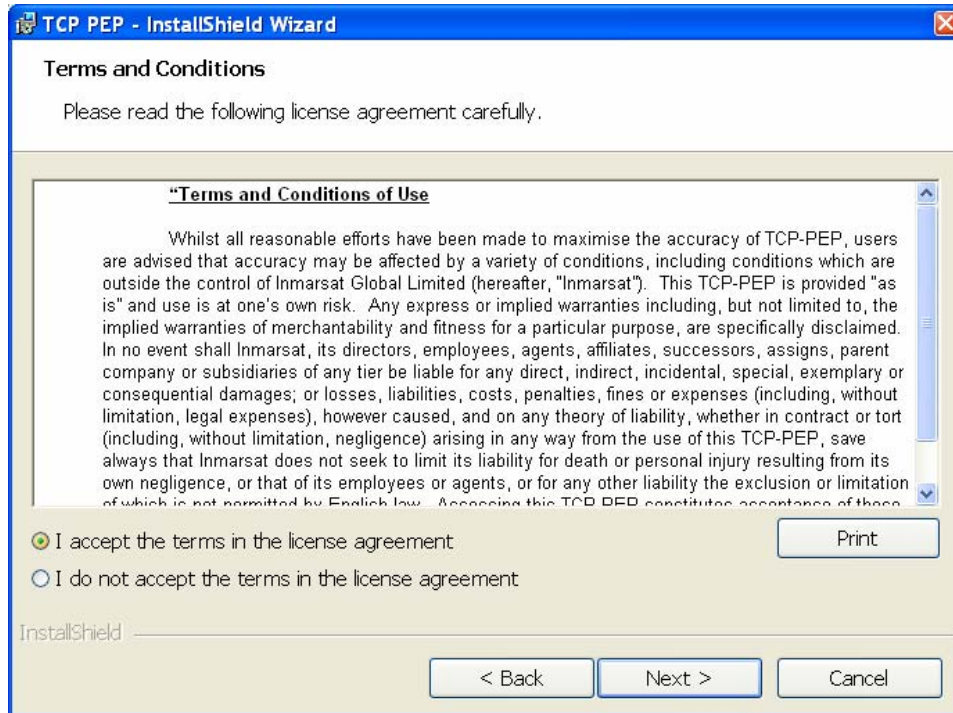
1. Unzip SetupXP-Rxx.x-xxx.zip or SetupVista-Rxx.x-xxx.zip in the CD-ROM, and execute .exe file in unzipped file. The Setup Wizard launches automatically, and the following screen is displayed:



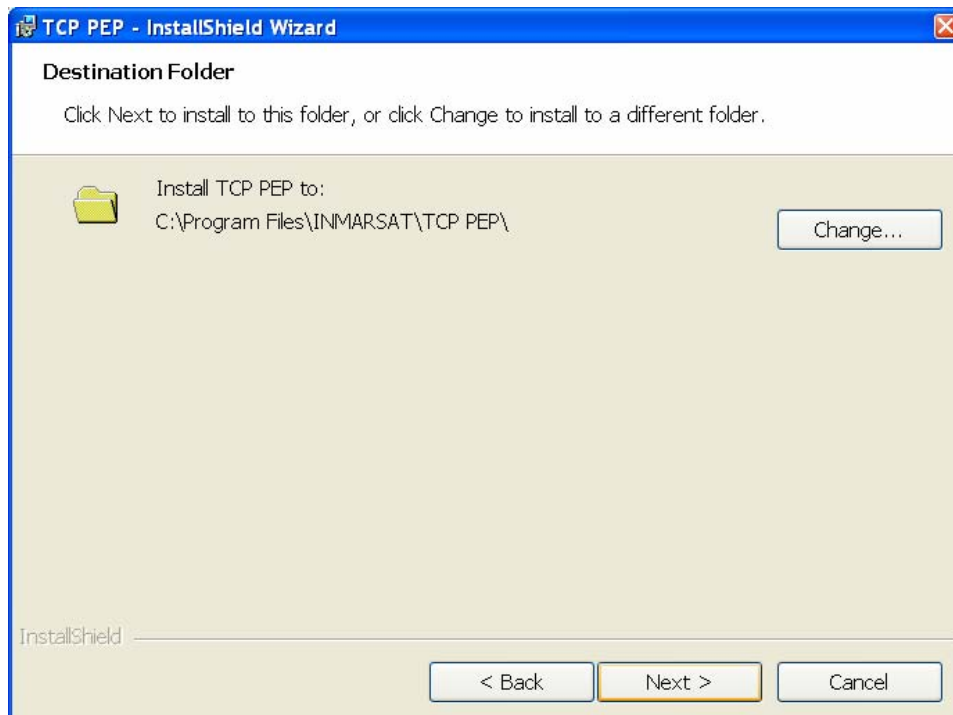
2. Click on Next. The “Welcome to the InstallShield Wizard for TCP PEP” screen is displayed, as shown below:



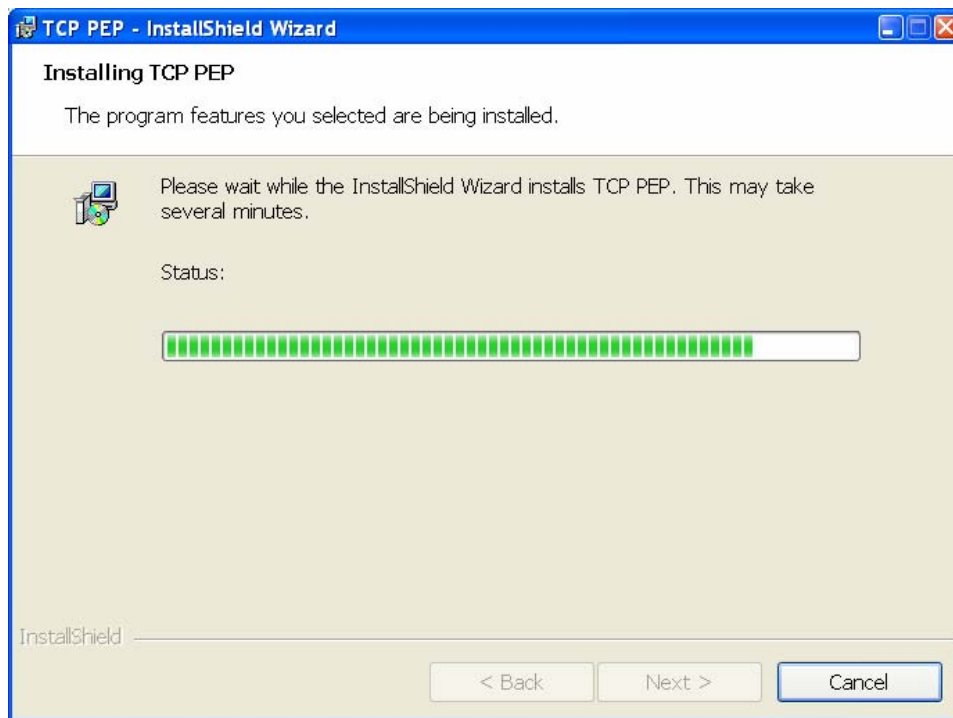
3. Click on Next. The “Terms and Conditions” screen is displayed, as shown below:



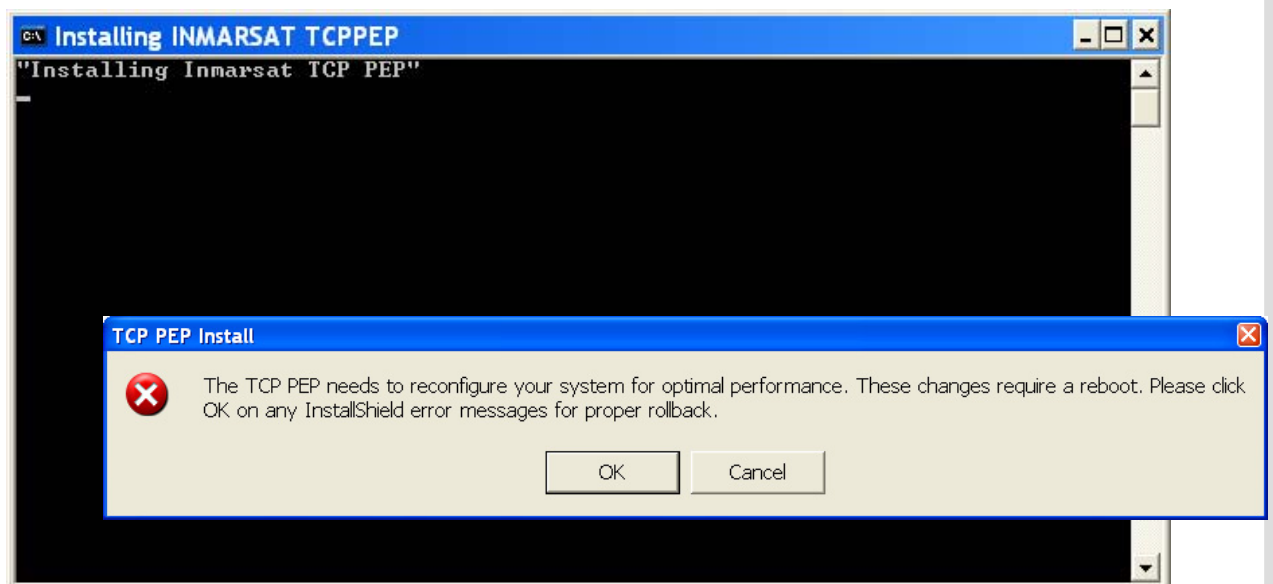
4. Select the “I accept the terms in the license agreement” radio button, and click Next. The Destination Folder screen is displayed, as shown below:



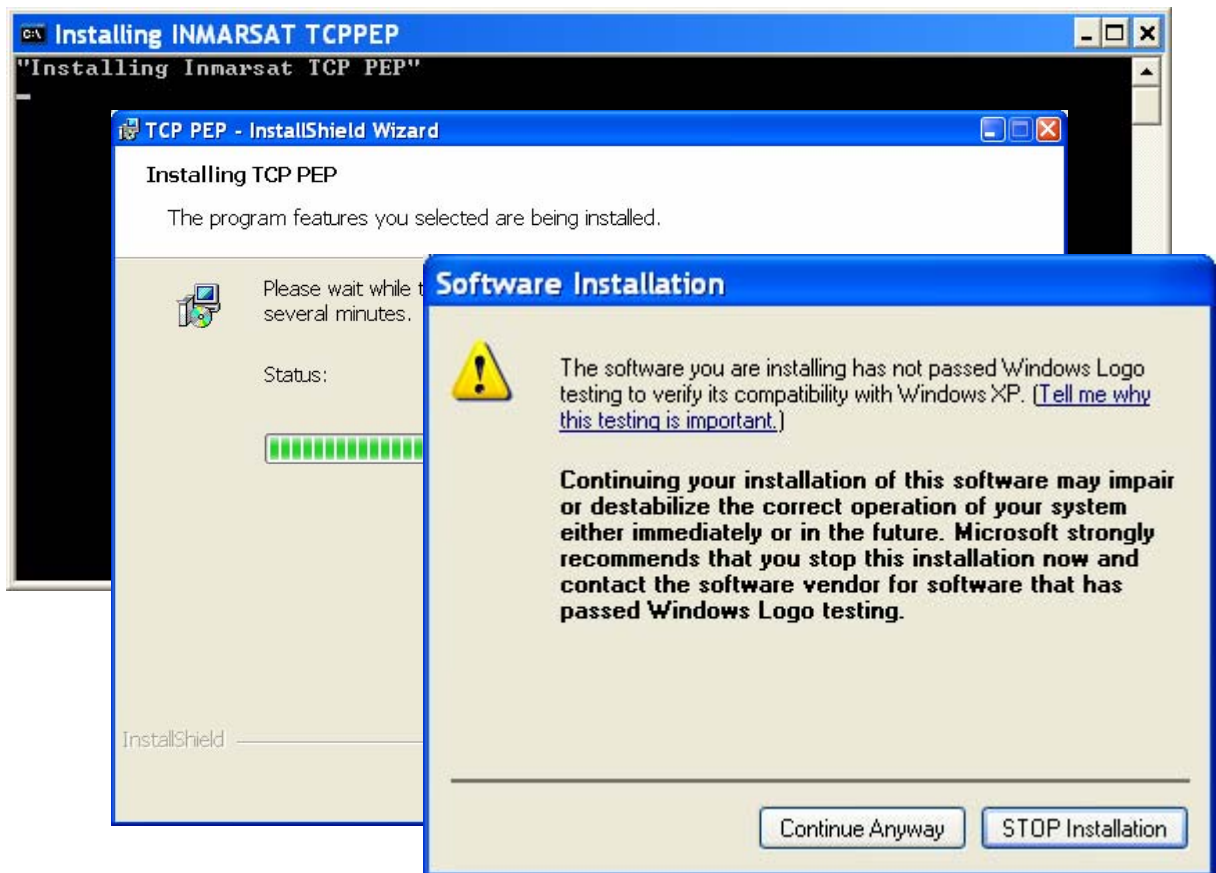
5. If you want the program files to be installed in the default directory, click on Next. To select a different directory, click on Change..., and select the required directory, then click on Next. The "Preparing to Install" screen is displayed, as shown below, and TCP Accelerator performs pre-installation checks:



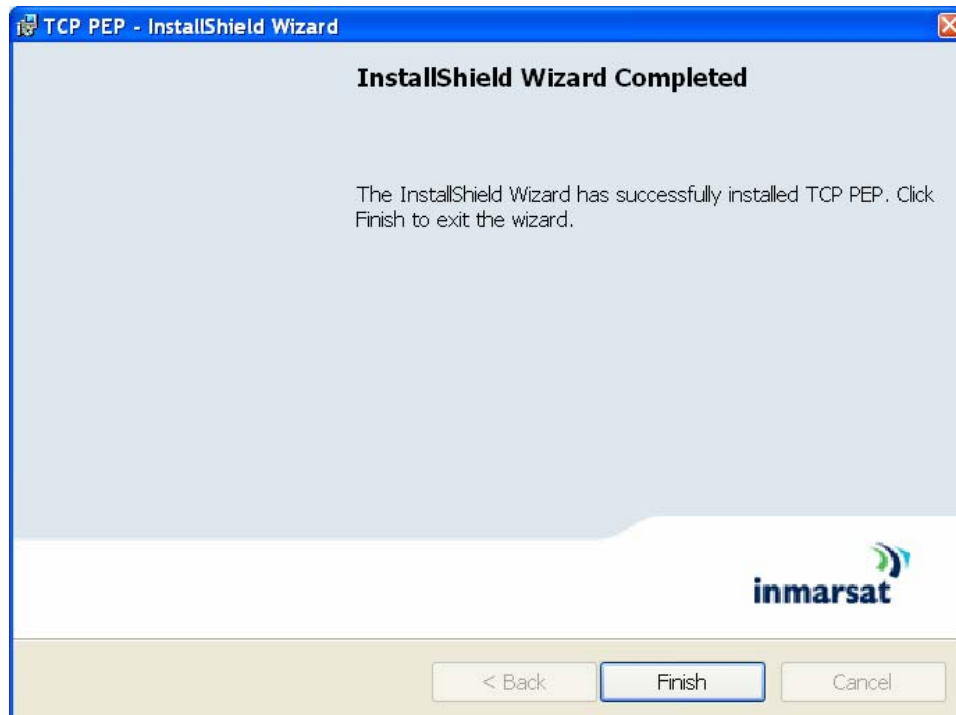
If the program detects that your computer is not fully optimized for TCP Accelerator, the following screen is displayed: If you see this screen, click on OK when prompted to reboot your computer. This is a one time optimization, and is not repeated for subsequent TCP Accelerator releases. After rebooting your computer, do from step 1 again.



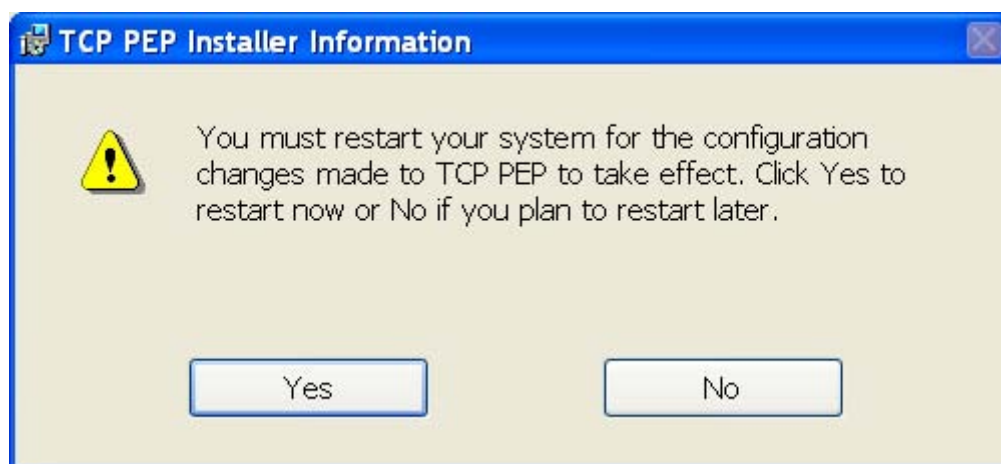
If the program fails Windows Logo testing, the following screen is displayed: If you see this screen, click on Continue Anyway. Note that you may see this screen more than once: click on Continue Anyway each time. (This screen displays if the driver is yet to formally complete the certification procedure for Windows.)



6. When the installation is complete, the following screen is displayed:



7. Click on Finish to complete the installation. The following screen is displayed:



8. Click on Yes to restart the computer.

Appendix F Default value list

Item	Default	Setting from Handset	
		Chapter	Title
SMS Service Center Address (SCA)	User, 0	8.2.5	3 SCA
Validity date of the message	1 Day	8.2.5	4 Validity
Behavior of the message after it delivered to the destination	3	8.2.5	5 Class
Delivery confirmation function	OFF	8.2.5	6 Status Report
Delivery date of the JUE-250	2007/01/01	8.9.1.1	1 Delivery
Time differences from UTC	+00:00	8.9.1.2	2 Local Time
Main unit LED ON/OFF	ON	8.9.1.3	3 LED
Selection of satellite tracking system	AUTO	8.9.1.4	4 Tracking
Use of Secret code for a call from Handset port	OFF	8.9.2	1 Handset→1 Secret Code
Use of Secret code for a call from TEL1 port	OFF		2 TEL1→1 Secret Code
Use of Secret code for a call from TEL2 port	OFF		3 TEL2→1 Secret Code
Volume level of Handset port	NORMAL		1 Handset→2 Volume
Volume level of TEL1 port	NORMAL		2 TEL1→2 Volume
Volume level of TEL2 port	NORMAL		3 TEL2→2 Volume
COMM TYPE of TEL1 port	VOICE		2 TEL1→3 Type
COMM TYPE of TEL2 port	FAX		3 TEL2→3 Type
Backlight dimmer of Handset	3	8.9.3.1	1 Handset→1 Back Light
Brightness of Handset LED lamps	3		1 Handset→2 Dimmer
Ringer pattern of Handset	1		1 Handset→3 Ring Type
Ringer volume of Handset	2		1 Handset→4 Ring VOL.
Voice volume of Handset	2		1 Handset→5 Volume
ON/OFF of key click sound of Handset	ON		1 Handset→6 Key Click
Voice-MSN of ISDN	1		2 ISDN→1 Voice-MSN
Audio-MSN of ISDN	2		2 ISDN→2 Audio-MSN
IP Address	192.168.128.100	8.9.3.3	3 Ethernet→IP?
SUBNET MASK	255.255.255.0		3 Ethernet→SUBNET MASK?
DHCP ON/OFF	ON		3 Ethernet→DHCP?
Minimum allocation IP address for DHCP	192.168.128.101		3 Ethernet→DHCP BASE?
Total amount of allocatable IP address number	154		3 Ethernet→DHCP COUNT
User name and secret code (the 1st one)	“ADMIN” 0001	8.9.4	01
User name and secret code (2nd or later)	No Data (Unregistered)		02~50
Maximum connecting time of Handset port	0 (unlimited)	8.9.5	1 Max Time→1 Handset
Maximum connecting time of TEL1 port	0 (unlimited)		1 Max Time→2 TEL1
Maximum connecting time of TEL2 port	0 (unlimited)		1 Max Time→3 TEL2
Maximum connecting time of ISDN port	0 (unlimited)		1 Max Time→4 ISDN
Maximum connecting time of STREAMING communication port (USB/Ethernet)	0 (unlimited)		1 Max Time →5 STREAMING
Setting of SIM PIN	Depend on SIM	8.9.6	1 Chg PIN1
PIN input operation ON/OFF	Depend on SIM		2 PIN Input

Appendix G Trouble shooting and FAQ

FAQ Contents

1. Reception of radio wave from a satellite · · · · ·	177
2. LaunchPad · · · · ·	178
3. TEL · · · · ·	179
4. FAX · · · · ·	180
5. Packet Switch (Standard IP, Streaming IP) service · · · · ·	181
6.SMS · · · · ·	182
7.Actions to be taken when abnormal status is indicated on Handset · · · · ·	183

1. Reception of radio wave from a satellite

Problem (P)	Possible cause	Confirmation item
[Not Ready] is displayed and communication is impossible.	Satellite is not selected correctly.	Select the correct satellite at [Satellite] menu.
	Blocking.	Check if there is obstruction between the antenna and the satellite. Select another satellite when there is an obstacle, to turn the antenna to the clear view direction. Or wait until the ship changes her course.
	Out of satellite cover area	Check your ship is existing inner the cover area of satellite or not. If your ship is out of the cover area, use JUE-250 after your ship is enters inside of the cover area of the satellite.
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	
Received signal strength is weak.	Blocking	Execute Satellite Search (selecting the satellite again). Also, check if there is obstruction between the antenna and the satellite. Select another satellite when there is an obstacle, to turn the antenna to the clear view direction. Or wait until the ship changes her course.

2. LaunchPad		
Problem (P)	Possible cause	Confirmation item
[Select Terminal] screen is displayed after starting LaunchPad and cannot connect with main unit of JUE-250.	Cable is not connected.	When the Ether port of the main unit and the PC are directly connected, check that the ports are connected by a “straight” Ethernet cable.
	Although the setting of the TCP/IP of the PC is set to “Automatic access”, the PC could not access the IP from the DHCP server.	Before starting the PC, check that the cable between the main unit and the PC is connected correctly. If the PC has been started not connected to the main unit, restart the PC after hooking up the main unit.
	TCP/IP is not set.	Check that the network IP that is set in the PC matches the IP set in the main unit.
		Verify that the subnet mask, default gateway, and priority DNS server that are set in the PC match those set in the main unit.
	The local area connection of the PC is disabled. (Win2000 or later)	Check that the local area connection is set to ‘enable’ in the property specification of the local area connection.
[CIF_0010] error is generated on the LaunchPad and the connection between the LaunchPad and main unit is lost.	The local area connection of the PC is a bridge connection.	Delete the bridge by clicking the right mouse button on the icon of the local area connection.
	Ethernet connection is abnormal	Execute [Search for terminal] by LaunchPad and connect with main unit again.

3. TEL		
Problem (P)	Possible cause	Confirmation item
Communication is impossible	Cable is not connected.	Check that the main unit or JB and the communication terminal are connected correctly. Check also that the power is supplied.
	Since a secret code type of originating call is set, input of a secret code is necessary.	Check the setting of SECRET CODE on the [Port Cont] menu. When a secret code type of originating call is set, originate a call referring to this Operation manual.
	Communication is occupied by another port.	Check that communication is not being carried out by another TEL port or ISDN port. Check also that the telephone set is properly on-hooked.
	The # button is not pressed following the destination number.	When originating a call using a TEL port, press the # button following the destination dial number.
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	
Communication is impossible with specific destination.	System failure	Ask your service provider.
Speed Dial calling and Redial calling is impossible.	Dialing sequence is incorrect.	Speed Dial calling : Speed dial number *# Redial calling : 00*#

4. FAX		
Problem (P)	Possible cause	Confirmation item
Communication is impossible.	Cable is not connected.	Check that the main unit or JB and the communication terminal are connected correctly. Check also that the power is supplied.
	Since a secret code type of originating call is set, input of a secret code is necessary.	Check the setting of SECRET CODE on the [Port Cont] menu. When a secret code type of originating call is set, originate a call referring to this Operation manual.
	Communication is occupied by another port.	Check that communication is not being carried out by another TEL port or ISDN port. Check also that the telephone set is properly on-hooked.
	The # button is not pressed following the destination number.	When originating a call using a TEL port, press the # button following the destination dial number.
	Service setting is incorrect.	Check that the service type is set to FAX in [Port Cont] menu.
	Out of 64Kbps 3.1KHz Audio service area.	64Kbps 3.1KHz Audio service can be utilized in the area which elevation angle is 20 degree or upper, only.
	If the problem is not solved with above countermeasures,	turn OFF and ON the power source of main unit to reboot JUE-250.
Communication is impossible with specific destination.	System failure	Ask your service provider.

5. Packet Switch(Standard IP, Streaming IP) service		
Problem (P)	Possible cause	Confirmation item
Communication is impossible.	The line is busy.	Retry after several minutes.
	Out of the service area	128Kbps Streaming can be utilized in the area which elevation angle is 10 degrees or upper, only. Also, the maximum level of Streaming service which can be utilized with Voice or FAX in the same time, is 64kbps in the area which elevation angle is 10 degrees or upper, and 32kbps in the other areas.
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	

6. SMS		
Problem (P)	Possible cause	Confirmation item
Message cannot be delivered to destination.	Incorrect number is dialed.	Check the correct destination number.
Message cannot be delivered to specific destination.	System failure	Ask your service provider.
Message cannot be received.	Incorrect number is dialed.	Check that the destination terminal (land side) dialed correct number or not.
	Reception overflow	Reception is impossible when received messages exceeded the maximum number which can be saved in SIM card. Delete the received message properly.
Message cannot be received from specific destination.	System failure	Ask your service provider.

7. Actions to be taken when abnormal status is indicated on Handset

Table G7. Displayed character strings and contents

Status	Display	Contents
Abnormal	ADE? *1)	ADE abnormal.
Abnormal	POSITION? *2)	GPS dose not receive the signal from satellite.
Abnormal	SIM ? *3)	SIM is not mounted
Abnormal	SEARCH NG *4)	Searching Satellite is failed.
Abnormal	GYRO? *5)	GYRO input is abnormal.
Abnormal	HEADING ? *6)	Input of HEADING value is required

* 1) Countermeasure for ADE?

Confirm the connection of the coaxial cable.

* 2) Countermeasure for POSITION?

Built-in GPS has not fixed position information. Check the existence of blocking.

If this phenomenon is repeatedly occurred, GPS failure can be considered.

* 3) Countermeasure for SIM?

Confirm that the SIM card is correctly mounted or the card is not broken.

* 4) Countermeasure for SEARCH NG

Execute satellite search again.

* 5) Countermeasure for GYRO?

Heading information has not input from the GYRO interface although JUE-250 is set as GYRO tracking.

Confirm the GYRO interface or the power supply of GYRO connected to the GYRO interface is turned on.

(This abnormal status is only appeared when optional GYRO interface is connected)

* 6) Countermeasure for HEADING?

This message is displayed when entry of initial HEADING value is required with the status of [GYRO signal input setting].

Input correct bearing of the ship into [Heading edit screen] with following **[Fig.A.5 Satellite menu](p140)**. Wrong entry of ship's bearing causes incorrect operation and communication.

(This abnormal status is only appeared when optional GYRO interface is connected)

Appendix H Cause Code

Cause code indicates cause of disconnection of the communication.

H.1 Cause Code for CS communication (TEL, FAX)

--These Cause codes are quoted from 3GPP TS24.008 Annex H

Normal class

No. (HEX)	Reason	No. (HEX)	Reason
0001	Unassigned (unallocated) number	0016	Number changed
0003	No route to destination	0019	Pre-emption
0006	Channel unacceptable	001A	Non-selected user clearing
0008	Operator determined barring	001B	Destination out of order
0010	Normal call clearing	001C	Invalid number format (incomplete number)
0011	User busy	001D	Facility rejected
0012	No user responding	001E	Response to STATUS ENQUIRY
0013	User alerting, no answer	001F	Normal, unspecified
0015	Call rejected		

Resource unavailable class

No. (HEX)	Reason	No. (HEX)	Reason
0022	No circuit/channel available	002B	Access information discarded
0026	Network out of order	002C	Requested circuit/channel not available
0029	Temporary failure	002F	Resource unavailable, unspecified
002A	Switching equipment congestion		

Service or option not implemented class

No. (HEX)	Reason	No. (HEX)	Reason
0031	Quality of service unavailable	003A	Bearer capability not presently available
0032	Requested facility not subscribed	003F	Service or option not available, unspecified
0037	Incoming calls barred within the CUG (Closed User Group)	0044	ACM (Accumulated Call Meter) equal to or greater than ACMmax
0039	Bearer capability not authorized		

Invalid message (e.g., parameter out of range) class

No. (HEX)	Reason	No. (HEX)	Reason
0051	Invalid transaction identifier value	003A	Bearer capability not presently available
0057	User not member of CUG(Closed User Group)	003F	Service or option not available, unspecified
0058	Incompatible destination		

Protocol error (e.g., unknown message) class

No. (HEX)	Reason	No. (HEX)	Reason
0060	invalid mandatory information	0064	conditional IE error
0061	message type non-existent or not implemented	0065	message not compatible with protocol state
0062	message type not compatible with protocol state	0066	recovery on timer expiry
0063	information element non-existent or not implemented	006F	protocol error, unspecified

Interworking class

No. (HEX)	Reason	No. (HEX)	Reason
007F	Interworking, unspecified		

H.2 Cause Code for PS communication

--These Cause codes are quoted from **3GPP TS24.008 Annex I**

Causes related to nature of request

No. (HEX)	Reason	No. (HEX)	Reason
0008	Operator Determined Barring	0024	Regular PDP context deactivation
0019	LLC or SNDCP failure (GSM only)	0025	QoS (Quality of Service) not accepted
001A	Insufficient resources	0026	Network failure
001B	Unknown or missing access point name	0027	Reactivation requested
001C	Unknown PDP address or PDP type	0028	Feature not supported
001D	User authentication failed	0029	Semantic error in the TFT(Traffic Flow Template) operation
001E	Activation rejected by GGSN	002A	Syntactical error in the TFT operation
001F	Activation rejected unspecified	002B	Unknown PDP context
0020	Service option not supported	002C	Semantic errors in packet filter(s)
0021	Requested service option not subscribed	002D	Syntactical error in packet filter(s)
0022	Service option temporarily out of order	002E	PDP context without TFT already activated
0023	NSAPI(Network Service Access Point Identifier) already used		

Causes related to invalid messages

No. (HEX)	Reason	No. (HEX)	Reason
0051	Invalid transaction identifier value	0063	Information element non-existent or not implemented
005F	Semantically incorrect message.	0064	Conditional IE error
0060	Invalid mandatory information	0065	Message not compatible with protocol state
0061	Message type non-existent or not implemented	006F	Protocol error, unspecified
0062	Message not compatible with protocol state		

H.3 Cause code for Short Messaging Service*--These Cause codes are quoted from 3GPP TS24.011 Annex E***RP-cause definition SM-transfer**

Following cause codes are used for mobile originating short message and mobile terminating short message.

No. (HEX)	Reason	No. (HEX)	Reason
0051	Invalid short message transfer reference value	0062	Message not compatible with short message protocol state
005F	Invalid message, unspecified	0063	Information element non-existent or not implemented
0060	Invalid mandatory information	006F	Protocol error, unspecified
0061	Message type non-existent or not implemented		

RP-cause definition mobile originating SM-transfer

Following cause codes are used for only mobile originating short message.

No. (HEX)	Reason	No. (HEX)	Reason
0001	Unassigned (unallocated) number	0026	Network out of order
0008	Operator determined barring	0029	Temporary failure
000A	Call barred	002A	Congestion
0015	Short message transfer rejected	002F	Resources unavailable, unspecified
001B	Destination out of service	0032	Requested facility not subscribed
001C	Unidentified subscriber	0045	Requested facility not implemented
001D	Facility rejected	007F	Interworking, unspecified
001E	Unknown subscriber		

RP-cause definition mobile terminating SM-transfer

Following cause code is used for mobile terminating short message.

No. (HEX)	Reason	No. (HEX)	Reason
0016	Memory capacity exceeded		

Appendix I Glossary

A

ADE Above Deck Equipment

AOR Atlantic Ocean Region

APN Access Point Name

ASCII American Standard Code for Information Interchange

*A standard alphanumeric character set based on 7-bit codes.

B

BDE Below Deck Equipment

Bit The basic unit of digital communications; may be either 1 or 0.

BPS (bit per second) A unit of measurement for speed of data transfer or throughput.

Bulletin Board (in a TDM channel)

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

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

C

CCIR Consulting Committee of International Radio communications

CCITT Consulting Committee of International Telegraph & Telephone

Character *One element of an alphanumeric character set. One character is equivalent to one byte or 8 bits.

COMM Communication

CPU Central Processing Unit

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

CS Circuit Switched

D

dB Decibel

DC Direct Current

DCN Disconnection

DEC Decoder Circuit

DEL Delete

DEM Demodulator Circuit

DHCPDynamic Host Configuration Protocol

DNS Domain Name System

DPDistribution Partner

DTE Data Terminal Equipment

E

EEPROM (Electrically Erasable and Programmable ROM)

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

EIAElectronic Industries Association

EIRP..... Effective Isotropically Radiated Power

*A measure of transmitted power.

EXT External

G

GMDSS (Global Maritime Distress and Safety Service)

*The Global Maritime Distress and Safety System: the Inmarsat-A/B and C systems are the only Inmarsat networks included in the GMDSS by the IMO International Maritime Organization.

GPRS..... General Packet Radio Service

GPS Global Positioning System

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

H

HPA High Power Amplifier

I

IMEI..... International Mobile Equipment Identity

IMN Inmarsat Mobile Number

IMO Internally Maritime Organization

IMSI International Mobile Subscriber Identity number

INFO Information

INMARSAT International Maritime Satellite Organization

*The operator of global mobile satellite communications, part of the Inmarsat Ventures Ltd group of companies.

I/O..... Input/Output

IOR..... Indian Ocean Region

IPInternet Protocol

ISDN..... Integrated Services Digital Network

ISO..... International Organization for Standardization

	ITU	International Telecommunication Union
K		
	Kbytes	1024 bytes
L		
	LCD	Liquid Crystal Display
	LED	Light Emitting Diode
	LMSS	Land Mobile Satellite Service
	LNA	Low Noise Amplifier
	LT	Local Time
M		
	MES	Mobile Earth Station
	*The generic name used to describe an Inmarsat-approved terminal which is allowed to access the network, and applicable to both maritime and land mobile communications.	
	Message channel	
	*A channel assigned by the NCS for an MES to send a message through an SAS to its required destination.	
	Modem	MODulator/DEModulator
	*A device used to transmit digital data, by converting (modulating) a digital signal into an analogue form and re-converting (demodulating) the analogue signal into digital form at the receiving end.	
	MSISDN	Mobile Subscriber ISDN
N		
	NCS Common Signaling Channel	
	*Also known as the NCS Common Channel. A TDM channel used by the NCS to transmit system information and message announcements to MESs.	
	NMEA	National Marine Electronics Association
O		
	Ocean Region	
	*The coverage area of an Inmarsat satellite within which an MES may send and receive messages.	
	OSC	Oscillator
P		
	Packet	
	*An envelope or block of data sent over a network; each packet contains addressing information as well as the data being sent.	
	PC	Personal Computer
	PDP	Packet Data Protocol
	PIN	Personal Identification Number
	POR	Pacific Ocean Region

PPP Point-to-Point-Protocol

Protocol

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

PS Packet Switched

PSDN Packet Switched Data Network

PSTN Public Switched Telephone Network

PSU Power Supply Unit

PUK PIN Unblocking Key

R

RAM Random Access Memory

REC Receiving level

ROM Read Only Memory

RX Receive/Receiver

S

SAS Satellite Access Station

SCA Service Centre Address

SDM System Definition Manual

SIM Subscriber Identity Module

SMS Short Message Service

SOLAS Safety of Life at Sea

Space segment Consists of the communications satellites operated by Inmarsat

Special access code

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

SYNC Synchronization

T

TDM Time Division Multiplex

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

TDMA Time Division Multiple Access

*The process by which MESs communicate with an SAS or NCS.

TX Transmit/Transmitter

U

USB Universal Serial Bus

UTC Universal Coordinated Time

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

JRC NETWORK

If your JUE-250 has problems in operation, please contact the dealer

JRC web

JRC Japan: <http://www.jrc.co.jp>
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Declaration on toxic & hazardous substances or elements of Electronic Information Products Japan Radio Company Limited

有毒有害物质或元素的名称及含量

(Names & Content of toxic and hazardous substances or elements)

形式名(Type): JUE-250 名称(Name): INMARSAT FleetBroadband FB250
Maritime Satellite Communication Terminal

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

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