

## JRC FB500/FB250 terminal JUE-501/JUE-251

### New software version 02.74 release

JRC has released new software version, APP 02.74 for Fleet Broadband JUE-501 and JUE-251 mobile terminals.

#### **Changes from APP 02.60 to 02.74**

Following functions have been added and improved:

- Added the new ocean region name.

The ocean region name "IOE" (Indian Ocean East) for E83.7 satellite has been added. The following table shows the satellite location and ocean region name for FB service as on March 15, 2024.

Satellite location	Ocean region name
E143.5	APAC (Asia-Pacific)
E83.7	IOE (Indian Ocean East)
E24.9	EMEA (Europe, Middle East, Africa)
W98.0	AMER (America)

- Added the function to automatically reboot at a specified time.

The function has been added to automatically reboot at a specified time. The time at which JUE-501/JUE-251 reboots can be set on Web screen (Admin - Terminal).

Refer to p.17 for the details of the screen.

- Added the function to detect abnormal condition.

The function has been added that JUE-501/JUE-251 reboots when it detects the abnormal condition.

- Added the new maintenance information.

Added the new maintenance information ("Startup date-time" and "Reboot-Info") that JUE-501/JUE-251 notifies to the JRC VDR ((JCY-1900, JCY-1800)).

- Improved JUE-251 satellite search issue.

Improved the issue that JUE-251 may not complete the satellite search process (Handset keeps displaying "SAT SEARCH" in the status part) when JUE-251 searches for the satellite with an elevation angle of 80 degrees or more.

- Improved the start-up issue.  
Improved the issue that JUE-501/JUE-251 cannot start up normally (Handset keeps displaying “Initialize”) when "Syslog Setting" is set to "Enable" and "Syslog Server IP" is set to "192.168.128.100" in Web Diagnostic screen.
- Improved the DTMF issue that occurs when Multi-Voice function is enabled.  
Improved the issue that the DTMF is heard on a different voice line when a DTMF is sent by pressing a button on the Handset during a call on the Handset.

## **Software updating procedure**

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Update JUE-501/251 software to APP 02.74 with following procedure a) to d).

\* Do not connect any router or other equipment when updating JUE-501/251. Also, PC must be on the same network as JUE-501/251.

### **a) Confirm the connection**

JUE-501/251 software updating needs a PC.

Prepare a PC and connect it to your JUE-501/251. (For details, refer “[1. Confirm the connection](#)”)

\* Windows 8/10 OS is recommended. The behavior when using Windows 11 OS has not been verified at this time.

### **b) Download the latest software for JUE-501/251**

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 software for JUE-501/251](#)”)

### **c) Update/Downgrade JUE-501/251 software**

Update the JUE-501/251 software by the downloaded software. (For details, refer “[3. Update JUE-501/251 software](#)”)

Also, downgrade the JUE-501/251 software by the stored software [JUE251-501\_APP\_XXXX.jrc] in the attached CD-ROM, when necessary. (For details, refer “[[Reference](#)] [Software downgrading procedure](#)” in last page)

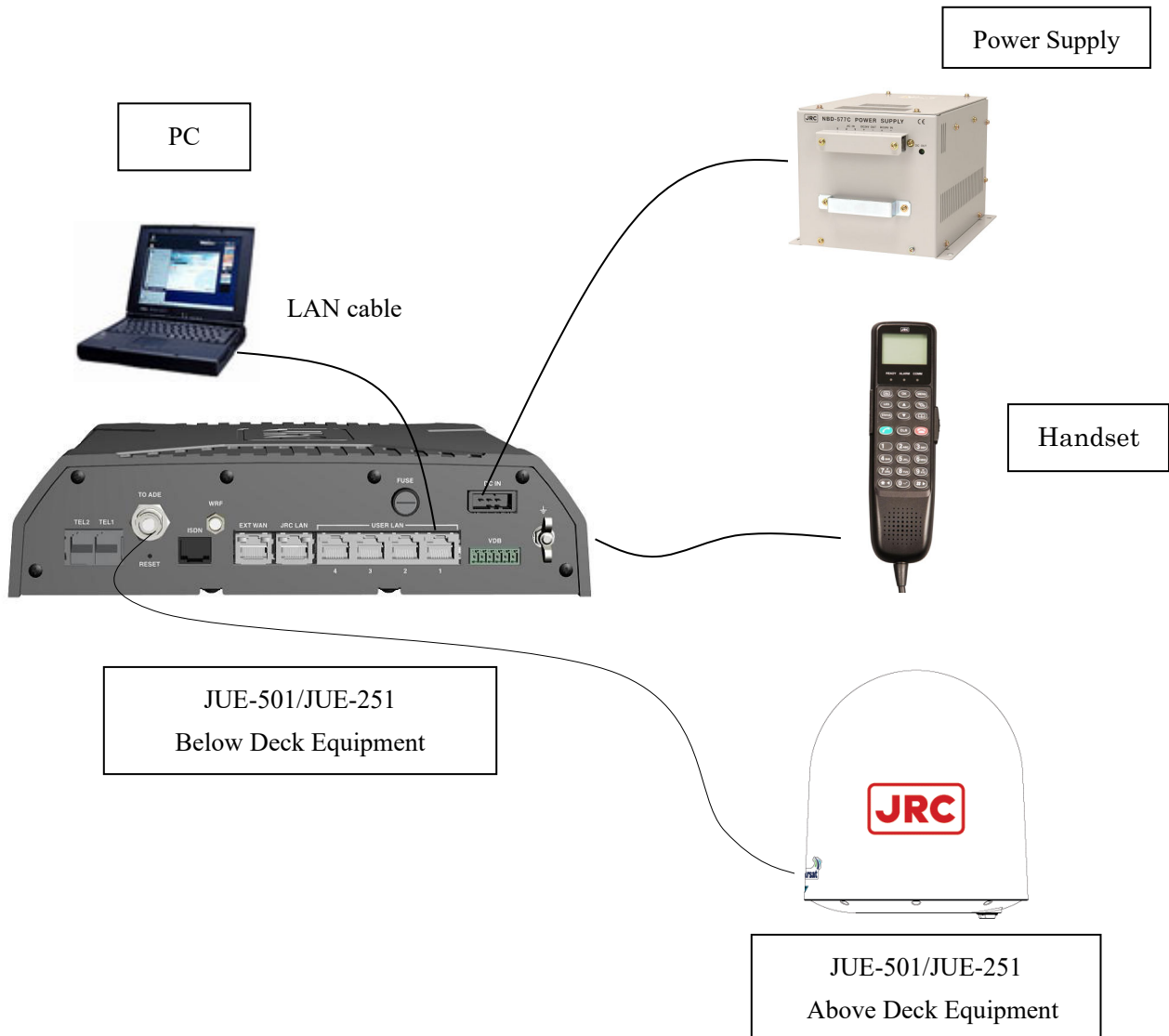
### **d) Confirm the updated software version**

Confirm the software version after updating, to check that JUE-501/251 software is correctly updated or not. (For details, refer “[4. Confirm the updated software version](#)”)

### 1. Confirm the connection


(1) Prepare a PC and connect it directly to a User LAN port of JUE-501/251.


\* Do not connect any router or other equipment between JUE-501/251 and a PC when updating JUE-501/251. Also, PC must be on the same network as JUE-501/251.

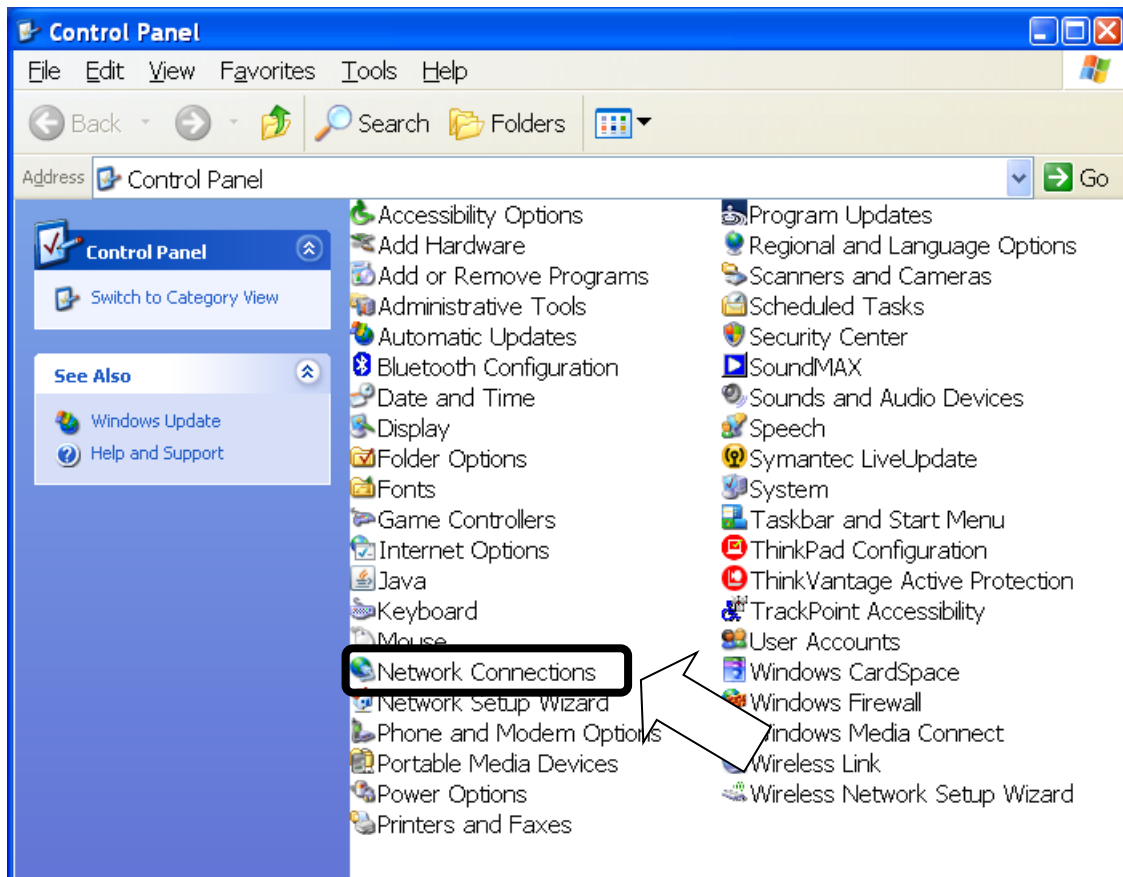


- (2) Set the LAN port IP address (being connected to User LAN port of JUE-501/251) of your PC, to be on the same network as JUE-501/251 by the following procedure.

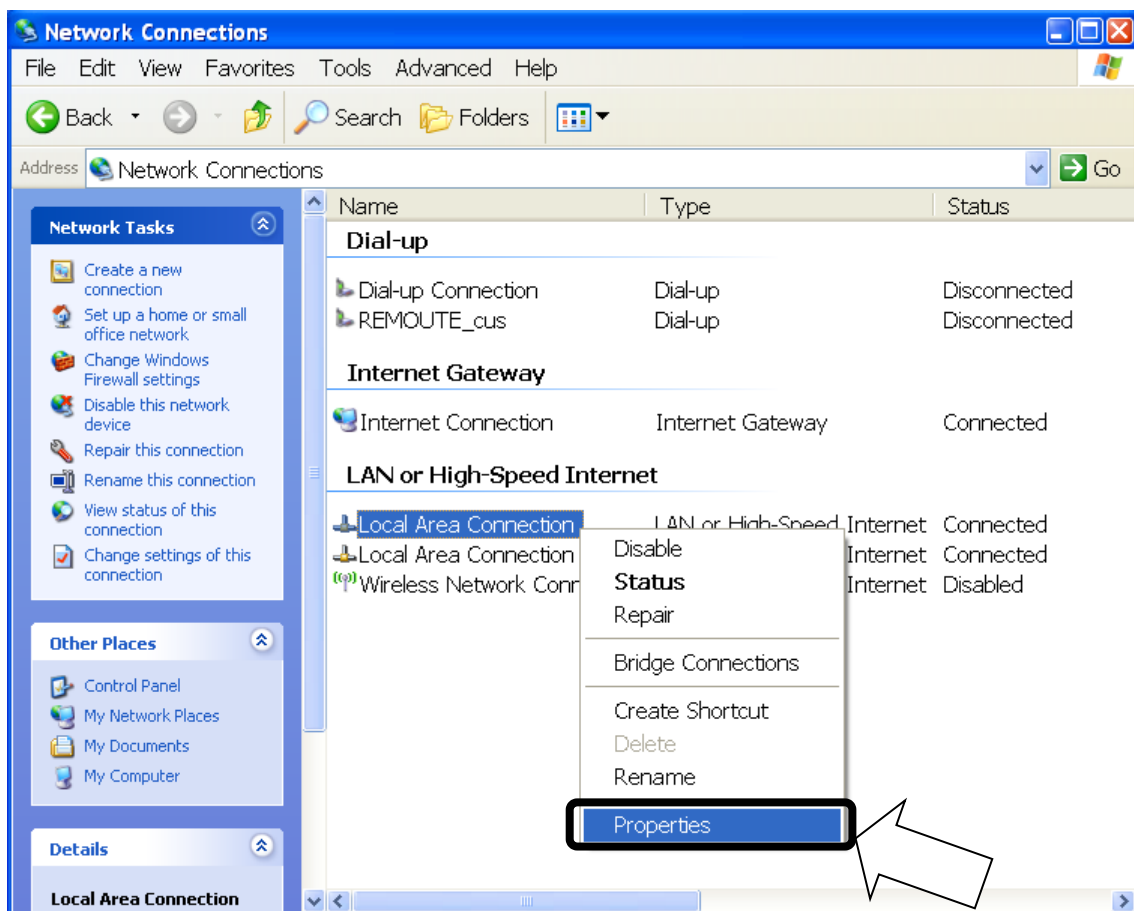
NOTE

- Skip this procedure when you already set the LAN port to DHCP (set the IP address setting as [Obtain an IP address automatically]) and BDE's DHCP setting enable.
- Current BDE's DHCP setting can be referred at the Handset menu, <9> Admin - Input secret code (initial value 0001) - <3> Port - <3> Ethernet - <1> User LAN - BDE's IP address (press OK) - BDE's subnet mask (press OK) - DHCP setting. Press  (on hook) button and close the menu after you confirm the DHCP setting.

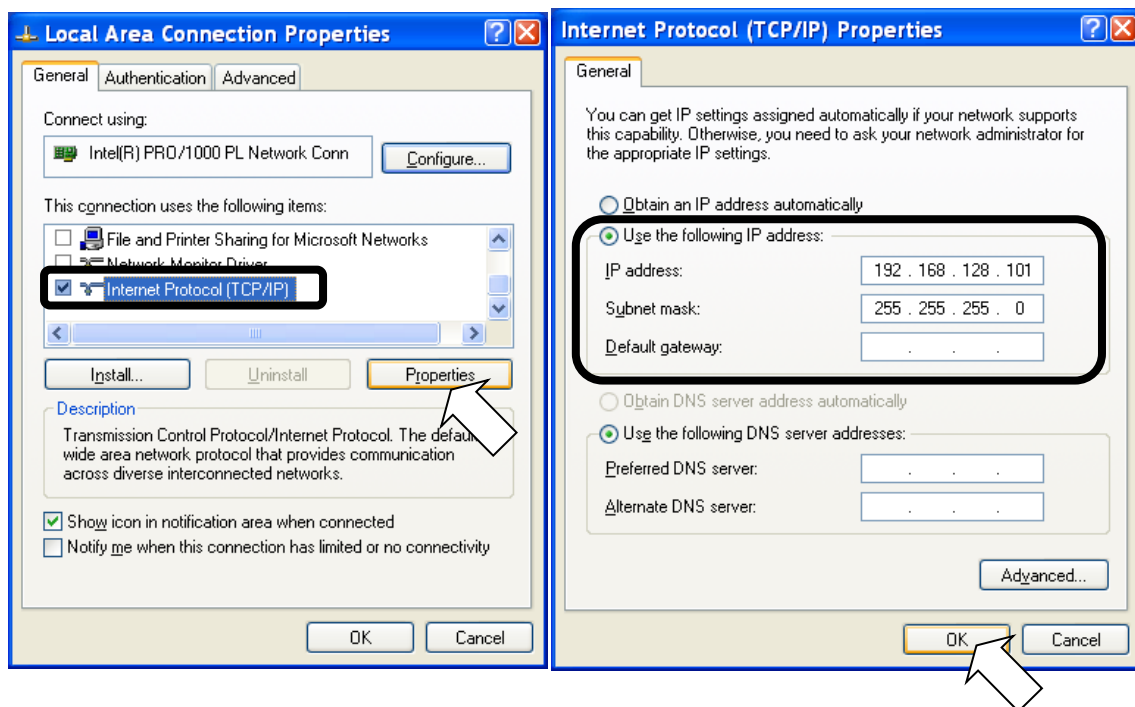
- Confirm BDE's IP address from the Handset.
  - BDE's IP Address can be referred at the Handset menu, <9> Admin - Input secret code (initial value 0001) - <3> Port - <3> Ethernet - <1> User LAN. Press  (on hook) button and close the menu after you confirm the IP address.
- Select [start]-[Control Panel] on your PC.
  - [Control Panel] window is displayed.



- iii). Double click [Network Connections].
  - [Network Connections] window is displayed.
- iv). Select [Local Area Connection] and right-click, then click [Properties] from displayed menu.
  - [Local Area Connection Properties] dialogue box is displayed.
  - Confirm that [General] tab is displayed on the front of the screen.



- v). Select [Internet Protocol (TCP/IP)] and click [Properties] button.
  - [Internet Protocol (TCP/IP) Properties] dialogue box is displayed.
  - Select [Use the following IP address] and input [IP address] and [Subnet mask] to be on the same network as JUE-501/251. Do not input any IP address for [Default gateway].
    - e.g. When the BDE's IP address is 192.168.128.100
    - Input 192.168.128.101 for [IP address] and 255.255.255.0 for [Subnet mask].
  - Select [Use the following DNS server addresses] and do not input any DNS addresses for [Preferred DNS server] and [Alternate DNS server].

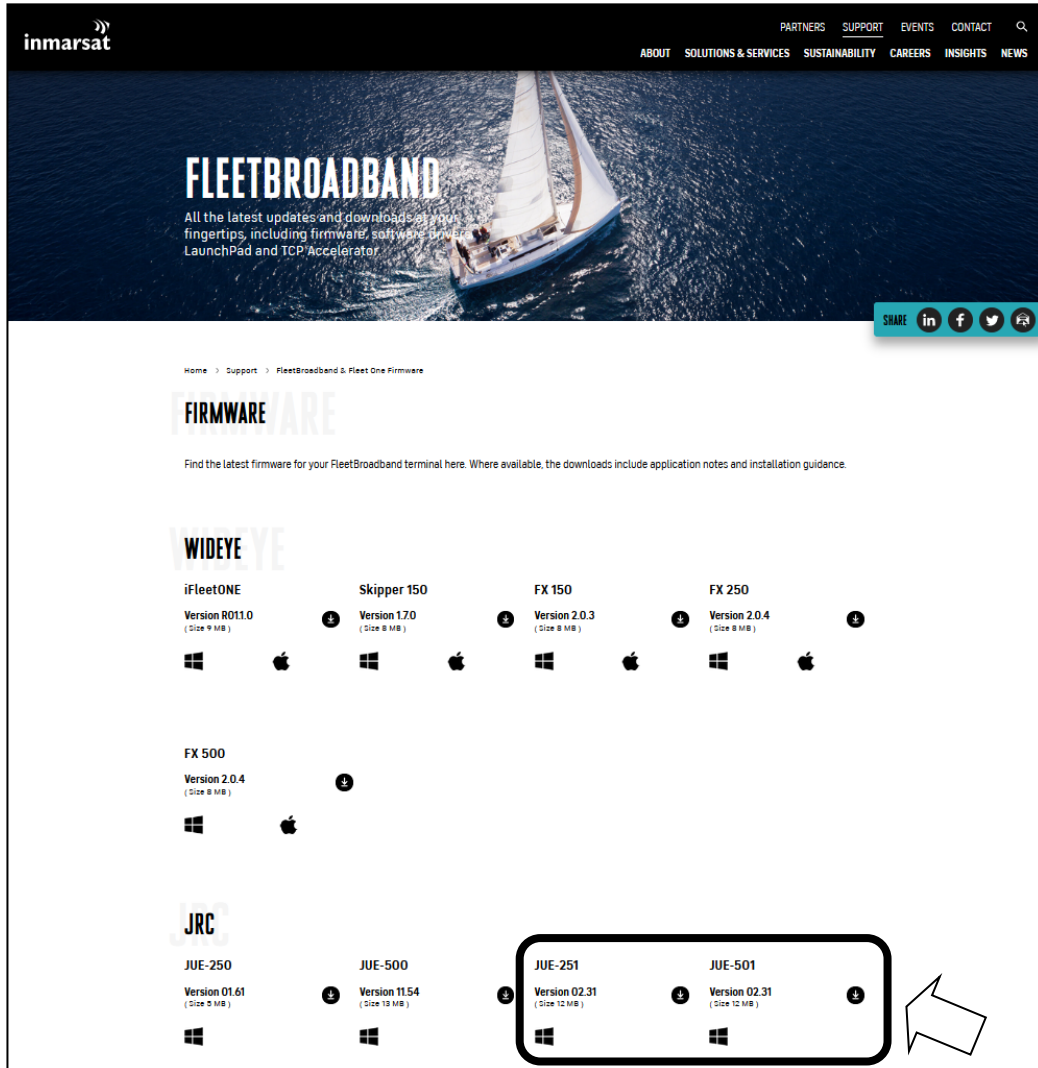


- vi). Click [OK] button.
  - Screen is returned to [Local Area Connection Properties] dialogue box.
- vii). Click [OK] button.
  - If message of rebooting is displayed, reboot a PC.

## 2. Download the latest software for JUE-501/251

The latest software of JUE-501/251 is uploaded on the Firmware Page (FP) of the Inmarsat website. The URL is as follows:

<https://www.inmarsat.com/en/support-and-info/support/fleetbroadband-firmware.html>



If the software's version on the FP is larger than the JUE-501/251's software version, download the software from FP.

Software version of JUE-501/251 main unit can be displayed on Handset screen with following operation:

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



### 3. Update JUE-501/251 software

#### Note

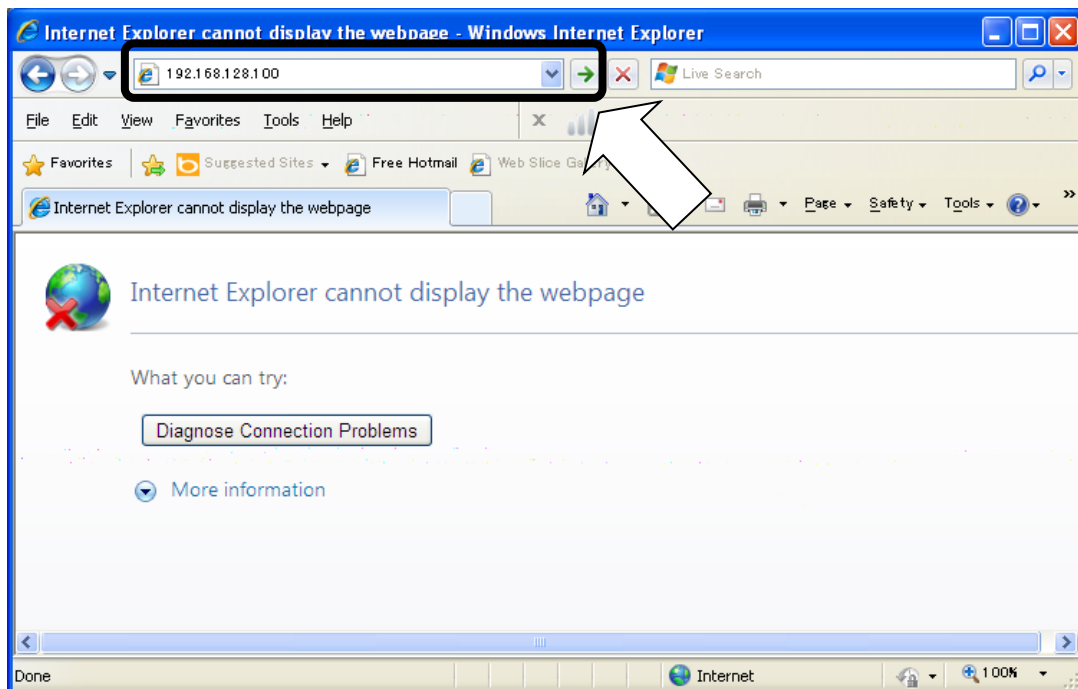
- Do not turn OFF the power supply of JUE-501/251 and/or PC during the software forwarding or updating
- Software forwarding or updating takes up to 3 minutes.

- (1) Activate your JUE-501/251 and confirm that initialization is completed.

\* [Initialize] is displayed during initialization on the Handset screen.


Initialize

- (2) Launch your Web browser\*<sup>1</sup> and enter the IP address of JUE-501/251 to the URL box. Then press [Enter] key.



Confirm the IP address of JUE-501/251 from the Handset.

- BDE's IP address can be referred at the Handset menu, <9> Admin - Input secret code (initial value 0001) - <3> Port - <3> Ethernet -<1>User LAN

Press  on hook button and close the menu after you confirm the IP address.

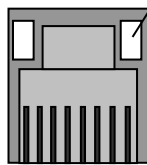
\*<sup>1</sup> While JUE-501 / JUE-251 officially supports Microsoft Internet Explorer7 and Mozilla Firefox3.6, if a higher version is available it is likely to still be compatible with the system.

**[\*] If the WEB menu won't open**

If the WEB menu won't open, check the both IP addresses of JUE-501/251 and your PC and confirm they are on the same network.

- The IP address of JUE-501/251 can be confirmed by (i) of [1.Confirm the connection].
- The IP address of PC can be confirmed by (ii) of [1.Confirm the connection].

If the WEB menu won't open with the correct IP address setting, check the User LAN port LED on back panel. Link LED will blink when the link between PC and the User LAN port is established.

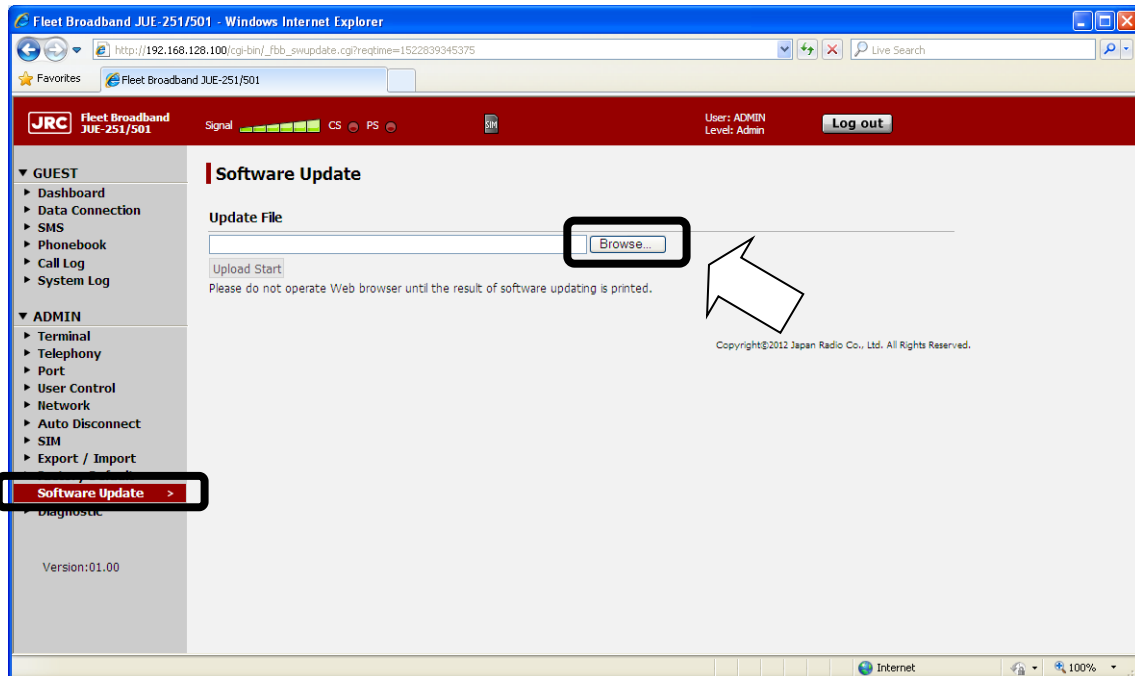


**Link LED:**

Blinks when the link with the connected terminal has been established.  
(The color is orange for 10Base-T and green for 100-Base-T.)

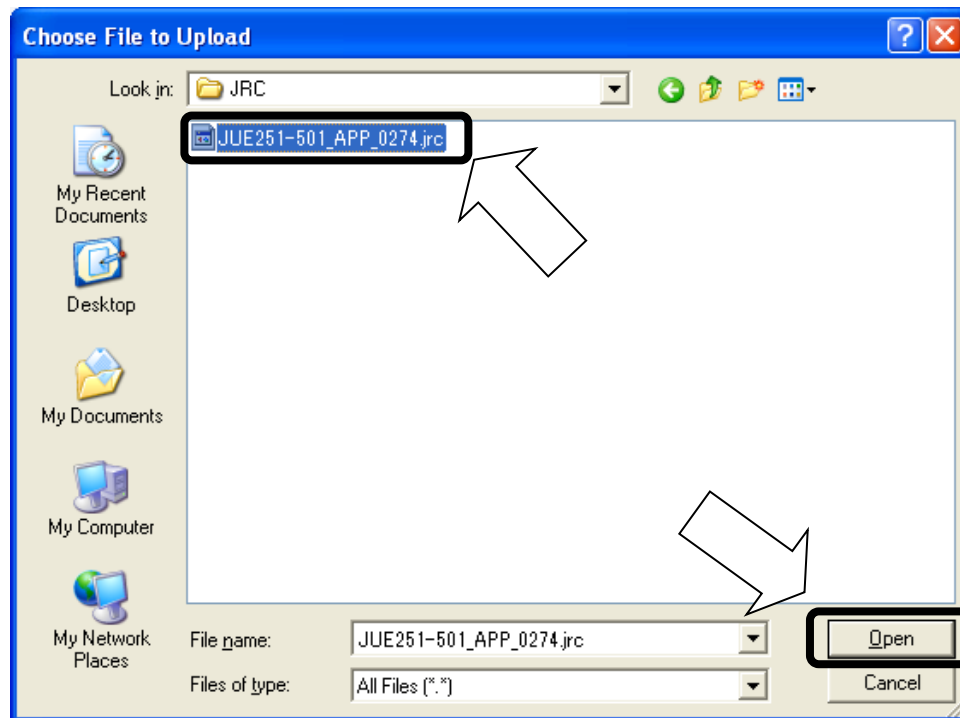
Link between PC and the User LAN port has not been established when the Link LED doesn't blink. Disconnect and connect the LAN cable again.

- (3) Click [Software Update] on the left [menu] panel, after login by Admin level (User: ADMIN / Secret Code: 0001 (Default) ). [Software Update] screen will be displayed.

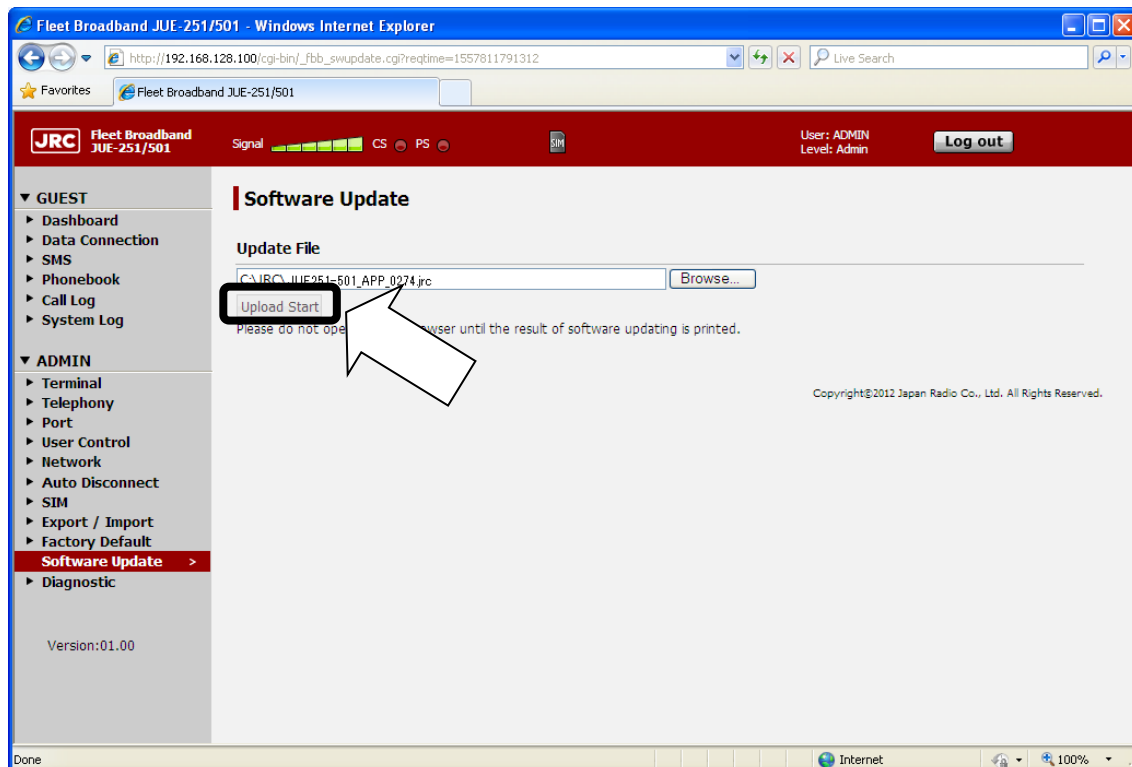


- (4) Click [Browse] button. Then file selection dialog will appear.

- (5) Select the file you have downloaded at [2. Download the latest software for JUE-501/251] and click [Open].



- (6) Click [Upload Start] button.
- The [Upload Start] button changes into disable (gray).
  - Wait until the update was completed and the result is printed.

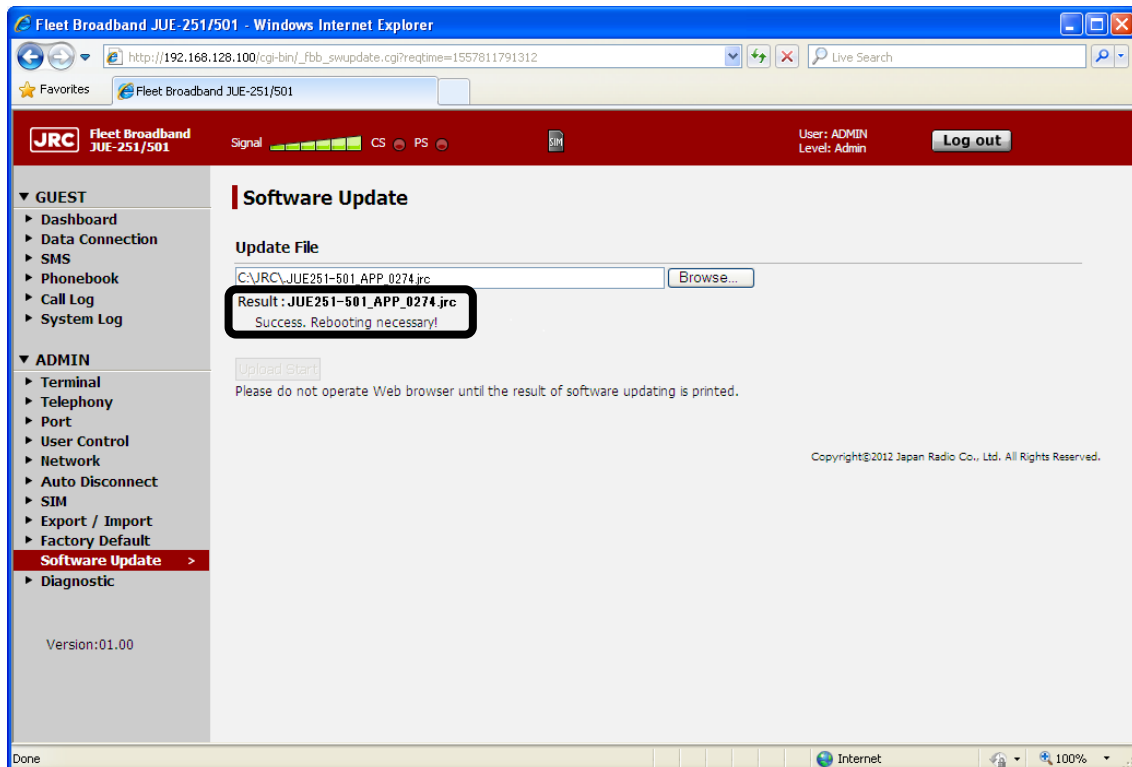


(7) Check the result.

#### NOTE

- Please do not operate your Web browser until the result is printed on the screen.
- It may take more than 3 minutes.
- In the case of unresponsiveness in 5 minutes, reboot JUE-501/251 and retry software updating with following the software updating procedure (on page 2 of this manual) from a) to d).

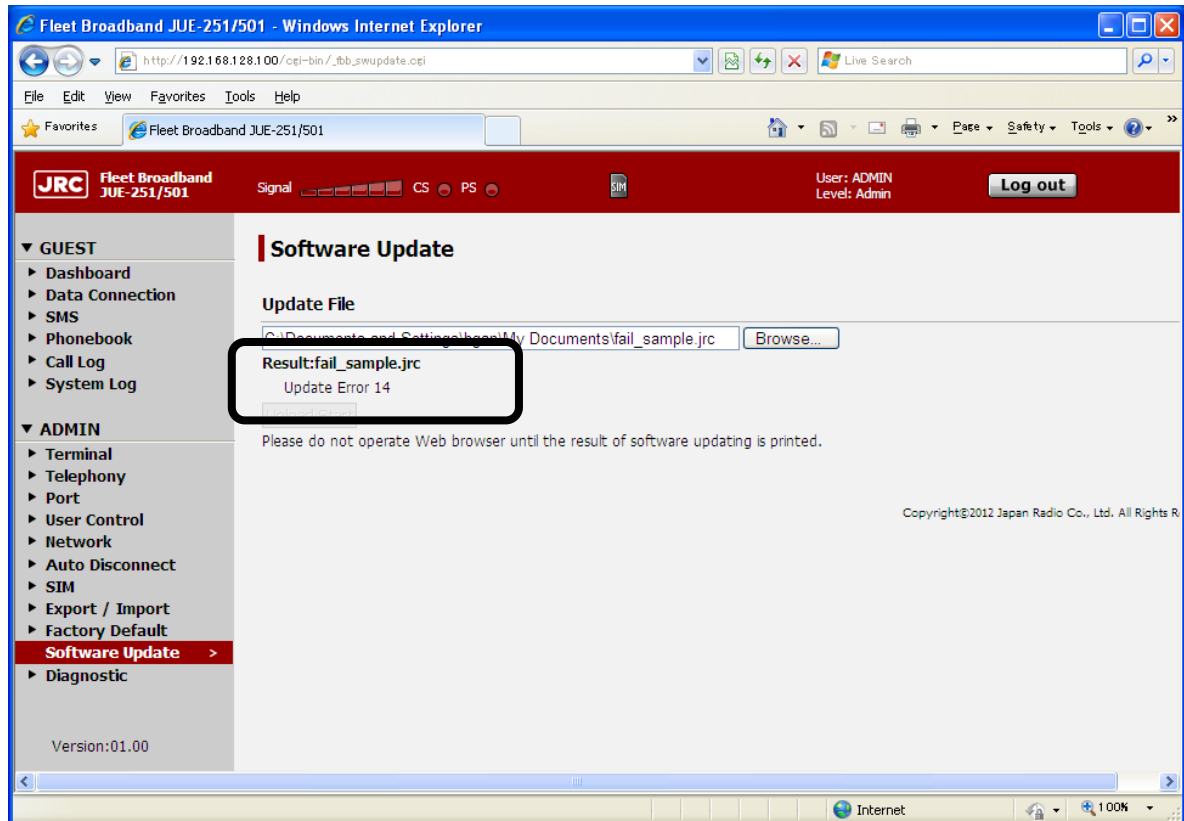
- [Success] is displayed when the update finished successfully. Then, reboot your system.  
When ADE software is updated, the system updates ADE software automatically after the system is rebooted (“ADE Update” is displayed in Handset screen. The elapsed time is about 5 minutes). And then the system starts normally.
- [Error] is displayed when the update has failed. Refer “[\*] When software update is failed” in next page.



### [\*] When software update is failed

Update is failed when “Update Error” is printed on your Web browser.

Check the error code below. Reboot your JUE-501/JUE-251 and retry updating with following the software updating procedure (on page 2 of this manual) from a) to d).



**Table: Software updating error code**

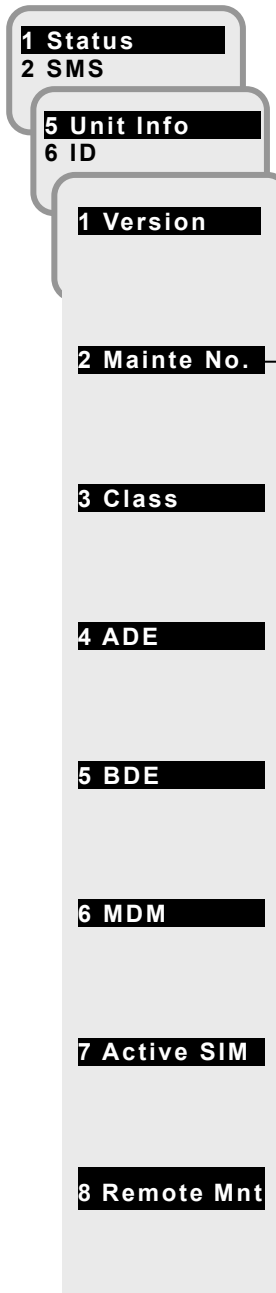
Code	Supposed cause
1	The system is under the software updating already.
2~13 and 17	Internal error.
14~16	The file you uploaded is wrong file.
21~31	It failed in uploading the file.

#### 4. Confirm the updated software version

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

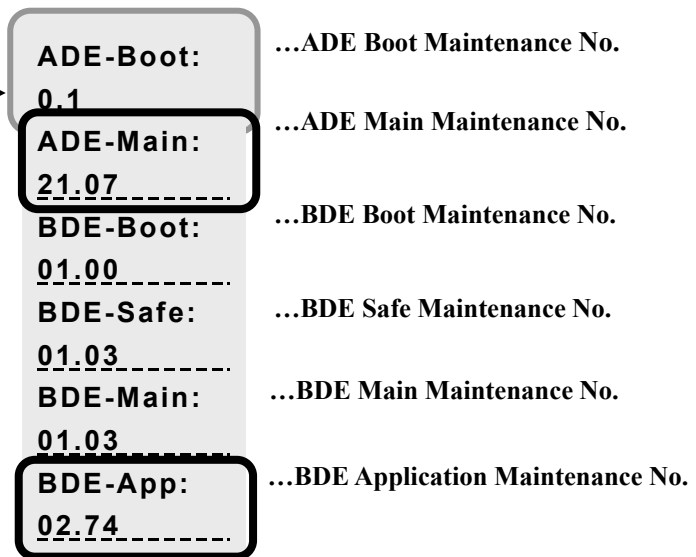
When the update is succeeded, BDE-App No. is changed to the same number as the [0274] of the software file [JUE-251-501\_APP\_0274.jrc]. Please also check ADE-Main is 21.07.

Unit Info menu screen



OK

2. Mainte No. display screen



**[Reference] Software downgrading procedure**

- A) Turn OFF the power supply of JUE-501/251.
- B) Repeat the software updating procedure from [3. Update JUE-501/251 software]. Use [JUE251-501\_APP\_xxxx.jrc] in CD-ROM of JUE-501/251 to execute, instead of the downloaded file [JUE251-501\_APP\_0274.jrc].



## The function to automatically reboot at a specified time

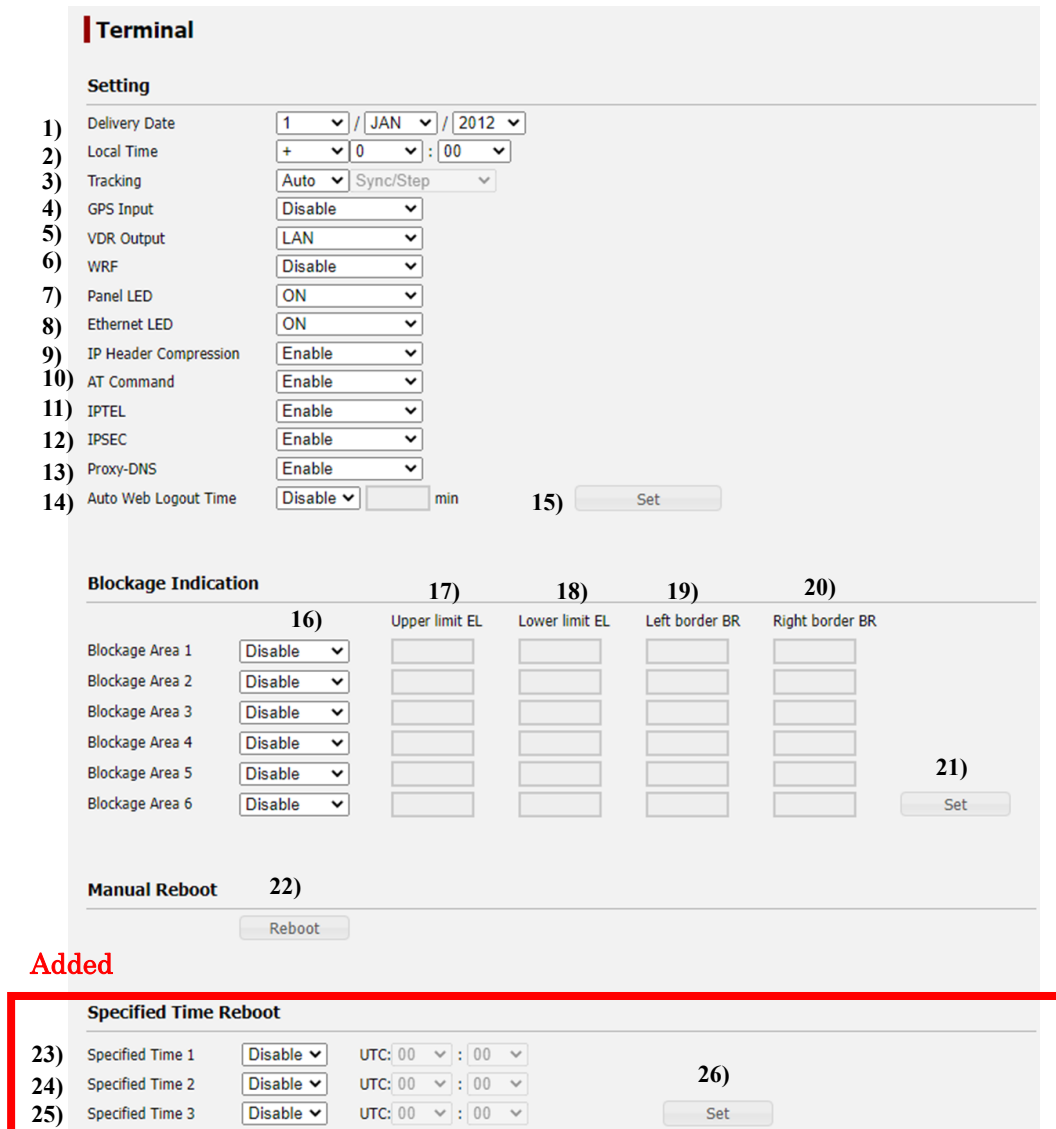
The time at which JUE-501/JUE-251 reboots can be set on Web screen (Admin - Terminal).

### 6.5.1 Set Basic Information (Terminal Screen)

To enter the Terminal screen, select “Terminal” from the left [menu] panel.

On this screen, the following items can be carried out.

- Setting up basic data of JUE-501/JUE-251 (Setting part).
- Setting up the blockage area up to six to indicate the antenna of JUE-501/JUE251 is being hidden from satellite by an obstruction like ship’s mast or funnel (Blockage Indication part).
- Manual reboot of JUE-501/JUE-251 (Manual Reboot part).
- Setting up to automatically reboot JUE-501/JUE-251 at a specified time (Specified Time Reboot part).



**Terminal**

**Setting**

1) Delivery Date: 1 / JAN / 2012

2) Local Time: + 0 : 00

3) Tracking: Auto / Sync/Step

4) GPS Input: Disable

5) VDR Output: LAN

6) WRF: Disable

7) Panel LED: ON

8) Ethernet LED: ON

9) IP Header Compression: Enable

10) AT Command: Enable

11) IPTEL: Enable

12) IPSEC: Enable

13) Proxy-DNS: Enable

14) Auto Web Logout Time: Disable min 15) Set

**Blockage Indication**

16) Blockage Area 1: Disable

17) Upper limit EL

18) Lower limit EL

19) Left border BR

20) Right border BR

21) Set

**Manual Reboot** 22) Reboot

**Specified Time Reboot**

23) Specified Time 1: Disable UTC: 00 : 00

24) Specified Time 2: Disable UTC: 00 : 00

25) Specified Time 3: Disable UTC: 00 : 00 26) Set

Fig. 6.5.1a Terminal Screen

Table. 6.5.1a Contents of Terminal - Setting

Display		Contents
1)	Delivery Date	Operation starting date of JUE-501/JUE-251. Delivery date does not only record the day when the JUE-501/JUE-251 was installed and communication commenced, but it helps to determine the guarantee term etc. Accurate setting is recommended.
2)	Local Time	Time differences between UTC (Universal Time Coordinated) and Local time. Select [+] when Local time is faster than UTC, and [-] when it is slower.
3)	Tracking	Tracking method of JUE-501/JUE-251. Select the tracking system from Auto or Gyro. When Gyro is selected, Gyro type is required. Select Gyro type from Sync/Step, NMEA(4.8k), NMEA(38.4k) or LAN. System reboot is required to apply this setting.
4)	GPS Input	Input method of external GPS. Select one from Disable (use only built-in GPS), NMEA(4.8k), NMEA(38.4k) or LAN. System reboot is required to apply this setting.
5)	VDR Output	Output method to VDR for sending Alarmpack of JUE-501/JUE-251. Select Disable or LAN. System reboot is required to apply this setting.
6)	WRF	Setting for WRF (Wide-band Radio Frequency) interface. The WRF interface is needed for a navigation system to receive the satellite signal directly. "Enable" uses wide band filter. "Disable" uses narrow band filter and prevents interference of any other radio waves. "Auto" changes the using filter automatically.
7)	Panel LED	Setting for ON/OFF of the LEDs on the front panel of main unit.
8)	Ethernet LED	Setting for ON/OFF of the Ethernet LEDs on the back panel of main unit. If "Ethernet LED" is set to "OFF", the Ethernet LED lamps will remain turned off even when some devices are connected to the LAN ports.
9)	IP Header Compression	Enable or disable IP Header Compression. System reboot is required to apply this setting.
10)	AT Command	Enable or disable AT command function.
11)	IPTEL	Enable or disable IPTEL function.
12)	IPSEC	Enable or disable IPsec VPN function.
13)	Proxy DNS	Enable or disable Proxy-DNS function.

14)	Auto Web Logout Time	Enable or disable Auto Web Logout function. When Enable is selected, the time (1 to 240 min) to logging out of Web menu automatically from last access is required.
15)	SET	Registers the setting contents.

**Table. 6.5.1b Contents of Terminal - Blocking Indication**

Display		Contents
16)	Enable/Disable	Use or non-use of the Blockage Area.
17)	Upper limit EL	Upper limit elevation for the blockage area (Range: 1 to 90 ).
18)	Lower limit EL	Lower limit elevation for the blockage area (Range: 1 to 90 ).
19)	Left border BR	Bearer value for Left border of the blockage area (Range: 0 to 359 ).
20)	Right border BR	Bearer value for Right border of the blockage area (Range: 0 to 359 ).
21)	• SET	Registers the setting contents.

**Table. 6.5.1c Contents of Terminal-Manual Reboot**

Display		Contents
22)	Reboot	Reboot the system from Web menu.

**Added**

**Table. 6.5.1d Contents of Terminal - Specified Time Reboot**

Display		Contents
23)	Specified Time1	Enable or disable Specified Time 1. When Enable is selected, the UTC time at which the JUE-501/251 is to be rebooted is required.
24)	Specified Time2	Enable or disable Specified Time 2. When Enable is selected, the UTC time at which the JUE-501/251 is to be rebooted is required.
25)	Specified Time3	Enable or disable Specified Time 3. When Enable is selected, the UTC time at which the JUE-501/251 is to be rebooted is required.
26)	SET	Registers the setting contents.