| TECHNICAL INFORMATION
FROM
MARITIME SOLUTION GROUP |
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Subject   : Information on software release (BDE-App version 01.96)

Equipment   : JUE-501, Inmarsat FB500
        JUE-251, Inmarsat FB250

Date   : April 3, 2017

Issue Number : SC-0002-17
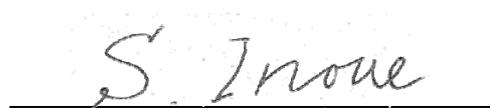
S. Inoue

S. Inoue
Assistant General Manager & Group Leader
Maritime Solution Group
Marine Solution Engineering Department
Marine Systems Division

Priority [X] A: Carry out immediately

[   ] B: Carry out at periodical inspection

[   ] C: Carry out upon client's request

[   ] D: Information and news

1. Subject

Information on software release (BDE-App 01.96)

2. Objective Equipment

JUE-501 and JUE-251 installed from now or which already installed but not tested with the customer's SIM card yet.

Note: The equipment already updated to BDE-App 01.96 at the factory will be informed later with document revised.

3. Information and Notice

Please be informed that the new software BDE-App 01.95 improves the following function.

BDE-App 01.96
- Function improved:
   1) Improved the issue that the SIM card cannot be recognized.
      Improved the issue that "SIM?" is always displayed in the status part of Handset and communication (voice and data) is failed on starting up JUE-251/JUE-501 with the SIM card which has been distributed recently.

      - The SIM card cannot be recognized by appearance.
      - At this time the issue occurs with the SIM card distributed by KDDI and Marlink.
      - The issue does not occur with the SIM card already used normally.

Notice
- The issue has been already informed by the Service News "FSN170006".
- Update to BDE-App 01.96 when a new SIM card is used, for example, when installing JUE-251/JUE-501 newly.
- The ADE sensor calibration function of BDE-App 01.96 is same as that informed by the technical information "SC-0003-16". Perform the work of the technical information "SC-0003-16" using BDE-App 01.96 from now on.

Request for updating the software

Before updating JUE-501 and JUE-251 software, please read through the following procedure and notice:

Notice

We recommend making a backup copy of all the setting by using "Export" function on the Web menu.

- Download the new software and release note from the Marine Service Department or JRC/Alphatron Marine (http://jrc.am/) homepage.
- Refer to the release note for updating procedure of the software version.
- The software includes ADE software. <u>ADE software is updated when updating from BDE-App 01.78 or younger to the software.</u>

4. Document attached
   - JUE-501/JUE-251 BDE-App 01.96 release note (7ZPSC0632)
   - JUE-501/JUE-251 Software Version List

5. Related Service-news and/or Technical Information
   - FSN170006　：Information on the issue for JUE-251/JUE-501 unrecognizable SIM card
   - SC-0003-16　：Request for repairing JUE-501 satellite tracking problem

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

New software version 01.96 release

JRC has released new software version, APP 01.96 for FleetBroadband JUE-501 and JUE-251 mobile terminals.

Changes from APP 01.95 to 01.96

Following functions have been added and improved:

Function improved;

- Improved the issue that the SIM card cannot be recognized.
  Improved the issue that "SIM?" is always displayed in the status part of Handset and communication (voice and data) is failed on starting up JUE-251/JUE-501 with the SIM card which has been distributed recently.
  For your information, the issue does not occur with the SIM card that has already used normally.

- Corresponded to the changes of Inmarsat system.

Software updating procedure

Update JUE-501/251 software 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 XP/Vista/7 OS is required.

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 soft
ware for JUE-501/251")

c) Update JUE-501/251 software

Update the JUE-501/251 software by the downloaded software. (For details, refer "3. Update
JUE-501/251 software"

## 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.

Power Supply

PC

LAN cable

Handset

JUE-501/JUE-251

Below Deck Equipment

JUE-501/JUE-251

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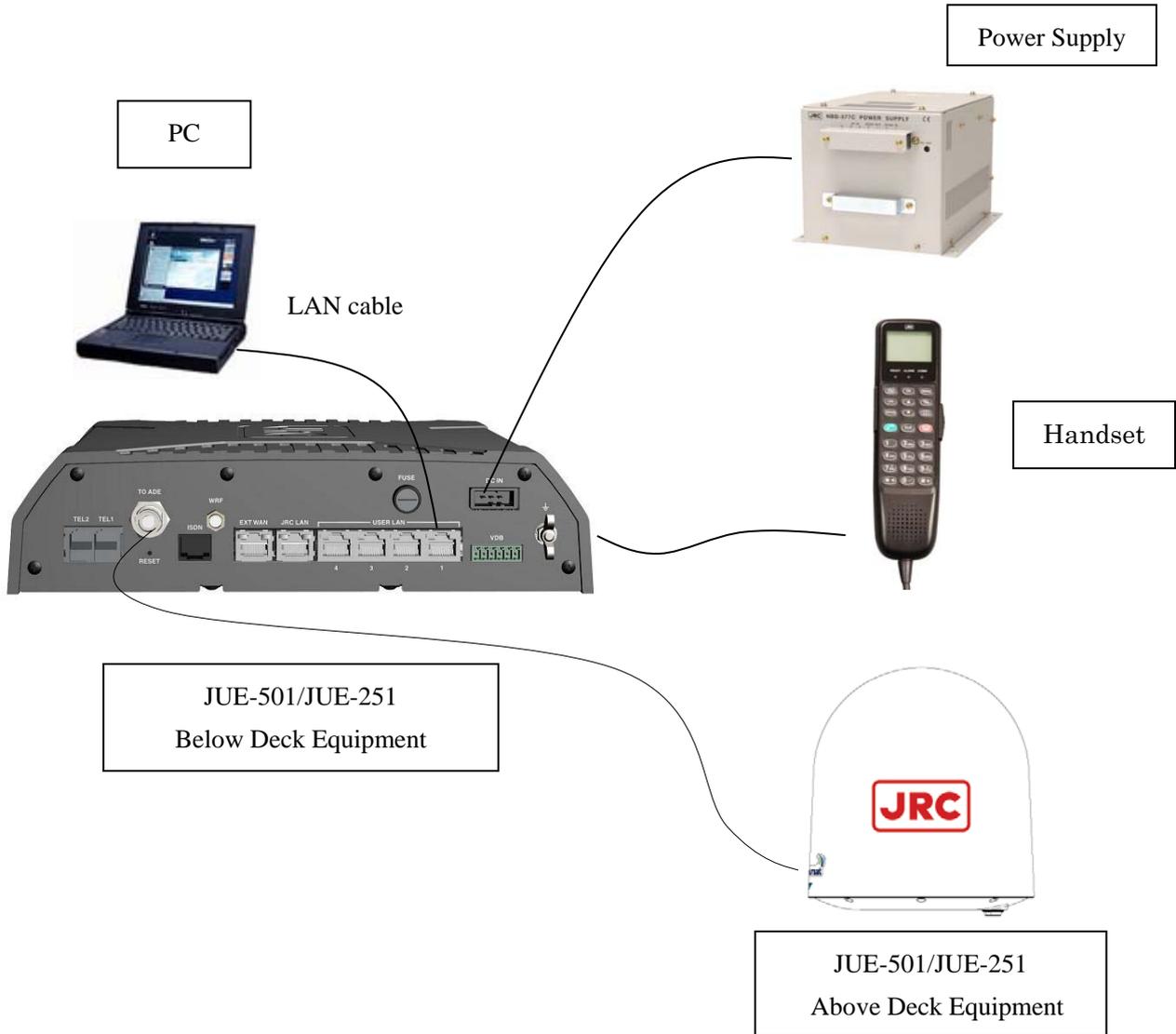
(2). Set the LAN port IP address (being connected to User LAN port of JUE-501/251) of your PC, to be on the same network as JUE-501/251 by the following procedure.


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.

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i). 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.

ii). Select [start]-[Control Panel] on your PC.

・[Control Panel] window is displayed.
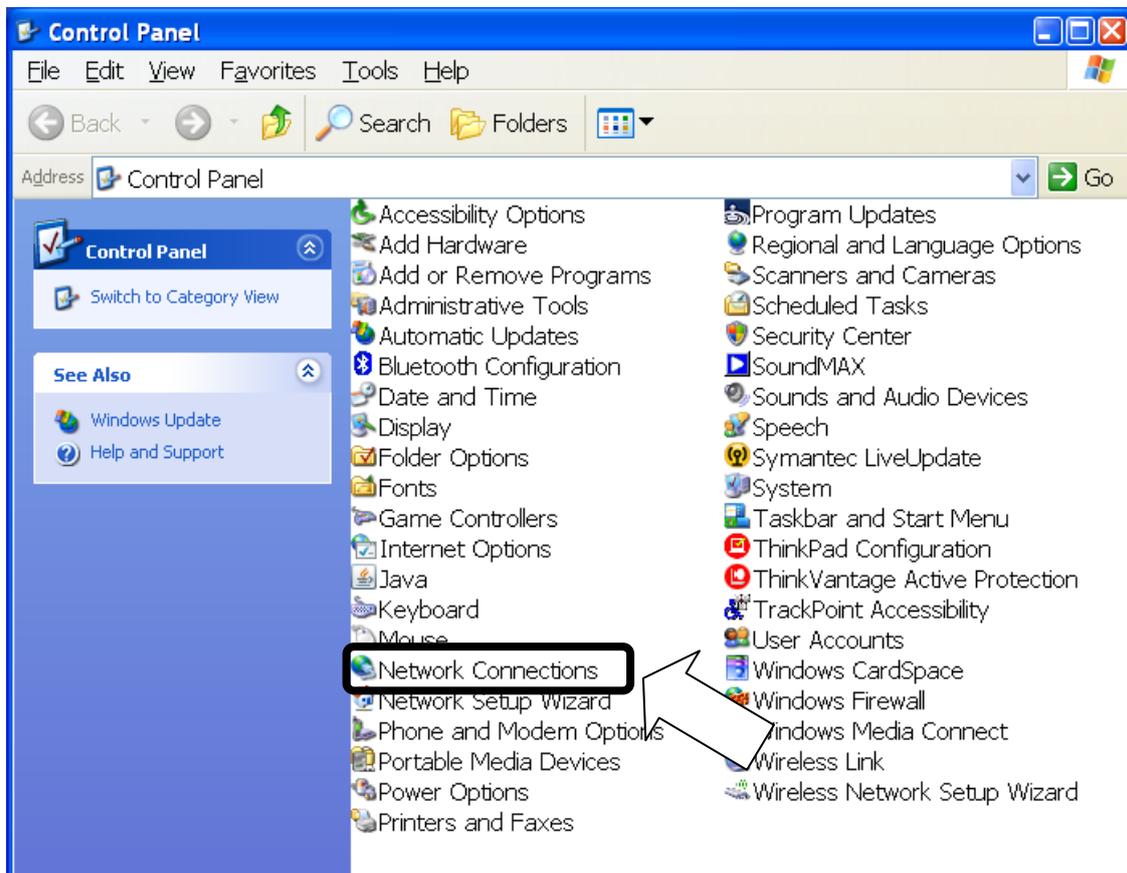
iii). Double click [Network Connections].

・[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.
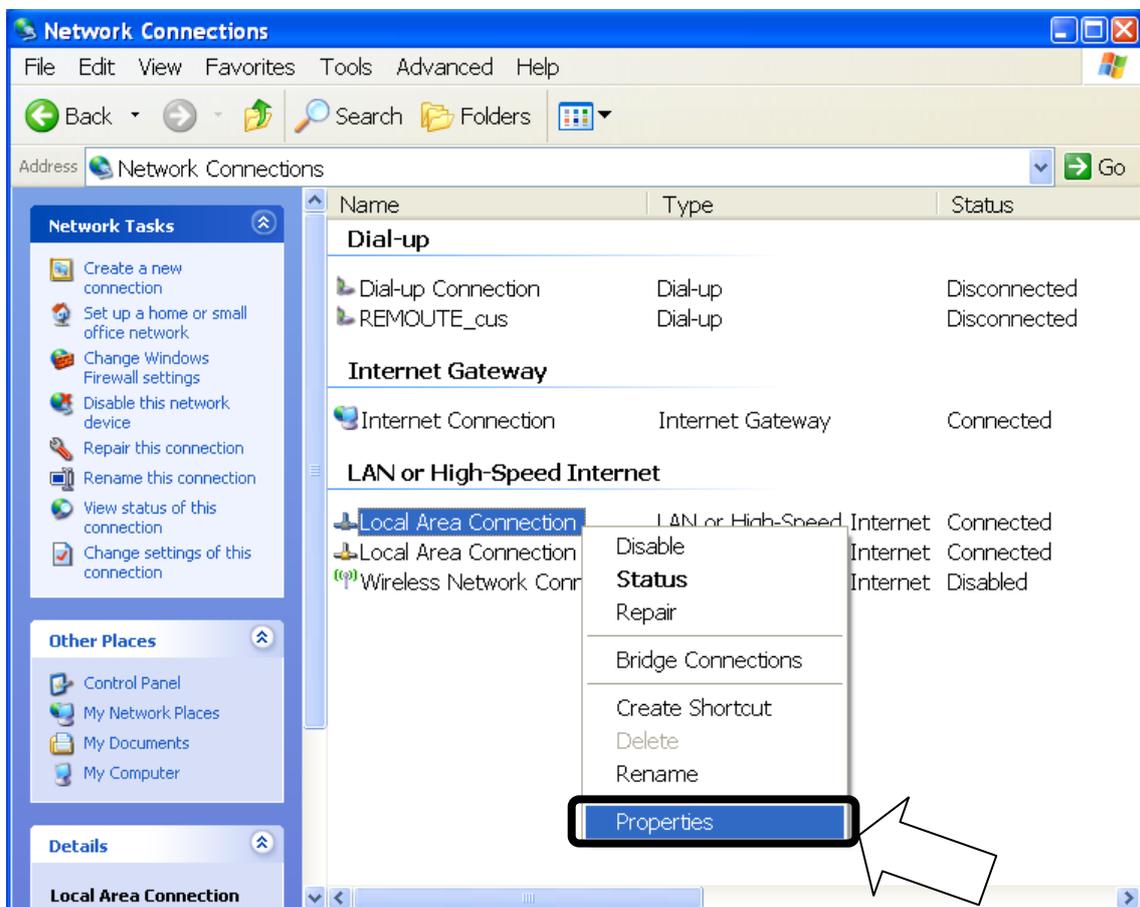
v). Select [Internet Protocol (TCP/IP)] and click [Properties] button.

・[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].
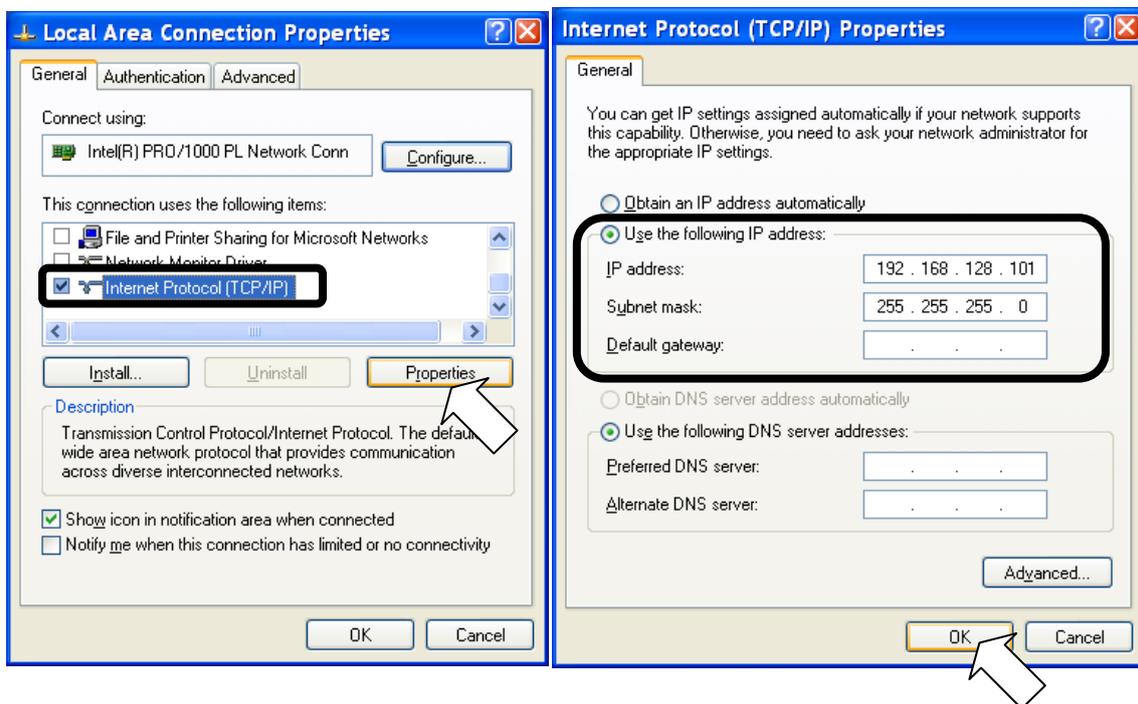
vi). Click [OK] button.

・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 HP of Inmarsat.

The URL is as follows:

http://www.inmarsat.com/support/fleetbroadband-firmware/

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

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
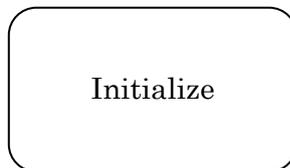
2. Launch your Web browser[*1] and enter the IP address of JUE-501/251 to the URL box. Then press [Enter] key.
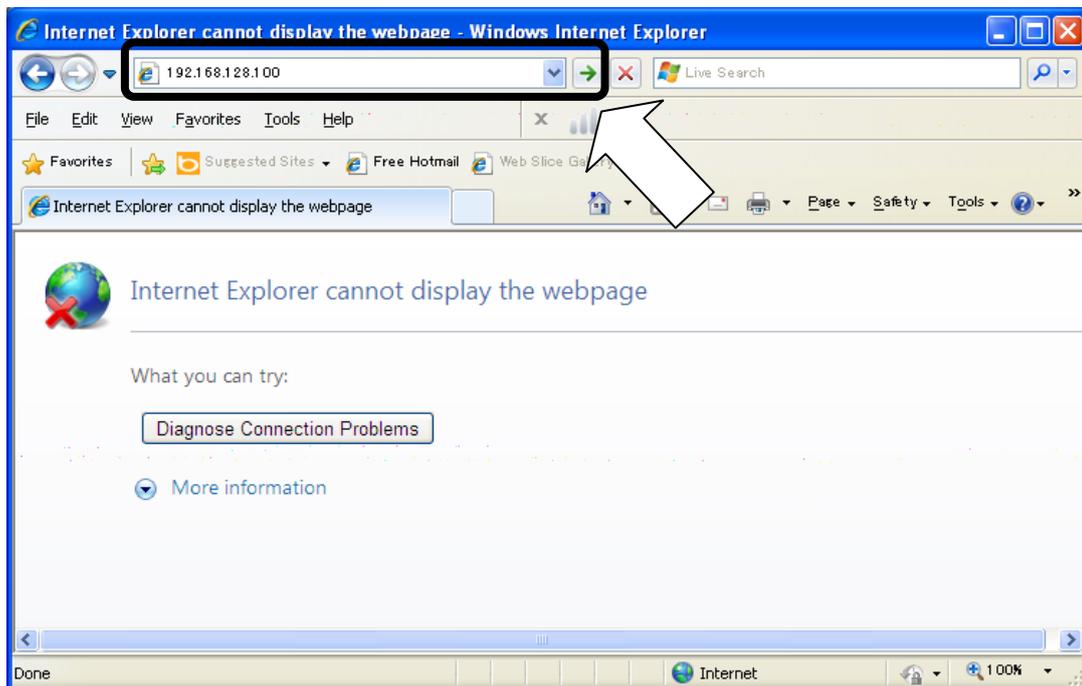
Confirm the IP address of JUE-501/251 from the Handset.
   ・BDE's IP address can be referred at the Handset menu, <9> Admin - Input secret code (initial value 0001) - <3> Port - <3> Ethernet -<1>User LAN

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

*1 While JUE-501 / JUE-251 officially supports Microsoft Internet Explorer7 and Mozilla Firefox3.6, their upper version can be available when they have compatible system.

2.1. 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 PC and the User LAN port is linked.
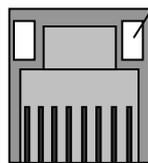
Link LED:
Blink when the link with the connected terminal has been established.
(The color is orange for 10Base-T and green for 100-Base-T.)

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.
 ・ [Software Update] screen will be displayed.
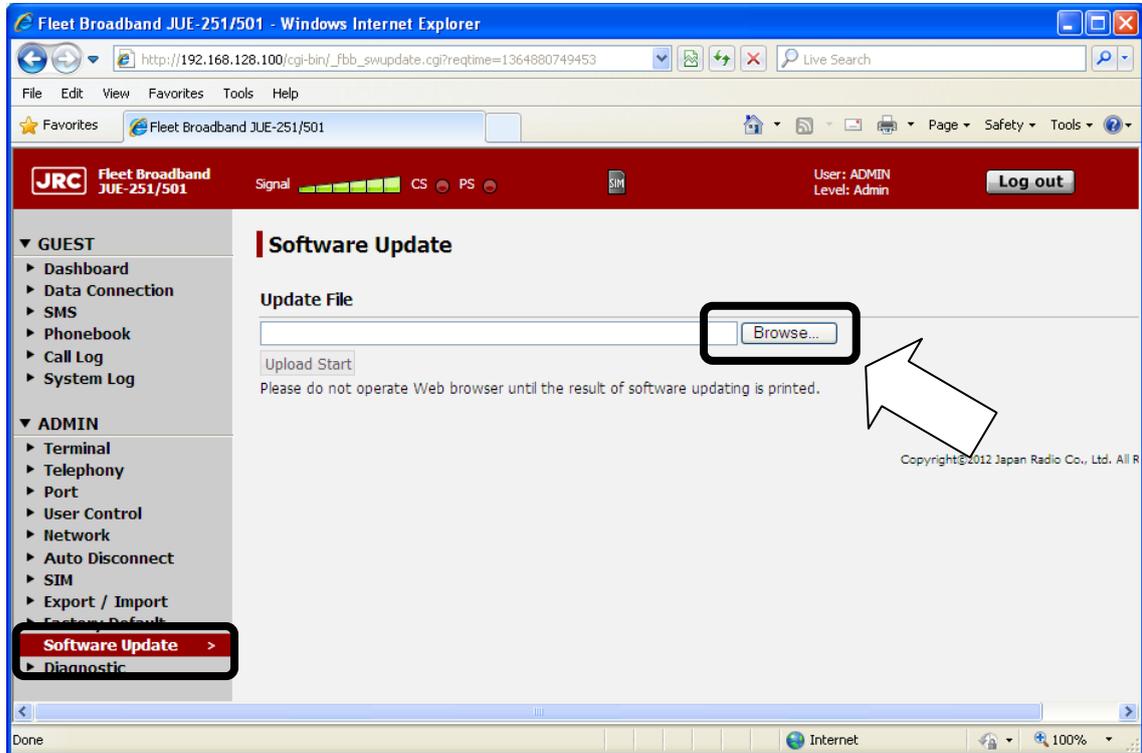
4. Click [Browse] button. Then file selection dialog will appear.

5. Select the file you have downloaded at [2. Download the latest software for JUE-501/251] and click [Open].
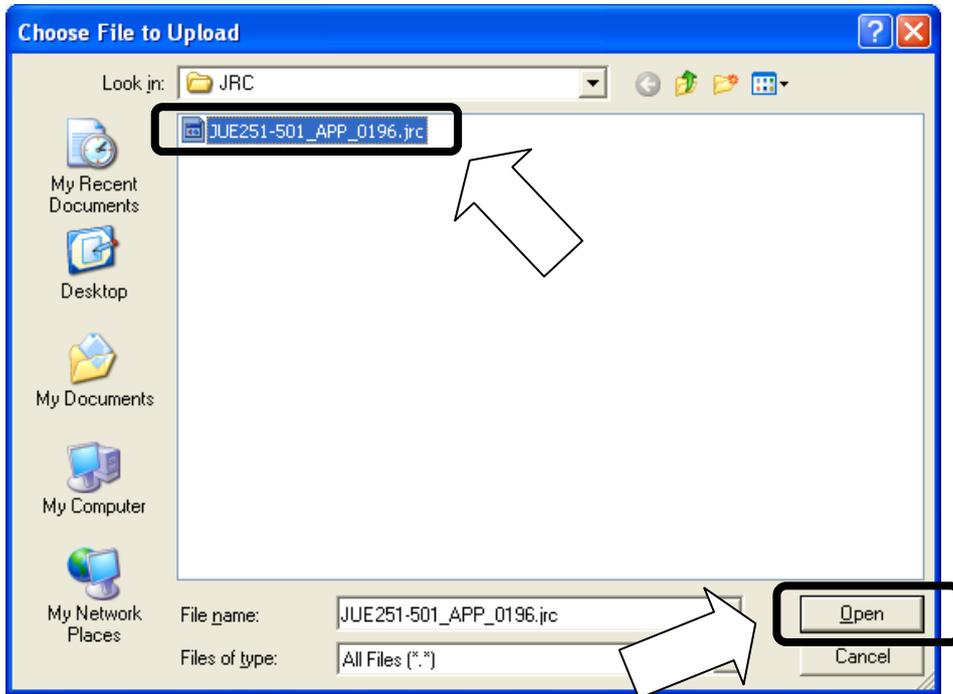
6. Click [Upload Start] button.
   ・ The [Upload Start] button changes into disable (gray).
   ・Wait until the update was completed and the result is printed.

http://www.jrc.co.jp/eng/product/marine/communication/index.html
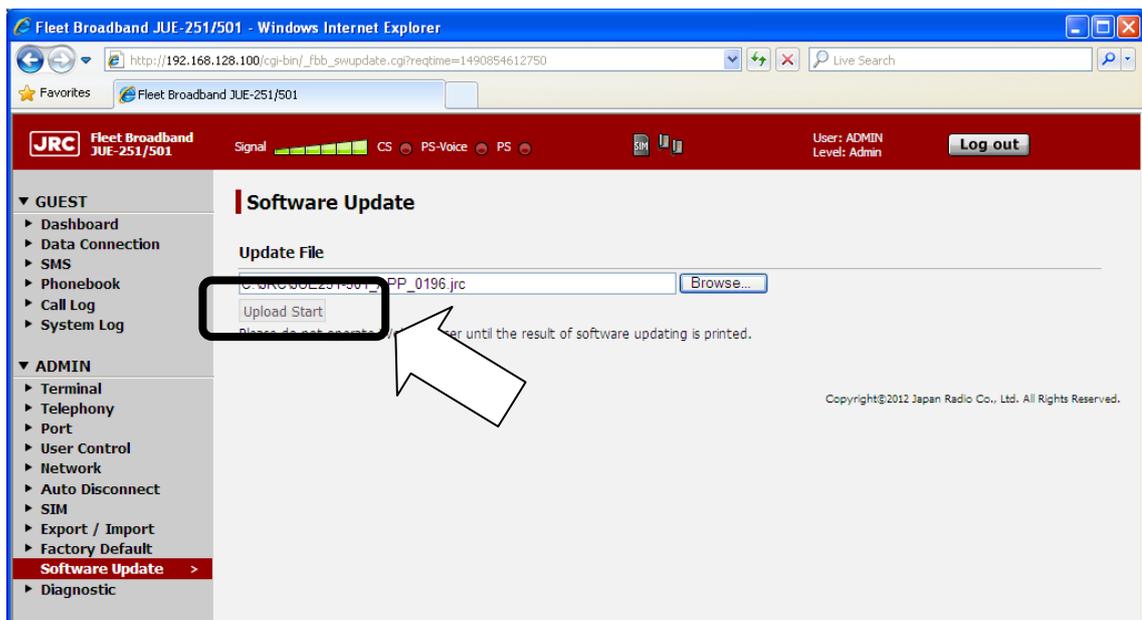
7. Check the result.

<table>
<tr><td>

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).

</td></tr>
</table>

・ [Success] is displayed when the update finished successfully. Then, reboot your system.

・ [Error] is displayed when the update has failed. Go to the next page.
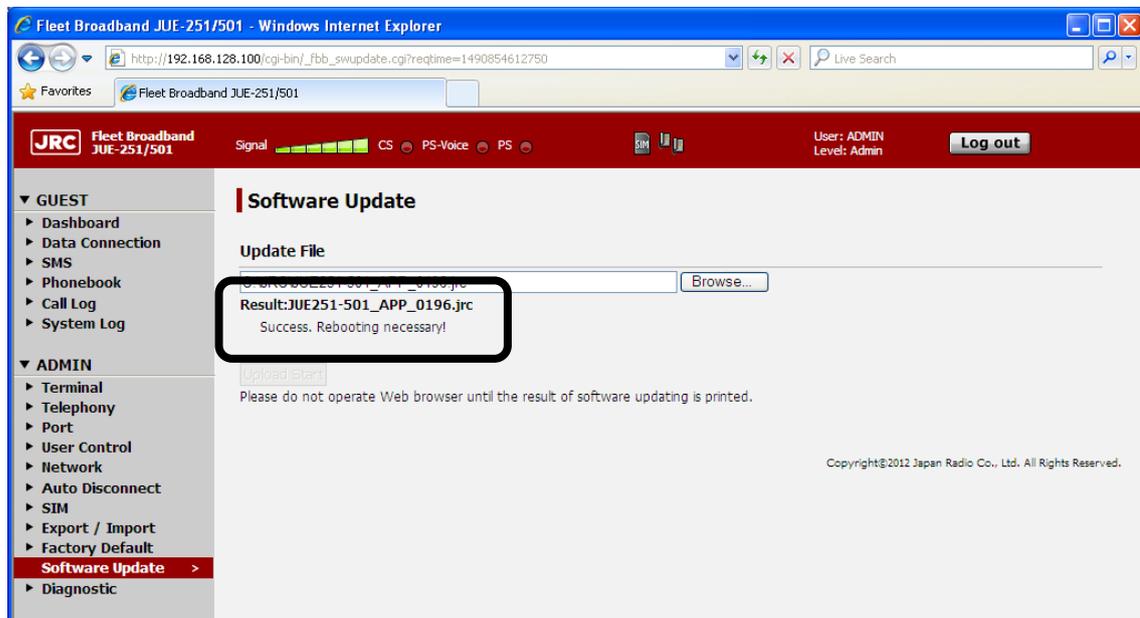
7.1. When software update is failed

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).
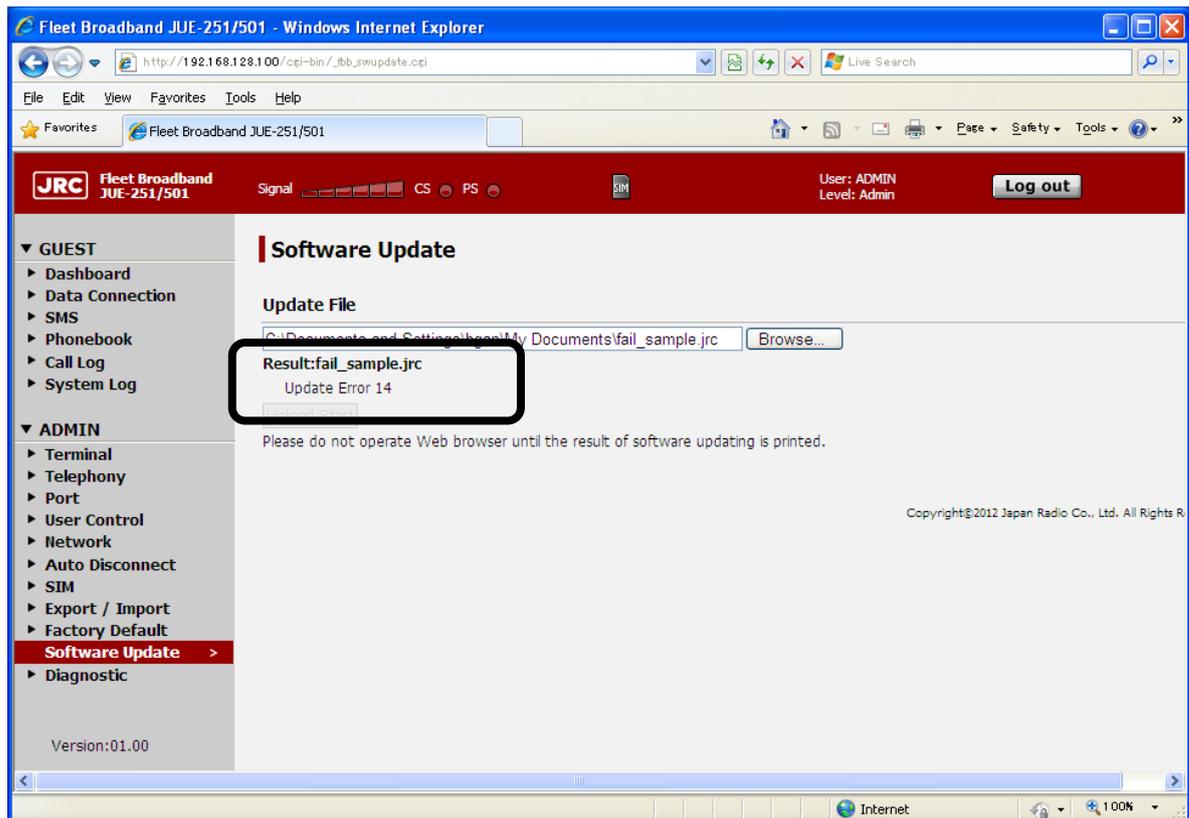
Table: Software updating error code

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.

7.2. Software downgrading procedure

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

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_0196.jrc].

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.

When the update is succeeded, BDE-App No. is changed to the same number as the [0196] of the software file [JUE-251-501_APP_0196.jrc]. Please also check ADE-Main is 21.01.

Unit Info menu screen screen
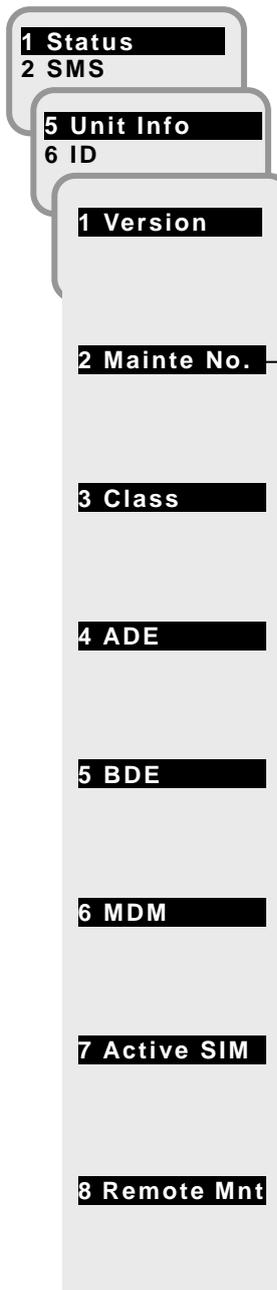
2. Mainte No. display screen

```
1 Status
2 SMS
5 Unit Info
6 ID
1 Version
2 Mainte No.        OK
3 Class
4 ADE
5 BDE
6 MDM
7 Active SIM
8 Remote Mnt
```

```
ADE-Boot:
0.1              …ADE Boot Maintenance No.
ADE-Main:
21.01            …ADE Main Maintenance No.
BDE-Boot:
01.00            …BDE Boot Maintenance No.
BDE-Safe:
01.03            …BDE Safe Maintenance No.
BDE-Main:
01.03            …BDE Main Maintenance No.
BDE-App:
01.96            …BDE Application Maintenance No.
```
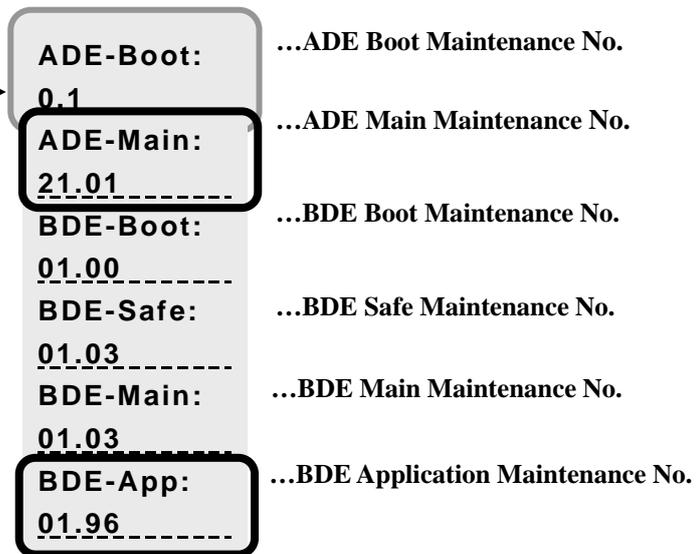
Inmarsat FB500/FB250 JUE-501/JUE-251 Software Version List (1/2)

No.	Ver.	Maintenance No.			Modification
11	01.96	ADE	Boot	0.1	No change
			Main	21.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.96	- Function improved: 1) Improved the issue that the SIM card cannot be recognized.
10	01.95	ADE	Boot	0.1	No change
			Main	21.01	- Function added: 1) Added function for calibrating ADE sensor. (The function is same as that of BDE-App 98.01)
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.95	- Functions added: 1) Supported MEAS (Middle East and Asia) satellite. 2) Supported Inmarsat FX (Fleet Xpress) service. 3) Added function to configure the operation mode for User LAN port. 4) Added new AT command "AT_IJCGDCONT" for PPPoE 5) Added function for calibrating ADE sensor. (The function is same as that of BDE-App 98.01) - Function improved: 1) Improved the issue that wrong APN User/Password is set in Web screen.
9	98.01	ADE	Boot	0.1	No change
			Main	21.01	- Function added: 1) Added the function for calibrating ADE sensor.
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	98.01	- Function added: 1) Added the function for calibrating ADE sensor.
8	01.78	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.78	- Functions added: 1) Supported the Non-SOLAS Voice Distress service. - Functions improved; 1) Improved the Alphasat satellite issue that the terminal status repeats "SAT SEARCH" and "REGISTERING" alternatively, does not become "CS PS READY" and communication (voice and data) is failed in the specific area by changing the satellite in EMEA ocean region from I4 satellite to Alphasat satellite. 2) Changed that the service user "NAFOZgdiKF" who used with the tentative countermeasure of the above Alphasat satellite issue cannot log-in to JUE-501/JUE-251 Web menu. 3) Changed the specification of the PPPoE function.
7	01.65	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.65	- Functions added: 1) Added the fucntion for Call Waiting and Call Holding of Telephone Supplementary Service. 2) Extended the function for Auto Answer for Voice/Audio call. - Functions improved; 1) Improved the voice quality of Multi-Voice function.

Inmarsat FB500/FB250 JUE-501/JUE-251 Software Version List (2/2)

No.	Ver.	Maintenance No.			Modification
6	01.57	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.57	– Functions added: 1) Added the fucntion to set Call Forwarding and Call Barring of Telephone Supplementary Service. 2) Added the function to get the file which is needed to diagnostic the JUE-501/251 collectively. – Functions improved; 1) Improved the issue that the packet cannot be sent to the air on Standard IP/Streaming IP communication infrequently.
5	01.45	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.45	– Functions added: 1) Added Multi-Voice function 2) Supported Mimstone IP telephone (model: IP255P) 3) Extended PPPoE function – Functions improved; 1) Improvement of functions for Xpress Link system of Inmarsat
4	01.33	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.33	– Functions added: 1) Added Handset functions for incoming calls 2) Extended PPPoE Function 3) Added some WEB menus – Functions improved; 1) Support and improvement of functions for Xpress Link system of Inmarsat 2) Improvement of the display-content and operability of some WEB menus
3	01.23	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.23	(1) In only a few BDE, 2-wire telephone outgoing call and ISDN incoming/outgoing call may be impossible, and improved it.
2	01.22	ADE	Boot	0.1	No change
			Main	20.01	No change
		BDE	Boot	01.00	No change
			Safe	01.03	No change
			Main	01.03	No change
			App	01.22	(1) Add Multi-Voice function with Vocality Basics Multivoice (2) Add Bridge mode for PS connection (3) Add User registration function for ISDN dialup from shore side (4) Improve Character checking function of APN (Access Point Name) user name and password for special characters
1	01.14	ADE	Boot	0.1	Initial release
			Main	20.01	Initial release
		BDE	Boot	01.00	Initial release
			Safe	01.03	Initial release
			Main	01.03	Initial release
			App	01.14	Initial release