



FCV1900 UPGRADE PROCEDURE

PROCEDURE TO UPGRADE THE SOFTWARE ON THE MAIN AND CTRL BOARD ON AN
FCV1900.

Required Items:

Windows PC

USB Flash Drive (1GB Minimum, FAT32, Formatted and Empty)

USB Cable (A-Type – Micro B)

Software

USB Hub



SOFTWARE OVERVIEW AND DIAGNOSTIC

NOTE: MAIN board cannot be downgraded from v2.01 and later to v1.13 and earlier.

Check software version in the Diagnostic Test Screen and compare with current available software.

- Press the [MENU/ESC] key and open the [Setting] tab.
- Select [System] and push [ENTER]
- Select [Tests] and push [ENTER]
- Select [Diagnostic Test] and press [ENTER]
- To exit: Press the [MENU/ESC] key three times, then [MENU/ESC] several times to close the menu.

Versions of MAIN board's Application and System software

All are included in Android OS.

The screenshot displays the following information:

Unit	Parameter	Value
Display Unit	Product Grade	FCV-1900
	MAC Address	00-40-9D-7D-9D-32
	IP Address	172.31.92.7
	CPU Status	24(24)
Signal Unit	ROM	OK
	RAM	OK
	MAC Address	00-D0-1D-0C-A5-31
	IP Address	172.31.92.6
	Power Voltage(12V)	12.1V
	Power Voltage(5V)	5.0V
	HF BVolt	120.9V
	LF BVolt	113.2V
	PWR Board Ver	0
	CTRL Board Ver	0
Fish Finder Sensors	ROM	OK
	RAM	OK

Software versions shown in the diagnostic screen:

- Application Ver : 0252434-XX.XX
- System Ver : 0252437-XX.XX
- Kernel Ver : 0252436-XX.XX
- U-Boot Ver : 0252435-XX.XX
- PIC Boot Ver : 1950143-XX.XX
- PIC Main Ver : 1950144-XX.XX
- Calib. : OK
- Application Ver : 0252425-XX.XX
- FPGA Ver : 0252426-XX.XX
- Boot Ver : 0252424-XX.XX
- Start Ver : 0252423-XX.XX
- Fan Speed : 8640.0rpm
- Application Ver : xxxxxxxxxxxx
- Boot Ver : xxxxxxxxxxxx

Annotations on the screen:

- "Versions of MAIN board's Application and System software" points to the Application, System, and Kernel versions.
- "All are included in Android OS." points to the U-Boot, PIC Boot, and PIC Main versions.
- "Versions of CTRL board software" points to the Application, FPGA, Boot, and Start versions.
- "Software that can be updated only in factory" points to the Boot Ver of the Fish Finder Sensors.
- "Versions of PIC microcomputer software" points to the PIC Boot and PIC Main versions.

At the bottom of the screen, there is a camera icon and a numeric keypad. Below the keypad, it says: "Press the camera icon key 3 times to capture. (1/99) Press the [MENU/ESC] key 3 times to exit. XX.XX: program version"

MAIN BOARD UPDATE PROCEDURE

Wipe the USB Drive.

Copy the following update software files to the root directory of the **blank** USB flash drive.

- [1] boot.crc
- [2] bootuppg.bin
- [3] emmcupdate.bin
- [4] system.crc
- [5] systemuppg.bin
- [6] ubootuppg.bin
- [7] uboot.crc

Connect the USB drive to the processor via the USB Hub, then power on the processor.

After startup the following message appears:

Rotate the knob of the control unit to select [YES] and push the knob.

Update Display Unit
system?

YES

NO

The following message will appear and remain on screen for approximately 3 minutes.

DON' T REMOVE A USB FLASH DRIVE!

```
=====OS Update=====
updating...
bootuppg.bin decrypt start...decrypt success
CRC check start...CRC check success. 100% finish.
systemuppg.bin decrypt start...
```

The percentage of progress is shown on the last line.

100% will appear within 2 minutes.

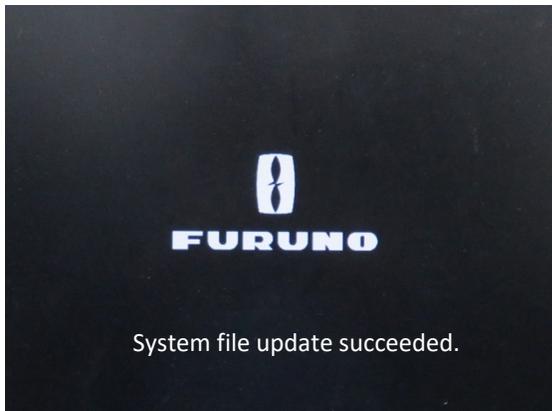
DON' T REMOVE A USB FLASH DRIVE!

```
=====OS Update=====
updating...
bootuppg.bin decrypt start...decrypt success
CRC check start...CRC check success. 100% finish.
systemuppg.bin decrypt start...decrypt success
CRC check start...CRC check success.
system file split start...100% finish.
updating is preparing...100% finish.
Ready to restart...
```

When this message appears, remove the USB flash drive, the USB Hub and the USB Cable for brightness control, confirm the control unit and RJB002 (If fitted) is properly connected.

Push the knob.

'Restart' appears and the processor will restart.



Remove the USB flash memory surely. The system starts updating after turning the power on again.

OK

```
=====OS Update=====
updating...
bootuppg.bin decrypt start...decrypt success
CRC check start...CRC check success. 100% finish.
systemuppg.bin decrypt start...decrypt success
CRC check start...CRC check success.
system file split start...100% finish.
updating is preparing...100% finish.
Ready to restart...
Restart...
```

After approximately 3 minutes, the update will be complete.

The display will turn black then the following message will appear. Note the warning.

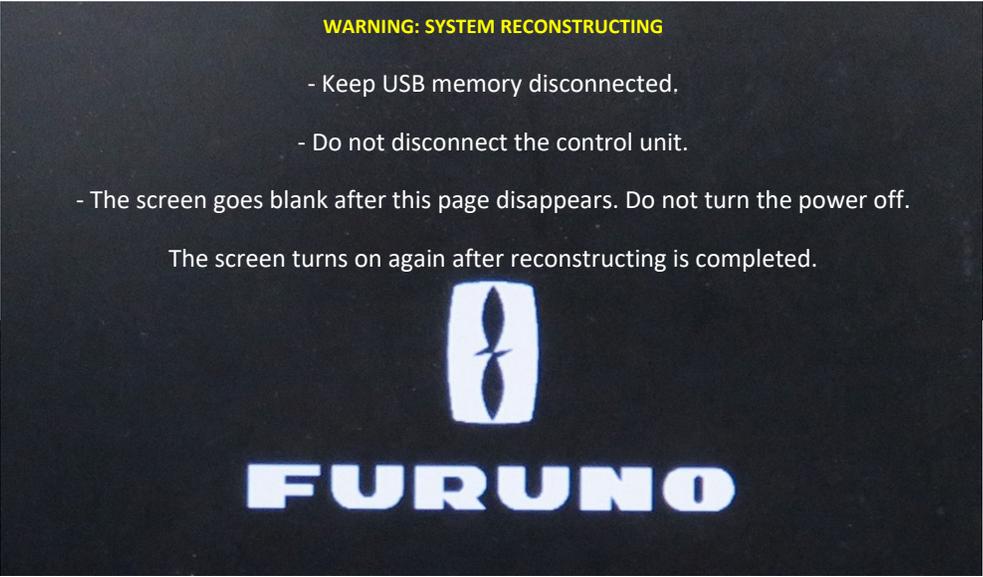
The screen will go black for approximately 4 minutes then will restart automatically.

UPDATE COMPLETE.

Compare software versions with start using diagnostic tool.

Ensure sure that the versions of the below software are updated.

Display unit : Application, System, Kernel,U-Boot



CTRL BOARD UPDATE PROCEDURE

Wipe the USB Drive.

Copy the following update software files to the root directory of the **blank** USB flash drive.

- [1] IDCODE.SYS
- [2] LOADER.BIN
- [3] MAIN.BIN

Connect the USB drive to the processor via the USB Hub, then power on the processor.

After startup the following message appears:

Rotate the knob of the control unit to select [YES] and push the knob.

Update Signal Unit
application?

YES

NO

Update starts automatically showing a percentage. Percentage will pause at 34%, continuing normally after a few minutes.

DON' T REMOVE A USB FLASH DRIVE!

```
=====Signal Unit Update=====
Network program loading(NWUPPG) version 4.08
Copyrighting(c) FURUNO ELECTRIC CO., LTD. 2002-2013 (T.K & T.Y & T.H)
```

```
>>my IPaddress=172.31.92.7
000 % connect
000 % Now erasing
updating...100 % finish
```

Processor automatically restarts.

```
>>my IPaddress=172.31.92.7
000 % connect
000 % Now erasing
updating...100 % finish
```

UPDATE
COMPLETE.

```
All files update completed!
Delete temporary files..
Delete completed.
Exit Update!
```

Compare software versions with start using diagnostic tool.

Ensure sure that the versions of the below software are updated:

Signal unit : Application, FPGA, Boot