ICS

NAV6 Display Upgrade Procedure

This document describes the procedure required to upgrade the software in NAV6 and NAV6plus display. The procedure applies to either:

> displays that have installed software earlier than Version 1.50,

or

> displays not connected to a NAV6 Receiver V2 or NAV6 eNAVTEX Receiver.

Note: If you have a NAV6 Receiver V2 or NAV6 eNAVTEX Receiver and your display software is Version 1.50 or higher you can upgrade the display software and NAVTEX database via the USB connector on the receiver. USB upgrade is not covered in this document.
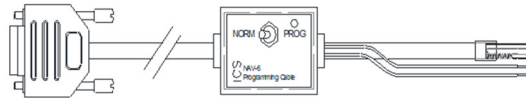
What you will need:

A PC, laptop or tablet running Windows XP or Windows 7 or 8.

A NAV6 Programming Cable.
NAV6 Display Programming Cable
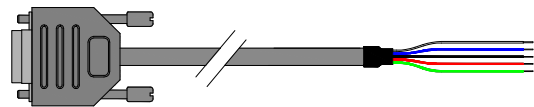
Older Version NAV6 Programming Cable

A Serial to USB convertor

(Required if your computer does not have a serial port).

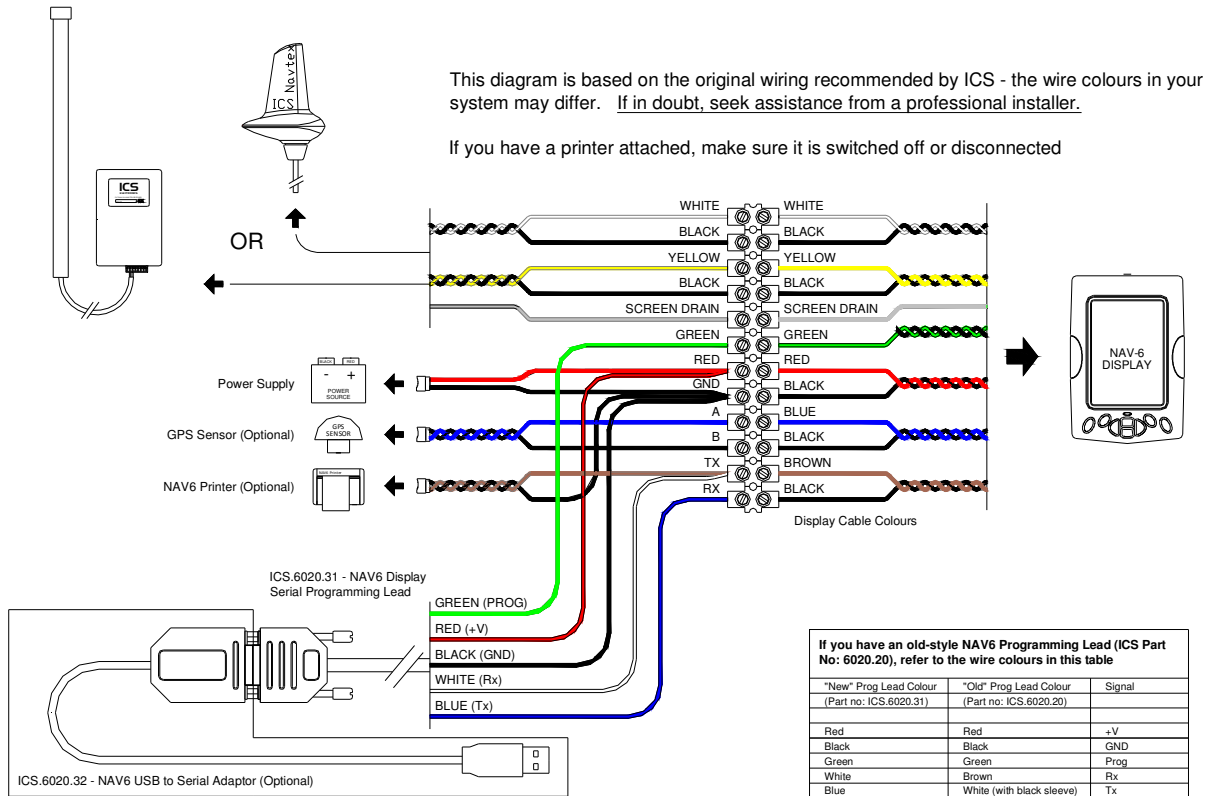A valid product Upgrade Code from your upgrade voucher.

Please note: Updating an older version NAV6 display is a technical task. Please read these instructions carefully. If you are unsure about any of the procedure, we would recommend you seek assistance from a professional Marine Electronics Engineer or contact support at ICS for more information.

Also note, the station database will be updated after the upgrade and any messages that were stored will be erased.

Upgrade Procedure:

1. Contact ICS by telephone or email and request an upgrade for your display. You will need to include details of the Upgrade Code from your voucher, the serial number of your NAV6/NAV6Plus Display, your contact details and your email address.

2. By return you will receive a NAV6 software upgrade email.

3. The email should contain an attachment 'NAV6Autoloader._exe_'. Save the attachment to a convenient folder on your PC, renaming the file to 'NAV6Autoloader.exe' as you do so.

4. Ensure the power to your NAV6 system is turned off.

5. Connect the computer that will be used to upgrade your display using the Programming Cable as shown in the diagram below appropriate to your installation. If you are using an older Programming Cable (with an integrated switch box), ensure that the 'PROG' switch is in the 'ON' position.

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Programming Cable wiring for NAV6 displays with software earlier than Version 1.5 using the 'fin' style active antenna or a NAV6A receiver (white box)

This diagram is based on the original wiring recommended by ICS - the wire colours in your system may differ.   If in doubt, seek assistance from a professional installer.

If you have a printer attached, make sure it is switched off or disconnected

OR

| Display Cable Colours		
WHITE	WHITE	
BLACK	BLACK	
YELLOW	YELLOW	
BLACK	BLACK	
SCREEN DRAIN	SCREEN DRAIN	
GREEN	GREEN	
RED	RED	
GND	BLACK	
A	BLUE	
B	BLACK	
TX	BROWN	
RX	BLACK	

NAV-6 DISPLAY

Power Supply
POWER SOURCE

GPS Sensor (Optional)
GPS SENSOR

NAV6 Printer (Optional)

ICS.6020.31 - NAV6 Display Serial Programming Lead

GREEN (PROG)
RED (+V)
BLACK (GND)
WHITE (Rx)
BLUE (Tx)

ICS.6020.32 - NAV6 USB to Serial Adaptor (Optional)

If you have an old-style NAV6 Programming Lead (ICS Part No: 6020.20), refer to the wire colours in this table

"New" Prog Lead Colour (Part no: ICS.6020.31)	"Old" Prog Lead Colour (Part no: ICS.6020.20)	Signal
Red	Red	+V
Black	Black	GND
Green	Green	Prog
White	Brown	Rx
Blue	White (with black sleeve)	Tx

Programming Cable wiring for NAV6 displays with software earlier than Version 1.5 using the a V2 or eNAVTEX antenna replacement (black box)

If you have an old-style NAV6 Programming Lead (ICS Part No: 6020.20), refer to the wire colours in this table

"New" Prog Lead Colour (Part no: ICS.6020.31)	"Old" Prog Lead Colour (Part no: ICS.6020.20)	Signal
Red	Red	+V
Black	Black	GND
Green	Green	Prog
White	Brown	Rx
Blue	White (with black sleeve)	Tx

Printer and GPS options, NAV6plus only
GPS SENSOR

If a printer is attached, this must be disconnected before connecting the progamming lead

All images shown for illustration only
Not to scale
Wire colours shown refer to Display Unit

NAV6 or NAV6plus Display Unit

Conductor		
Screen		
White / Black	Black	
	White	
Yellow / Black	Not connected	
	Not connected	
Green (Black unused)	Green	
Blue / Black	Blue	
	Black	
Brown / Black	Brown	
	Black	
Red / Black	Black	
	Red	

Termination Link

1	ANT
2	GND (ANT)
3	DISP A
4	DISP B
5	TERM
6	GND
7	RS232 Tx
8	RS232 Rx
9	NMEA GND
10	NMEA A
11	NMEA B
12	PRN Tx
13	PRN GND
14	ISP
15	V-
16	V+

USB

ICS.6020.31 - NAV6 Display Serial Programming Lead

Black (GND)
White (Rx)
Blue (Tx)

POWER SOURCE

ICS.6020.32 - NAV6 USB to Serial Adaptor (Optional)

This diagram is based on the original wiring recommended by ICS - the wire colours in your system may differ.   If in doubt, seek assistance from a professional installer.

7. Switch on the power to the NAV6 display.

8. After a couple of seconds the red LED on the NAV6 Display should illuminate and stay on – the NAV6 Display screen should remain blank.

9. Now run the NAV6Autoloader by right clicking on it and selecting 'run' from the menu or double clicking on it.
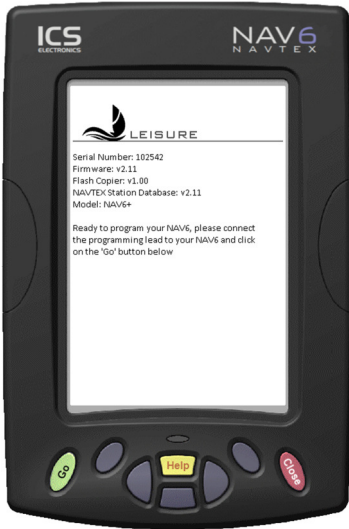
10. Verify that the serial number displayed in the NAV6Autoloader is correct.

11. Verify that the Model displayed in the NAV6Autoloader is correct.

12. Click on the green 'Go' button. The autoloader will then detect your NAV6 Display and load the new Software. The programming will typically take less than a minute, after which time the message "Programming completed successfully" will be displayed on the NAV6Autoloader.

13. Switch off the power to the NAV6 system.

14. Disconnect and remove the programming cable and restore the NAV6 Display connections to their original configuration.

15. Switch on the power to the NAV6 system.

16. The display should start up normally. Verify that the software version (displayed on the start-up screen) is correct.

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