



# Addendum I

## Operation Instructions for X125, X126DF, X135 and X136DF

This addendum addresses the manual for the units listed above (part 988-0151-171). Since the manual was written, several changes have occurred to the described units. These changes will affect the installation and operation of your unit, and include:

### **Speed/Temperature Sensors**

- Please disregard the temperature sensors list on page 20 of your unit's manual (as well as the chart on page 21). Your unit requires an analog temp sensor, so it can only recognize the TS-1BL. However, the Sonar socket on your unit is designed to read only one temperature signal. Since your transducer contains a built-in temp sensor, attaching the TS-1BL to your unit's Sonar socket will override the information provided by the transducer. If you are using a shoot-thru-hull installation or for some other reason prefer to measure temperature somewhere other than at the transducer's face, see the accessory ordering information inside the back cover of the manual.
- These units use the SP-BL speed sensor, which functions exactly like the SP-X sensor described on page 22 of your unit's manual. (Again, disregard the drawing on page 21.) This speed sensor is optional for the X125 and X135; it comes packed with the X126DF and X136DF. The SP-BL should be directly connected to the Sonar socket on the back of the unit. A Y-adaptor built into the SP-BL cable allows you to connect the transducer. The figures on pages 5-6 of this addendum show proper connections.

### **Power and Cable Connections**

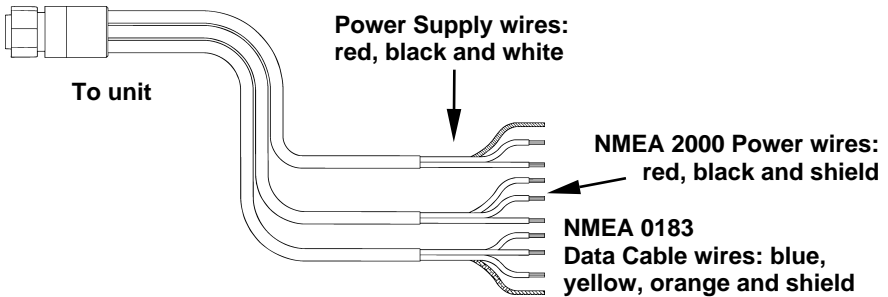
- These units now ship with a power cable significantly different from the one shown on pages 24 and 25 of the manual. Details on this new cable and how it affects your power connection appear in this addendum beginning on page 2.

### **NMEA 2000 Network Connection**

- The X135 and X136DF can connect to a NMEA 2000 network buss. Connecting to a NMEA 2000 network allows multiple sonar units to receive information from a single sensor. It can also let a single sonar unit receive information from multiple sensors.
- Detailed instructions for powering a NMEA 2000 buss and connecting one of these units to a NMEA 2000 network appear in this addendum.

## Power and Cable Connections

Your unit comes with a power/data cable that splits into three ends, each with several exposed wires (shown in the following figure). The end with 4 wires (blue, yellow, orange and shield) is a Data cable that connects to a NMEA 0183 interface. The end with three wires (red, black and shield) is a power cable that connects to a NMEA 2000 buss. The thicker three-wire cable (red, black and white) is the Power Supply for your unit (the white wire is unused).



The Power/Data cable for this unit.

Your unit will not use all of these wires. The following segments include instructions for installing all the wires that you *will* use with this unit.

### Caution:

*All of the wires in the power/data cable have bare ends for easier installation. The bare ends on any **unused** wires could cause an electrical short if left exposed. To prevent this, you should cover the individual wire ends – either by capping them with wire nuts or wrapping them with electrical tape. (You should cut off the bare wire before taping off the ends.)*

### Powering a NMEA 2000 Buss – X135 and X136DF Only (NMEA 2000 Power cable)

A NMEA 2000 buss must be connected to a power source to operate. If you have a pre-existing NMEA 2000 installation, it may already be connected to another power source. *If* your NMEA 2000 buss is already powered, you can ignore the NMEA 2000 Power cable. **Never attach two power sources to a single NMEA 2000 buss.**

If you do need to power your NMEA 2000 buss, attach the NMEA 2000 Power cable to your boat's battery just as indicated in the following segment for connecting your unit's Power Supply cable. The NMEA 2000 Power cable's red wire should be attached (with provided 3-amp fuse) to the boat battery's positive terminal, and the NMEA 2000 Power cable's black and shield wires should both be attached to the battery's negative terminal.

**NOTE:**

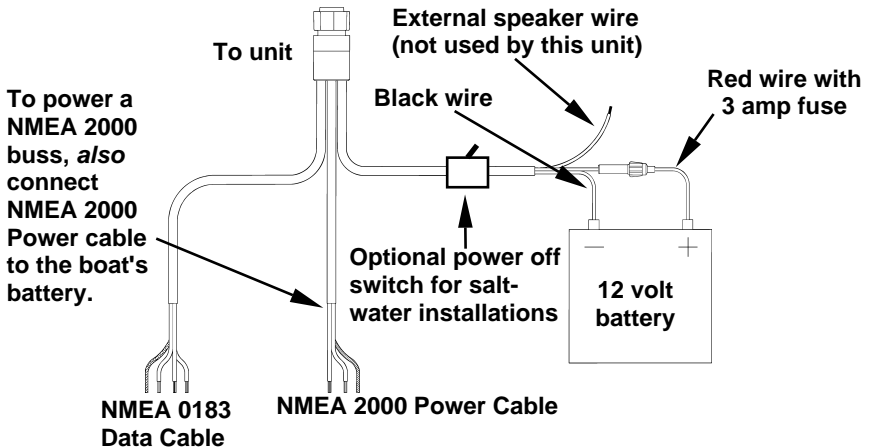
If your boat does *not* have a NMEA 2000 buss, **do not connect the NMEA 2000 wires!**

**Powering Your Unit  
(Power Supply cable – red and black wires)**

The unit works from a 12-volt battery system. For the best results, attach the power cable directly to the battery. You can attach the power cable to an accessory or power buss, however you may have problems with electrical interference. Therefore, it's safer to go ahead and attach the power cable directly to the battery.

If possible, keep the power cable away from other boat wiring, especially the engine's wires. This will provide the best isolation from electrical noise. If the cable is not long enough, splice #18 gauge wire onto it. The power cable has two wires, red and black. Red is the positive lead, black is negative or ground. (There is also a white wire to power an optional external speaker for some units.) Make sure to attach the in-line fuse holder to the red lead *as close to the power source as possible*.

For example, if you have to extend the power cable to the battery or power buss, attach one end of the fuse holder directly to the battery or power buss. This will protect both the unit and the power cable in the event of a short. It uses a 3-amp fuse.



**Power connections for this series of Lowrance sonars.**

**NOTE:**

If you're powering a NMEA 2000 buss, you will attach *both* the NMEA 2000 Power cable *and* the unit's Power Supply cable to the boat's battery. To attach the NMEA 2000 Power cable, connect the red wire to battery's + and black and shield wires to battery's -.

**WARNING:**

This product *must* be independently fused with the enclosed 3-amp fuse (or equivalent), even if you connect to a fused accessory or power buss.

*If a malfunction happens inside the unit, extensive damage can occur if the enclosed fuse is not used. As with all electrical devices, this unit could be damaged to a point that it is unrepairable and could even cause harm to the user when not properly fused.*

**CAUTION:**

*Do not use this product without a 3-amp fuse wired into the power cable! Failure to use a 3-amp fuse will void your warranty.*

This unit has reverse polarity protection. No damage will occur if the power wires are reversed. However, the unit will not work until the wires are attached correctly.

**NMEA 0183 Cable Connections**

NMEA is a standard communications format for marine electronic equipment, mainly navigation equipment. Your sonar unit cannot currently communicate with the NMEA 0183 format, so the Data cable wires will not be used.

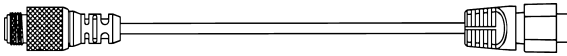
**NMEA 2000 Network Connection**

NMEA 2000 is a new buss network specifically designed for boats. This is a very young industry standard and, at the time of printing, few boats being built now have a NMEA 2000 buss installed. Over the next few years, however, NMEA 2000 will become much more common. To help you get the most out of this technology, the X135 and X136DF are designed to work with a NMEA 2000 network as soon as it becomes available.

**Connecting to a NMEA 2000 Network**

The X135 and X136DF can be connected to a NMEA 2000 buss, receiving sensor information from any Lowrance units attached to the buss. Contact Lowrance Electronics for a NMEA 2000 buss adapter cable if you would like to do this. Simply attach the adapter cable's manual locking collar connector to the Network port on the back of the sonar unit and attach the other to an available port on the NMEA 2000 buss, as shown in the following figures.

To NMEA 2000 network port

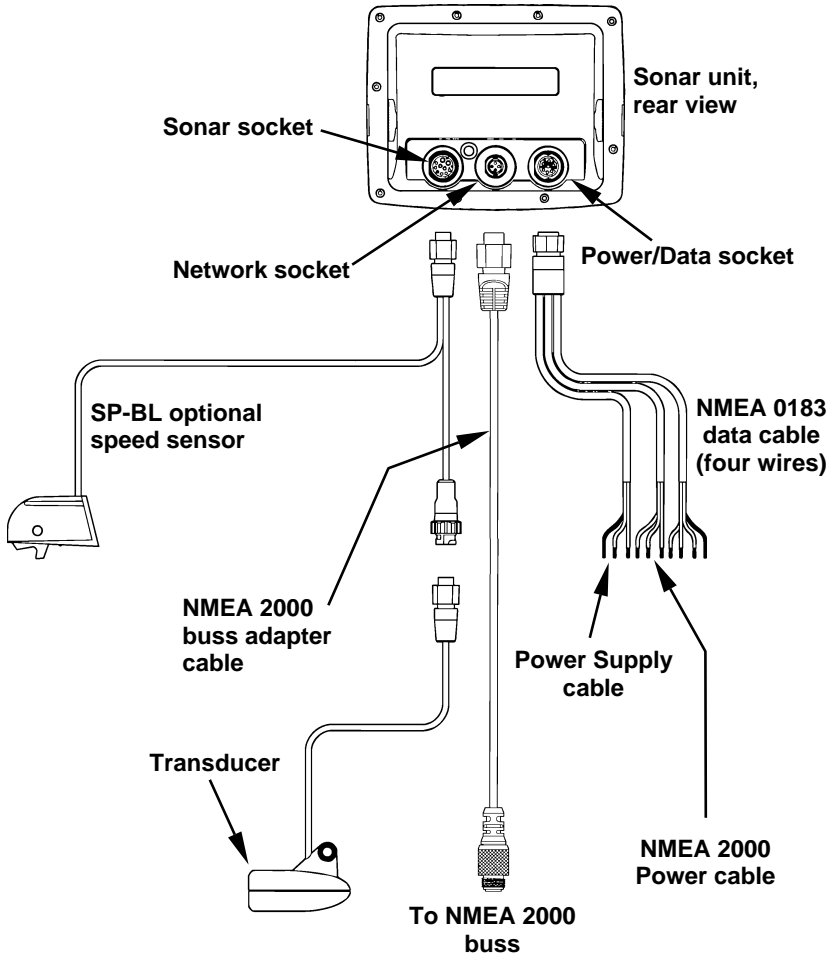


To sonar unit's Network socket

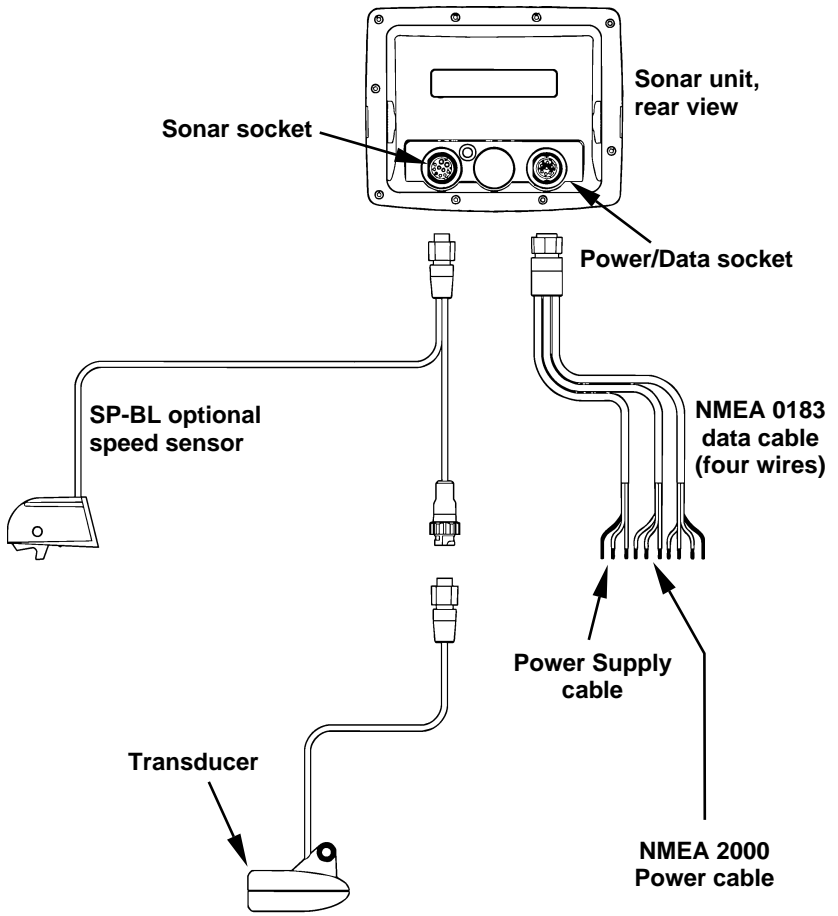
Sonar unit connection to NMEA 2000 buss.

As soon as the unit is connected to the network, it will begin receiving shared information. Please note that the buss *must* be powered to operate. (For instructions on powering a NMEA 2000 buss, see pages 2 and 3 of this addendum.)

## Power and Cable Connections



Cable connections for the X135 and X136DF.



**Cable connections for the X125 and X126DF.**

# Notes

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