CruzPro®

D60

1000 Foot
DSP Depth Sounder
With Keel Offset and Alarms

Setting Display Damping

While viewing Depth press and hold the ▲ and ▼ keys keys for ten (10) seconds until you hear a long beep. The display damping value is shown. Use the ▲ and ▼ keys to change the value and press the ✚ key to save your entry. A larger value of damping will slow down the flickering of the displayed digits but result in a slower response to depth changes.

The display damping limits are 5 to 20 with 10 being the default value.

Introduction

The D60 is a compact digital depth gauge. The D60 uses Digital Signal Processing (DSP) to reliably display water depth from 1.2 foot (0.3 Metre) to 1000 feet (365 Metres). Depth can be displayed in feet, metres or fathoms. Variable display damping is provided.

The D60 has programmable shallow, deep and anchor drag alarms built-in and can display the depth in feet, metres or fathoms. A keel offset from -20.0 to +20.0 feet can be entered so the D60 shows the depth below the surface, below the keel or below the transducer.

Five levels of backlighting can be selected for nighttime viewing and all setup constants are saved in a nonvolatile memory.

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- 4 & 8 Channel NMEA Combiners/RS-232 Convertors
- Engine/Exhaust Temp. Monitor & Digital Pyrometer
- NMEA 0183 Remote Data Repeater/w 4 Input Channels

Specifications

Power supply: 9.5 to 16.0 VDC, .035 amps nom.

Operating temperature: 32 to 122 F (0 to 50 C)

Depth Range: 1.2 feet (0.3 Metre) to 1000 feet (365 Metres)

Transducer Frequency: 120 kHz

Size: 2.5" dia X 4.1" deep (61mm x 104 mm)

Deep/Shallow Alarms: 0.0 to 1000 feet (365 Metres)

Keel Offset: -20.0 to +20.0 feet (+/- 7 Metres)

Display: 4 digits. Liquid Crystal Display. Five levels of backlighting.

Setting Keel Offset

While viewing Depth, press the ▼ and ✚ keys for ten (10) second until you hear a long beep. The keel offset will be displayed. Use the ▲ and ▼ keys to change the value and press the ✚ key to save your entry. The keel offset will be added to the displayed value of the depth. A negative keel offset is used to enable the D60 to display depth below the keel or transducer. A positive keel offset enables you to display actual water depth when the transducer is placed below the surface level by up to 20 feet.

Setting Anchor Drag Alarm

After anchoring, set the shallow alarm a few feet more shallow than the actual displayed depth. Similarly set the deep alarm a few feet deeper than the actual displayed depth. Make allowances for local tidal changes to prevent false alarms.

Turning the Alarms ON/OFF

While viewing Depth, press the ▲ key for 1/2 second to turn the alarms ON, or the ▼ key for 1/2 second to disable the alarms.

Installation

Before starting the installation, please read this entire section first. Be sure to install the bulkhead gasket before you install the instrument. Finger tighten the screws that mount the instrument bracket - do not use tools.
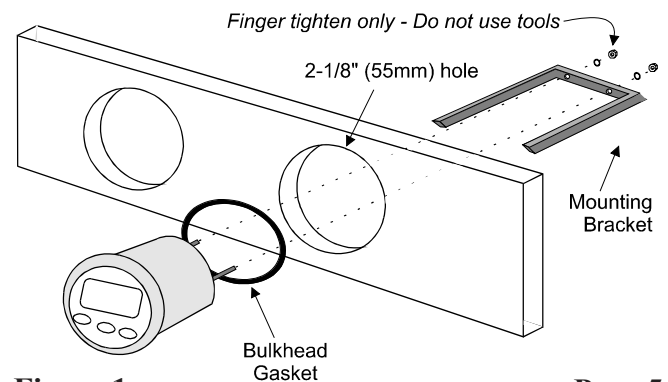

Finger tighten only - Do not use tools

2-1/8" (55mm) hole

Mounting Bracket

Bulkhead Gasket

Figure 1

Selecting Feet/Metres/Fathoms

While viewing Depth or Fish display quick press both the ▼ and ▲ keys simultaneously. Each time you do this, the units will switch from Feet to Metres to Fathoms to Feet, etc. The alarm values and keel offset will also change automatically to reflect the new units.
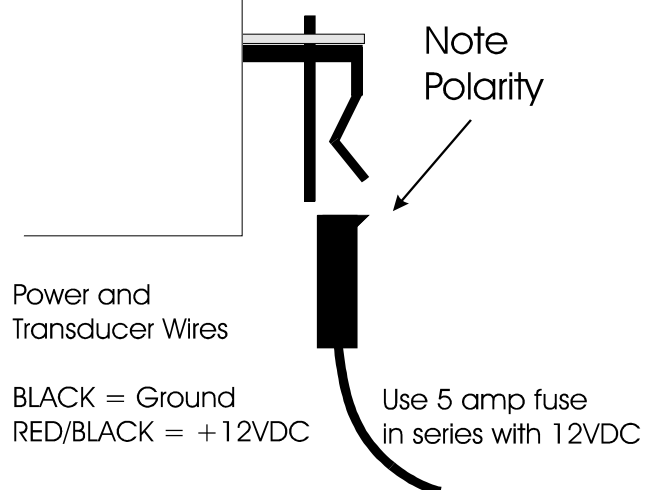

IMPORTANT

Note Polarity

Power and Transducer Wires

BLACK = Ground
RED/BLACK = +12VDC

Use 5 amp fuse in series with 12VDC

Figure 2

Mounting and Wiring

● Drill a 2-1/8" (55mm) hole where you want to mount the instrument (Fig. 1).

● Bring the transducer/power cable out of the mounting hole and plug the connector onto the instrument circuit board as shown in figure 2 (page 7). ***It is difficult but possible to plug the connector backwards if forced - observe polarity.*** *Use a 5 amp fuse on the power line as shown in Fig 2.*

● Carefully check all your wiring against those shown in figure 2. If everything is wired correctly you can mount the D60 in the instrument hole. Be sure the bulkhead gasket is in place and use only finger tension to tighten the bracket hold-down nuts *Do not overtighten the bracket or you may damage the case - do not use tools to tighten the nuts.*

Setting Shallow and Deep Alarms

While viewing Depth, press the ▼ key for 10 seconds to view/set the deep alarm. You will hear a long beep and the deep alarm value is displayed. Use the ▲ and ▼ keys to change the value and press the ✚ key to save your entry.

To view/set the shallow alarm, press the ▲ key for 10 seconds to view/set the shallow alarm. You will hear a long beep and the shallow alarm value is displayed. Use the ▲ and ▼ keys to change the value and press the ✚ key to save your entry.

Mounting the Transducer

The instruction for mounting the transducer are provided separately with the transducer and depends upon the type of transducer you selected. The RED wire should be connected to +12VDC. The BLACK wire connects to power ground. The combination transducer/power connector is keyed with a ridge that locks the female connector in place. It is difficult *but possible* to force the connector onto the matching male plug backwards. Be careful to plug in the connector as shown on page 7 or you will damage the electronics.

Operation

Key Functions

The ▼ ✚ ▲ keys are used to set backlight levels, select Feet/Metres/Fathoms, and to adjust keel offset and alarm depths. After changes are made, the new information is automatically saved to memory.

Backlight Intensity

Press the ✚ key for 1/2 second to adjust the backlight level for nighttime viewing. Each time you press the "+" key the backlight level will change: 1, 2, 3, 4, OFF, 1, 2, ... etc.