

Chirp 3260 Hardware Installation Manual

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Revision History

Document Revision	Date	Description	Author
1	June 24, 2009	Initial Release	Darren Gibson
2	Feb 2011	Connector Panel updates	Rob Cooney / DKG
3	Feb 2015	Overall updates	Darren Gibson



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1 INTRODUCTION

The Chirp 3260 Echosounder is a high output power echosounder that can be used for full ocean depth surveys and sub-bottom profiling. The standard configuration is dual channel (3.5kHz, 50ohm, 10kW and 12kHz, 200ohm, 2kW). This manual provides all information necessary for installation of the echosounder.

1.1 Deliverables

The following is a list of standard deliverables for a Chirp 3260 Echosounder. Any custom placed orders such as transducers, extension cables, junction boxes, or additional software will be listed separately on the packing slip.

- ! Chirp 3260 Echosounder
- ! AC Power Cable
- ! USB Cable
- ! SounderSuite Software CD-ROM
- ! Manuals

1.2 Contact Information

If there are any problems with the contents of the Chirp 3260 delivery please contact:

In Canada and International
Knudsen Engineering Limited
10 Industrial Road
Perth, Ontario, Canada
K7H 3P2
(613) 267-1165
sales@knudseneng.com

In the U.S.
Knudsen Systems Inc
1 Bridge Plaza, Suite 104A
Ogdensburg, NY
13669
(315) 393-8861
judith@knudsensystems.com

1.3 Warranty Statement

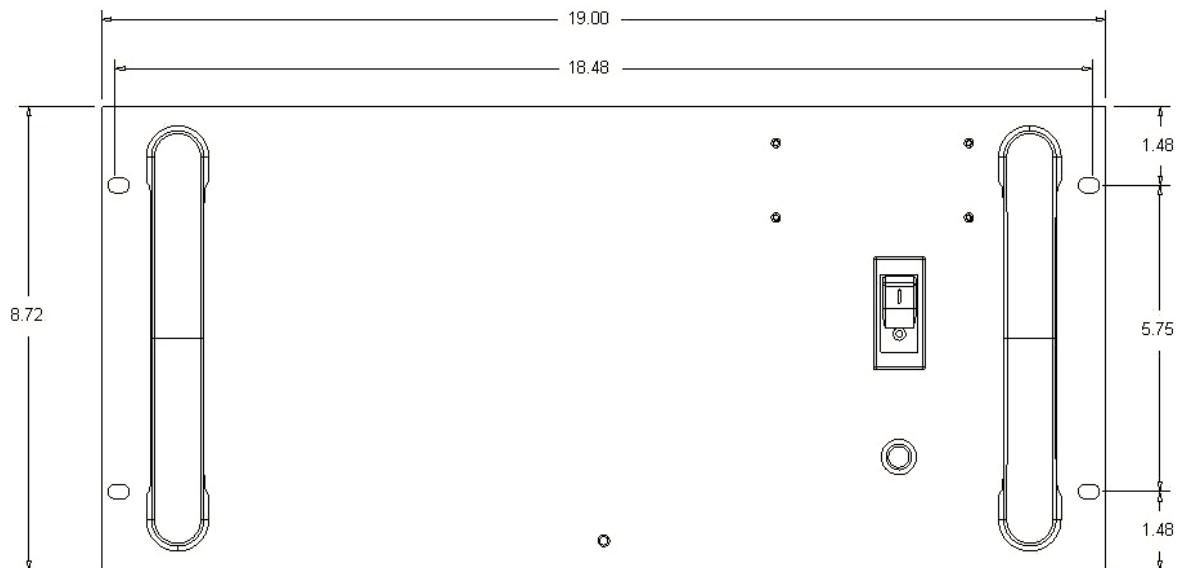
All Knudsen Engineering Limited equipment is guaranteed under warranty against defects in materials or workmanship for one year from date of purchase under normal operation. Products that are found to be defective when returned to Knudsen Engineering Limited within the warranty period will, at KEL's option, be repaired or replaced. Warranty covers parts and labour, but not shipping. Warranty does not cover repair, maintenance or adjustment to equipment for reasons of accident, abuse, neglect, misuse, improper environment, or faulty installation.

2 INSTALLATION

This section provides installation information for the Chirp 3260 Echosounder.

2.1 System Dimensions

The Chirp 3260 is housed in a standard 19", 5U rackmount case. Due to the weight of the system it is recommended that sliding rails or support rails be used as part of the installation. Final fastening points of the Front Panel are shown in the drawing below.

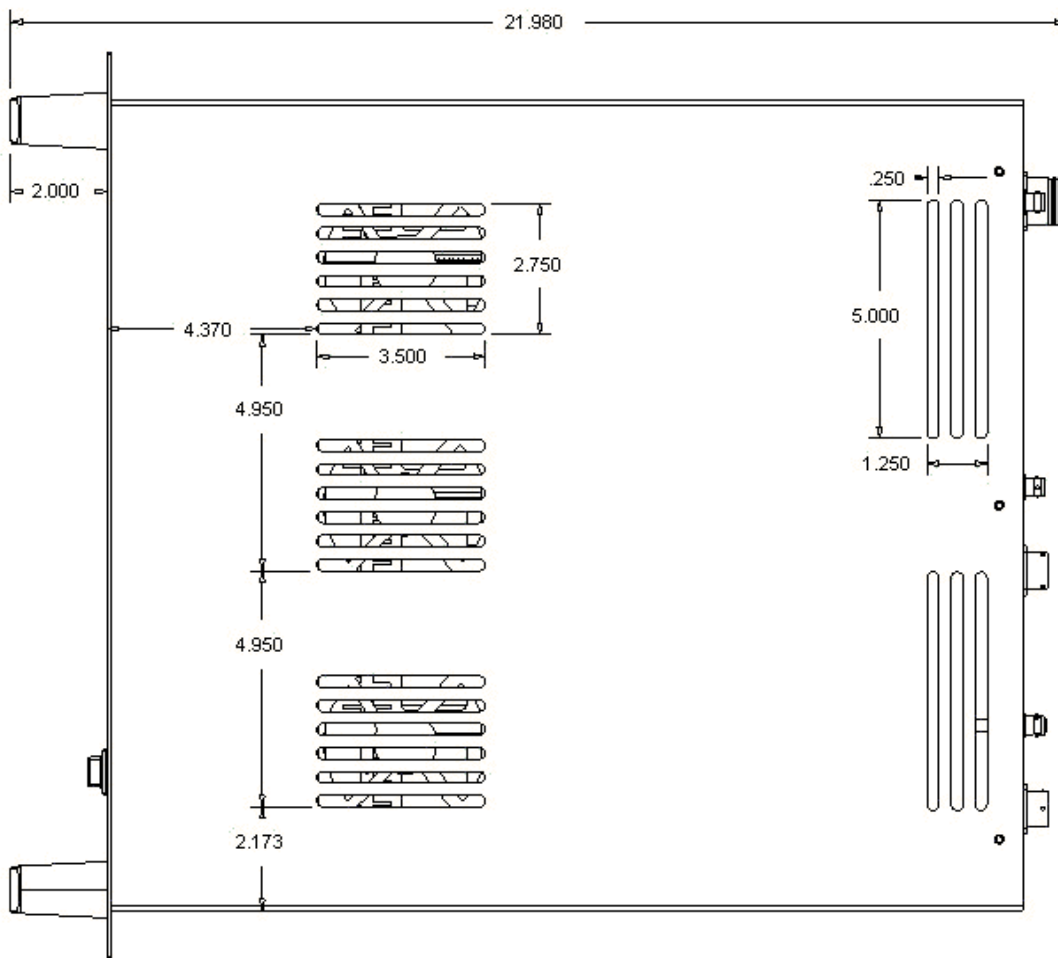


CHIRP 3260 Front Panel Mounting Dimensions

2.2 System Clearances

The following image shows the necessary clearances for the Chirp 3260 handles and rear panel connectors. Please allow sufficient clearance for cable installations with proper bend radius.

For proper cooling and airflow it is recommended that a minimum 1U gap be left directly above the Chirp 3260. The image below shows the locations of the system cooling fans and air intake slots.



CHIRP 3260 Top Panel Dimensions showing Fan locations

2.3 System Connection

2.3.1 Peripherals

All Chirp 3260 peripheral equipment (GPS, Heave Compensator, etc) are to be connected directly to the host PC. The configuration (baud rate, parity, start/stop bits, etc) of each peripheral is handled using the EchoControl Client software application.

2.3.2 Data Logging

Same as the peripherals, any connection to an external data logger is done through the PC. There is also the capability to run the data logging package on the same host PC that your EchoControl software is operating on.



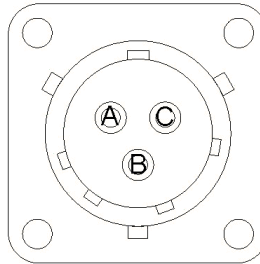
2.4 Connector Panel Overview

The connector panel of the Chirp 3260 is located on the rear of the system. The following is a breakdown of the individual connections, their functions, as well as any wiring or mating connection information.

2.4.1 Channel 1 Transducer

The Transducer connection transfers the high voltage transmit output signal to the transducer as well as the return echo to the echosounder. **CAUTION:** Make sure that the Chirp 3260 is not transmitting while connecting or disconnecting the transducer(s) to the Transducer connector.

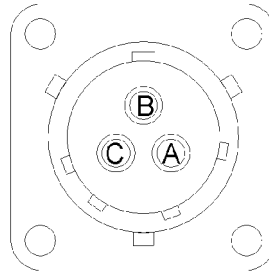
Part Number: MS3470L12-3S
 Mating Connector: MS3476L12-3P (or equivalent)
 Preferred Cable: DSS-3
 A - HIGH
 B - SHIELD
 C - LOW



2.4.2 Channel 2 Transducer

The Channel 2 Transducer is the same as the Channel 1 Transducer connection with the exception that it is offset to eliminate the risk of connecting to improper transducer.

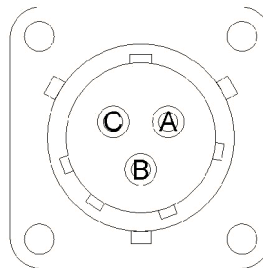
Part Number: MS3470L12-3SY
 Mating Connector: MS3476L12-3PY (or equivalent)
 Preferred Cable: Transducer Dependent
 A - HIGH
 B - SHIELD
 C - LOW



2.4.3 AC Input

The Chirp 3260 needs to be powered from an AC source. The voltage range is 90-132 / 180 - 264 AC (auto selectable) with a frequency range of 47-63 Hz.

Part Number: MS3470L12-3P
 Mating Connector: MS3476L12-3S (or equivalent)
 A - HIGH
 B - Ground (connected to ground stud internally)
 C - LOW



2.4.4 Int / Ext Rx Switch

The Internal (Int) or External (Ext) Receive (Rx) switch will toggle whether the receive signal is obtained from the Chirp 3260 or from an external source (used in conjunction with the Ext Rx Input).

2.4.5 Ext Rx Input

If the Chirp 3260 Int/Ext Switch is placed in Ext (External) mode then the external receive signal should be connected to this BNC.

2.4.6 Analog Output

The Analog Output BNC provides a 5V analog signal referenced to circuit/chassis ground. This is the received signal from the transducer after preamplification, analog gain and anti-alias bandpass filtering, immediately prior to digitization. It is provided for diagnostic use during maintenance and service only.

2.4.7 Sync In / Out

The Sync In BNC connection can be used to sync the Chirp 3260 outgoing ping with another device. Under the System Menu of the EchoControl Client you will find an option to change the Sync Mode from Internal to External. Once set to External the system will look for a high-to-low-to-high transition with a low cycle hold time of at least 1ms but less than 50ms (min ping rate) on the Sync In BNC located on the system connector panel. The echosounder transmit will occur on the rising edge on the sync signal. With the Sync Mode set to Internal the Sync Out BNC provides a similar signal on each ping interval.

2.4.8 USB Interface

The USB interface provides communication to and from the Chirp 3260 and the host PC. It is a full speed 2.0 (12Mbps) connection. It mates with a standard “B” type USB cable.

Part Number: USBBFTV22N

Mating Cable: D219-05424 (provided with shipment)

