

ROVer Troubleshooting Manual

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Revision History

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1 INTRODUCTION

1.1 About this manual

Troubleshooting procedures and tests in this manual will help isolate a problem to a specific source for correction. Once you have determined the cause of the malfunction then contact the factory (details below) for the appropriate repair or replacement procedure.

1.2 Technical Support

For technical support or to report problems please contact your local representative or:

Technical Support
Knudsen Engineering Limited
10 Industrial Road
Perth, Ontario, Canada
K7H 3P2

Voice: (613) 267-1165 8:30 am to 5:00 pm E.S.T. Core Hours

Fax: (613) 267-7085

E-Mail: support@knudsenengineering.com

Website: <http://knudsenengineering.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, labour, and return shipping to customer. Warranty does not cover repair, maintenance or adjustment to equipment for reasons of accident, abuse, neglect, misuse, improper environment, or faulty installation.

2 SYSTEM STARTUP

The following are some of the possible issues that may arise during the system startup.

2.1 System Appears Dead

Possible causes:

- 1) Confirm that the DC power cable is properly connected to J1 of echosounder.
- 2) Confirm no damage to the DC power cable and that the proper voltage is present.
- 3) Check that internal fuse on the power distribution module is not blown.

2.2 System Resets

Possible causes:

- 1) Non stable power being supplied to the echosounder.
- 2) Problem with SSD or SSD cable (IDE).

2.3 Operating System Will Not Start

Possible causes:

- 1) Non stable power being supplied to the echosounder.
- 2) Problem with SSD or SSD cable (IDE).

2.4 EchoControl Software Not Responsive

Possible causes:

- 1) No communication with echosounder processor module.
- 2) Failure of internal power cable.
- 3) USB failure of built in computer.

3 SYSTEM COMPUTER

3.1 Operating System Will Not Start

Possible causes:

- 1) Non stable power being supplied to the echosounder.
- 2) Problem with SSD.

3.2 No Network Communication

Possible causes:

- 1) External network cable is damaged or disconnected.
- 2) Cable from J3 to single board computer is damaged or disconnected.
- 3) Problem with network setup on computer.

3.3 No RS-232 Communication on COM1

Possible causes:

- 1) External COM cable is damaged or disconnected.
- 2) Cable from J6 to single board computer is damaged or disconnected.
- 3) Problem with serial setup on computer.

3.4 No RS-232 Communication on COM2

Possible causes:

- 1) External COM cable is damaged or disconnected.
- 2) Cable from J7 to single board computer is damaged or disconnected.
- 3) Problem with serial setup on computer.

3.5 No USB Communication

Possible causes:

- 1) External USB cable/device is damaged or disconnected.
- 2) Cable from J2 to single board computer is damaged or disconnected.
- 3) Problem with USB setup on computer.

4 SYSTEM ECHOSOUNDER

4.1 No Sounder Module Detected

Possible causes:

- 1) Cable from USB processor module to single board computer is damaged or disconnected.
- 2) No 24V provided to USB processor module.

4.2 No Transmit Output

Possible causes:

- 1) The transducer is not connected to J1.
- 2) There is damage to the transducer cable.
- 3) Internal cable from J1 to the transmitter module is damaged or disconnected.
- 4) Drive signal cable from USB processor module to transmitter module is damaged or disconnected.

4.3 No Receive Signal

Possible causes:

- 1) The transducer is not connected to J1.
- 2) There is damage to the transducer cable.
- 3) Internal cable from J1 to the transmitter module is damaged or disconnected.
- 4) Receive signal cable from USB processor module to transmitter module is damaged or disconnected.

4.4 Sync Input Not Working

Possible causes:

- 1) External sync cable is damaged or disconnected.
- 2) Cable from J6 to USB processor module is damaged or disconnected.
- 2) Failure on USB processor module.

4.5 No Sync Output Signal

Possible causes:

- 1) External sync cable is damaged or disconnected.
- 2) Cable from J6 to USB processor module is damaged or disconnected.
- 2) Failure on USB processor module.