



A WHOLE NEW VISION UNDERWATER

Commercial in Confidence

FarSounder, Inc.

Drawing Package for the FarSounder-500

(F31602 Rev. 1.3.0)

FarSounder, Inc.
151 Lavan Street
Warwick, RI 02888
United States

phone: +1 401 784 6700

info@farsounder.com
www.farsounder.com

Revision Issue Date: September, 2013

© Copyright 2013 FarSounder, Inc.

All rights reserved. This document contains confidential information that is proprietary to FarSounder, Inc. This commercially sensitive information is being provided to the recipient solely for the purpose specified and shall not be reproduced, disclosed or supplied, in whole or in part, to any other person without the prior written consent of FarSounder, Inc.

Although every precaution has been taken in the preparation of this document, FarSounder, Inc. assumes no responsibility for errors or omissions. Furthermore no liability is assumed for damages resulting from the use of information contained herein.

Included Drawings

D71767 (Rev 1.1.2) – Transducer Module

D71775 (Rev 1.0.1) – Power Module (bulkhead mount)

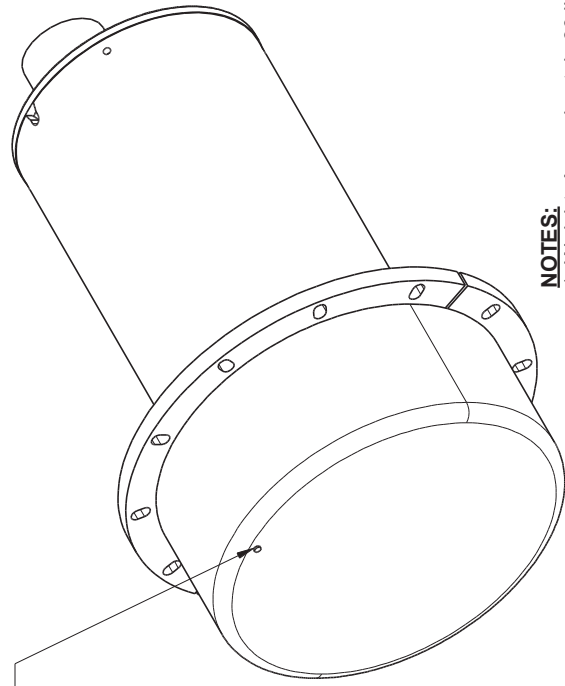
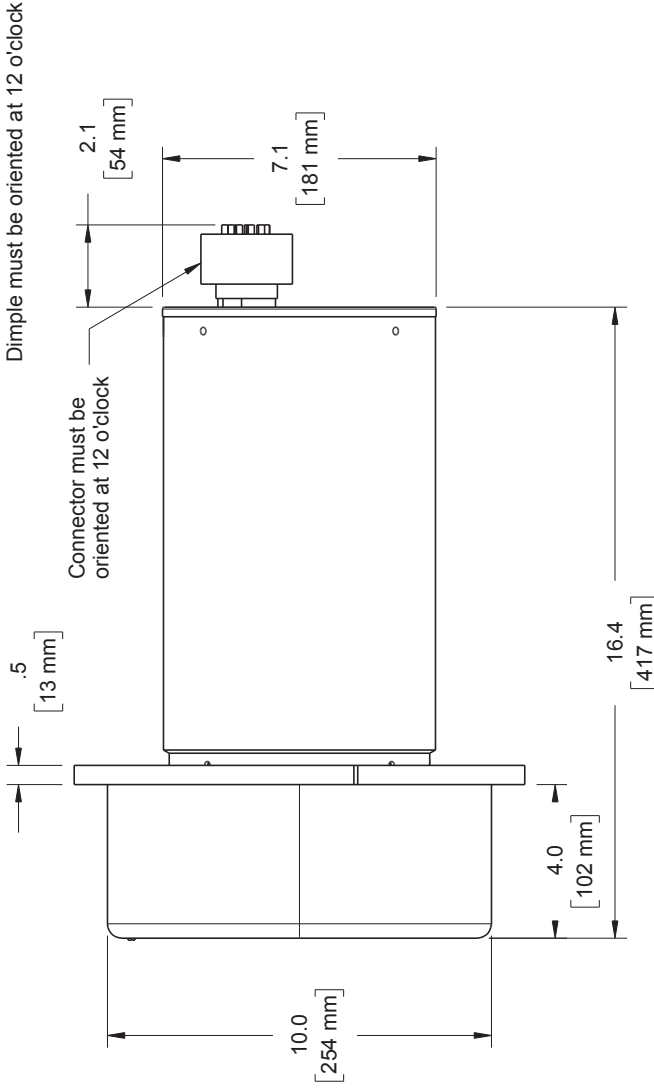
D31598 (Rev 1.2.0) – Wiring Diagram

D31603 (Rev 1.5.0) – Fairing Concepts

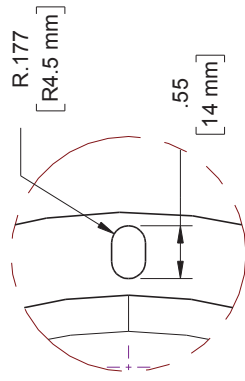
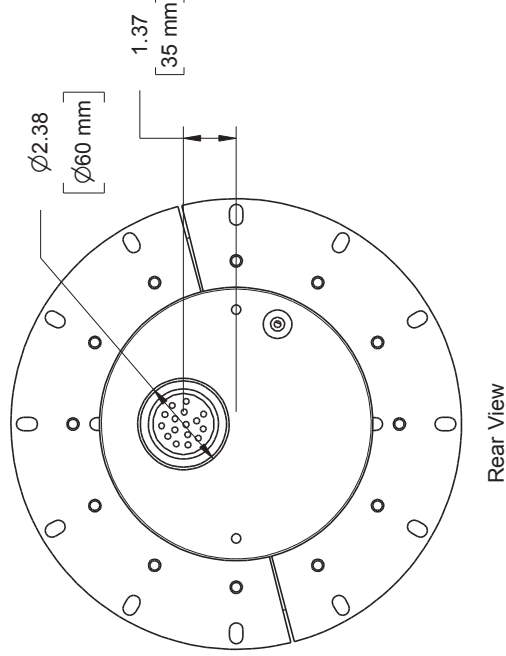
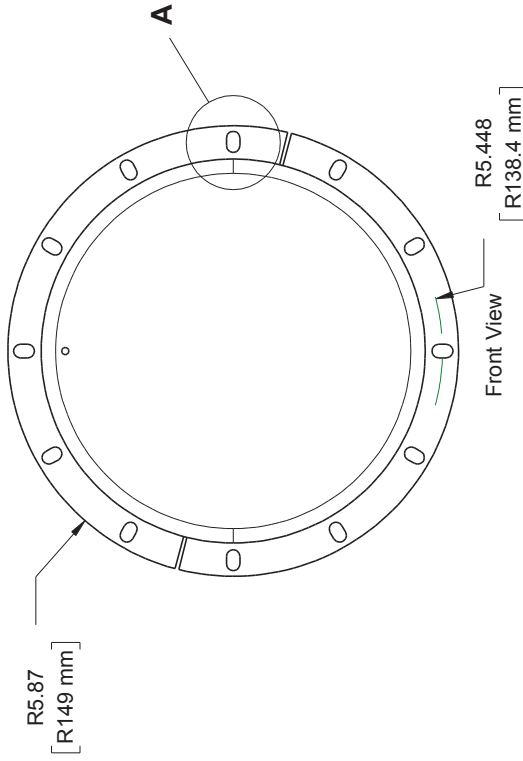
Overview

The FarSounder-500 3D Forward Looking Obstacle Avoidance Sonar system replaces the FS-3DT sonar. The system consists of a Transducer Module, Power Module, Computer, and Transducer Module Cable.

The Power Module is only available as bulkhead mountable. The rack mount version is no longer available.



- NOTES:**
1. Weight: Approximately 80 lbs (36.4 kg)
 2. Material: Stainless 316/316L
 3. DO NOT PAINT URETHANE
 4. Leave at Least 19 Inches (480 mm) Behind Connector for Cable Bend Clearance
 5. Connector is underwater wet matable



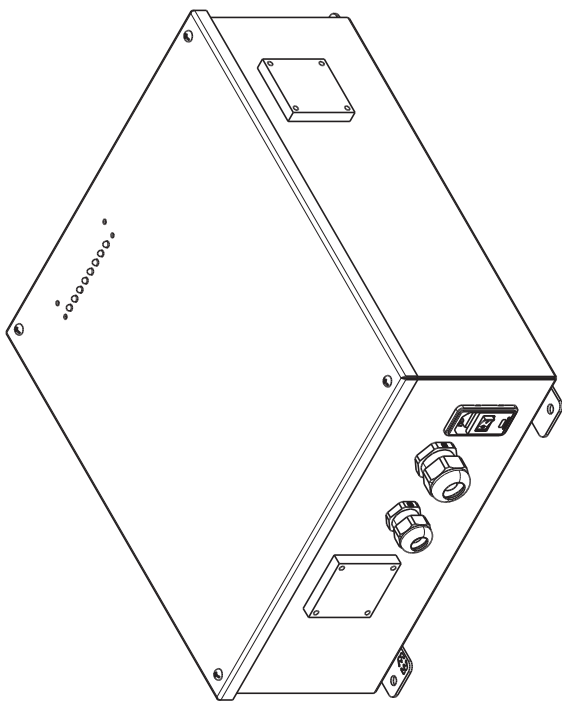
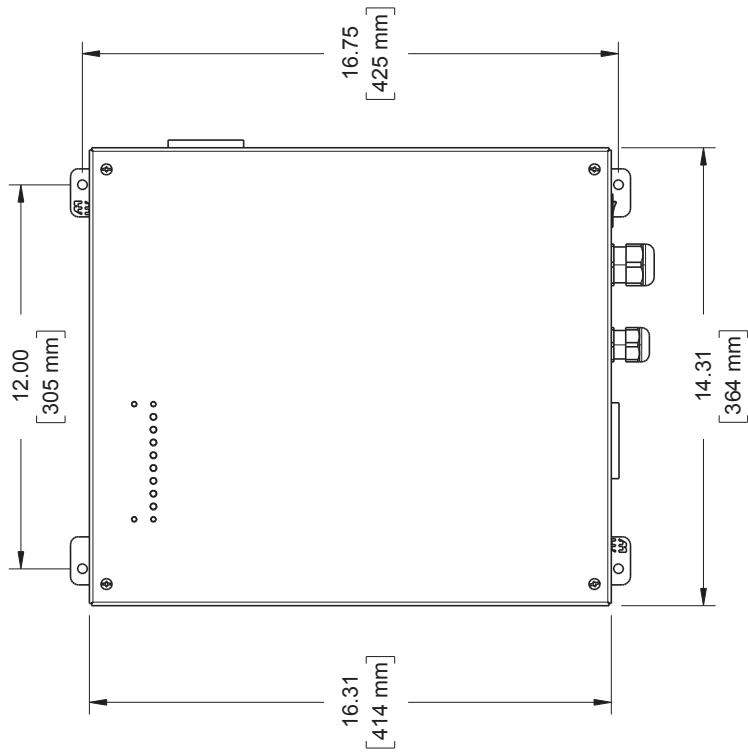
Detail A

Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this material, the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.

TOLERANCES UNLESS NOTED			
X	.XX	.XXX	Angles
± .050	± .010	± .003	± .5°
CONCENTRICITY .004 TIR			
PRIMARY UNITS ARE INCHES			

FarSounder, Inc.	DRAWING DESCRIPTION:	
	Transducer Module	
SH4 Transducer Module	DRAWING NUMBER:	D71767
	PROJECT:	F71767
Scale: n/a	Date: 2012/08/21	Page 1 of 1

DRAWING DESCRIPTION:	
Transducer Module	
DRAWING NUMBER:	D71767
PART NUMBER:	F71767
REVISION:	1.1.2



NOTES:

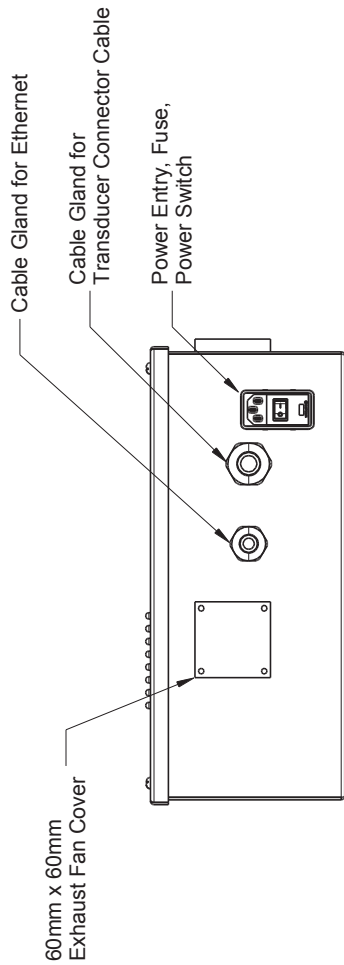
Unit NOT intended for wet or moist environment.

Powered by 110/220V 50/60Hz

Allow 8 inches (203mm) min. clearance behind unit for cable connections

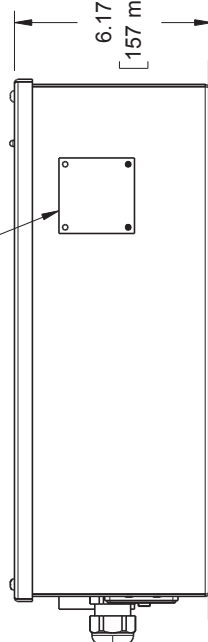
Minimum bend radius of Transducer Module Connection Cable: 6 in (152mm)

Enclosure material: steel



60mm x 60mm Exhaust Fan Cover

6.17 [157 mm]



Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this material the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.

TOLERANCES UNLESS NOTED

X	.XX	.XXX	Angles
± .050	± .010	± .003	± .5°

CONCENTRICITY .004 TIR

PRIMARY UNITS ARE INCHES

DRAWING DESCRIPTION:

FarSounder, Inc.

Power Module (Bulkhead Mount)

PROJECT:

Power Module

DRAWING NUMBER:

D71775

PART NUMBER:

F71775

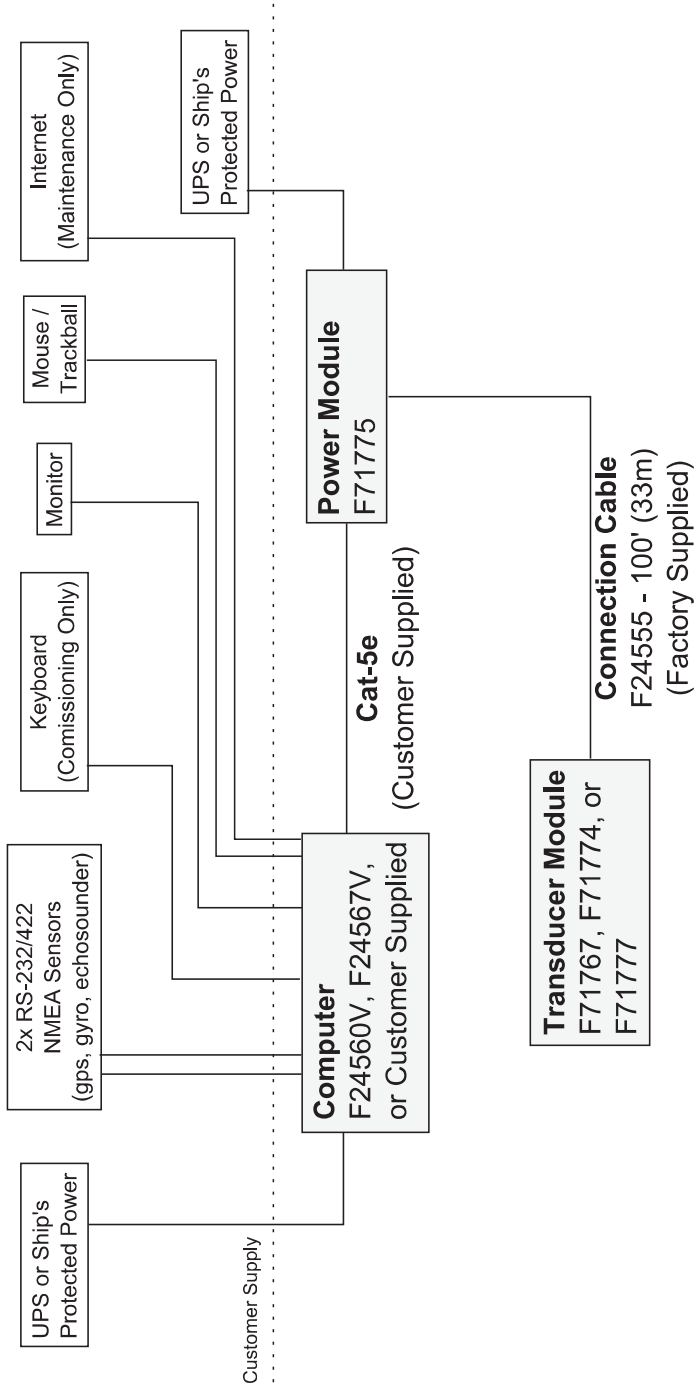
Scale: n/a

Date: 2012/08/21

Page 1 of 1

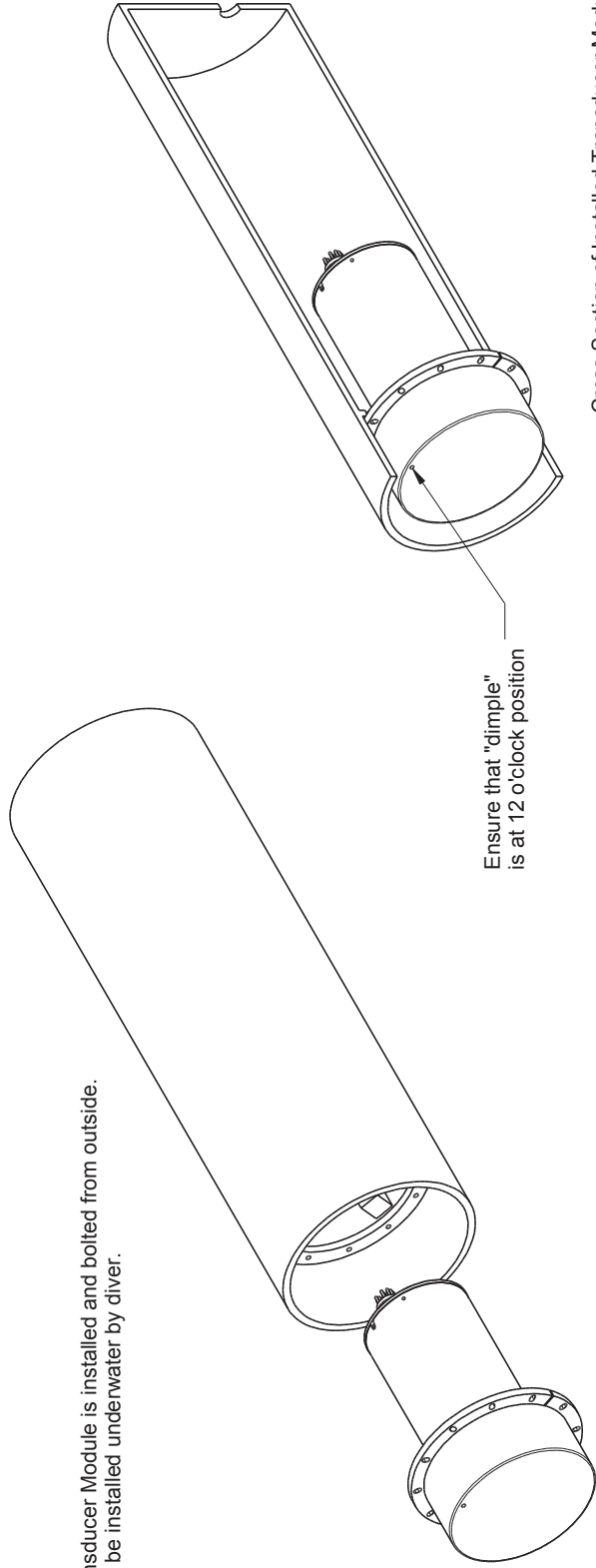
REVISION:

1.0.1

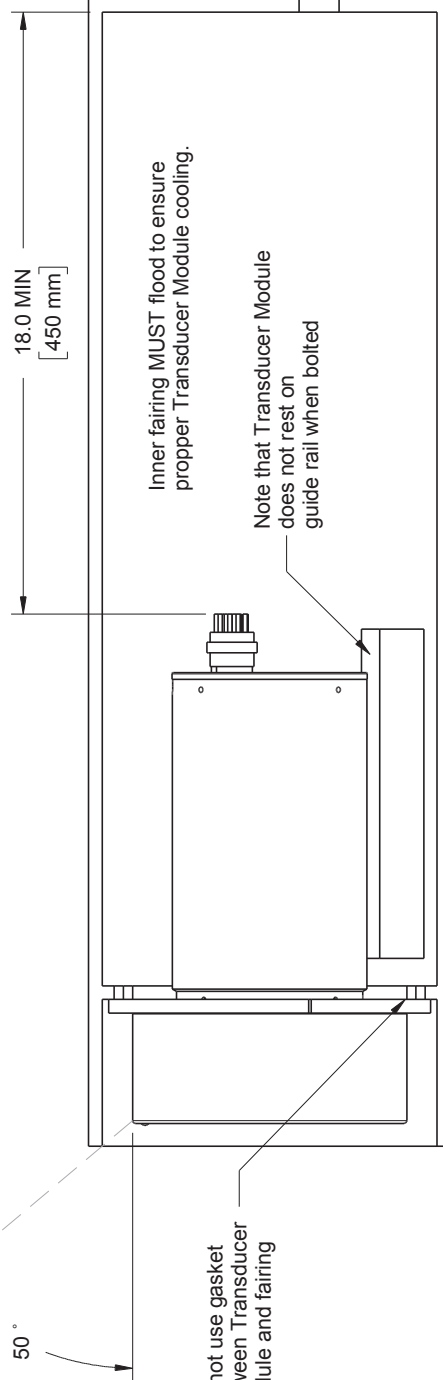


<p>Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this information, the customer agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.</p>	<p>TOLERANCES UNLESS NOTED</p> <table border="1"> <tr> <td>.X</td> <td>.XX</td> <td>.XXX</td> <td>Angles</td> </tr> <tr> <td>± .050</td> <td>± .010</td> <td>± .003</td> <td>± .5</td> </tr> <tr> <td colspan="4">CONCENTRICITY .004 TIR</td> </tr> <tr> <td colspan="4">PRIMARY UNITS ARE INCHES</td> </tr> </table>		.X	.XX	.XXX	Angles	± .050	± .010	± .003	± .5	CONCENTRICITY .004 TIR				PRIMARY UNITS ARE INCHES				<p>DRAWING DESCRIPTION: Wiring Diagram</p>	<p>PART NUMBER: D31598</p>
	.X	.XX	.XXX	Angles																
	± .050	± .010	± .003	± .5																
CONCENTRICITY .004 TIR																				
PRIMARY UNITS ARE INCHES																				
<p>Scale: n/a</p>		<p>PROJECT: Navigation Sonars</p>	<p>DRAWING NUMBER: D31598</p>	<p>REVISION: 1.2.0</p>																
<p>Date: 2013/09/13</p>		<p>Page 1 of 1</p>	<p>Revision: 1.2.0</p>																	

Transducer Module is installed and bolted from outside.
Can be installed underwater by diver.



Cross Section of Installed Transducer Module



Cross Section of Installed Transducer Module

- NOTES, UNLESS OTHERWISE SPECIFIED:**
1. These drawings are provided by FarSounder for reference only. Customer is responsible for ensuring proper design verification and modification for integration into ship's hull. FarSounder is not responsible for actual architectural design.
 2. Fairing not provided by FarSounder.
 3. Fairing tube ID can be larger but must accommodate transducer module.
 4. Fairing tube can be longer but must ensure minimum cable clearance and bend radius.

DRAWING DESCRIPTION:

Fairing Concept

PART NUMBER:

D31603

DRAWING NUMBER:

Page 1 of 5

REVISION: **1.5.0**

FarSounder, Inc.

FarSounder-500

PROJECT:

Date: 2012/08/21

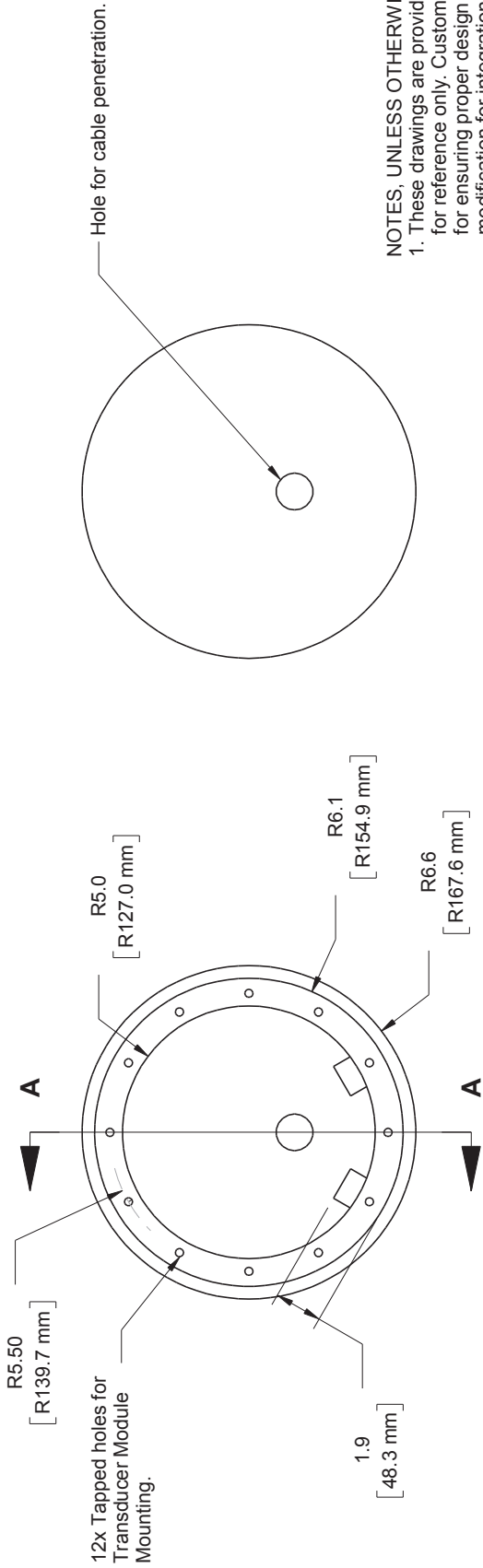
Scale: n/a

TOLERANCES UNLESS NOTED

.X	.XX	.XXX	Angles
± .050	± .010	± .003	± .5°
CONCENTRICITY .004 TIR			

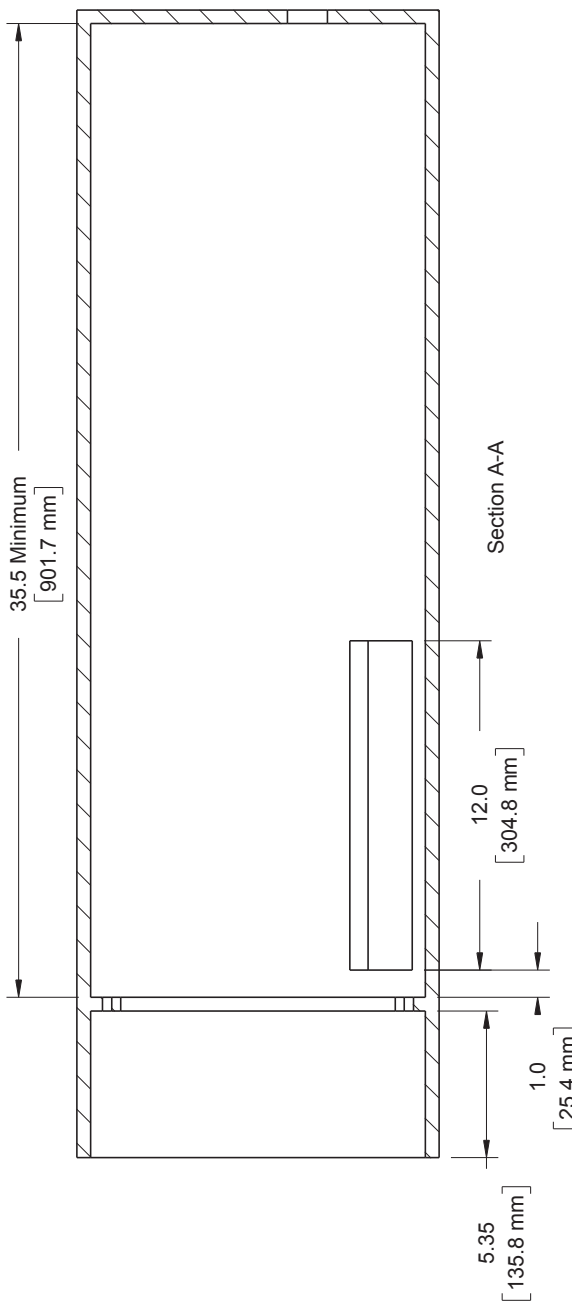
PRIMARY UNITS ARE INCHES

Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this material the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.



NOTES, UNLESS OTHERWISE SPECIFIED:

1. These drawings are provided by FarSounder for reference only. Customer is responsible for ensuring proper design verification and modification for integration into ship's hull. FarSounder is not responsible for actual architectural design.
2. Fairing not provided by FarSounder.
3. Fairing tube ID can be larger but must accommodate transducer module.
4. Fairing tube can be longer but must ensure minimum cable clearance and bend radius.

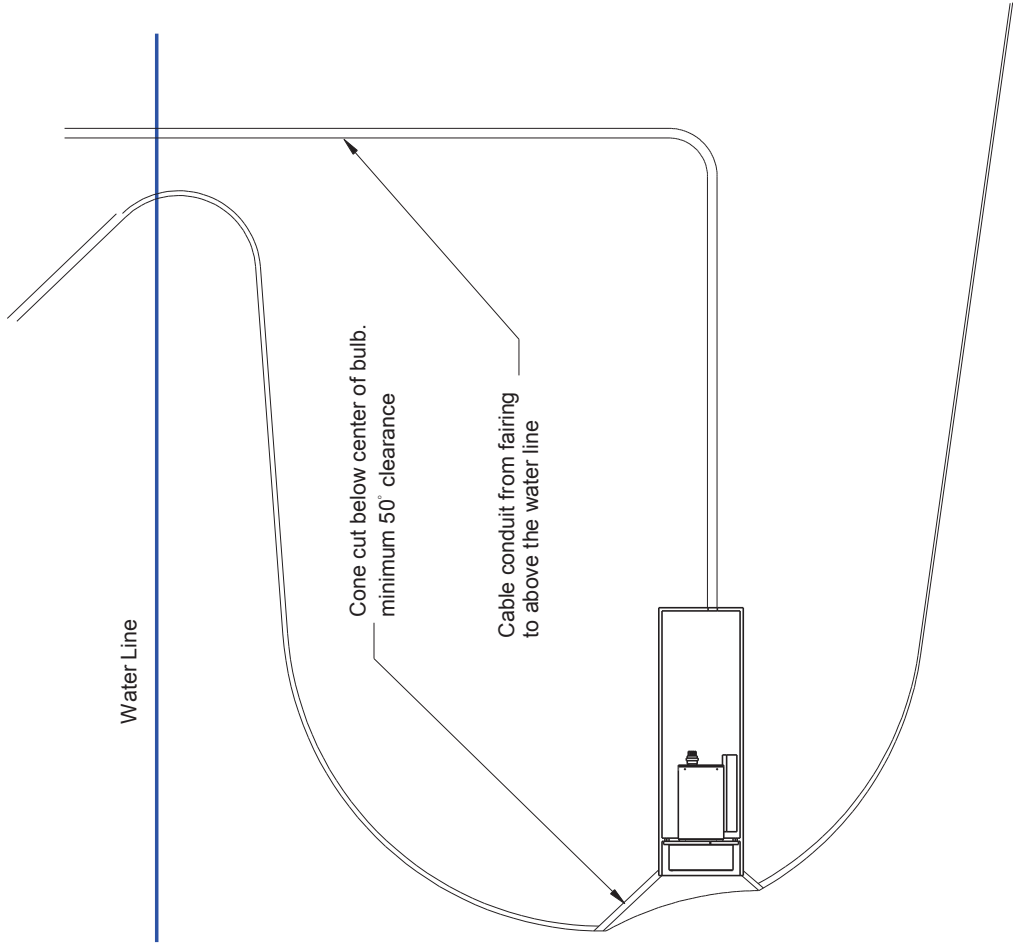


Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this material the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.

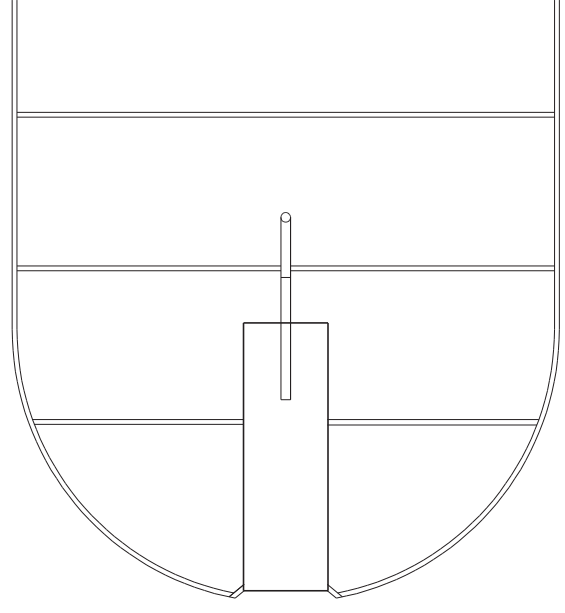
TOLERANCES UNLESS NOTED			
.X	.XX	.XXX	Angles
± .050	± .010	± .003	± .5°
CONCENTRICITY .004 TIR			
PRIMARY UNITS ARE INCHES			

DRAWING DESCRIPTION:	FarSounder, Inc.
	FarSounder-500
PROJECT:	n/a
DATE:	2012/08/21
SCALE:	n/a

DRAWING NUMBER:	D31603
PART NUMBER:	
REVISION:	1.5.0
Page 2	of 5



Cross Section Through Centerline



Plan View Through Fairing

Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this information, the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.

DRAWING DESCRIPTION:

Bulb Example

PART NUMBER:

D31603

DRAWING NUMBER:

Page 3 of 5

REVISION: **1.5.0**

FarSounder, Inc.

PROJECT:

FarSounder-500

Date: 2012/08/21

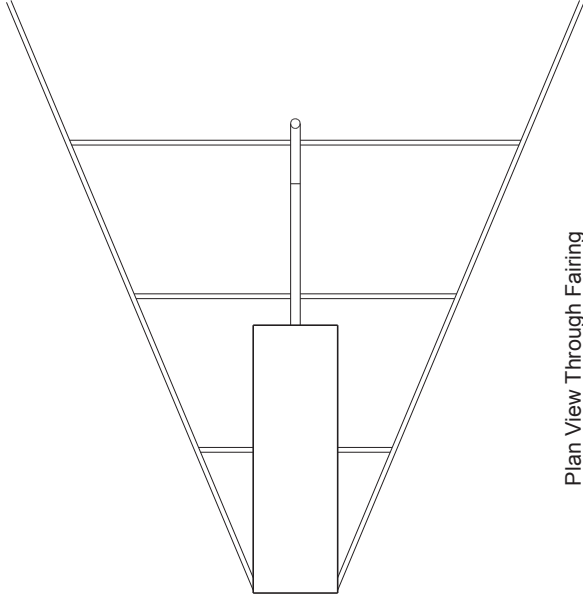
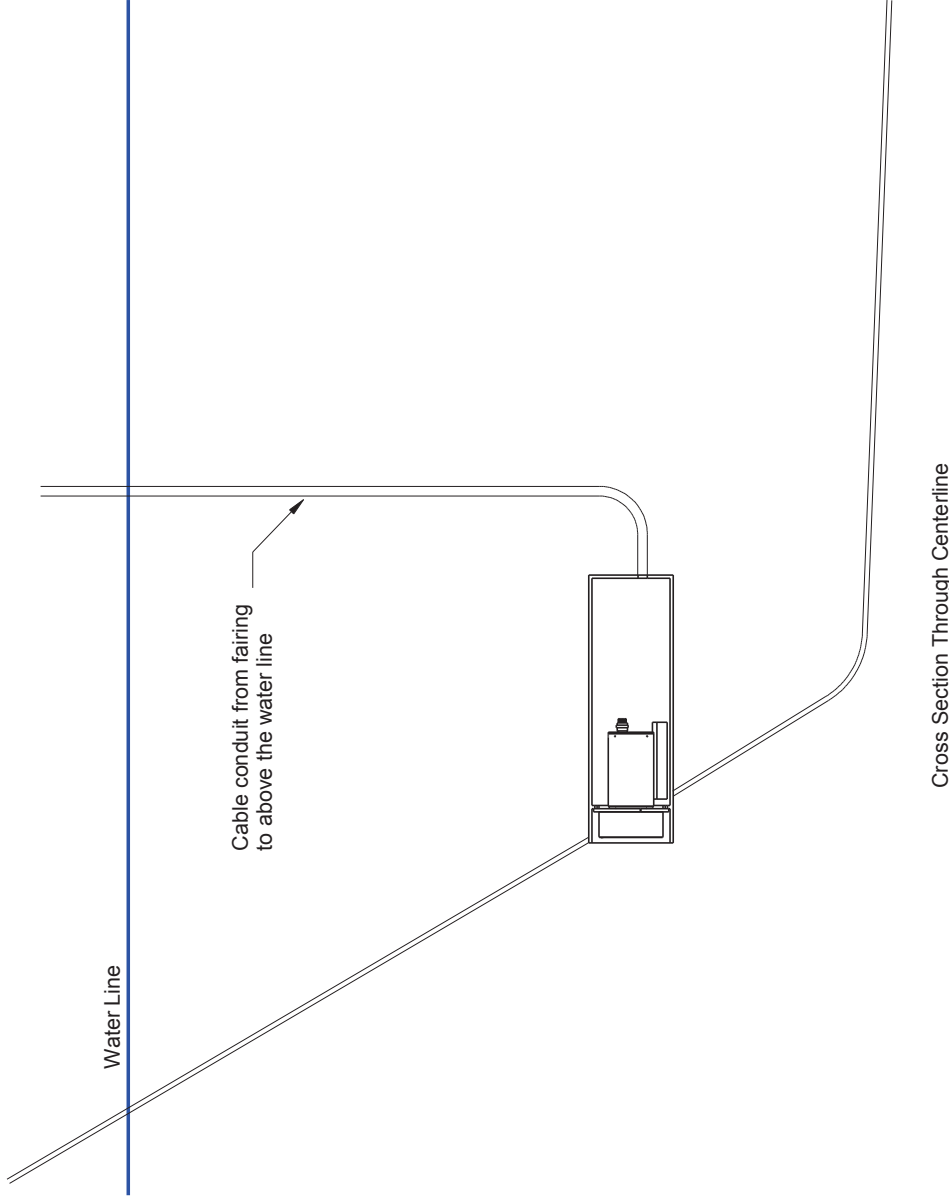
Scale: n/a

TOLERANCES UNLESS NOTED

.X	.XX	.XXX	Angles
± .050	± .010	± .003	± .5°

CONCENTRICITY .004 TIR

PRIMARY UNITS ARE INCHES



Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this material the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.

TOLERANCES UNLESS NOTED			
.X	.XX	.XXX	Angles
± .050	± .010	± .003	± .5°
CONCENTRICITY .004 TIR			
PRIMARY UNITS ARE INCHES			

FarSounder, Inc.	
PROJECT:	FarSounder-500
Scale:	n/a
Date:	2012/08/21

DRAWING DESCRIPTION:

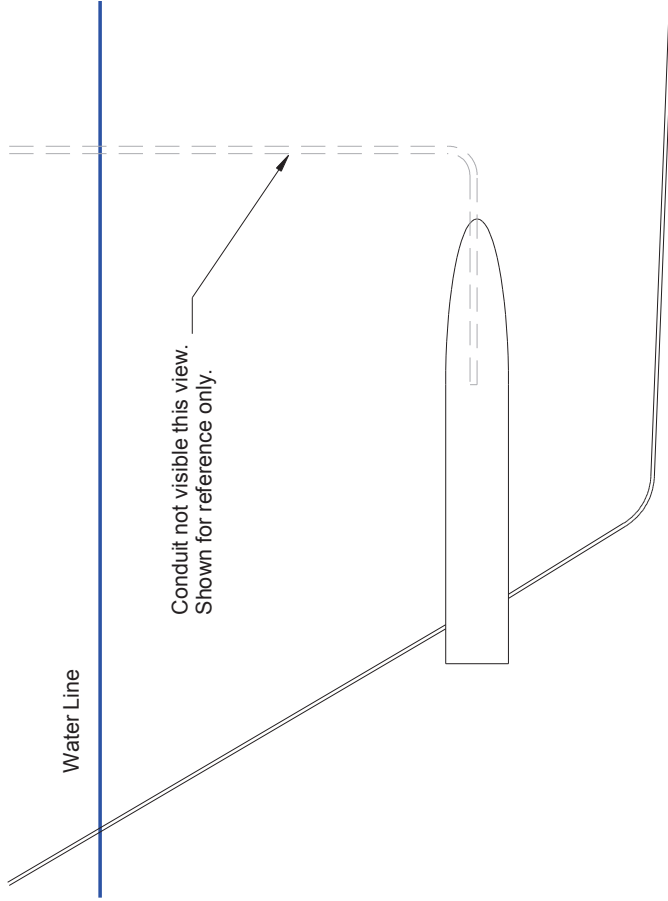
Stem Centerline Example

PART NUMBER:

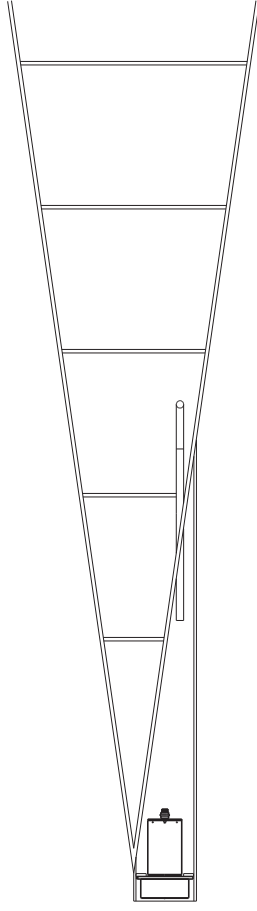
D31603

Page 4 of 5

REVISION: **1.5.0**



Plan View Through Fairing



Side View from Outside Hull

Proprietary Note: All data and information contained or disclosed by this document is confidential and proprietary information of FarSounder, Inc. and all rights therein are expressly reserved. By accepting this material the recipient agrees that the material and the information therein is held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others, except to meet the specific purpose for which it was delivered.

TOLERANCES UNLESS NOTED

.X	.XX	.XXX	Angles
$\pm .050$	$\pm .010$	$\pm .003$	$\pm .5'$
CONCENTRICITY .004 TIR			
PRIMARY UNITS ARE INCHES			

FarSounder, Inc.

PROJECT: FarSounder-500

Scale: n/a Date: 2012/08/21

DRAWING DESCRIPTION:

Side of Stem Example

DRAWING NUMBER: D31603

PART NUMBER: of 5

REVISION: 1.5.0