



40-INCH DIAMETER AND LARGER SENSOR HEAD SUPPLEMENTAL INSTALLATION & STARTUP MANUAL

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INTRODUCTION

This manual is intended to be a supplement to the P/N 20822-01 *SONARtrac*[™] Installation & Startup Manual. The information contained in this supplement pertains to installing and startup of 40-inch diameter and larger SONARtrac sensor head assemblies. The Installation Manual P/N 20822-01 should be read and understood prior to use of this manual and installing the 40-inch and larger sensor head.

All installation guidelines and safety related items listed in the P/N 20822-01 Manual pertain to installation of this product.

For additional information, contact your local sales agent or CiDRA Corporate Services Customer Support by telephone at (203) 265-0035, in the US or Canada at 1-877-243-7277 (1-877-CIDRA77), or by E-Mail at: customersupport@cidra.com.

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SENSOR HEAD INSTALLATION

The following figures illustrate the 40-inch and larger sensor band installation.

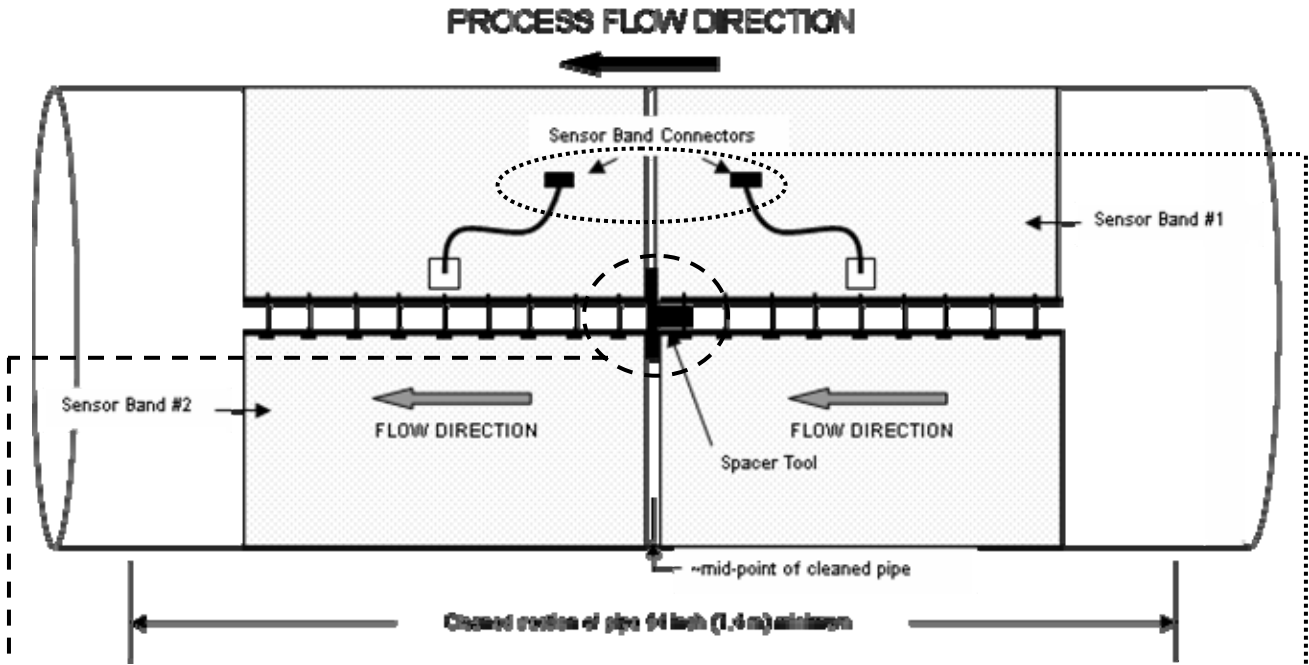


Figure 1 Sensor Band Installation

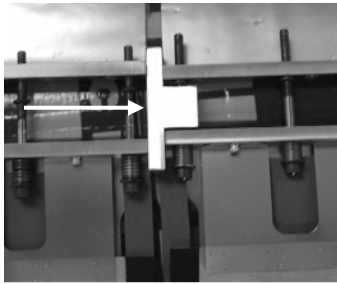


Figure 2 Sensor Band Spacer Tool Installed on Bands

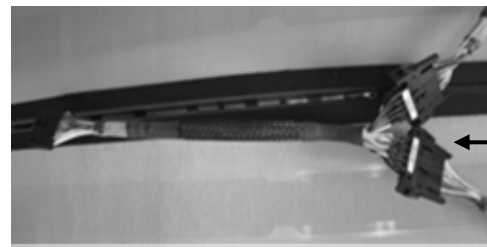


Figure 4 "Y" Connector Plugged into Sensor Band connectors (P2 Upstream band, P3 Down stream band, P1 to Pre-Amp)

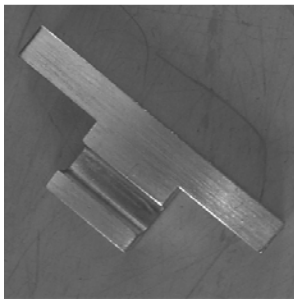


Figure 3 Sensor Band Spacer Tool



Figure 5 "Y" Connector Plug Assembly Close-up

The 40-inch and larger sensor head uses 2 sensor bands that are electrically coupled together.

Note: The upstream sensor band (with respect to process flow direction) is referred to as Band #1. The downstream sensor band (with respect to process flow direction) is referred to as Band #2.

2.1 Process Pipe Cleaning and Marking

Clean the process pipe a minimum distance of 54-inch along the pipe surface.

Place a reference mark at the center of the cleaned pipe surface.

2.2 Sensor Band Installation

Install the sensor bands as follows:

1. Install Band #1 with the downstream edge of the sensor band aligned within $\frac{1}{4}$ -inch of the mid-point reference mark placed on the pipe. (Figure 1) Refer to Section 5 of the full Installation & Startup Manual for sensor band installation instructions.
2. Wrap Band #2 around the process pipe and insert the sensor band alignment pins in their corresponding holes.
3. Insert the Sensor Band Spacer Tool over the downstream sensor band screw on sensor band #1. The edge of the tool should be flush with the sensor band #1 rails. (Figures 1, 2, 3)
4. Align the attachment rails of sensor band #2 flush against the sensor band spacer tool. The rails of the two sensor bands should be aligned within $\sim\frac{1}{4}$ -inch. (Figure 2)
5. Tighten sensor band #2 per Section 5 of the full Installation & Startup Manual.
6. Remove the sensor band spacer tool.
7. Install the sensor band insulating blanket. Carefully thread the sensor band connector cable assemblies through the opening on the blanket.
8. Install the sensor band connector #1 and #2 into their respective connectors on the "Y" Connector Plug Assembly. (Figures 1, 4, 5)
9. Remove the sensor band cover electronics access panel. Refer to Section 5 of the Installation & Startup Manual for cover installation details.

3 TRANSMITTER STARTUP

The following changes must be made in the configuration file when setting up the 40-inch and larger sensor head system.

3.1 Flow Tab

Manually input either the pipe **Outer Diameter** or **Inner Diameter** and the **Wall Thickness**. There are no values for pipe sizes greater than 36 inches in the pipe Size / Schedule menu selection.

3.2 Sensor Tab

The sensor spacing values must be changed to reflect those used with the 40-inch and larger sensor. Refer to the following Table for the new values:

Sensor #	Standard Product Spacing (ft)	40-inch and larger Sensor Band Spacing (ft)
1	0.0	0.0
2	0.2	0.4
3	0.4	0.8
4	0.6	1.2
5	0.8	1.6
6	1.0	2.0
7	1.2	2.4
8	1.4	2.8

Table 1 Sensor Spacing



CiDRA Corporate Services

**50 Barnes Park North
Wallingford, CT 06492**

**(In U.S.): 877-cidra77
Tel: 203-265-0035
Fax: 203-294-4211**

Visit CiDRA Online at: www.cidra.com