

May 2020

Wireless Position Monitor Bracket (PMB) Mounting Kit

Introduction

The Position Monitor Bracket (PMB) is the bracket and hardware used to mount the 4300 Series Wireless Position Monitor to the travel indicator on Fisher™ regulators, such as the Types 1190, 1290, 1098-EGR, 63EG, MR105 and EZR.

This installation sheet covers the assembly and installation instructions and parts list for the wireless PMB Mounting Kit.

For more information on 4300 Series Wireless Position Monitor and on regulators used with this product, refer to full product literature:

Fisher 4320 Wireless Position Monitor:
D103286X012

Type MR105: D103256X012

Type 63EG: D100151X012

Type 1098-EGR: D100143X012

Type 1190: D101962X012

Type 1290: D101964X012

Type EZR: D102626X012

The PMB mounting kit is compatible with both Topworx™ 4310 (open/partially open/closed) and Fisher 4320 (open/percent travel/closed) Wireless Position Monitors.

Specifications

Construction Materials

Bracket: 304 Stainless steel

Hardware: 18-8 Stainless steel

Assembly and Installation

Read fully and understand the assembly and installation instructions in this manual and the instruction manuals of the regulators and 4300 Series Wireless Position Monitor before installing the Position Monitor Bracket Assembly.

The regulator cannot be in operation during the assembly and installation of the position monitor and the PMB assembly. Refer to the appropriate instruction manual for proper shutdown of the system before attempting to mount the position monitor.

For best results, the PMB Assembly should only be installed on site.

All key numbers are referenced in Figure 1.

1. If used, remove the protective cap covering the regulator stem and travel indicator.



CAUTION

Securely grip the regulator stem when removing attached parts and when installing the hex nut (key 6) to prevent the stem from potentially backing down into the regulator.

Remove all parts attached to the regulator stem and install a new hex nut (key 6).

2. Fasten the position monitor to the monitor bracket (key 1) using three cap screws (key 4) and three lock washers (key 5). Apply Threadlocker adhesive (key 11, not shown) and securely torque the cap screws to 100 in-lbs / 11 N•m.
3. Install the monitor bracket and position monitor setup (from step 3) to the regulator using the panel nut (key 3). This joint allows the monitor bracket (key 1) to slide back and forth and from side to side for optimal adjustment. **Finger tighten only until final adjustment.**

Note

The PMB mounting kit is designed for small but necessary adjustments at most of the fastened joints. Because an adhesive is required on all the fasteners

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of the PMB assembly, all fasteners must be finger tightened only until the position monitor and bracket assembly have been properly located. Apply Threadlocker adhesive and fully tighten the joints to the specified torque values only during final adjustment.

4. Pre-assemble the monitor magnet to the magnet array bracket (key 2) using two machine screws (key 9) and two external tooth star washers (key 10). **Finger tighten only until final adjustment.**

Note

The mounting slot of the magnet array bracket (key 2) is designed for multiple regulators. The optimal location of the array bracket is determined by the limits of the regulator and the wireless position monitor. Consult the appropriate instruction manual to determine the optimal location.

5. Fasten the pre-assembled magnet array bracket (key 2) to the regulator stem using a flat washer (key 7), an external tooth star washer (key 8) and a hex nut (key 6). Additional vertical adjustment of the monitor magnet may be obtained through this fastening joint. **Finger tighten only until final adjustment.**
6. Both the monitor bracket (key 1) and magnet array bracket (key 2) are designed to allow adjustments in the assembly so that the monitor magnet array can be located properly as specified by the wireless position monitor instruction manual.

After the monitor magnet array has been properly located, perform final adjustments to all previously finger-tightened joints. Apply Threadlocker adhesive and tighten the joints to the following specifications:

- From step 3, torque the panel nut (key 3) to 700 in-lbs / 79 N•m.
- From step 5, torque the hex nut (key 6) to 15 in-lbs / 1.7 N•m.
- From step 4, securely tighten the two machine screws (key 9).

Startup and Adjustment

After mounting the wireless position monitor on the regulator, the monitor should be calibrated before the regulating system is turned back on.

A known method of locating the minimum and maximum travel to calibrate the 4300 Series Wireless Position Monitor is required before it can become operational. Calibrate the wireless position monitor based on the procedure found in the appropriate instruction manual.

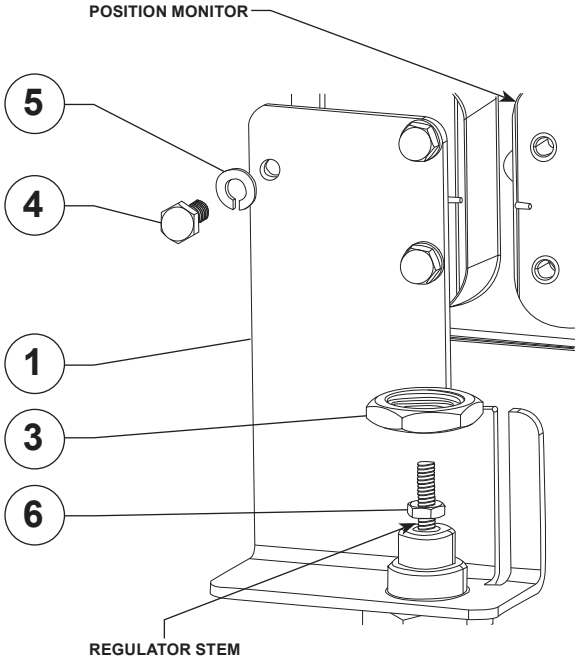
Follow all local procedures and refer to the appropriate regulator instruction manual when restarting the regulating system.

Parts List (Figure 2)

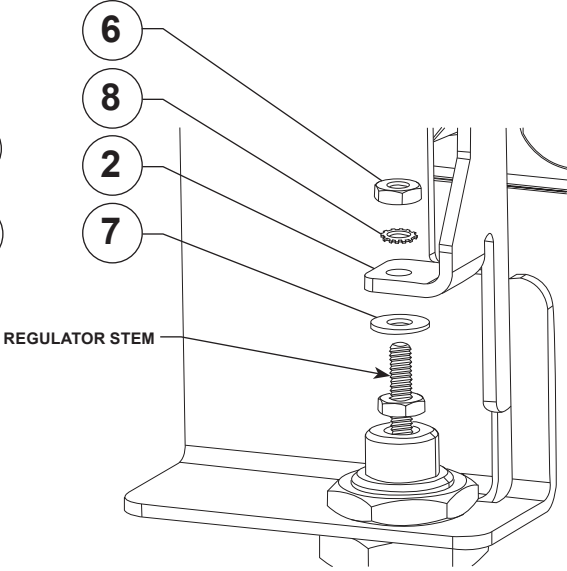
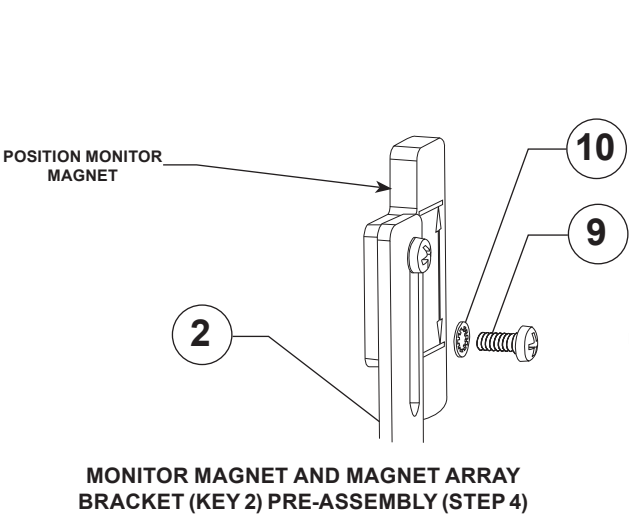
Key	Description	
1	Monitor Bracket	ERAA00141A0
2*	Magnet Array Bracket	ERAA00142A0
3*	Panel Nut	ERAA00160A0
4*	Cap Screw (3 required)	ERAA00178A0
5	Lock Washer (3 required)	ERAA00179A0
6*	Hex Nut (2 required)	ERAA00181A0
7*	Flat Washer	ERAA00161A0
8	External Tooth Star Washer	ERAA00180A0
9*	Pan Head Machine Screw (2 required)	ERAA00182A0
10*	External Tooth Star Washer (2 required)	ERAA00183A0
11*	Threadlocker (adhesive, not shown)	ERAA00184A0

*Recommended spare part.

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INSTALLING THE BRACKET (KEY 1) TO THE POSITION MONITOR AND REGULATOR STEM (STEPS 1 THROUGH 3)



INSTALLING THE PRE-ASSEMBLED MAGNET ARRAY BRACKET (KEY 2) TO THE REGULATOR STEM (STEP 5)

Figure 1. PMB Mounting Kit Assembly and Installation

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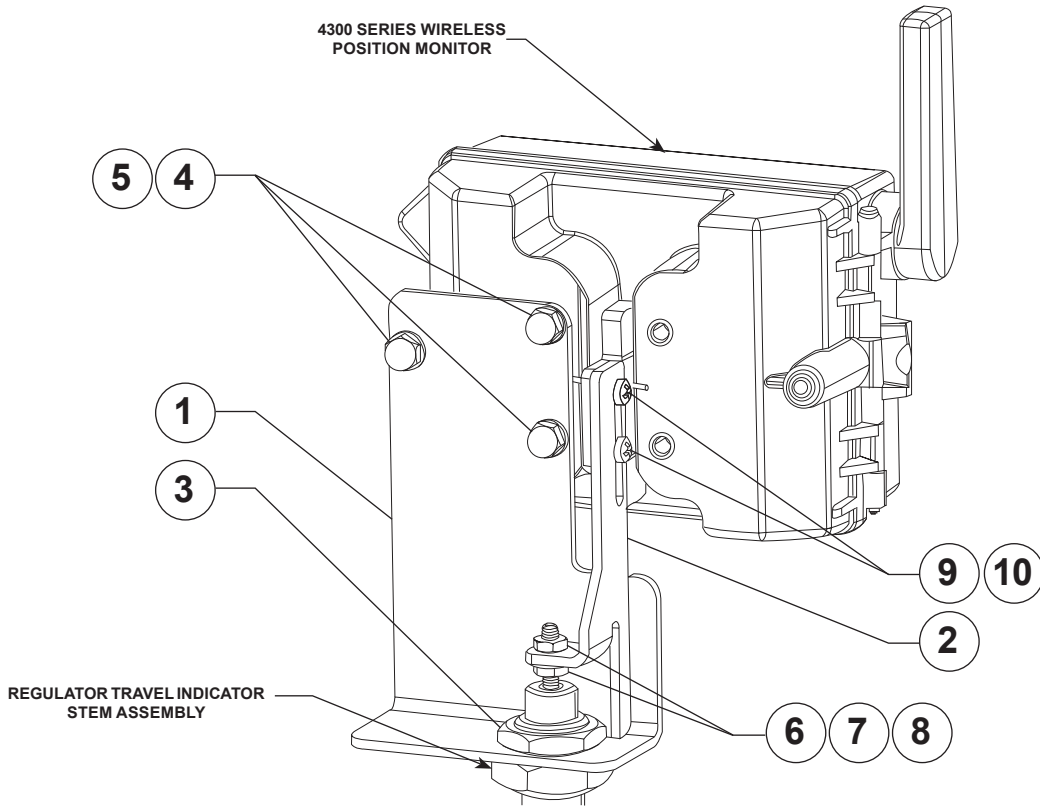


Figure 2. PMB Mounting Kit Assembly Drawing

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