

Enhanced Rosemount™ 3051 Upgrade Kit

Spare Parts Installation Guide

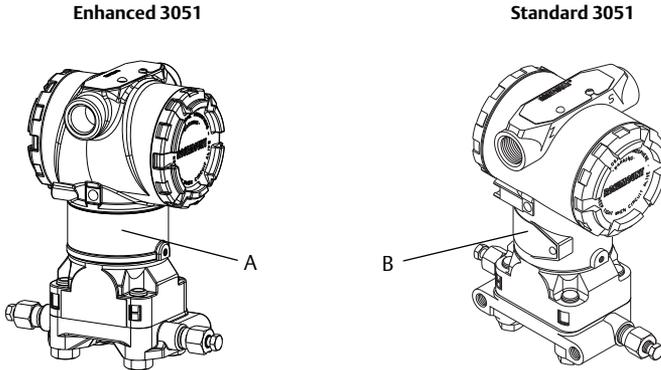
Contents

Identify device	2	Insert new retainer button assemblies	4
Gather necessary external configuration button assembly components	3	Replace electronics board	7
Remove existing retainer button assemblies	4	Upload new device driver (DD/DTM)	8

Step 1: Identify device

External button installation is dependant on what device is being upgraded in addition to the housing material (Aluminum or Stainless Steel). The two types of devices are the Enhanced Rosemount 3051 and Standard Rosemount 3051 pictured in Figure 1.

Figure 1. Enhanced and Standard Rosemount 3051



- A. Wrap around tag
- B. Riveted tag

By referencing Figure 1, there is a distinct difference between the Enhanced and Standard 3051 in the neck label. The Enhanced Rosemount 3051 utilizes a wraparound (rivet less) neck label, standard Rosemount 3051 uses a riveted label that does not fully wrap around.

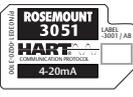
Note

For wrap around neck labels verify that option code “TR” is not specified on the transmitter model string (engraved on the neck label). Option code “TR” indicates a 3051 Rev5 Transmitter that is not compatible with the Enhanced 3051 Upgrade Kits.

Step 2: Gather necessary external configuration button assembly components

After the device has successfully been identified, the correct retainer button assembly components should be gathered. The retainer and buttons used in this installation are dependant on the current housing they are being installed on (Enhanced or Standard Rosemount 3051). Follow [Table 1](#) below to gather the correct configuration button assembly parts.

Table 1. Spare Parts Kits

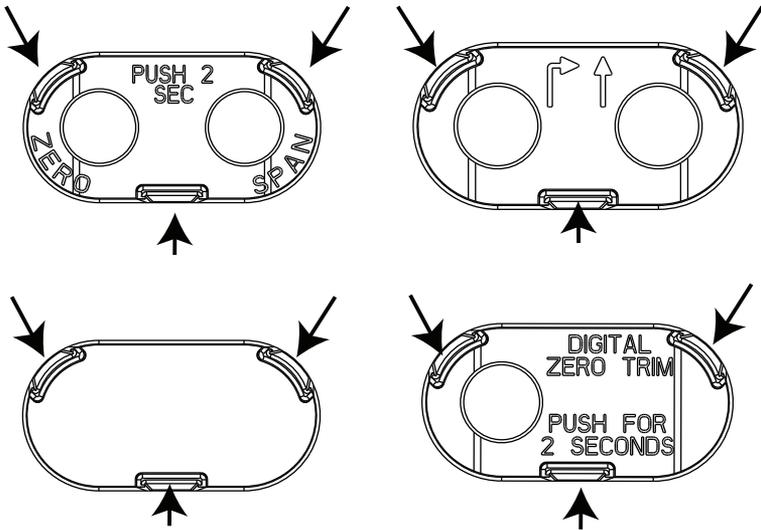
Kit Number	Electronics Board	Retainer (includes Rubber Gasket)		Standard 3051 (Buttons)		Enhanced 3051 (Buttons)		Springs
		Enhanced 3051	Standard 3051	AL Housing	SST Housing	AL Housing	SST Housing	
03031-0020-3100 (no configuration Buttons)				N/A	N/A	N/A	N/A	0
03031-0020-3110 (Digital Zero Trim)	 DZ			1 - Blue	1 - Black	1 - Grey	1 - Black	1
03031-0020-3120 (Analog Zero and Span)	 D4			2 - Blue	2 - Black	2 - Grey	2 - Green	2
03031-0020-3139 (Local Operator Interface)	 M4			2 - Blue	2 - Black	2 - Grey	2 - Green	2

1. Retainer has thickness of 0.18 inches.
2. Retainer has a thickness of 0.12 inches.

Step 3: Remove existing retainer button assemblies

1. Loosen top tag of transmitter to expose retainer slot.
2. Using a small screwdriver remove any existing button assemblies (retainer, gasket, buttons, and springs) and discard.
 - A. Pry out retainer using the identified “pry-out” grooves seen in [Figure 2](#).
3. When the retainer slot is empty proceed to Step 4.

Figure 2. Existing Retainer “Pry-Out” Grooves



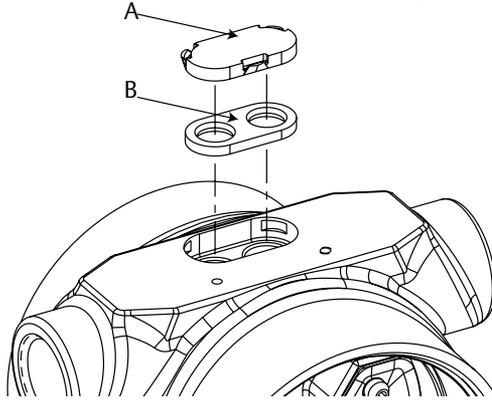
Step 4: Insert new retainer button assemblies

1. Install external button assembly in accordance to the following Figures (listed below). Retainers will snap into place.
 - A. 03031-0020-3100: Enhanced Rosemount 3051 upgrade [Figure 3 on page 5](#)
 - B. 03031-0020-3110: Digital Zero Trim [Figure 4 on page 5](#)
 - Magnetic button must be in the left hole, relative to the transmitter Terminal Block.
 - C. 03031-0020-3120: Analog Zero and Span [Figure 5 on page 6](#)
 - D. 03031-0020-3139: Local Operator Interface [Figure 6 on page 6](#)

Note

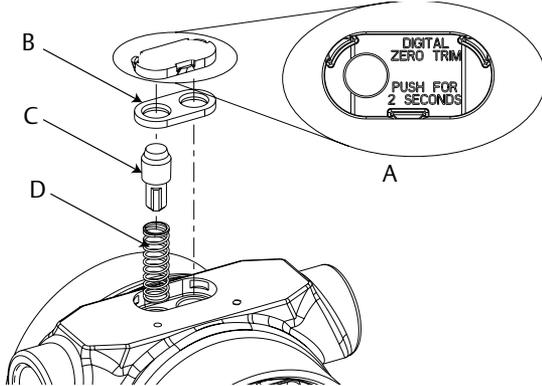
If not already done, refer to [Table 1](#) to gather correct components of retainer button assembly based on transmitter style (Enhanced or Standard Rosemount 3051) and housing material (Aluminum or Stainless Steel).

Figure 3. 03031-0020-3100 Button Retainer Assembly



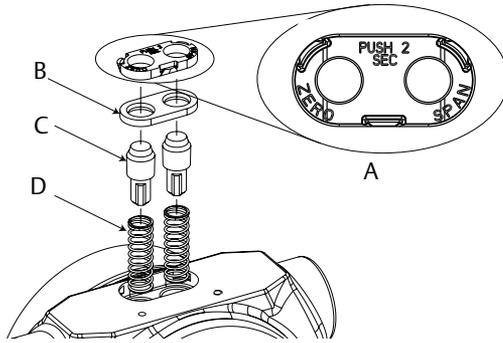
- A. Blue retainer
- B. Rubber gasket

Figure 4. 03031-0020-3110 DZ Retainer Button Assembly



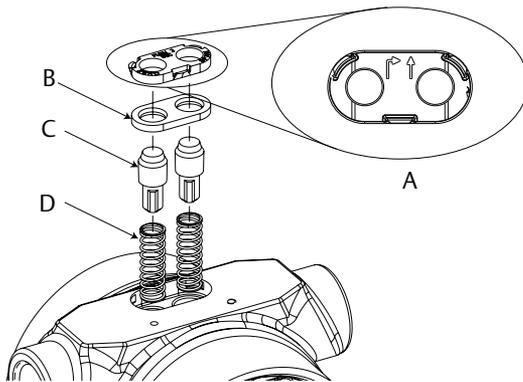
- A. Blue DZ retainer
- B. Rubber gasket
- C. Magnetic buttons
- D. Springs

Figure 5. 03031-0020-3120 D4 Retainer Button Assembly



- A. D4 retainer
- B. Rubber gasket
- C. Magnetic buttons
- D. Springs

Figure 6. 03031-0020-3139 M4 Retainer Button Assembly



- A. M4 retainer
- B. Rubber gasket
- C. Magnetic buttons
- D. Springs

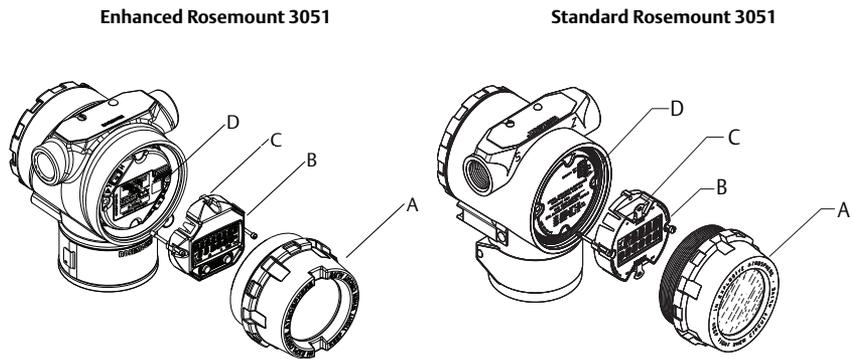
Step 5: Replace electronics board

1. Remove transmitter electronics housing cover (A in Figure 7)
 - A. If LCD is present, it must be removed in conjunction with the electronics board.
 - B. The LCD and electronics board are held together by two screws (B from Figure 7) and an interconnecting pin (D from Figure 7)
2. Loosen the screws and gently remove the LCD and electronics board to avoid damage to the ribbon cable
3. Detach the ribbon cable that connects the sensor module to the electronics board.
4. If LCD or LOI Spare kit was ordered, ensure the interconnecting pin is properly positioned to connect the electronics board and the LCD or LOI Display.
5. Install the Enhanced electronics by first connecting the ribbon cable to the electronics board with the two screws (included)
6. Reattach transmitter housing cover; cover must be fully engaged to comply with explosion proof requirements.

Note

- Installation procedures are consistent for Analog Zero and Span, Digital Zero, and Local Operator Interface electronics boards.
- The button function is programmed into the electronics board, the board label indicates what function the buttons will have

Figure 7. Enhanced and Standard Rosemount 3051 Electronics Assemblies



- A. Housing cover
 B. Screws
 C. LCD/LOI board
 D. Electronics board

Step 6: Upload new device driver (DD/DTM)

To take full advantage of the new features and capabilities of the Enhanced 3051 Electronics board, an updated DD must be installed on your HART® Configuration Tool.

1. Download latest DD at EmersonProcess\Rosemount.com (download device drivers) or www.hartcomm.org
2. In the HART Communication's Website (hartcomm.org) locate the *Browse by Member* dropdown menu and select Rosemount Business Unit of Emerson Process Management.
3. Select device revision based on HART Revision Configuration listed in [Table 2 on page 8](#)

Table 2. Enhanced Rosemount 3051 Device Revision

Find Device Driver Files		Review Instructions
HART Universal Revision	Device Revision	Manual Document Number
7	10	AA
5	9	

含有China RoHS管控物质超过最大浓度限值的部件型号列表 Rosemount 3051
List of Rosemount 3051 Parts with China RoHS Concentration above MCVs

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr +6)	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
电子组件 Electronics Assembly	X	O	O	O	O	O
壳体组件 Housing Assembly	X	O	O	X	O	O
传感器组件 Sensor Assembly	X	O	O	X	O	O

本表格系依据SJ/T11364的规定而制作。

This table is proposed in accordance with the provision of SJ/T11364.

O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求。

O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求。

X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.



Global Headquarters

Emerson Process Management

6021 Innovation Blvd.
Shakopee, MN 55379, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RFQ.RMD-RCC@EmersonProcess.com

North America Regional Office

Emerson Process Management

8200 Market Blvd.
Chanhassen, MN 55317, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RMT-NA.RCCRFQ@Emerson.com

Latin America Regional Office

Emerson Process Management

1300 Concord Terrace, Suite 400
Sunrise, FL 33323, USA
+1 954 846 5030
+1 954 846 5121
RFQ.RMD-RCC@EmersonProcess.com

Europe Regional Office

Emerson Process Management Europe GmbH

Neuhofstrasse 19a P.O. Box 1046
CH 6340 Baar
Switzerland
+41 (0) 41 768 6111
+41 (0) 41 768 6300
RFQ.RMD-RCC@EmersonProcess.com

Asia Pacific Regional Office

Emerson Process Management Asia Pacific Pte Ltd

1 Pandan Crescent
Singapore 128461
+65 6777 8211
+65 6777 0947
Enquiries@AP.EmersonProcess.com

Middle East and Africa Regional Office

Emerson Process Management

Emerson FZE P.O. Box 17033,
Jebel Ali Free Zone - South 2
Dubai, United Arab Emirates
+971 4 8118100
+971 4 8865465
RFQ.RMTMEA@Emerson.com



Linkedin.com/company/Emerson-Process-Management



Twitter.com/Rosemount_News



Facebook.com/Rosemount



Youtube.com/user/RosemountMeasurement



Google.com/+RosemountMeasurement

Standard Terms and Conditions of Sale can be found at www.Emerson.com/en-us/pages/Terms-of-Use.aspx
The Emerson logo is a trademark and service mark of Emerson Electric Co.
HART is a registered trademark of the FieldComm Group.
All other marks are the property of their respective owners.
© 2016 Emerson Process Management. All rights reserved.