Rosemount 3051 FOUNDATION™ fieldbus Revision 8 and 2051 FOUNDATION fieldbus (FF) Frequently Asked Questions (FAQ)

Contents

ROSEMOUNT

EMERSON. Process Management

Welcome

The 3051 and 2051 FOUNDATION fieldbus pressure transmitters have been updated. They have new and improved functionality, and hardware and software changes.

This FAQ document will answer your questions regarding what's different so you can be better prepared use the new device revisions in your facility.

Enjoy the added success these upgraded products will bring to your processes.

Device revisions

What are the device revisions of the new devices?

The 3051 is Device Revision 8. The 2051 is Device Revision 2.

When will the new revisions start shipping?

Most world areas will switch to the new device revision in October. Russia (EAC) and Korea (KTL) will switch to the new revisions when applicable approvals are available, which may be after October. Check with your world area pressure marketing contact for more information.

ITK versions

What ITK version will be used to test these transmitters?

Both will be tested to ITK 6.1.1.

Will these be inter-operable with the current Rosemount ITK4 3051 and 2051?

Yes. All ITK4, ITK5, and ITK6 devices are inter-operable and will work together.

Should I use this ITK version as a spec on projects?

No. It's better to specify the device functionality rather than the ITK test version. Specifying the ITK test version may eliminate choices that would better meet your application needs.

Specifications

Will specifications be changing?

The 3051 FF Revision 8 specifications will be improving to match the 3051 HART specifications. See page 4 for more detail, or obtain a 3051 product data sheet.

2051 specifications will not change.

Hardware changes

What hardware changes were made?

1. Both the 3051 and 2051 get new electronics and a new 8 character two-line LCD display.
2. The 3051 will also receive the 3051 HART updated housing and covers. This will allow the same housing and covers to be used on both HART and FF devices.
3. The 2051 will receive new terminal blocks.

Sensor modules will NOT change. Existing 3051 and 2051 sensor modules will work with the new electronics and LCD displays. See the updated spare parts list for the new part numbers.

Can I continue to buy spare parts for their existing 3051 Rev 7 and 2051 Rev 1 devices?

Yes. Rosemount will provide those spare parts until July 2015.

Can I upgrade my existing 3051 Rev 7 and 2051 Rev 1 devices to the new revisions?

Step 1. To upgrade, replace the old electronics with the new electronics. If you have an installed LCD display, replace it with the new version. The new electronics and LCD display will work in the old housing and with the old covers. Upgrade kits will be included in updated spare parts lists.

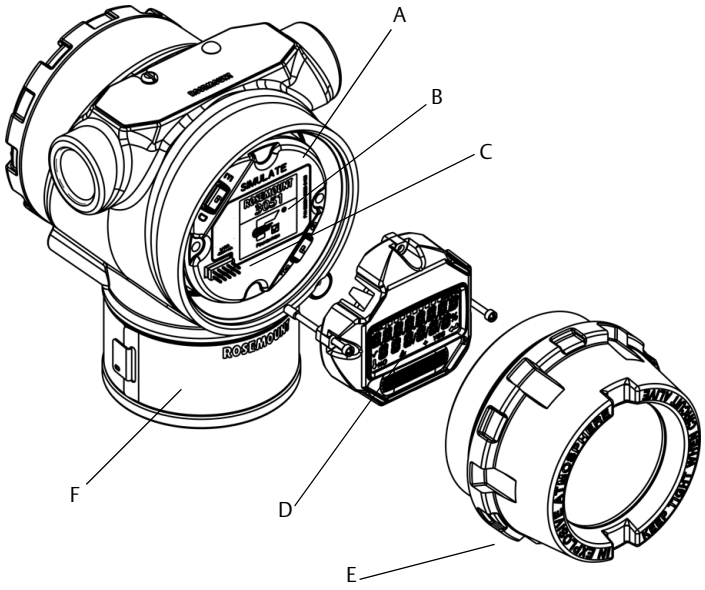
Step 2. Install new DD's and DTM™'s into your control and asset management hosts.

Step 3. Then decommission the old device, and commission the upgraded device as an "unlike device replacement".

3051 product visual identification

How can I identify a new Revision 8 3051?

Housing, electronics board, display and cover changes



A. New electronics

B. New electronics label

C. New LCD display connector location

D. New 2-line 8 character display

E. Standard dept cover

F. Full wrap-around tag

3051 what's new and improved

Revision 7 3051 FOUNDATION fieldbus	Specifications	Revision 8 3051 FOUNDATION fieldbus
0.065% of Span Standard 0.04% of Span P8 Option	Reference Accuracy	0.04% of Span Range 2-4 0.065% of Span Range 1 and 5
0.15% of span	Total Performance	0.14% of span
0.15% for 5 Years	Stability	0.2% for 10 Years
100:1	Range down	150:1
-30 °C	LCD display Temp Limit	-40 °C
N/A	Updated LDC	Yes
2XAI, PID, IS, Arith, SC, Int	Additional Function Blocks	Added Output Splitter, Control Selector, 2 added AI
Mix	Standard Function Blocks	Yes
30-45 ms	Function Block Speed	20-25 ms
PlantWeb Alerts	Diagnostics Annunciation	PlantWeb® Alerts or NE107 Alerts (User selectable)
Basic algorithm	Improved SPM	Enhanced algorithm Simplified configuration
N/A	Simplified Configuration & Commissioning	Standard
Traditional DD / DTM	Task optimized graphical DDs and DTM	Standard
ITK4	Updated ITK compliance	ITK6.1.1
N/A	Forward Compatibility	Starting at Device Rev 8
N/A	Live Software Download	Standard
N/A	Block Instantiation	Yes

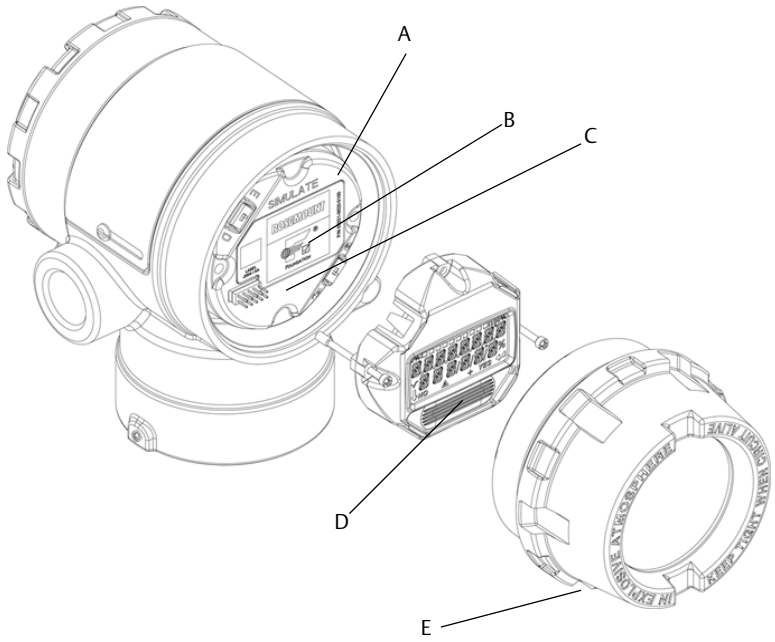
3051 spare parts and upgrade kits

3051 Rev 8 parts descriptions	3051 Rev 8 upgrade kit and spare parts numbers
Housing Covers	
Field Terminal and Electronics Cover Aluminum	03031-0292-0001
Field Terminal and Electronics Cover SST	03031-0292-0002
LCD display Cover Aluminum	03031-0193-0002
LCD display Cover SST	03031-0193-0012
Upgrade Electronics / Device Rev 8 Spare Electronics	
Electronics Board	02021-0020-5100
Upgrade Kits, Electronics, Display, covers	
Electronics, Display, no Cover	03031-0020-5109
Electronics, Display, Aluminum Cover	03031-0020-5209
Electronics, Display, SST Cover	03031-0020-5309
LCD Display Rev 8 spare parts and Rev 7 upgrade kits	
Display only	03031-0199-0003
Display and Aluminum Cover	03031-0199-0013
Display and SST cover	03031-0199-0023

2051 product visual identification

How can I identify a new Revision 2 2051?

Electronics board, display and cover changes



A. New electronics

B. New electronics label

C. New LCD display connector location

D. New 2-line 8 character display

E. Standard dept cover

2051 what's new and improved

Revision 1 2051 FOUNDATION fieldbus	Specifications	Revision 2 2051 FOUNDATION fieldbus
°C	LCD display Temp Limit	-40 °C
N/A	Updated LDC	Yes
2XAI, PID, IS, Arith, SC, Int	Additional Function Blocks	Added Output Splitter, Control Selector
Mix	Standard Function Blocks	Yes
30-45 ms	Function Block Speed	20-25 ms
PlantWeb Alerts	Diagnostics Annunciation	PlantWeb Alerts or NE107 Alerts (User selectable)
N/A	Simplified Configuration & Commissioning	Standard
Traditional DD / DTM	Task optimized graphical DDs and DTM	Standard
ITK4	Updated ITK compliance	ITK6.1.1
N/A	Forward Compatibility	Starting at Device Rev 2
N/A	Live Software Download	Standard
N/A	Block Instantiation	Yes

Reference Accuracy, Total Performance, Stability, and Range down are unchanged.

2051 spare parts and upgrade kits

2051 Rev 2 parts descriptions	2051 Rev 2 upgrade kit and spare parts numbers
Housing Covers	
Field Terminal and Electronics Cover Aluminum	03031-0292-0001
Field Terminal and Electronics Cover SST	03031-0292-0002
LCD display Cover Aluminum	03031-0193-0002
LCD display Cover SST	03031-0193-0012
Upgrade Electronics/Device Rev 2 Spare Electronics	
Electronics Board	02021-0020-5100
Upgrade Kits, Electronics, Display, covers	
Electronics, Display, no Cover	02021-0020-5109
Electronics, Display, Aluminum Cover	02021-0020-5209
Electronics, Display, SST Cover	02021-0020-5309
LCD Display Rev 2 spare parts and Rev 1 upgrade kits	
Display only	03031-0199-0003
Display and Aluminum Cover	03031-0199-0013
Display and SST cover	03031-0199-0023
Terminal Blocks Device Revisions 1 and 2	
Standard Terminal Block Assy	02051-9005-0024
Transient Terminal Block (Option T1)	02051-9005-0025
FISCO Terminal Block Assy	02051-9005-0026

Inter-operable or interchangeable?

Will the new 3051 Revision 8 be inter-operable with the 3051 Revision 7?

Will the 2051 Revision 2 be inter-operable with the 2051 Revision 1?

Will they be interchangeable so I can remove an old rev and just drop in a new rev?

Remember, there is a difference between inter-operable and interchangeable. Inter-operable means they will work together on a fieldbus segment. You can mix and match devices with different ITK versions, and devices from different suppliers on a segment and they will work.

Interchangeable means a user can replace one device with another WITHOUT CHANGES. The new revisions are not interchangeable with the old ones. You can replace a 3051 Revision 7 with a 3051 Revision 8, or a 2051 Revision 1 with a 2051 Revision 2, but you will need new DDs or DTMs, and to commission the new device as an “unlike” device replacement.

Approvals

Will all approvals be available at launch?

That’s the goal. Any approvals that are not available at launch should follow within a few months. Check with your sales contact for more information.

DD and DTM changes

Can I use the existing ITK4 DDs and DTMs for the new device revisions?

No. New DDs and DTMs will need to be downloaded and installed in the control and asset management hosts for the 3051 Rev 8 and the 2051 Rev 2.

Can I use the new DDs and DTMs with the 3051 Rev 7 and 2051 Rev 2?

No. The existing DD’s and DTM’s must be used with the previous revision devices.

When should I install the new DDs and DTMs?

As soon as practical, and before any 3051 Rev 8 or 2051 Rev 2 FF devices are purchased. Installing the new DDs and DTMs will not effect the operation of 3051 Rev 7 and 2051 Rev 1 devices. By installing the new DDs and DTMs before the new revision devices arrive at the plant, you will be ready to use them.

NE107 alerts

Are NE107 alerts the same as PlantWeb alerts?

They’re not identical, but they are similar. NE107 Alerts deliver the same information as PlantWeb alerts, but have different names for the alert categories, and alerts can be assigned by users to any alert category.

Will existing PlantWeb alerts continue to be available?

Yes. You can configure your preference for PlantWeb Alerts or NE107 Alerts.

Are there differences in diagnostic coverage between PlantWeb alerts and NE107 alerts?

No. It’s important to understand that the diagnostics coverage provided by NE107 alerts and PlantWeb alerts is EXACTLY the same. The only difference is NE107 divides the alerts into four categories while PlantWeb Alerts divide them into three categories.

SPM improvements

What SPM capability is changing and why?

We have made significant improvements to the SPM algorithm in the Rev 8 3051 to make it better able to detect abnormal conditions. Changes have also been made to reduce configuration time, effort, and complexity. The biggest change is that the SPM block now supports one channel, and that channel is permanently assigned to the PV. Another change to SPM is that plugged impulse line detection is now done in the SPM channel instead of a separate plugged line channel. Most SPM users monitor the PV and only the PV, so these changes give you the functionality used while making SPM much easier to turn on.

Which products are available with SPM?

The 3051 and 3051S.

What if I need SPM on a different variable, or on more than one variable?

Use to the 3051S.

Ease of use improvements

Dashboard DDs and DTMs

Both the 3051 and 2051 will have Dashboard DDs and DTMs at launch.

Eliminate duplicate block tags

The FF specifications require that every block tag on a segment be unique. If the same default block tags are used in every device, a unique tag must be assigned to each block to commission the device to the segment. With the 3051 Revision 8 and 2051 Revision 2, unique, tags are used for each device and function block. Because each tag unique, it's not necessary to change block names before devices can be commissioned.

Accommodate host limitations with factory default values

Default block tags will be less than 16 characters long, and will only use a subset of FF supported characters. This was done because some DCS systems, support different character sets and tag lengths than are specified by the FOUNDATION fieldbus. Our devices support the full FF 32-character tag length, and all characters permitted by the FF protocol. But by making our default tags comply with different host system rules, a device can be commissioned on hosts from a variety of manufacturers in less time.
Another change is that a file type called a CFG is available. This file type is used to display alerts on a Yokogawa PRM asset management system.

Configure the Analog Input (AI) blocks from the DD or DTM

In the past, the instrument technician couldn't configure level or flow units in the 3051 or 2051 until the control systems engineer scheduled and linked AI blocks from the control system. Because of this, instrument personnel sometimes needed to make two trips to the field to complete device configuration. Now both the 3051 and 2051 ship from the factory with the AI block scheduled and linked so the instrument technician can configure level and flow units as part of the initial device setup saving both time and trips to the field. Some control hosts including Delta V require that AI block configuration only be done through the control host configuration software after the transmitter has been commissioned to the host.

Ordering considerations

How do I order a 3051 Revision 8 or 2051 Revision 2 device?

Shipment of the Revision 8 3051 and the Revision 2 2051 will be automatic starting in October, 2014, or when all applicable approvals are available for your country. Russia (EAC) and Korea (KTL) will switch to the new revisions when applicable approvals are available, which may be after October. Check with your sales contact for more information.

How do I order a 3051 Revision 7 or 2051 Revision 1 device after October, 2014?

These revisions will no longer be available after October 2014 or after all approvals are available in your world area, whichever is later. All devices shipped will be the new revisions.

Why has the P8 option been eliminated for the 3051, but not the 2051?

The P8 performance level is now standard on the 3051. There is no longer a need for the option code. All other model numbers and option codes are the same.

There are no specification changes for the 2051 so the P8 high performance option is still offered.

If I order a specific model number for shipment before the new revision is available in my world area, and the same model number for shipment after the new revision is available, what will I get?

You will get the current revision product until the new revision is available in your world area. When the new revision is available that revision will be provided.

Note
You may receive different device revisions based on ship date even if the same model number is used.

What should I do to prepare for the new device revisions?

How do I prepare my host system?

Download and install the new DDs and DTMs on your host systems BEFORE any new devices are ordered.

How do I change the model numbers I order?

3051: The P8 option (high performance) has been eliminated for the 3051 since the standard performance has been improved to match the P8 option performance. All other model numbers and option codes are the same.

2051: There are no model number or option code changes for the 2051.

How should I accommodate the change in spare parts?

Update your spare parts purchasing list with the parts numbers shown above. Order and place the new spare parts in inventory before ordering additional 2051 and 3051 FF devices.

See Technical Note 00840-0100-4774, Rev AA for more information on preparing for the 3051 Device Revision 8.

See Technical Note 00840-0100-4101 Rev AA for more information on preparing for the 2051 Device Revision 2.

Note
You will receive different device revisions based on ship date even if the same model number is ordered.

How can I get the latest documentation?

Updated Quick Start Guides, Product Data Sheets, and User Manuals can be downloaded at Rosemount.com or Emersonprocess.com. They should be downloaded BEFORE the new revision devices are received in the plant.

Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN USA 55317
T (US) (800) 999-9307
T (Intnl) (952) 906-8888
F (952) 906-8889

Emerson Process Management (India) Private Ltd.
Delphi Building, B Wing, 6th Floor
Hiranandani Gardens, Powai
Mumbai 400076, India
T (91) 22 6662-0566
F (91) 22 6662-0500

Emerson Process Management Asia Pacific Private Limited
1 Pandan Crescent
Singapore 128461
T (65) 6777 8211
F (65) 6777 0947/65 6777 0743

Emerson Process Management, Brazil
Av. Hollingsworth, 325 - Iporanga
Sorocaba, SP – 18087-000, Brazil
T (55) 15 3238-3788
F (55) 15 3228-3300

Emerson Process Management GmbH & Co. OHG
Argelsrieder Feld 3
82234 Wessling Germany
T 49 (8153) 9390, F49 (8153) 939172

Emerson Process Management, Russia
29 Komsomolsky prospekt
Chelyabinsk, 454138
Russia
T (7) 351 798 8510
F (7) 351 741 8432

Beijing Rosemount Far East Instrument Co., Limited
No. 6 North Street, Hepingli,
Dong Cheng District
Beijing 100013, China
T (86) (10) 6428 2233
F (86) (10) 6422 8586

Emerson Process Management, Dubai
Emerson FZE
P.O. Box 17033,
Jebel Ali Free Zone - South 2
Dubai, U.A.E.
T (971) 4 8118100
F (971) 4 8865465

ROSEMOUNT

EMERSON. Process Management