

Knowledge Base Article



375 Field Communicator Li-Ion Power Modules May Fail If Exposed to RF Emitting Devices

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Required Action: Information Only
User Discipline: Operation

Recent Article Revision History:

Revision/Publish	Description of Revision
11 May 2010	Update KBA that a return of affected failed Li-Ion Power Modules is not necessary.

(See end of article for a complete revision history listing.)

Affected Products:

Product Line	Category	Device	Version
HHComs	375 Hardware	Battery Pack Battery Pack	MISC

This Knowledge Base Article, **NA-0900-0075**, provides information regarding a potential situation that can result in the failure of the new Li-Ion battery (Power Module) for the 375 Field Communicator.

It has been identified that the new Li-Ion Power Module for the 375 Field Communicator may fail if used, stored, or charged in close proximity to RF (Radio Frequency) emitting devices such as two way radios, walkie-talkies, etc.

More Information/Symptoms:

Should the Li-Ion battery (Power Module) be subjected to these types of RF emitting devices it is possible that the Li-Ion Power Module protection circuitry could activate to the level where the Li-Ion Power Module will fail as a result of a blown fuse in the protection circuitry.

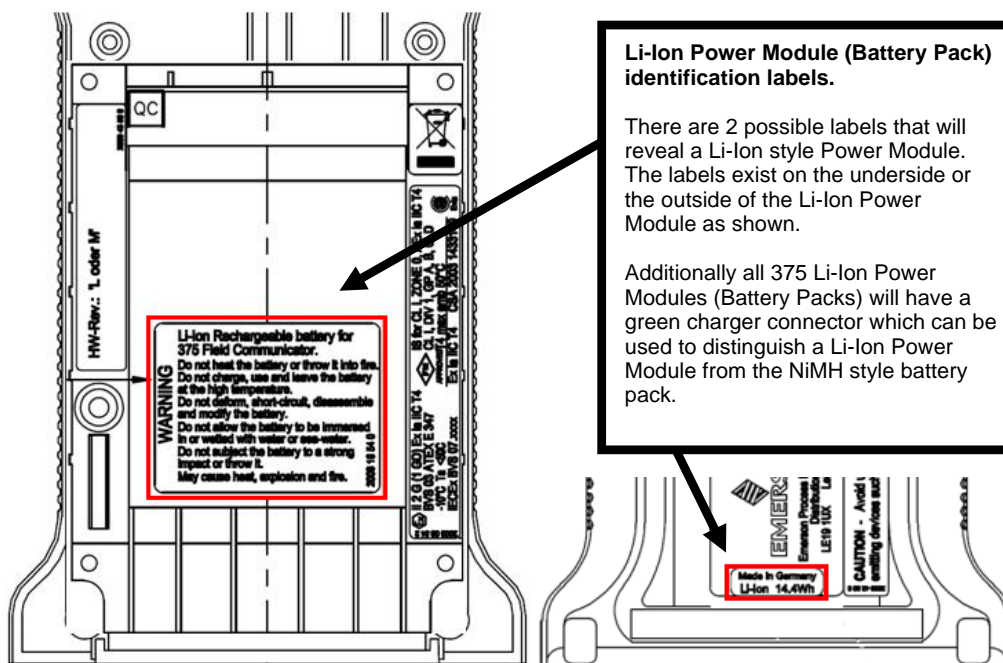
The blown fuse failure of the protection circuitry will render the Li-Ion Power Module incapable of supplying power to the 375 Field Communicator except while connected to the charger.

The following specific criteria can be used to identify potentially affected Li-Ion Power Modules and the existence of failure due to the known condition.

1) Identification of Li-Ion Power Module

As there are 2 possible battery pack styles which have been made available for the 375 Field Communicator, it must first be confirmed the affected battery is the Li-Ion type.

A Li-Ion Power Module(Battery Pack) can be identified by the tag on the underside or outside of the Power Module(Battery Pack) as shown below:



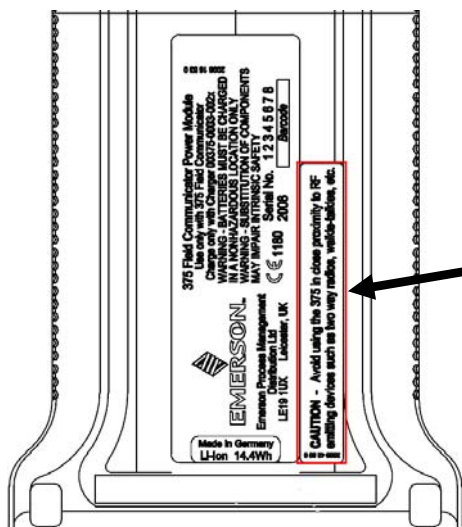
Li-Ion Power Module (Battery Pack) identification labels.

There are 2 possible labels that will reveal a Li-Ion style Power Module. The labels exist on the underside or the outside of the Li-Ion Power Module as shown.

Additionally all 375 Li-Ion Power Modules (Battery Packs) will have a green charger connector which can be used to distinguish a Li-Ion Power Module from the NiMH style battery pack.

2) The Li-Ion Power Module is confirmed to be in the potentially affected revision level range.

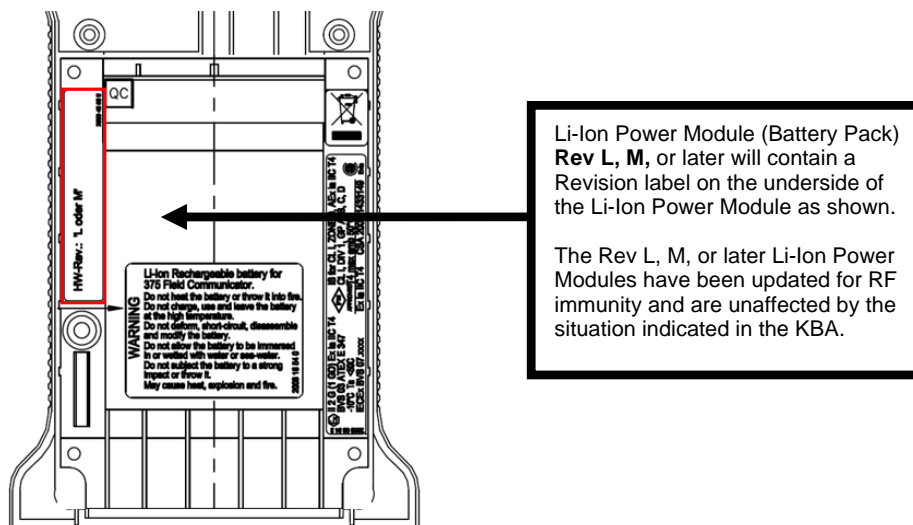
- Any Li-Ion Power Module at **Rev K or earlier** could be affected. Potentially affected Li-Ion Power Modules prior to Rev K will have no additional distinguishing markings other than being confirmed as a Li-Ion Power Module.



Li-Ion Power Module (Battery Pack) Rev K will contain a Caution label as shown. There is no Revision label or information available for Rev K or earlier Li-Ion Power Modules.

Other affected Li-Ion Power Modules prior to Rev K will not have this Caution label or any additional distinguishing characteristics other than confirmation it is a Li-Ion Power Module.

- Li-Ion Power Modules at **Revision L, M, or later** are unaffected.



3) The affected Li-Ion Power Module is confirmed to exhibit the following behavior:

- 375 Field Communicator will not operate without charger

<AND>

- No LED's are illuminated on the battery pack when button is pressed and charger is not connected.

Confirming the Li-Ion Power Module is in the affected range and the presence of the 2 conditions under item 3) above should confirm the situation reported in this KBA exists. However, the following behaviors related to the charger indicator lights may also be observed with this type of failure where a blown fuse in the Li-Ion Power Module has been encountered:

- Blinks yellow indefinitely when connected to pack
- Blinks green/yellow/green/yellow.... indefinitely when connected to pack
- Blink yellow for a few seconds then goes immediately to green (most common)

Work-around:

Avoid using, storing, or charging the 375 Field Communicator with the Li-Ion Power Module in close proximity to RF emitting devices.

Recovery Action:

To address this potential situation, the Li-Ion Power Module for the 375 Field Communicator has been updated with modifications to increase their immunity to sources of RF.

Should it be confirmed that an affected Li-Ion Power Module has failed due to the situation noted in this KBA, the following options exist:

1. Obtain a warranty replacement of the new updated Li-Ion Power Module with the improved RF immunity.

Note:

Affected Rev K or earlier Li-Ion Power modules confirmed as experiencing the failure mode described in this KBA will not need to be returned as it is a known situation relating to these affected Li-Ion Power Modules for which no failure analysis will be necessary.

The failed Li-Ion Power Modules should be recycled or disposed of as appropriate per the applicable local waste-disposal regulations.

2. For sites that may experience multiple failures of affected Li-Ion Power Modules, there are other 475 Field Communicator discount opportunities available.

Contact your local Emerson Sales channel for assistance with obtaining the appropriate replacement for the current situation.

Complete Article Revision History:

Revision/Publish	Description of Revision
11 May 2010	Update KBA that a return of affected failed Li-Ion Power Modules is not necessary.
08 Feb 2010	General KBA updates and update for identifying revisions of Li-Ion Power Module

23 Oct 2009 Original release of article

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