

**MIWI350,EC350,ERX350**  
**1.5022**  
**Software Change Notice**

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# 1 Introduction

## 1.1 About the 350 Series Products

The EC 350 is an Electronic Volume Corrector. The ERX350 is an Electronic Pressure/Temperature Recorder. MIWI 350 is an enclosure alternative for basic EC 350 and ERX 350 electronics that supports additional features that the basic enclosures do not (e.g. 3rd Pressure, solar power). (MIWI 350 can also be used without the basic EC 350 or ERX 350 as a separate communications and/or power assembly.)

## 1.2 About this Document

The purpose of this document is to inform customers and others of changes in the 1.50 release of the 350 series firmware.

This document covers only firmware-related topics – no hardware or mechanical aspects.

It covers all changes since the version 1.4810 firmware release.

## 1.3 Technical Assistance

Honeywell Process Solutions | Mercury Instruments

**TAC:** <https://process.honeywell.com/>

**TAC Ph :** (855) 251-7065 – United States and Canada

(302) 669-4253 – Outside the United States and Canada

**Training and User Documentation:** <https://www.honeywellprocess.com/en-US/explore/products/gas-measurement-and-regulation/metering/Pages/default.aspx>

Note: : [MI-TAC-Support@Honeywell.com](mailto:MI-TAC-Support@Honeywell.com) is active till October 2022 only. After October 2022, customers who want support must raise incidents at [process.honeywell.com](https://process.honeywell.com).

## 2 Contents of Release

Table 1

Product	Internal Part Number
EC 350	42-5664
ERX 350	42-5664

See Firmware Update Datasheet for firmware load files and attribute XML files. (Internal Honeywell part number for the firmware is 42-5664.)

The models listed above include the following software and documentation components:

Table 2

Component	Part Number
EC 350 Quick Start Guide	FD-582
EC 350 User Manual	FD-583
ERX 350 Quick Start Guide	FD-604
ERX 350 User Manual	FD-605
MIWI350 Quick Start Guide	FD-611
MIWI 350 User Manual	FD-610

## 3 Getting Started

See FD-582 for EC 350 Quick Start Guide – supplied with order shipment

See FD-604 for ERX 350 Quick Start Guide – supplied with order shipment

See FD-611 for MIWI 350 Quick Start Guide – supplied with order shipment

User Manuals available at:

- **EC 350** @ <https://process.honeywell.com/us/en/products/gas/distribution/volume-converters/ec350-volume-converter>

- **ERX 350** @ <https://www.honeywellprocess.com/en-US/explore/products/gas-measurement-and-regulation/metering/data-loggers-and-electronic-pressure-recorders/Pages/erx-350.aspx>
- **MIWI 350** @ <https://process.honeywell.com/us/en/products/gas/distribution/volume-converters/miwi350-volume-corrector>

## 4 Release Overview

This release is both a full release for new orders and for upgrades for those systems already using the **EC 350 product**. Additional features and maintenance fixes have been addressed in this release.

**This release is also the initial full release for installations of the ERX 350/MIWI 350 product.**

## 5 Software/Hardware/Firmware Compatibility

- Cloud Link (Modem) – firmware R100.1 (v1.0033) or later
- Cloud Link (CL4GM1) – firmware R110.1 (v1.02.12) or later
- For use with **EC 350 Product - MasterLink Release R515.1 Build 15.1.46.0** or later
- For use with **ERX 350 Product - MasterLink Release R515.1 Build 15.1.46.0** or later
- For use with **MIWI 350 Product - MasterLink Release R515x.1 Build 15.1.46.0** or later
- PowerSpring R301.1 or later

## 6 Documentation Updates/Additional Information

- **EC 350** @ <https://process.honeywell.com/us/en/products/gas/distribution/volume-converters/ec350-volume-converter>
- **ERX 350** @ <https://www.honeywellprocess.com/en-US/explore/products/gas-measurement-and-regulation/metering/data-loggers-and-electronic-pressure-recorders/Pages/erx-350.aspx>

## 7 Release Changes 1.50

### 7.1 Enhancements/Features

- RGASMETER-603: Automatic approximate date/time restoration after power loss  
After power reboot instead of going to default date/time, device will retrieve date/time from last recorded audit trail log time stamp.
- RGASMETER-359: Add Digital I/O functionality of SW3 and SW4 in EC350.  
In EC350 if customer is not using reverse flow then he can use SW3 and SW4 for digital I/O functionality. Added alarms for SW3 and SW4, this alarms will trigger based on configuration and SW3, SW4 values.  
NOTE: The EC350 now has alarms for SW3 and SW4, but the current MasterLink R515 build 15.1.46.0 or later does not show these alarm alerts on the dashboard, instead, they will appear in the MasLink Alarm Log. You can anticipate MasterLink dashboard to show these alarms in future release.  
If you want to display these alarms in MasterLink R515 build 15.1.46.0 or later, replace the file EC350\_Config.xml in *MasterLink* -> *ControlFiles* folder. To download EC350\_Config.xml file please refer firmware download datasheet.
- RGASMETER-586: API 21.1 Compliance (Metrological Standard).  
Add "Flow Time" item, representing the number of seconds for the log interval that the instrument was not in a "no flow" state. For example, under continuous flow the # of seconds would be equal to the log interval, and if there was no flow during the interval the value would be zero.  
Add "No Flow Cutoff" item if flow is equal to or above that threshold, the Flow Time value advances. If flow is less than the threshold, Flow Time does not advance.
- RGASMETER-642: 350S Virtual P4  
Can configure instrument such that a set of "P4" item values are calculated from corresponding P1/P2/P3 values. Generally it is differences, for a virtual differential pressure (e.g.  $P4=P1-P2$  or  $P4=P3-P2$ ).
- REC350-365: Failsafe backup call in retry (call if have not called within X hours).  
if the instrument is generally configured to call in, but has not done so in some (probably configurable) amount of time, it would call in when that time has elapsed.
- REC350-1003: Item number i449 should be enabled.  
Differed this PAR, as in internal discussions concluded that keep i449 default disable and whenever required user can enable by setting i449 to '1'.
- RGASMETER-598: Enhanced input volume switch filtering.  
Reopened this enhancement and fixed cascading impact of raw sensor counts (i1166 & i1167) issue effected with switch filtering enable.
- Force schedule call after firmware update:  
Added item i1694 – to configure time in minutes, to trigger force schedule call after firmware update. If with in the configure time configured date/time items are set then this force call will get disable.

## 7.2 Problems Resolved

- RGASMETER-640: EC350 cannot make item changes in metrological protection mode even after reading event log.
- RGASMETER-597: Extend item 1490 Comm Reset feature to recover from HOST SYSTEM CONNECTED.
- RGASMETER-639: EC350 event log - not blocking changes in metrological protection mode when log full of unread records
- RGASMETER-658: FW 1.4810\_MIWI350 does not turn off Modem power.
- RGASMETER-657: EC350 Alarm 104 CPU reset
- REC350-620: Trying to read CL pulse count (item 3113) even though configured not to (invisible to users).
- REC350-688: Alarm /Schedule call-in shall fail when triggered during the end of the Alarm keep-alive time.
- REC350-717: EC350 is went to the continuous reboot state when we perform the Digital switch operation to 764 item.

NOTE: There is a known issue RGASMTER-705 which might cause incorrect MasterLink reports for audit trail logs to overcome this before changing audit trail log configuration clear existing audit trial logs (by writing value “20141329” to item i264 ).

## 8 Installation and Migration

1.5022 firmware will be shipped by default for new orders (except Canada) of EC 350, ERX 350 and MIWI 350.

Firmware can be upgraded in existing units with MasterLink software (R515+).

### 8.1 Prerequisites

**Not Applicable**

### 8.2 Migration Considerations

**Not Applicable**

### 8.3 Installation Instructions

Refer to Firmware Download Datasheet (e.g. saving and restoring instrument data, updating XML files), and MasterLink documentation about firmware upgrades.

## **8.4 Migration Instructions**

**Not Applicable**

## **8.5 Post installation Instructions**

**Not Applicable**

# **9 Security-Related Issues**

Based on information and data available to us to date, this section describes currently identified security issues related to this release.

**None.**

# **10 Third-Party Software Components**

## **10.1 Embedded Software Components**

These software components may have been included with your software installation.

**None**

## **10.2 External Certified Software Components**

These third party software applications are supported on nodes running this software release.

**None**

# **11 Battery Life Measurement**

No major impact on battery life for this release compare with previous version.