

Conforming Meter Firmware Update

Revenue Metering Subcommittee Meeting

November 16, 2005
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q Firmware Version V261

- Approved by MC on 2005-08-10 (reference MAL-E98)
- Approved by IESO on 2005-11-07
- Changes include:
 - ü Multi-port DNP support for up to 3 connections
 - ü Frameworks decoupling
 - ü IRIG-B protocol support
 - ü Improved TCP/IP stack
 - ü New internal web pages
 - ü Log Mail replaced by Log Export
 - ü Rapid meter programming
 - ü Instrument Transformer Correction Function
(Not Approved for use in IESO markets)



- q No change in metrological function or security of the sealed meter**

- q No change in interrogation results using IESO's MV-90 TIM 99 – Version is “ION 04/05/05”**
 - This TIM appears as “ABB/PML ION8300/8400/8500 V218 on” in MIRT 1.0.5.a**

- q IESO has been advised by both PML and Elster that new ION meters with firmware versions above V232 will only be available from PML**

PML ION 8500 / 8400 / 8300 Firmware Version V262



ION 8500, ION 8400, ION 8300 modem detection

Power Measurement has become aware of an issue in which the internal modem of a small number of ION 8500 Series meters (0.025%) has not been detected at meter power up, resulting in loss of modem functionality. This issue has no bearing on revenue measurement or any other functionality of the meter. While we have not yet determined the root cause of this issue, we have been able to reproduce the issue on returned meters and have characterized the problem.

Under normal operation, the ION meter queries the communication card during power up to determine the installed communication options. When this problem manifests, an error in the auto-detection process causes the modem to not be detected. As a result, the meter configures itself as if it doesn't have a modem. The modem is physically fine, the meter just doesn't know it is there.

This problem will only manifest during power up, as this is when the auto-detection occurs. If the modem is detected correctly during power up, it will continue to function. The converse is also true. If the modem is not detected at power up, a power cycle may restore correct modem operation.

This issue is part of an ongoing investigation with our 8500 series meters. We would like to reassure you that while this has occurred on a very small number of meters in the field, we are committed to and are actively working on finding a root cause for this problem.

q **Firmware Version V262**

- **Approved by MC on 2005-10-19 (reference MAL-E100)**
- **Approved by IESO on 2005-11-07**
- **Changes include:**
 - ü **More accurate identification of communication devices**
 - ü **Resolves problem with meter's failure to identify internal modem on power up sequence under certain conditions**

q **No change in metrological function or security of the sealed meter**

q **No change in interrogation results using IESO's MV-90 TIM 99 - Version is "ION 04/05/05"**

- **This TIM appears as "ABB/PML ION8300/8400/8500 V218 on" in MIRT 1.0.5.a**

q Firmware Version 5.0

- Approved by MC on 2005-02-16 (reference MAL-E82)
- Approved by IESO on 2005-11-07
- Changes include:
 - ü Voltage quality and harmonics monitoring
 - ü ANSI table improvements
 - ü Enhanced LCD display
 - ü Enhanced meter diagnostic information
 - ü Ethernet communication capability
 - ü New internal web pages



Itron SENTINEL Meter Firmware Version 5.0 (cont.)

- q No change in metrological function or security of the sealed meter**

- q No material change in interrogation results using IESO's MV-90 TIM 30 - Version is "STLP 02/15/05"**
 - This TIM appears as "Schlumberger - SENTINEL" in MIRT 1.0.5.a**

- q PML submitted an application to have their ION 8600 meter tested by the IESO on November 10, 2005**
- **Initial firmware is version V311**
 - **Identical to the ION 8500 / 8400 / 8300 meters in terms of metrological functionality and communication capability**
 - **ION 8600 uses a new generation microprocessor / chip set**
 - **ION 8600 has been in use in the USA for 6+ months**
 - **No known MV-90 issues**
 - **Currently waiting for final MC NOA publication**
 - **IESO testing scheduled for November 17 - 21, 2005**

Itron QUANTUM Q1000 Meter Firmware Version 5.02c

q Itron Canada Inc. has indicated they will be submitting an application for firmware version 5.02c for their QUANTUM Q1000 meter prior to November 30, 2005

- Improved error tracking in meter
- Added diagnostics for the network driver, I/O ports
- Enhancements to echelon network messaging and events
- Improved event log management
- Quantum Q1000 has been in use in the USA for 6+ months
- No known MV-90 issues
- Currently waiting for MC NOA publication
- IESO testing to be scheduled in early December, 2005

Questions ?

