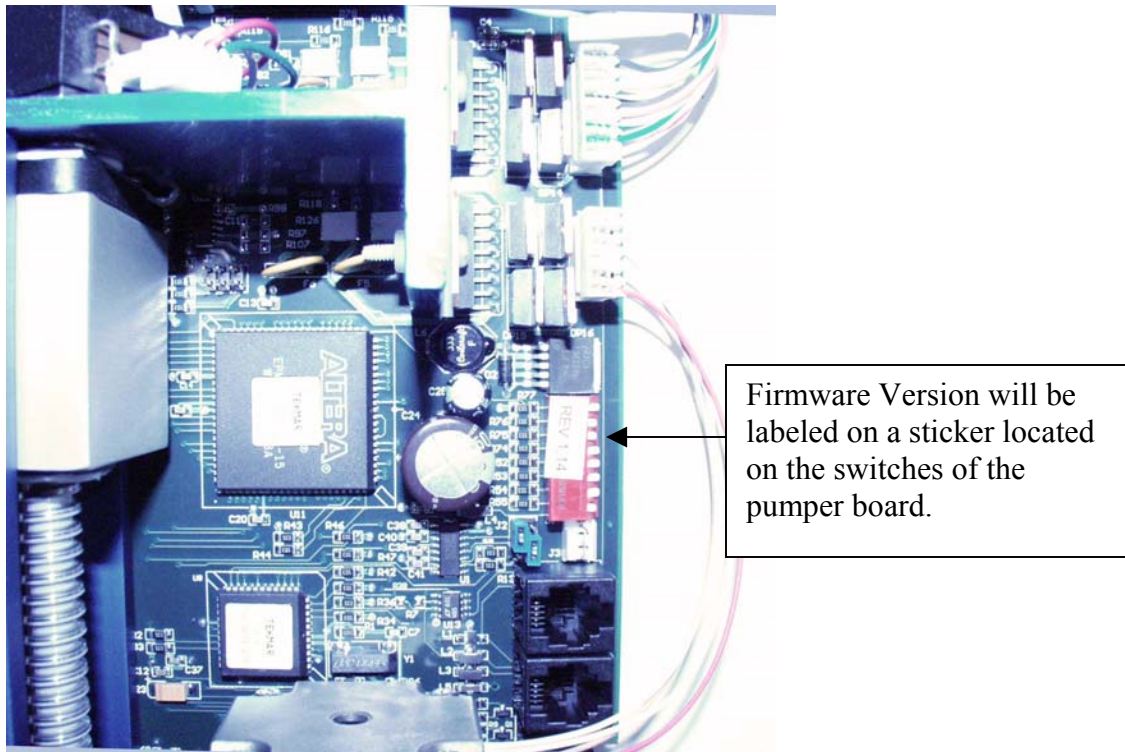
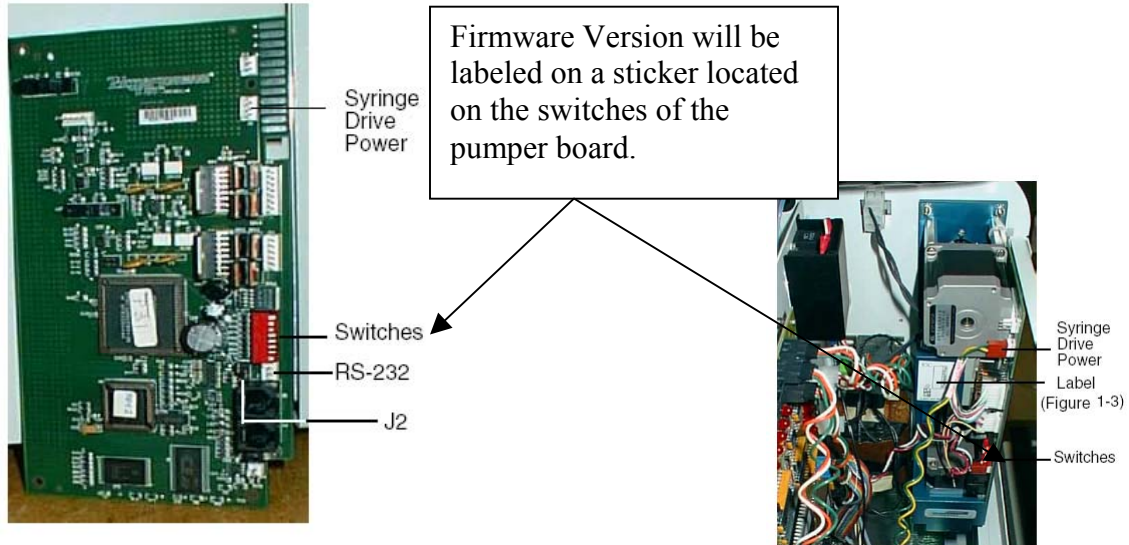


Phoenix TOCTalk Range 2 Method Update to 3.2.105 Guide

TOC Talk Range 2 Method Update for 3.2.105 explanation overview:

Analytical

- Please note that these release updates to the TOC Talk Event Procedures are optimized with **Syringe Pumper firmware version 1.14** or higher. If you are unsure of your Syringe Pumper firmware version, please contact Technical Support, 513-229-7000, for details on identifying the Syringe Pumper version.



In updating the analytical process, we have:

- Determined that four new methods are needed for TOC analysis. Four of the methods are in our most popular range 0.1 – 20ppmC.

1 & 2 - The first set of methods, “Pharma TOC Range 0.01 – 5ppmC” and “Pharma TC Blank Range 2”, was created for Pharmaceutical TOC analysis (both Cleaning Validation and Water For Injection Analysis). These methods are specially designed to yield lower blanks and improve speed, accuracy and precision for Pharmaceutical TOC analysis.

Method Setup (PROTECTED METHOD)

Method Name: Pharma TOC 0.01-5 ppmC

Mode: TOC

Range (ppm C): 0.1 - 20

Injection Vol (mL): 4.000

Pre-Sparge Time (sec): UV Reactor 10, IC Reactor, Mixing Time 50

Sparger Vol (mL):

Dilution Vol (mL):

Water Vol (mL):

Reagent Vol (mL): 0.350

Threshold (mv): 0.250

Acid Vol (mL): 0.500

Version Shown: 1

Buttons: Exit, Cancel, Help, New, Delete, Show History, Audit, Print History

Method Setup (PROTECTED METHOD)

Method Name: Blank TC Range 2 Pharma

Mode: TC

Range (ppm C): 0.1 - 20

Injection Vol (mL): 4.000

Pre-Sparge Time (sec): UV Reactor 10, IC Reactor, Mixing Time

Sparger Vol (mL):

Dilution Vol (mL):

Water Vol (mL):

Reagent Vol (mL): 0.350

Threshold (mv): 0.250

Acid Vol (mL):

Version Shown: 1

Buttons: Exit, Cancel, Help, New, Delete, Show History, Audit, Print History

3 & 4 - The second set of methods, “Drinking H2O Range 0.1-20ppmC” and “Blank Range 2 Drinking H2O”, is designed for TOC analysis of Drinking Water. These methods are designed to remove Inorganic Carbon more efficiently and improve efficiency of analysis across the analytical range.

Method Setup (PROTECTED METHOD)

Method Name: Drinking H2O TOC 0.1-20 ppmC

Mode: TOC

Range (ppm C): 0.1 - 20

Injection Vol (mL): 4.000

Pre-Sparge Time (sec): UV Reactor 10, IC Reactor, Mixing Time 120

Sparger Vol (mL):

Dilution Vol (mL):

Water Vol (mL):

Reagent Vol (mL): 0.800

Threshold (mv): 0.500

Acid Vol (mL): 2.000

Version Shown: 1

Buttons: Exit, Cancel, Help, New, Delete, Show History, Audit, Print History

Method Setup (PROTECTED METHOD)

Method Name: Blank TC Range 2 Drinking H2O

Mode: TC

Range (ppm C): 0.1 - 20

Injection Vol (mL): 4.000

Pre-Sparge Time (sec): UV Reactor 10, IC Reactor, Mixing Time

Sparger Vol (mL):

Dilution Vol (mL):

Water Vol (mL):

Reagent Vol (mL): 0.800

Threshold (mv): 0.500

Acid Vol (mL):

Version Shown: 1

Buttons: Exit, Cancel, Help, New, Delete, Show History, Audit, Print History

- Please note that any previous sample setup and calibration setup screens will require the TOC method changed from TOC 0.1-20ppmC to either Drinking H2O Range 0.1-20ppmC or Pharma TOC Range 0.01 – 5ppmC. Blank TC Range 2 now has distinct Blank methods of Blank Range 2 Drinking H2O and Pharma TC Blank Range 2. A few error messages may occur during this process. Please disregard and click OK if they occur.
- Improved recycling of purified water during the blanking process of Range 2. Recycled purified water from the UV reactor is used to rinse with instead of new purified water. This yields a lower more consistent blanking process.
- Improved sample handling of TOC Range 2 Analysis. Recycled water from the UV reactor is used to rinse with instead of new purified water. This produces a low level TOC analysis with greater precision.
- Syringe speeds have been optimized to produce less noise during liquid handling for methods:
 - Cleaning Procedures
 - Blank TC Range 2
 - Blank TC Range 2 Pharma
 - Blank TC Range 2 Drinking H2O
 - TOC Range 2 Analysis
 - Pharma TOC 0.01 – 5 ppmC
 - Drinking H2O TOC 0.1-20 ppmC
 - Injections into the reactors may be louder than other movements because lower speeds are used for greater accuracy in sample volume delivery. However, a majority of syringe movements should be less noisy.