

9480 Carroll Park Dr., San Diego, CA 92121-5201
Phone (858) 657-9800 Fax: (858) 657-9818 Toll Free 1800 324-5190
E-mail: api-customerservice@teledyne.com <http://www.teledyne-api.com>

11-009 rev A
15 November, 2011

INSTALLATION OF A SAMPLE CONDITIONER INTO AN M200E OR T200 ANALYZER

I. PURPOSE:

To provide instructions on how to install a Permapure dryer on the sample inlet of the M200E or T200 analyzers. The Permapure dryer will remove ammonia (NH₃) and water vapor from the sample. This will help to increase the time between RxCell cleanings.

II. TOOLS:

7/16" wrench
1/2" wrench
9/16" wrench
Flat tip screwdriver
Phillips tip screwdriver

III. PARTS:

KIT000262 KIT, SAMPLE CONDITIONER, M200E, T200

IV. PROCEDURE:

NOTE: DO NOT LOOSEN ANY FITTINGS ON THE DRYER ASSEMBLY. IF YOU LOOSEN ANY FITTINGS YOU MIGHT DAMAGE THE DRYER. WHEN YOU ARE TIGHTENING THE FITTINGS ON THE DRYER ASSEMBLY MAKE SURE THAT YOU USE TWO WRENCHES.

1. Please use Figures 1, 2 and 3 later on in this document to help guide you through the steps of installing the sample conditioner (Dryer) into the analyzer.
2. Turn off the analyzer and remove the power cord. Remove the cover and set to the side.
3. The NOx converter is directly in the middle of the analyzer and is 4"x4". The converter probably has a sticker on the top of it that says hot.
4. Directly in front of the converter are two valves.
5. One valve has a T on the top of it, this is the NO/NOx switching valve.
6. One side of the T goes to the converter.
7. The other side of the T goes under the sensor assembly and is a black 1/8" PTFE tube. Remove this fitting and let it hang loose.
8. Put the dryer into the analyzer such that the black PTFE tube is on the bottom and slide it into the space between the ozone dryer bracket and the converter, so that the tube turns up and meets at the T on the top of the valve where you just disconnected the fitting. (See Figure 1)

Installation of a sample conditioner into an M200E or T200 Analyzer

11-009 Rev A (DCN 6307) 11/17/2011

Page 1 of 3

PRINTED DOCUMENTS ARE UNCONTROLLED

9. Hook the tube from the dryer to the T on the top of the valve.
10. Hook the 1/8" tube that you just disconnected from the T at the top of the valve, to the top of the dryer assembly.
11. Run the special T fitting that is on the Tygon tubing, to the vacuum manifold located at the rear of the analyzer.
12. Fold down the rear panel of the analyzer and loosen the fitting on the right hand side of the vacuum manifold that goes up to the exhaust of the analyzer on the rear panel.
13. Install the T from the dryer onto the vacuum manifold.
14. Install the fitting that you just removed from the vacuum manifold onto the open end of the T fitting.
15. Tighten all connections with two wrenches so you don't bend any fittings.
16. Leak check the analyzer. If the analyzer has any leaks they must be fixed prior to turning on the calibrating the analyzer.
17. Install the cover and apply power to the analyzer.
18. Perform a zero and span calibration on the analyzer and return to normal service.

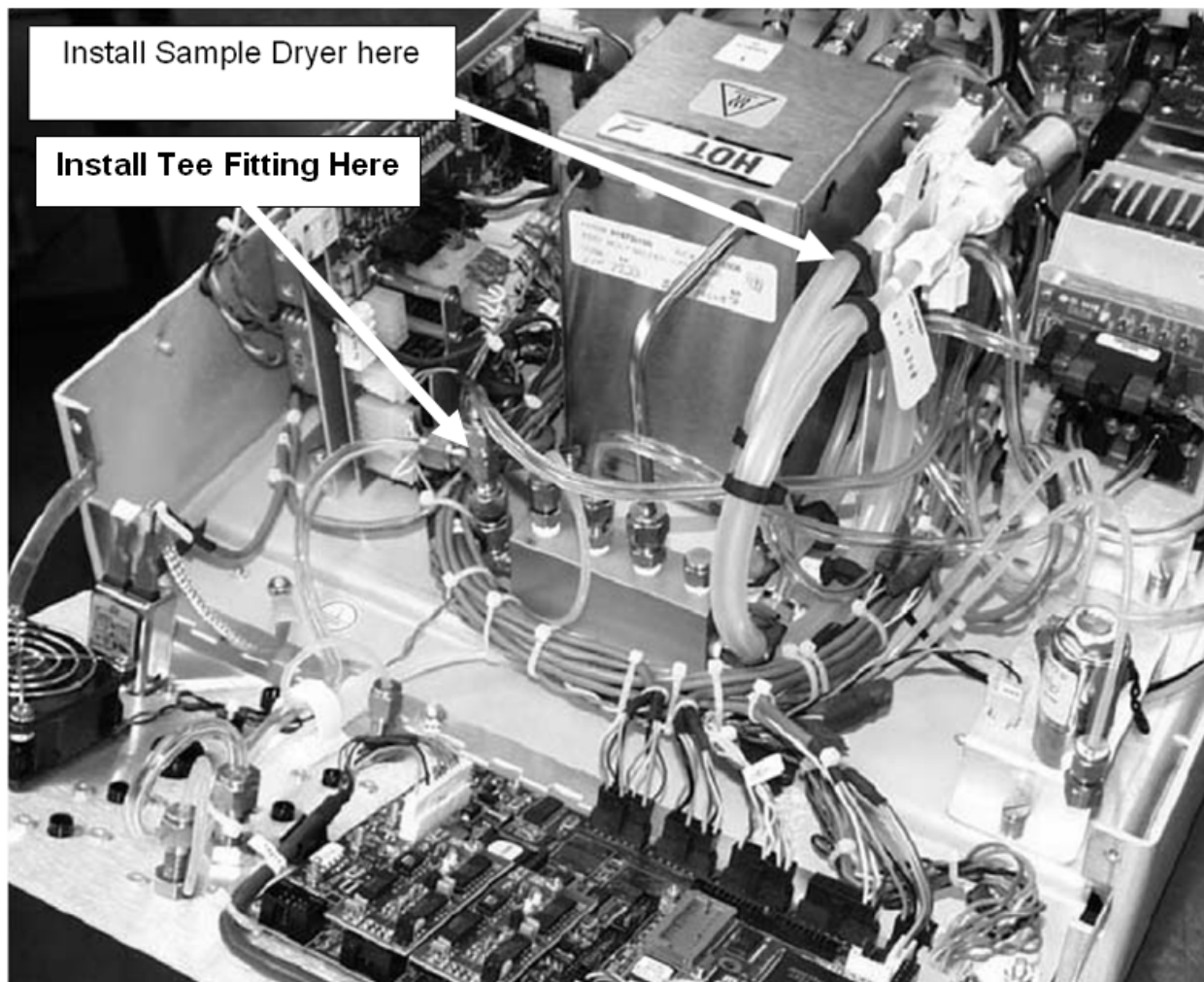


Figure 1 – Sample conditioner installation location

Installation of a sample conditioner into an M200E or T200 Analyzer

11-009 Rev A (DCN 6307) 11/17/2011

Page 2 of 3

PRINTED DOCUMENTS ARE UNCONTROLLED

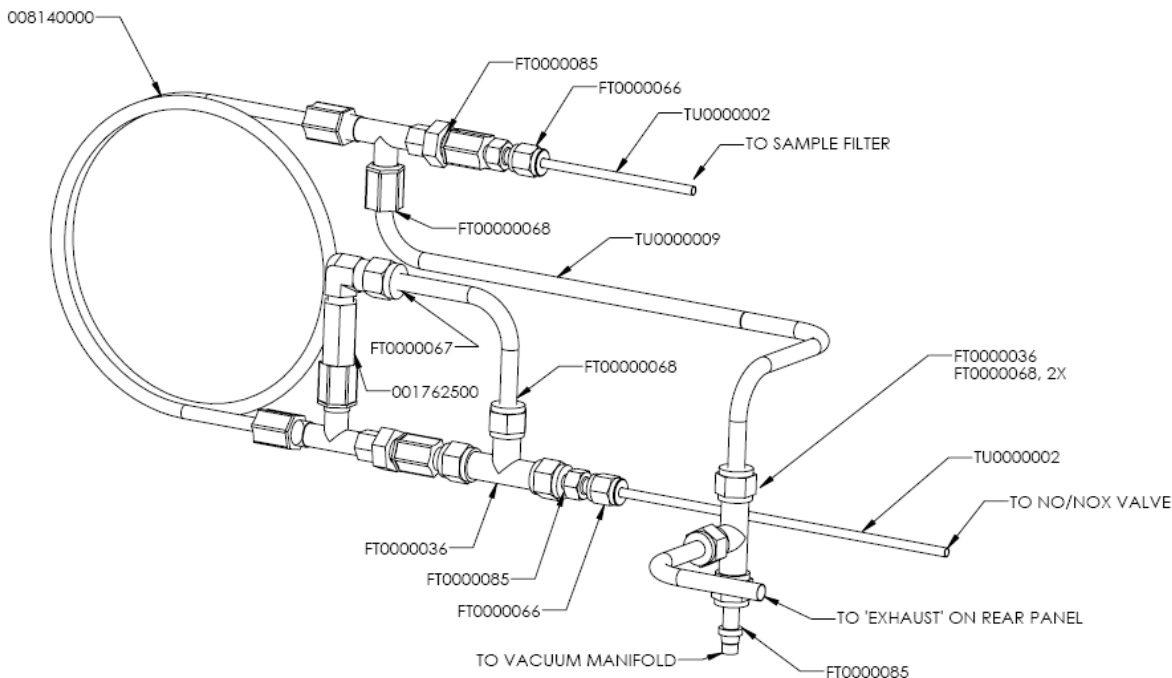


Figure 2 – Sample Conditioner Assembly with tubing routing locations

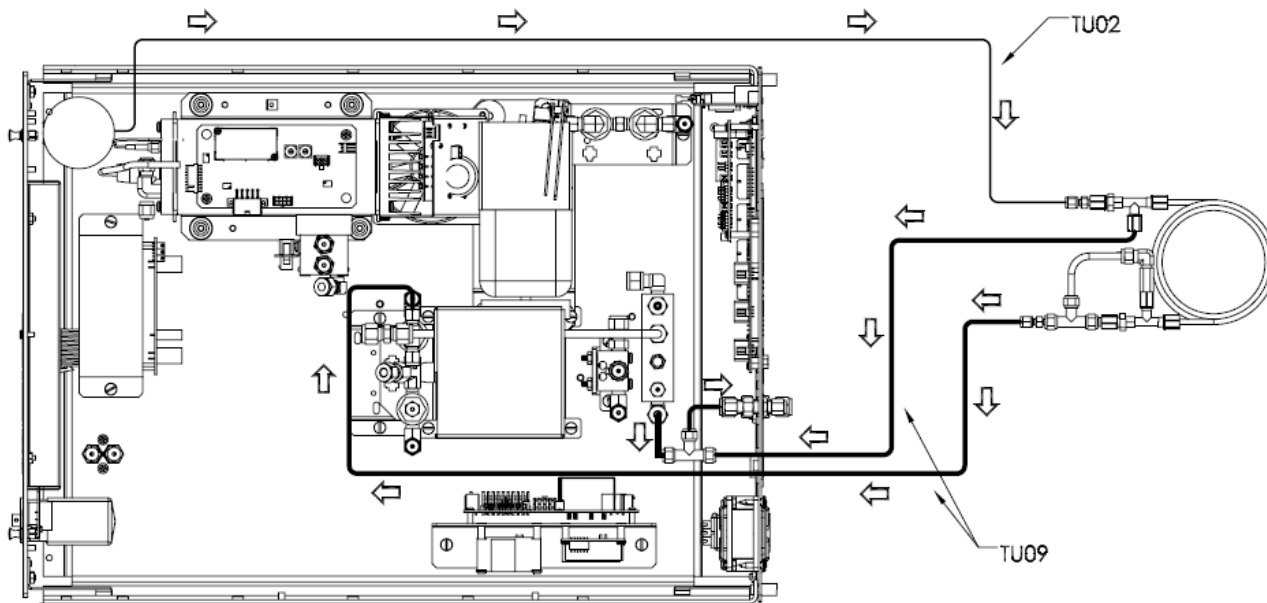


Figure 3 - Pneumatic connections diagram

Installation of a sample conditioner into an M200E or T200 Analyzer

11-009 Rev A (DCN 6307) 11/17/2011

Page 3 of 3

PRINTED DOCUMENTS ARE UNCONTROLLED