TELEDYNE
INSTRUMENTS
Advanced Pollution Instrumentation
A Teledyne Technologies Company
9480 Carroll Park Drive., San Diego, CA 92121-2251
Phone (858) 657-9800 Fax: (858) 657-9818 Toll Free 1800 324-5190
E-mail: api-customerservice@teledyne.com http://www.teledyne-api.com

Service Note

95-014B
2 May, 2007

CLEANING REACTION CELL WINDOWS ON NOX ANALYZERS

I. PURPOSE:

To aid in the cleaning of Rcell windows on NOx analyzers.

II. TOOLS:

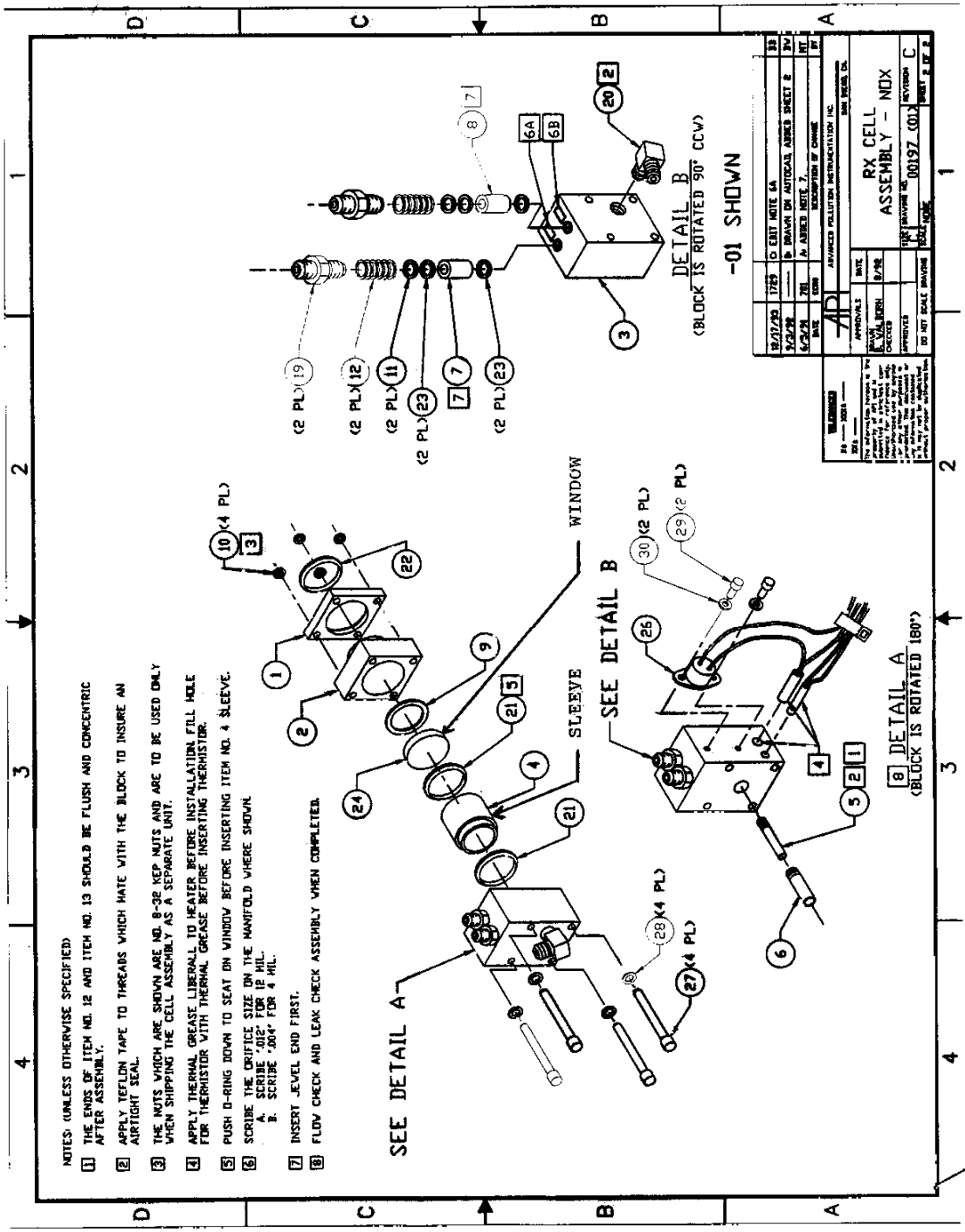
#2 Phillips Screwdriver
9/16" wrench
7/16" wrench
Glass cleaner
Di or Distilled water

III. PARTS:

N/A

IV. PROCEDURE:

1. Remove the sample, ozone and vacuum pneumatic connections in the end of the reaction cell.
2. Disconnect the heater/thermistor cable at the connector.
3. Remove the 4 screws holding the reaction cell to the sensor assembly, being sure to remove the ground wire.
4. Remove the sleeve from the reaction cell. O-rings are usually stuck to the sleeve ends. If so, remove one of the o-rings from the sleeve.
5. Push the window gently out of the reaction cell. Clean the window with AMMONIA FREE glass cleaner, a baking soda and water solution or a 10:1 solution of water and simple green.
6. Rinse the window thoroughly with Di or Distilled water and dry with a soft, lint free cloth.
7. Clean the sleeve and other contaminated metal surfaces in the same manner.
8. Reassemble in the reverse order of disassembly, being sure to seat the paper gasket in the reaction cell before dropping the window in. Also, after inserting the window, drop the o-ring you removed from the sleeve on top of the window before inserting the sleeve.
9. When reattaching the sample and ozone tubing, attach as follows:
   A. On ambient analyzers (below 100 PPM), connect the ozone to the 4 mil orifice and the sample to the 10 or 12 mil orifice.
   B. On high concentration analyzers (above 100 PPM), connect the ozone to the 7 mil and the sample to the 4 mil orifice.
10. Leak check the instrument before calibrating the analyzer.


NOTES: (UNLESS OTHERWISE SPECIFIED)
1. THE ENDS OF ITEM NO. 12 AND ITEM NO. 13 SHOULD BE FLUSH AND CONCENTRIC AFTER ASSEMBLY.
2. APPLY TEFLON TAPE TO THREADS WHICH MATE WITH THE BLOCK TO INSURE AN AIRTIGHT SEAL.
3. THE NUTS WHICH ARE SHOWN ARE NO. 8-32 KEP NUTS AND ARE TO BE USED ONLY WHEN SHIPPING THE CELL ASSEMBLY AS A SEPARATE UNIT.
4. APPLY THERMAL GREASE LIBERALL TO HEATER BEFORE INSTALLATION. FILL HOLE FOR THERMISTOR WITH THERMAL GREASE BEFORE INSERTING THERMISTOR.
5. PUSH O-RING DOWN TO SEAT ON WINDOW BEFORE INSERTING ITEM NO. 4 SLEEVE.
6. SCRIBE THE ORIFICE SIZE ON THE MANIFOLD WHERE SHOWN.
A. SCRIBE ".012" FOR 12 MIL.
B. SCRIBE ".004" FOR 4 MIL.
7. INSERT JEWEL END FIRST.
8. FLOW CHECK AND LEAK CHECK ASSEMBLY WHEN COMPLETED.
SEE DETAIL A
SEE DETAIL B
WINDOW
SLEEVE
DETAIL B
(BLOCK IS ROTATED 90° CCW)
-01 SHOWN
8 DETAIL A
(BLOCK IS ROTATED 180°)
RX CELL ASSEMBLY - NOX
ADVANCED POLLUTION INSTRUMENTATION INC.
00197 (01)