



**97-002C
2 May, 2007**

HOW TO REPLACE 330 NM WITH 360 NM FILTER IN M100A SO₂ ANALYZER

I. PURPOSE:

This procedure is for customers who are using Teledyne API's M100A analyzer for stack application, where the NO concentration is high (on the order of tens of PPM). The replacement of the 330 nm filter will greatly reduce the NO interference. If your analyzer is running on ambient air and there is not a high NO concentration in the sample gas at the site, please disregard this service note.

If your analyzer needs to be modified, please order a 360 nm filter from Teledyne API, part number 00274.

II. TOOLS:

Pair of adjustable wrenches
Philips head screwdriver
Digital or analog voltmeter
360 nm filter (must be ordered from Teledyne API)
Short Allen wrench, API PN#02554-0100 (or a set of Allen wrenches with ball ends) or ¼" open end or box wrench (depending on housing fastener)

III. PARTS:

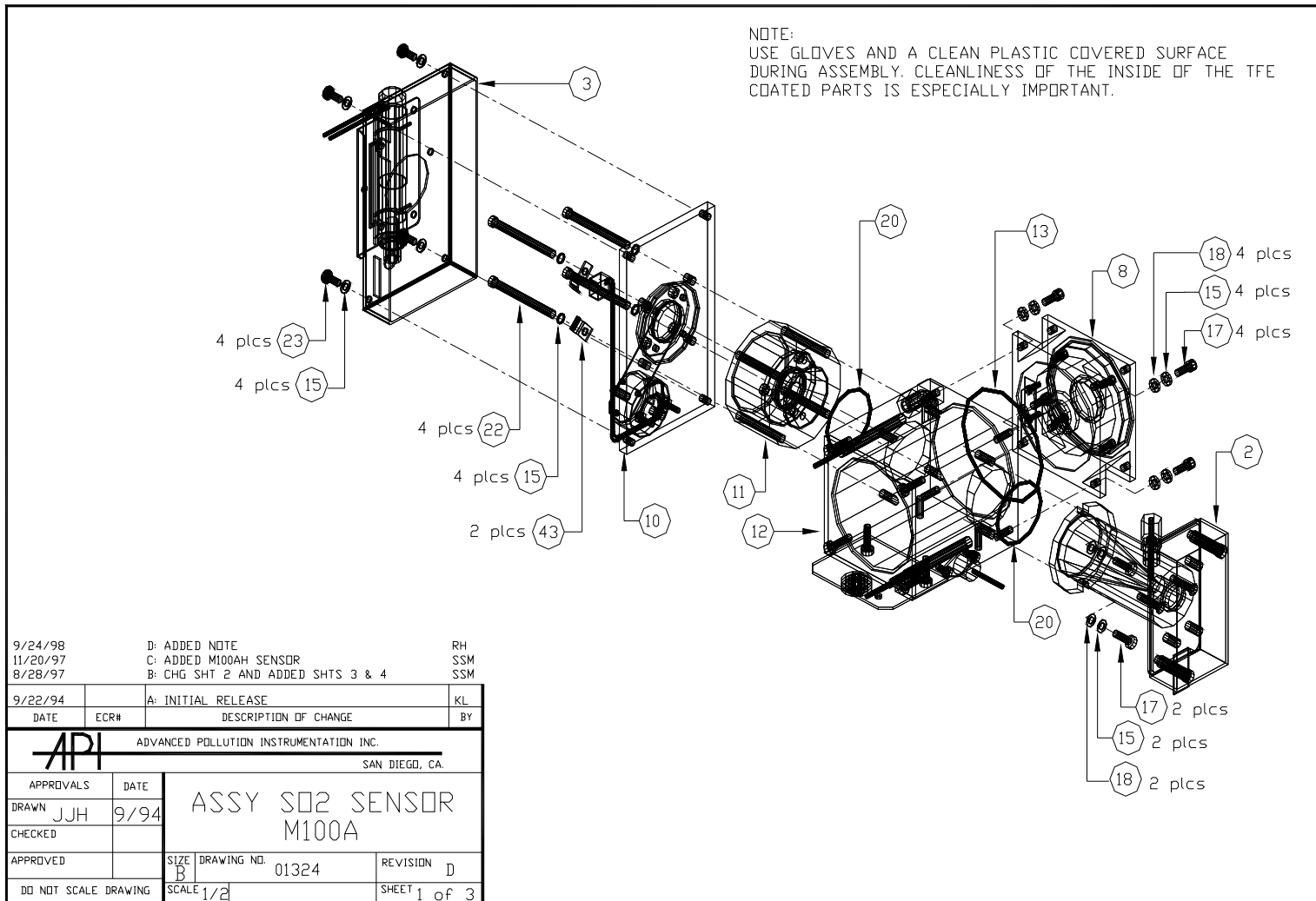
N/A

IV. PROCEDURE:

1. Turn the power off.
2. Take the cover off the analyzer.
3. Remove the SO₂ sensor from the analyzer.
4. Using an Allen wrench or ¼" open end or box wrench, disconnect the Adapter Cell from the PMT housing (see drawing 01324, pages 2, 3, 4).
5. Remove the 330 nm filter from the Adapter Cell (see drawing 1272, "ASSY, ADAPTER CELL M100A", on page 5, and part list for reference). The 330 nm filter is at position 4.
6. Reassemble the Adapter Cell in the reverse order of disassembly.
7. Reassemble the Adapter Cell and PMT housing. Please be careful with the O-ring between them.

NOTE: After the filter is replaced, the unit must be recalibrated on span gas and zero gas. You may have to readjust R19 pot on the PMT Preamp Card to adjust the PMT voltage.

Should you have any questions performing the procedure above, please do not hesitate to contact the Teledyne API Customer Service Department.

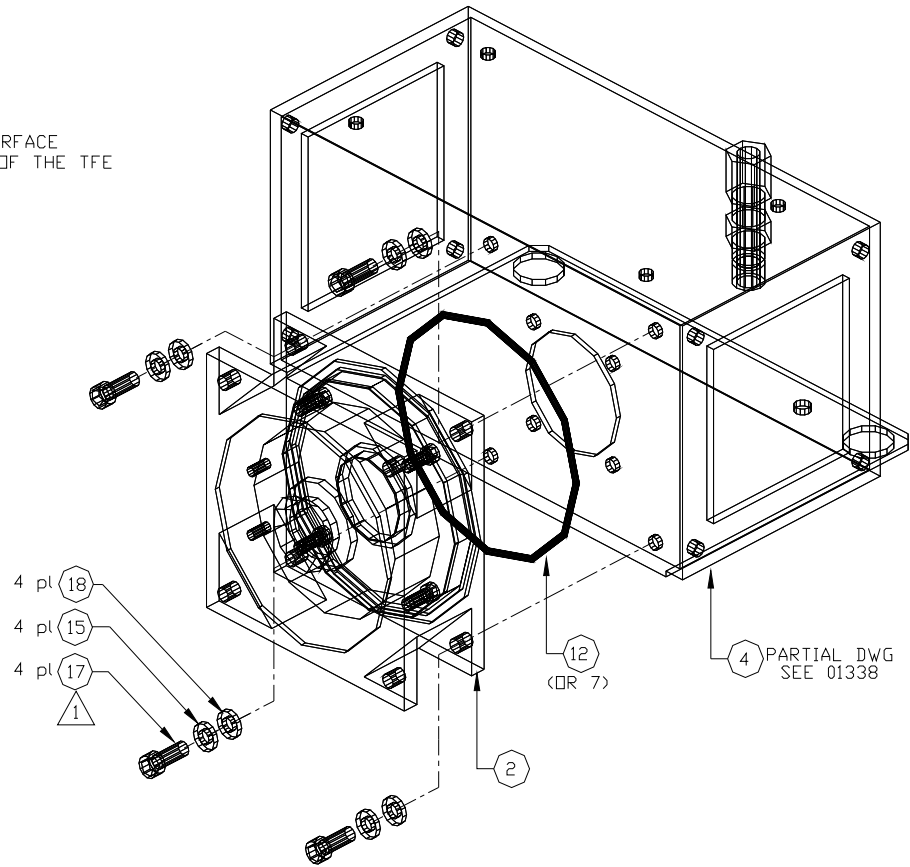


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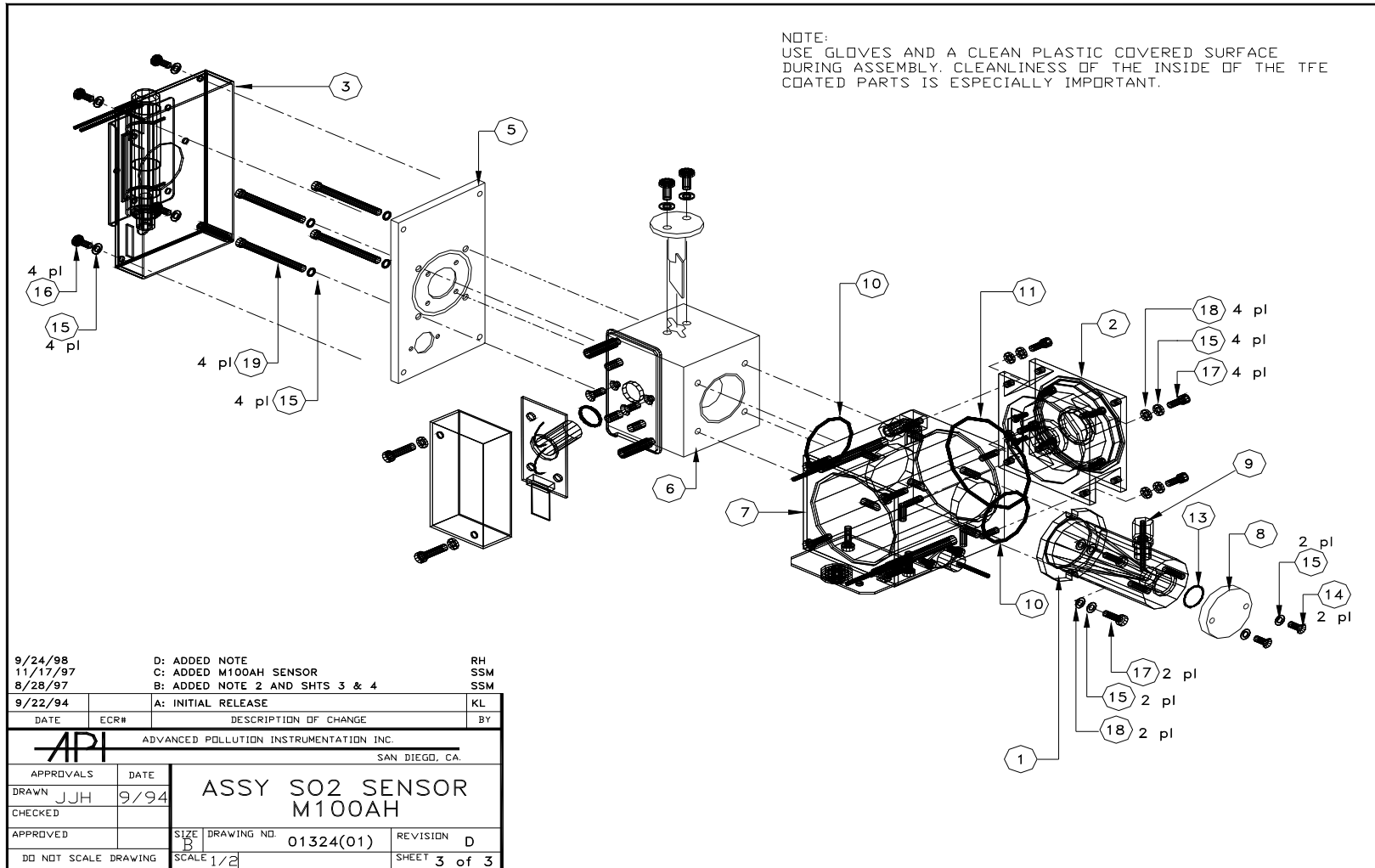
- 1 APPLY THREAD SEALANT (SEAL 545)
- 2 LEAK CHECK AND STAMP COMPLETED ASSEMBLY (PREAMP CONNECTOR MUST BE FASTENED)
- 3 USE GLOVES AND A CLEAN PLASTIC COVERED SURFACE DURING ASSEMBLY. CLEANLINESS OF THE INSIDE OF THE TFE COATED PARTS IS ESPECIALLY IMPORTANT.




9/24/98		D: ADDED NOTE 3	RH	
11/20/97		C: CHG CALLOUTS, ADDED MISSING WASHER	SSM	
8/28/97		B: ADDED NOTE 2 AND SHTS 3 & 4	SSM	
9/22/94		A: INITIAL RELEASE	KL	
DATE	ECR#	DESCRIPTION OF CHANGE	BY	
API ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA.				
APPROVALS	DATE	ASSY, SO ₂ SENSOR M100A		
DRAWN	JJH 9/94			
CHECKED				
APPROVED		SIZE B	DRAWING NO. 01324	REVISION D
DO NOT SCALE DRAWING	SCALE			SHEET 2 of 3

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NOTE:
 USE GLOVES AND A CLEAN PLASTIC COVERED SURFACE
 DURING ASSEMBLY. CLEANLINESS OF THE INSIDE OF THE TFE
 COATED PARTS IS ESPECIALLY IMPORTANT.



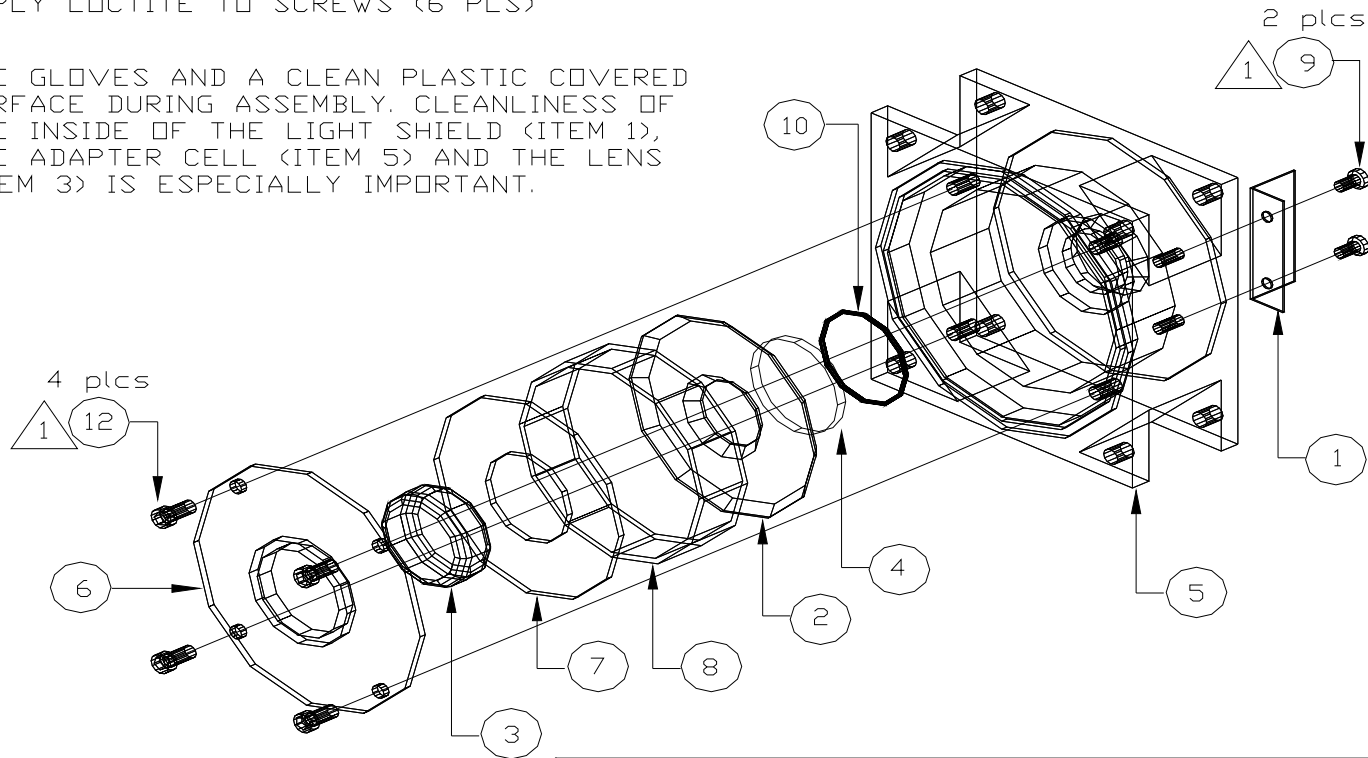
9/24/98		D: ADDED NOTE	RH
11/17/97		C: ADDED M100AH SENSOR	SSM
8/28/97		B: ADDED NOTE 2 AND SHTS 3 & 4	SSM
9/22/94		A: INITIAL RELEASE	KL
DATE	ECR#	DESCRIPTION OF CHANGE	BY
 ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA.			
APPROVALS	DATE	ASSY SO2 SENSOR M100AH	
DRAWN	JJH 9/94		
CHECKED			
APPROVED		SIZE D	DRAWING NO. 01324(01)
DO NOT SCALE DRAWING		SCALE 1/2	REVISION D
			SHEET 3 of 3

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NOTE:

1 APPLY LOCTITE TO SCREWS (6 PLS)

2 USE GLOVES AND A CLEAN PLASTIC COVERED SURFACE DURING ASSEMBLY. CLEANLINESS OF THE INSIDE OF THE LIGHT SHIELD (ITEM 1), THE ADAPTER CELL (ITEM 5) AND THE LENS (ITEM 3) IS ESPECIALLY IMPORTANT.



9/24/98		C: ADDED NOTE 2	RH
7/19/95		B: ADDED NOTE 1	RH
9/13/94		A: INITIAL RELEASE	KL
DATE	ECR#	DESCRIPTION OF CHANGE	BY

TOLERANCES
 X ± XXX ±
 XX ±

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API		ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA.	
APPROVALS	DATE	ASSY, ADAPTOR CELL M100A	
DRAWN J J H	8/94		
CHECKED			
APPROVED		SIZE A	DRAWING NO. 01272
DO NOT SCALE DRAWING	SCALE		REVISION C
			SHEET

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