



TELEDYNE INSTRUMENTS

Advanced Pollution Instrumentation

A Teledyne Technologies Company
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Service Note

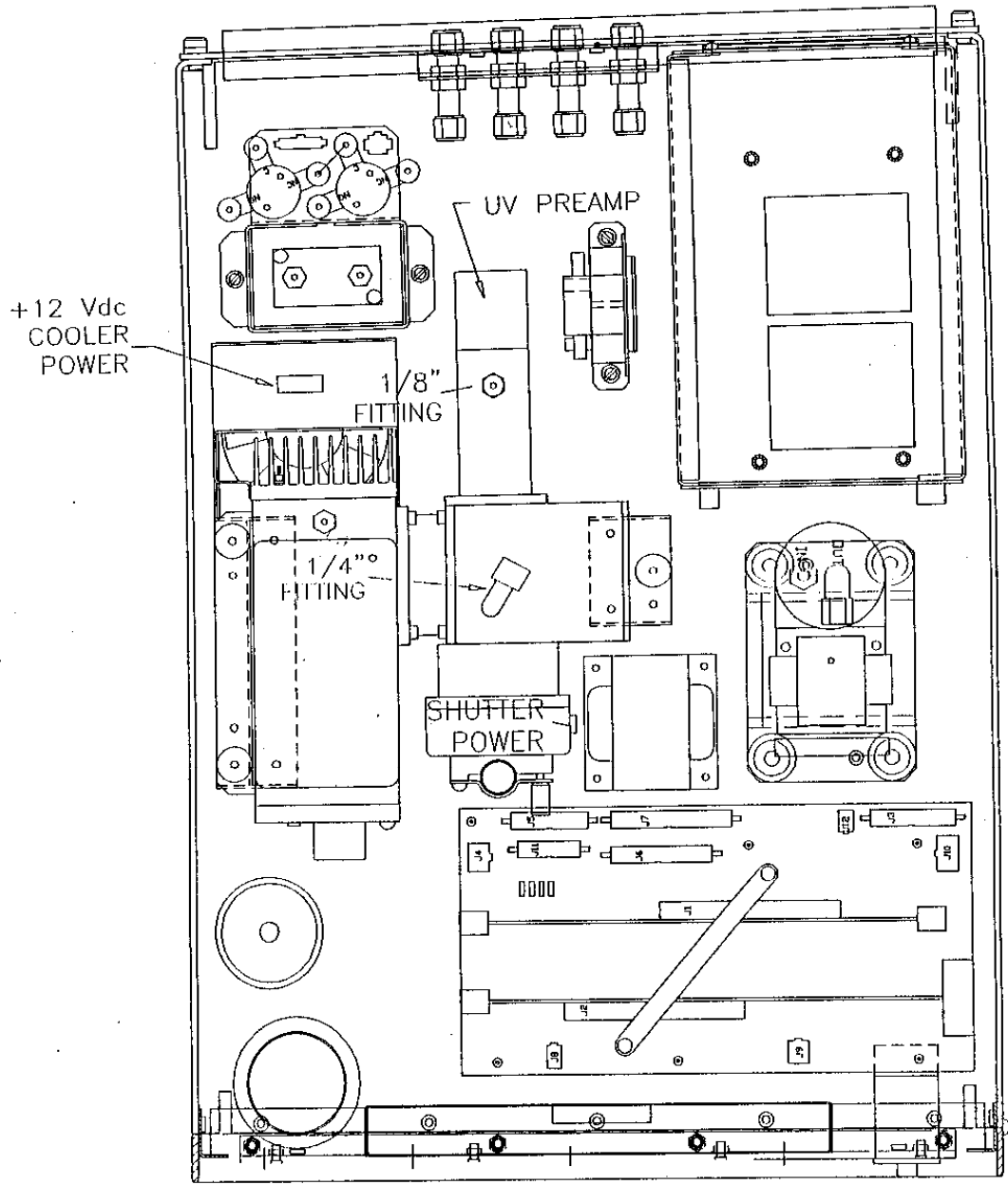
97-042 REV B
2 May, 2007

CHANGING THE UV FILTER IN M100A

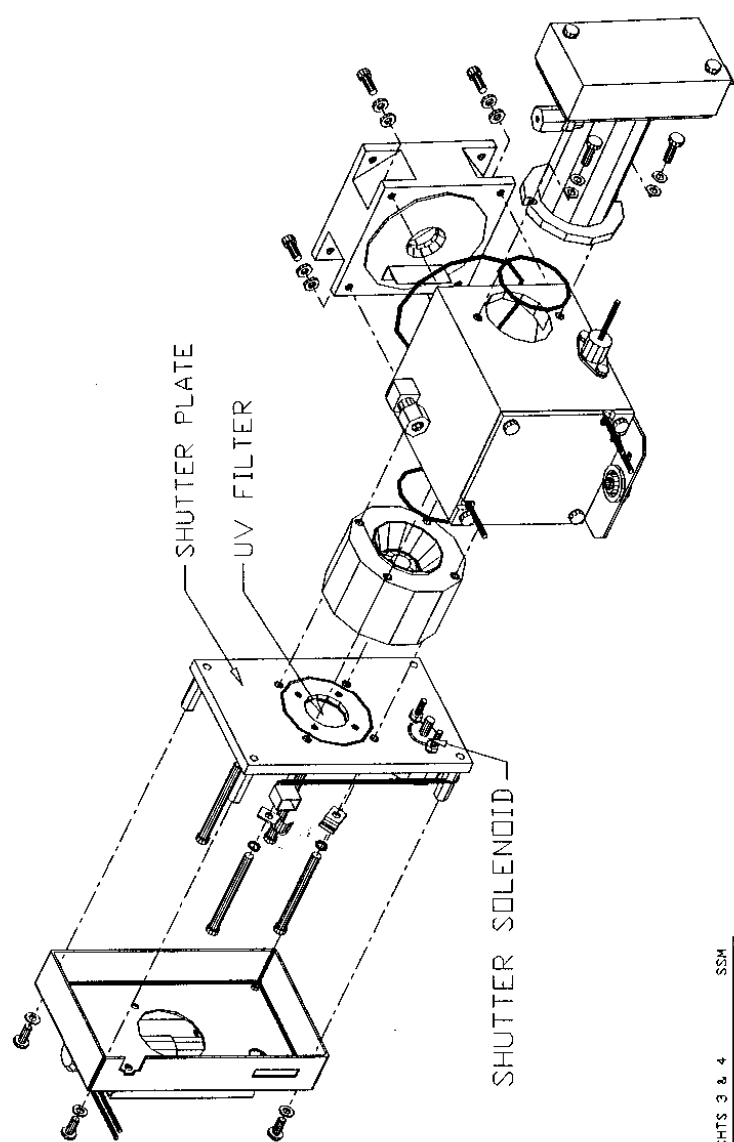
- I. Scope:** To guide you through changing the UV filter
- II. Tools Required:**
 - A. #2 Phillips Head Screwdriver
 - B. 1/8" and 1/4" wrenches
- III. Parts:**
 - A. New UV filter (P/N 02418)
- IV. Note:**

Some of the M100A's that we have shipped out do not have the "typical" UV filter in the sensor assy. The filter material is the same as all of the filters that we have used but the packaging is a little different. If you have disassembled a shutter plate assembly and found that the machined hole that the UV filter sits in has an o-ring in it, then you will find that when you remove the filter, it does not have the same metal ring around it that the replacement one has (or most of the filters that we normally have used here at API). All you will have to do is throw away the O-ring and insert the new filter into the machined hole in the shutter plate.
- V. Procedure:**
 - A. Turn the instrument off and unplug the unit from power.
 - B. Remove the cover from the unit and set aside.
 - C. Unplug the following electrical connections:
 - Cooler power
 - UV Detector ribbon cable
 - Grounding strap from UV detector cover to chassis
 - Rcell heater and thermistor connector
 - UV lamp
 - Shutter power
 - PMT Preamp cable (ribbon cable) at motherboard (J5)
 - D. Disconnect the 1/4" line and the 1/8" line from the top of the Rcell.
 - E. Remove the three #8 screws that hold the sensor assy into the chassis and lift the sensor assy out of the chassis.

- F. Remove the four screws that hold the UV lamp and shutter cover to the sensor assy. Note if you have an older sensor assy, you might have to loosen screws that hold the shutter solenoid onto the back of the solenoid plate. Do not force the cover assy; if you bend the shutter you might get shutter warnings if the shutter begins to bind.
- G. Remove the four screws that hold the UV filter to the shutter plate.
- H. Replace the UV filter with the new filter and ensure that you do not leave fingerprints on the filter when you install the new filter.
- I. Reinstall the shutter cover and UV lamp assy in the reverse order of removal.
- J. Reinstall the sensor assy into the unit in the reverse order of the removal and reconnect all of the electrical connectors (make sure that you don't forget the ribbon connector on the bottom of the detector).
- K. Flow check and leak check the instrument and ensure that all of the temps and pressures are correct before beginning to calibrate the instrument. If the unit is not leak checked, you will be calling API because the instrument will not be working correctly.
- L. If you run into any problems when performing this procedure, contact us here at the factory for assistance.
- M. Phone: (619) 657-9800 (in the USA 1-800-324-5190)
Fax: (619) 657-9816



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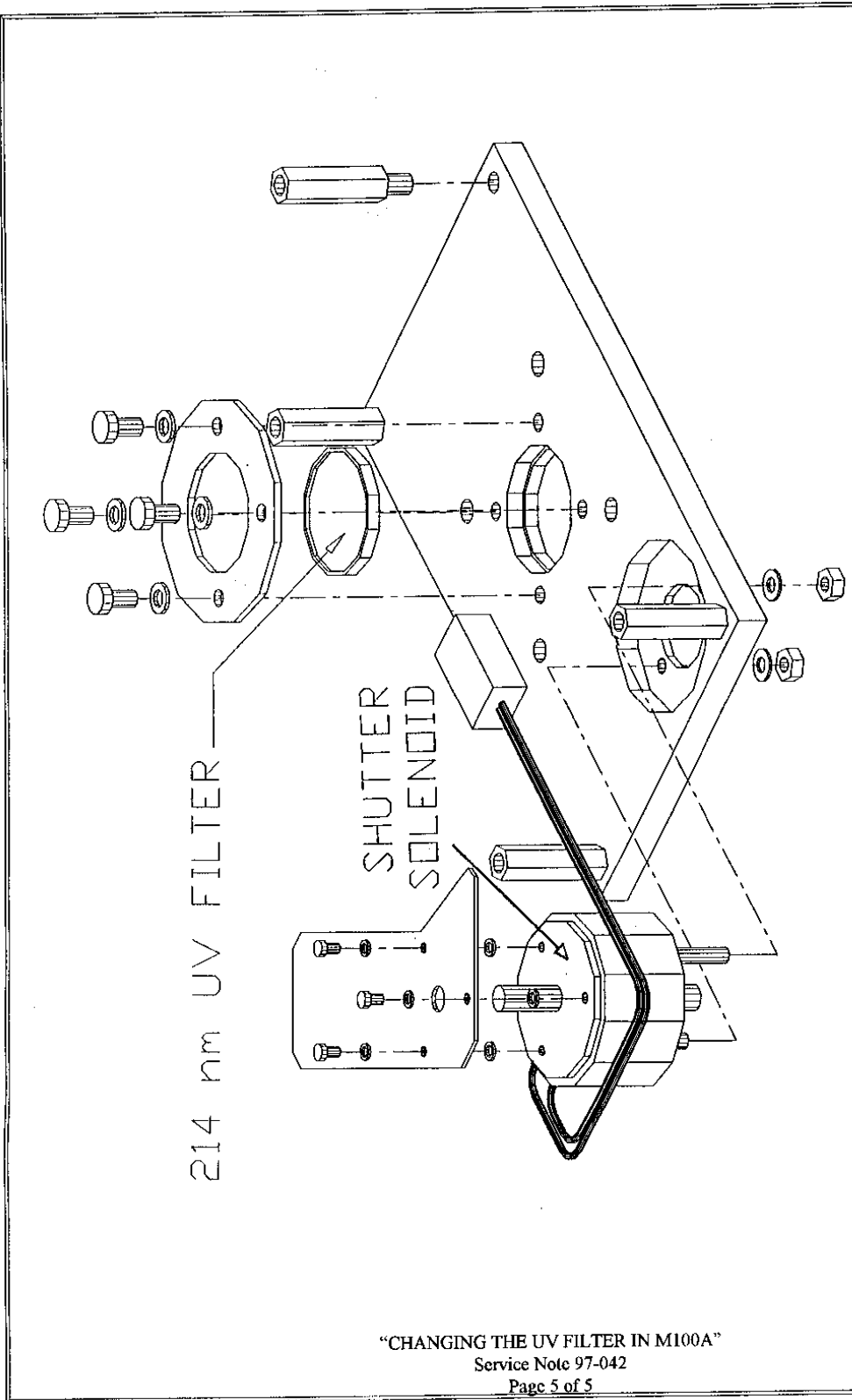


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8/28/97	B: CHG SHT 2 AND ADDED SHTS 3 & 4		SSM
9/22/94	A: INITIAL RELEASE	DESCRIPTION OF CHANGE	KL
DATE	ECR#		BY
ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA.			
APPROVALS	DATE	ASSY SO2 SENSOR	
DRAWN JJH	9/94	M100A	
CHECKED		SIZE B	DRAWING NO. 01324
APPROVED		SCALE 1/2	REVISION B
DB NOT SCALE DRAWING			SHEET 1 OF 4



214 nm UV FILTER

SHUTTER SOLENOID

		ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA	
APPROVALS	DATE	ASSY, SOLENOID PLATE	
DRAWN JJH	8/94	M100A	
CHECKED		SIZE	DRAWING NO. 01503
APPROVED		SCALE	REVISION C
DO NOT SCALE DRAWING		SHEET	

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DATE	DESCRIPTION OF CHANGE	BY
7/7/95	C: MOVES WASHERS UNDER SHUTTER	KL
9/18/94	B: ADDED FIN TO SHUTTER	KL
8/31/94	A: INITIAL RELEASE	KL

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