



**99-005 Rev B
2 May, 2007**

NEW UV LAMP PREAMP WITH POT (INSTRUCTIONS)

I. SCOPE:

To guide you through installing the new preamp assembly with the adjustable pot onto your M100A, M101A and M102A API analyzer.

II. PARTS:

KIT74 Preamp assembly w/o detector. (Caution: If you get this KIT74, you will have to remove the old detector from the preamp card and solder to the new preamp card. By getting this kit, you assume responsibility, if you destroy the preamp card or detector.

KIT75 Preamp assembly w/detector.

III. TOOLS:

7/16" wrench
9/16" wrench
Phillips head screwdriver
Diagonal cutters

IV. PROCEDURE:

1. Remove power from the analyzer, remove the cover from the analyzer and remove the connections from the rear panel.
2. Fold down the rear panel of the analyzer for easier access.
3. Remove the cover from the preamp assembly with the two Phillips head screws that retain the cover.
4. Remove the electrical connector from the bottom of the detector.
5. Pull gently on the preamp assembly so that it comes off the three standoffs. Make sure that you do not pull so hard that you pull the wires out of the preamp assembly or the detector.
6. Turn the preamp assembly so that you can remove the two Phillips head screws that are underneath the preamp, which hold the preamp assembly to the mounting plate.
7. Remove the preamp, detector and mounting plate from the analyzer.
8. Remove the O-ring from the detector and remove the detector from the rear plate assembly.
9. If you ordered KIT74 then you are going to need to de-solder the detector from your current preamp assembly and solder it to the new detector assembly. Be

- careful not to damage the preamp card or detector by applying too much heat to either one, or you might destroy them.
10. Slide the detector through the mounting plate assembly and install the new O-ring onto the detector.
 11. Slide the detector into the hole at the end of the sensor assembly and slide the O-ring back into the hole as far as it will go (WITHOUT FORCING IT).
 12. Start the two Phillips head screws into the hole and tighten them slowly and evenly.
ONCE YOU HAVE THE TWO SCREWS TIGHT DO NOT TRY TO TURN OR PUSH THE DETECTOR, YOU WILL BREAK IT.
 13. Snap the new preamp card onto the standoffs and plug the ribbon cable back into the bottom of the preamp card.
 14. Install the new cover onto the preamp card and secure the two screws.
ENSURE THAT YOU HAVE REPLACED THE GROUND STRAP ONTO THE PREAMP COVER OR YOUR ANALYZER WILL BE NOISY.
 15. Put up the rear panel and leak check the analyzer. If the analyzer leaks, then check the detector O-ring to make sure that it is not leaking at the detector.
 16. Install the connections at the rear of the analyzer and turn the unit on. Allow it to warm up for a half of an hour before proceeding. If you have installed a new lamp at the same time, allow the unit to warm up for 2-3 hours before proceeding.
 17. Input your zero air into the unit.
 18. Push the test button until you see UV LAMP. Turn the gain pot on the preamp counter clockwise 35 turns and then clockwise 5 turns.
 19. Loosen your lamp and peak the lamp for the highest voltage that you can obtain on the front of the analyzer. When you have the lamp peaked, tighten the lamp screws.
 20. Turn up on the preamp pot until you get $3500 \text{ mV} \pm 200 \text{ mV}$ on the front panel for UV lamp voltage.
 21. Press "SETUP_MORE_DIAG_ENTER_NEXT to LAMP CAL_ENTER_ENTER_EXIT" to the sample menu.
 22. Now follow the Quick cal instructions in the manual (Section 9.1.6), for calibrating the analyzer.
 23. If after some period of time the lamp voltage drops from where you have set it, you can turn clockwise on the preamp pot, then recalibrate the lamp, and then calibrate the analyzer. You will not have to move the lamp (unless the lamp was bumped or moved in shipment).
 24. While you are running a new lamp, don't be alarmed if the lamp voltage increases some before it begins to decrease and stabilize out. Lamps vary in "burn in" periods, from 1 week to 4 weeks. After 4 weeks lamps typically decrease in output.

If you have questions regarding this procedure or any API equipment, please contact an API Customer Service representative:

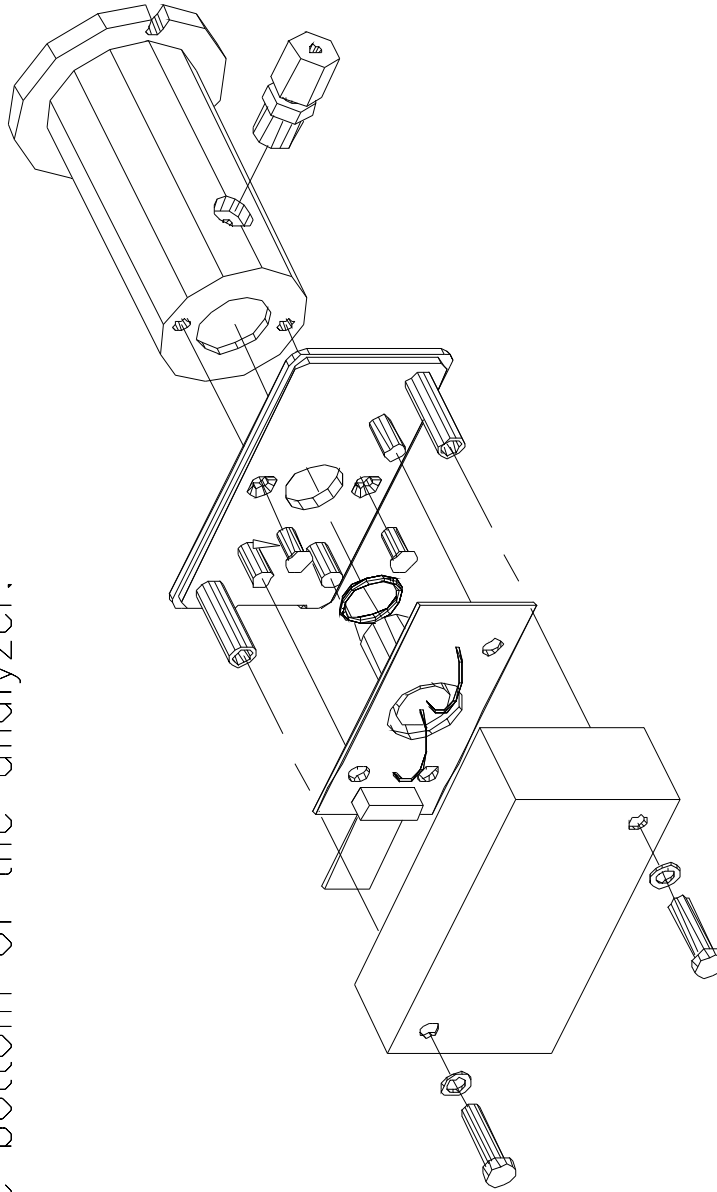
Phone: (619) 657-9800

Email: customerservice@advpol.com

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NOTE:
 this drawing is turned on its side to
 fit the page better. the cable points
 to the bottom of the analyzer.



TOLERANCES X ± .XXX± XX ± .		ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA.	
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B: ADDED NOTE A: INITIAL RELEASE		ASSY, LIGHT TRAP M100A	
9/24/98 DATE	ECRH	SIZE A	DRAWING NO. 01334
DESCRIPTION OF CHANGE		SCALE	REVISION B SHEET