



INSTRUCTION SHEET

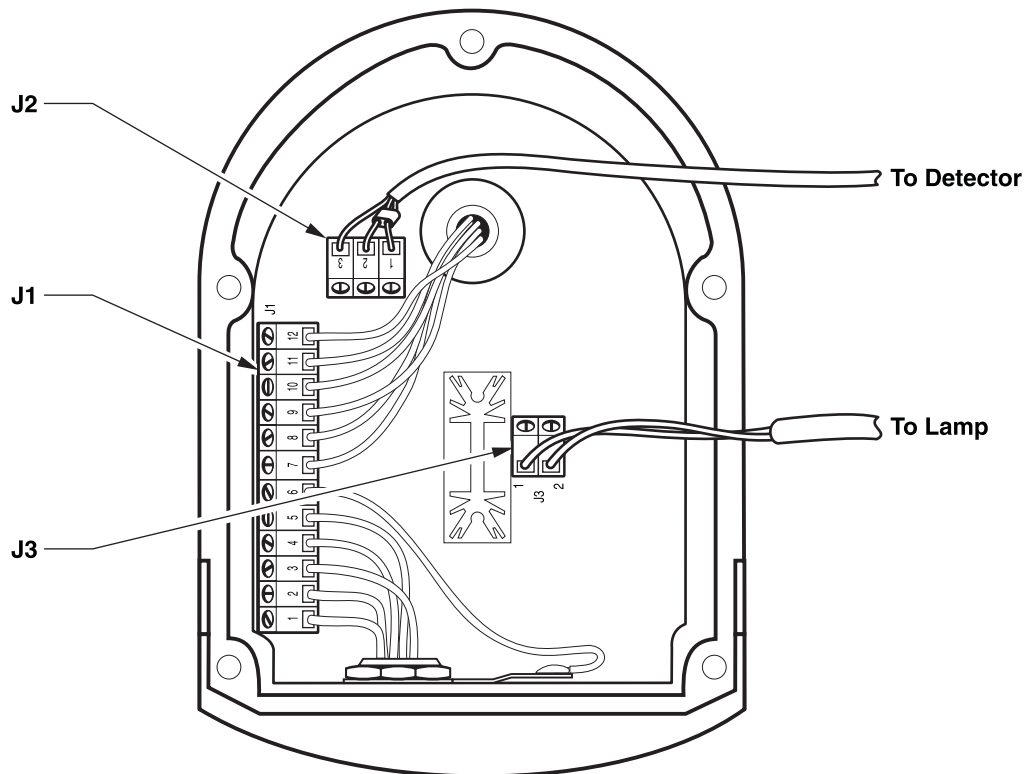
1720D Turbidimeter Photocell Assembly Replacement

To replace the photocell assembly (Cat. No. 52180-00), perform the following steps.

1. Remove power from the PS1201 Power Supply that is connected to the 1720D Turbidimeter head assembly. Ensure the "POWER" LED on the 1720D head is not lit.
2. Remove the 1720D head from the turbidimeter body. Turn the 1720D head over so the photocell faces up.
3. Remove the five Phillips-head screws (Cat. No. 5587-11) from the perimeter of the turbidimeter head assembly.
4. Separate the turbidimeter head assembly into two parts. The top (Cat. No. 52018-00) contains the circuit board and the cable connected to the PS1201. The bottom (Cat. No. 52017-00) contains the photocell and lamp.
5. Loosen the three screws holding each wire in J2, and remove each wire. Retain the ferrite bead for use in reassembly. See *Figure 1*.
6. Loosen the two screws holding each wire in J3, and remove each wire.
7. Hold the bottom of the head assembly so the photocell is facing up. Loosen the strain relief marked DETECTOR. See *Figure 2*.
8. Cut the photocell cable ½ in. back from the spade lug and ½ in. back from the DETECTOR strain relief.

Note: Perform all assembly and disassembly at an EDS work station while wearing a grounding strap to avoid damage to the circuit board.

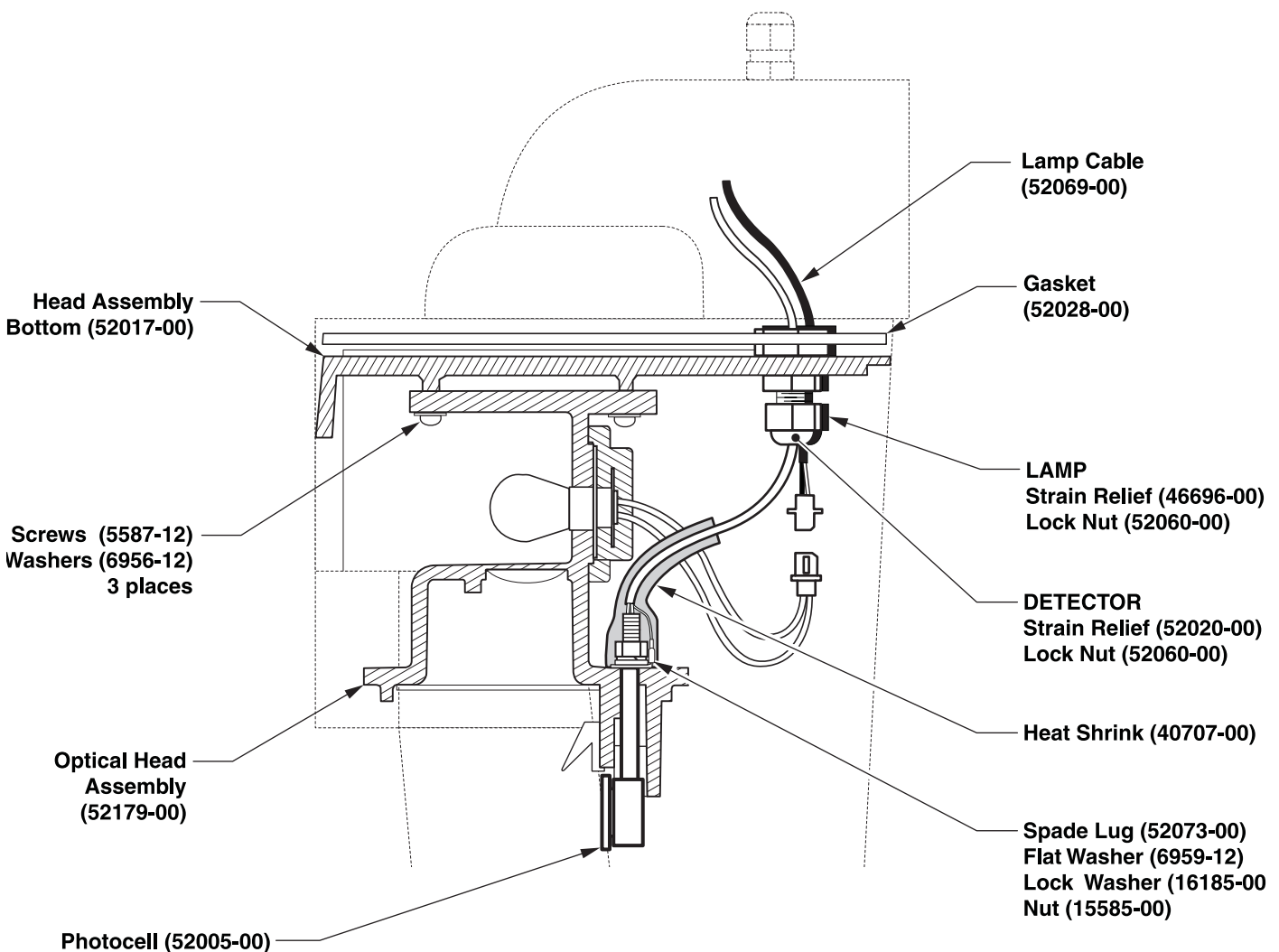
Figure 1 Head Assembly Top



1720D Turbidimeter Photocell Assembly Replacement, continued

9. Pull the photocell wire out of the strain relief.
10. Remove the heat shrink tubing on the photocell stem to expose the nut holding the photocell onto the assembly.
11. Using a $\frac{7}{16}$ in. wrench, turn the nut counterclockwise several turns.
12. Remove the spade lug from the stem, and cut the wire attached to the photocell.
13. Remove the nut, flat washer, and lock washer from the photocell stem.
14. Pull the photocell assembly away from the lamp, removing the assembly from the cap bottom.
15. Feed the wires and stem of the replacement photocell assembly (Cat. No. 52005-00) through bottom hole of optical head. Make sure the outer shield drain wire of the cable is free from the hole.

Figure 2 Head Assembly Bottom



1720D Turbidimeter Photocell Assembly Replacement, continued

16. On photocell stem, place a flat washer (Cat. No. 6959-12), a split washer (Cat. No. 16185-00) and a hex nut (Cat. No. 15585-00).
17. After the hardware is in place, remove the red insulation sleeve from the spade lug (Cat. No. 52073-00) and crimp it onto the shield wire.
18. Place spade lug between the flat washer and plastic, and tighten the nut until just snug with a $\frac{7}{16}$ in. wrench. Do not over tighten!
19. Bend the spade lug 90° so it lays flat against the nut. Place a 2.0 in. length of heat shrink tubing (Cat. No. 40707-00) over the photocell cable until it rests against the detector head.
20. Shrink tubing with a heat gun. Dress the cable so it lays between the lamp base mold feature and inside edge of the optical head (Cat. No. 52179-00).
21. Run photocell assembly cable through strain relief marked DETECTOR, leaving about 5 in. protruding. Tighten the strain relief.
22. Position the head assembly bottom next to the head assembly top. Thread the black and red wire through the ferrite bead (Cat. No. 52620-00) before installing the wires in the connector.
23. Install photocell wires into connector J2 in the head assembly top according to *Table 1*.

Table 1 Terminal Block J2 Wire Colors

Position	Wire Color	Wire Source
1	Black	Photocell
2	Red	Photocell
3	Shield	Photocell

24. Install the lamp wires into connector J3 according to *Table 2*.

Table 2 Terminal Block J3 Wire Colors

Position	Wire Color	Wire Source
1	Black	Lamp
2	Red	Lamp

1720D Turbidimeter Photocell Assembly Replacement, continued

When wiring is complete, reassemble the turbidimeter head assembly as follows:

1. Place five washers (Cat. No. 6956-12) on five Phillips-head screws (Cat. No. 5587-11).
2. Make sure the gasket (Cat. No. 52028-00) between the two components is in place and route all wires so they do not come in contact with the lamp heatsink.
3. Position the head assembly top on the head assembly bottom. Before tightening the screws, make sure no wires are pinched between the two halves.
4. Place the five screws and washers assembled in *step 1* into the holes in the cap bottom and tighten.
5. Place the 1720D head on the body. Restore power to the PS1201 which is supplying power to the 1720D, and ensure the power LED is on.

Recalibrate the 1720D turbidimeter per the user manual.



For Technical Assistance, Price and Ordering
In the U.S.A.—Call 800-227-4224