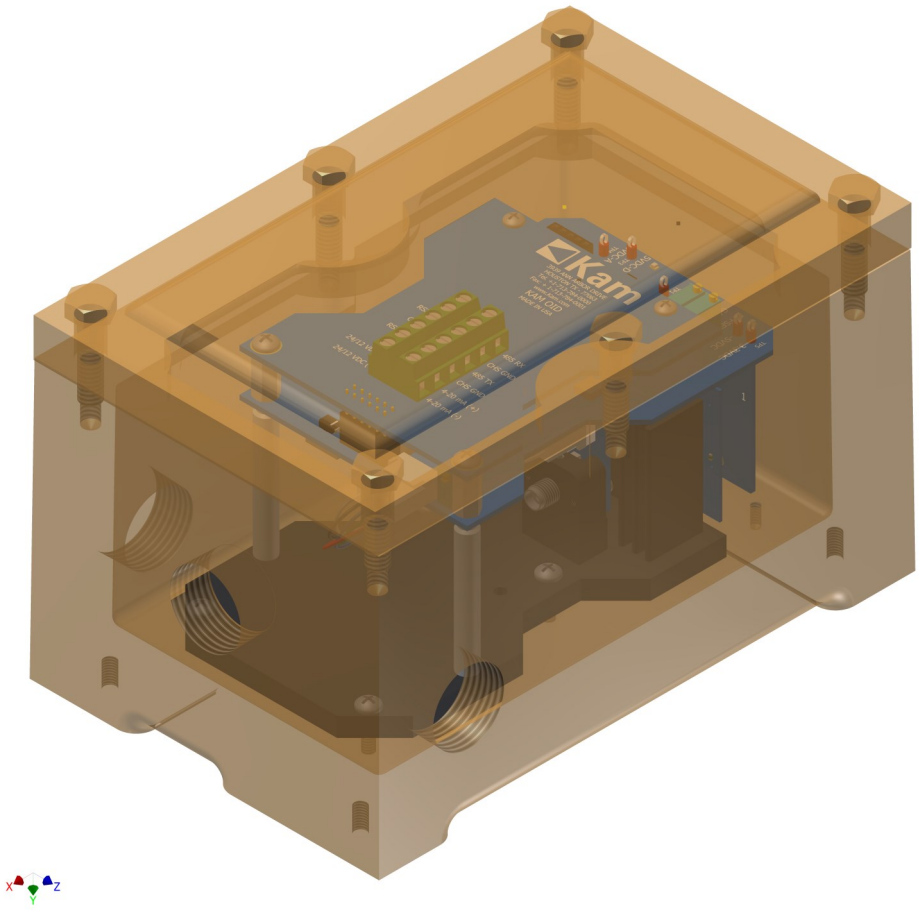
Simple Precision™



# KAM® Optical Interface Detector

2015 Electronics Replacement Manual
(From earlier models)

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An ISO 9001 certified company

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# 1. ELECTRONICS REPLACEMENT

## 1.1 Tools Required

| ITEM | QTY | DESCRIPTION |
|---|---|---|
| 1 | 1 | Phillips Screw Driver PH0 |
| 2 | 1 | Phillips Screw Driver PH1 |
| 3 | 1 | 3/16 Hex Wrench or Nut Driver |
| 4 | 1 | Blue Thread Lock (Medium Strength) |
| 5 | 1 | Small Nose Pliers |
| 6 | 1 | 3.0 mm Flat Screw Driver |

## 1.2 Parts Required

| ITEM | QTY | DESCRIPTION |
|---|---|---|
| 1 | 1 | OID Electronics Assembly |
| 2 | 1 | Chassis  Ground Cable Assembly |
| 3 | 4 | 6-32 x 1/2" Pan Phillips Head Screw |
| 4 | 1 | KAM OID Skeleton |

OID Upgrade  Video:

Link

NOTE:

Parts in this manual have been colored for illustrative and educational purposes only. The actual color of the parts might be different from the ones shown in this manual.

# ELECTRONICS REPLACEMENT CONTINUED

## 1.3 Procedure

1. Remove the old electronics assembly from the OID skeleton. Please follow the proper procedure.

2. Remove the four (4) 4-40 x 1/4" Pan Phillips Screws from the top board of the new electronics assembly and uninstall it. See figure 1.3.2.

WARNING:

Uninstall the board by pulling upwards. Try to avoid over tilting the board.

NOTE:

Use the PH0 screw driver for the 4-40 screws.

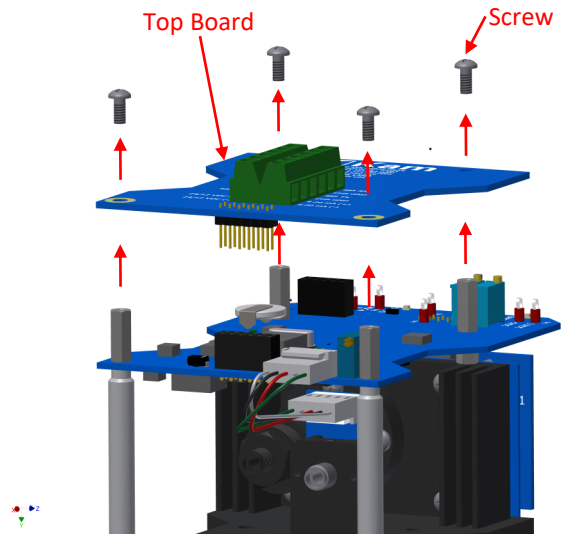


Figure 1.3.2

3. Disconnect the LED wiring assembly from the digital board. Remove the four (4) 4-40 x 1/2" M/F standoffs and uninstall the digital board. See figure 1.3.3

WARNING:

Uninstall the board by pulling upwards. Try to avoid over tilting the board.

NOTE:

Use a 3/16 hex wrench to tighten the 4-40 standoffs.

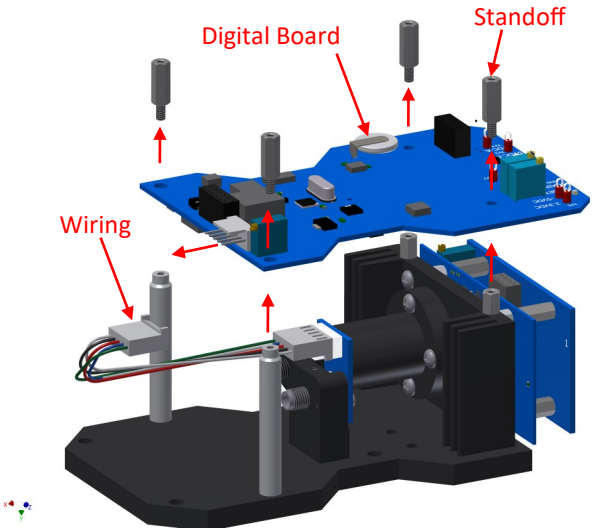


Figure 1.3.3

## ELECTRONICS REPLACEMENT CONTINUED

4. Remove the other end of the LED wiring assembly. See figure 1.3.4.

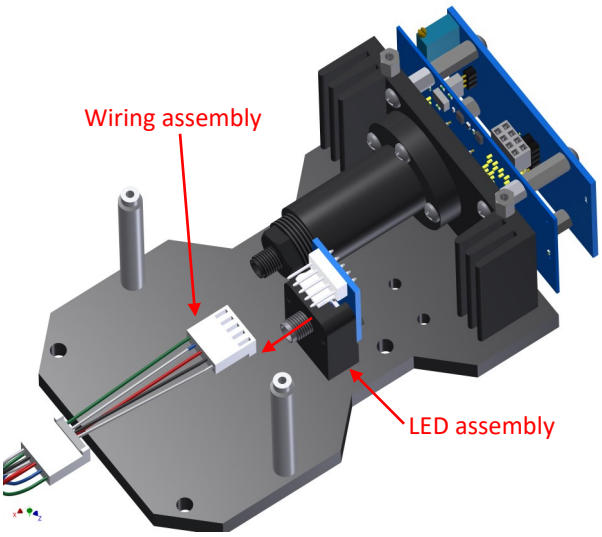


Figure 1.3.4

5. Insert the mounting base with its installed items into the Enclosure. Align the base with the four holes inside the enclosure and secure it using three (3) 6-32 x 1/2" Pan Phillips Head Screws with a small amount of thread lock. See figure 1.3.5.

NOTE:

Some of the older Enclosures may only have two holes to line up the base plate with. If that is the case install the chassis ground cable to the screw under the photodiode assembly.

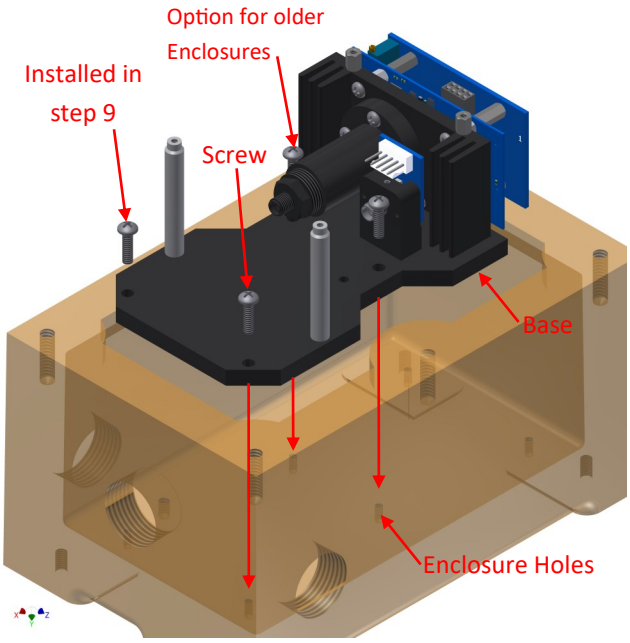


Figure 1.3.5

## ELECTRONICS REPLACEMENT CONTINUED

6. Connect the probe fibers to the Photodiode and the LED assembly. See figure 1.3.6.

Note:

-The slightly shorter fiber connects to the LED assembly.

-Use the small pliers to slightly tighten the probe connectors.

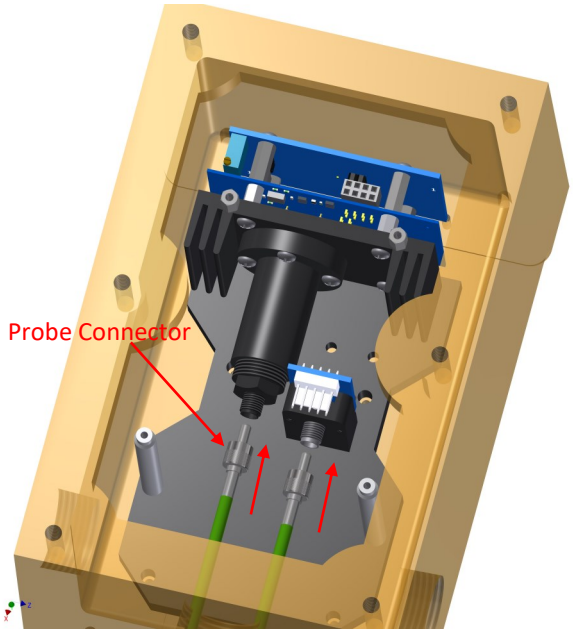


Figure 1.3.6

7. Connect the wiring assembly to the LED assembly. See figure 1.3.7.

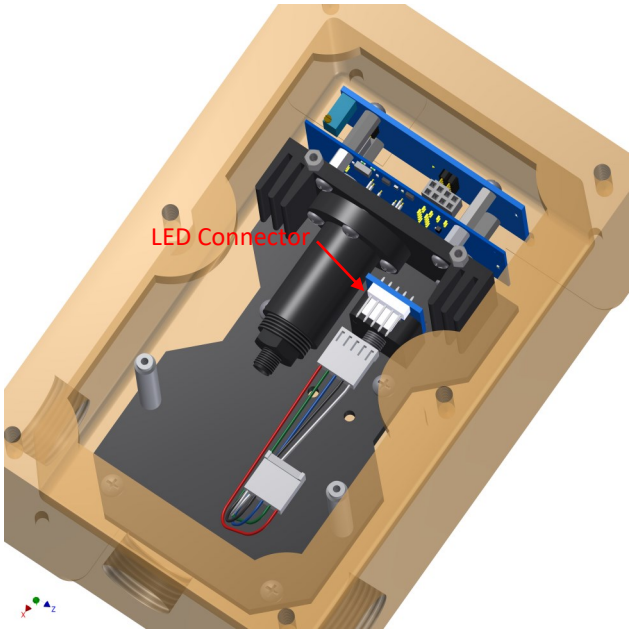


Figure 1.3.7

## ELECTRONICS REPLACEMENT CONTINUED

8. Connect the LED wiring assembly to the OID digital board assembly. Connect the digital board with the connector on the photodiode assembly. Make sure the board is aligned with the round standoffs and the standoffs on the photodiode assembly. Secure it using four (4) 4-40 x 1/2" M/F standoffs with a small amount of thread lock. See figure 1.3.8

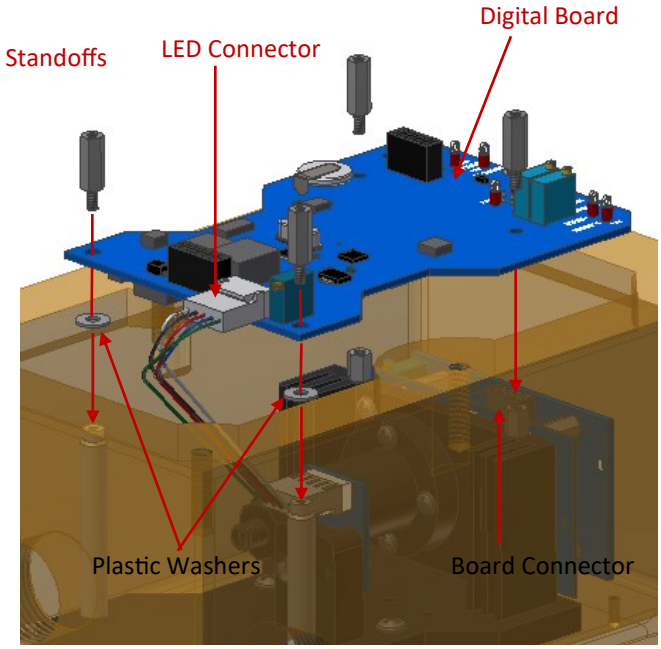

Figure 1.3.8

NOTE:

Make sure that there are two plastic washers between the two bottom mounting holes and the round standoffs. Its is very important that you only finger tighten the 4-40 x 1/2 M/F Standoffs. DO NOT OVER TIGHTEN.

9. Connect the terminal board assembly to the digital board connectors. Make sure the board aligns with the standoffs. Secure it using four (4) 4-40 x 1/4" Pan Phillips Screw with a small amount of thread lock. See figure 1.3.9.

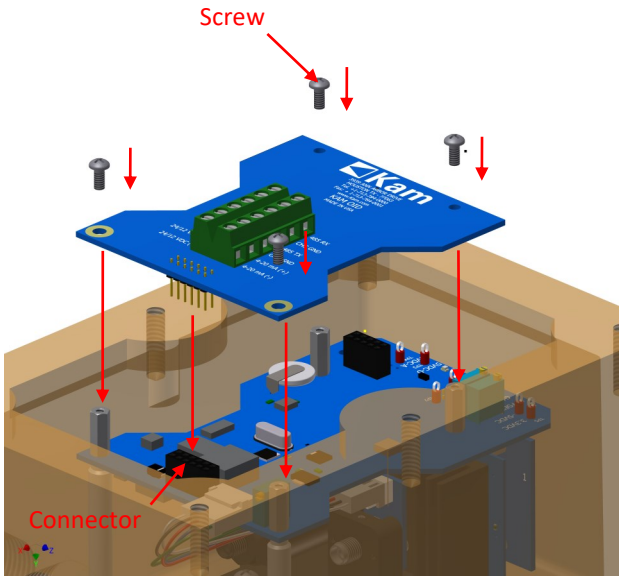

Figure 1.3.9

## ELECTRONICS REPLACEMENT CONTINUED

10. Install the exposed wire side of the Chassis Ground Cable Assembly on the terminal board left CHS connector. See figure 1.3.10.

NOTE:

Use the 3.0 mm flat screw driver to secure the cable to the board.

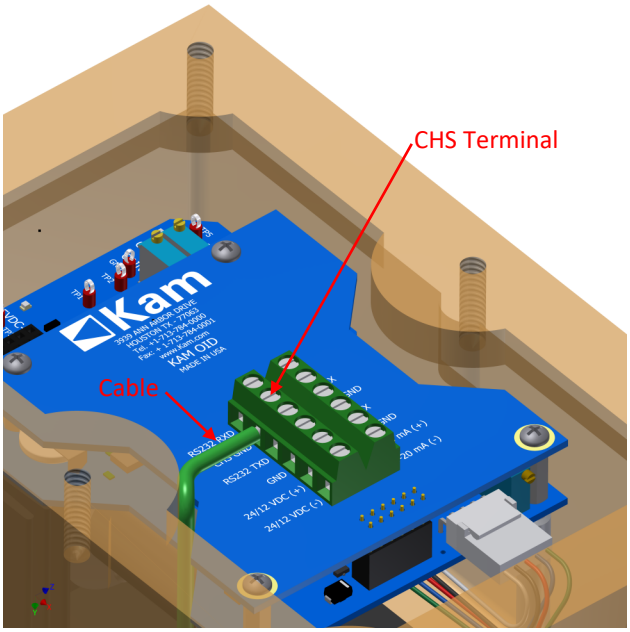


Figure 1.3.10

11. Secure the round connector end of the chassis cable with one (1) 6-32 x 1/2" Pan Phillips Screws. See figure 1.3.11.

12. The electronics replacement is completed.

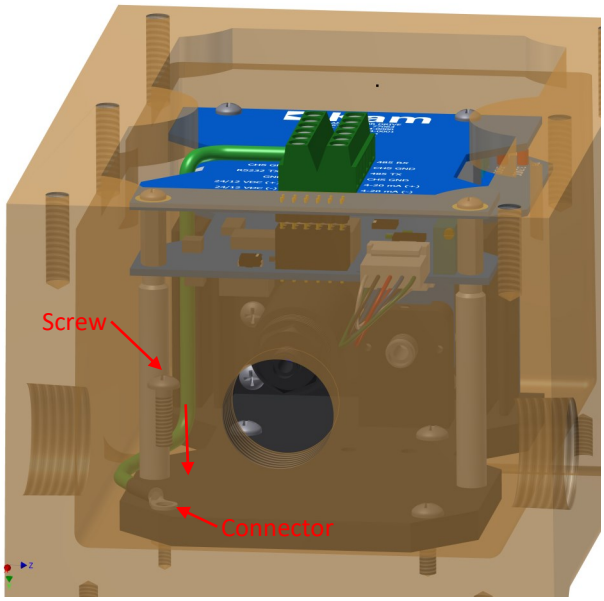


Figure 1.3.11