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|  | No.: 98-02768-00 | Rev: B |
| | Date: Mar 22, 2024 | Authorization #: ECN1179405 |
| Title: UG CARB DOC SWITCH KIT | Supersedes: | |
| Kit#: 74-00328-00 | Page:1 of 6 | |

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Installation kit for the Diesel Oxidation Catalyst switches on the 69UG15 -24 series gensets

Tools and Item Required:

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|---|
| 1. Center Punch |
| 2. Drill |
| 3. .129-.133 Drill bit (Ref. Wire Gauge 30) |
| 4. Pneumatic/electric Rivet Tool (required) |
| 5. Zip tie gun (required) |
| 6. 7/16”, 1/2”, 9/16” socket |
| 7. Drill Stop |
| 8. 14 AWG crimpers |
| 9. Isopropyl cleaner |

Package content (note: extra rivets included):

| Item No. | Description | P/N | Qty |
|----------|--|----------------|-----|
| 1 | Thermal Switch | 12-00954-00 | 2 |
| 2 | Permatex Ultra Red 81630/ 81624 | Purchase Local | |
| 3 | Rivets | 34-00928-01 | 5 |
| 4 | WIRE HARNESS | 22-04668-01 | 1 |
| 5 | Zip tie w/ side edge clip | 58-01441-00 | 2 |
| 6 | Double Loop Zip tie | 58-00969-00 | 2 |
| 7 | Zip ties | 58-00079-00 | 8 |
| 8 | Male spade terminal | 22-01502-01 | 1 |
| 9 | schematic - UG | 62-12432-00 | 1 |
| 10 | Attention Label | 62-12430-00 | 1 |
| 11 | All-purpose Silicon (for grommet only) | Purchase Local | |
| 12 | UG instructions | 98-02768-00 | 1 |




Before starting the installation of this kit, make sure the unit is OFF and negative battery terminal is disconnected.

Follow your regional lockout tag out procedure.

Beware of moving poly V-belt, belt driven components and hot exhaust components.

Beware of pinch points

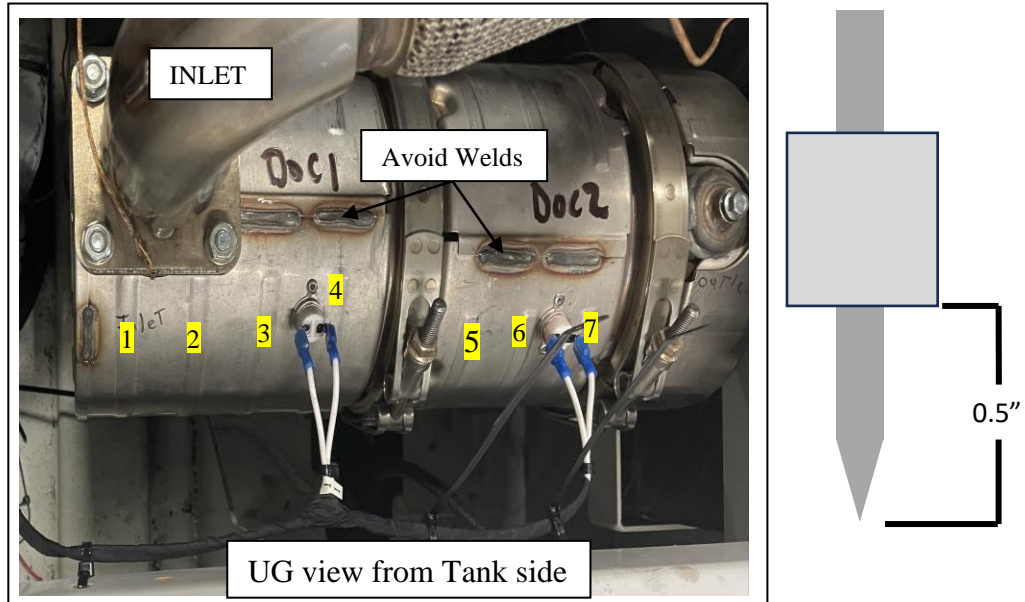
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| Used On: UG CARB GenSet | Prepared By: Swidler | Approved By: Hoover | Date: Mar 22, 2024 |
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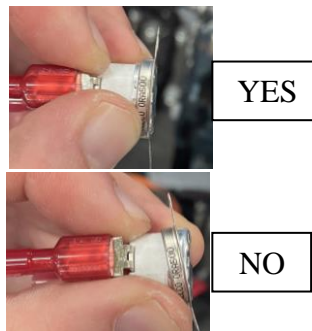
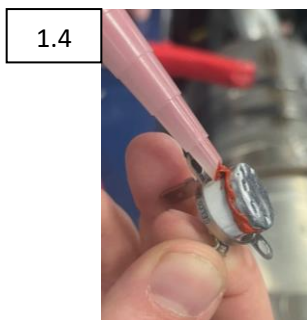
Procedure:

1. Mounting Switches to Diesel Oxidation Catalyst (DOC)


- 1.1. Remove cover and disconnect battery.
- 1.2. Using the switches (item 1), mark and punch locations for drilling. Position so switches are against the body of the DOC and align between rib 3 and 4 and between rib 6 and 7. Ensure bracket goes along radius of DOC. The switches should be positioned towards the tank at the 2 o'clock position when viewed from the inlet. Avoid placing switches on welds.



- 1.3. Drill holes with a .129-.133" drill bit and drill stop at 0.5" at the punched holes.
- 1.4. Apply silicone (item 2) to rim of switch to seal it. Ensure switch's contact area remains clean.
- 1.5. Attach Switches to DOC using rivets (item 3) and rivet tool. Ensure bracket is flat against switch head. Use pneumatic or electric rivet gun to ensure tightness of installation.

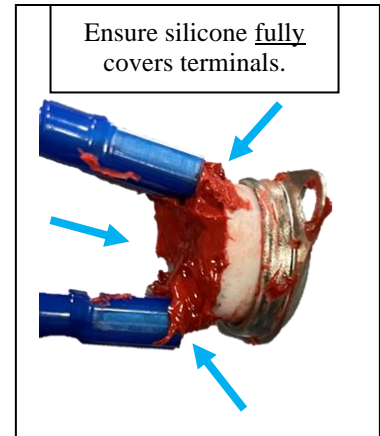
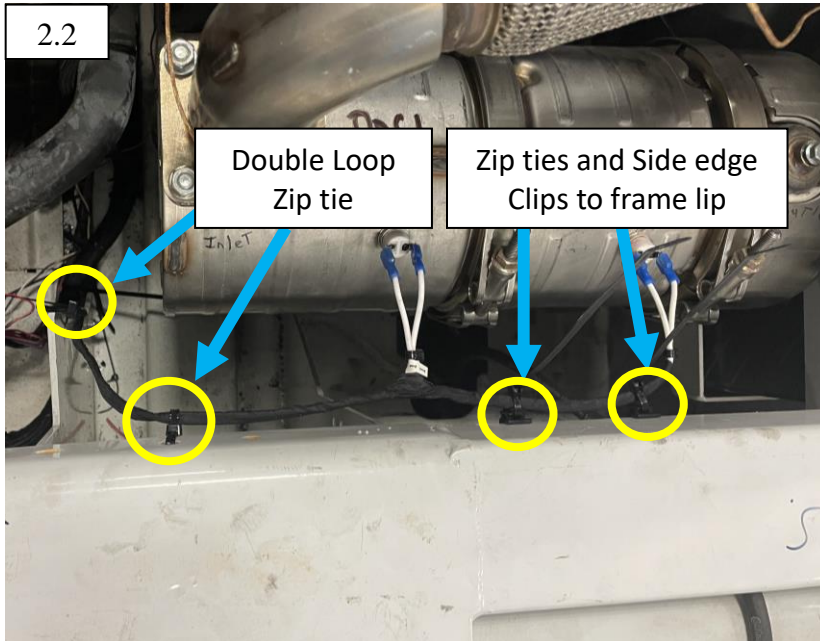


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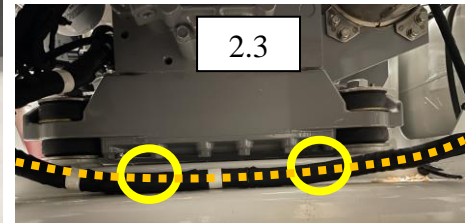
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2. Route Harness UG

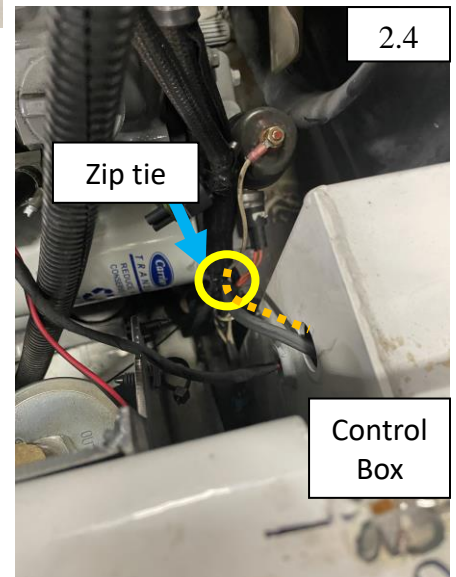
- 2.1. Connect harness (item 4) to the switches and apply silicone (item 2) fully around the terminal connections.
- 2.2. Route harness along the inside of the roadside frame and down along rib. Secure with edge clips and zip ties (item 5) and a double headed zip tie (item 6).



2.1 Silicone application



- 2.3. Remove lower access panel and route wire harness under the engine securing along existing harness with zip ties (item 7).
- 2.4. Route harness up to the left of the control box. Secure to the oil pressure bundle with zip tie (item 7)



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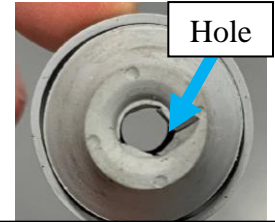
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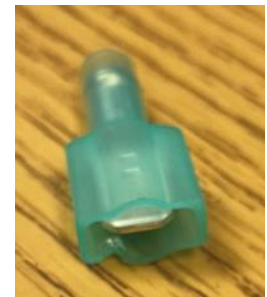
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3. Install harness into control box.

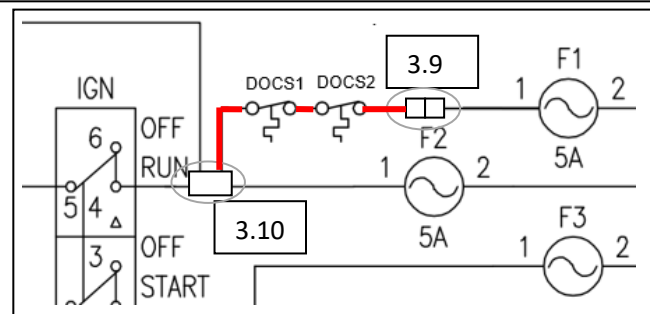
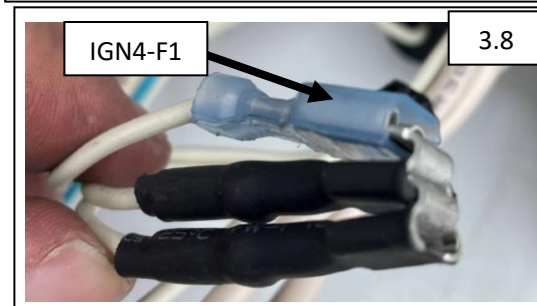
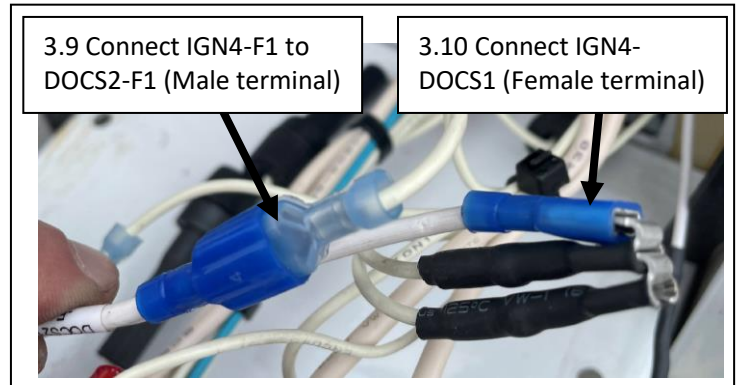
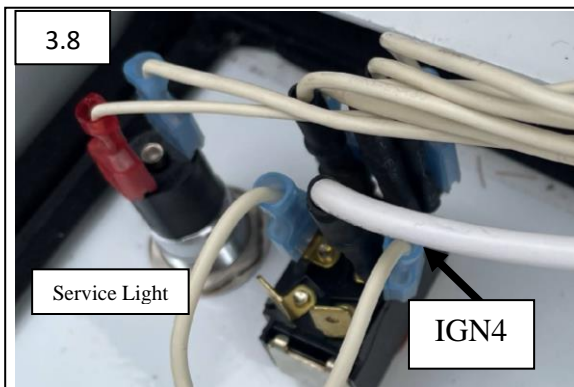
- 3.1. Ensure battery is disconnected.
- 3.2. Open control box.
- 3.3. Remove bottom grommet from side of control box, if populated use top.
- 3.4. Remove hole in the end of the grommet using needle nose pliers and feed cables through.
- 3.5. Slide grommet over the heat shrink on wire, placing it in the middle of the heat shrink.
- 3.6. Feed cables into control box and seat grommet.
- 3.7. Crimp stripped cable with male spade terminal (item 8).
- 3.8. Remove connectors from IGN4 receptacle. Separate IGN4-F1 spade from the piggy-back connectors. (see right, below)
- 3.9. Connect IGN4-F1 female spade to the IGN4-DOCS2 male connector. (see below)
- 3.10. Connect IGN4-DOCS1 female connector to IGN4 piggy-back connectors and reseal into IGN4. (see below)
- 3.11. Open F1 fuse connector, ensure continuity between F1 and IGN4. Reseat F1 connection.



3.4 Cut Grommet



3.7 Male Spade terminal



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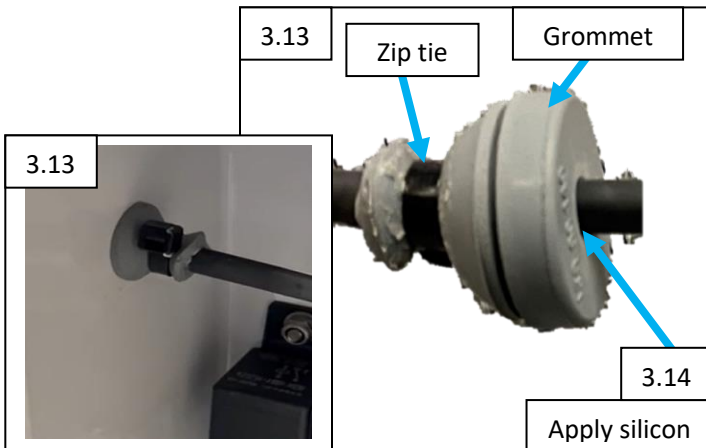
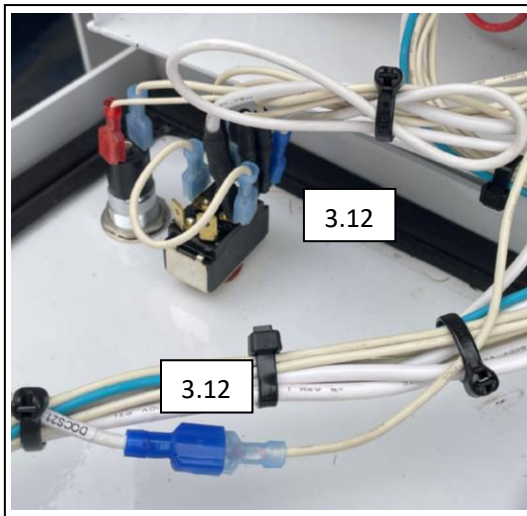
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- 3.12. Secure wires in control box with zip ties (item 7). **NOTE:** Save 1 zip tie for next step
- 3.13. With a zip tie (item 7), secure nozzle of grommet inside of the control box (see below). **NOTE: Use zip tie gun to secure zip tie.**
- 3.14. Apply the Permatex or other silicone inside the grommet from exterior.
- 3.15. Close control box, ensure gasket is in place.
- 3.16. Clean area around old schematic label using isopropyl cleaner. Apply new schematic label (item 9) on top of old label.
- 3.17. Reconnect Battery.




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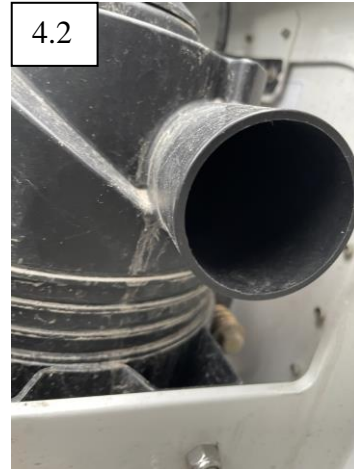
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4. Final steps

- 4.1. Check the area to make sure no debris/trash is present.
- 4.2. Check air intake to ensure no debris is present.



- 4.3. Apply attention sticker (item 10) and brown indicator dot to the frame of the unit near the control box. Ensure area is clean with isopropyl cleaner and dry.
- 4.4. Inform your field service engineering manager of unit(s) that are completed. Ensure to include Genset ID, Serial Number, Unit hours, and Date of completion in report.



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