

# Swichgage<sup>®</sup> Diagnostic Panel Kits For Cummins B and C-Series Engines W0162 and W0163



#### **Features**

- Includes Swichgage Instruments for Critical Engine Protection
- Complete and Ready to Install
- Provision for Throttle Cable
- Fits B and C-Series Open or Closed Power Units

Designed specifically for Cummins B and C-Series engines, these kits are complete with all components ready for installation. The kit will mount directly to Cummins supplied mounting bracket part no. EG-9907 (4B/T/TA3.9-P) or EG-9904 (6B/T/TA5.9-P). See p-2. These kits include our exclusive SWICHGAGE<sup>®</sup>s for basic engine protection. A Closed-loop protective circuit is provided by Murphy 518PH magnetic switch to ensure proper operation at all times.

#### **Features**

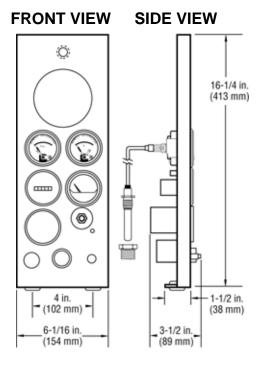
- · Unitized kit with all components
- · Shock mounted panel fully assembled
- · Closed-loop circuit

- Provision for additional Swichgage instruments, such as irrigation pump pressure
- Provision for tachometer and throttle cable
- Complete wiring harness allows easy installation

## Kit Includes

- · Oil pressure Swichgage instruments
- Coolant temperature Swichgage instruments
- Voltmeter
- Hourmeter
- · Emergency stop push button

- Key or push button start (specify)
- Face mounted fuse
- Starter auxiliary solenoid kit (complete)
- Necessary bolts, nuts, etc. for complete kit mounting



#### INSTALLATION INSTRUCTIONS



#### WARNING: BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT

- ✓ Disconnect all electrical power to the machine.
- **✓** Make sure the machine cannot operate during installation.
- **√** Follow all safety warnings of the machine manufacturer.
- ✓ Read and follow all installation instructions.

## **Open Power Unit**

- 1. Remove battery ground and secure to prevent unintentional contact.
- 2. Attach oil line to pressure Swichgage. Use sealant tape or pipe



CAUTION: Do not allow sealant to plug pressure Swichgage orifice.

- 3. Feed wire harness through bottom 2 in. (51 mm) dia. hole in bracket EG-9907/EG-9904.
- 4. Feed oil line through upper 2 in (51 mm) dia. hole in bracket EG-9907/EG-9904.
- 5. Install panel onto mounting bracket and secure.
- Install oil line into engine oil galley. Use sealant tape or pipe done
- 7. Install temperature sensing bulb into water jacket.



CAUTION: Be sure capillary tube is routed away from exhaust manifold.

- 8. Connect wire 7A to hot terminal of fuel solenoid.
- 9. Connect wire 8A to engine block (ground).
- 10. Mount starter solenoid (auxiliary magnetic switch) to bracket 30050670 and mount assembly to engine below starter.
- 11. Connect wire 11B to starter terminal "S"
- 12. Connect wires 6A, 9B, and 10B to starter terminal "Batt"
- 13. Connect wire 10A to either of the large terminals on starter solenoid (auxiliary magnetic switch). Connect wire 11A to other large starter solenoid terminal.
- 14. Connect wire 5A to either of the small terminals on the starter solenoid. Connect wire 13A to the other small terminal.
- 15. Connect plug (wires 1A, 4A, and 12A) to alternator.
- 16. Connect wire 9A and 12B to battery terminal on alternator.
- 17. Be sure all connections are tight and reconnect battery ground cable.
- 18. Service engine according to manufacturer's instructions.
- 19. To start engine, depress and hold red reset button on panel face (518PH magnetic switch) while cranking. Observe that oil pressure has been established and release reset button. If

**Warranty** - A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to http://www.fwmurphy.com/warranty

#### **Closed Power Unit**

- Remove battery ground and secure to prevent unintentional contact.
- 2. Enlarge panel cutout on engine enclosure to fit hole pattern on panel face and expose full panel face.

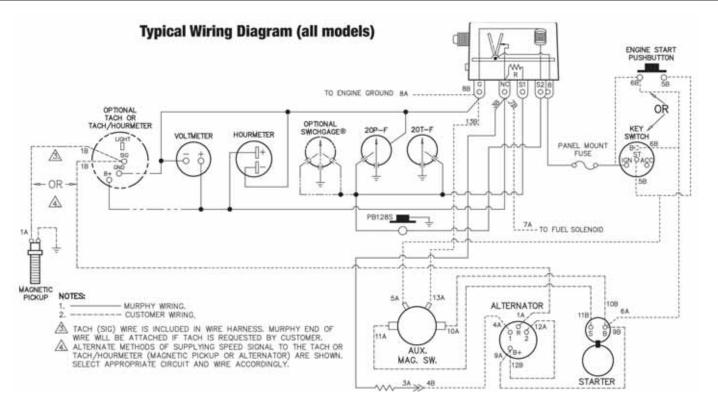
3. Attach oil line to pressure Swichgage. Use sealant tape or pipe dope.



**CAUTION:** Do not allow sealant to plug pressure Swichgage orifice.

- 4. Attach Swichgage panel assembly to rear side of cutout.
- 5. Follow steps 7 through 19 for open power units.

# **Typical Wiring Diagram (all models)**



**How to Order:** Order by model number.

**W0162:** Includes an ignition key start **W0163:** Includes push button start.

(Optional) DHK: Deluxe oil pressure line assembly

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