Installation and Operation of the 518PH, 518APH & 518E TATTLETALE®

00-02-0187
Revised 10-06
Section 25

Please read the following information before installing. A visual inspection of this product for damage during shipping is recommended before mounting. It is your responsibility to have a qualified person install this unit.

GENERAL INFORMATION

WARNING

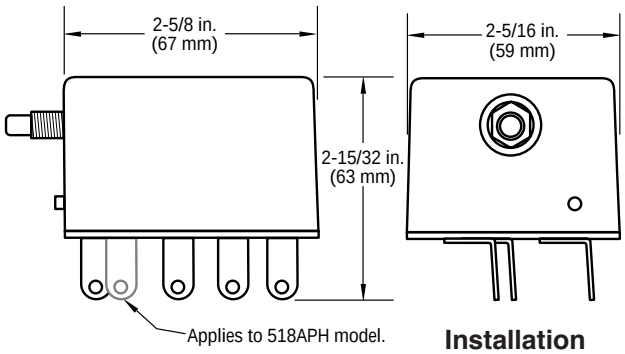
BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT

- ✔ 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.

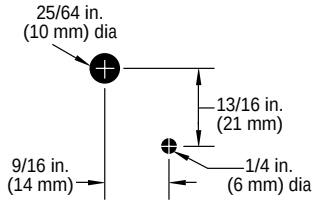
Specifications

Case: Polycarbonate
Contact Rating: 10 A
Coil Circuit Resistance: 339 ohms ± 10% 12 Volt
678 ohms ± 10% 24 Volt
Minimum Latch Voltage: 12 Volt model: *10 VDC*
24 Volt model: *20 VDC*
Minimum Latch Current: 12 Volt model: *30 mA*
24 Volt model: *30 mA*
Operating Temperature Range: -40 to 176°F (-40 to 80°C)

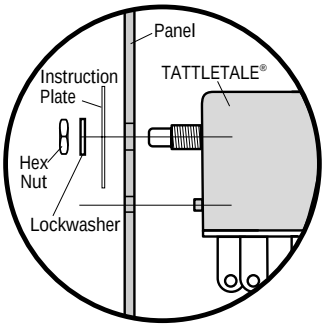
Dimensions and Installation



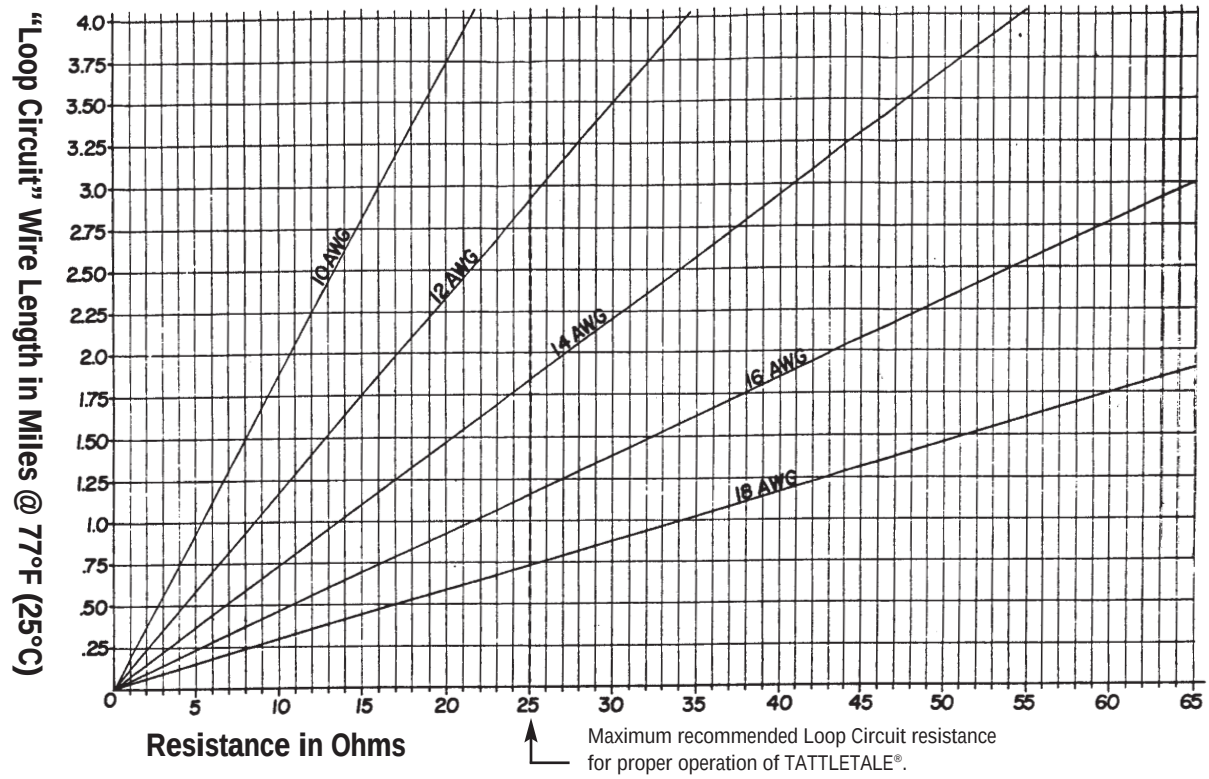
Mounting Holes



Installation



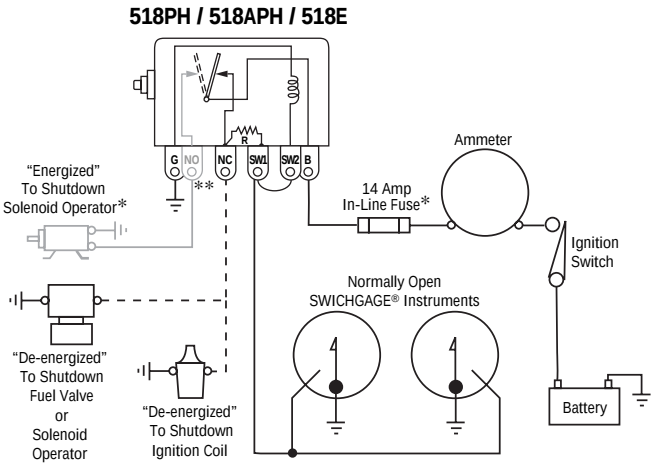
CAUTION: Certain dangers to human safety and to equipment may occur if some equipment is stopped without pre-warning. It is recommended that monitored functions be limited to alarm only or to alarm before shutdown.



TYPICAL WIRING DIAGRAMS

Figure 1 shows a jumper installed between "SW1 and "SW2". SWICHGAGE® instruments are normally open. This is not a Closed Loop™ circuit.

Figure 1

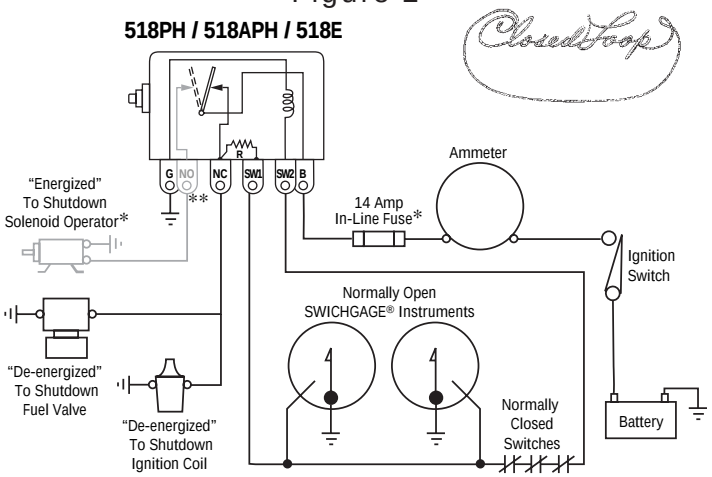


* In-Line Fuse should be removed on "energized" to shutdown configurations.

** Applies to 518APH model.

Figure 2 shows a Closed Loop™ circuit with normally open Murphy SWICHGAGE® instruments and Normally Closed switches (alignment and "V" belt switches, etc.).

Figure 2



* In-Line Fuse should be removed on "energized" to shutdown configurations.

** Applies to 518APH model.

TROUBLESHOOTING

Push button will not remain in the depressed position after engine startup (wired according to Figure 2).

- Be sure oil pressure is adequate to raise pointer past SWICHGAGE® contact. (Not necessary if oil pressure SWICHGAGE® is equipped with push button lockout.)
- Visually check wiring for loose connections, frayed wiring, etc. on all terminals and within switch loop circuit.
- Check 14 amp fuse connected to "B" terminal.
- Check for good ground on "G" terminal.
- Disconnect switch loop circuit from "SW1" and "SW2" terminals. Place a temporary jumper between SW1 and SW2 and restart engine. If the push button stays in with engine running, the 518PH, 518APH & 518E is not the problem. This indicates either an open circuit, unwanted ground, or too high resistance in switch loop circuit wiring between "SW1" and "SW2".
- Verify continuity by performing the following:
  1. Disconnect switch loop circuit from "SW1" and "SW2" terminals.
  2. Remove power from "B" terminal.
  3. Use an ohmmeter to check for "good continuity" (25 ohms or less) through **switch loop circuit**. If good continuity is indicated, proceed to Step 4.
  4. Adjust SWICHGAGE® contact away from pointer. Check continuity between one end of loop circuit, "SW1 or "SW2" and ground. Good continuity (25 ohms or less) indicates an unwanted ground in loop circuit such as a terminal rotating against the mounting panel. Remove ground, restore loop circuit connections to "SW1" and "SW2".
  5. Reconnect power to "B" terminal and restart engine.
  6. Using an ohmmeter, check resistance between one end of the loop circuit to the other. Resistance should not exceed 25 ohms. If resistance is too high, check for loose connections in loop circuit. Otherwise select larger size wire for loop circuit.

Engine fails to shutdown when contacts close on one-wire to ground SWICHGAGE® controls (wired according to Figure 1).
With engine running, jumper "SW1" to "G" terminal. If switch trips and engine shuts down, trouble could be SWICHGAGE® contacts not making contact, lack of good case ground on SWICHGAGE®, or broken/cut wire.

Lack of case ground on SWICHGAGE®.
Verify that mounting bracket on the SWICHGAGE® has broken through the panel paint and has made good contact with bare metal. If good contact has not been made, tighten mounting stud nuts accordingly.

Failure of contacts on SWICHGAGE® to make contact.
Adjust contacts back and forth against the pointer to give a wiping and cleaning action on contacts. If this does not correct the problem, replace SWICHGAGE®.

Ross Air Works
www.rossairworks.com
ph 800-290-9798
fx 800-956-2651
sales@rossairworks.com