



Genuine Parts

PRECAUTIONS:

- ❑ Read ALL instructions before installing instrument.
- ❑ Follow ALL safety precautions when working on vehicle-wear safety glasses!
- ❑ ALWAYS disconnect (-) negative battery cable before making electrical connections.

HELP?:

- ❑ If after reading these instructions you don't fully understand how to install your instrument(s), contact your local Stewart Warner distributor, or contact our Technical Support Team toll free at **1-800-676-1837**
- ❑ Additional applications information may be found at www.stewartwarner.com.

GENERAL APPLICATION:

- ❑ 12-volt DC negative (-) ground electrical systems (11-16 VDC for the Light bulb).

Installation Instructions
Ammeter 2-1/16" and 2-5/8"

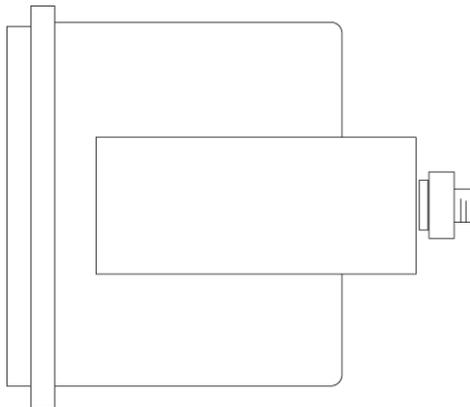
1

2

GAUGE MOUNTING (Figure 1):

- ❑ Recommended panel cut-out (hole size) for 2-1/16" instruments is 2-1/16" and 2-5/8" instruments is 2-5/8".
- ❑ Secure the gauge in the hole using the supplied bracket and nuts.

Figure 1

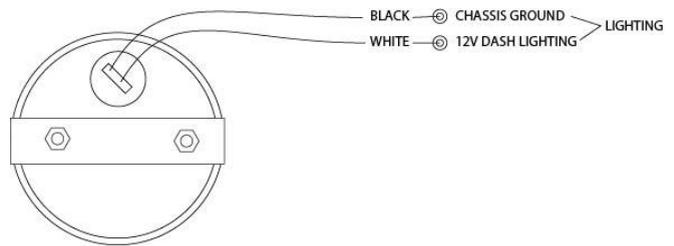


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LIGHTING WIRING (Figure 2):

1. Disconnect negative (-) battery cable.
2. There are two (2) wires for the lighting. Connect the (**WHITE**) lighting wire to the dash lighting circuit or to a +12V switched circuit. Connect the (**BLACK**) lighting wire to a chassis ground.
3. Reconnect the negative (-) battery cable.

Figure 2

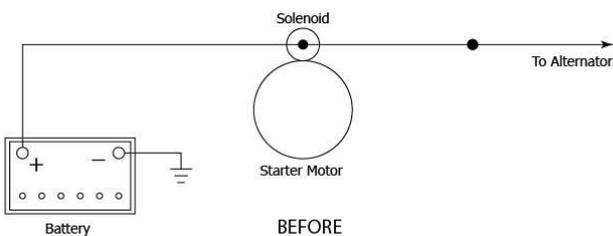


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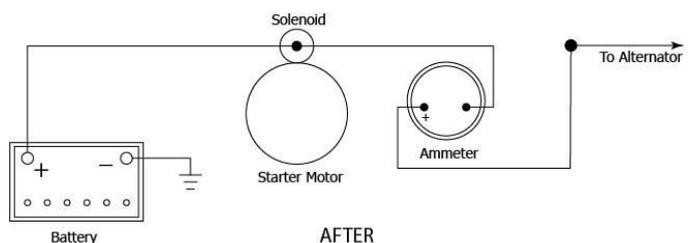
STARTER SOLENOID INSTALLATION (Figure 3):

1. Disconnect negative (-) battery cable.
2. Connect two separate lengths of 10 ga wire to posts marked positive (+) and negative (-) on rear of ammeter.
3. Route both wires to starter solenoid. When routing through the firewall, be sure to use a grommet so that the wires do not come in contact with sharp edges.
4. Remove all wires from starter solenoid battery terminal, except the wire to battery positive (+) terminal. Secure the disconnected wires to the wire connected to the ammeter positive (+) terminal.
5. Connect the negative (-) wire from the ammeter to the battery terminal on the starter solenoid.
6. Reconnect the battery negative (-) cable.
7. Test the ammeter by turning on the lights without the engine running, the ammeter should read negative (-) amps. When engine is running, the ammeter should read positive (+) amps.

Figure 3



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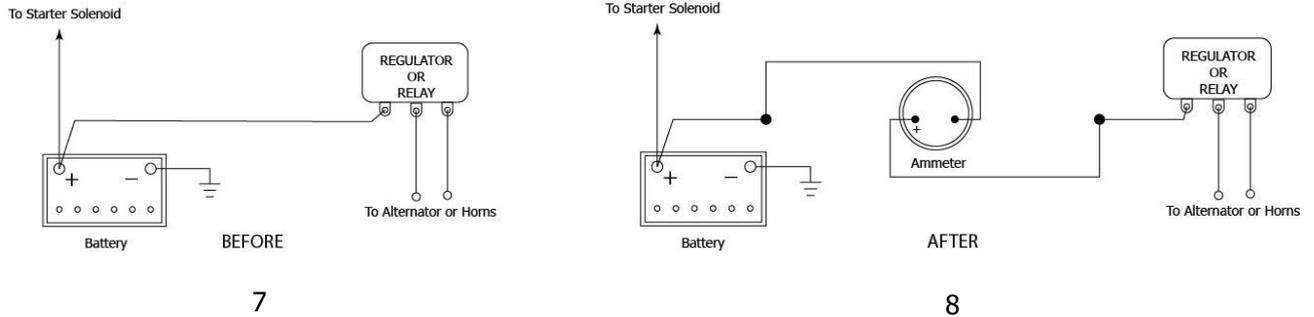


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REGULATOR OR RELAY INSTALLATION (Figure 4):

1. Disconnect negative (-) battery cable.
2. Connect two separate lengths of 10 ga wire to posts marked positive (+) and negative (-) on rear of ammeter.
3. Route both wires to voltage regulator or horn relay. When routing through the firewall, be sure to use a grommet so that the wires do not come in contact with sharp edges.
4. Remove the positive (+) battery wire from voltage regulator or horn relay. Secure the disconnected wire to the wire connected to the ammeter negative (-) terminal.
5. Connect the positive (+) wire from the ammeter to the battery terminal of the voltage regulator or horn relay.
6. Reconnect the battery negative (-) cable.
7. Test the ammeter by turning on the lights without the engine running, the ammeter should read negative (-) amps. When engine is running, the ammeter should read positive (+) amps.

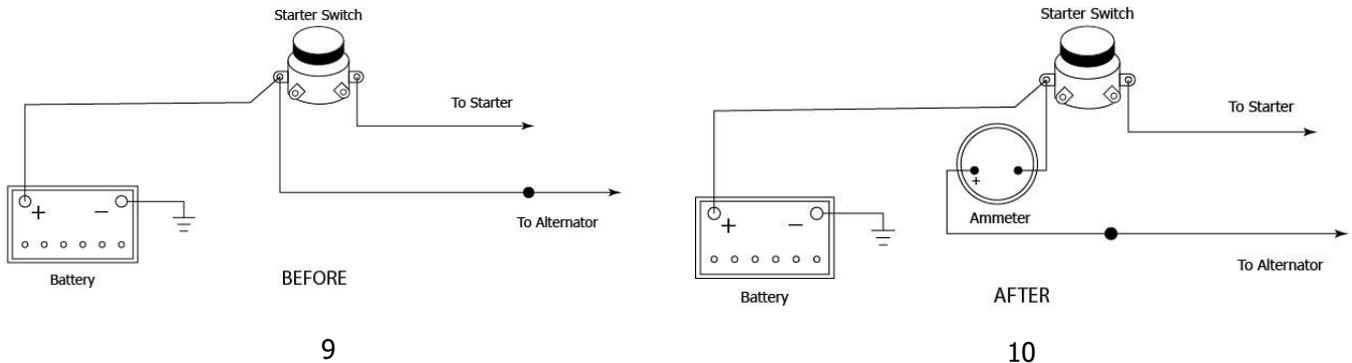
Figure 4



STARTER SWITCH INSTALLATION (Figure 5):

1. Disconnect negative (-) battery cable.
2. Connect two separate lengths of 10 ga wire to posts marked positive (+) and negative (-) on rear of ammeter.
3. Route both wires to starter switch. When routing through the firewall, be sure to use a grommet so that the wires do not come in contact with sharp edges.
4. Remove all wires from positive (+) terminal of starter switch, except the wire to battery positive (+) terminal. Secure the disconnected wires to the wire connected to the ammeter positive (+) terminal.
5. Connect the negative (-) wire from the ammeter to the positive (+) terminal on the starter switch.
6. Reconnect the battery negative (-) cable.
7. Test the ammeter by turning on the lights without the engine running, the ammeter should read negative (-) amps. When engine is running, the ammeter should read positive (+) amps.

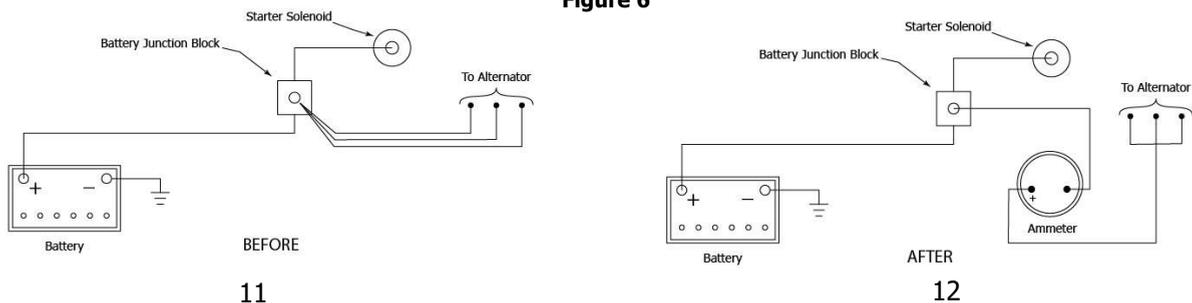
Figure 5



JUNCTION BLOCK INSTALLATION (Figure 6):

1. Disconnect negative (-) battery cable.
2. Connect two separate lengths of 10 ga wire to posts marked positive (+) and negative (-) on rear of ammeter.
3. Route both wires to battery junction block. When routing through the firewall, be sure to use a grommet so that the wires do not come in contact with sharp edges.
4. Remove all wires from battery junction block, except the wire to battery positive (+) terminal. Secure the disconnected wires to the wire connected to the ammeter positive (+) terminal.
5. Connect the negative (-) wire from the ammeter to the battery junction block.
6. Reconnect the battery negative (-) cable.
7. Test the ammeter by turning on the lights without the engine running, the ammeter should read negative (-) amps. When engine is running, the ammeter should read positive (+) amps.

Figure 6

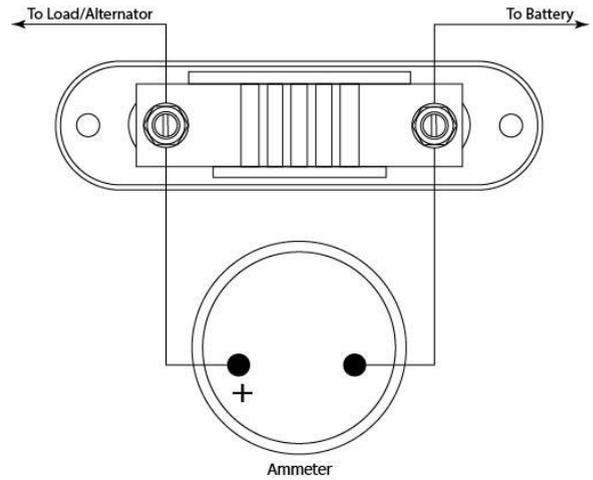


SHUNT INSTALLATION (Where Applicable):

When using an externally shunted ammeter, follow these steps to ensure proper and safe operation.

- ❑ Meters reading -60/0/+60 use Shunt No. 813489 (See Wire Gauge Chart 1.)
- ❑ Meters reading -100/0/+100 use Shunt No 407616 (See Wire Gauge Chart 2.)
- ❑ Meters reading -150/0/+150 use Shunt No 413717 (See Wire Gauge Chart 2.)
- ❑ Mount shunt in well-protected location, as near to connection point as possible. Mount where terminals will not contact any metal parts.
- ❑ Drill two 1/4" diameter holes, with hole centers 5-1/8" apart, and mount the shunt using any 1/4" bolts or screws.
- ❑ Wire the shunt in place of the ammeter in the ammeter installation steps.
- ❑ Using the Gauge Wire Charts, wire the ammeter to the shunt using the appropriate gauge of wire (**Figure 7.**)
- ❑ Follow remainder of installation instructions as listed.

Figure 7



WIRE GAUGE CHART 1

-60 to 0 to +60 Ammeter
(Use 813489 Shunt)

Total Length of Wire Needed	Gauge Wire to Use
15 ft. 4 in.	18
21 ft. 1 in.	16
34 ft. 7 in.	14
53 ft. 10 in.	12
88 ft. 2 in.	10
146 ft. 11 in.	8

WIRE GAUGE CHART 2

-100 to 0 to +100 Ammeter
(Use 407616 Shunt)

Total Length of Wire Needed	Gauge Wire to Use
11 ft. 7 in.	18
15 ft. 11 in.	16
26 ft. 3 in.	14
40 ft. 10 in.	12
66 ft. 9 in.	10
111 ft. 4 in.	8

WIRE GAUGE CHART 3

-150 to 0 to +150 Ammeter
(Use 413717 Shunt)

Total Length of Wire Needed	Gauge Wire to Use
4 ft. 10 in.	18
6 ft. 7 in.	16
10 ft. 11 in.	14
17 ft. 0 in.	12
27 ft. 9 in.	10
46 ft. 4 in.	8

CLEANING DIRECTIONS:

For proper cleaning of instrumentation/accessories, use a glass cleaner or mild detergent with a spray on and wipe method.

WARRANTY INFORMATION:

TWO (2) YEAR LIMITED WARRANTY. Stewart Warner products are warranted against defects in workmanship and materials for a period of two (2) years from the date of purchase. Proof-of-purchase is required; otherwise, the warranty period shall default to two (2) years from date-of-manufacture (as indicated by the date code on the product). See detailed Warranty Policy for other Terms & Conditions.

STEWART WARNER

1-800-676-1837

www.stewartwarner.com