

Troubleshooting*

- 1. Before you do anything else, check for defective wiring or grounds since these are the most common causes of dysfunction. Inspect all wiring and terminals and look for corrosion at ground connections.
- 2. If the indicator pointer does not move when the ignition switch is turned on, check to see that voltage is actually being carried from the ignition switch to the ignition terminal (marked “IGN”) on the indicator. Also check to see that paint or corrosion does not prevent proper grounding.
- 3. If the indicator reading is inconsistent with the reading on the TwinSite sender, use a resistance substitution device to verify that the indicator resistance is the same as the sender resistance. They must be matched to get an accurate reading.

* Materials and specifications are subject to change without notice.
Pressure ratings subject to change due to temperature and other environmental considerations.

Fuel Level Indicator Reading (At Panel)	Possible Cause
No Indication (Pointer does not move when power is turned on)	1. Empty fuel tank. 2. No voltage to indicator because of broken or disconnected wire. 3. Indicator not grounded. 4. Indicator defective.
Erratic Reading (Jumpy)	1. Loose connection. 2. Defective sender.
Inaccurate Reading	1. Defective sender or tank gauge. 2. Indicator incompatible with sender. (Resistance in Ohms not matched)
0 to 90 OHM Systems & Others With Low Resistance At Empty	
Indicator reads FULL at all times	1. Wire from sender broken. 2. Sender not properly grounded. 3. Defective sender.
Indicator reads EMPTY at all times	Grounded wire between sender & indicator.
240 to 30 OHM Systems & Others With High Resistance At Empty	
Indicator reads EMPTY at all times	1. Wire from sender broken. 2. Sender not properly grounded. 3. Defective sender.
Indicator reads FULL at all times	Grounded wire between sender & indicator.

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These instructions were prepared to assist tradesmen and others qualified to service this type of equipment. Consumers are not qualified to perform installations. If you have any questions about these procedures, please contact Rochester for assistance.

There are several different styles of sending units. The differences are both external and internal. Be sure you have the correct replacement part number before installation.

The sending unit contains a powerful magnet, which is rotated by a magnet inside the tank gauge. If sender is installed with these magnets 180 degrees out of alignment, pointer will be driven against a mechanical stop and held there until the fuel level in the tank cycles empty to full, or full to empty. Installing sender in accordance with the following instructions, will prevent this condition.

CAUTION: Read all instructions before proceeding.

Installation*

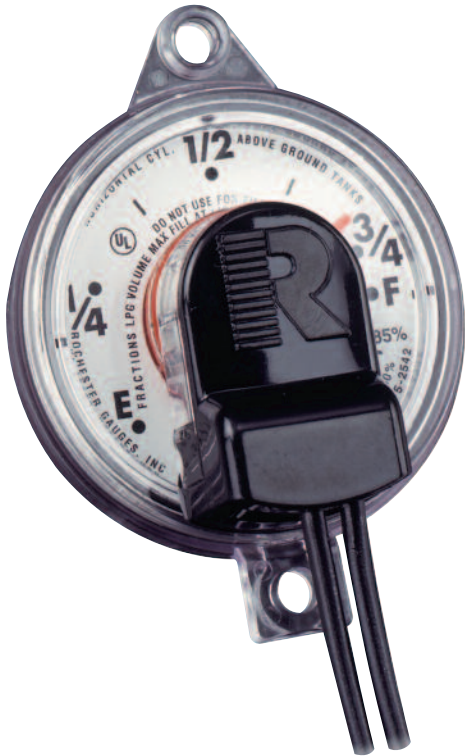
When connecting a Rochester TwinSite™ sender, follow this procedure:

- 1. Turn ignition switch off.
- 2. Using insulated 16-gauge wire, connect the ignition terminal on the fuel level indicator to a battery positive source, usually parallel with the ignition circuit.[†]
- NOTE:** Do not connect the indicator directly to the battery; connect through a fuse box.
- 3. Using insulated 16-gauge wire with #0025-00495 solder sleeve connector, connect either terminal on the TwinSite™ sender to sender terminal on a matched indicator.
- 4. Using insulated 16-gauge wire with #0025-00495 solder sleeve connector, establish a ground connection from the other terminal on the TwinSite™ sender to ground terminal on indicator.

[†]Step 2 is necessary only if an indicator is to be installed.

If the TwinSite™ is to be connected to the existing original equipment gas gauge then connect the TwinSite™ as in 3 and 4 above but utilize the gasoline sender wiring.

CAUTION: Rochester TwinSite™ senders will be destroyed and indicator may be damaged if 12 volt wire touches the sender terminal. Voltage to actuate the TwinSite™ sender must come through the indicator from the terminal marked “SEND” or “SNDR”.

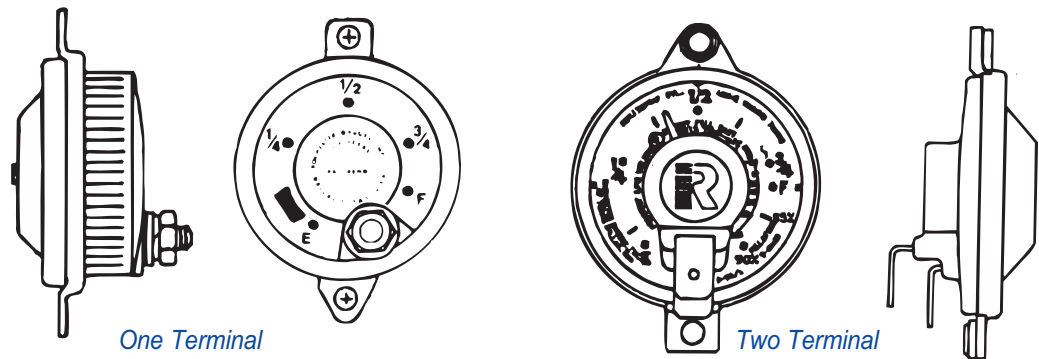


WARNING: This gauge is not a substitute for a fixed liquid level gauge or weight measurement device, which may be required for filling. This document is not instructions for tank filling.

GAUGE REMOVAL WARNING: Should it appear necessary, to remove the gauge from the tank, do not attempt removal unless under competent supervision with all due precautions taken against the hazards of released liquid or high pressure and/or flammable gas.

HAZARDS: Even if the gauge registers empty, the tank may contain hazardous quantities of flammable, pressurized liquid and vapor. A hazard of fire or explosion may exist if proper methods are not used when removing or installing the gasket, gauge or other pressure containing fittings. Do not reuse gasket.

Obsolete TwinSite™



One Terminal

Two Terminal

Replacement Installations*

Single Terminal

One obsolete TwinSite™ sender has a single brass stud to accommodate a ring-terminal-fitted wire running to sender terminal on a matched indicator. It also had an aluminum case and relied upon the dial screws to establish the ground path.

The terminals on the Advanced Matrix TwinSite™ sender are interchangeable, ground or sender, to avoid problems and confusion.

Installation*

1. Make note of the indicator pointer indication and the orientation of the defective sender pointer and dial graduations.
2. Using a #1 Phillip's screwdriver, remove the two #6 sender retaining screws.

WARNING: TANK CONTAINS FLAMMABLE LIQUID AND GAS.

DO NOT REMOVE FLOAT GAUGE MOUNTING BOLTS.

3. Remove the sender from the gauge and cut the sender wire near the ring terminal.
4. Place the bottom of the old sender against the bottom of the new sender, and rotate it until the new sender pointer is at the approximate location noted in step #1.
5. Install new sender on the gauge and verify that the pointer indications are as noted in step #1.
6. Secure new sender with the two #6 - 32 screws.

CAUTION: OVER-TIGHTENING THE RETAINING SCREWS MAY DAMAGE THE SENDER SCREW TABS.

7. Connect the sender wire to either terminal on the new sender using the 0025-00495 solder sleeve connector.

A ground connection may be accomplished in 2 ways:

8. The preferred ground connection is accomplished as follows:
 - a. Connect the 16-gauge insulated wire with #0025-00495 solder sleeve connector to either terminal on the sender.
 - b. Connect the other end of the 16-gauge insulated wire to the ground terminal on the indicator.

An alternative ground connection is accomplished as follows:

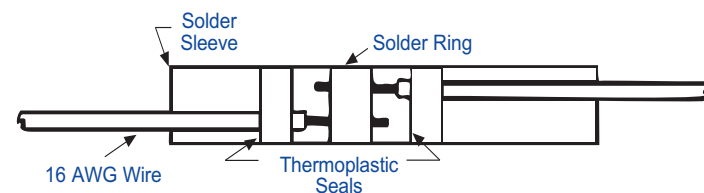
- a. Attach 16-gauge insulated wire with #0025-00495 solder sleeve connector installed to either terminal on the sender.
- b. At a reliable dry point near the sender, attach the other end of the wire securely to the chassis, frame.
- c. Attach 16-gauge insulated wire to the ground terminal on the indicator, and secure the other end of the wire to the chassis, frame.

Solder sleeve installation

- a. Strip wires $\frac{1}{4}$ " to $\frac{3}{8}$ "
- b. Insert wires in solder sleeve as shown.
- c. Ensure that stripped ends overlap in the solder ring.
- d. Ensure that the thermoplastic seals are over insulated portions of the wires.
- e. Heat the solder sleeve until the solder ring melts and solders the wire. The sleeve with thermoplastic rings should shrink and seal the connection.

WARNING: DO NOT USE OPEN FLAME AS HEAT SOURCE.

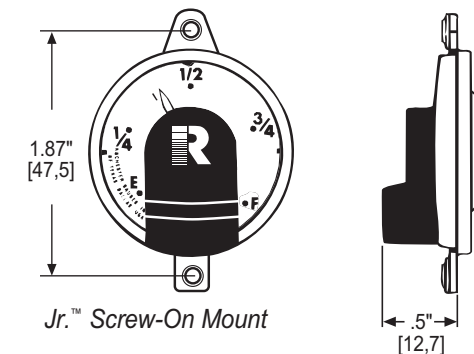
9. Retest the fuel level indicating system for proper operation.



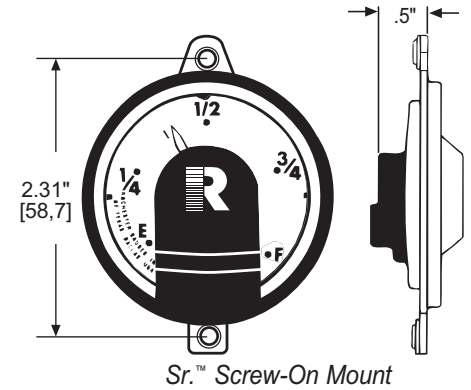
Solder sleeve, part # 0025-00495

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[METRIC]



Jr.™ Screw-On Mount



Sr.™ Screw-On Mount

Replacement Installation,
2 Terminal:*

The other obsolete TwinSite™ sender has two .250 [6,35] male tabs.

1. Make note of the indicator pointer indication and the orientation of the defective sender pointer and dial graduations.
2. Using a #1 Phillip's screwdriver, remove the two #6 sender retaining screws.

WARNING: TANK CONTAINS FLAMMABLE LIQUID AND GAS. DO NOT REMOVE FLOAT GAUGE MOUNTING BOLTS.

3. Remove the sender from the gauge and disconnect the electrical connection. Cut off wires near female "push-on" terminals.
4. Place the bottom of the old sender against the bottom of the new sender, and rotate it until the new sender pointer is at the approximate location noted in step #1.
5. Install new sender on the gauge and verify that the pointer indication is as noted in step #1.

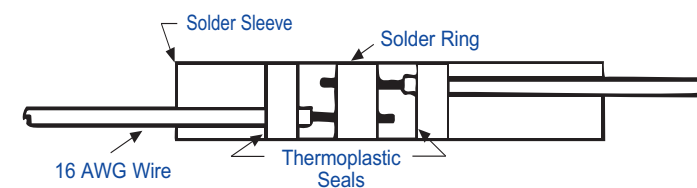
6. Secure new sender with the two #6 - 32 screws.
CAUTION: OVER TIGHTENING THE RETAINING SCREWS MAY DAMAGE THE SENDER SCREW TABS.

7. Electrically connect the new sender to the wiring harness using solder sleeves supplied.

- a. Strip wires $\frac{1}{4}$ " - $\frac{3}{8}$ "
- b. Insert wires in solder sleeve as shown.
- c. Ensure that the stripped ends overlap in the solder ring.
- d. Ensure that the thermoplastic seals are over insulated portions of the wires.
- e. Heat the solder sleeve until the solder ring melts and solders the wires. The sleeve/thermoplastic rings should shrink and seal the connection.

WARNING: DO NOT USE OPEN FLAME AS HEAT SOURCE.

8. Retest the fuel level indicating system for proper operation.



Solder Sleeve part # 0025-00495

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Part #	Dial Size	OHM Range	Application
P5628S02537	Jr.	0-90	GM Vehicles, LP Gas
P5677S02556		0-90	Industrial
P5663S02527		20-150	Recent Ford, LP Gas
P5630S02538		70-10	Ford & Chrysler, LP Gas
P5632S02539		240-30	Marine, 6741 Gauges
P5636S02541	Sr.	240-30	Adjustable 6741
P5675S02556		0-90	Industrial
P5640S02543		240-30	Marine Spiral Gauge
P5752S02599	Jr.	40-240	GM Pickup LP Gas
P5788S02537		0-90	RV, Snap-on
P5827S02649		220-20	Dodge
P5731S02597	Jr.	0-10k	Voltage Divider LP Gas