

3520 w. saymore lane  
peoria, il 61615  
phone 309-686-0614

## INSTRUCTIONS

### FOR INSTALLING

RE-BUILT PRINTED CIRCUIT BOARD ASSEMBLY, FUEL QUANTITY INDICATOR  
(Original Beech Part. No. 58-364041; 58-364058; 58-364056)

For Bonanzas F33, V35, A36 & Barons B55, E55, 58

1. Remove glare shield - usually held on by two screws - one at each lower side corner, plus velcro at top of panel. Disconnect de-froster hose underneath front portion of glare shield. After screws are removed, lift up on glare shield and disconnect compass light wire at nylon Molex connector. Remove glare shield from cock-pit.
2. Note the two printed circuit modules under-neath and behind the lip at the top center of the panel, above manifold gauge.
3. Peel back velcro strip at top of panel to reveal the two screws that hold each printed circuit module.
4. Remove nuts and screws holding modules. Nuts take a 1/4" wrench. BE CAREFUL NOT TO DROP NUTS AND WASHERS - place a card or sheet of paper underneath modules to catch nuts and washers.
5. Facing forward, the left module is for the left fuel gauge and the right module is for the right gauge.
6. Dis-connect the fuel module wiring cable by squeezing the ears on the nylon Molex connector plug and pull apart.  
  
\* - Some models do not have a nylon Molex connector - the wires are butt-spliced with connectors. Cut wires at connector & re-connect with new splice connectors.
7. Note that the two parts of the connector plug will only go together one way. Match up the small ridge on one side of each plug for the proper connection.
8. Remove the faulty module and re-place with the re-built unit.
9. Note that the original Beech module had gray epoxy potting compound and the re-built unit has red epoxy. (So you can tell the difference if in doubt !)

10. The modules are mounted with the epoxy side down and the wires coming out of the left side of the module as you look down on it. DO NOT TIGHTEN THE SCREWS TOO TIGHTLY. It is possible to crack or de-form the printed circuit board inside the module if tightened too tight. ,
11. It is sometimes difficult to get the nuts started on the screws without dropping the washers and the nuts. A small mirror on a handle, similar to a dentist's mirror and available at automotive stores can be helpful. Several tricks might help - Coat the top of the nut with grease to hold the washer to the nut. Then hold washer and nut with a pair of long nose pliers, locking forceps or a small pair of vise-grip type pliers. Masking tape placed sticky side up on your finger might also work. The best bet is to glue the washers and nuts to the underside of the module, over the holes, with rubber cement or a quick setting glue.  
  
It seems to be inevitable that washers & nuts fall off your finger - and fall somewhere behind the panel where you can't find them ! This is the only difficult part of re-placing the modules !
12. Once the modules are re-mounted, re-connect the connecting plug and re-place any wire-ties if necessary.
13. The small screw in the front of the module is for calibrating the fuel gauge. The modules are initially calibrated at 1/2 full for a 40 gallon tank. The most accurate way to calibrate is to check the gauge when the tank is 1/2 full. Failing that, the gauge should read about 1/16" past the full mark when the tank is full and about 1/16" to the left of the empty mark when the tank is completely empty.
14. If everything appears to be satisfactory - re-place velcro (use contact cement) and re-install glare shield by re-connecting compass light and defroster hose after glare shield is in place.
15. Nine times out of ten, fuel gauge problems are associated with the printed circuit module. Sometimes it can be the senders in the tank - either from corrosion on the contacts or a faulty sender - altho this is rather unusual. The fuel gauges themselves are almost never the problem. If they move at all - they are probably O.K.  
  
If you find that the printed circuit modules were not your problem - return them for a refund.
16. If the printed circuit modules fail for any reason within 6 months - return the unit and we will send you another unit at no charge.

## WIRE NUMBERING SEQUENCE

In the event that you do not use the nylon 6 pin connector plug furnished with the module, the wires are marked as follows:

Term - 3 - 20

M - Neg - 20

Term - 1 - 20

M - Plus - 20

Term - 4 - 20

If the number markings come off for any reason, hold the module epoxy side up with the wires toward you, with the wires on the left and the calibration screw on the right. The wires will then be in the above sequence, reading from left to right.

The wires connect to the 6 pin nylon connector as follows:

<u>Module Wire</u>	<u>6 Pin Connector Pin</u>	
Term-3-20	Pin 5	Goes to plane ground
M-Neg-20	Pin 3	Goes to Meter Negative
Term-1-20	Pin 2	Goes to Sender
M-Plus-20	Pin 4	Goes to Meter Plus
Term-4-20	Pin 1	Goes to 12V or 24V
No Connection	Pin 6	No connection