



## Installing the kV RSX Option Board into the kV Meter

The kV RSX Option board can only be installed in “Modem Ready” kV™ Meters. These meters can be identified by the words “Modem Ready” which are printed on the left side of the meter nameplate.

Any combination of the four (4) option boards may be installed in the kV™ Meter at one time. These include the I/O-2 Input/Output option board, the LP-2 Load Profile option board, the kV RSX Option Board, and the RG-1 Revenue Guard option board. The I/O-2, LP-2, and kV RSX Option Board can be combined in an option board “stack” if necessary. See Figure 1 for details.

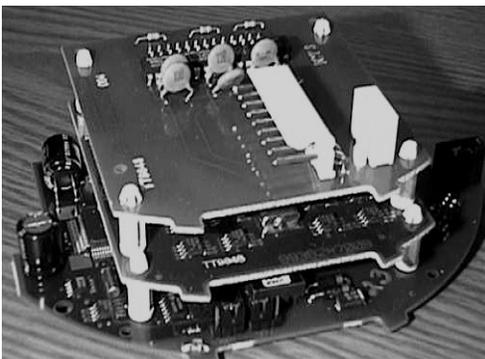


Figure 1: Option board stack

The Revenue Guard option board is not part of this stack and is not affected by the presence of other option boards.

**Note:** The kV RSX Option Board must always be installed as the inner most option board (the board closest to the kV™ Meter's main board).

The kV RSX board is installed as follows:

1. If the meter is not disassembled, follow the disassembly instructions described in the kV™ Meter Installation, Operation, and Maintenance Guide (GEH-5081A).
2. Place the bezel face down on a soft, clean surface to protect the nameplate and liquid crystal display.
3. Remove the I/O and LP option boards if they are present.
4. **The I/O-1 and LP-1 option boards must not be reused with the kV RSX.**
5. Select the desired mode of operation by installing the jumper shunts according to the following:

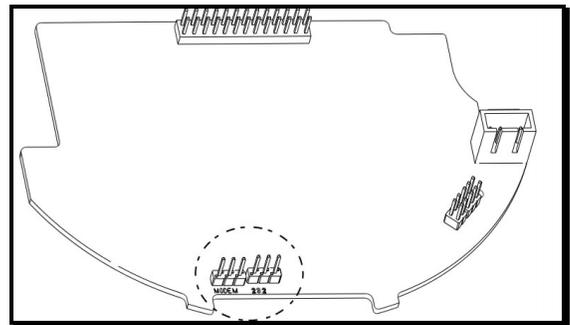


Figure 2: Location of mode jumpers

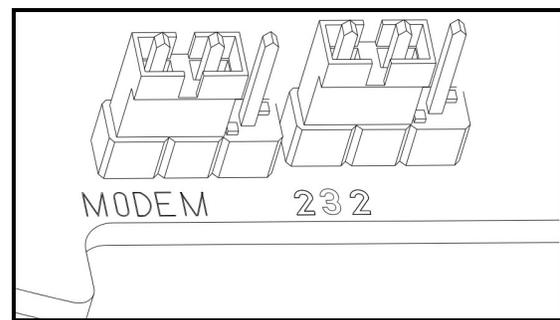


Figure 3: External Modem Mode

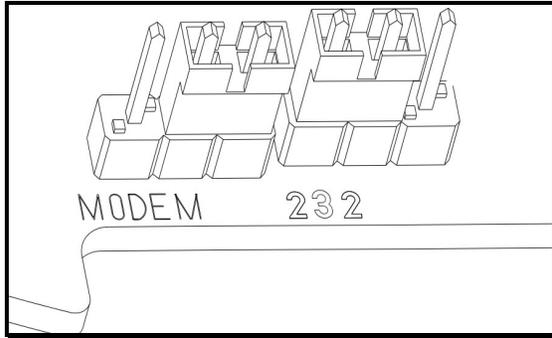


Figure 4: RS-232 Simple Serial Mode

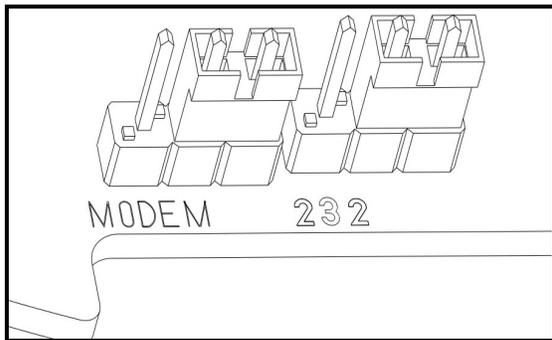


Figure 5: RS-485 Simple Serial Mode

6. If the kV RSX Option Board will not be combined with either the I/O or LP option boards proceed to step 3. If the kV RSX Option Board will be installed with the I/O-2 and/or LP-2 option boards proceed to the next step.

7. Place the kV RSX Option Board on a soft clean surface and install the four (4) nylon spacers by gently pushing them into the four (4) holes on the board.

***Do not reuse nylon spacers. When removed, a slight rounding of the spacer occurs which can greatly decrease the ability of the spacer to hold the option board firmly in place.***

8. If both the LP-2 and I/O-2 option boards are to be installed, the LP-2 option board must be installed next. Install it by engaging the 26 pin connector pins between the kV RSX Option Board and the LP-2 option board. Then, after lining up the nylon spacers on the kV RSX Option Board with the four (4) holes on the LP-2 board, snap the option board into place.

9. The I/O-2 option board may be installed directly to the kV RSX Option Board if the LP-2 option board will not be used or, it may be installed directly to the LP-2 option board. Either way, the I/O-2 option board is installed in a similar manner to the LP-2 option board described in step 6 above.
10. Depending on whether the installation is being made to an S-base or A-base meter, install the appropriate cable assembly as described below.

### Installation on S-base Meters

While the meter is unassembled, the S-base communications cable assembly must be installed. This cable assembly is installed in S-base meters as follows:

1. With the kV™ Meter base facing you, locate the lower of the two small knockouts and remove it (see Figure 6: Locating knockout for cable assembly on S-Base meters). Enlarge the hole to a diameter of 0.290 inches. Make sure the resulting hole is clean.

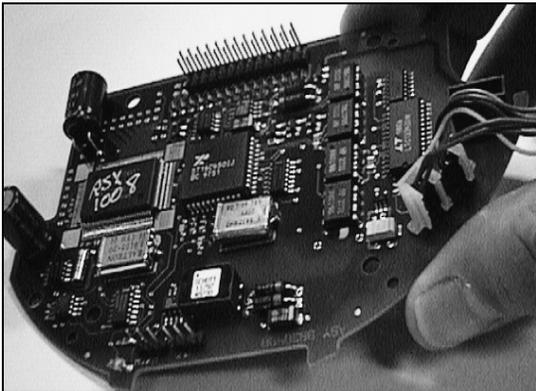


Figure 6: Locating knockout for cable assembly on S-Base meters

2. Locate the end of the cable assembly with the two small black connectors. Pass the larger of the black connectors through the knockout hole from the back side of the meter base. Next, pass the smaller black connector through the same hole and pull until the

wire tie is in the slot and up against the base. Make sure that the cable has been brought up on the outside of the shroud.

3. Check the headers on the kV RSX board to make sure that the pins are not bent or out of position. Orient the smallest black connector such that the indexed (filled) hole in the black connector is lined up with the missing pin in the 4 pin header. Plug the connector assembly into the header on the RSX board. Orient the larger black connector such that the indexed (filled) hole in the black connector is lined up with the missing pin in the 6 pin header. Plug the connector assembly into the header on the RSX board.
4. Attach the plastic connector holder as shown in Figure 7. The connector holder snaps should extend through the holes in the kV RSX board and snap into place.

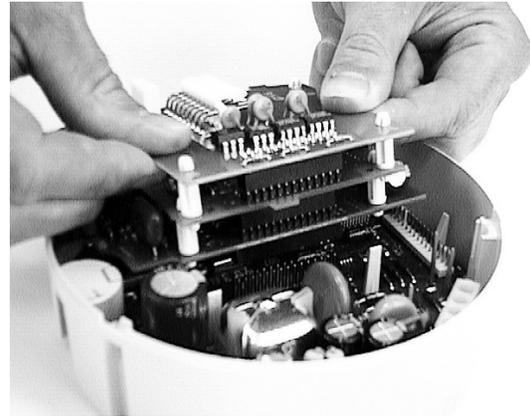


**Figure 7 : Connector holder placement**

5. Check the 30 pin header on the meter board to make sure that the pins are not bent or out of position. Adjust any pins that are out of alignment.

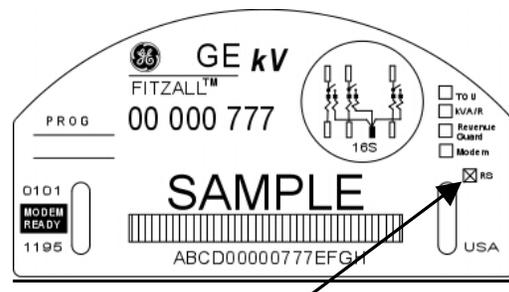
***kV™ Meters with 26 pin headers instead of 30 pin headers cannot be retrofitted with the kV RSX Option Board .***

6. With the kV RSX Option Board “stack” in hand, insert the tabs on the kV RSX Option Board into the slots in the bezel (see figure 8).



**Figure 8: Inserting option boards**

7. Gently lower the board until the 30 pin connector on the meter and the kV RSX Option Board are engaged. Make sure that the two snaps engage the board.
8. Reassemble the meter, except for the cover, as described in the kV™ Meter Installation, Operation, and Maintenance Guide (GEH-5081A).
9. Insert and tighten a wire tie around the cable assembly on the inside of the meter base to retain the cable assembly.
10. On the right side of the upper nameplate place an “X” in the box marked “RS” and replace the cover. See Figure .
11. The meter is now ready to be programmed using GE’s MeterMate software.



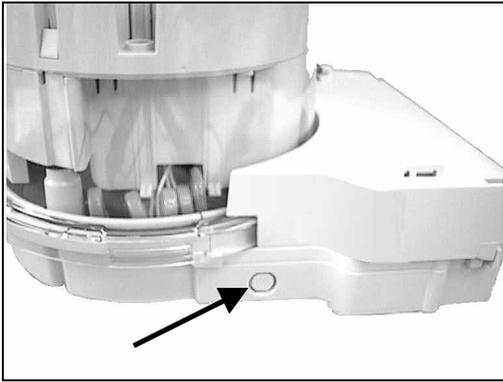
**Figure 9 : Check "RS" box**

---

## Installation on A-base Meters

While the meter is unassembled, the A-base communications cable assembly must be installed. This cable assembly is installed in A-base meters as follows:

1. With the kV™ Meter base facing you, locate the knockout on the left side of the base (see Figure 10) and remove it by tapping it with a punch. Make sure the hole is clean and the knockout parts are removed.



**Figure 10: Locating knockout for cable assembly on A-Base meters**

2. Insert the small connectors end of the cable assembly through the knockout from the outside of the meter base until the grommet contacts the knockout. Make sure that the cable has been brought up on the outside of the shroud.
3. Insert the grommet into the knockout and push until the grommet is fully seated.
4. Check the headers on the kV RSX board to make sure that the pins are not bent or out of position. Orient the smallest black connector such that the indexed (filled) hole in the black connector is lined up with the missing pin in the 4 pin header. Plug the connector assembly into the header on the RSX board. Orient the larger black connector such that the indexed (filled) hole in the black connector is lined up with the missing pin in the 6 pin header. Plug the connector assembly into the header on the RSX board.

5. Attach the plastic connector holder as shown in Figure 7. The connector holder snaps should extend through the holes in the kV RSX board and snap into place.
6. Follow the steps outlined in the S base installation for inserting the stack into the meter. Then, reassemble the meter.
7. On the right side of the nameplate place an "X" in the box marked "RS" and replace the cover. See Figure 9.
8. The meter is now ready to be programmed using GE's MeterMate software.