

SecureMesh retrofit for Focus/FocusAX meter

Introduction

This document will help the SecureMesh user to retrofit the product model **RES-3000-Focus/FocusAX** in a **Landis & Gyr Focus®** meter as intended.

Safety and Assembly Cautions



- **Warning:** The meter carries **lethal voltages**. The meter must be completely disconnected from any external circuits. Failure to observe this **practice can result in serious injury or death**.



- **Caution:** These devices are **electrostatic sensitive**. It is best to use a grounded electrostatic mat and wrist strap to prevent electrostatic discharge.



- **Important:** It is not necessary to completely separate the top of the meter from the base of the meter for this retrofit procedure. However, if the two parts are completely disconnected and separated, it is extremely important to **keep each meter component together for re-assembly**. This is due to the top section of the meter containing calibration “characterization” programming for the CTs in the meter base. If these components get mixed up with other meter components, current measurement errors will occur.

Material

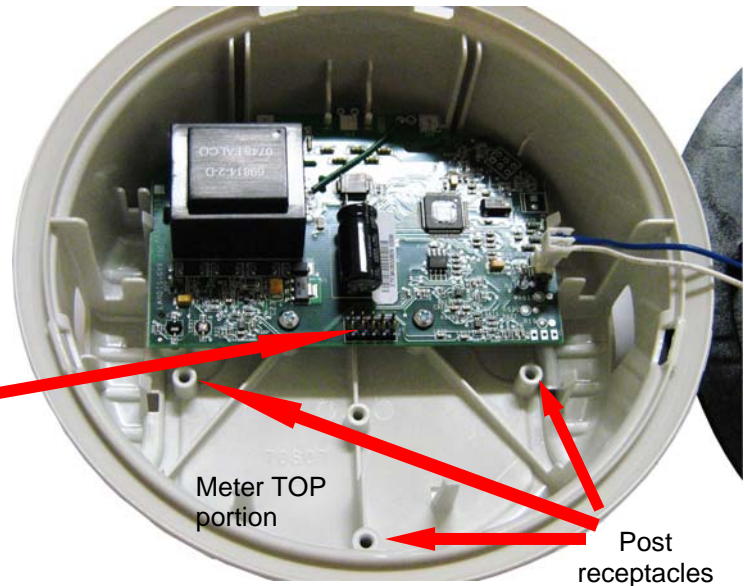
- Focus meter (must be AMR configured)
- Trilliant SecureMesh **RES-3000-Focus/FocusAX** .
- Mounting Screws - QTY=3 (provided by L&G, ref.Trilliant # HS-0029B & HS-0029C)
- Self-Retaining Spacers-QTY=3 (provided by L&G, ref. Trilliant # HE-0033C & HE-0033D)
- Serial # & FCC/IC label (provided by L&G, ref Trilliant #.: HI-0307A)



Procedure

1. If it is not already done, dis-assemble the Focus meter clear cover and un-snap the base from the top portion of the case to access the 3 post receptacle holes in the Top Portion and the Focus/FocusAX board connector as shown.

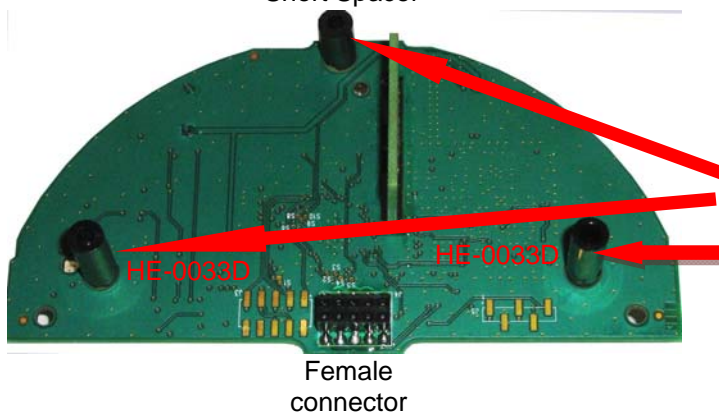
Male Interface connector



Meter TOP portion

Post receptacles

HE-0033C
Short Spacer



Plastic spacers

Female connector

2. Snap the 3 plastic spacers into the Trilliant SecureMesh RES-3000-Focus/FocusAX PCB as shown.



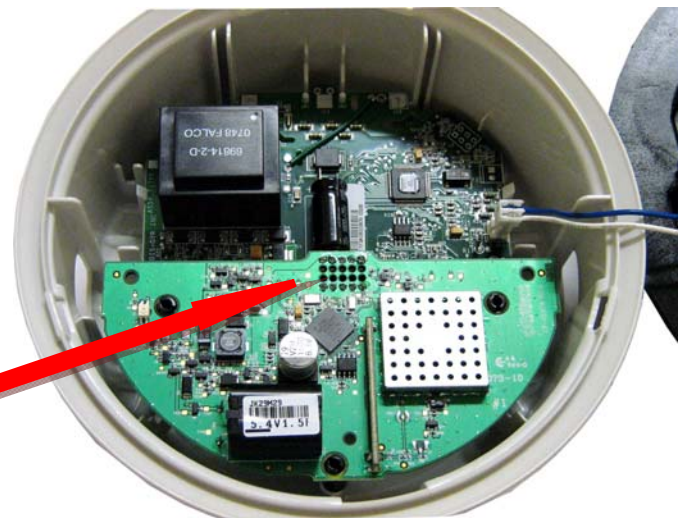
Be careful to not damage components and or PCB traces when inserting spacers.



Do not apply excessive stress on the PC board. Bending the board too much would damage components.

3. Install the SecureMesh board by first inserting the female connector in the Focus/FocusAX male connector as shown. The 3 spacers will be aligned with the 3 holes in Focus/FocusAX meter Top Portion.

Male-Female connector mating

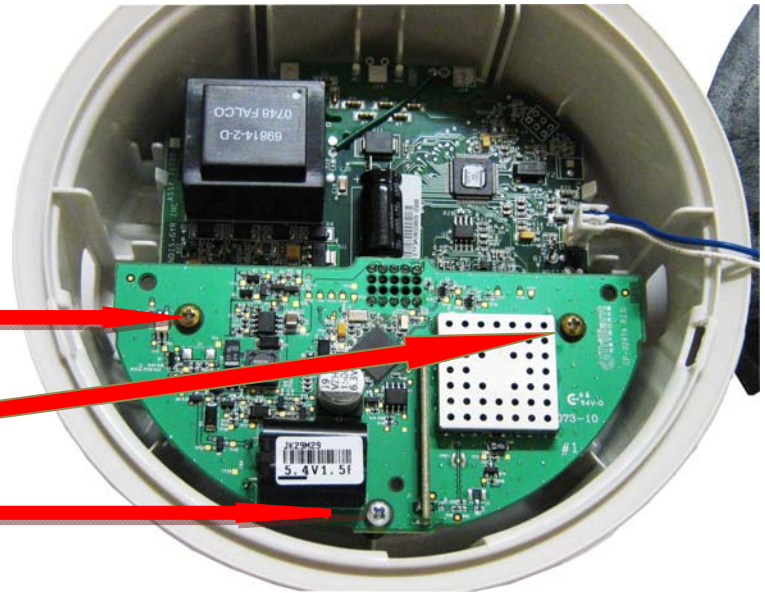


- Attach the three (3) mounting screws through the SecureMesh PCB into the 3 plastic spacers so that the SecureMesh board is held securely in place.

Screw
Ref: HS-0029B

Screw
Ref: HS-0029B

Screw
Ref: HS-0029C



- Affix any missing label (Ref.: HI-0307A) on the meter Top Portion, finalize inspection & test as required

- Reassemble the Focus Top portion by snapping it into the bottom portion and affix the clear cover on its base.

- Perform functional test.

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SecureMesh Radio Specifications:

- IEEE Standard : IEEE 802.15.4
- Power Output : +30 dBm
- Radio Sensitivity : -99 dBm
- RF Data rate : 250 kbps
- Operating Frequency : 2.400-2.483 GHz
- Network Topology : Mesh
- Modulation : O-QPSK
- Physical Dimensions : 2.33" x 4.70"
- Antenna : Dipole, 3.5 dBi

Industry Canada and Federal Communication Commission Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To comply with FCC and Industry Canada RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.