



PN# 100171-03

Water Meter Interface
Final Assembly Procedures

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Revision History

Date	Revision	Description	Author
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1. SCOPE

This document provides the procedures required to safely and efficiently install the 200171-xx Water Meter Circuit Board Assembly with a 171404-xx battery assembly into the 171400-xx enclosure to produce the 100171-xx finished good Water Meter used by StatSIGNAL Systems, Inc.

2. REFERENCES

3. FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiated radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

4. MATERIALS AND TOOLS REQUIRED

4.1 Materials

The following materials are required to enable completion of the installation process:

- a. 1 each Water Meter Circuit Board Assembly (200171-xx)
- b. 1 each Water Meter Lid (171501)
- c. 1 each Water Meter Base (171502)
- d. 1 each Battery Assembly (171500)
- e. 1 each 3V BR-AG Lithium battery (362001)
- f. 2 each 1" Double Stick Tape (777005)
- g. 1 each 1.5-5.0 mm PG7 Cord Grip (222059)
- h. 1 each O-RING Gasket (777000)
- i. 4 each 4/40 x 1/4 Pan Head Phillips Screws (777001)
- j. 1 each 22 AWG 3.5" long red/black wire asby.

- (222051)
- k. 1 each 3ft. long 22/3-AWG wire asby. (222056)
- l. 1 each paper tie (999110)

4.2 Tools

The following tools are required to enable completion of the installation process:

- a) 1 Phillips Head screwdriver
- b) Wire Strippers/cutter
- c) 1 Drill with a 1/2" bit

5. PROCEDURES

5.1 Preparation

Prior to beginning the following procedures, the operator must make sure he/she is grounded to avoid electrostatic discharge.

5.2 22 AWG 3.5" Red/Black Wire Assembly (222051)

- 1) Assemble a Molex connector (222058) with one 3.5" Red 22 AWG wire and one 3.5" Black 22 AWG wire to complete the 222051 wire assembly

5.3 22/3 AWG 3ft Wire Assembly (222056)

- 1) Assemble a Molex connector (222058) with one 3 ft 22/3 AWG wire.
- 2) On the opposite side from the Molex connector (222058) strip 1.5" of the outer jacket,
 - a. Strip 1/8" of the red and black inner wires,
 - b. Cut the green inner wire.

5.4 Battery Assembly (171500)

- 1) Solder the 22 AWG 3.5" long red wire of the 222051 wire assembly to the positive side of the battery (362001)
- 2) Solder the 22 AWG 3.5" long black wire of the 222051 wire assembly to the negative side of the battery (362001)

5.5 Lid Assembly (171501)

- 1) Drill a ½" hole in the center of lid (171401).
- 2) Insert the 22/3 AWG Wire Assembly (222056) through the ½" Hole in the lid (171401) leaving 3ft of Wire Assembly (222056) with the connector on the inside of the Lid (171401) - see figure 2.
- 3) Secure Wire Assembly (222056) to the Lid (171401) with the 1.5-5.0 mm PG7 Cord Grip (222059) - leaving 3" of the wire (connector end) inside the 171501 Lid Assembly.
- 4) Coil the wire and secure with a paper tie (999110).

5.6 Base Assembly-I (171502)

- 1) Apply 1" strip of Double Stick Tape (777005) on the bottom of the 171402 enclosure, along the edge, with one of the screw posts at the center (for reference).
- 2) Strip the protective paper from the Double Stick Tape (777005) and press the Battery Assembly (171500) onto the Double Stick (777005), as close to the edge of the 171402 base enclosure as possible, keeping the screw post as a center point of reference and the battery leads facing the center of the 171402 enclosure with the positive side on the right.

5.7 Base Assembly-II (171503)

- 1) Apply 1" Strip of Double Stick Tape (777005) in the middle of the 171402 base enclosures parallel with the Battery Assembly (171500).
- 2) Strip the protective paper from the Double Stick Tape (777005) and press the 200171 Circuit Board Assembly onto the tape making sure that the top two corners of the 200171 Circuit Board Assembly are pressed against the edge of the 171402 enclosure.

***** NOTE*****

Before proceeding to the next step, make sure the 200171 Circuit Board Assembly is securely in place.

5.8 Final Assembly (100171-xxx)

- 1) Insert the O-RING Gasket (777000) into the lid channel.
- 2) Connect the 3ft 22/3 AWG wire assembly (222056) to

- the Pulse input of the 200171 Circuit Board Assembly.
- 3) Connect the battery leads to the 2/pin header at reference point BATT of the 200171 Circuit Board Assembly.
 - 4) Check the O-RING Gasket (777000) for seal.
 - 5) Push the 22/3 AWG wire assembly (222056) away from the Circuit Board Assembly (200171) and over the battery assembly (171404) and carefully place the Lid Assembly (171501) on the Base Assembly (171503).

***** NOTE*****

Before proceeding to the next step, make sure the O-Ring Gasket is properly installed to ensure the seal.

- 6) Using the Phillips Head Screwdriver and the 4 screws secure the Lid Assembly (171501) tightly to the Base Assembly (171503).

Figure 1 - 200171-xx Circuit Board Assembly



Figure 2 - 171501 Lid Assembly

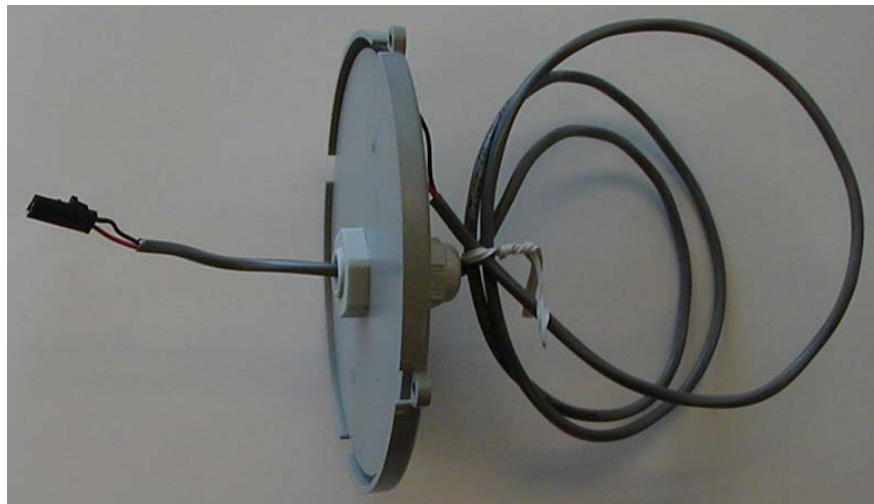


Figure 3 - 171502 Base Assembly I



Figure 4 - 171502 Base Assembly II

