

ConectiSys HNET 5.0

Installation and Operations Manual

Sections:

- I. Radio and antenna installation into power meter.
- II. Meter installation.
- III. Meter unit operation.
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I. Radio and antenna installation into power meter

Introduction: HNET 5.0's radio system was designed to be integrated into a Siemens Altimus 240v 60Hz Solid State Electricity Meter or equivalent for wireless power usage monitoring. The radio module consists of three PCB assemblies (power supply, controller module and RF module) and an antenna. The power supply consists of a 240VAC to 3.3VDC converter with external wire interfaces to the power meter (for AC input) and to the controller module (for DC output). The controller module and RF modules interface together via PCB mounted headers. The controller is interfaced to the meter PCB via optically coupled serial data lines. The dipole antenna is mounted inside of the meter along the bottom side of the meter faceplate.

Installation:

Note: Before radio installation has begun, it is assumed the radio module (consisting of power supply, controller module and RF module) has already been assembled and testing in accordance with the manufacturer's acceptance test procedure. See Figure 1.

1. Connect the AC input cable between power supply and meter PCB. (See Figure 2a and 2b.)
2. Connect controller module data interface cable to meter PCB. (See Figure 2a.)
3. Set radio into meter housing and install mounting screws. Ensure that no cables are crimped or physically interfering with the meter PCB or radio modules. (See Figure 3.)
4. Connect controller module data interface cable to controller module. (See Figure 3.)
5. Mount antenna along bottom side of meter faceplate. Antenna elements should be flat up against meter faceplate. (See Figure 4.)
6. Connect antenna coax cable from MMCX connector on antenna PCB to MMCX connector on RF module. Cable should be run on the right side of the meter and between the RF and controller modules.
7. Install meter assembly onto meter back-plate and insert locking tabs. Ensure coax and cables are not crimped or physically interfering with meter assembly.

II. Meter Installation:

Assembled meter unit is to be installed on an appropriate meter box by authorized utility company personnel in accordance with all safety precautions and procedures.

III. Meter Unit Operation:

Meter assemblies with installed radio modules are non-user controlled wireless monitoring devices and need no direct end-user setup or intervention. Wireless meter units are remotely controlled by a base-station not described in this document.

IV. Reference Figures.

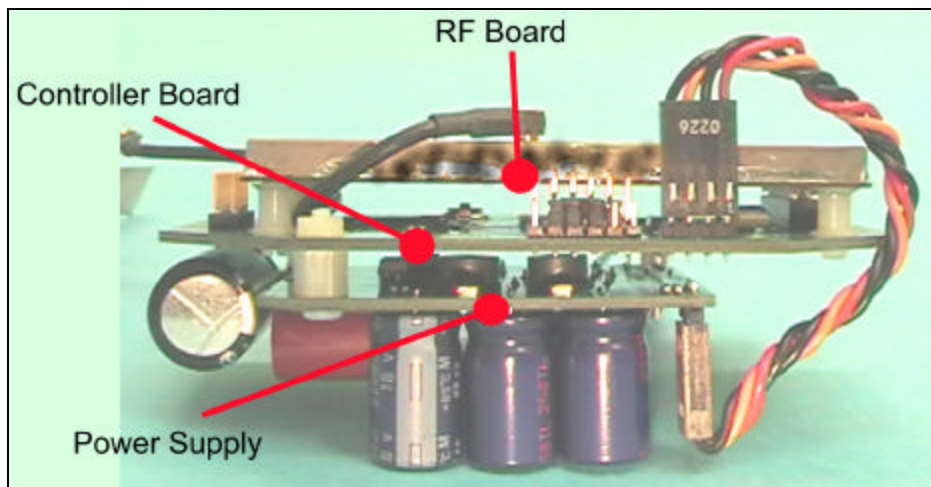


Figure 1 – Radio Module

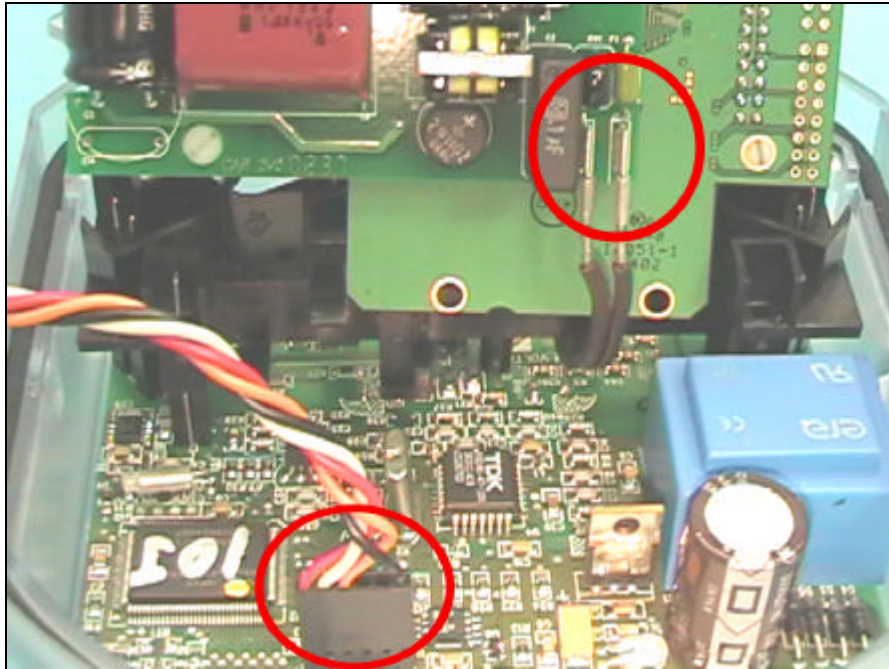


Figure 2a – AC and Data Input Cables

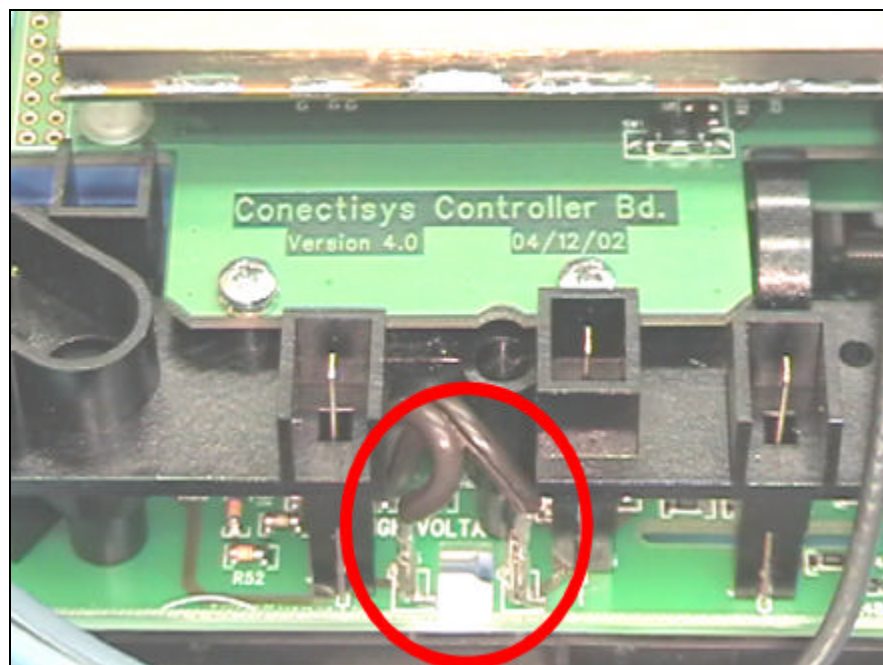


Figure 2b – AC Input Cable

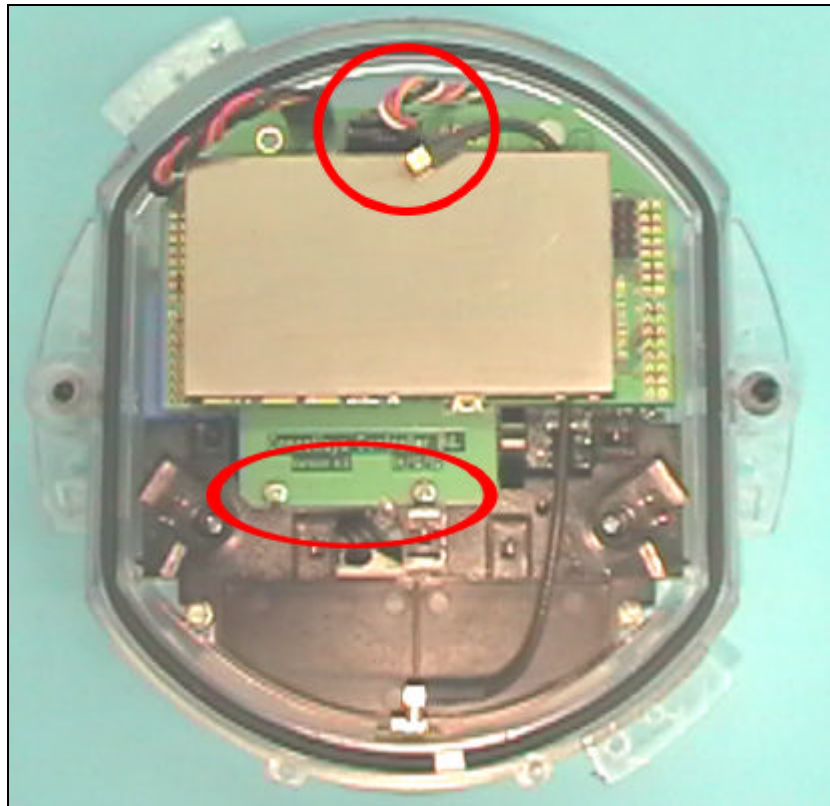


Figure 3 – Radio Mounting



Figure 4 – Antenna Mounting