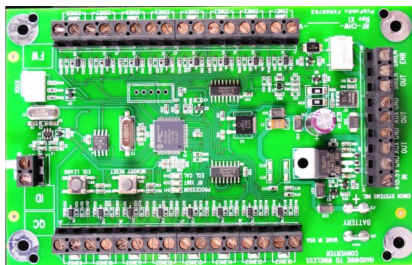# Hardwire to Wireless Converter

RF-CHW-ITI-16 - 433 MHZ

RF-CHW-ITI-16 - 433 MHz

Description:
The RF-CHW-ITI-16 module allows the conversion of hardwire security sensors to Qolsys wireless technology. The module is a cost effective way of upgrading a security system and using existing hardwire security zones. The module supports both magnetic contacts and powered zones (12VDC) as motion detectors. The module uses the existing EOL resistors so no re-wiring or changing out EOL's is required.

Installation:
Mounting location - if retrofitting an existing hardwire control panel, mount the module at that location to minimize splicing wires.
Note: if possible use the existing enclosure to house the module and battery, remember the antenna on the module must protrude from any metal enclosure.

Wiring (see wiring diagram)
      Power transformer - 2 conductor
      Zone wiring - from existing control panel
      Zone power
      Siren extension
      Backup battery

Note: use 22 AGW minimum

Note: Make sure EOL resistors remain in place for all zones

Programming:
The RF-CHW-ITI-16 module is a wireless device that enrolls into the Qolsys control panel. The module has a unique ID # that the control panel responds to for tamper and low battery conditions. Also each zone is assigned it's own ID# for reporting purposes.

Module setup:
Clear Memory:
- Disconnect all power battery and transformer, press and hold the memory reset button while applying power
- The LED's will flash indicating memory reset
- Power module by plugging in the transformer and connecting backup battery if required

Notes:
- Polarity on transformer marked as dashed line on positive wire
- Make sure all input EOL's are properly wired for N/O (parallel) or N/C (series) configuration
- All zones must be wired with an EOL resistor, either a 3K ohm from the accessory kit or the existing resistor from the previous system
- Place all zones in normal non alarm condition

Enrolling module and zones into the Qolsys panel - if the module tamper and battery supervision are required the module must be enrolled into the control panel (this step not required if no backup battery or tamper are used)

Enroll module, EOL's and zones
- Put the module in Learn Zone mode by pressing the EOL Learn button and holding for 5 seconds, all LEDs will flash, this process also learns in all of the EOL's
- Enter system programming on the Qolsys panel
  - Settings menu, enter user code
  - Installation menu, Security Sensors, Auto Learn Sensor
- To enroll the module trip the tamper zone

- The Qolsys panel will indicate a sensor has been detected and require pressing the control panel OK to add the sensor
- The Qolsys panel will display sensor characteristics that can be changed if required, when complete press Add New
- The Qolsys panel returns to the Auto Learn Sensor and waits for the next sensor to be activated
- Continue enrolling zones by activating the zone, the Qolsys panel will respond with each successful wireless activation and required zone type and name selection before the next zone is tripped.
- After all zones are enrolled press the EOL Learn Button to exit program mode on the module, all LED's will go out

Note: Learning zones cannot be done if the EOL Calibration LED is Flashing or Off

Testing
- On the Qolsys panel enter Settings, enter user code
- Press System Test, Sensor Test
- Activate all zones on the module and verify they Pass

Specifications:

Input Voltage: 16.0VDC plug-in transformer

Backup Battery: 12VDC 5Ah max (optional)

Dimensions: 5.5" X 3.5"

Operating Temperature: 32 to 122F (0 to 50C)

Humidity: 95% RH Max

EOL Supervision: 1K to 10K Ohm

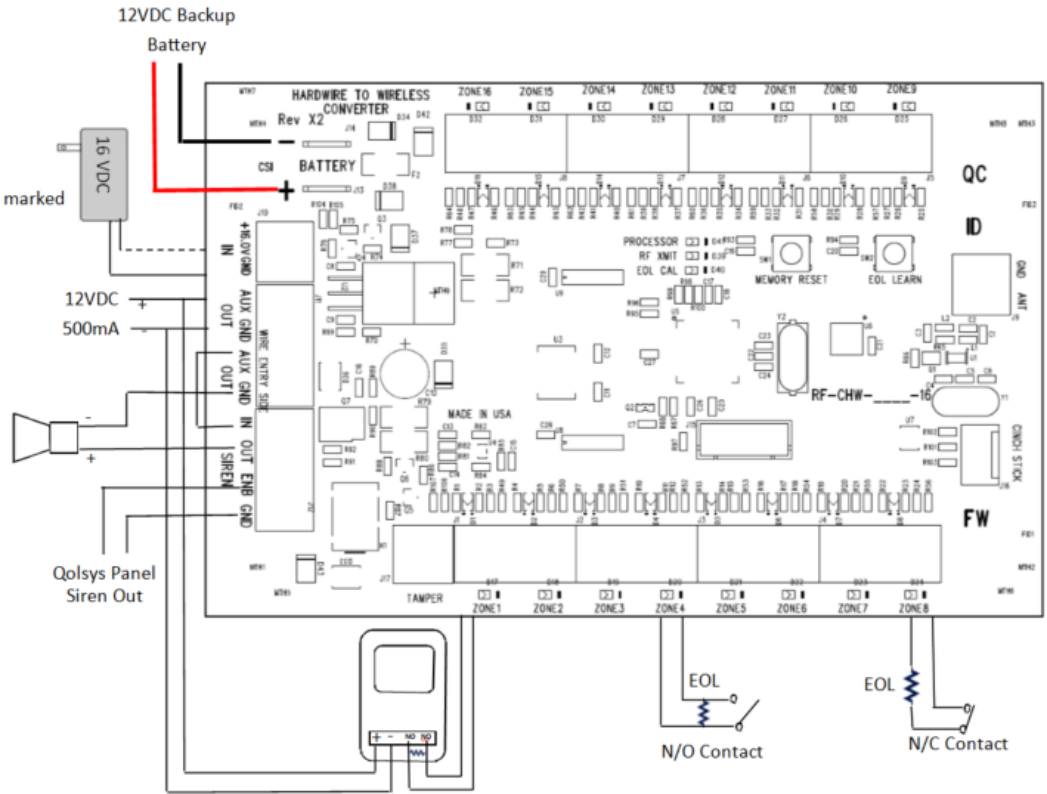Input Zones: 16 (if used must have EOL resistor)

Zone Type—N/O or N/C compatible

Auxiliary Voltage Output: 12VDC @ 500mA

Cinch Stick Port: Field upgradable firmware

Tamper Zone: Separate zone input for tamper

Relay Contact—60VDC/1A Max, used to drive siren or other device

Antenna

Antenna

Metal Enclosure

Plastic Enclosure

12VDC Backup Battery

Note: Dashed line marked on positive wire

12VDC 500mA

Qolsys Panel Siren Out

EOL — N/O Contact

EOL — N/C Contact

Notes:

- Used zones must have an EOL installed
- If a backup battery is installed, the module must be enrolled into the Qolsys panel
- Make sure when installed the antenna is free of all metal obstructions

Module LED's

Processor - flashes during normal operation
RF Xmit - flashes when an RF transmission is sent
EOL Cal: On - calibration required, Off - calibration complete
Zones: Flash twice when ready to enroll, On - when enrolled in programming and when tripped, Off - when zone in normal condition

Module Switches:

EOL Learn - used to calibrate EOL resistors and enter program mode
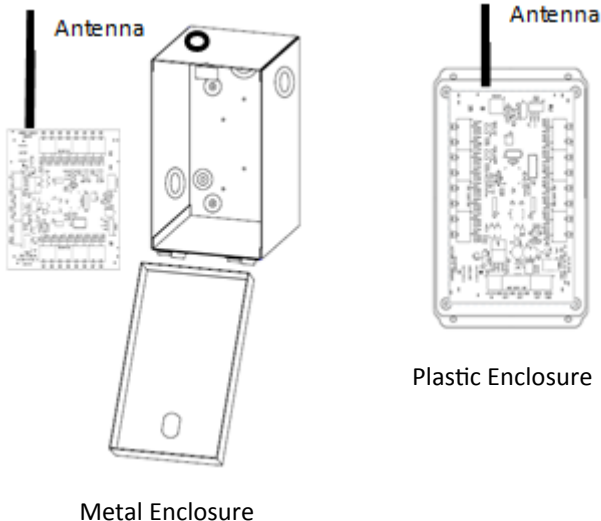Memory Reset - clears memory of module