PATSCAN CMR

Technical Installation Guide

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PATSCAN™ CMR

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Disclaimer

PATSCAN CMR is certified for use only when installed by trained professionals authorized by Patriot One Technologies.

Parts List

	Name, Make, Model of Component / Part	Short Description of Use
1	Transceiver, Copper Mountain, P148	RF transceiver
2	AC Adapter, CUI INC, EMSA120125NEBA-P5P-SZ-C1	Provides 12VDC to the transceiver
3	LNA, Mini-Circuits ZX60-83LN-S+	Boosts received signal to transceiver
4	AC Adapter, Triad WSU060-1250-13	Provides DC to power to the LNA
5	Mini PC, Zotac, ZBOX-CI325NANO	Controller
6	AC Adapter, Delta Electronics, ADP-40KD BB	Provides DC to power to the Mini PC
7	2 x Antenna Module, Patriot One Tech, PAT-10005	TX and RX antenna with enclosure. Modules are identical and interchangeable.
8	Coax RF, LMR240FR SMA male straight to SMA male straight cable 4', Assembled by Cablek	Connect antenna module the transceiver port 1
9	Coax RF, LMR240FR SMA male straight to SMA male straight cable 4', Assembled by Cablek	Connect antenna module the LNA input port
10	Adapter, AD-NMSMAM Adapter N-type Male to SMA Male	Connect LNA output port to transceiver port 2

11	Adapter, AD-NMSMAF Adapter N-type Male to SMA Female	Adapts transceiver port 1 to N to SMA
12	Adapter, AD-SMAMSMAF-90 Adapter SMA Male to SMA Female 90º Right Angle	Adapts antenna Module port 1
13	Adapter, AD-SMAMSMAF-90 Adapter SMA Male to SMA Female 90º Right Angle	Adapts antenna Module port 2
14	Service box, Legrand On-Q EN2050	Enclosure for transceiver, Mini PC and LNA.
15	Power bar, Legrand On-Q, AC1031	Power bar for items inside the service box
16	USB cable	Connects the transceiver to the Mini PC

Customer-Provided Parts

The customer must provide:

- Network cable of sufficient length to connect Mini PC to network will be provided by customer.
- Access to a PC with [need specs]

Diagrams

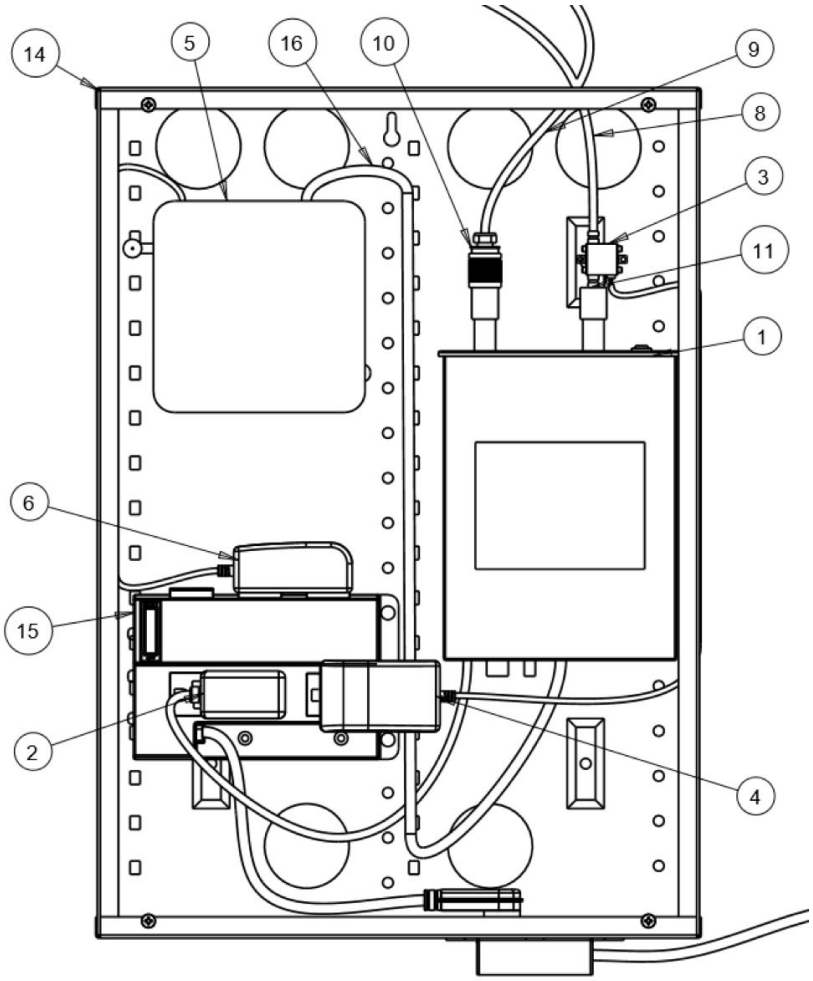

Figure 1: Service Box Interior

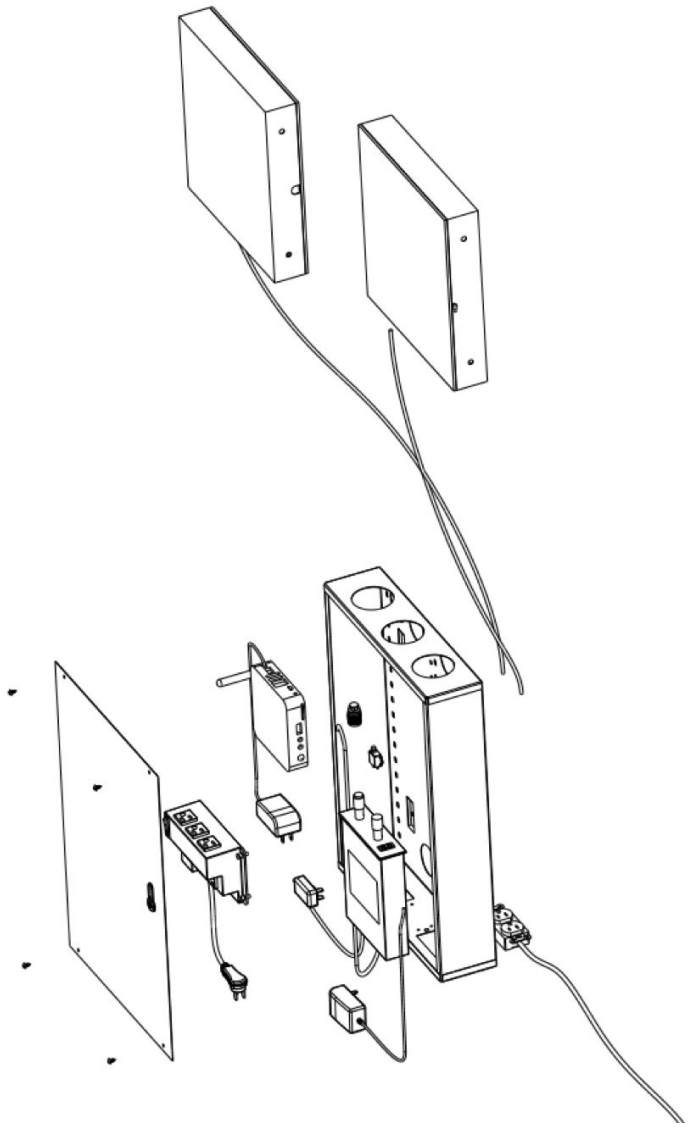

Figure 2: System Exploded View

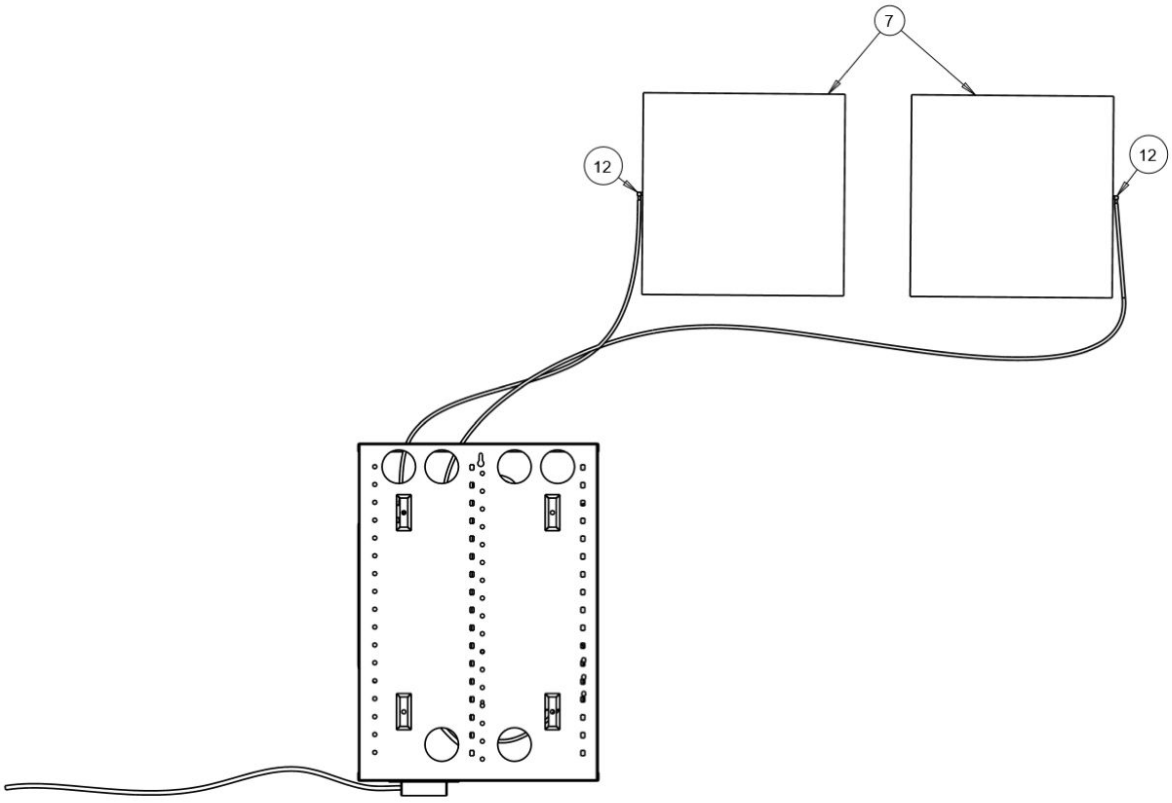

Figure 3: Service Box--to-Antenna Module Connections

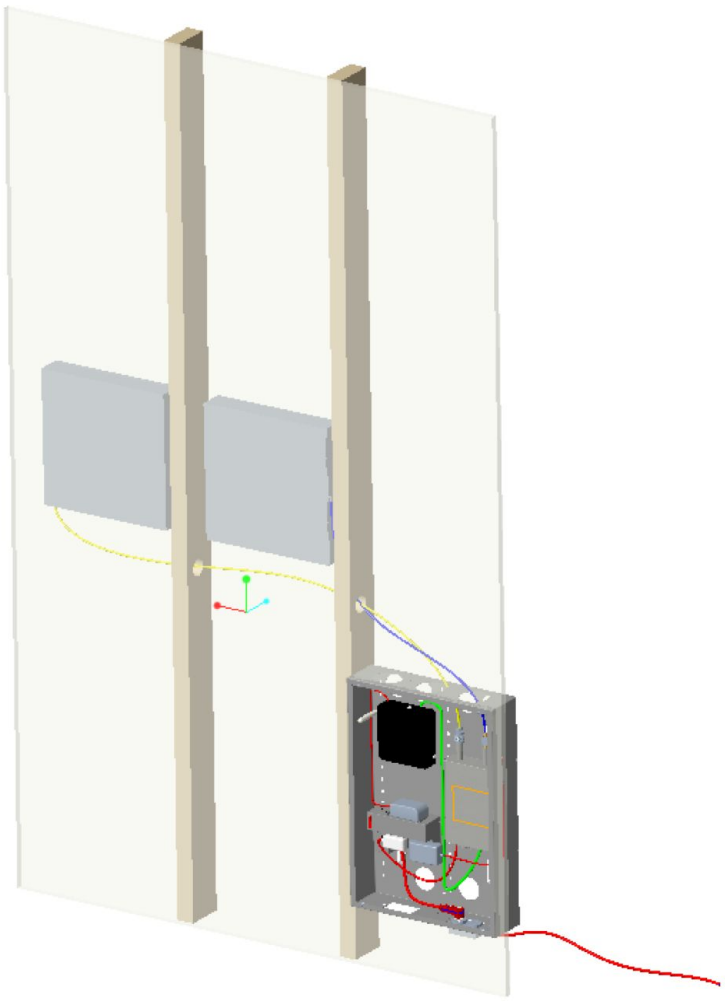

Figure 4: Example Installation in Wall

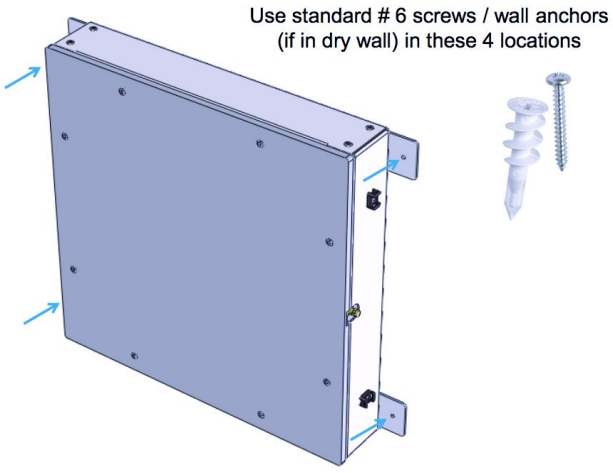

Figure 5: Antenna Module Mounting

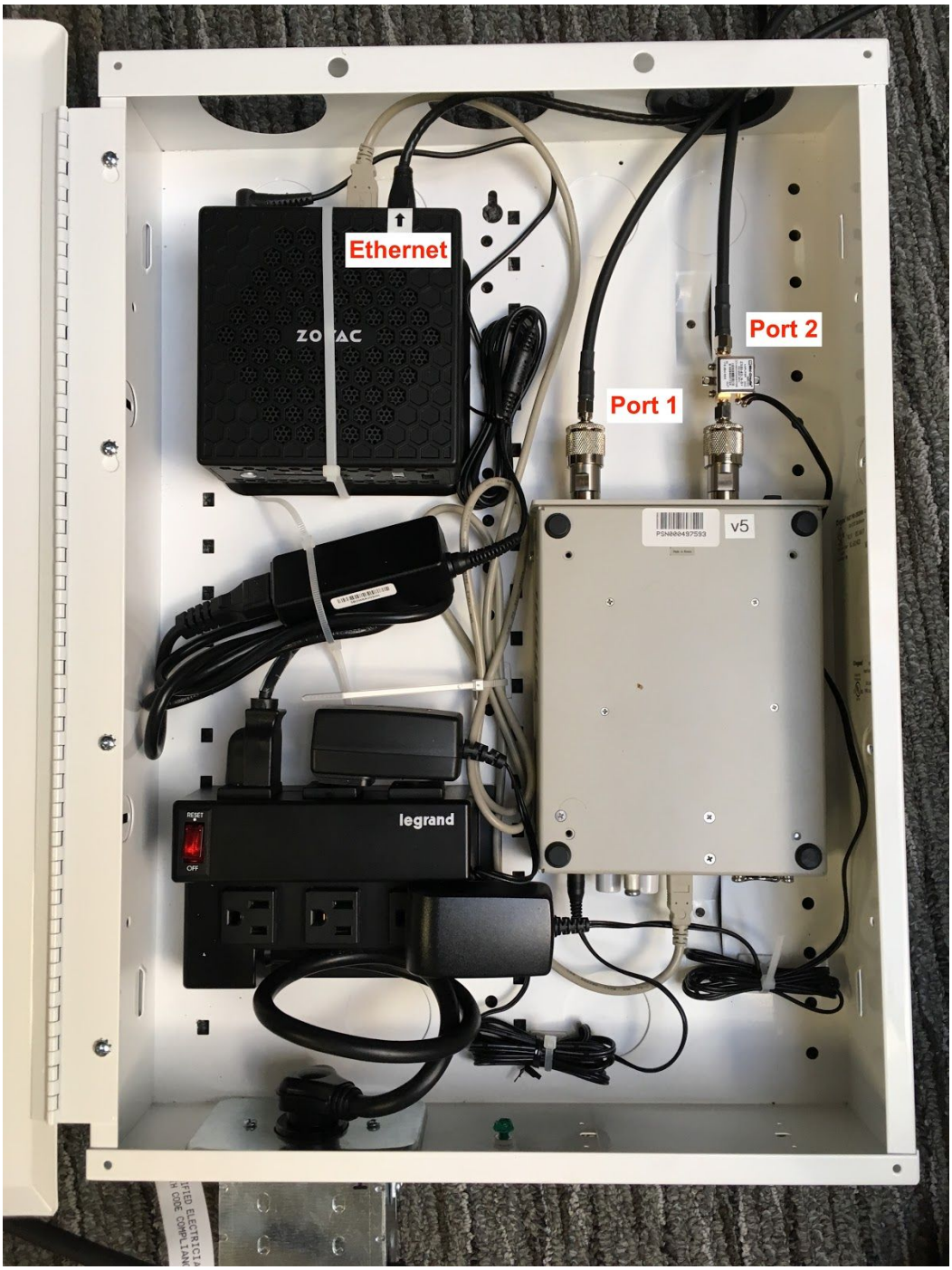

Figure 6: Service Box Cable Connections

Procedures

Planning Stage

Determine where the system will be installed. The wall that will contain the antenna modules and service box needs to

allow for no more than 4 feet between each antenna module and the service box. The antenna module and service box are sized to fit between wall studs.

Hardware Installation

1. Open the shipping box and carefully remove the components
    - Two Antenna Modules (part 7)
    - One White Enclosure (part 14)
    - Two SMA cables (parts 8 and 9)
2. Install the two antenna modules within the wall
    - Each module includes mounting plates with screw holes. See figure 5.
    - Ensure antenna module with cable reaches service box connection.
3. Install service box
    - Follow Legrand EN2050 Installation Guide
    - Install standard electrical outlet as per applicable codes. Shown in EN2050 Installation Guide
4. Connect SMA cables to outer edge of each antenna module as shown in figure 3.
5. Run the cables through the open port on the top of the service box.
6. Attach cable 1 to “Port 1” shown in figure 6.
7. Attached cable 2 to “Port 2” shown in figure 6.
8. Run ethernet cable from network into the enclosure through open port
9. Connect ethernet cable to the “Ethernet” port shown in figure 6
10. Plug in the power bar to the installed electrical connection
11. Turn on the power module
12. Verify the transceiver power switch is ON
13. Press power button on PC
14. Close the enclosure and lock it