1. Introduction
The OnQ 1x12 Telecom w/WANs is a combination of an OnQ 1x6 Telecom Module and 6 Port Telecom Expansion w/WAN’s. These modules provide a structured method for distributing telephone service and wide area network data service throughout a residence. The “BRIDGE OUT” can be used to cascade additional telecom modules if desired.

2. Description
The 1x6 Telecom Module has an eight position 110 punch-down connector for connecting the incoming four line service, a two row 20 position posted connector and spade terminal for optional surge protection (OnQ P/N 363487-01). There is a vertical RJ45 test jack for local handset attachment and a vertical RJ45 jack for the SECURITY interface (RJ31X). Six 8-position 110 punch-down connectors, for connecting the outlets to the system, are available. The modules also feature a 4-position switch to allow separation of the incoming lines from the outlets for testing purposes. Switch #1 is also used to activate security options.

The Telecom Expansion Module w/WAN’s has two RJ45 vertical jacks for bridging connections, a “Wide Area Network” which consists of two CAT5 RJ45 jacks and two 110 punch-down connectors, and six 8-position 110 punch-down connectors for connection to room outlets.

These modules occupy three vertical inches and span half the width of an OnQ Service Center Enclosure.

3. Installation
A. Mounting in Enclosure - See Figure 2
1) Align tabs on the module with slots on rail of enclosure.
2) Insert tabs angling module away from the back of the enclosure.
3) Rotate the module and insert fasteners on module into corresponding holes on rail of enclosure. (Plunger must be in a pulled position for fastener to engage hole).
4) Push plunger in to lock module in place. Pull on module to ensure module is locked properly in place.

B. Incoming Service Cable Installation (1x6 Telecom)
1) Identify incoming service cable and route to “Line In” 110 punch-down block. In routing cable, allow slack for bundling to the side and avoiding other cable terminations. Trim cable about 2 inches beyond connector.       
2) Strip off approximately 4 inches of the outer jacket using OnQ Strip Tool P/N 363292-01 or equivalent.
3) Position pairs over color-coded slots on the connector. Refer to Figure 3.

NOTE: Do NOT untwist pairs.
NOTE: White wires may not have color trace stripe. Keep white wire paired with appropriate colored wire based on twist.

4) Without untwisting cable, position the wires in individual slots per Figure 3.
5) Punch-down and trim wires using OnQ Punch-Down Tool P/N 363293-01 or equivalent.
6) Remove excess wire & tug slightly to ensure wire is securely installed in connector.
C. Incoming Service Cable Installation (6 Port Expansion)
1) Connect one end of the supplied CAT5E jumper cable to the RJ45 jack labeled “Test/Bridge” on the 1x6 Telecom Module (P/N 1267062-01) and connect the other end to the RJ45 jack labeled “Bridge In” on the Telecom Expansion Module.
2) To install additional Telecom Expansion Modules, connect one end of the supplied CAT5E jumper to the RJ45 jack labeled “Bridge Out” on the first Telecom Expansion Module and connect the other end to the “Bridge In” RJ45 on the second Telecom Expansion Module.

D. Outlet Cable Termination
1) Identify outlet cable and route to a numbered 110 punch-down block. In routing cable, allow slack for bundling to the side and avoiding other cable terminations. Trim cable about 2 inches beyond connector.
2) Strip off approximately 4 inches of the outer jacket using OnQ Strip Tool P/N 363292-01 or equivalent.
3) Position pairs over color-coded slots on the connector. Refer to Figure 3.
4) Without untwisting cable, position the wires in individual slots per Figure 3.
5) Punch-down and trim wires using OnQ Punch-Down Tool P/N 363293-01 or equivalent.
6) Remove excess wire and tug slightly on cable to ensure wire is securely installed in connector.
7) Record room name/number to connector number on wire layout label of enclosure.
8) Repeat until all outlets are connected.

E. Wide Area Network
1) Identify incoming data service cable and route to Wide Area Network “IN” 110 punch-down block (left side). In routing cable allow slack for bundling to the side and avoiding other cable terminations. Trim cable about 2 inches beyond connector.
2) Strip off approximately 4 inches of the outer jacket using OnQ Strip Tool P/N 363292-01 or equivalent.
3) Position pairs over color-coded slots on the connector per Figure 3.
4) Without untwisting cable, position the wires in individual slots per Figure 3.
5) Punch-down and trim wires using OnQ Punch-Down Tool P/N 363293-01 or equivalent.
6) Remove excess wire and tug slightly on cable to ensure wire is securely installed in connector.
7) Identify Wide Area Network Outlet cable and repeat routing to “Out” (right).

NOTE: To complete proper cross connect, install a CAT5E jumper, P/N 363201-27.

F. Securing Cables
After all cables are connected to the module, the cables should be bundled and grouped to allow ease of maintenance. OnQ Wire Management Straps, P/N 363491-01, may be used to bundle cable.

4. Testing
A. To test the outlet wiring from the Telecom Modules to the wall outlets, turn all switches on “Test Switch” to “OFF”. Insert line tester into the RJ45 jack labeled “Outlet Test”. Perform check at each wall outlet. All outlets, including those on the Telecom Expansion Module, will be testable.

B. To reset module to normal operation, ensure all switches are set to the “ON” position.

5. Other Applications
A. Security Interface
1) To enable line seizure and dial out capability to most security systems, connect the RJ31X cable (supplied w/security system), to the RJ45 “Security” jack on the module. Turn Test Switch #1 to the OFF position to activate the RJ31X. Connect the other end to the security systems as outlined in the security system installation instructions.
2) To disable security, remove plug from “security” jack and set line 1 to “ON”.

NOTE: Line 1 Blue Pair is sent to the RJ-31X jack.

B. Surge Protection
See instructions supplied with OnQ Surge Suppression Unit, P/N 363487-01.