

EXHIBIT B
Telecommunications Wiring – “Home Run” Architecture

With “Home Run” architecture for inside wiring, a home is capable of becoming a “smart home” with advanced security, high speed internet, video as well as voice services. Home Run simply means one cable feeds one jack. If you want multiple services in a single outlet location, home run wiring is required for each service.

Category 5E (CAT 5E) or higher cable (4 pair 24 gauge) is required for voice, data and video. The cable color preference is beige for voice, white for video and blue for data. The distance limitation for individual CAT 5E home run is 300 feet. RG6 twin shield (60% or better shielding) coaxial cable is required for TV.

Running at least two CAT 5E cables is recommended to each outlet location; three is preferred. An outlet location with TV service requires CAT 5E cables and one RG6 cable. Voice cannot share a cable with data and video; however, data and video can share a cable.

Modular jacks are used to terminate multiple cables in outlets. Jacks required are RJ-11 for voice, RJ-45 for data, RJ-45 for video and RJ-6 for TV. Refer to figure 1. All wiring must be in accordance with FCC Part 68 TIA/EIA 570, Residential Telecommunications Cabling Standard.

Typically all cables are run from an outlet to a distribution device or junction box located in an environmentally controlled utility room or garage with access to a commercial A.C. power outlet. This is where voice, data, video and TV cables are terminated and ultimately connected together via cross connect blocks, hubs, routers and splitters. Cables must be properly tagged with their destination or preferably outlet number. Refer to figure 2 and 2A.

Figure 1 is a typical picture of an outlet with modular jacks for multiple services. This example reflects voice, data, video and TV jacks. Again, each jack is wired to a home run cable back to the distribution device or junction box.

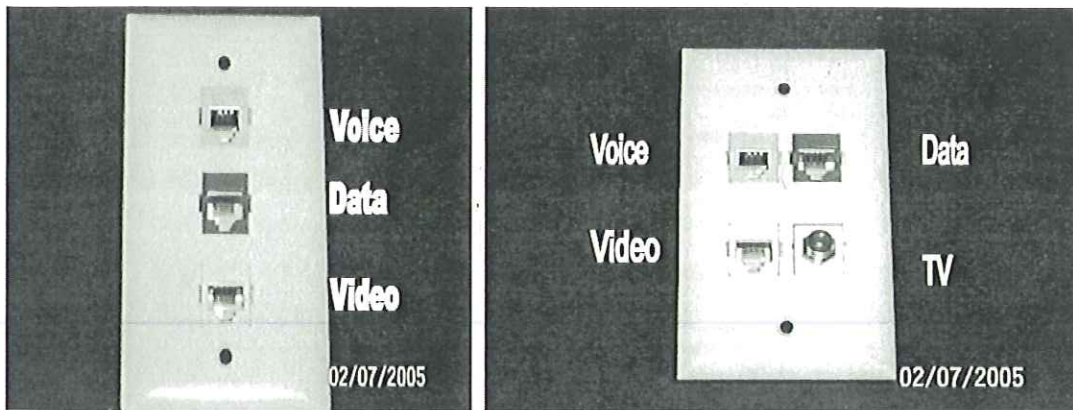


Figure 2 is a typical picture of a home run distribution device or junction box with lid open and closed. This is a flush mounted box. Surface mounted boxes are available.

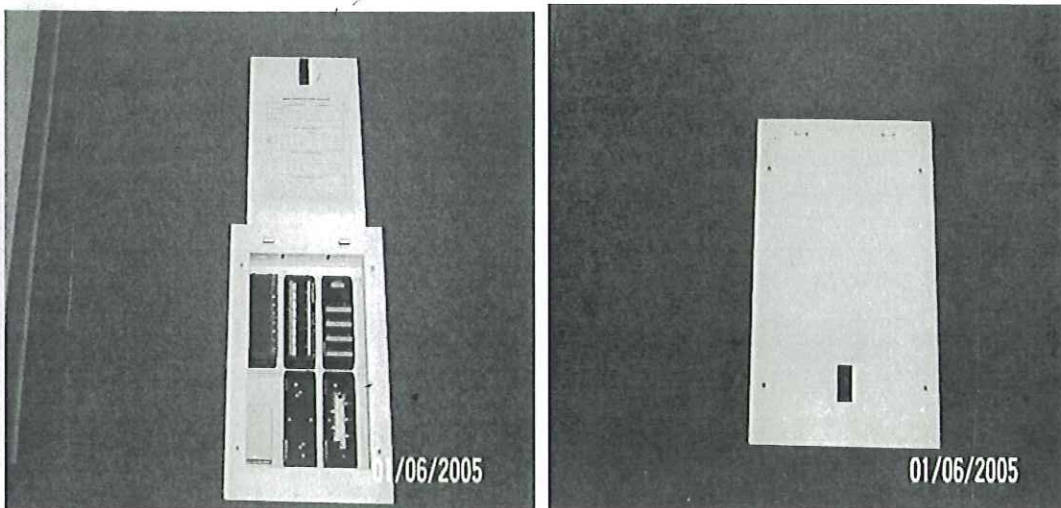


Figure 2A is a basic wire diagram for FTTP inside wiring.

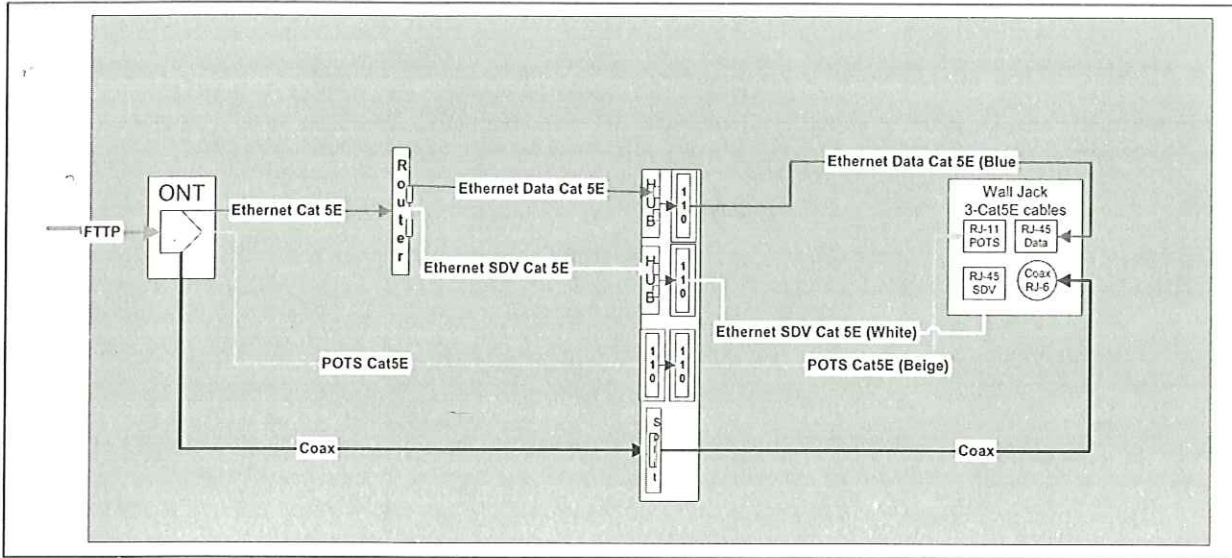
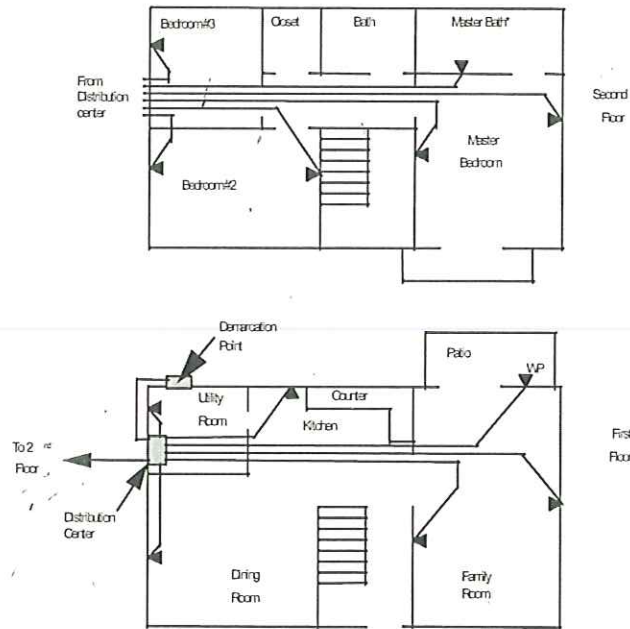


Figure 3 is a two-story house with a typical inside wire configuration. Wiring radiates from a single distribution device or junction box with the "home run" concept. The drawings do not accurately depict the actual number of home run cables that may be require to each outlet based on the services required from that outlet.



Now it's time to connect the inside wiring and power to the Optical Network Terminal (ONT) located outdoors. Refer to figure 5.

Figure 4 provides a typical picture of a (left to right) power transformer, battery, battery backup system housing, ONT and ONT slack assembly.



Connect the distribution point or junction box to the ONT with four CAT 5E cables and two RG6 coaxial cables. This allows 1 spare CAT 5E and RG6 cable. Conduit (3/4") from the distribution point or junction box to the ONT is appreciated. This provides the capability of voice, data and video services. Remember, the distribution point or junction box requires a commercial A.C. outlet to power devices inside the box.

The ONT requires two power connections. Without power the ONT will not work and services cannot be provided. Each ONT requires primary A.C. power and a secondary battery back up system in the event of commercial A.C. failure.

The primary power source is a transformer, which converts 120 volts A.C. to 48 volts D.C. This requires a dedicated customer provided commercial A.C. outlet within 100' feet of the ONT. Preferably located in the same location as the distribution point or junction box. Cat 5E wiring is acceptable for this power lead.

The secondary power source is a battery back up system (BBU). This power unit provides backup power to the ONT so that voice service can continue in the event of a commercial power failure.

The BBU consist of a housing with a 12-volt D.C. battery. Locate the BBU within 50' feet of the ONT preferably in the same room as the distribution point or junction box. The BBU connects to the ONT with two 16 gauge power leads (red & black).

The BBU has alarm capabilities with light indicators to provide the status of A.C. power to the ONT and the status of the battery. Wiring from the BBU to ONT is required. CAT 5E or a special 5 wire 24 gauge wiring harness can be used for the alarm leads.

Figure 5 is a typical ONT configuration. The dimensions and outdoor mounting requirements for the ONT are show below. The ONT is typically within 60" inches of the power meter and 36"-60" inches above earth grade.

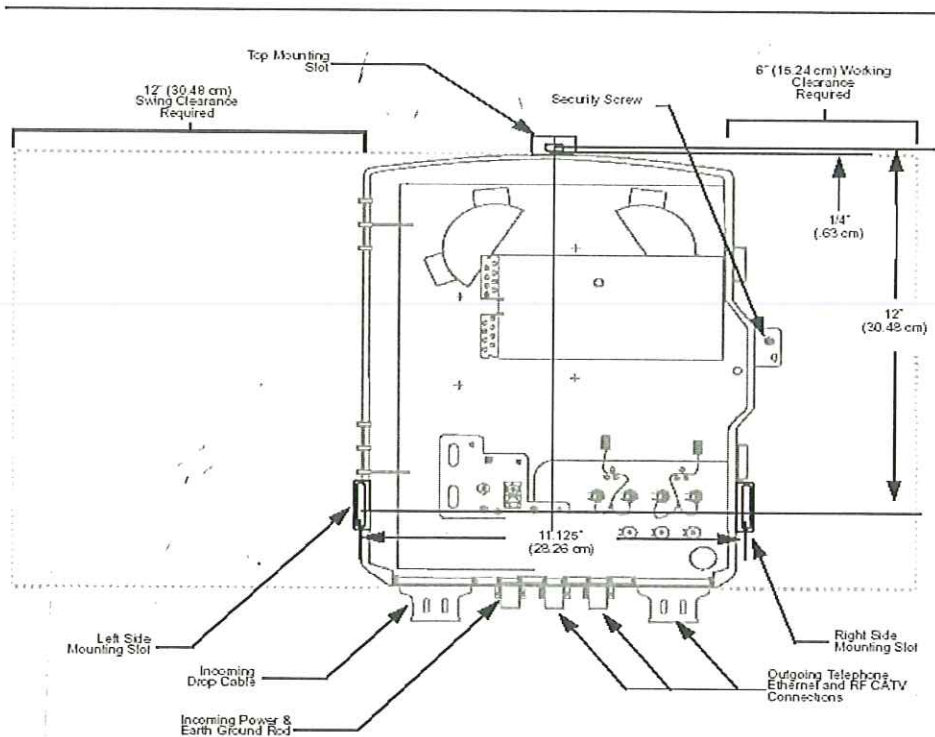


Figure 2-1: FiberPoint Mounting, Access Points and Clearances