Relocating a Four-Conductor (Two Pair) Telephone Jack

Program: Electrician Technician

Course: EL160 - Low Voltage Application

Objectives: Under the supervision of your instructor, you should be able to do the following:

- Install raceways, boxes, and enclosures for VDV systems.

Lab Equipment:

- Operable telephone or tester for testing connections

Required Tools:

- 1 – Phillips Head Screwdriver
- 1 – Flat Head Screwdriver
- 1 – Pair of Wire Stripping tool designed to strip 22-24 AWG

Materials:

- 1 – RJ11 modular telephone wall outlet
- 1 – Cut in or pop-in switch box
- 4' – Four-conductor (two-pair) Cat 3 or Cat 5 telephone cable

Safety (PPE):

- Safety glasses

Resources: N/A

Time Required: 60 Minutes

Shop Maintenance:

- All work will cease 20 minutes prior to the end of class.
- All work areas must be cleaned.
- Tools and equipment must be cleaned and returned to the designated areas (cage, tool room, cabinets etc.)
- Any broken or missing tools must be reported immediately.
- Tools and equipment are student's responsibility

Procedures: (Eye protection must always be worn)

1. Remove the existing surface-mounted telephone junction box/jack.
2. Install a pop-in switch/device box in the wall above the old box location.
3. Splice and route the telephone wiring from the existing box location into the new box. (See Figure 1.)
4. Connect the four wires to the new wall jack, maintaining the correct color coding.
5. Install the wall outlet in the new pop-in box.
6. Plug an operable telephone set into the new wall outlet and test the phone (Figure 2).

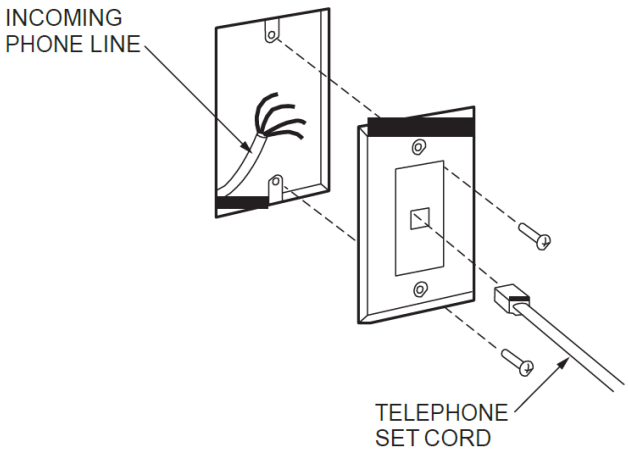

Figure 1 ■ Terminating a Moduler, Flush-Mounted Telephone Wall Outlet

Figure 2 ■ Finished Installation of a Modular, Flush-Mounted Telephone Wall Outlet

Note

Many four-wire jacks use red, green, yellow, and black as the two pairs. Older phone wire used similar colors. Modern wire most often will use blue/white and white/blue as the first pair, and orange/white and white/orange as the second pair. One wire will be blue with white stripes, the other associated wire will be white with blue stripes, and so on. In this case, the white/blue will go to the green terminal, blue/white to the red terminal, orange/white to the yellow terminal, and white/orange to the black terminal. The jack may be color coded with the new color codes, in which case you simply follow the color codes.