

## Sealed Insulation Displacement Contact (IDC) Line Module with xDSL POTS Splitter

### 1. General

The Sealed Insulation Displacement Contact (IDC) Line Module with xDSL POTS Splitter (Figure 1) snaps into the Corning Cable Systems CAC® 7600- or 9600-series Network Interface Device (NID) unit. (Installation into a CAC 9600-series NID requires a separate adapter. Refer to the instructions provided with the adapter.) This module houses electronics known as a “POTS Splitter.” The POTS Splitter allows both voice and data signals to travel over the telephone line. This device splits the combined signal to provide separate outputs for both phone and data. The sealed line module must be used along with a sealed protector module in the NID.

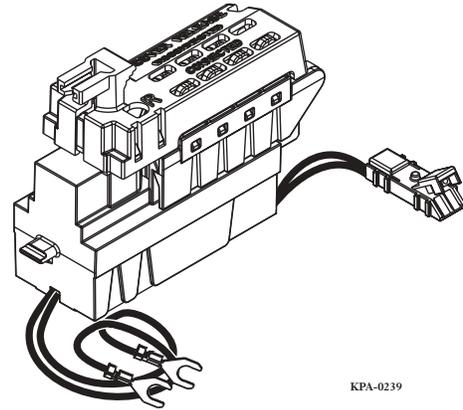


Figure 1

### 2. Accessing the NID

Install and ground the NID per the instructions provided with the NID.

The NID’s outer cover is held closed with a snap feature and slotted screw. Customer padlocks can be overridden by using a standard telephone company can wrench or KS tool. The same tool is used to open the inside telco shield.

### 3. Installing Line and Protector Modules



- If installing line and protector modules into an empty NID, skip to Step 3.
- If installing line and protector modules into a NID that already has some modules installed, begin with Step 1 of this section.

**Step 1** Determine which line module position will have DSL service connected to it.

**Step 2** Disconnect the leads from the existing line module in that position to the corresponding protector module. Disconnect the subscriber voice wires from the line module. Lift out the line module.

**Step 3** **CAC 7600:** Insert the foot of the sealed line module under the captive tab where in the position where the DSL service will be connected (Figure 2). Snap the module into the base of the NID.

**CAC 9600:** Insert the lower flange of the adapter onto the base latch of the CAC 9600. Lower the adapter assembly and capture the adapter with the center wall latch (Figure 3).

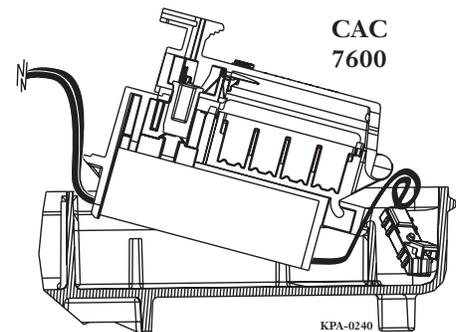


Figure 2

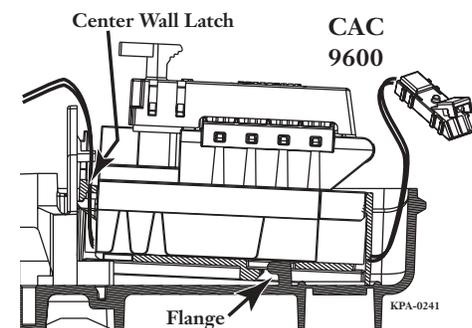


Figure 3

**Step 4** Thread the line module lead wires through the slot between the subscriber and telco sides of the NID (Figures 2 and 3).

**Step 5** If no protector modules are installed in the telco compartment, loosen the nut on the mounting stud, break off the unneeded tang (Figure 4), and install the protector module(s) onto the stud(s). Tighten nut(s).

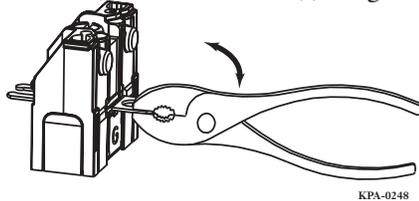
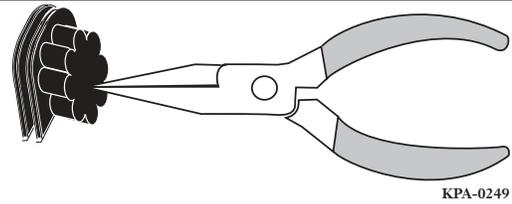


Figure 4

**CAUTION:** Do not use a knife to cut the grommet. Doing so may create too large an opening allowing moisture into the unit. Do not break through the edge of the grommet. Doing so may compromise the grommet's holding ability.



KPA-0249

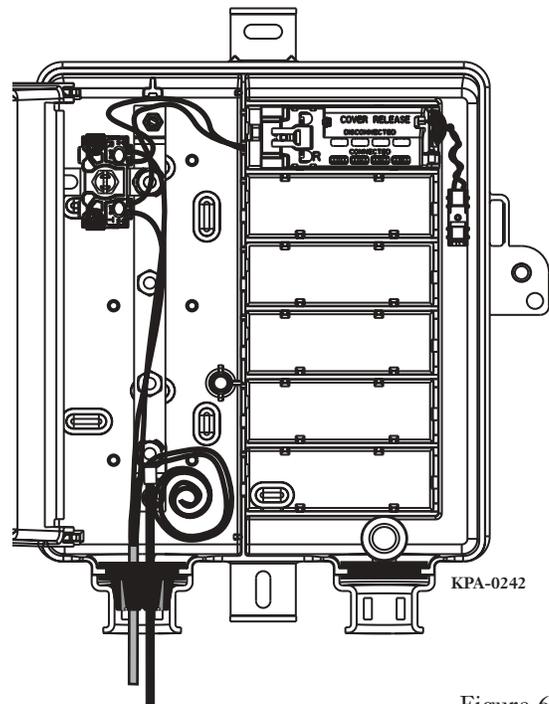
Figure 5

**Step 6** Clip the spade terminals off the line leads and insert the line leads into the protector module as described in Section 4 for telco wire termination.

#### 4. Telco Wiring

**Step 1** Remove the black rubber grommet located at the bottom left side of the unit and punch a small hole in the center of the grommet using a pencil point or needle-nose pliers (Figure 5).

**Step 2** Feed the telco wire through the grommet, if not already installed (Figure 6).



KPA-0242

Figure 6

#### 5. Telco Wire Termination

Although all six wires can be terminated at the same time (three pairs of tip and ring), it is recommended to terminate pairs individually.

##### 5.1 Wire Sizes:

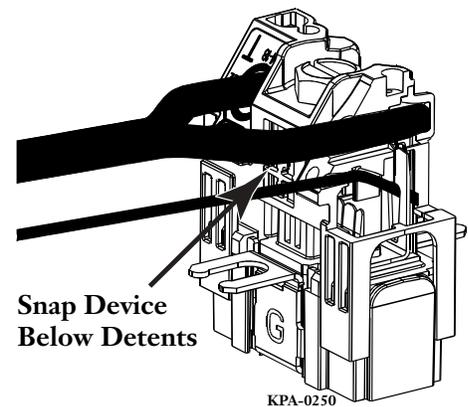
- Small holes: 22- to 24-gauge (0.65 to 0.5 mm) wires
- Large holes: 18.5- to 24-gauge (1 mm to 0.5 mm) wires

##### 5.2 Insert Wires:

**Step 1** Unscrew the cap (counterclockwise) two turns or until a click is heard.

**Step 2** If the line module leads are not connected, fully insert them into the small holes (Figure 7). Visually check all wire insertion depth through the cap.

**Step 3** Hold the wires in place and screw the cap down (clockwise) until it stops.



KPA-0250

Figure 7

CAP MUST BE COMPLETELY DOWN TO ASSURE CONNECTION.

- Step 4** Gently pull on the wires to verify connection. Once inserted, the wires will remain in place when the cap is unscrewed.

**NOTE:** *If the telco wire is larger than 22 AWG, a fusible link consisting of a minimum of 12 inches of 22 AWG or smaller diameter wire must be wired in series with the drop wire.*

- Step 5** Repeat steps 1 through 4 to install telco wires in the large holes. Dress unused wires in the bottom of the NID (Figure 6).

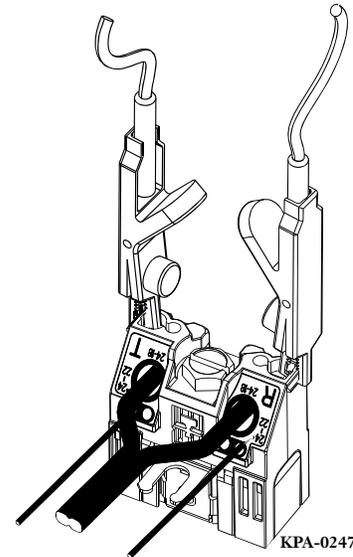


Figure 8

## 6. Testing Protector Module Wiring

**6.1 Complete circuit:** Connect test equipment to test contacts while all wires are engaged.

**6.2 Telco wires and protection:**

- Step 1** Connect to the telco test contacts (Figure 8).
- Step 2** Test according to standard practices.

**6.3 Subscriber connections:** Unscrew cap two turns. Withdraw telco wires and connect the standard test clips to the test points.

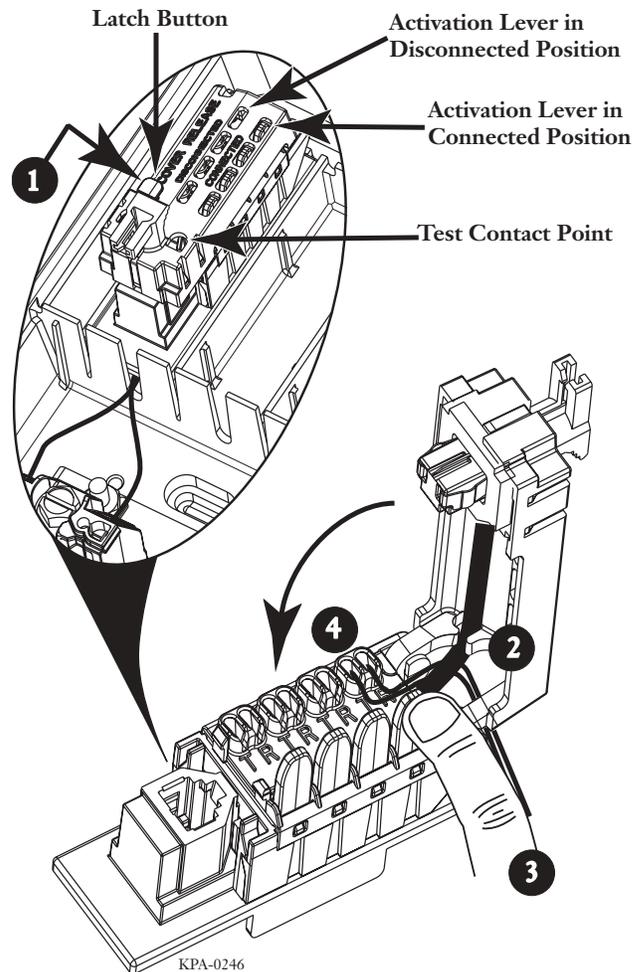


Figure 9

## 7. Subscriber Wire Termination

- Step 1** Open cover by pushing the latch button and pulling the cover upwards (Figure 8 Inset).
- Step 2** Feed subscriber wires through the opening formed by the hinges and the end of the cover (Figure 8). Or the cover can be snapped off the hinges for easier wiring.

**NOTE:** *There are four activation levers. Each will terminate one wire pair. It is recommended that the position closest to the cover hinges be used first.*

- Step 3** Push the appropriate activation lever forward until it snaps to the center of the line module.
- Step 4** Insert the tip and ring wires to a depth of approximately  $\frac{5}{8}$  inch into their corresponding holes marked by a T and R. Do not strip the wires before insertion.

- Step 5** Pull the activation lever back toward the side of the line module until it snaps into the upright position.
- Step 6** Gently pull on wires to verify connection. Then press the wires down into the slots.
- Step 7** Dress the wires down the inside of the NID (Figure 10). Remount the line module cover on its hinges, if it was removed.
- Step 8** Close the line module cover and check the activation lever position through cover. It should be in the connected position (Figure 9 Inset).

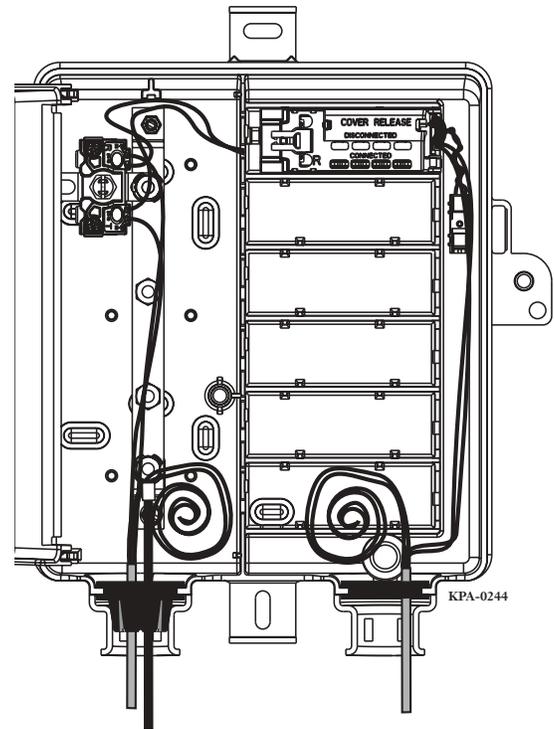


Figure 10

## 8. Testing Subscriber Wiring

- Step 1** Connect test equipment to the subscriber test contacts (Figure 9 Inset).
- Step 2** Press the latch button and pull the cover up.
- Step 3** Each line connection can be checked individually by moving the levers between the connected and disconnected positions as needed without disturbing the wires. Test according to standard practices.

## 9. Connecting Dedicated Data Lines

Bring the dedicated data wires into the NID through the grommet in the lower right corner of the NID. The data connector is located at the end of the wires coming from the sealed line module (Figure 11). Insert the data wires into the data connector. Ensure they are fully seated in the connector, then firmly, but gently, press the connector shut with a pair of needle-nose pliers.

**NOTE:** *Subscriber should remove any existing microfilters on the voice (telephone) lines inside the premises.*

## 10. Securing the NID

Close the telco shield and tighten the security screw. Then close the outer cover and tighten its security screw. A customer padlock may be installed on the outer cover, if desired.

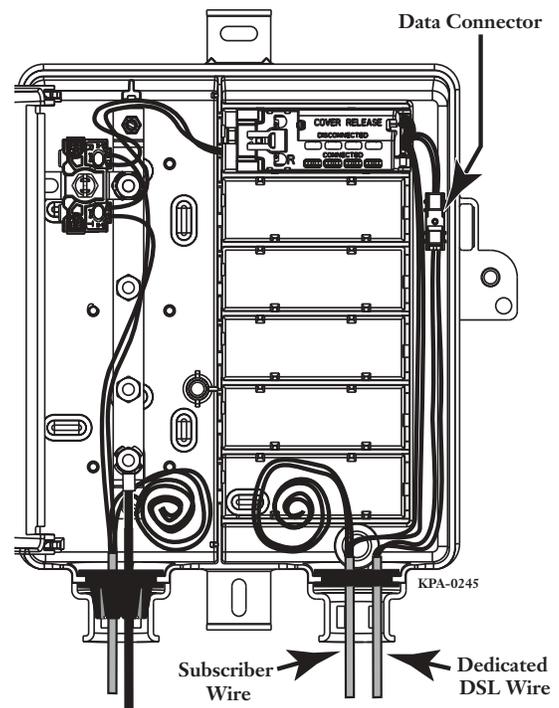


Figure 11

Customer Service—US or Canada: 1-800-743-2671 • International: +1-828-901-5000 • Fax: +1-828-325-5060  
Corning Cable Systems LLC, PO Box 489, Hickory, NC 28603-0489 USA • <http://www.corning.com/cablesystems>

Corning Cable Systems reserves the right to improve, enhance and modify the features and specifications of Corning Cable Systems' products without prior notification. CAC is a registered trademark of Corning Cable Systems Brands, Inc. All other trademarks are the properties of their respective owners. Corning Cable Systems is ISO 9001 certified.  
© 2005-2006 Corning Cable Systems. All rights reserved. Published in the USA.  
p/n 200-223 / August 2006