

R A D I O N I C S

D728 Dual Phone Line Switcher Operation and Installation Instructions

Before You Begin

Before you install the D728 you should be familiar with the following manuals:

- *D7112 Operation and Installation Manual* (74-06195-000)
- *D7112 Program Entry Guide* (74-06274-000)

Description

The Radionics D7112 Control/Communicator panel uses the D728 Dual Phone Line Switcher to transmit over a second phone line when the primary phone line is faulted. The D7112 monitors both phone lines connected to the D728. If there is phone line trouble, the D7112 acknowledges the bad line, then the D728 uses the functional phone line to send reports to the receiver. The D7112 keeps the faulty phone line in memory.

The D728 uses the primary phone line to initiate calls unless it has in memory that it is faulty. If it fails twice to communicate on the primary phone line, it switches to the secondary line and makes two attempts. If it fails here, it alternates between the two lines, making two attempts to communicate on each, until it succeeds, or until the panel goes into communications failure.

If the panel is programmed for one phone number, it goes into communications failure after six attempts to reach the receiver. If the panel is programmed for more than one phone number, it goes into communications failure after ten attempts to reach the receiver. If another event occurs after the D728 has switched to the second line, the process starts over.

If the primary line is detected as electrically faulty, the D728 switches to the secondary line and reports the fault. With the Modem II format, the D7112 sends a PHONE LINE FAIL message to the D6500. The second line of the report indicates which phone line is in trouble. When using BFSK, the panel sends a TROUBLE ZN B for trouble on the primary phone line and a TROUBLE ZN C for trouble on the secondary phone line.

D728 is not compatible with D715: You cannot use the D728 Dual Phone Line Switcher if you are using a D715 Phone Jack Annunciator.

D728 first: The D728 must be the first module on the control/communicator data expansion loop, J2.

Ground start systems: You cannot use the D728 on ground start systems.

CPU Failure Annunciation

The D728 module has a circuit that monitors the panel's CPU (Central Processing Unit). If the CPU fails to execute its program correctly, the D728 sounds an audible trouble sounder. You cannot reset this "watchdog" sounder while the CPU is failed. This feature is required for all commercial fire alarm installations including those without telephone connections such as Local, NFPA 72 (chap. 6).

Status LEDs

Four LEDs mounted on the front edge of the D728 module display primary phone line failure, secondary phone line failure, failure to communicate, and AC power status. When programmed and operating normally, only the green AC power status LED should be lit.

Phone Line Failure LEDs

Two yellow phone line status LEDs (one for the primary line, one for the secondary line) light up when phone line voltage drops below 10 VDC without a corresponding 10-15 mA increase in current. The D7112 monitors the faulty telephone line for the programmed interval before indicating a trouble condition.

Failure to Communicate LED

An amber LED lights up when the panel goes into communications failure. The LED is cleared when communication restores.

AC Power Status LED

The green AC power status LED lights up when the panel is running on AC power. When AC power is not available, it is not lit.

Installation

Mounting

The D728 Dual Phone Line Switcher mounts inside the D8103, D8108A and D8109 enclosures. Fasten the module to the inside of the enclosure with the screws provided.

When using the D728 with a fire system, it must be mounted inside an enclosure that is UL listed for fire, such as the D8108A or D8109 Enclosure.

Wiring

1. The D728 has two flying leads. Connect the green lead to Terminal 1 or 2 on the D7112 to monitor AC power.
2. Connect the black lead on the D728 to Terminal 11 on the D7112. This provides surge protection for the two incoming phone lines. This is also ground reference for the AC LED.
3. Connect one end of the connector cord to the **J-2 EXPANSION** connector on the D7112. Connect the other end to the **FROM PANEL** connector on the D728.

D728 first: The D728 must be the first module on the control/communicator data expansion loop.

Phone Connections

1. Connect the primary phone line to the J-1 phone jack on the D728 module.
2. Plug the secondary phone line into the J-2 jack on the D728.
3. Plug the short (2ft.) phone connector cord (provided with the D728 package) into J-3 on the D728 and into the telephone cord connector jack on the lower left corner of the D7112 circuit board.

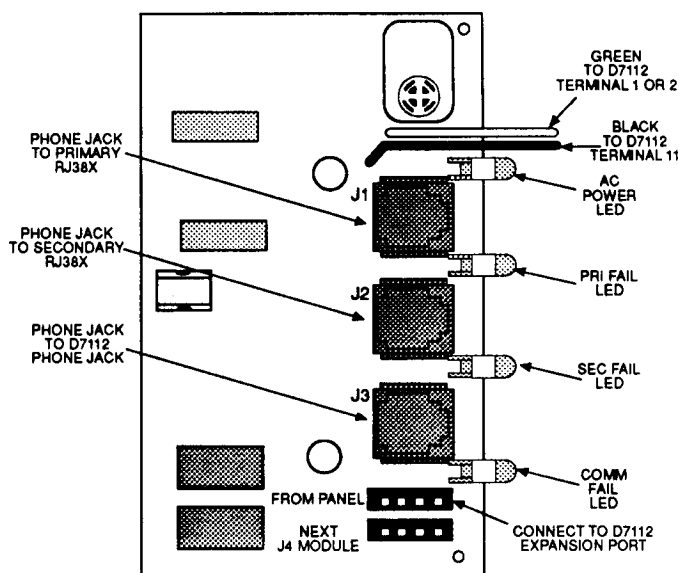


Figure 2: Phone Cord and Wiring Connections

Programming

To use the D728, program *Two Phone Lines* and *Phone Supv Time* in the D7112. See the *Phone* section in the *D7112 Program Entry Guide* (74-06274-000) for programming instructions.

Specifications

Current Required

Idle (average):	7.8 mA @ 13.8 VDC
Maximum (average):	40.5 mA @ 13.8 VDC
Operating Voltage:	10 - 13.8 VDC

Power

Supplied by the D7112 Control/Communicator panel through the 4-wire expansion cable

Status Indicators

A sounder annunciates CPU failure. LEDs indicate:

- AC power
- Primary phone line failure
- Secondary phone line failure
- Failure to communicate

Wiring Connections

- 3 Dual modular connector phone cords
- 1 4-wire expansion cable
- 2 Flying leads (green, black)