

# No.674(A) SELECT-A-LINE

## GENERAL INFORMATION:

The No. 674 Select-A-Line is designed to permit a digital communicator (such as the Nos. 669 or 670) to be connected to two telephone pairs, thus considerably increasing the communicator's chances of reaching the receiver in the event of telephone line trouble. Alternate attempts at calling are made over the two lines. The No. 674 complies with FCC Rules, Part 68. Its FCC Registration Number is AC398U-62519-AL-N and its Ringer Equivalence is 0.0B.

Line seizure is provided by the No. 674 as well as assurance that the audio from a No. 676 Listen-In Module (if used) will go out over the same line on which the digital communicator completes its call. No. 659 Line Fault Monitors may also be used to speed line selection when one line is inoperative.

The No. 674 is powered from the same 6V. DC source that supplies the digital communicator (as well as the No. 659 Line Fault Monitors and No. 676 Listen-In module when used).

- APPLICATION NOTES:
1. Current production No. 674's (identified by the presence of an ORANGE jumper at the unit's rear and a RED connection lead) may be used with all models of No. 669 and 670 Digital Communicators [original (screw programmed) models and later (push-on wire programmed) versions (such as the No. 669 "A" version)]. When used with an original version No. 669 or 670 the ORANGE jumper must be cut. See Diagram 1.
  2. Early production No. 674's (without ORANGE jumper and RED lead) are compatible only with original (screw programmed) models of the Nos. 669 and 670. They may not be used with the later (push-on wire programmed) versions (such as the No. 669 "A" version).
  3. The No. 674 cannot be used with the No. 612 Tape Dialer, No. 662 Digital Dialer or No. 679 Digital Communicator.

## OPERATION:

When the digital communicator is activated, its calling attempts will be made, via the No. 674, alternately over the two telephone lines. The first attempt will be made on line number one. If the communicator does not receive "handshake" or "kiss-off" from the receiver the second attempt will be made on line number two. If "handshake" or "kiss-off" is not received after the second attempt, the next attempt will be made on line one, etc.

Line seizure is provided for both telephone lines, and terminals are provided on the No. 674 for connecting local handsets as well as the phone lines.

If used with No. 659 Line Fault Monitors, the No. 674 automatically eliminates a line before dialing occurs, if it has been detected as out-of-service. Even if the digital communicator is forced to dial without dial tone, it will not attempt to dial on an out-of-service line.

When a No. 676 Listen-In Module is used with a digital communicator served by two telephone lines the No. 674 remembers on which line a call was completed by the communicator and sends the audio from the No. 676 out over that same (and not the alternate) line.

## INSTALLATION:

For ease of installation the No. 674 Select-A-Line has a housing which permits it to be conveniently mounted in the digital communicator (or other) cabinet. The No. 674's upper edge is provided with a lip that can be slipped over the upper edge of the cabinet without interfering with the ability of the cabinet's cover to close and lock. See Diagram 1.

## WIRING:

See Diagram 1. It (and the following) applies to current production No. 674's.

Some leads of the No. 674 come already connected permanently to its circuit board. Other leads, with "quick disconnect" terminals, are packaged with the No. 674 for attaching to connection posts on the unit in the field. Field wiring must be extended from these leads as indicated. Wire nuts, solderless crimp Wire Splices (Ademco No. 301) or solder and tape are recommended.

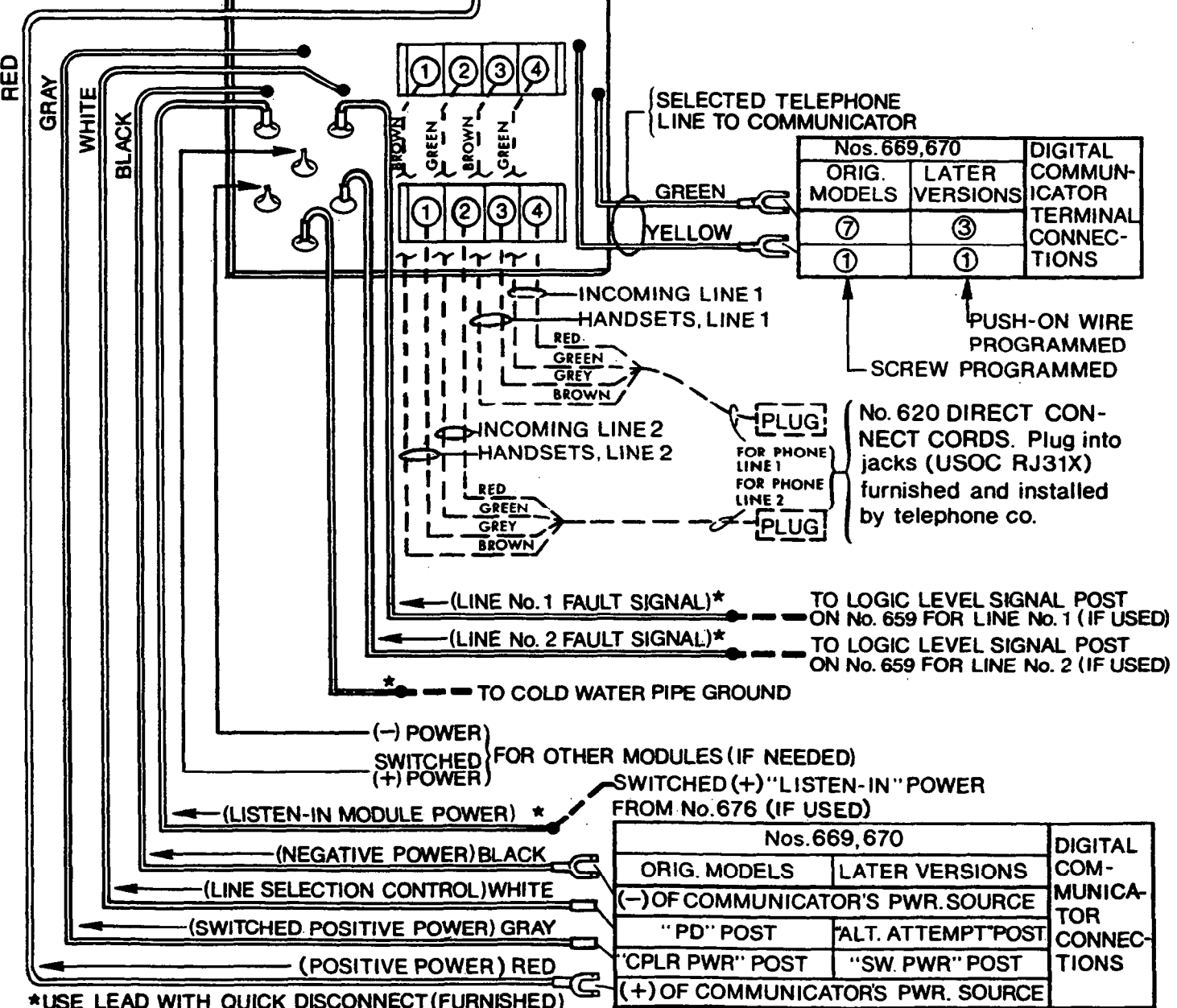
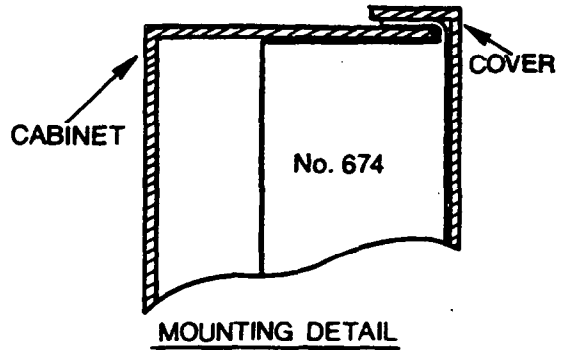
Barrier terminal strips are provided for the telephone line and local handset connections.

Proceed with wiring as follows:

1. If the No. 674 is to be used with an original (screw programmed) model of a No. 669 or 670, cut the No. 674's ORANGE jumper. With later (push-on wire programmed) versions (such as the No. 669 "A" version) leave the jumper intact.
2. Ground: Connect a "quick disconnect" lead (provided) to the post indicated on Diagram 1 and extend to a cold water pipe ground. This provides protection against externally induced transient voltages in the telephone lines.
3. Telephone Connections: Connect as indicated to the two barrier strips provided on the circuit board. No incoming telephone line or handset connections are made directly to the digital communicator. Each line's connections should be made via an Ademco No. 620 Direct Connect Cord which plugs into a telephone company supplied jack (USOC No. RJ31X). Complete instructions accompany the No. 620. Alternatively, if local regulations permit, the telephone lines may be connected directly to terminals 4,4 (line 1) and 2,2 (line 2) and (if automatic line seizure is required) local handsets may be connected in parallel directly to terminals 3,3 (line 1) and 1,1 (line 2).
4. No. 659 Line Fault Monitors (if used):
  - a. Connect quick disconnect leads to the two posts on the No. 674 as indicated on Diagram 1 and extend each to its respective Logic Level Signal Post on the No. 659 for the line indicated.

MOUNTING LIP  
(SEE DETAIL  
AT RIGHT)

ORANGE  
JUMPER  
[CUT WHEN  
USING WITH  
ORIGINAL  
(SCREW PRO-  
GRAMMED)  
MODEL  
No. 669 or 670]



\*USE LEAD WITH QUICK DISCONNECT (FURNISHED) EXTEND AS REQUIRED

Diagram 1: Installation and Wiring

- b. Connect from the No. 674's incoming telephone line terminals (4,4 for line 1 and 2,2 for line 2) as shown on Diagram 1 to the YELLOW and GREEN leads of the No. 659 for the line indicated.
5. Digital Communicator: Connect the No. 674's six colored leads to the digital communicator as indicated in Diagram 1. Connections depend on whether an original model or later version digital communicator is being used; however, RED (+) and BLACK (-) leads always connect to the positive (+) and negative (-) terminals respectively of the communicator's power source.
6. No. 676 Listen-In Module (if used):  
Connect a quick disconnect lead to the post indicated on Diagram 1 and extend to the No. 676 Listen-In Module (see Installation Instructions for the No. 676).
7. Negative (-) Power and Switched Positive (+) Power Posts: These posts are provided for convenience in making connections to other modules as needed

### **SPECIFICATIONS:**

Physical:                   Width: 2 1/2"   ( 6.4 cm)  
                                  Height: 6"       (15.2 cm)  
                                  Depth: 1 1/2"   ( 3.8 cm)  
  
                                  Weight: 8 oz.   (227 grams)

Electrical:               Voltage: 6V. DC (from digital communicator's power source)

                                  Standby Current: 0  
                                  Operating Current: 110 ma.