Model DD-3
Digital Communicator

NEW
and
IMPROVED

acron corporation

GENERAL DESCRIPTION

The NEW and IMPROVED version of the Acron Model DD-3 Micro Dialer is a four-channel digital communicator capable of reporting 16* alarm codes and 10 alarm conditions when using receivers such as Ademco, DCI, Franklin, Osborne-Hoffman, Sescoa, and Silent Knight; the unit can dial in either rotary (dial pulsing) or Touch-Tone®. Each of the two phone numbers may be programmed for dialing pauses and to wait for second dial tone. The account number may be three or four digits.

Telephone numbers, account number and other functions are stored in a reprogrammable PROM which may be programmed at the factory, distribution outlets, or on your own DD-1PC PROM programmer. Refer to the DD-1PC Programming Manual and Addendum for DD-1 and DD-3 for detailed information regarding the following functions:

Programmable Functions

Memory Location	Function
32A, 18B, 19B	Reporting Format
17B	Channels to Dial Both Numbers
31B	24-Hour Self-Test
19B	24-Hour Self-Test Dials Second Number
19B	24-Hour Self-Test Dials Both Numbers
27B	Normally Closed Channel Select
32B	Dial if No Dial Tone
32B	False Alarm Shutdown (Swinger Rejection)

*When using receivers capable of receiving hexadecimal codes.

NOTE: To obtain only the features available on the previous DD-1 and DD-3 models, there is only one procedure change required. False Alarm Shutdown (Swinger Rejection) is now programmed in PROM Memory Location 32B; it is no longer necessary to cut a jumper. If you want to use the additional features of the New and Improved DD-1 and DD-3, refer to the following instructions.

INPUT TRIGGER

Any of the four channels may be triggered by a normally open circuit (trip on application of positive voltage) or normally closed circuit (trip on removal of positive voltage). The positive voltage may be supplied by the DD-3 "+N.O. RETURN" terminal or from a control panel or other device. If the positive voltage to trip a channel is supplied by a control panel or other device, the negative (−) terminal of the panel must be connected to the "D.C. POWER −" terminal on the DD-3.

When a normally closed circuit (trip on removal of positive voltage) is to be used, the appropriate channel(s) must be programmed in PROM Memory Location 27B for Normally Closed operation.

CHANNEL SELECT

Several functions can be channel selected; use the Acron Channel Select format found in Fig. II on page 10 of the Programmer Operating Instructions.

DELAYS

All inputs have a 300 mSec. delay. An alarm signal must be stable for at least 300 mSec. to activate the DD-3. This built-in delay minimizes false triggering due to natural and man-made voltage transients. (During the reporting cycle, the delay increases to 1 Sec.)

Additional reporting delays may be programmed in the PROM. Delays from 10 to 150 seconds may be selected in 10 second increments. If an alarm signal on a Delay Channel restores prior to time out, the channel will not report out.

TEST CANCEL

The DD-3 may be programmed for Test Cancel. The Test Cancel code is also programmable. If a Test Cancel channel is tripped and restored prior to transmission of the alarm code, the Test Cancel code will be reported. **The PROM has channel 3 preprogrammed to report code 9 for a Test Cancel.** Refer to the Programmer Operating Instructions to change this feature.

RESTORE

Cutting the C Jumper as shown in Fig. 1 will allow restore reporting on channel 1, 2, and 3. Channel 1 will report code 5 on restore, channel 2 a code 6 and channel 3, a code 7. Channel 4 may be programmed for restore reporting as well (see programming instructions). The PROM is preprogrammed to report code 0 for restore when channel 4 is selected for restore. This code may be changed. Refer to the Programming Instructions.

NOTES: 1) *The Test Cancel and Restore Codes should not be the same. If they are, a momentary trip will not be able to be distinguished from a restoral.*
2) *The Test Cancel and Restore Codes should not be the same as a Channel Code.*

ABORT

Channels may be selected to Abort. If an alarm signal restores prior to dialing out, that channel will not report out.

COMBINING DELAY, ABORT, RESTORE and TEST CANCEL FUNCTIONS

When more than one of the Delay, Abort, Restore (channel 4 only) and Test Cancel functions are selected for the same channel, the channel will operate under the following priorities:

Delay — has first priority. An alarm signal that restores before the Delay Time expires will not be recognized.

Abort — has second priority. When a recognized alarm signal is restored before dialing is completed, the alarm signal will be ignored and the reporting cycle will be aborted.

Test Cancel — will be reported for a Test Cancel or Restore channel that is tripped and restored prior to data transmission completion.

Restore (channel 4 only) — will be reported for channel 4 if it is restored after data transmission completion.

DIAL SECOND NUMBER

Channels may be programmed to dial the second phone number only.

DIAL BOTH NUMBERS

Channels may be programmed to dial both phone numbers.

NOTE: *If the number to be dialed is not reached after four attempts, the other number will be dialed.*

FAILURE TO COMMUNICATE (Sleeper)

After eight unsuccessful dialing attempts, the DD-3 will wait for one hour before making additional attempts. If a different channel is tripped, the DD-3 will immediately make eight additional attempts.

REPORTING FORMAT

Slow/Fast — the DD-3 recognizes both Slow and Fast handshakes and automatically transmits data in the appropriate format.

Slow/Fast Invert — the PROM can be programmed to send data in Fast format when a Slow handshake is received and to send data in Slow format when a Fast handshake is received.

Slow/Fast Extended — reports and identifies each tripped channel and code (Alarm, Restore or Test Cancel).

Acron Superfast — full status reporting including zone, code, and channel status. Reports account number, zone, code, and status information in less than three seconds. Compatible with Quick-Alert receiver manufactured by Osborne-Hoffman, Inc. Use PROM Memory Location 32A to select Acron Superfast format.

CHANNEL REPORTING CODE

The PROM is preprogrammed so that Channel 1 reports Code 1, Channel 2 reports Code 2 . . . and Channel 4 reports Code 4. The lower numbered channels have higher priorities and report first. The PROM may be programmed to change the channel reporting codes.

24 HOUR SELF-TEST

The PROM may be programmed to automatically report every 24 hours. The 24 hour timer resets and restarts after any report (Alarm, Test Cancel, Low Battery, etc.) has been transmitted.

LOW BATTERY REPORT

An automatic Low Battery Report (Code 8) is generated when the voltage at the "D.C. POWER 6-12" terminals falls below 11 volts (on a 12 volt system). For use with a 6 volt system, cut resistor R22 and an Automatic Low Battery Report will be generated when the voltage falls below 5.5 volts. *(NOTE: If this feature is not desired, cut resistor R22 when used on a 12 volt system. When used on a 6 volt system, do not cut resistor R22.)*

FALSE ALARM SHUTDOWN (Swinger Rejection)

When the PROM is programmed for False Alarm Shutdown, three alarms on a single zone within a two-hour period will shut down that zone for 24 hours or until power is disconnected for 15 seconds.

SPECIFICATIONS

Input Voltage	5.5 to 16 Vdc
Current: Standby	60 mA
Operate	90 mA
Dialing Speed: Rotary	10 pps; 60% break, 40% make
Touch-Tone®	0.1 Sec. per digit
Maximum Input Loop Resistance	180 Ohms
Dimensions	3.36″ W x 6.30″ L x 1.64″ H

INSTALLATION

1. Determine the characteristics required for the installation. Program a PROM according to the DD-1PC programming addendum.

2. Install the PROM making sure that the identification notch is located as shown in Fig. 1.

3. Mount the unit using double-sided foam tape or two screws.

Note: Refer to Fig. 1 for the following steps:

4. Remove link for Touch-Tone® dialing. Leave link for dial pulsing.

5. Cut jumper D when power is supplied by a 12 Vdc source.

6. When 6 Vdc power is supplied, cut resistor R22 if a Low Battery Report is desired.

7. Cut jumper C for restore reporting on channels 1, 2 and 3.

8. Connect the input loops. Both Normally Open and Normally Closed loops must be returned to the "N.O. RETURN" terminal. Normally Closed loops must be programmed in Memory Location 27B.

9. Using a TC-3 cable, connect the unit to the telephone network.

10. Connect 6 or 12 Vdc to the + and − input terminals. WARNING − Be sure to observe correct polarity or the unit may be damaged.

11. Snap the cover into position. The DD-3 is now ready for operation.

NOTE: Reporting cycle can be aborted by disconnecting power for 15 seconds. When power is reapplied Micro Dial will reset.
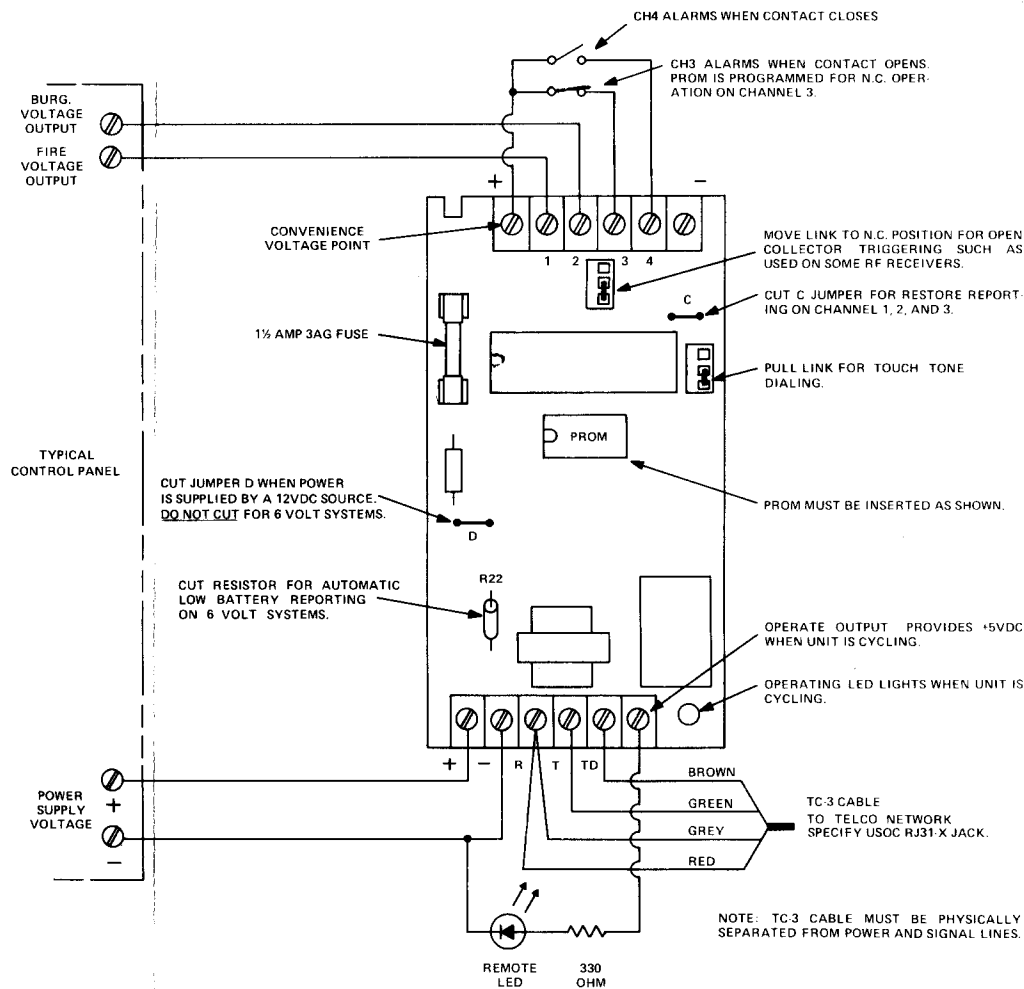
TELEPHONE COMPANY INSTALLED JACKS

The Model DD-3 is FCC registered for direct connection to the telephone lines. To install the Model DD-3 in accordance with tariff, call the local telephone business office and request the installation of a USOC RJ31-X jack. State the manufacturer is Acron Corp., Inc., the FCC Registration Number is AB798Z-67793-AL-E and the ringer equivalence is 0.1B.

FIG. 1
TYPICAL INSTALLATION
Showing Dialer Hook-up with Voltage Trigger, Contact Closure Trigger, Opening Contact Trigger

FOR TECHNICAL ASSISTANCE CALL:
800-631-2144
IN N.J. (201) 364-7200

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