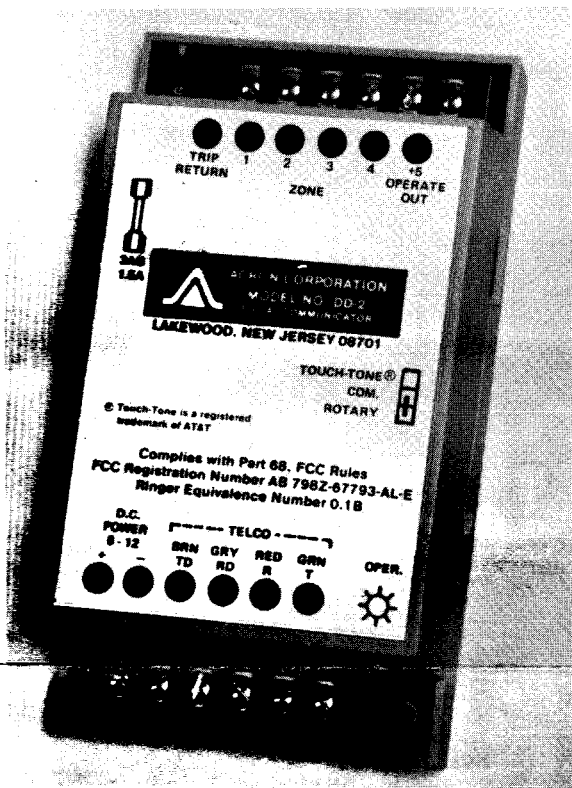


# INSTALLATION INSTRUCTIONS



*New and Improved*

**MODEL DD-2**

**DIGITAL COMMUNICATOR**

 **acron  
corporation**

490 OBERLIN AVE. SO., LAKEWOOD, N.J. 08701

## GENERAL DESCRIPTION

The NEW and IMPROVED version of the Acron Model DD-2 is a four-zone digital communicator capable of reporting 7 alarm conditions from one installation when using receivers such as Ademco, DCI, Franklin, Osborne-Hoffman, SESCO, and Silent Knight; the unit can dial in either rotary (dial pulsing) or Touch-Tone®. When using receivers capable of receiving hexadecimal codes, 16 alarm codes are available. 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, DD-2 and DD-3 for detailed information regarding the following functions:

### Programmable Functions

Memory Location	Function
1A-13A*	First Phone Number*
1B-13B*	Second Phone Number*
14A-16A, 28B	Account Number
17A	**Abort Zones
18A	Reporting Delay Zones
19A	Reporting Delay Time
20A	Test Cancel Zones
21A	Test Cancel Code
22A	Restore Zones
23A	Restore Code
24A-27A	Zone Codes
32A, 18B, 19B	Reporting Format
14B	Zones to Dial Second Number Only
17B	Zones to Dial Both Numbers
19B	24-Hour Self-Test Reports Dial Second Number Only
19B	24-Hour Self-Test Reports Dial Both Numbers
27B	Normally Closed Zone Select
31B	24-Hour Self-Test
32B	Dial if No Dial Tone
32B	False Alarm Shutdown (Swinger Rejection)

\* \*\* 1982" microprocessors only dial 12 digits.

\* \*\* 1983" microprocessors will dial 13 digits.

\*\* Do not use Abort if 24-Hour Self-Test or False Alarm Shutdown are used.

## INPUT TRIGGER

Any of the four zones 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-2 "TRIP RETURN" terminal or from a control panel or other device. When using a separate power supply and voltage trigger from a control panel or other device, the negative (-) terminal of the panel

must be connected to the "DC POWER -" terminal on the DD-2.

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

## ZONE SELECT

Several Functions can be zone selected; use the Acron Zone Select format found in Fig. III on page 10 of 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-2. 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 Zone restores prior to expiration of the delay time, the zone will not report out.

## TEST CANCEL

Any of the four zones may be selected in the PROM for Test Cancel. The Test Cancel Code is also programmable. If a Test Cancel zone is tripped and restored before transmission of the alarm code is complete, the Test Cancel Code will be sent. If Test Cancel Zones are unprogrammed, Zone 3 will be a Test Cancel Zone. If a Test Cancel Code is unprogrammed, the code will be 9. This may be changed.

If a Restore Zone is tripped and restored prior to shutdown, the Test Cancel Code will be sent; if it restores after Alarm Code transmission, the Restore Code will be sent. If different codes for Test Cancel and Restore are not desired, the Test Cancel and Restore Codes can be programmed to be the same code. If this is done, however, and the 24-Hour Self-Test Reports are used, the reporting format will be changed. The Acron Format does not use the Test Cancel and Restore Codes for 24-Hour Self-Test Reports. Refer to the Programming Addendum.

If Test Cancel is not wanted, program a "7" in Memory Location 20A to defeat the Test Cancel feature. If Test Cancel is wanted on a Zone(s) other than 3, program the Zone(s) in Memory Location 20A.

## RESTORE

The DD-2 can report restorals in two different formats. Consult your central station for their preference.

1. *Single Report Programmed Restore Format*—This method reports the account number followed by the Restore Code. This method cannot identify which zone has restored if more than one zone is pro-

grammed for Restore Reporting. The primary use for this method is to report openings and closings on one zone.

Example: Trip Zone 3      123    3  
          Restore Zone 3   123    0

## 2. Multiple Report Programmed Extended Format—

This method sends two reports. The first report sends the account number followed by the Restore Code. The second report consists of the Restore Code in place of the account numbers followed by the zone number. The zone number identifies which zone restored.

Example: Trip Zone 3      123    3  
          Restore Zone 3   123    0  
                              000    3

Any of the four Input Zones may be selected in the PROM to send the Restore Code when restored after transmission of the Alarm Code. If the Restore Code is unprogrammed, it will be "0". This may be changed by programming a different number in Memory Location 23A.

### NOTES:

- 1) Any tripped Restore Zone that restores before the Alarm Code is transmitted will send the Test Cancel Code.
- 2) If an Alarm Code was previously reported, a Restore will initiate a report.
- 3) To avoid confusion, the Restore and Test Cancel Codes should not be the same. If they are, a momentary trip will not be distinguished from a restoral, and the 24-Hour Self-Test Reports (except when the Acron Format is programmed) will change.
- 4) To avoid confusion, the Restore and Test Cancel Codes should not be the same as a Zone Code.

### ABORT

Zones may be selected for Abort. If an alarm signal on an Abort Zone restores prior to dialing out, that zone will not report out. Do not use Abort if 24-Hour Self-Test or False Alarm Shutdown are used.

### COMBINING DELAY, ABORT, RESTORE and TEST CANCEL FUNCTIONS

When more than one of the Delay, Abort, Restore and Test Cancel functions are selected for the same zone, the zone 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 Zone that is tripped and restored prior to completion of data transmission.

**Restore**—will be reported for a tripped Restore zone that is restored after data transmission completion.

### DIAL SECOND NUMBER ONLY

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

### DIAL BOTH NUMBERS

Zones 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-2 will wait for one hour before making additional attempts.

### REPORTING FORMAT

**Slow/Fast**—the DD-2 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. This is useful when a receiver sends a Slow handshake first, but can receive Fast format; in this situation, Slow/Fast Invert reduces transmission time.

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

**Acron Superfast**—full status reporting including zone, code and zone 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.

### 24-HOUR SELF-TEST

*NOTE: This report uses the Restore and Test Cancel Codes (except in Acron Format). If either of these codes are changed, the 24-Hour Self-Test Report will change.*

The PROM may be programmed to automatically report every 24 hours. The 24-hour timer resets and restarts after any report has been transmitted.

### 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	115 mA
Dialing Speed:	
Rotary	10 pps; 60% break, 40% make
Touch-Tone®	0.1 Sec. per digit
Maximum Input Loop Resistance	180 Ohms
Dimensions	3.4" x 6.3" x 1.7"

## 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 the Dialing link for Touch Tone® dialing. Leave the link in for rotary dialing. Note: If the link is removed, and it is reinserted for rotary dialing, power must be removed from the DD-2 for 15 seconds before rotary dialing will commence.
5. Cut jumper D when power is supplied by a 12 Vdc source.
6. Connect the input triggers. Both Normally Open and Normally Closed loops must be returned to the "TRIP RETURN" terminal.
7. Using an FCC approved cable with an 8-position modular plug, connect the unit to the telephone network.
8. Connect 6 or 12 Vdc to the + and - input terminals. **WARNING:** Be sure to observe correct polarity or the unit may be damaged.
9. Snap the cover into position. The DD-2 is now ready for operation.

**NOTE:** Reporting cycle can be aborted by disconnecting power for 15 seconds. When power is reapplied the Digital Communicator will reset.

## TELEPHONE COMPANY INSTALLED JACKS

The Model DD-2 is FCC registered for direct connection to the telephone lines. To install the Model DD-2 in accordance with tariff, call the local telephone company business office and request the installation of a USOC RJ31-X jack. Advise that the manufacturer is Acron Corp., the FCC Registration Number is AB798Z-67793-AL-E and the ringer equivalence is 0.1B.

**FIG. 1  
TYPICAL INSTALLATION**

