

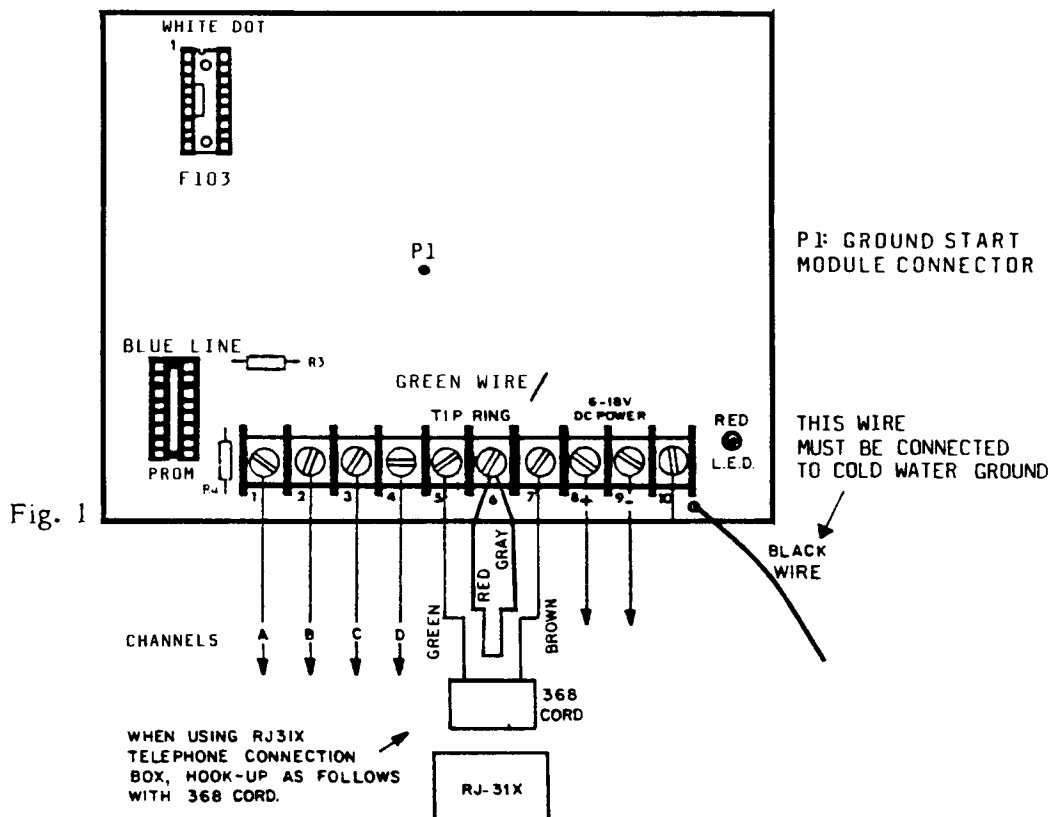
DIGITAL COMMUNICATOR

Computer-based Model 113A has 4 channels and will operate from any 6-18 volt DC power source.

Operation is controlled by a plug-in programmable chip. Four independent programs may be stored on the chip. The communicator is normally in standby, drawing less than 2 MA.

A positive voltage on any channel activates the device, the line is seized, a Red L.E.D. turns on and dialing starts. The "prom" is factory or field programmable on our Model 110C Programmer.

Connect normally open devices in parallel across terminals 8 and 1, 8 and 2, 8 and 3, 8 and 4, to trip each of the channels.



TYPICAL APPLICATIONS

CHANNEL	RESIDENTIAL USE	COMMERCIAL USE
A	FIRE	BURG
B	PANIC	HOLD-UP
C	BURG	OPEN/CLOSE
D	AUX.	AUX.

Terminals 5, 6 & 7	Phone Line Connections: Connect tip to 5 and ring to 6. Home phone is across 6 and 7. For 368 hook-up see the diagram.
Terminals 8 & 9	Apply DC 6 to 18 volts to terminals 8(+) & 9(-). This voltage may be used to activate the channels thru dry contact closure. The communicator in standby draws less than <u>2MA</u> . Transmitting, (the LED on), it draws less than <u>250MA</u> at 18 volts and less than <u>200MA</u> at 6 volts.
Black Wire	Grounding Wire: Attach to cold water ground.
Red L.E.D.	Red L.E.D. on indicates communicator is active and has seized the phone line.
Resistor Jumpers R3, R4	Jumpers determine which quadrant of the prom controls the communicator. See Truth Table for connection.
Plug-in Prom	Phone numbers, receiver type, account code and other information are programmed into the prom, National part number DM74S387N. Use our Model 110 or 110C Programmer. Read the 110C instructions carefully before operating. IMPORTANT: Plug the prom in with Blue dot up, on the 113A as shown in figure 1.

Resistor Jumper Set Up: The prom contains 4 separate sections (quadrants), only one of which is active. The Truth Table shows jumper connections vs. the corresponding 110C Programmer switch settings:

TRUTH TABLE

110C ROTARY SWITCH	113A COMMUNICATOR		110 PROGRAMMER	
QUADRANT	R3	R4	S7	S8
1	Jumped	Jumped	South	South
2	Cut	Jumped	North	South
3	Jumped	Cut	South	North
4	Cut	Cut	North	North

The new 113A is a digital dialer which uses a program chip (prom). Understanding the programming instructions, which follow, is essential because many outputs are possible with each activation. The dialer will transmit codes for either momentary or maintained inputs and restores. If a maintained input is aborted during transmission a choice of either an abort code, restore code or complete aborting of the transmission is programmable. The prom can also be programmed to test the dialer at 18 hour intervals, beginning from the last transmission. The dialer is also capable of accessing three different receivers, with each activation, and will shut down after being kissed-off by one or all receivers, depending on programming.

CAUTION: THERE SHOULD BE NO POWER ON THE 113A WHEN PROM IS INSERTED. PLUGGING IN PROM WITH POWER ON THE PANEL, WILL CAUSE THE DIALER TO TRANSMIT OUT OF PROGRAM.

Before using the digital dialer, the telephone company shall be requested to install a USOCRJ31X jack on the telephone line. Give the telephone company the FCC registration (AE398E-69554-AL-E) & the ringer equivalence (0.0B) numbers for the 113A. Connect the 113A to an approved modular plug (#368) to mate with the RJ31X as shown.

Should the 113A cause harm to the telephone network, the telephone company may temporarily discontinue service until the problem is corrected. Notice of such action will be given by the telephone company.

Should the telephone company make any changes to its facility or other requirements that could render the 113A incompatible, the customer shall be given adequate notice by the telephone company, in writing. Upon receipt of this information from the customer, the manufacturer shall advise the customer as to what actions must be taken to maintain uninterrupted service.

The Model 113A may not be connected to partylines or coin lines. If trouble is experienced, the 113A shall be disconnected from the phone line, by means of the plug shown to determine if the 113A is malfunctioning. If the 113A is malfunctioning, do not reconnect until the problem has been corrected.

The prom used is a Model F102 (74S387) and is programmed on our Model 110C programmer as follows.

- 1) Plug in the 110C programmer. OP should appear on the LED display.
- 2) Set appropriate Quadrand desired.
- 3) The first digit of the OP field will determine the dialer transmission for Channel A. Channel A can be activated with either a momentary or maintained closure with abort, restore code or abort code on abort depending on the programming.

Digit	Channel A Input	Dialer Output
0	Momentary	Channel A Code / No Abort
1	Maintained	Channel A Code w/Stop Dialing on Abort
2	Maintained	Channel A Code w/Restore on Abort
3	Maintained	Channel A Code w/Abort Code

All options may have restore programmed later in the procedure.

If Channel A is not used, program a Digit 1.

- 4) The Second digit of the OP field will determine the dialer transmission for Channel B. Channel B can be activated with either a momentary or maintained closure with abort, restore code or abort code on abort depending on the programming. This code will also determine if and when the dialer will transmit a test code. If a test code is desired it will be sent at 18 hour intervals after the last transmission. The proper digit to program in the second location of the OP field is as follows:

NOTE: IF 18 HOUR TEST IS USED, THE GREEN WIRE LOCATED ABOVE TERMINAL 7 MUST BE CONNECTED TO TERMINALS 8 ON THE 113A.

DIGIT	CHANNEL B INPUT	DIALER OUTPUT	SELF TEST
0	Momentary	Channel B Code / No Abort	None
1	Maintained	Channel B Code w/Stop Dialing on Abort	None
2	Maintained	Channel B Code w/Restore Code on Abort	None
3	Maintained	Channel B Code w/Abort Code	None
4	Momentary	Channel B Code/No Abort	18 Hr.
5	Maintained	Channel B Code w/ Stop Dialing on Abort	18 Hr.
6	Maintained	Channel B Code w/Restore Code on Abort	18 Hr.
7	Maintained	Channel B Code w/Abort Code	18 Hr.

If both Channel B and Self Test ARE NOT USED, program DIGIT 1

If Channel B is NOT USED, but Self Test IS USED, program DIGIT 5

- 5) The third digit will determine the operation of Channel C.

DIGIT	CHANNEL C INPUT	DIALER OUTPUT
0	Momentary	Channel C Code / No Abort
1	Maintained	Channel C Code w/ Stop Dialing on Abort
2	Maintained	Channel C Code w/Restore on Abort
3	Maintained	Channel C Code w/Abort Code

All options may have a restore programmed later in the procedure.

- 6) The fourth digit will determine the operation of Channel D.

DIGIT	CHANNEL D INPUT	DIALER OUTPUT
0	Momentary	Channel D Code / No Abort
1	Maintained	Channel D Code w/ Stop Dialing on Abort
2	Maintained	Channel D Code w/Restore on Abort
3	Maintained	Channel D Code w/Abort Code

All options may have restore programmed later in the procedure.

- 7) Beginning with the fifth digit of the OP field if a common prefix is needed for all receivers, (9, area code, etc.), it may be keyed in here. If a time delay is needed before or between digits, key in "C" where the delay (3 secs.) is needed.
- 8) Press ENTER switch, then 9. 1P should appear on the LED display. Key in the first telephone number. Up to 11 digits may be used.
- Information must be entered in this field
- 9) Press ENTER switch, then 9. 2P should appear on the LED display. Key in the second telephone number. Up to 11 digits may be used. If no number is needed, leave blank.
- 10) Press ENTER switch, then 9. 3P should appear on the LED display. Key in the third telephone number. Up to 11 digits may be used. If no number is needed, leave blank.

- 11) Press ENTER then 9. AF should appear on the LED display. The first digit in this field will determine the number of attempts the dialer will make to reach the receiver.

See Chart below:

No. of Attempts	Use Digit	No. of Attempts	Use Digit	No. of Attempts	Use Digit
1	1	7	7	12	C
2	2	8	8	13	D
3	3	9	9	14	E
4	4	10	0	15	A
5	5	11	B	Unlimited	F
6	6				

IMPORTANT: When F is pressed, the number does not display, but the space is left blank. The second digit in the field will determine the number of receivers the dialer must access before it shuts down. Select as follows:

Any one receiver - 8

All receivers - C

- 12) Press ENTER, then 9. FF should appear on the LED display. This field will determine receiver format. One digit must be keyed in for each phone number programmed.

See chart for selecting the proper receiver code:

RECEIVER TYPE	USE DIGIT
Franklin	1
DCI	1
Sescoa	1
Radionics (2300)	1
Radionics (1400)	3
Adcor CDR 50	3
Ademco without Kiss-off	4
Ademco with Kiss-off	5
Silent Knight without Kiss-off	6
Silent Knight with Kiss-off	7

Information must be entered in this field.

- 13) Press ENTER, then 9. AC should appear on the LED display. Key in a 3 or 4 digit account code. A 4 digit account code can only be used with receiver that is capable of handling it.

Information must be entered in this field.

- 14) Press ENTER, then 9. AL should appear on the LED display. Key in digits for the following alarms.

(Program an "F", which leaves a blank, for any Location NOT BEING USED)

Location	DESCRIPTION	CODE
L1	Channel A	0-9 or F
L2	Channel B	0-9 or F
L3	Channel C	0-9 or F
L4	Channel D	0-9, A or F
L5	Always F	Always F
L6	Always F	Always F
L7	Restore - CH A	0-9, E or F
L8	Restore - CH B	0-9, E or F
L9	Restore - CH C	0-9, E or F
L10	Restore - CH D	0-9, E or F
L11	Abort Code / Test Code	0-9, D or F

NOTE: For English Language Printout of Codes use:

A	-	Trouble
B	-	Opening
C	-	Closing
D	-	Abort
E	-	Restore

Use "A" if Auxiliary channel is being used to monitor
TROUBLE. . . . such as high or low temperature

- 15) **CHECK THE DATA.** All information has now been entered into the fields. By pressing ENTER, then 9, the information, (which is now in memory), can be checked and corrected if necessary. If a field must be changed or corrected, to go to that field, press ENTER, then the corresponding field number. The correct information may now be keyed in.
- 16) If all data is correct, a blank prom can now be inserted and "Burned" by pressing the Program switch momentarily. If the prom burns correctly, the word "FINISH" will appear on the LED display. If a different program is already on that quadrant, or if the prom is "Burned" incorrect, the words "NO CAN DO" will appear on the LED display. If "FINISH" does not display, that particular quadrant of the prom is not accepting the program and cannot be used again.

SAMPLE FORM FOR REFERENCE

1- LOOP SELECTION/COMMON PHONE PREFIX

CH. A CODE W/RESTORE CODE ON ABORT	
CH. B CODE & 18 HR. TEST	
CH. C CODE W/ABORT CODE	
CH. D CODE W/ABORT	
DIAL "9"	
3 SECOND DELAY	

CHANNEL A
CHANNEL B
CHANNEL C
CHANNEL D

0 P 2 4 3 1 9 C

2- FIRST PHONE NUMBER

1 P 8 0 0 6 4 5 5 4 3 0

3- SECOND PHONE NUMBER

2 P 8 0 0 6 4 5 5 4 3 1

4- THIRD PHONE NUMBER

3 P 5 1 6 5 8 2 6 1 6 1

5- NUMBER OF ATTEMPTS AND ACKNOWLEDGMENTS

10 ATTEMPTS	
3 ACKNOWLEDGMENTS	

A F 0 C

6- RECEIVER TYPE

FIRST RECEIVER---FRANKLIN	
SECOND RECEIVER---ADCOR CDR 50	
THIRD RECEIVER---SESCOA	

FF 1 3 1

7- ACCOUNT CODE

AC 1 2 3

8- ALARM CODES

CHANNEL A	CHANNEL B	CHANNEL C	CHANNEL D	ALWAYS F	ALWAYS F	RESTORE-CHANNEL A	NO RESTORE-CHANNEL A	RESTORE-CHANNEL B	RESTORE-CHANNEL C	RESTORE-CHANNEL D	ABORT CODE/TEST CODE
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A L 1 2 3 4 F F 9 F 9 5 6

PROGRAMMING SHEET

CIRCLE QUADRANT USED:

1 2 3 or 4

1- LOOP SELECTION/ COMMON PHONE PREFIX

CHANNEL A	CHANNEL B	CHANNEL C	CHANNEL D	COMMON PHONE PREFIX
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0 P

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11

2-FIRST PHONE NUMBER

1 P

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11

3-SECOND PHONE NUMBER

2 P

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11

4-THIRD PHONE NUMBER

3 P

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11

5-NUMBER OF ATTEMPTS AND ACKNOWLEDGMENTS

ATTEMPTS	
ACKNOWLEDGMENTS	

A F

L1 L2

6-RECEIVER TYPE

FIRST RECEIVER	
SECOND RECEIVER	
THIRD RECEIVER	

FF

L1 L2 L3

7-ACCOUNT CODE

AC

L1 L2 L3 L4

8-ALARM CODES

CHANNEL A	CHANNEL B	CHANNEL C	CHANNEL D	ALWAYS F	ALWAYS F	RESTORE-CHANNEL A	RESTORE-CHANNEL B	RESTORE-CHANNEL C	ABORT CODE/TEST CODE
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A L

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11