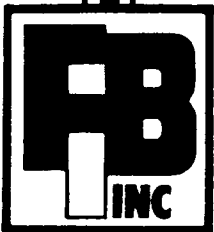


Model

110C

**INSTALLATION
INSTRUCTIONS**



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INTRODUCTION

The Model 110 Programmer is designed to prepare a memory chip for Fire Burglary Instruments' computer-based communicators as well as the 100B. The programmer has the ability to read the data on the memory chip, which allows for easy data entering.

The 110 has been designed to make a complicated task easy. It requires reading this instruction pamphlet and careful attention to details. After familiarization with the controls, the device will be simple and reliable.

MODE SWITCH:

Allows the programmer to make chips for 100B dialers, as well as the newer computer-based dialers.

ROTARY QUADRANT SWITCH:

The prom is divided into 4 separate segments, allowing four different programs to be stored on the prom. The switch is set to the prom segment in use.

ENTER SWITCH:

Prepares the programmer to receive a command. Switch must be pressed before moving into another field in the memory bank.

PROM SOCKET:

A blank prom placed in this socket can be burned with any information in the memory bank or a master prom can be placed in the socket and all of its information can be inserted into the memory bank. The 110 uses a National Semiconductor DM74S387N or MM1635140 J or P chip.

KEYPAD:

Used to enter information into memory and to move from field to field in memory.

PROGRAM SWITCH:

Takes the information in the memory bank and burns it onto a prom in the prom socket.

L.E.D. DISPLAY:

The first two digits display the field currently accessed. Field may be programmed for 11 digits or less. See programming instructions.

POWER SWITCH:

Turns the programmer on and off.

3 AMP FUSE :

This fuse will protect against accidental chip reversal.

DEFINITIONS

- PROM:** Programmable Read Only Memory. This device will be referred to as the memory chip or prom.
- QUADRANTS:** Sections of the prom which are switch selectable.
- FIELDS:** Areas of data which are located within a quadrant. Note all fields are numbered and have names. The field names and numbers will appear in the body of the instructions under: **FIELD NAMES AND NUMBERS.**
- BURN:** To burn means to permanently fix the field's data into the memory chip or prom.
- HAND SHAKE:** An initiating tone generated by the receiver, which causes the dialer to release its information.
- KISS OFF:** An acknowledgement tone generated by the receiver which tells the dialer that the information was received and understood.

CONTROLS

- MODE SWITCH:** This switch will be set according to the type of dialer being used. When the switch is in the up or north position, you are in the computer-based mode. When the switch is in the down or south position, you are in the 100B mode.
- ROTARY QUADRANT SWITCH:** This switch is used to select each Quadrant to be programmed. Rotate switch to the desired quadrant(s)

Once the program is located, a label should be placed on the prom. Mark the label to show the program location (i.e., Q1, Q2, Q3, Q4). As is now apparent, the prom may be burned in any of the 4 locations. Thus, if a program has to be changed or a mistake is made, simply change quadrants and reuse it. Alternate programs may be stored on the prom for instant access. ON ALL OF FIRE BURGLARY'S COMPUTER-BASED DIALERS, A SET OF SWITCHES OR JUMPERS WILL CORRESPOND TO QUADRANTS 1 - 4. (CARE MUST BE TAKEN TO SEE THAT THE PROGRAM YOU WANT AND THE DIALER SWITCHES OR JUMPERS ARE IN AGREEMENT: SEE THE INDIVIDUAL INSTRUCTION SHEET FOR THE FIRE BURGLARY DIALER YOU ARE USING).

- ENTER SWITCH:** This switch is a spring type switch. It must be pressed in order to enter another field. Press Enter, then 9 to go to the next field in sequence, or press Enter, then any field number to go to that field.
- DIGITAL KEYPAD:** The digital keypad is used to enter data, erase data and locate fields.

FIELD NAMES AND NUMBERS

<u>Abbreviation</u>	<u>Field Name</u>	<u>Field Number</u>
OP	Common Prefix	1
1P	First Phone #	2
2P	Second Phone #	3
3P	Third Phone #	4
A F	# of Attempts & # of Acknowledgements	5
F F	Receiver Type	6
A C	Account Number	7
A L	Alarm Codes	8

COMMANDS

<u>Desired Function</u>	<u>Press Enter, then:</u>
READ INFORMATION FROM CHIP in socket, into memory (with no chip in socket, this will clear the memory).	0
ADVANCE to next field in memory.	9
Advance to a particular field in memory.	Field Number of Desired Field
Prepare to ERASE a field for re-programming (if a mistake is made or a change is required).	Field Number of Desired Field

The 110 has a memory bank which is capable of storing all of the information for one quadrant of a chip. This provides the user with a number of important features. Information from a master chip can be entered into memory and altered to suit a particular need. Also, any information in memory can be checked before being burned onto a prom. Once a prom is burned, it is automatically compared with the information in memory. This insures that the prom is correctly burned. **THE ENTIRE PROGRAM SHOULD BE ENTERED INTO THE PROGRAMMER BEFORE THE CHIP IS PLACED IN ITS SOCKET. THIS PROGRAMMER BURNS ONE QUADRANT AT A TIME.**

The following Steps 1-12 should be used to make a program chip for the dialers listed below. All steps and information is the same except for the AL fields. The AL field information should be found in the respective dialers individual instructions.

All digital dialers not mentioned here will have complete programming information in their respective instructions.

1290, 1290A & (113, 115, 150 with D1270 AHEX Microprocessor).

1. Plug in the 110 Programmer. OP should appear on the L.E.D. display.
2. Set Mode Switch, and Quadrant Switch to the desired positions.
3. Press Enter switch, then 0. 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 is needed. If no number is needed, leave this field blank.
4. Press Enter switch, then 9. 1P should appear on the L.E.D. display. Key in the first telephone number. Up to 11 digits may be used. If extra time is needed between digits, key in the letter C between those digits.

-Information must be entered in this field-

5. Press Enter switch, then 9. 2P should appear on the L.E.D. display. Key in the second telephone number. Up to 11 digits may be used. If no number is needed, leave blank.
6. Press Enter switch, then 9. 3P should appear on the L.E.D. display. Key in the third telephone number. Up to 11 digits may be used. If no number is needed, leave blank.
7. Press Enter, then 9. AF should appear on the L.E.D. display. The first digit in this field will determine the number of attempts the dialer will make to reach the receiver. See chart below.

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

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 reach before it shuts down. Select as follows:

- Any one receiver - 0
- All receivers - F

FOR CLARITY: If only one phone number is being used, either 0 or F may be used. However, if two or three receivers are being used, it must be determined:

- A. Do I want to contact all receivers on each activation? If so, key in F.
- B. Do I want to stop dialing after any one receiver has been reached? If so, key in 0.

-Information must be entered in this field-

8. Press Enter, then 9. FF should appear on the L.E.D. 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.

<u>Receiver Type</u>	<u>Use Digit</u>
Franklin	1
DCI	1
Sescoa	1
Radionics	1 when switch on 2300. Use 3 when switch on 1400.
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-

9. Press Enter, then 9. AC should appear on the L.E.D. display. Key in a 3 or 4 digit account code. Only numbers may be entered, not letters.

-Information must be entered in this field-

10. Press Enter, then 9. AL should appear on the L.E.D. display. Alarm codes may be entered here ACCORDING TO THE PROGRAMMING SHEETS FOR EACH INDIVIDUAL DIALER.

-Information must be entered in this field-

11. 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, press Enter, and the desired field to change. The correct information may now be keyed in.

12. If all data is correct, a blank prom can now be inserted and burned by pressing the program button momentarily. If the prom burns correctly, the word "FINISH" will appear on the L.E.D. display. If a different program is already on that quadrant, or if the prom is incorrect, the words "NO CAN DO" will appear on the L.E.D. display. Discard the prom if "FINISH" does not display.

MAKING A CHIP FROM A MASTER

Any programmed chip can be copied:

Step 1: Set the Mode and Quadrant switch to the correct settings.

Step 2: Insert the Master into the socket. Press Enter, then 0. This stores the master data into memory. Remove the master.

Step 3: We can now change the pertinent fields before copying. These are generally the account number, field 7 and the alarm codes field 8.

Step 4: Press Enter and the number of the field to be changed. The display should show the field. For example, for field 7, AC. Now enter the account number. The account number should now be displayed, displacing the number previously displayed, if any.

MASTER CHIP DATA SHEET

Information burned onto Master Chip can be recorded here.

QUADRANT 1	Mode Switch	Quadrant Switch	Quadrant Switch
		8	7
	N	S	S

OP _____
 1P _____
 2P _____
 3P _____
 AF _____
 FF _____
 AC _____
 AL _____

APPLICATION _____

QUADRANT 2	Mode Switch	Quadrant Switch	Quadrant Switch
		8	7
	N	S	N

OP _____
 1P _____
 2P _____
 3P _____
 AF _____
 FF _____
 AC _____
 AL _____

APPLICATION _____

QUADRANT 3	Mode Switch	Quadrant Switch	Quadrant Switch
		8	7
	N	N	S

OP _____
 1P _____
 2P _____
 3P _____
 AF _____
 FF _____
 AC _____
 AL _____

APPLICATION _____

QUADRANT 4	Mode Switch	Quadrant Switch	Quadrant Switch
		8	7
	N	N	N

OP _____
 1P _____
 2P _____
 3P _____
 AF _____
 FF _____
 AC _____
 AL _____

APPLICATION _____