WESTEC SECURITY PRODUCTS, INC.

TECHNICAL MANUAL

MODEL 766

CAUTION

The information contained in this manual is proprietary and should be safeguarded at all times.

The security of your customers can be compromised if this information were to be made public.

It is suggested that the manual and all similar writings be controlled and access allowed on a need to know basis.

INDEX

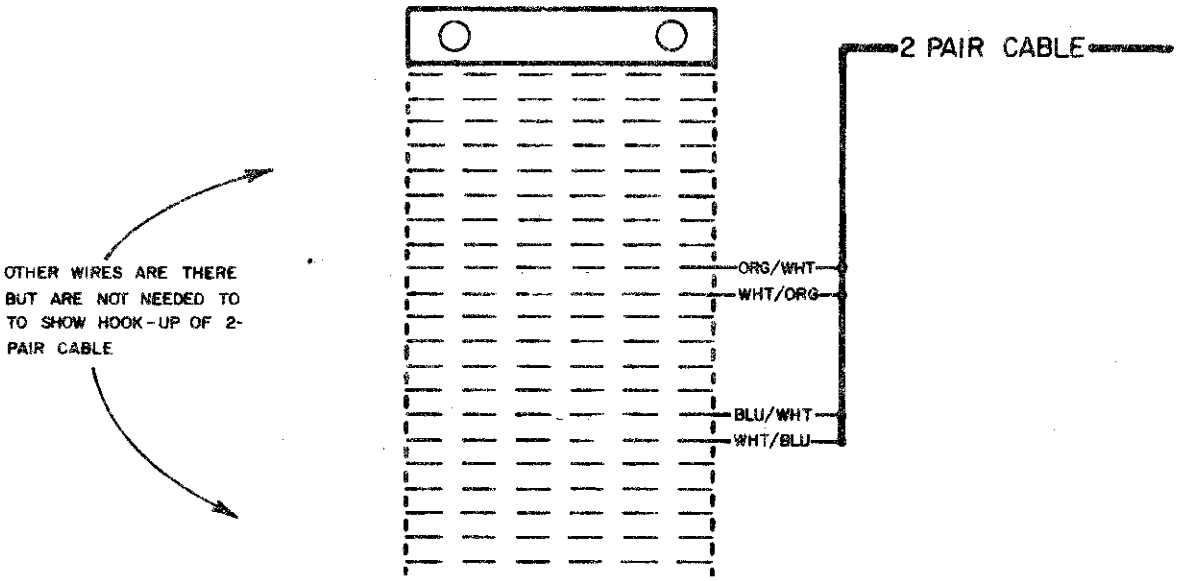
CHAPTER 2 (cont.)

CHAPTER 3 - SYSTEM DESCRIPTION

KEY TO VARIOUS TERMS & ABBREVIATIONS USED HEREIN

- "RED/BLK" = Red wire of the Black-Red pair
- "BLK/RED" = Black wire of the Black-Red pair
- "BLK·RED" or "BLK·RED PR" = Black-Red pair
- "⊗" = U.R. Connection (SCOTCH-3M CO.)
- "⊘" = Screw terminal
- ├—BLK/RED- = Black-of-Red wire which is part of a multi-pair cable
  (term denotes Black wire of Black-Red pair)
- "N.C." = Closed circuit when in normal state.
  (NORMALLY CLOSED)
- "N.O." = Open circuit when in normal state
  (NORMALLY OPEN)
- On multi-pair cable hook-up to punch block, only those wires which are applicable to that drawing are shown:

NOTE:
When "BLK·RED PR" is shown *inbetween* two wires:
the BLK/RED wire is on top, RED/BLK wire is on bottom,
as shown below-



INTRODUCTION

766 System consists of:

- 743 Punch Block Board
- 750 Control Board
- 751 Zone Board

The Model 766 is a complete four channel, 6 zone burglary alarm control panel combined with a Digital Communicator which will automatically dial up a central station and report the alarm conditions and the client's account number.

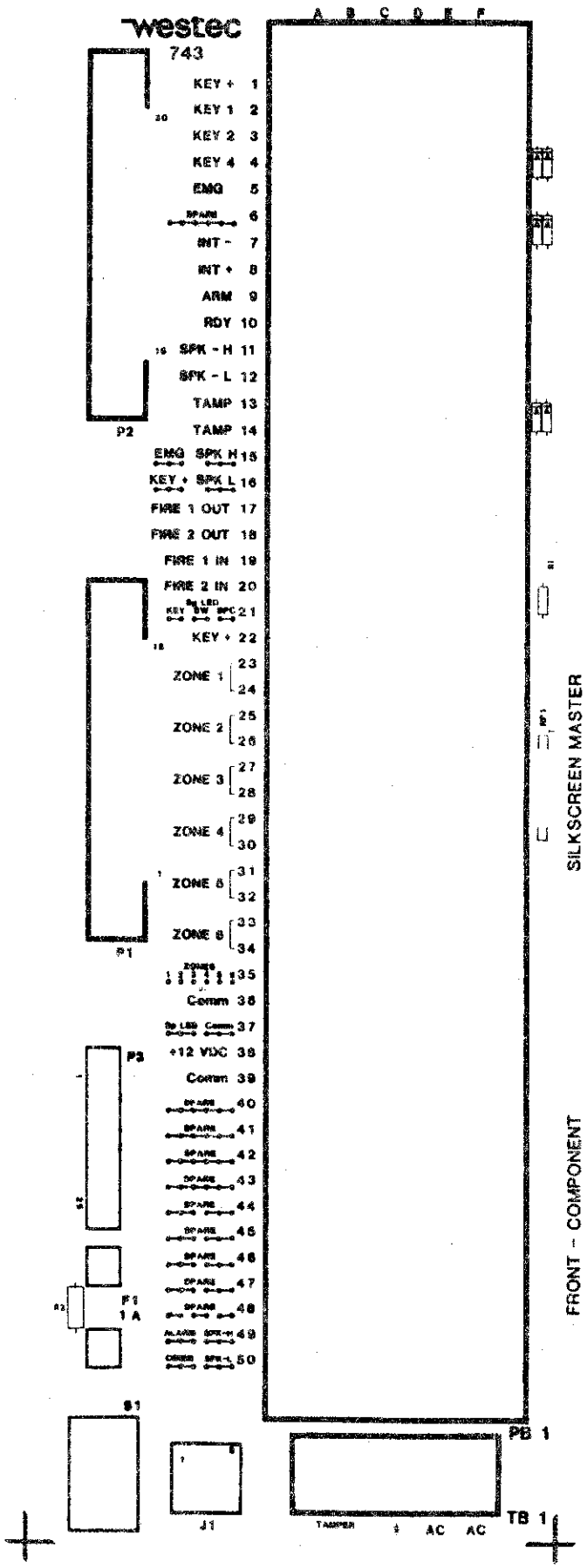
In addition to reporting the four alarm conditions, the Model 766 will also report a "Low Battery" or "Trouble" in the fire circuit, a "Test", "Opening/Closing", "Restore-to-Normal" and "Abort".

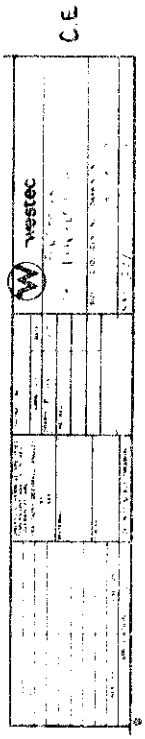
Some of the "built-in" features of the 766 include:

6 zones of burglary
Sends abort signal
Punch block connector
Siren Driver
Battery Charger
Entrance warning
Attempt-to-reset and siren shutdown
Touch pad annunciator
Digital and mechanical key for arming and disarming
Selectable digital communicator reporting format
24-hour tamper circuit
Line seizure relay
P.C. Board plug in for easy installation
2 wire fire circuit
Zones can be shunted by 797 controls
Alarm Voltage output
Adjustable entry/exit early warning sound
Programmable in seconds
Special channel.
Push button field programmable
Exit/Entrance switch selectable
Built-in decoder

7 Channels
(1) Burg
(2) Fire
(3) Emergency
(4) Special
(5) Abort
(7) Restore to normal
(8) Low battery or trouble
(9) Test

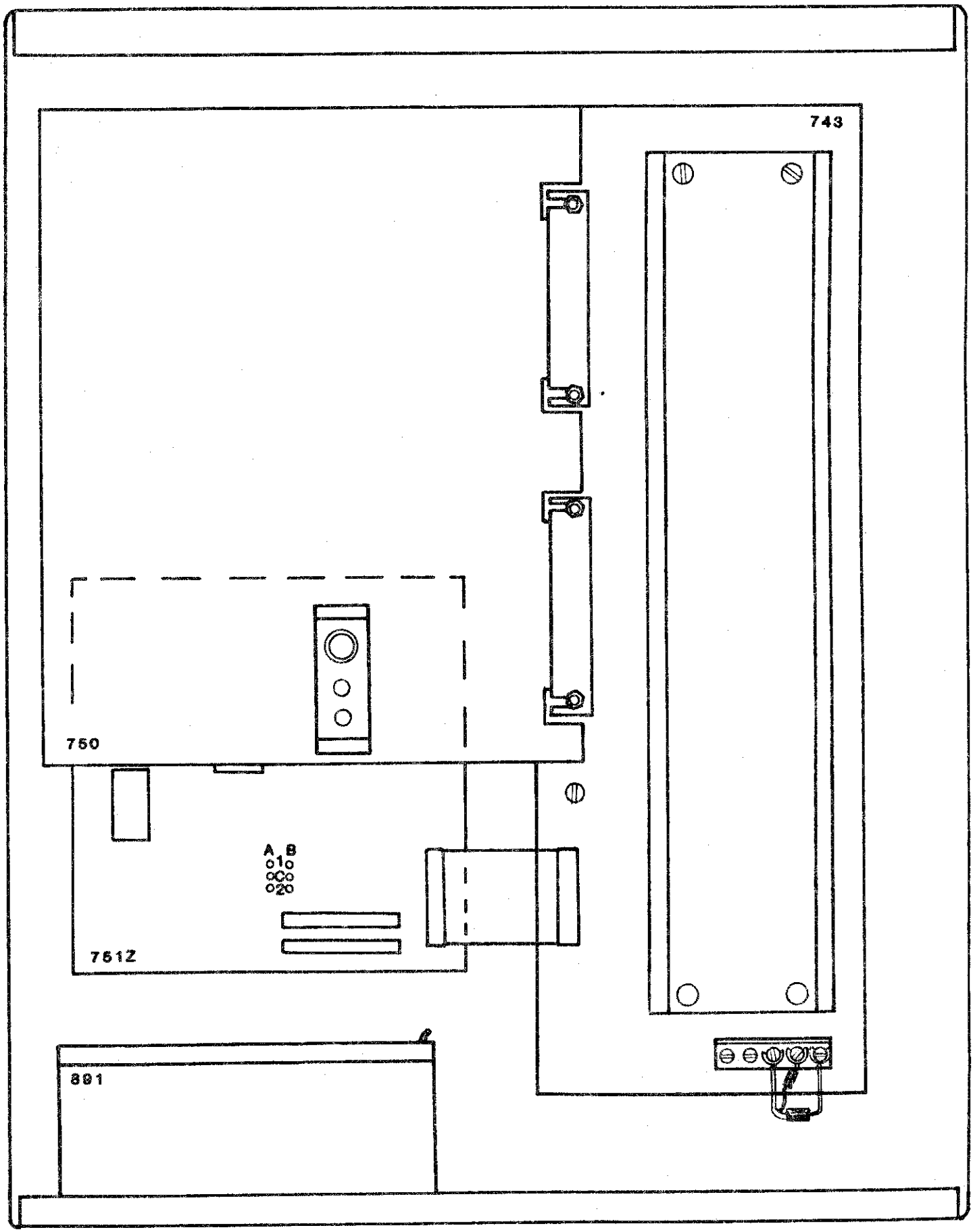
NOTE: The 766 can handle only a combination of 8 ON/OFF devices (797,997,989,992) of which 4 can be 797's.


westec
743
A B C D E F
KEY + 1
KEY 1 2
KEY 2 3
KEY 4 4
EMG 5
SPARE 6
INT - 7
INT + 8
ARM 9
RDY 10
SPK - H 11
SPK - L 12
TAMP 13
TAMP 14
EMG SPK H 15
KEY + SPK L 16
FIRE 1 OUT 17
FIRE 2 OUT 18
FIRE 1 IN 19
FIRE 2 IN 20
KEY SW SPC 21
KEY + 22
ZONE 1 23 24
ZONE 2 25 26
ZONE 3 27 28
ZONE 4 29 30
ZONE 5 31 32
ZONE 6 33 34
35
Comm 36
37
+12 VDC 38
Comm 39
40
41
42
43
44
45
46
47
48
49
50
P1
P2
P3
F1
1 A
S1
J1
TAMPER
AC AC
TB 1
PB 1
SILKSCREEN MASTER
FRONT - COMPONENT


C E
westec

1.1.1

766



743 PUNCH BLOCK LAYOUT

1. Key +
2. Key 1
3. Key 2
4. Key 3
5. Emg
6. Spare
7. Int -
8. Int +
9. Arm
10. Rdy
11. Spk-H
12. Spk-L
13. Tamper
14. Tamper
15. Emg Spk-H
16. L Comn Spk-L
17. Fire 1 Out
18. Fire 2 Out
19. Fire 1 In
20. Fire 2 In
21. Key SP LED SW SPC
22. Key +
23. Zone 1
24. Zone 1
25. Zone 2
26. Zone 2
27. Zone 3
28. Zone 3
29. Zone 4
30. Zone 4
31. Zone 5
32. Zone 5
33. Zone 6
34. Zone 6
35. N.O. Zones 1 2 3 4 5 6
36. Comn
37. SP LED Comn
38. +12V D.
39. Comn
40. Spare
41. Spare
42. Spare
43. Spare
44. Spare
45. Spare
46. Spare
47. Spare
48. Spare
49. Alarm Ex-Spk-H
50. Comn Ex-Spk-L

MODEL 743 PUNCH BLOCK
FUNCTIONAL DESCRIPTION

P1,P2 - 15 pin connectors for 750 board

P3 - 26 pin connector for 751 zone board.

J1 - RJ Jack for phones

NOTE: Rows 1-12 are for interior keypad controls and outside keyboard controls.

Rows 1-5 Keyboard Inputs:

These rows provide connections for the keyboard inputs that control the model 750.

Row 6 Spare Pins

Row 7 Interior Light (-):

This row provides a negative voltage output (-) whenever any of the zones are part of the burglary system (unshunted).

Row 8 Interior Light (+)

This row provides connections for the positive of the interior light.

Row 9 Arm Light:

This row provides a positive voltage output (+) when the burglary circuit is armed and a negative voltage output (-) when the zones are normal and the system is disarmed.

Row 10 Ready Light:

This row provides a positive voltage output (+) when the burglary zones are normal and á negative voltage output (-) when the system is armed.

Rows 11 and 12 Speaker:

Internal speakers are connected to these pins. This circuit provides the sonic when the control board goes into alarm or when any of the troubles sound.

The above 12 rows are for connecting models 997, 989 and 992.

Row 13 and 14 N.C. Tamper:

This circuit is a 24 hour tamper input. Up to 6 N.C. devices may be connected on these pins. The loop starts at 13F and ends at 14A. The maximum loop resistance is 1K ohms.

Row 15 and 16 Emergency and Speakers:

Pins 15 ABC and 16 ABC - Emergency

A momentary short across these pins will cause the emergency alarm to trigger.

Pins 15 DEF and 16 DEF - Speaker

These pins are the same as rows 11 and 12.

These rows are provided for connecting emergency button with speakers and RF receivers. Typical devices are models 996 and 1050.

Rows 17, 18, 19 and 20 Fire:

These pins provide connections for heat detectors and 2 wire smoke detectors, and are fully supervised. The fire zone starts at 17, 18F and ends at 19, 20A.

Rows 21 and 22 Key, Control for LED, Special

Key - A momentary short across pins 21 and 22 A,B will arm or disarm the burglary circuit and it will reset burglary, fire, emergency and special.

Control for LED - A momentary short across pins 21 and 22 C,D will turn ON or OFF the output on row 37.

Special - A momentary short across pins 21 and 22 E,F will trigger the special channel.

Rows 23 through 34

These rows provide connections for NC burglary sensors.

Rows 23, 23 A-F Zone 1

Starts at 23F and ends at 24A.

Rows 25, 26 A-F Zone 2

Starts at 25F and ends at 26A.

Rows 27, 28 A-F Zone 3

Starts at 27F and ends at 28A.

Rows 29 and 30 A-F Zone 4

Starts at 29F and ends at 30A.

Rows 31 and 32 A-F Zone 5

Starts at 31F and ends at 32A.

Rows 33 and 34 A-F Zone 6

Starts at 33F and ends at 34A

Rows 35 and 36 A-F N.O. Zones

N.O. devices connect to these pins.

Row 37 A-F LED Output

ABC Controlled by 21 C,D - DEF - Common

Rows 38 and 39 12 Volt DC:

These pins provide 12 volt D.C. for powering external devices such as models 1103, 1062 and 1118, motion detectors and electric eyes. The maximum amount of current available is 1 amp.

Rows 40 through 48 Spares:

These pins provide extra points of connection for whatever needs to be connected.

40, 41, 42, 43	are common across
44, 45, 46, 47	are split 3 and 3
48	is split 2, 2 and 2

Rows 49 and 50 Alarm Output and External Speaker Output:

49,50 ABC - These pins provide connections for an alarm output for Fire, Burg, Emg (not Special) to drive 1118,1188, 8982 or 8984.

Rows 49 and 50 DEF External Speakers or Sirens:

These pins provide connections for connecting external speakers or sirens to the system.

TBI - 5 POSITION SCREW TERMINAL

Position 1 and 2 - RJ tamper bypass

Position 3 - Earth ground

This position must be connected to the closest water pipe for a ground. A 14 gauge wire must be used.

Positions 4 and 5 - 16.5 VAC transformer input

Switch 1 - 766 box tamper

This switch is connected to the 24 hour tamper circuit, so that any unauthorized person removing the 766 cover without first turning off the power switch on the 750 will cause an immediate alarm. The tamper switch has a built-in feature of a bypass by pulling the plunger out 1/4 inch.

REMOTE TERMINAL 797

This terminal contains a display panel with a switch panel containing seven touch pads and an emergency touch pad.

Placed in one or more strategic locations in your home, the remote terminal provides the following important functions:

- Arms/Disarms the system
- Shunting of any of the zones
- Emits different and distinct audible noises in the event of:
  - A. Fire
  - B. Burglary
  - C. Emergency
  - D. Trouble in the system

It visually displays the following status of the system:

System armed (Arm light)

Any zones are active - zone light steady

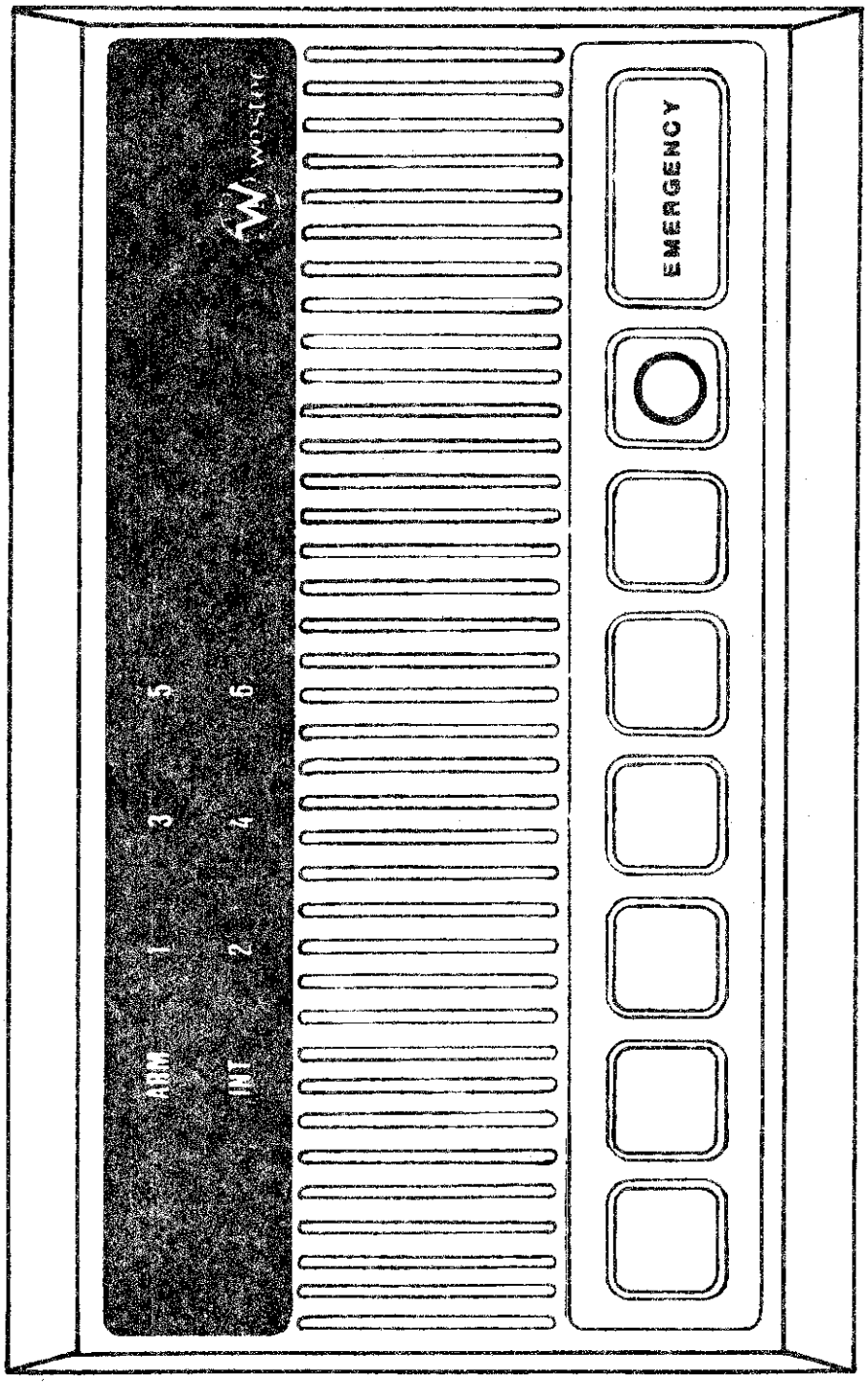
Any zones are shunted - zone light flashing when system is in an unarmed condition, and light is out when armed.

Also Int light will be off.

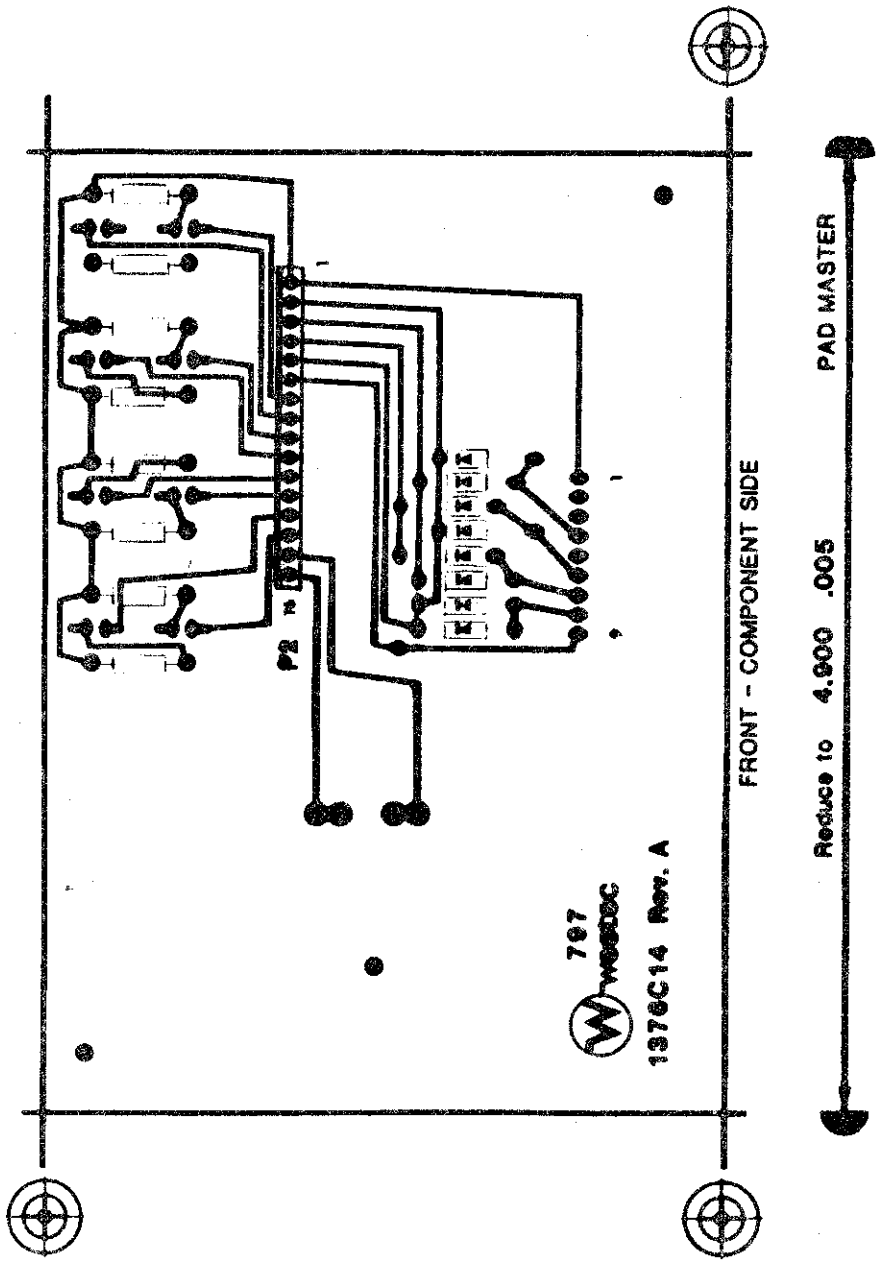
Disarming system resets all shunted zones.

Only four (4) 797's can be connected to the 766.

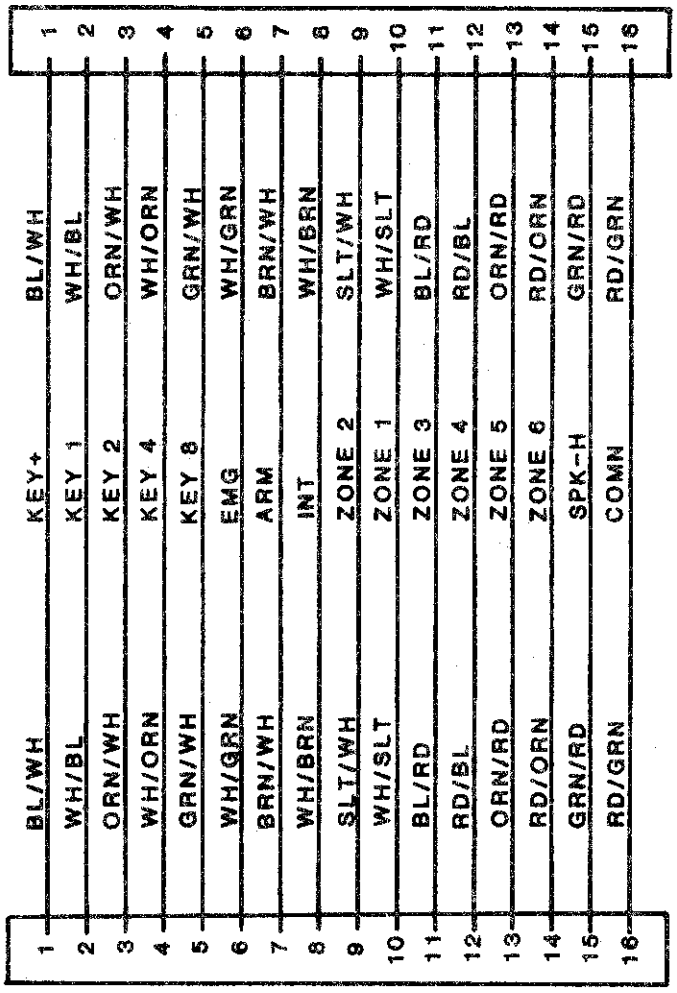
797 FRONT VIEW



797 BACK VIEW



797 HOOK-UP TO 751Z



REMOTE TERMINAL (R.T.) 997

This terminal contains a display panel with a switch panel containing six touch pads and an emergency touch pad.

Placed in one or more strategic locations in your home, the remote terminal provides the following important functions.

- Arms/Disarms the system
- Emits different and distinct audible noises in the event of:
  - A. Burglary
  - B. Fire
  - C. Emergency
  - D. Trouble in the system

It visually displays the following status of the system:

Ready to arm (RDY Light)

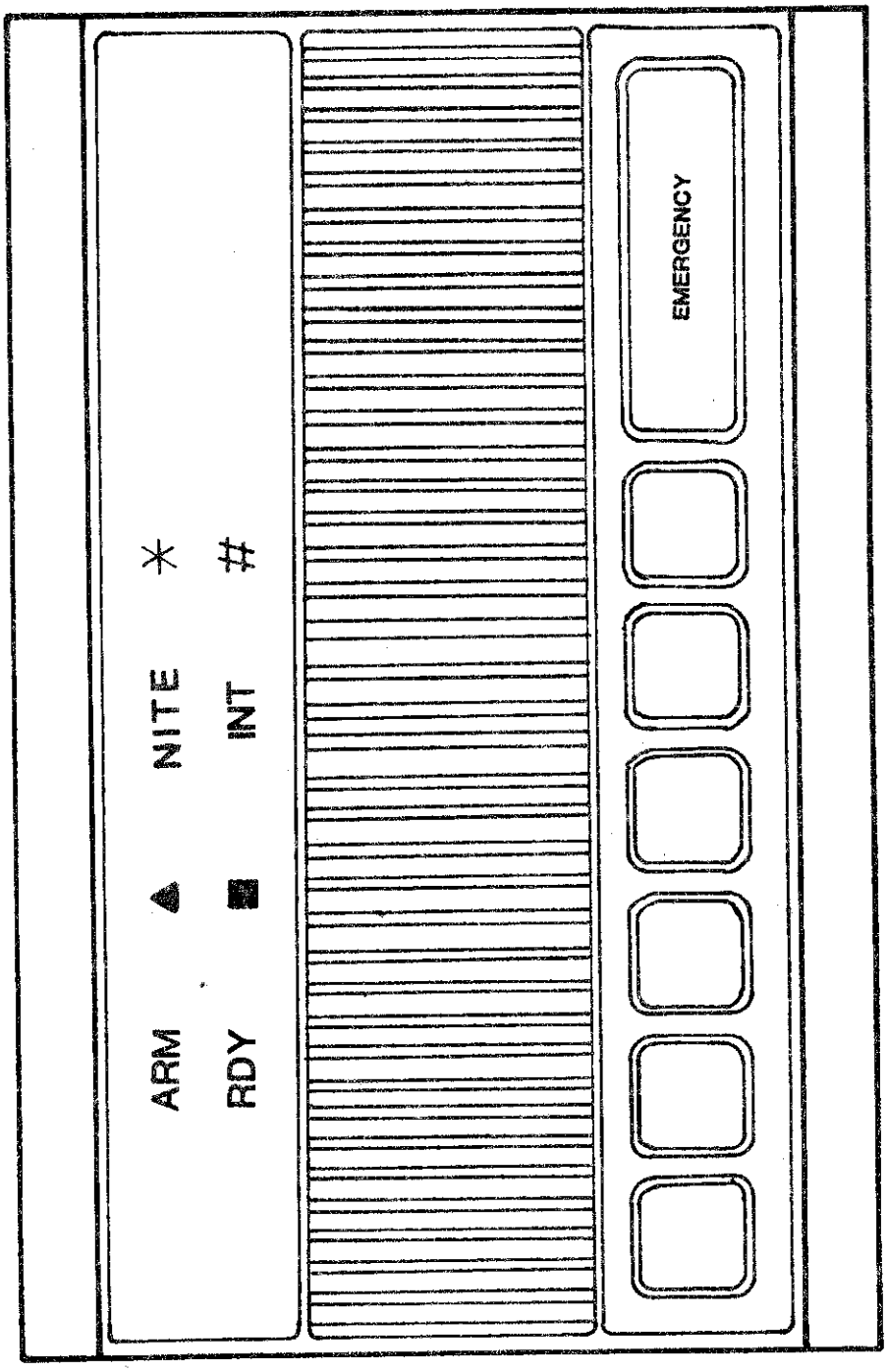
System armed (Arm light)

Interior protection on or engaged (Int light)

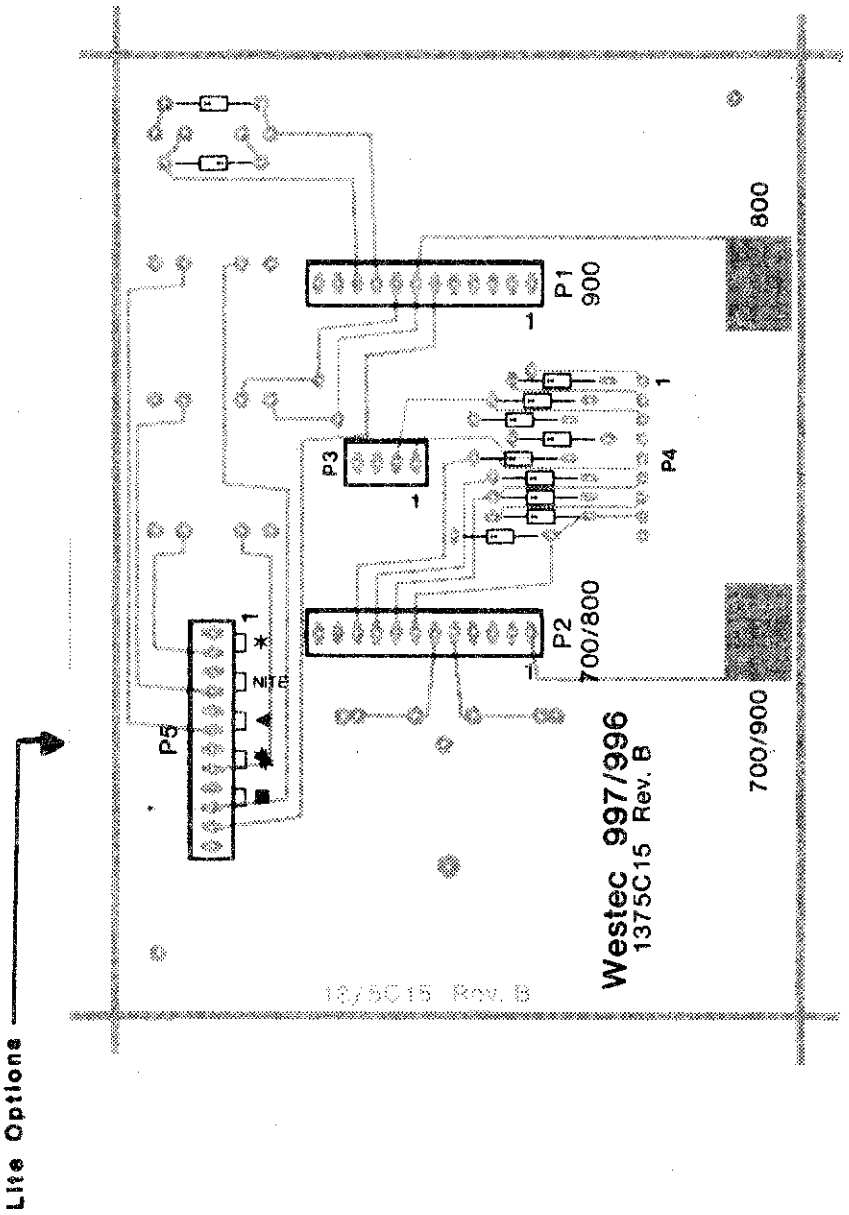
The 766 can handle only a combination of eight (8) ON/OFF devices (797,997,992,989).

997

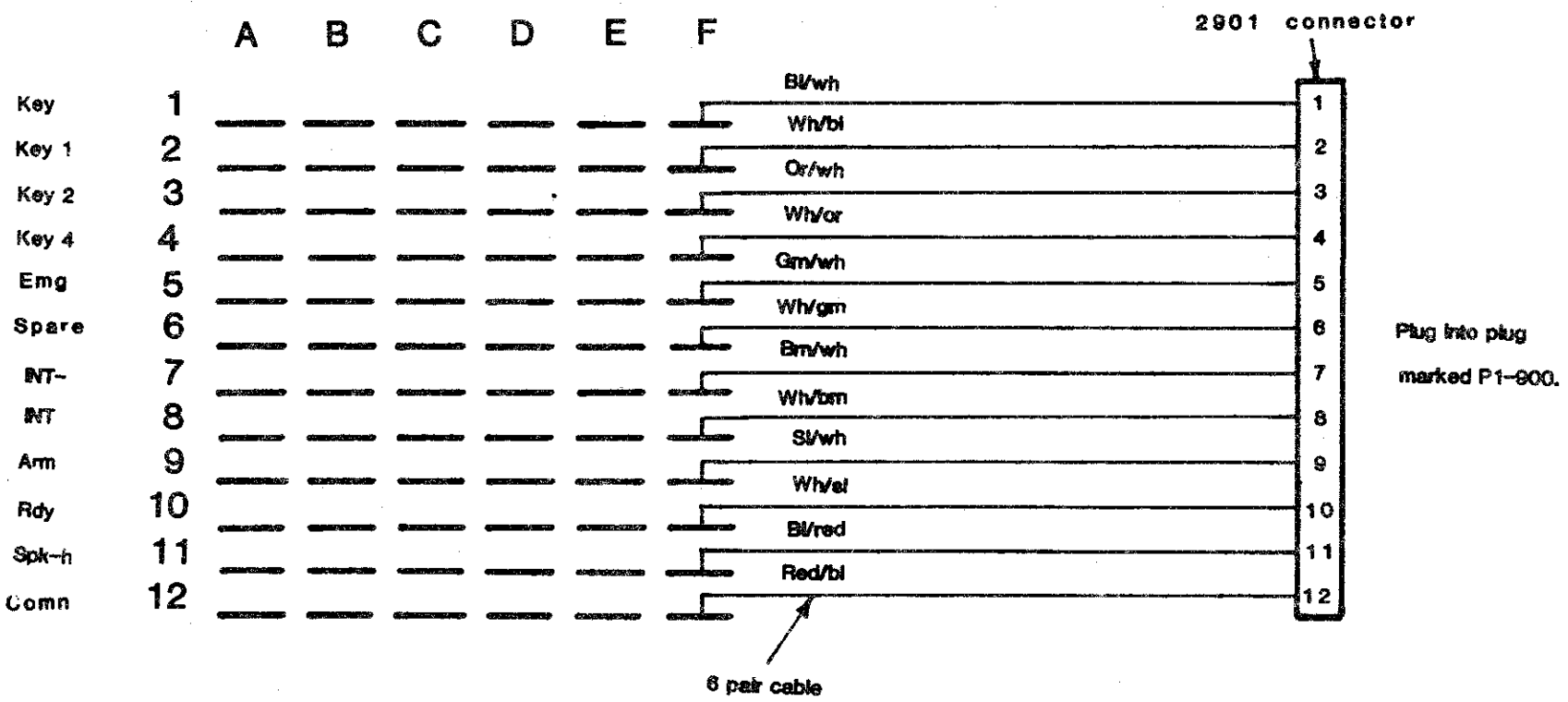
FRONT VIEW

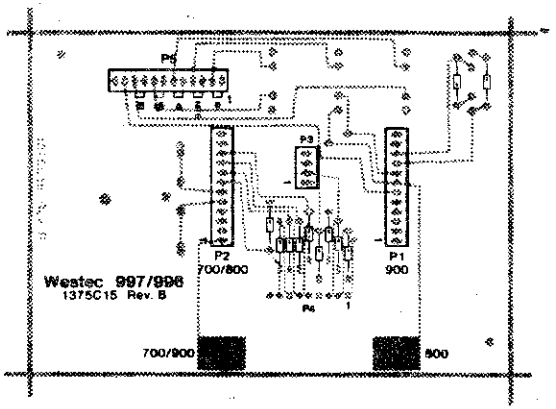


997 / 996 BACK VIEW



997 Hook-Up TO 743





989/992 OUSIDE TOUCH PAD (OTP)

This terminal is used to arm and disarm the system from outside the home. It is normally placed at the front entrance and contains 3 lights which show alarm status.

Green	System ready to arm
Red	System armed
Yellow	Interior Engaged

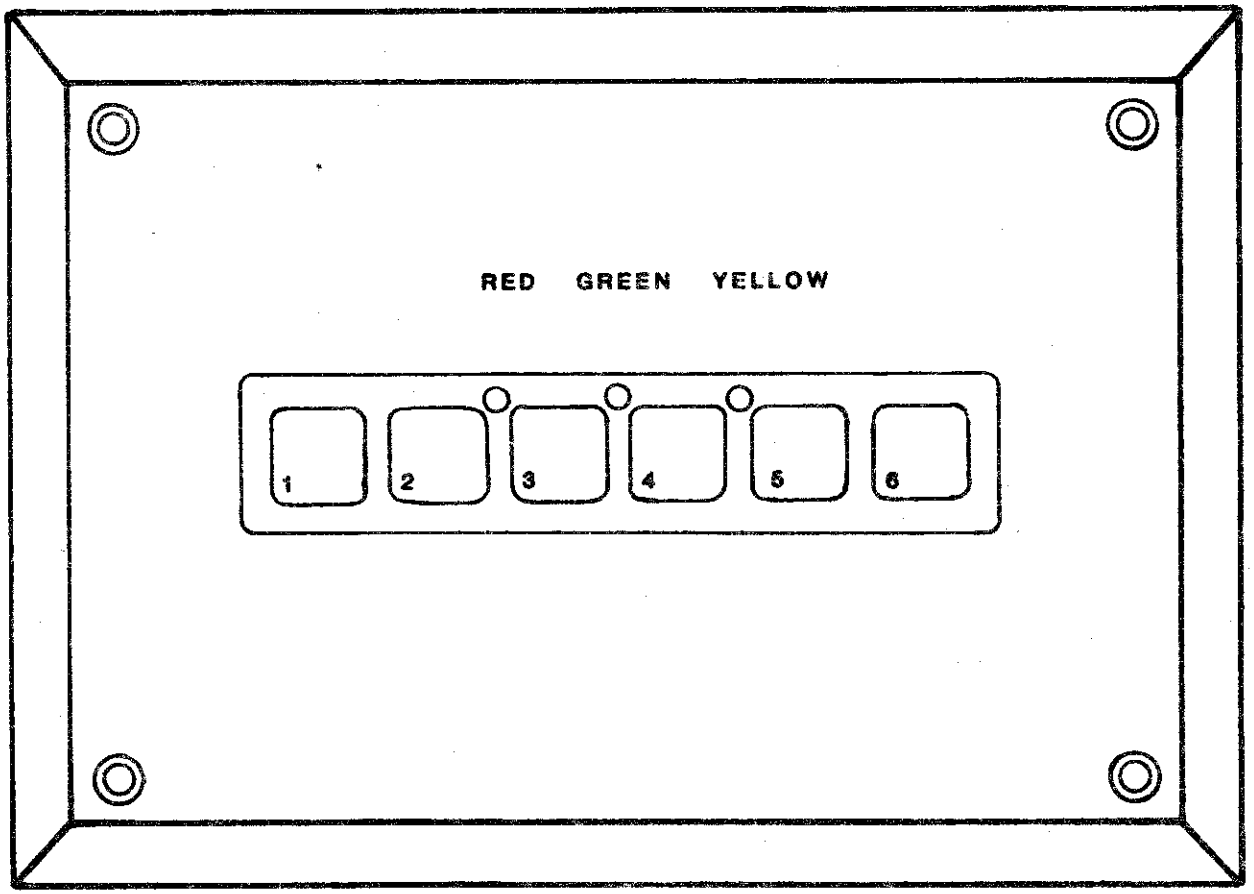
As each digit of the arm code is entered on the touch pad, the yellow light will blink to indicate that the digit has been accepted properly. When the completed code has been entered the red light will be "ON".

If an error is made in entering the code, wait 2 seconds and then re-enter your correct Arm/Disarm code.

There are two sizes of this terminal available. The narrow faceplace allows for installation in "hard to fit" areas.

989

FRONT VIEW

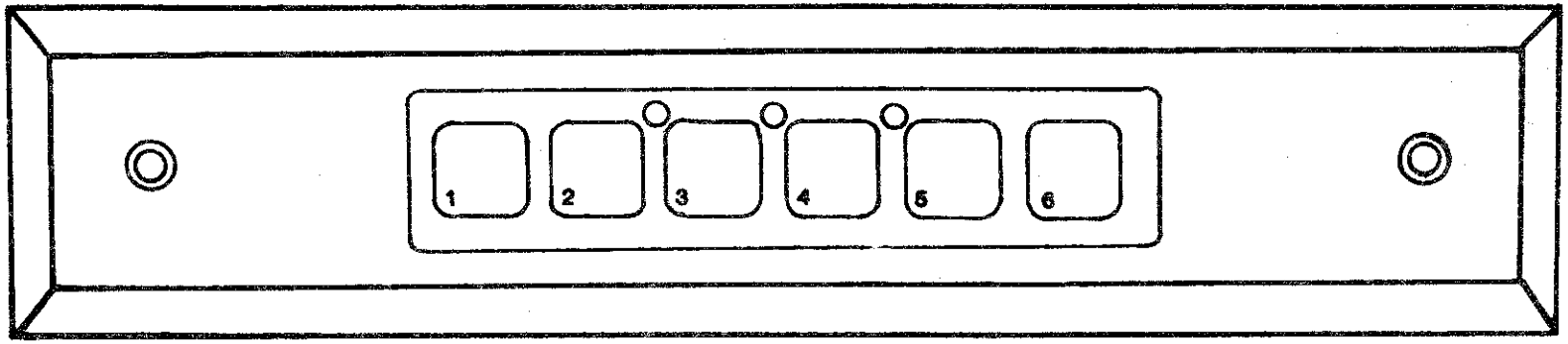


NOTE: NUMBERS AND LETTERING SHOWN ON PLATE ARE FOR REFERENCE ONLY.

992

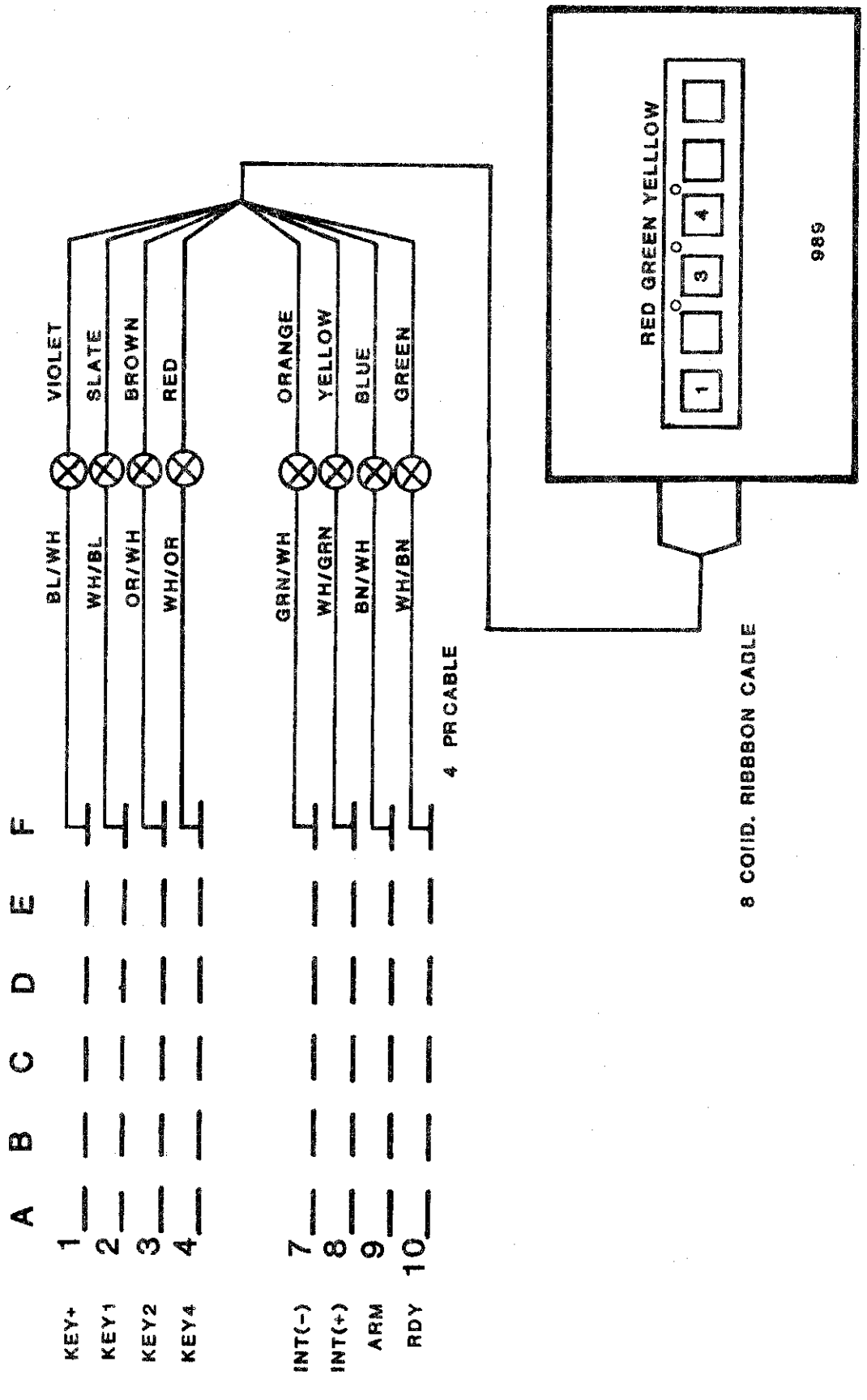
FRONT VIEW

RED GREEN YELLOW



NOTE: NUMBERS AND LETTERING SHOWN ON PLATE ARE FOR REFERENCE ONLY.

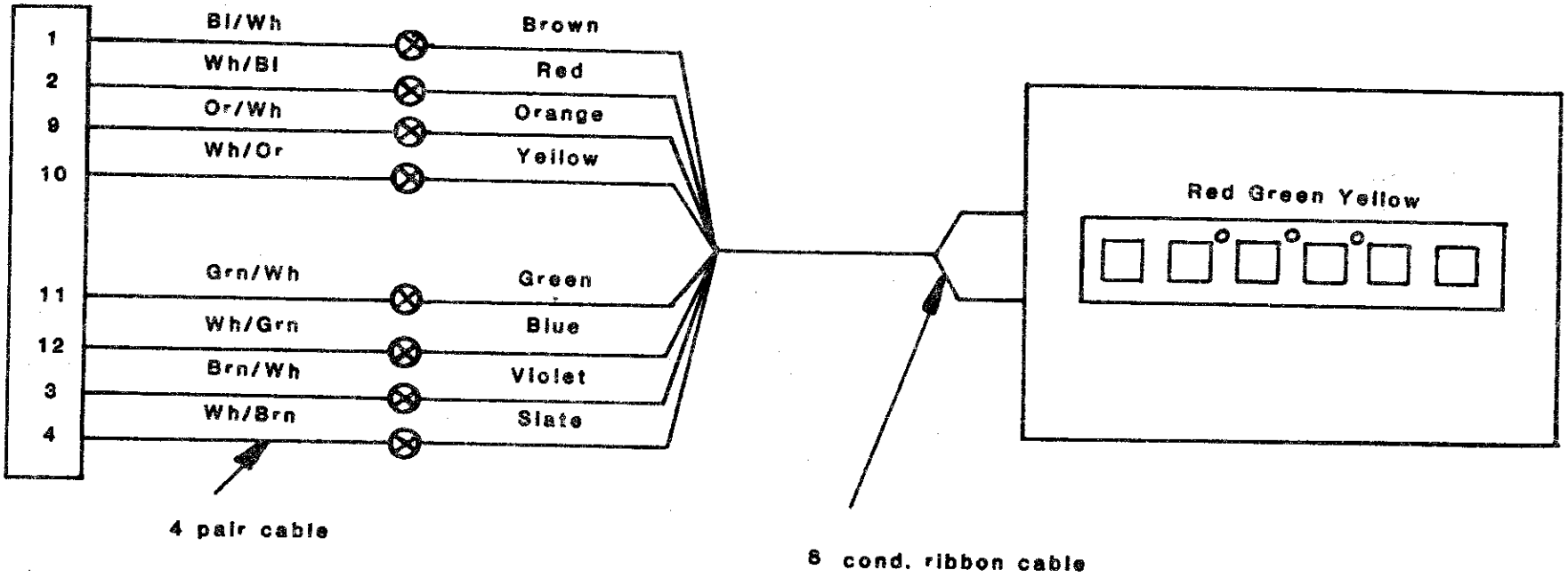
989/992 HOOK-UP TO 743



989/ 992 Hook-Up To A 997

2901

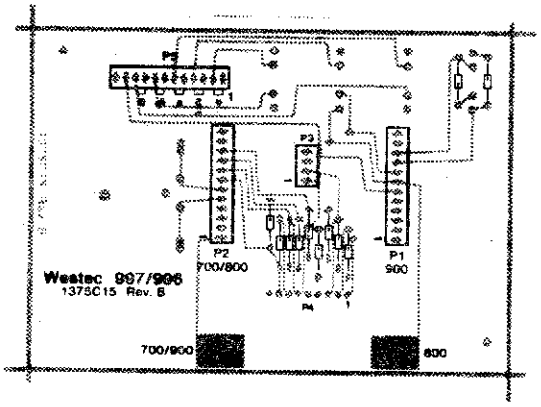
Connector



2.3.5

Plug into P2 Plug

On 997



TM0097

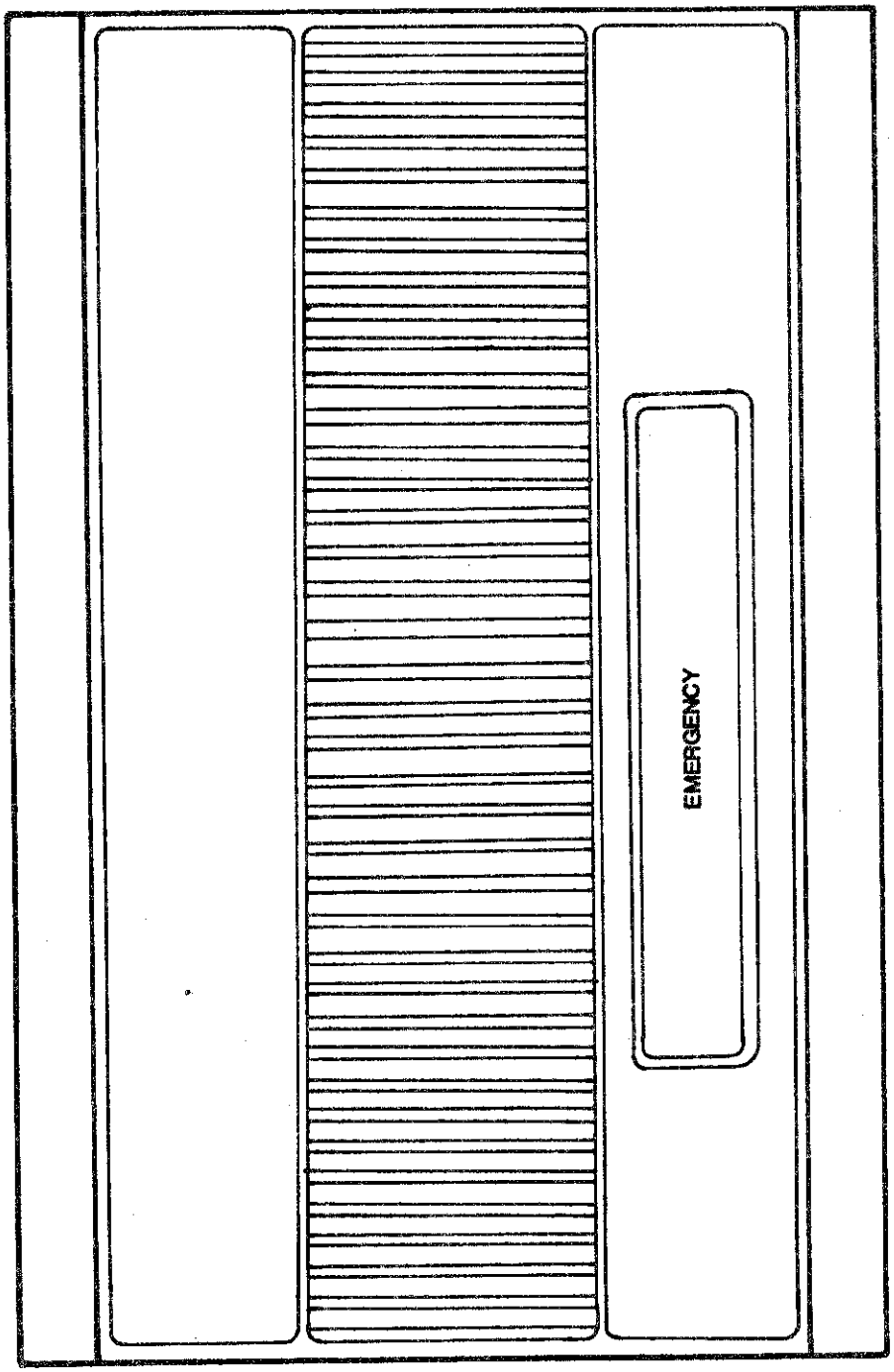
EMERGENCY MODULE 996

The emergency module is a remote unit that can be placed at various locations throughout the home. By depressing the touch pad within the red area, the emergency function is activated.

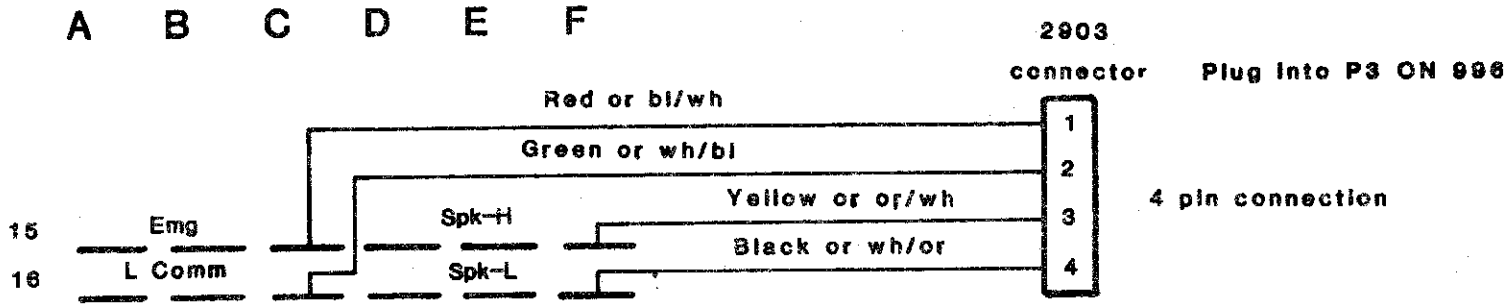
In the event of any alarm, the system will emanate a distinct sound for the particular alarm.

996

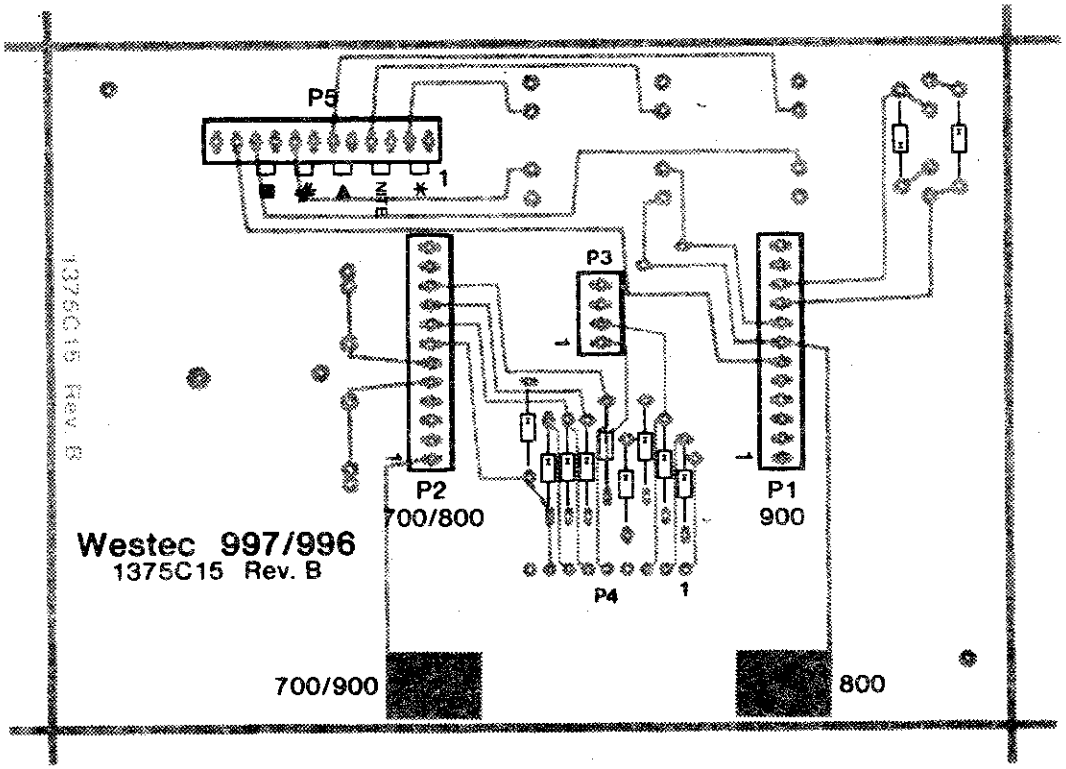
FRONT VIEW



996 Hook-Up TO 743

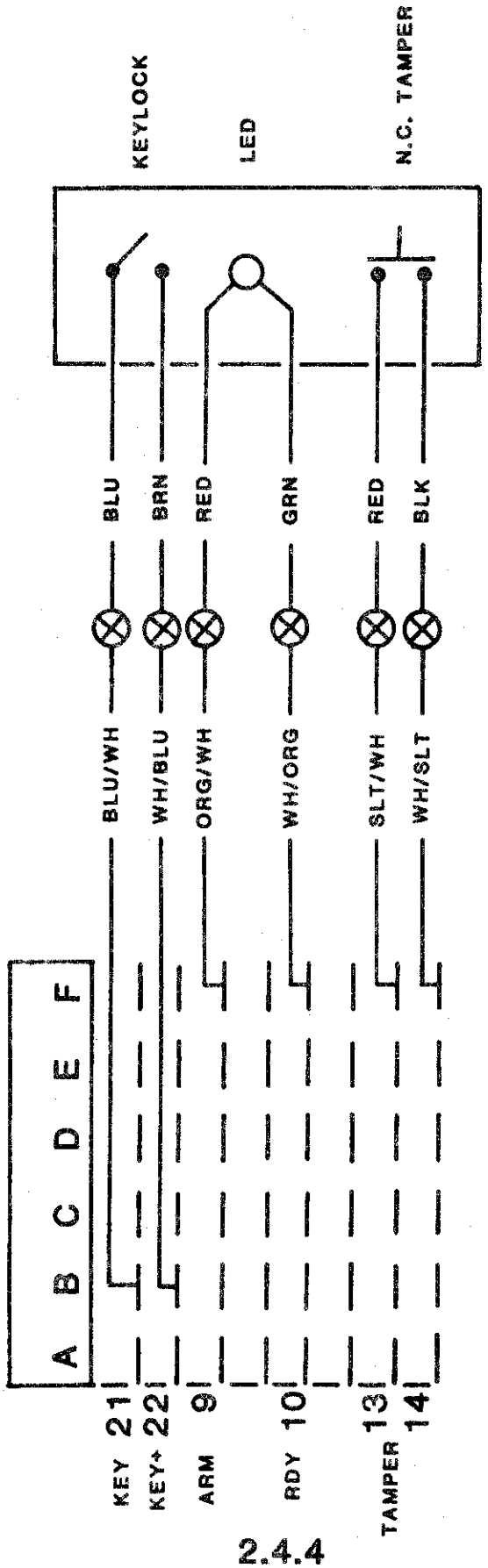


2.4.3



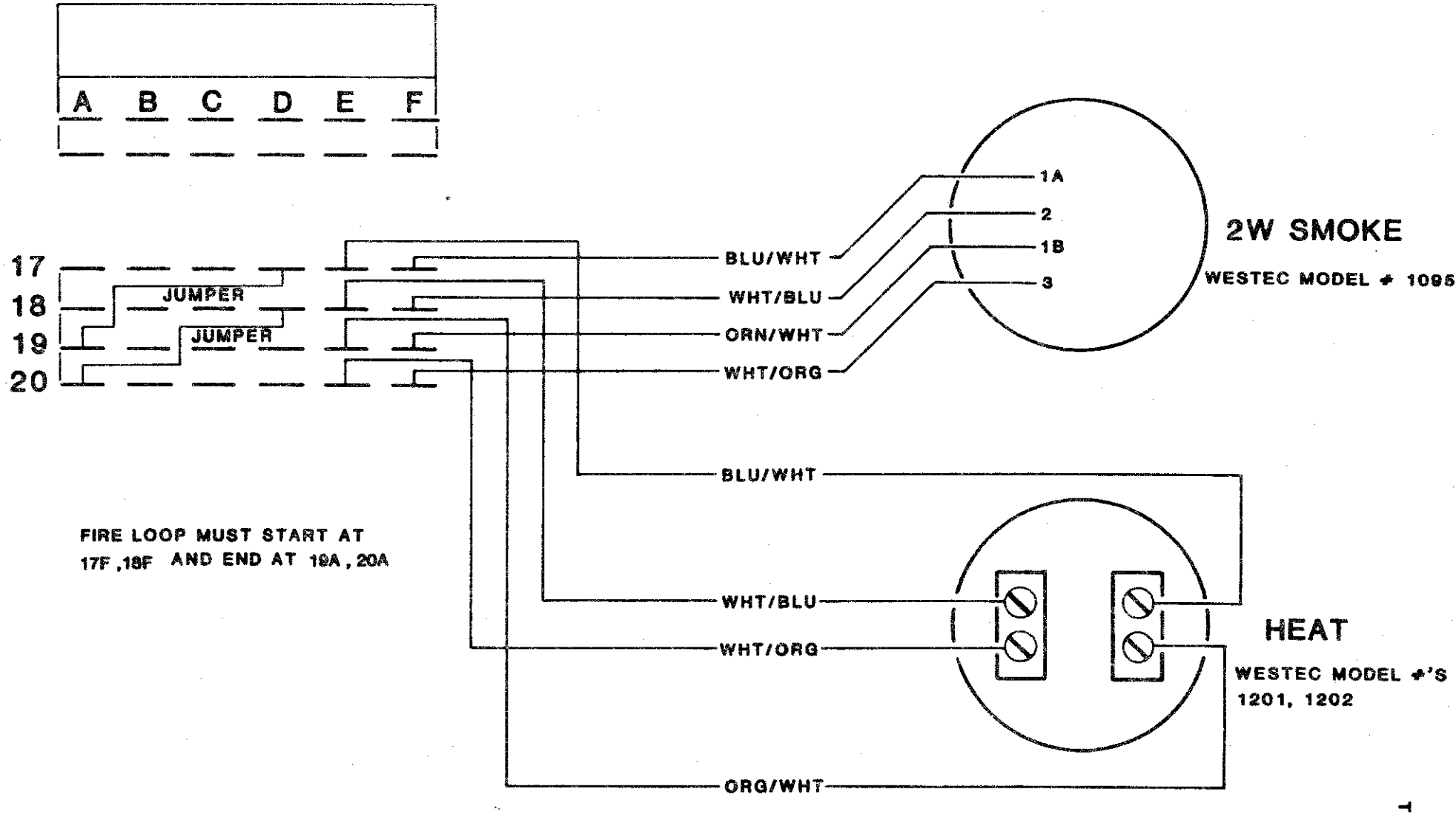
TM0059

KEY LOCK HOOK-UP



2.4.4

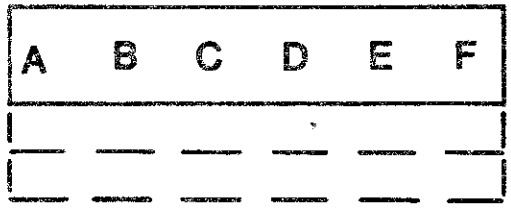
2W FIRE HOOK-UP



FIRE LOOP MUST START AT
17F, 18F AND END AT 19A, 20A

TM0049

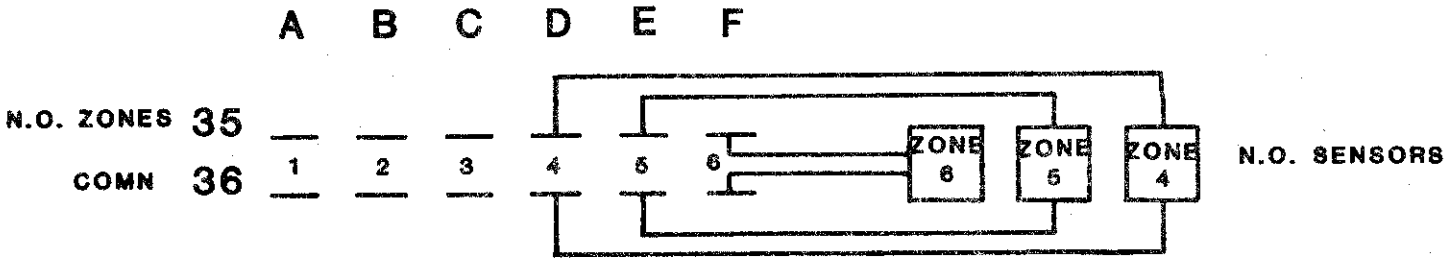
N.C. TAMPER HOOK-UP



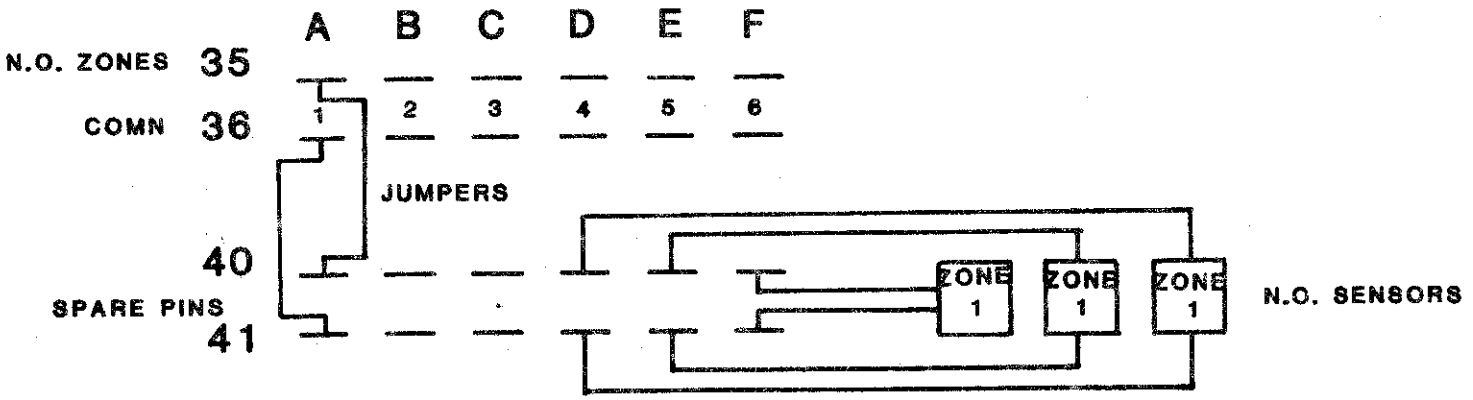
TAMPER LOOP MUST START AT 13F AND END AT 14A.

N.O. HOOK-UP ON 743 P.B.

SINGLE N.O. SENSOR PER ZONE

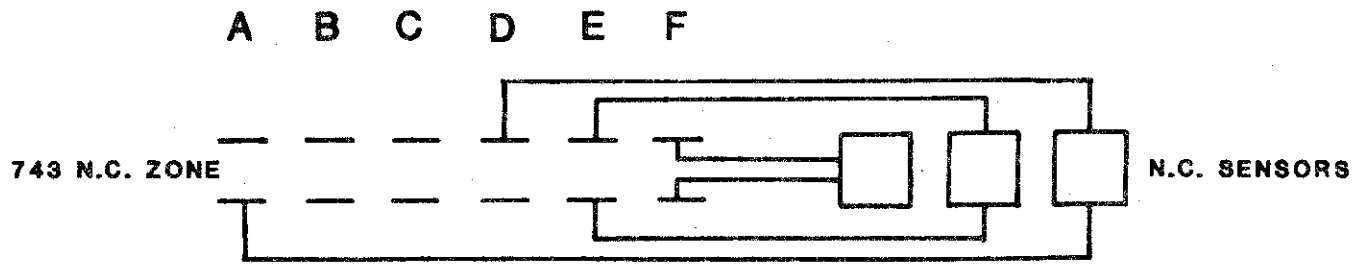


MULTIPLE N.O. SENSOR'S ON A ZONE

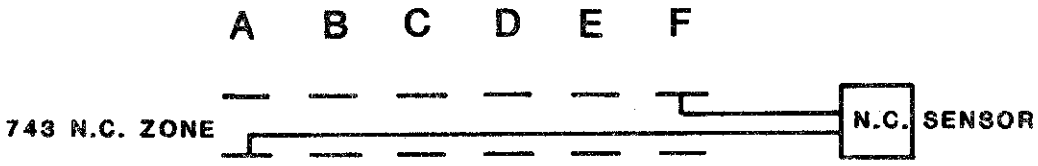


NOTE: N.O. AND N.C. SENSORS CAN BE MIXED ON THE ZONES.

N.C. CIRCUIT HOOK-UP ON 743



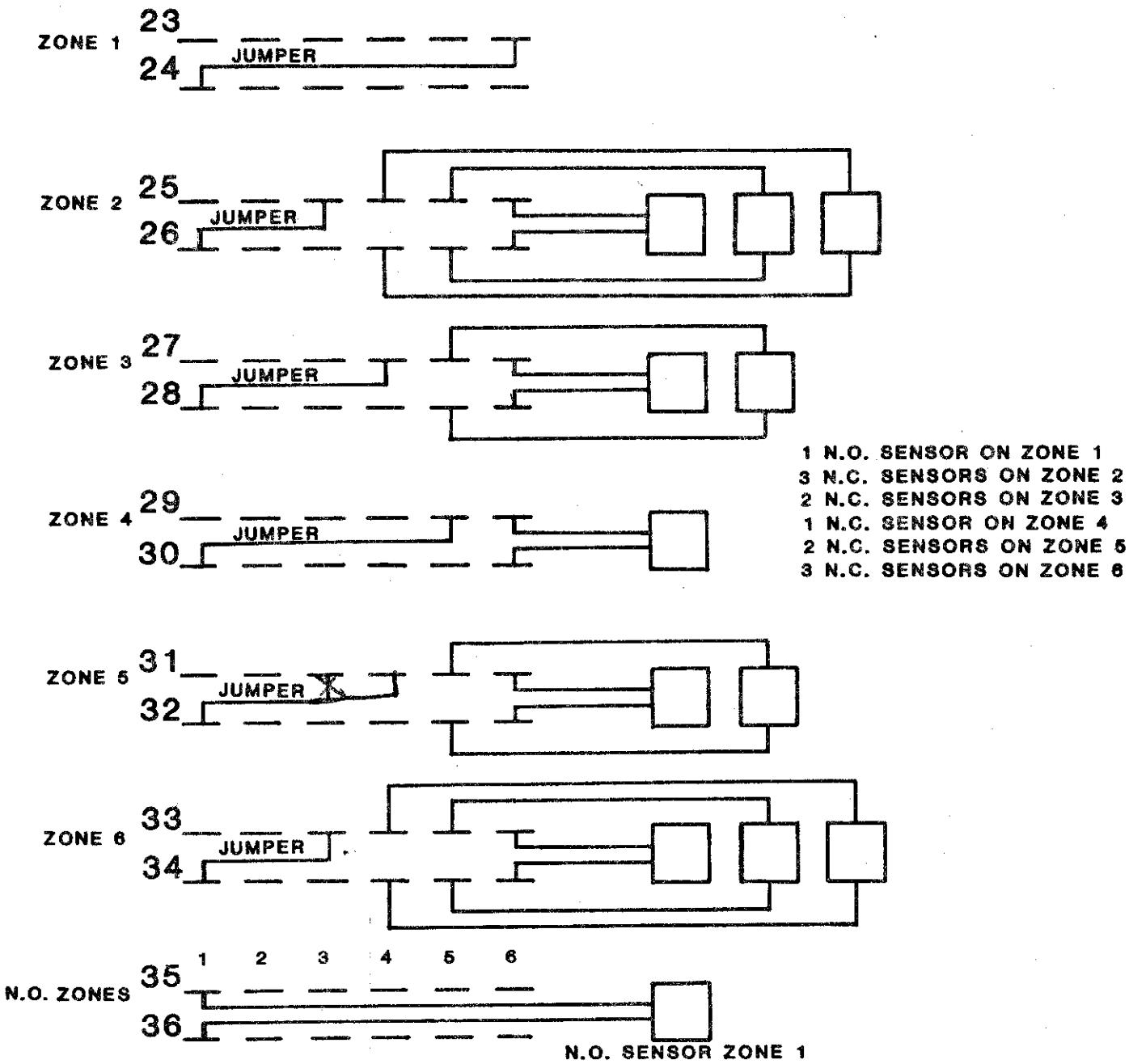
ZONE STARTS AT F AND ENDS AT A



NOTE 1: UNUSED OR ZONES USED FOR N.O. ONLY MUST BE JUMPED OUT.

NOTE 2: N.O. AND N.C. CAN BE MIXED ON THE ZONES.

TYPICAL BURG HOOK-UP ON 743

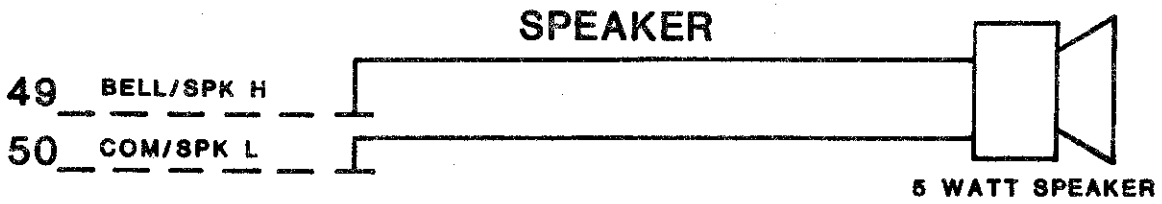


NOTE 1: UNUSED OR ZONES USED FOR N.O. ONLY MUST BE JUMPED OUT.

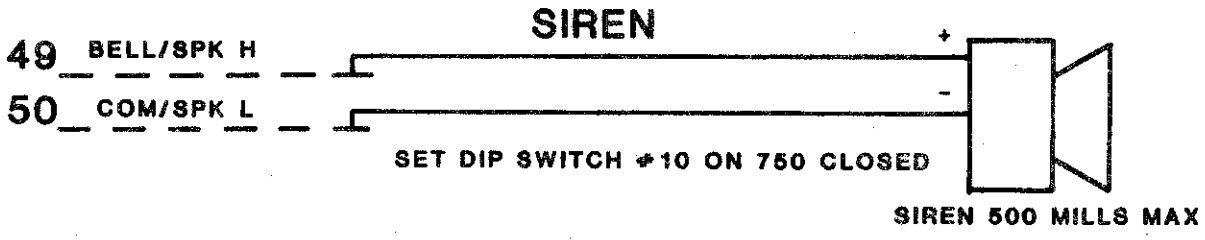
NOTE 2: N.O. AND N.C. SENSORS CAN BE MIXED ON THE ZONES.

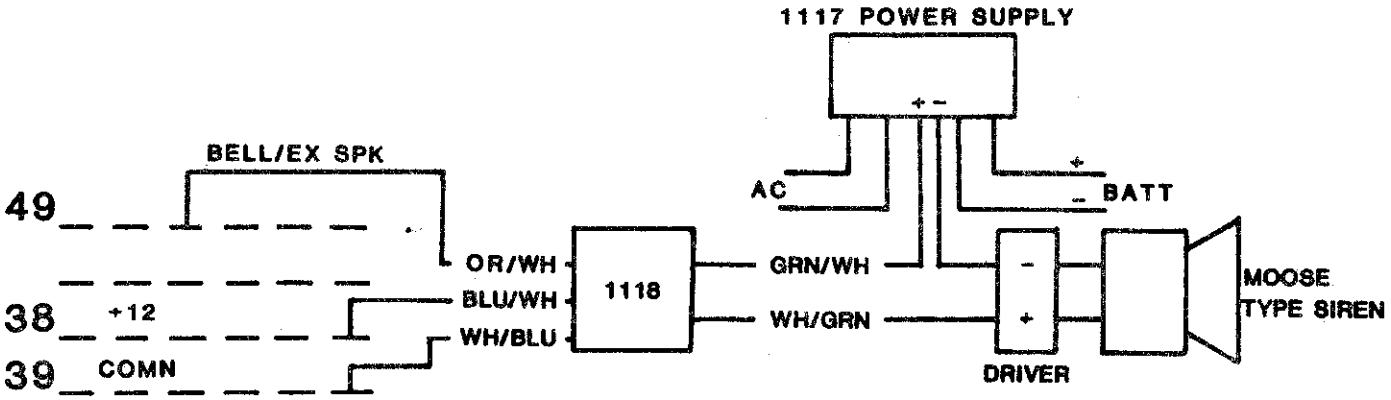
NOTE 3: ZONE 3 AND ZONE 4 CAN BE SELECTED FOR ENTRY / EXIT OR INSTANT OPERATION.

SIREN/SPEAKER HOOK-UP

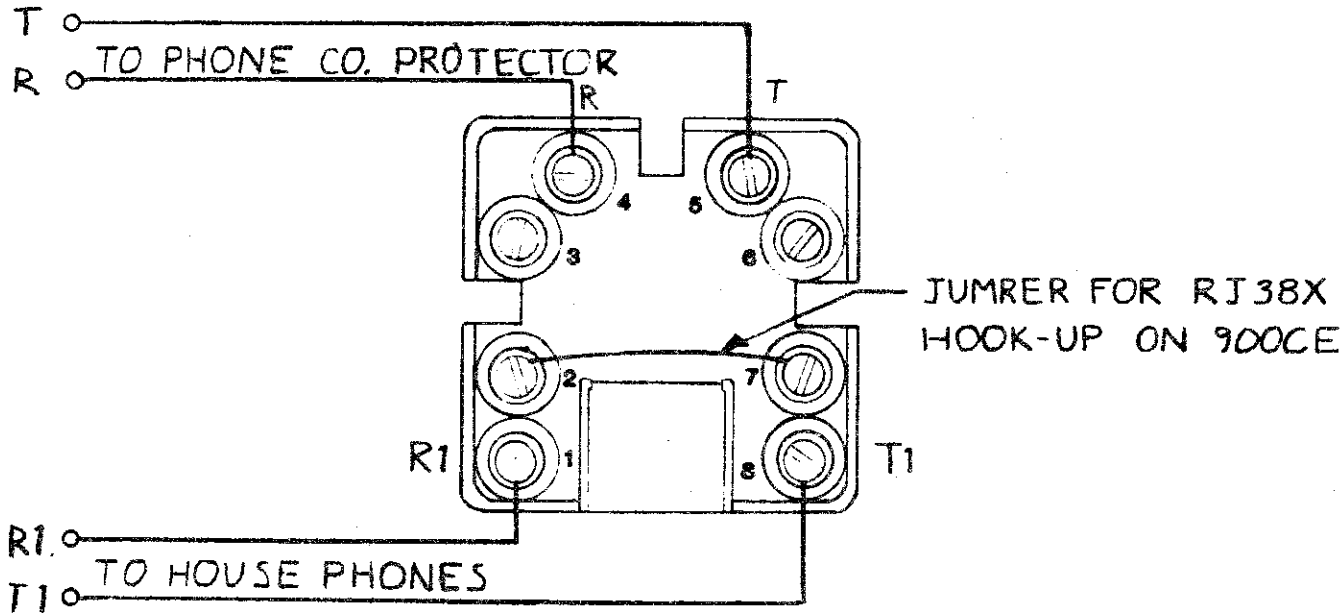


SET DIP SWITCH # 10 ON 750 OPEN

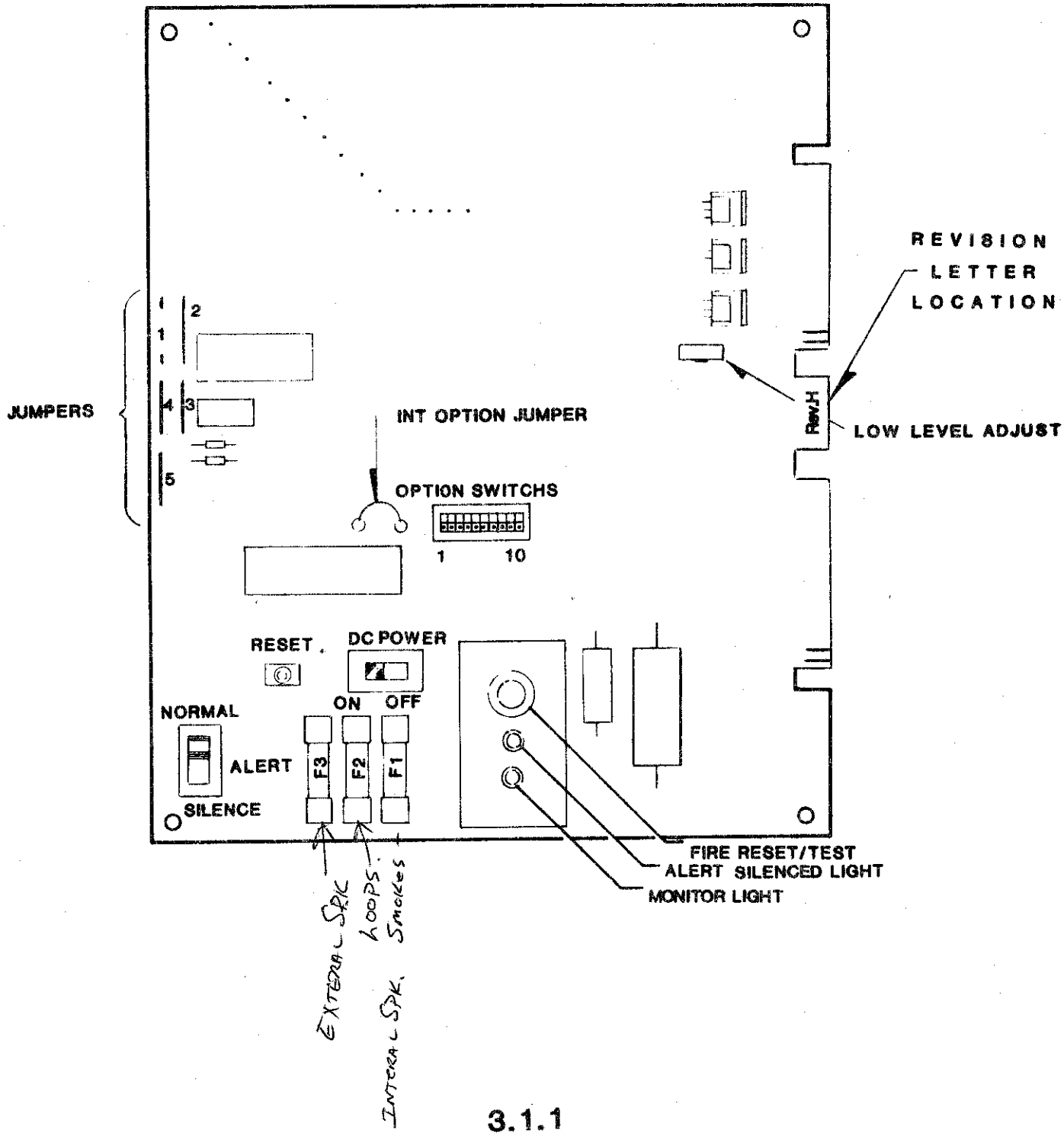




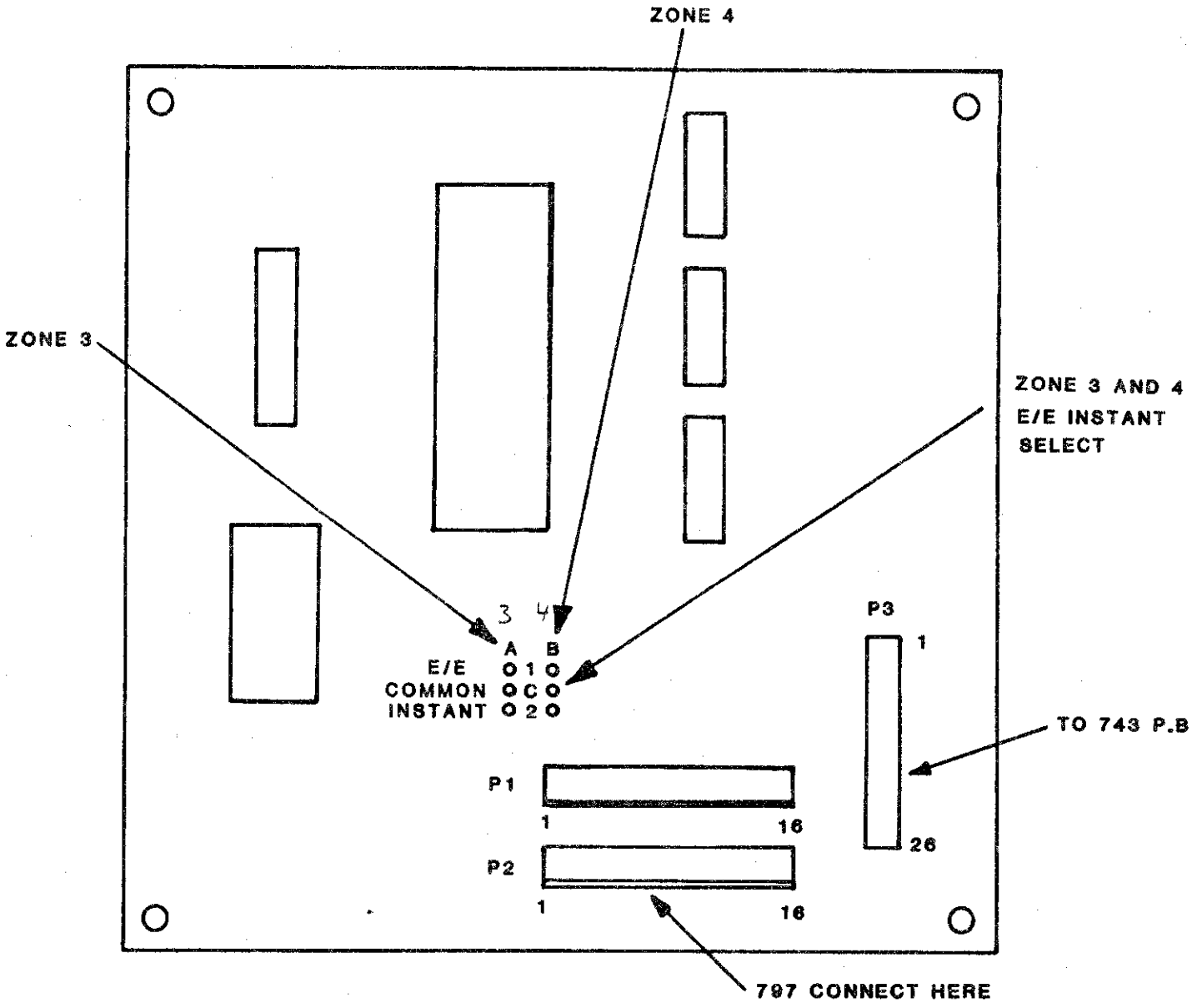
RJ 31/38 JACK
PART #AA635A1
WESTEC PART #2395



750 LOCAL ALARM



751Z



NOTE: SET JUMPERS FOR E/E OR INSTANT OPERATION

EXAMPLE:  ZONE 4 IS E/E, ZONE 3 IS INSTANT

ONLY SELECTS WHAT ZONES ARE E/E

AMOUNT OF TIME IS SELECTED BY A DIP SWITCH
ON 750 BOARD (SEE PAGE 3.1.5)

POWER REQUIREMENTS

The model 750 is powered from a U.L. listed Class 11, 16.55 volt 34 VA transformer that plugs directly into a conventional 120 volt AC, 60 Hz wall outlet. This transformer provides up to 2.5 amps of current at 12 volts DC. This power is sufficient for the 750, its accessories and the charging current for one battery.

Figure 3.1.1 shows a representation of the printed circuit board of the 750. This printed circuit board contains the switches, fuses and indicators needed to set-up, monitor, reset and protect the system.

Figure 3.1.2 shows a presentation of the printed circuit board of the 751 (Zone Board). The printed circuit board contains the jumpers needed to select zones 3 and 4 for Entry/Exit or Instant Operation.

MONITOR LIGHT

The monitor light is normally on and will remain so unless one or more of the following occurs:

AC power failure (light off)
DC power failure (light off)
Fire Loop "Trouble" (light off)
Communicator communicating (light blinking)

ALERT SILENCED LIGHT

This light is used to indicate the status of the Trouble/Alert switch. If the Trouble/Alert switch is in the "Normal" position the Alert Silenced Light will be off. If the Trouble/Alert switch is in the Silenced position the Alert Silenced Light will be on.

Fire Reset/Test Switch

This is used to perform the following functions:

Reset Smoke Detectors
Reset the Fire Circuit
Test the Fire Circuit
Test the Battery
Test the Digital Dialer

Fuse F1

This fuse provides over-current protection for all light and indicator outputs, smoke detectors, and the internal speaker outputs, 1/2 amp slo-blow #313 3AG with resistor.

Fuse F2

This fuse provides over-current protection for the accessories and alarm loops (2.5 amp).

Fuse F3

This fuse provides over-current protection for the external speaker output (2.5 amp).

Trouble/Alert Speaker Switch

This switch is used to silence the "Trouble" alert tone which will sound if the Fire Loop becomes defective. Moving the switch to the Silence position silences the "Trouble" alert tone and turns on the Alert Silenced position, the entrance alert and touch pad annunciator will also be silenced.

Reset Switch

The primary function of the Reset Switch is to erase a previously entered "Arm" and "Disarm" code so that a new set of codes may be entered. To program a new "Arm" and "Disarm" code proceed as follows:

1. Momentarily depress the Reset Switch
2. Go to the nearest model 797 or 997
3. Depress the digit desired for "Arming" (press once only).*
4. Depress in order, the four digits to be used for "Disarming".
5. The "Arm" and "Disarm" codes are now entered.

*NOTE: The "Arming" code must be two of the same digits (1 thru 6) for the homeowner. Example: 11, 33, 66. However, when programming a new "Arm" code, only the first digit is depressed. Example: If the homeowner code is to be 33, depress 3 once and then proceed to the disarming code. The second digit of the arm code is automatically entered by the unit's built-in program.

Option Switches 1 through 10

The modes of operation in which the Model 750 can be configured to operate are many and varied. Each switch and the mode of operation it provides are described in the following paragraphs. NOTE: When the rocker of each individual switch is depressed in the direction of the word "open" the switch will be off. In the opposite direction it will be on.

Switch (1) Reset/Shutdown (All Channels)

The reset and shutdown options are integrated and cannot be controlled separately. This means that you cannot select just reset or just shutdown, if you select one you are selecting both. Switch (1) is used to select reset/shutdown, for all channels.

The two modes in which the 750 may be configured for reset/shutdown are stated in the following:

All channels reset and shutdown
Switch (1) open.

No channels reset or shutdown
Switch (1) closed.

Switch (2) and (3) Exit/Entrance Delay

There are three times available for the Exit/Entrance Delay which are selected using combinations of switches (2) and (3). Position these switches for the different times as stated in the following:

Switch 2	Switch 3
15 Seconds = open	Switch = open
30 Seconds = closed	Switch = open
60 Seconds = open	Switch = closed

Switch (5) Opening/Closing Reporting

If you wish to report to the Cental Station whenever the system is "Armed" or "Disarmed" (opening/closing), place switch (5) in the open position. If you do not want these reports, place switch (5) in the closed position.

NOTE: The model 750 will report a code 9 for "opening" (Disarming), code 4 for "closing" (Arming). Also cut jumper 5 from the dialer options.

Switch (6) and (9) Digital or Mechanical Key

For Digital Key, Option Switch (6) must be open and Switch (9) must be open. To use Digital or Mechanical Key, Switch (6) must be closed and Switch (9) must be closed.

Switch (7) Silent Emergency Alarm

If it is desired to have the Emergency Channel silent (no audible alarm), move Switch (7) to the closed position.

Switch (8) Reset/Shutdown Time

Switch (8) is used to determine the amount of time the model 750 will be in alarm before it will attempt to reset or if it cannot be reset shutdown. With Switch (8) in the closed position the reset/shutdown time will be 15 minutes, if in the open position, the reset/shutdown time will be 5 minutes.

Switch (9) (See Switch (6) Above)

Switch (10) External Speaker or Siren

If a speaker is to be used place Switch (10) in the open position. If an external siren is to be used, place Switch (10) in the closed position. CAUTION: BE SURE SWITCH (10) IS NOT IN CLOSED POSITION IF SPEAKERS ARE CONNECTED, NOTE: Do not use bells.

Standby Battery 12V 6-amp Hour

The rechargeable battery is a sealed, electrolyte battery. Maximum charging rate of a fully discharged battery is 700 ma. Nominal trickle charge current is 5 ma. One set of battery cables is attached to each 750 P.C. board for connection of battery.

CAUTION: Careful observation of polarity is important. The red wire goes to positive (+), black wire to negative (-). Connecting these wires in the reverse will result in damage to the 750.

Ready Light - "Rdy"

The "Rdy" light will be lit unless any of the zones are open.

System Armed Light - "Arm"

The system armed light will turn on when the "Arm" code is entered (provided the Rdy light was lit) and will turn off when the "Disarm" code is entered. When the system armed light is on it indicates that all the zones are active (except those that are shunted).

DIGITAL COMMUNICATOR

When activated, the communicator will dial the telephone number of the alarm receiver. When the receiver has answered the call, the communicator will transmit a three (3) digit location code (Account Number) and a one (1) digit alarm code.

The combination of the three (3) digit account number and one (1) digit alarm code is called a "code group".

The dialing and data transmission occur in the following sequence:

1. Channel input activation.
2. The communicator seizes the telephone line and listens (checks) for a dial tone.
3. Upon detection of a dial tone, the communicator will dial. If dial tone is not present the communicator will begin dialing after 24 seconds. During this time it will have attempted to clear the telephone line connection (anti-jam) by performing an on-line/off-line operation.
4. Acknowledge is received, indication that the alarm receiver has answered the call.
5. Data is transmitted.
6. "Kiss-Off" signal is received, indicating that the alarm receiver has decoded, compared, and displayed two (2) indentical "code groups".
7. If more than one alarm input is active, the next alarm "code group" will be transmitted. This will continue until all of alarms have reported and "kissed-off".
8. Final "kiss-off" after all alarms are reported causes the communicator hang-up (shutdown).

REPORTING

The communicator will report in the Silent Knight/Ademco format or the Sescoa/Franklin/DCI format.

The alarm codes transmitted by the communicator are as follows:

	SILENT KNIGHT/ ADEMCO FORMAT	SESCOA/FRANKLIN/ DCI FORMAT
Channel 1 (Intrusion)	Code 1	Code 3
Channel 2 (Fire	Code 2	Code 1
Channel 3 (Emergency)	Code 3	Code 2
Closing or Special	Code 4	Code 6
Abort	Code 5	Code 5
Low Battery	Code 8	Code 8
"Trouble" in the Fire Loop	Code 8	Code 8
Restore to Normal	Code 7	Code 7
Test	Code 9	Code 9
Opening	Code 9	Code 9

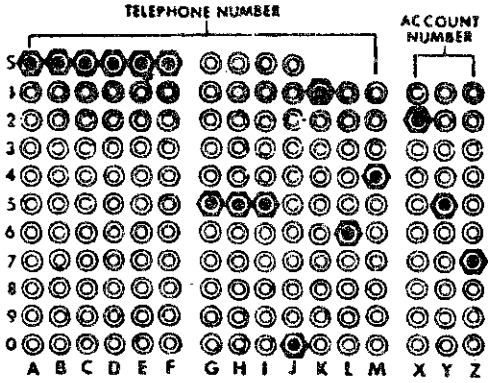
TABLE 1 - REPORTING CODE

OPTION	OPERATING CONDITIONS	ALARM SHUT-OFF BEFORE FIRST ACKNOWLEDGE	ALARM SHUT-OFF AFTER FIRST ACKNOWLEDGE BUT BEFORE FINAL ACKNOWLEDGE	ALARM SHUT-OFF AFTER FINAL ACKNOWLEDGE	TEST
1	Jumper 1 & 2 IN	5,5	1,1,5,5,	1,1	9,9,5,5
2	Jumper 1 CUT Jumper 2 IN	5,5, Dialer Hangs Up Redials 7,7	1,1,5,5 Hangs Up Redials 7,7	1,1, Hangs Up Redials at Reset 7,7	9,9,5,5 Hangs Up Redials 7,7
3	Jumper 1 IN Jumper 2 CUT (recommended)	1,1,5,5	1,1,5,5	1,1	9,9,5,5
4	Jumper 1 & 2 CUT	1,1,5,5 Redials 7,7	1,1,5,5 Redials 7,7	1,1 Redials at Reset 7,7	9,9,5,5 Redials 7,7

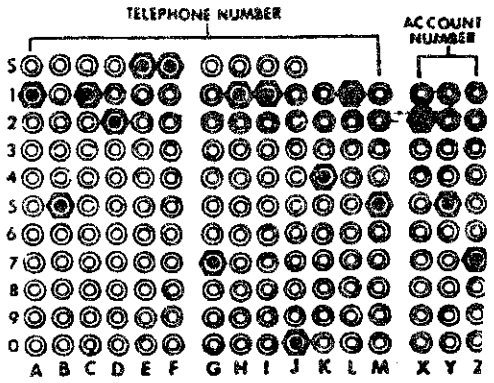
PROGRAMMING THE DIGITAL COMMUNICATOR

The communicator can be programmed to dial as many as thirteen (13) digits or as few as three (3) digits. Programming is as follows:

The central station telephone number and the client's account number are selected in the columns A through M and X through Z. If the usual seven (7) digit telephone number is used, it must be programmed in columns G through M. The account number is always placed in columns X, Y & Z.



EXAMPLE: 555-0164 Acct.# 257



EXAMPLE: 1-512-711-0415
Acct. # 257

If a telephone number containing more than 7 digits is used, the first digit must always go in column A. The last digits go in columns G through M.

DIGITAL DIALER TELEPHONE LINE CONNECTION

Before connecting this device the telephone company must be notified and provided with the following information:

a) Manufacturer - Silent Knight
b) Model Number: 2620
c) F.C.C. registration number : AC 698R-69183-AL-R
d) Ringer equivalence - O.OB
e) Type of jack (to be installed by the telephone company) - RJ31X

NOTE: The telephone company must also be notified if this device is permanently disconnected!

This device may not be directly connected to coin phone or party line services.

The telephone company, under certain circumstances, may temporarily discontinue service and/or make changes in its facilities and services which may affect the operation of this device; however, the telephone company is required to give adequate notice in writing of such changes or interruptions.

This device cannot be adjusted or repaired in the field. In case of trouble with the device return to:

WESTEC SECURITY PRODUCTS, INC.
11842 Monarch
Garden Grove, CA 92641

PROGRAMMING

Check that the 6 zone jumpers, fire and tamper jumpers are in place. Switch the DC power switch "on". Rdy LED on 997 begins blinking.

You now have approximately one minute to program the Arming/Disarming codes. If you do not enter these codes, the 750 will automatically program itself to a default code of a digit (5) for arming and digits 1-2-3-4 for disarming. The 750 will also attempt to arm itself at this time. If it cannot arm because an input is active it will immediately go into an intrusion alarm. To program the arm and disarm codes proceed as follows:

A. Go to the 997 and press the digit desired for arming (press only once.)* Each time a digit is pressed the speaker will emit a momentary tone. NOTE: The arming digit may be used in the disarm code, but not twice in sequence.

B. Press, in order, the four digits to be used for disarming. Rdy LED stops blinking. Codes are entered.

*NOTE: The "Arming" code must be two of the same digits (1 thru 6) for the homeowner. Example: 11, 33, 66. However, when programming a new "Arm" code, only the first digit is depressed. Example: If the homeowner code is to be 33, depress 3 once and then proceed to the disarming code. The second digit of the arm code is automatically entered by the unit's built-in program.

GENERAL SYSTEM DESCRIPTION (Inputs)

Intrusion Inputs (Channel 1)

The intrusion channel receives inputs from 6 burglary zones and the tamper loop. The following paragraphs describe these inputs.

Instant Zone Inputs - Zones 1,2,5,6

The instant zones accept either normally open and/or normally closed sensors as input devices. The instant is not a continuously active 24-hour circuit. The client arms or disarms this circuit at will.

Activation of an instant zone input sensor will not cause an alarm condition unless the instant zone is armed and not shunted. Conversely, one cannot arm the system unless the sensors are in their armed positions or unless shunted.

Exit/Entrance Zone Input - Zones 3,4

The exit/entrance zone accepts either normally open and/or normally closed sensors as input devices. This zone is not active 24 hours a day, but is armed or disarmed whenever the intrusion circuit is armed or disarmed. Conversely, one cannot arm the system unless the exit/entrance sensors are in their armed positions.

The exit/entrance zones contain the built-in alarm delay that allows clients a brief time to enter or exit the building without setting off an alarm. For example, to exit the building, the client arms the system and then has either 15, 30 or 60 seconds to close the exit door behind him as he leaves (refer to switch options (2) and (3), page 3.1.4 for delay time selection). If the delay time expires before the exit door is closed, the intrusion alarm sounds.

NOTE: Zones 3 and 4 can be switched to the instant loop with jumpers on the 751 zone board.

Tamper Loop Input

The tamper input sensors are normally closed. The tamper input is active for 24 hours a day whether the burglary system is armed or not armed. The RJ31X tamper is permanently wired into the circuit. A jumper must be placed on TB1-1 if RJ31X cord is not connected.

Shunting

All 6 zones can be shunted only from the 797 RT. When any zone is shunted, the Int LED will go off. When the system is in the unarmed state and a zone is shunted, that zone indicator LED will be blinking. When armed the zone LED will go off, but the Int LED will stay off to indicate that a zone(s) has been shunted.

Fire Input (Channel 2)

The fire channel accepts input on a 24-hour basis to give early fire warnings. This channel is fully supervised and an alarm will automatically sound a warning if a wire in the loop is cut, breaks or is shorted to the system ground. The fire channel accepts normally open heat and/or smoke detectors as input devices. This channel is a latching circuit and stays active once activated by a momentary closure of an input device. This circuit will accept 2 wire smoke detectors.

Emergency Input (Channel 3)

The emergency channel input is also active on a 24-hour basis, and is a latching circuit. The input devices on this channel are normally open. Typical use of the Emergency channel is to summon immediate medical attention, or to call for help in some other emergency.

Special Input (Channel 4)

The special channel input is active on a 24-hour basis, and is a latching circuit. It is also audible and no option is available to silence it. The input devices on this channel are normally open.

GENERAL SYSTEM DESCRIPTION (Outputs)

The following paragraphs describe the alarm outputs and the power supplied to each device in the circuit. The output circuitry is current-limited and fused to prevent disabling of the system by shorting the external wiring.

The 750 generates three distinct alarm tones. One for "Intrusion", one for "Fire", and one for "Emergency and Special".

Internal Speakers plus Alert

The Internal speaker output generates a pulsed output for driving the internal speakers such as is on the Model 997. This output also generates the Entrance Alert tone, the Fire "Trouble" tone and the Touch Pad Annunciator tone. The pot on the 750 board adjusts this tone only.

External Speakers or Siren

The External speaker output generates the alarm tones for use with a speaker or, if a siren is used, a steady or switched voltage (depending on which channel is in alarm). If a siren is used in the system, use only the 12 volt DC unit. The maximum current available is 1 amp.

System Alarm

This output provides a 12V DC, 50 Mill amp outputs alarm. Model 1118 timer signal relay and Models 8982, 8984 signal relays can be connected to this circuit.

System "Armed" Light Output

The system "Armed" output will provide a voltage whenever the Instrusion is "Armed". This output will pulse if the system is "Armed" and the Intrusion channel is violated. It will remain pulsing until the system is disarmed.

Ready Light Output

The Ready Light output will provide a voltage whenever the 6 zones to the Intrusion channel are in their normal (not active) state. If using the Digital Key, this output will be pulsing whenever the Model 750 has not been programmed for the "Arming" and "Disarming" codes.

Int LED

The Int LED, when on, indicates that all zones are active and would cause an alarm if activated. The Int LED will go off when any of the zones are shunted.

ZONE OPERATION	Light(s) Off	Light(s) Blinking	Light(s) On
Status Condition (UNARMED)	Zones ready to be armed	Zone(s) has been bypassed and is no longer in system	Zone(s) is not in proper condition for arming
Status Condition (ARMED)	System armed	Not applicable	Not applicable
Status Condition (ALARM)	Not in alarm	Sensored area has been violated (To reset: depress 3,3,3	Not applicable
Status Condition (INTERIOR LIGHT)	One or more zones intentionally bypassed by homeowner	Not applicable	All zones are protected

How to Bypass a Zone(s)

1. System must be in unarmed condition.

2. Depress circle on 797 inside push button terminal, then the appropriate zone(s) number you wish to bypass, and then the circle again. At that point, the zone(s) light(s) will flash indicating that the particular area(s) is now out of the system or bypassed.

3. If a mistake is made, enter 3,3,3 and start over.

How to Arm/Disarm Your System

ARM

Before attempting to arm the system make sure that the zone lights are off or flashing. When a zone light is off, it indicates that the sensored area is in its proper condition ready for arming. When a zone light is flashing it indicates the sensored area has been intentionally bypassed. If any of the sensored areas are not ready for arming (interior sensors blocked or doors open), the zone light will be on and the system cannot be armed.

Once your system is in a "ready to arm" condition, depress your custom TWO digit arming code. The arm light will be flashing which allows you to exit your home prior to the system going into the "armed" conditon. (This amount of time is pre-programmed into your system).

DISARM

Upon entering, an audible warning sound will immediately be heard indicating that you have a certain amount of time to disarm your system. This amount of time is pre-programmed into your system. If the system is not disarmed within this pre-programmed amount of time, your system will go into alarm. To disarm your system, depress your own customer FOUR digit code.

Protection While You Are Home

It is possible to have the external (perimeter) protective circuit active while having the internal circuit off, to allow free movement inside your home. To turn the internal circuit off, follow the instructions under Zone Operation.

In the event that your Westec security system is activated accidentally, it is important to abort (disarm) the alarm as soon as possible by entering the disrm code at the nearest Push Button terminal.

MODEL 766 INSTALLATION PROCEDURES

Installation of the 766 usually proceeds in two steps: (1) Pre-installation set-up of the 766 Control Panel, and (2) field wiring of the modules and accessories to 766 punch clock at the installation site.

Pre-installation set-up is usually done in the shop before going to the site. Pre-installation set-up includes the following steps.

1. Unpacking of the 766 components and the careful checking of them for damage. NOTE: Damage must be reported within 10 days to the carrier that delivered the system. Westec is not responsible for damage that occurs in shipment.

2. Selection of the Option switches 1 thru 10 (see the description of Option switches located on page 3.1.4 of this manual).

3. Optional shop-test of the 700 control Panel.

CAUTION: The printed circuit board of the 750 contains MOS microcircuit components that are subject to damage by electrostatic charges. The enclosure of the 766 and the protective wiring circuits protect these circuits in normal operation. But when the circuit board is being programmed for option selection, care must be taken not to touch the circuit board without touching a hand, or a metal tool, to the ground wire of the 766. This removes any charge that may have accumulated from walking across a carpet, etc.

INSTALLATION PROCEDURE

1. Mount 766 on wall.

2. Ground 766, you must use 14 guage or larger wire to nearest cold water pipe.

3. a) Make sure DC power switch is off.
   b) Make sure alert switch is normal.

4. Program phone and account numbers.

5. Set option switch and jumpers for designed operation.

6. Connect battery, observe polarity.

7. Connect AC to Punch Block.

8. Test unit: Note RJ31X cord tamper is prewired into the circuit board - the 750 will go into tamper alarm unless RJ31X is plugged in or jumper placed on TB1-1&2.
   a) Notify comm center that you are testing.
   b) Connect 797 to 751.
   c) Turn on DC power switch.
   d) Push arm code, then disarm code.

e) Push arm digit twice - Arm LED should turn on.
f) Push disarm code - Arm LED should go off.
g) Push arm digit twice - Arm LED should turn on.
h) Put a momentary short across the pins 35F and 36F, 750 should go into alarm. Let alarm ring until it reports a burglary, then reset with disarm code. Push 3,3,3 to reset zone LED.
i) Put a momentary short across pins 15A and 16A, unit should go into alarm. Let alarm ring until it reports an emergency, then reset with disarm code.
j) Put a momentary short across pins 17F and 18F, unit should go into alarm. Let alarm ring until it reports a fire, then reset with disarm code.
k) Put a momentary short across pins 21F and 22F, unit should go into alarm. Let alarm ring until it reports a special, then reset with disarm code.

TEST IS COMPLETE

9. Connect all controls and sensors, checking as you connect each one.

At least one smoke detector should be located near, but outside of, each sleeping area to meet the minimum requirements of the NFPA Standard for Household Fire Warning Equipment, NFPA 74-1974. When a fire system is installed in your home, your local fire authorities should be notified.

The following table lists various levels of protection as specified by the National Fire Protection Association:

Levels of Protection

Level	Detection Equipment Required	Where to be Installed	
		Smoke Detectors	Smoke or Heat Detectors
1	One or more smoke detectors plus additional smoke or heat detectors	To protect each separate sleeping area and at the head of each basement stairs	All other major areas and rooms or the living unit including basement
2	One or more smoke detectors plus additional smoke or heat detectors	To protect each separate sleeping area	Basement, kitchen, living room, bedrooms, attic, furnace (utility) rooms
3	One or more smoke detectors plus additional smoke or heat detectors	To protect each separate sleeping area	Basement, kitchen, living room, bedrooms, attic, furnace (utility) rooms
4	One or more smoke detectors	To protect each separate sleeping area and at the head of each stairway to occupied areas	Not applicable

For additional information you may contact one of the following agencies:

1. National Fire Protection Association
   470 Atlantic Avenue
   Boston, Mass. 02210

2. California State Fire Marshall
   7171 Bowling Drive, Suite 800
   Sacramento, Calif. 95823

CAUTION

Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows:

> A smoke detector installed in each separate sleeping area (the vicinity of but outside of the bedrooms), and heat or smoke detectors in living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages.

LEGEND: (S) Smoke Detector (H) Heat Detector

NOTE: If hallway exceeds 20 feet, multiple smoke detectors are necessary.

TYPICAL INSTALLATION PLAN

When a Fire Alarm is Triggered

The fire alarm system requires no arming. Once connected, it is always in operation as long as power is available, and once an alarm is sounded, it cannot be silenced by use of the TEST/RESET botton unless all sensors have cleared.

The alarm sound for a fire alarm is distinctly different from the burglary alarm sound.

Establish an Emergency Evacuation Plan

If a fire starts, each member of the family must know exactly what to do. Advise your customer of these simple steps to establish an evacuation plan for their family.

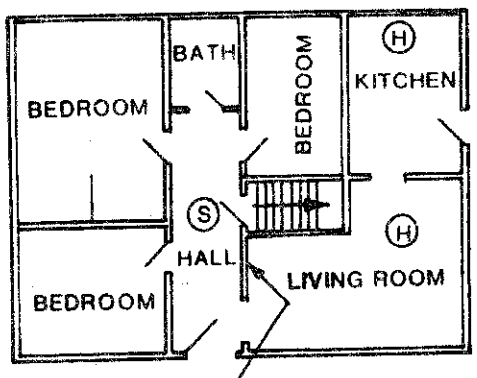
1. Survey all bedrooms and make certain that two escape routes are available for every family member. A ground floor window or a window opening onto a roof is a satisfactory second escape. Make sure the window opens easily and is easy to get through. If necessary, consider installing an escape ladder, cutting a door into an adjoining room or making other adjustments to make a second escape route available to everyone.

2. Make a simple drawing of each room, indicating the escape plan to be followed.

3. Explain the plan to each member of the family. Make certain that even very young children understand it.

4. Conduct fire drills for the whole family.

SINGLE STORY
TYPICAL INSTALLATION



TWO STORY
TYPICAL INSTALLATION