

### CONTROLS AND FEATURES

1. "Unit Busy" display
2. "Door Open" display
3. Name/number directory
4. Metal keypad
5. Instructions for use
6. P.O. lock door release (optional)
7. Remove screws (3) to access panels
8. System lock-in (prevents removal of panels)
9. Speaker
10. Microphone

### APPLICATION

TekTone®'s TE016M, TE030M, TE050M, TE100M and TE150M Series Telephone Entry Systems are automatic call and entry control systems. Units are provided with a relay output for controlling doors, gates, elevators or any device actuated by a contact closure or contact opening. The unit is a microprocessor-based device which when taken off the hook, will allow the entering of two (or three) digits then automatically dial the selected phone number that was programmed in memory. The unit has a built-in, switch-selectable, one or four-minute talk-time limit with warning tones at the end of talk time.

Entering a three-digit Tek-Entry Code, will turn on the primary relay output.

The unit will dial out either pulse (rotary) or Touch-Tone via an internal switch selection. While the unit is dialing, the

speaker is disconnected, keeping the dialed phone number confidential from the user.

The internal battery will operate the unit for a minimum of two hours with no AC power applied. The battery is NOT required for memory storage. The unit is supplied with a 16 VAC transformer which will operate the unit and recharge the internal battery ONLY. DO NOT CONNECT ANY OTHER DEVICES TO THE TRANSFORMER OR BATTERY.

Calling the unit from a Touch-Tone telephone will allow the user to control the output relay. When the unit is called, the unit will ring, go off hook and send a one second tone. Entering the proper password will allow access to the output relay.

## PROCEDURE

Installation of this unit requires coordination with your telephone company. It is recommended that a Touch-Tone line be installed to allow for faster dialing. If a Touch-Tone line is not available, the unit can be switched to dial-out plus (rotary).

The phone company will require the following information:

FCC Registration #: CPW 74F-63331-MT-E  
Ringer Equivalence: 0.2A/0.5B  
Connector: Standard RJ-11 jack

The desired location of the telephone jack must be given to the phone company at the time the phone line is ordered. See installation instructions section for further details.

## OPERATING INSTRUCTIONS

### Dialing A Programmed Telephone No.:

1. Observe the "UNIT BUSY" light on the front panel. If the light is on, wait until the light is extinguished.
2. Push the "\*" on the touch-pad and you will hear a dial tone in the speaker. Press the desired two (or three) digit number on the touch pad. Ten seconds are allowed to press the numbers. The speaker will go silent while the unit is dialing.
3. After the unit finished dialing, the phone will ring. When the called party answers, start conversation. If phone is busy, push "#" to hang up and try again later.
4. If entry is permitted the called party will push the designated number on the phone (touchtone 4,5,6, or 7; rotary pulse 6) to allow entry. When the designated number is pressed, the unit will disconnect and the "DOOR OPEN" light will appear. Hang up and enter.

### Accessing A Tek-Entry Code:

1. Press the desired three-digit Tek-Entry Code. Ten seconds are allowed to enter all three numbers.
2. If the number is valid, the "DOOR OPEN" light will appear and the entrance will unlock.

### Postal Lock Input:

The postal lock input provides a means of externally triggering the output control relay. A momentary connection between the violet input wires on J2 will start the timer sequence. This input is always active.

### Control of Output Relay:

The TE hands-free series has a form "C" relay output. The Rotary "6" decoding feature is valid only when the unit originates the phone call. The Tek-Entry Code will access this relay. NOTE: The use of the Touch-Tone control features are active whether the unit originates the call or the unit is called from another location.

When the unit receives a Touch-Tone "4, 5, 6 or 7" or a Rotary "6", the unit will activate the output relay for an adjustable time of three to 45 seconds.

When the unit receives a Touch-Tone "9", the unit will hang up with no change in the output relay.

### Received Touch-Tone Signal:

- 1: Ignored
- 2: Ignored
- 3: Ignored
- 4: Energize primary relay & hang up
- 5: Energize primary relay & hang up
- 6: Energize primary relay & hang up
- 7: Energize primary relay & hang up
- 8: Ignored
- 9: Energize secondary relay if installed and hang up
- 0: Ignored
- \*: Ignored
- #: Ignored

## INSTALLATION INSTRUCTIONS

1. The unit should be mounted approximately 66" above finished floor to the top of the unit.
2. To flush mount the unit, cut a hole the size of the housing in the wall and mount unit in the hole. See Fig.1 for housing information.
3. For surface mounting, mount surface mount housing using holes provided. See Fig.1 for model numbers.
4. The unit is not designed for direct exposure to the elements and care should be taken to ensure that direct exposure to rain and snow does not occur.
5. Unit must be at EARTH GROUND POTENTIAL. Connect a #16 or larger wire from the back-box to a cold water pipe or other suitable ground.
6. Connect the wires for the power connections (16 VAC) to orange wires on the J2 connector. Connect the other end of the wires to the screws on the supplied transformer.
7. If using the N.O. contacts on the relay, connect wires to white/yellow and white/brown. To use the N.C. contacts, connect the wires to white/yellow and white/orange.
8. Connect the modular plug for the telephone line into the jack provided by the phone company.

NOTE: Relay contacts are rated for 50 volts AC or DC at 3 amps.

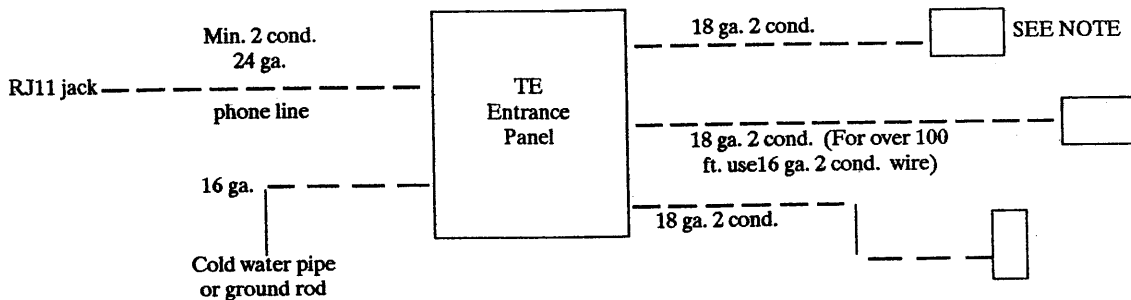
Fig. 1

TE Model#	No. of Panels			Housing		Surface Frame
	Handset	Keypad	Dir.	Model#	Wall Opening Width	
TE016M	1	1	1	OH203	12-1/2"	OH303S
TE030M	1	1	1	OH203	12/1-2"	OH303S
TE050M	1	1	1	OH203	12-1/2"	OH303S
TE100M	1	1	2	OH204	16-1/2"	OH304S
TE150M	1	1	3	OH205	20-1/2"	OH305S

Wall opening height OH200 series is 16-1/8".

Fig. 2

### WIRING LAYOUT DIAGRAM



NOTE: Additional 18 gauge, 2 cond. wire run for use with door strike and compatible transformer.

#### Final Adjustments:

Selecting the amount of relay on time requires adjustment in the unit. This adjustment is the length of time the output relay is energized. Put S1-5 in the ON position. This will allow the postal lock input to energize the relay. To adjust the time, place a momentary connection across the postal lock input violet wires. Adjust the relay closed time by turning the potentiometer (R47) clockwise (longer time) or counter-clockwise (shorter time).

### PRELIMINARY TESTS

- Dial Out, Tone Generator and Tone Decoder Test
  - Program a phone number (after informing the owner) in location 00.
  - Select the proper mode of dialing (pulse or Touch-Tone). Turn S1-2 (handset-enable) on.
  - Push "\*" on the touch-pad. A dial tone will be heard and the "UNIT BUSY" light will appear. Press number "00" and the unit will dial out the programmed phone number. Dialing of the phone number will be heard in the speaker.
  - When the party answers, request that the "6" on the phone be pushed. The unit will then hang up, the primary relay will energize, the "DOOR OPEN" light will appear and the "UNIT BUSY" light will go out. If the relay contacts are connected to a device, the device will activate.
  - Repeat step "d" but use a "9" on the phone. The unit will hang up.
  - Turn S1-2 off.

- Tek-Entry Code Test

- Program an entry code. (Example: 001 See "Programming An Entry Code" in this publication.)
- Dial the Tek-Entry Code 001. The primary relay will energize and the "DOOR OPEN" light will appear.

- Testing From Another Telephone

- Make sure S1-2 and S1-3 are in the off position.
- From another phone, call this unit. The calling phone will hear a ring then a one-second tone. While the phone is ringing, the "UNIT BUSY" will light. After the tone, enter the seven-digit password. If the password is correct, a two-beep tone will be heard in the handset.
- Push a "6" on the calling phone. A single tone will be heard and the unit will hang up.
- Return the switches to the proper positions.

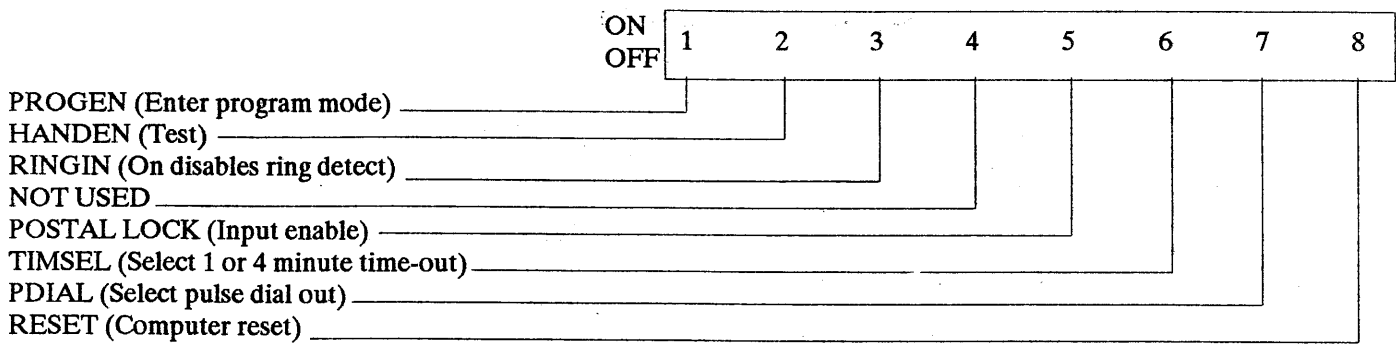
### SWITCH SELECTIONS

- The unit comes with a one-minute time-out enabled. If a four-minute time-out is desired, turn S1-6 on.
- The unit comes with Touch-Tone dial out selected. If pulse (rotary) dial is desired, turn S1-7 on.
- The unit comes with ring detect enabled. If ring detect is not desired, turn S-3 on.
- Turn S1-5 on to allow postal lock input to access the primary output relay.

## SPECIAL SWITCH FUNCTIONS

1. To restart the microcomputer from a power-on, start-up state, turn S1-8 on for one second then turn off. This is reset for the microcomputer.
2. If the password is lost and the program mode cannot be entered, turn on S1-1 for one second and then turn it off. This allows access to the program mode and access to the password programming sequence.
3. Test switch S1-2 will turn on the handset so that dialing out Touch-Tone will be heard in the handset. This switch is for test functions ONLY.

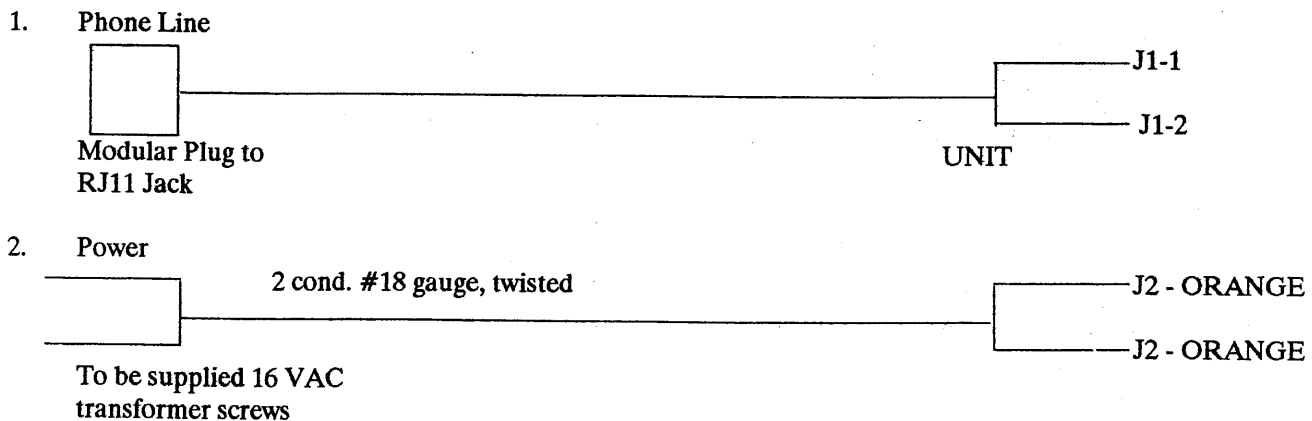
## S1 DIP SWITCH SELECTIONS



## S1 SWITCH SELECTION DESCRIPTIONS

PROGEN	S1-1	ON	Momentary will allow access to program mode.	POSTPRI	S1-5	ON	Enables postal lock input for output relay
		OFF	Normal operation			OFF	Disables postal lock input
SPKREN	S1-2	ON	Turns on speaker always for test	TIMSEL	S1-6	ON	Selects 4 minute talk time limit
		OFF	Normal operation			OFF	Selects 1 minute talk time limit
RINGIN	S1-3	ON	Disables the ring detect circuit	PDIAL	S1-7	ON	Unit dials out PULSE dial
		OFF	Normal operation			OFF	Unit dials out TOUCH-TONE
POSTSEC	S1-4	ON	Not used	RESET	S1-8	ON	Momentary will reset the micro-computer
		OFF	Not used			OFF	Normal operation

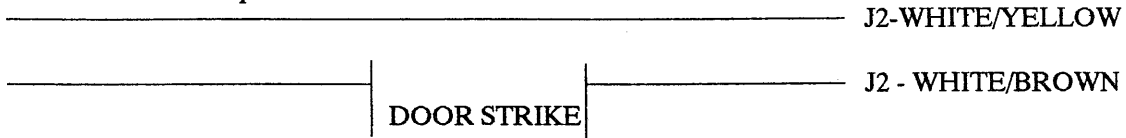
## WIRING HOOK-UP CONNECTIONS



## WIRING HOOK-UP CONNECTIONS (CONTINUED)

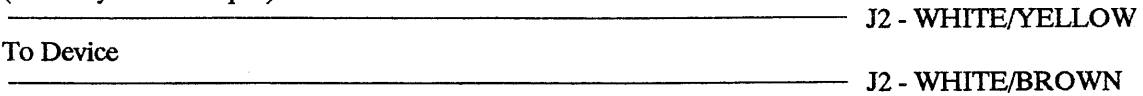
3. Electric Door Strike  
DO NOT USE THE SUPPLIED TRANSFORMER

To transformer as required

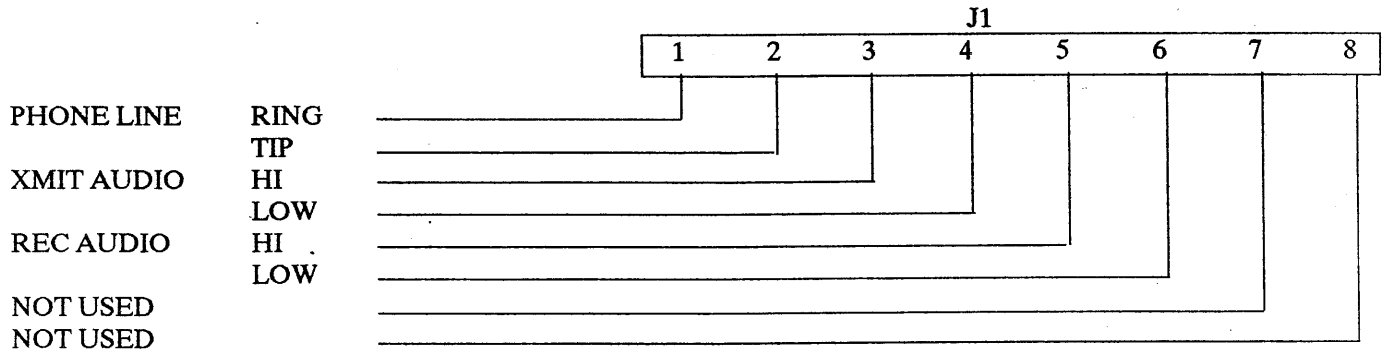


4. Gate Controller or Elevator  
(N.O. dry contact input)

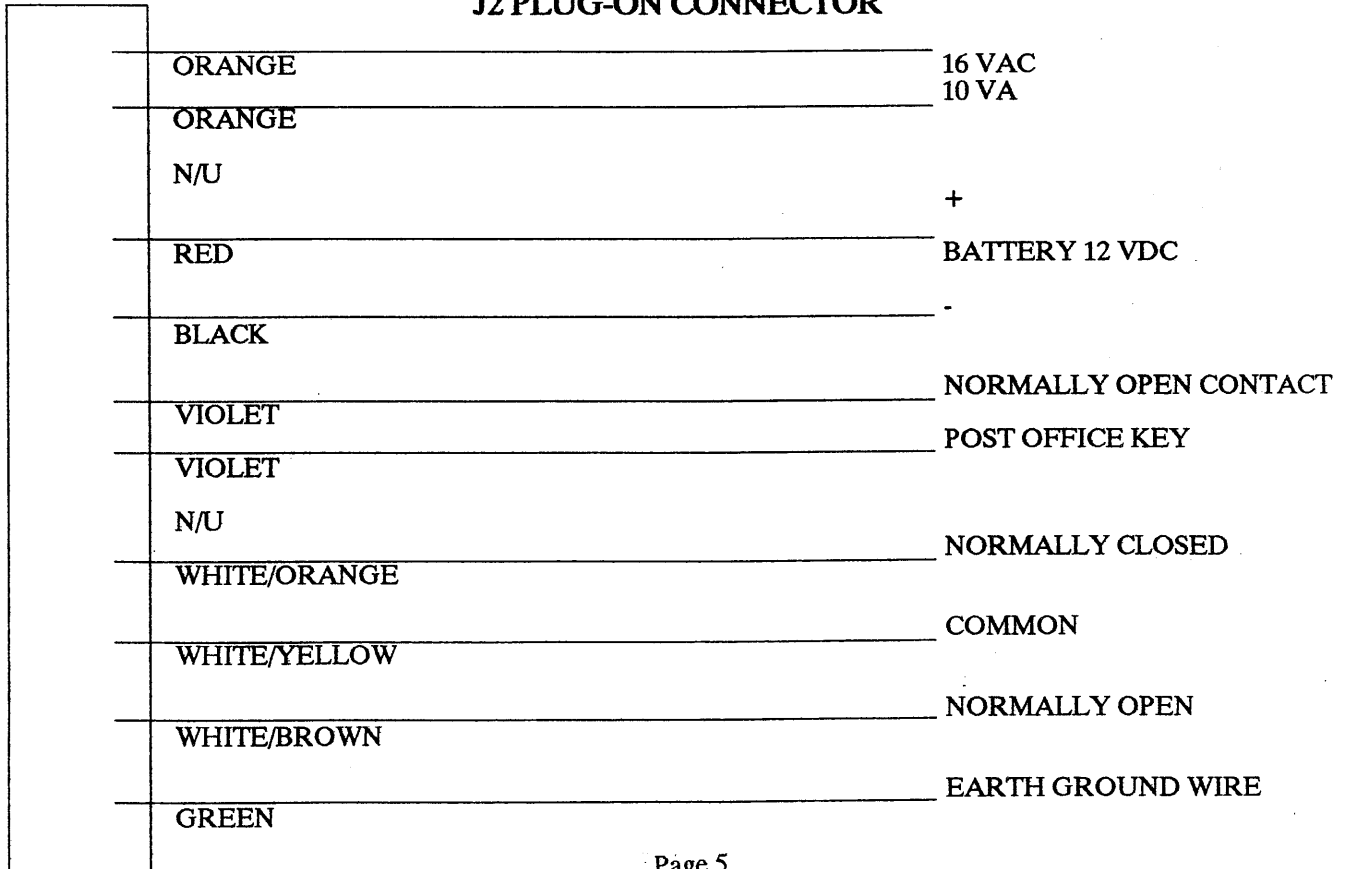
To Device



### CONNECTIONS



### J2 PLUG-ON CONNECTOR



# PROGRAMMING INSTRUCTIONS

## Special Keys (in program mode)

*		Program displayed numbers into memory
#		Clear display
* and 0	Simultaneously	Enter password mode
* and #	Simultaneously	Display password
0 and #	Simultaneously	Exit program mode

## To Enter Program Mode

NOTE: Either phone numbers or entry codes must be selected before entering program. "\*" will program phone numbers or new password. "#" will program door entry codes. Programmed phone numbers may be from 1 to 7 digits.

<u>Instruction</u>	<u>Display Will Show</u>
1. Push "*" to program phone numbers or "#" to program door entry codes.	
2. Push * and 0 simultaneously _____	1
3. Enter password Push 777 7777 (factory set) _____	After password is entered, . . if valid password has been entered. (If invalid password, display is blank.)

## Programming a Phone Number

NOTE: Codes for phone numbers must correspond to the number of suites served. Example: A 16-suite system may contain codes from 00 to 16 only. A 100-suit system from 00 to 99.

<u>Instruction</u>	<u>Display Will Show</u>
1. After entering program mode, enter the desired 2-digit code. Example: 01 _____	0.1. (If no prior data was entered)
2. Enter new phone number. Example: 123 4567 _____	0.1. 1 2 3 4 5 6 7
3. If a mistake is made, push # to clear data in the display and enter correct data. Push # _____	0.1.
Re-enter phone number. Example 123 4567 _____	0.1. 1 2 3 4 5 6 7
4. To store the phone number, push *	(Display will blink and show) 0.1. 1 2 3 4 5 6 7
5. If more entries are required, push # then # and go back to step 1.	. .
6. To exit, push 0 and # simultaneously.	

Programming An Entry Code

NOTE: The first two digits of an entry code must correspond to the number of suites served and each combination may be used only once. Example: For a 30-suite system, the first two digits must be from 00 to 29 and may not be repeated. i.e. 123 - Yes; 133 - Yes; 124 - No; 121 - No.

<u>Instruction</u>	<u>Display Will Show</u>
1. Perform steps 2 and 3 under To Enter Program Mode.	
2. Enter the desired 3-digit code. Example: 123 _____	1.2. 3
3. If a mistake is made, push # then # to clear data in the display and enter the correct data. Push # and then # _____ Re-enter 3-digit code Example: 123 _____	. . 1.2. 3
4. To store entry code, push * _____	(Display will blink and show) 1.2. 3
5. If more entries are required, push # then # and go back to step 2. _____	. .
6. To exit, push 0 and # simultaneously.	

NOTE: The first two digits of a three-digit entry code may be used only once. Example: 123 Yes; 124 No; 121 No

Memory Examination

<u>Instruction</u>	<u>Display Will Show</u>
1. Perform steps 1 - 3 under To Enter Program Mode	
2. Enter 2-digit location number you wish to start from. Example: 14 _____	1.4 8 2 3 5 4 1 0
3. Push 0 _____	1.5. 8 2 3 5 4 1 1
4. Repeat 0 as desired to look at next location.	
5. To exit, push 0 and # simultaneously.	

Programming Password

<u>Instruction</u>	<u>Display Will Show</u>
1. Perform steps 1 - 3 under To Enter Program Mode.	
2. Push * and # simultaneously _____	. . 7 7 7 7 7 7 7
3. Enter new password. Example 987 6543 _____	. . 9 8 7 6 5 4 3
4. Push * to store new password. _____	. . 9 8 7 6 5 4 3
5. To exit, push 0 and # simultaneously.	

#### Erasing Memory

1. Perform steps 1 - 3 under To Enter Program Mode.
2. Enter the two-digit phone number code or the three-digit Tek-Entry Code.
3. Push # then push \*. The phone number or the third digit of the Entry Code is now blank.
4. Push # and go to step 2 above.
5. To exit, push 0 and # simultaneously.

#### MUI Option For TE Series:

The multi-unit interface allows for the installation of up to eight entrance panels on the same phone line and allows only one unit to operate at a time.

#### Warranty Information

TekTone warranty is void if this system is installed or used in any manner other than described in this manual.

## **SYSTEM NOTES**