



MIRTEL 9000
TELEPHONE ENTRY SYSTEM
INSTALLATION & OPERATION
MANUAL

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MIRTEL 9000

INTRODUCTION - SYSTEM OVERVIEW

MIRTEL 9000 uses the existing phone lines in a multi-unit dwelling to provide communication and access control. No phone line subscriber fees are incurred since the system utilizes the existing phone line wiring. No expensive installation costs are incurred compared to traditional hardwired intercom systems.

Operation:

A tenant uses their normal touch-tone or rotary dial pulse phone set to communicate to visitors. Tenants do not need a subscribed phone line to use the system. Visitors enter the appropriate code number to ring the tenant. A distinguishable ring notifies the tenant a visitor is calling. While communicating to the visitor, the tenant dials a "9" to open the door or gate.

Tenants shall hear a clicking sound when engaged in a conversation if another incoming call is placed. The built-in "call waiting" feature lets visitors inform tenants of their presence even if the tenant is using the phone.

System Configuration:

The Mirtel 9000 system consists of four main components; Entry system, main control cabinets, RJ71C telephone jacks and optionally the Concierge phone.

Entry Panel System

Two styles of entry directory panels are available. Each panel requires the visitor to enter a four digit tenant code which calls the tenant's phone. Only two wires from the entry panel to the main cabinet provides communication and access control.

The TCS-9060 Panel gives a prestigious appearance using magnetic strips for the directory. Magnetic strip directories are easily maintained by sliding in or removing name strips when required. The TCS-9060 has a fixed size of 60 names. For additional names use the DB/300-60 add-on directory.

A TCS-3000 series of directory panels use the standard frames and backboxes of Mircom's K-Series. Off the shelf and readily available the TCS-3000 is available in increments of 60 name capacities.

Each entry panel requires a 9300 Interface module. The 9300 Interface module provides connections for the electric door opener or gate controller, speaker, microphone, postal lock switch and main control cabinet.

It is possible to use a standard touch-tone phone as a front lobby phone. When a regular phone is used the 9300 Interface module is not required. The relay on the 9100 control cabinet must be used to connect the electric door strike or gate controller.

9100 Main Control & 9200 Auxiliary Cabinets

The 9100 Main Control interconnects all the phone lines to the entry location. Up to 5, 9012 relay boards to serve 60 tenants can be installed into the main control. Each system requires one 9100 Main Control and one 9012 relay board. 9200 Auxiliary Cabinets are required for installations over 60 suites. Each 9200 Auxiliary Cabinet can accommodate up to 8, 9012 relay boards to serve up to 96 additional tenants. A total of 32, 9200 Auxiliary Cabinets can be added for a total system capacity of 3132 tenants.

Concierge Phone (optional)

A Concierge phone has programming, access control and calling capabilities. Connected directly to the 9100 Main Control Cabinet, the Concierge phone is regular touch-tone telephone.

The Concierge is able to;

- - call any tenant
- - trigger the door or gate to open.
- - place outside calls after entering a special access code.
- - program select features into the 9100 Main Control.

RJ71C Telephone Jacks

The RJ71C Telephone blocks are usually installed by the telephone company. Each block serves up to 12 telephone lines and is connected to the 9100 Main Control cabinet using the 9112 Connecting cable. The 9112 Connecting cable mates with the 9012 relay board and the RJ71C telephone blocks which interfaces to all the tenants' telephones.

A single, low 16VAC, 40VA transformer powers each 9100 and 9200 cabinet. Each 9300 Interface Module requires one, 16VAC 20VA, transformer.

PRE-INSTALLATION PLANNING

Mirtel's 9000 System requires various items to be pre- arranged before the actual installation.

- 1) Telephone Blocks from telephone company.
- 2) Crown Lock from Post Office
- 3) Mounting of equipment.
- 4) Power Requirements
- 5) Program Options
- 6) Grounding Requirements

RJ71C Telephone Blocks

Each RJ71C telephone block serves up to 12 units. The telephone company must be contacted to install the blocks.

- a) Contact the local telephone company at least three weeks in advance to installation. Lead times of up to three weeks are common for block installation from the telephone company.
- b) Order one RJ71C block for every 12 telephone lines.
- c) The following information must be given to the telephone company.
 - - telephone numbers of the lines to which the Mirtel 9000 system will be connected.
 - - the D.O.C. registration number 17364530 A.
 - - the ringer equivalence number (REN) of Mirtel 9000 is 0.0A
- d) Complete the RJ71C Block identification form for the phone installer. The form instructs the phone installer how the phone lines should be wired to the RJ71C blocks.
- e) Ideally, have the blocks installed near the original phone company termination board. Make sure there is enough room for the 9100 and 9200 cabinets within 15 feet of the blocks.
- f) Ensure the phone company labels the blocks. Each block should be numbered and the phone number should be written on the inside of the block cover. Follow the block installation form.

IT IS STRONGLY RECOMMENDED TO ATTACH THE BLOCK IDENTIFICATION FORM TO THE INSIDE DOOR OF THE 9100 CONTROL CABINET FOR FUTURE REFERENCE.

The Mirtel 9000 connects to telephone lines by means of a standard RJ71C connector.

NOTE: D.O.C (Department of Communication) certification means that the equipment meets certain telecommunication network protective, operational and safety requirements.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company.

9100 Main Control & 9012 Relay Identification

The 9100 Main Control Cabinet may accommodate up to 5, 9012 Relay Boards and serve up to 60 telephone lines. Every 9012 Relay board has 12 relays which interface to 12 telephone lines. (One relay per telephone line is required.)

1. Relay Board #1 (closest to the main control board) contains relays 0000 - 0011. Relay Board #2 contains relays 0012 -0023. In sets of twelve, the relay numbering continues to Relay Board #5 which contains relays 0048 - 0059.
2. A jumper on each relay board identifies itself to the Main Control Board.
 Relay Board #1 uses jumper #1.
 Relay Board #2 uses jumper #2.....
 Relay Board #5 uses jumper #5.
3. A label is fixed to the inside of the 9100 Main Control Cabinet. Use this label to identify which jumper should be installed on each board.
4. When a Relay Board is replaced or moved within the cabinet, the jumper must be set as per the label on the cabinet.

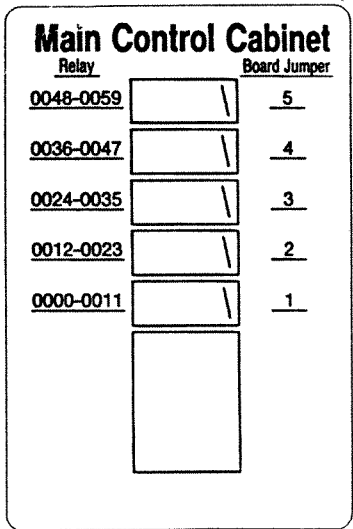


Figure 1

5. Figure 2 identifies each relay on the Relay Board.

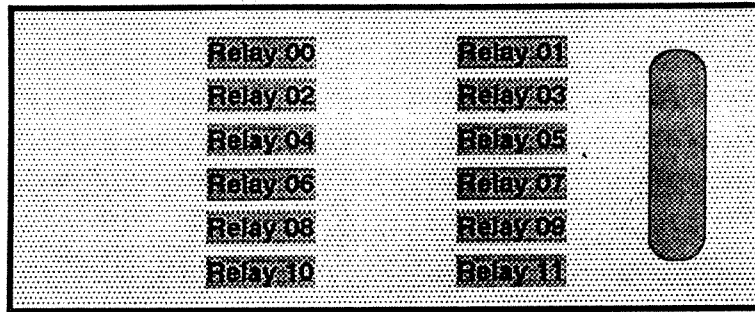


Figure 2

6. Refer to Figure 3 to match each relay on a Relay Board with a system relay number.

Actual Relay	Relay Board #1	Relay Board #2	Relay Board #5
Board Relay 00	System Relay 0000	System Relay 0012	System Relay 0048
Board Relay 01	System Relay 0001	System Relay 0013	System Relay 0049
Board Relay 02	System Relay 0002	System Relay 0014	System Relay 0050
Board Relay 03	System Relay 0003	System Relay 0015	System Relay 0051
Board Relay 04	System Relay 0004	System Relay 0016	System Relay 0052
Board Relay 05	System Relay 0005	System Relay 0017	System Relay 0053
Board Relay 06	System Relay 0006	System Relay 0018	System Relay 0054
Board Relay 07	System Relay 0007	System Relay 0019	System Relay 0055
Board Relay 08	System Relay 0008	System Relay 0020	System Relay 0056
Board Relay 09	System Relay 0009	System Relay 0021	System Relay 0057
Board Relay 10	System Relay 0010	System Relay 0022	System Relay 0058
Board Relay 11	System Relay 0011	System Relay 0023	System Relay 0059

Figure 3

9200 Auxiliary Cabinet & Relay Identification

The Auxiliary Cabinet contains one Decoder board and up to eight, 9012 Relay boards to serve up to 96 additional telephone lines.

1. Set the selector switches on the Decoder board as shown on the label of the cabinet door. The selector switch position on the Decoder board identifies itself to the Main Control board. The 9100 Main Control compares information with the cabinet selector switches and if a match is made, the proper relay in the 9200 Auxiliary Cabinet is selected.
2. Similar to the 9100 Main Control Cabinet, the 9200 Auxiliary Cabinets have a label inside, fixed to the door. The label identifies the proper Cabinet selector switch setting, relay board jumper setting and each relay system number associated with each Relay board.

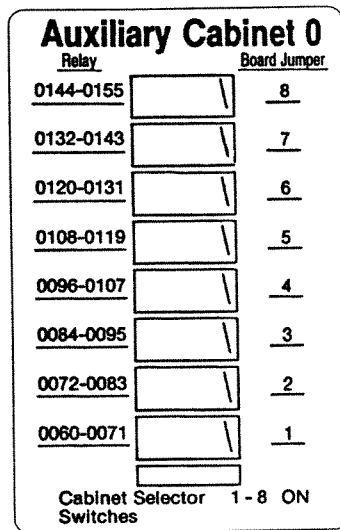


Figure 4

RJ71C Telephone Block

The RJ71C Telephone block interfaces telephone lines to the Mirtel 9000 system. Each block will serve up to 12 lines. The RJ71C block should be installed by the local phone company.

The first 24 punch down pins on the RJ71C block are for incoming telephone lines. The phone company will wire the 12 incoming central office telephone lines to these first 24 pins. Pin 1 is TIP for line 1, Pin 2 is RING for line 2, Pin 3 is TIP for line 2, Pin 4 is RING for line 2. The sequence continues for all 12 incoming lines.

Internal wiring in the RJ71C block routes the 24 incoming wires to the Amphenol type socket mounted on the side of the RJ71C block. The 24 wires (12 telephone lines) are then routed through the 9112 Connecting cable, through the selected relay board and then back to the other terminals on the Amphenol connector. These terminals are internally wired to the RJ71C output pins numbered 27 - 50. Pins 25 and 26 are not used.

The telephone company will then wire the 12 telephone lines going to each unit to these lower 24 pins. Pin 27 is TIP for line 1, Pin 28 is RING for line 1, Pin 29 is TIP for line 2, Pin 30 is RING for line 2. The sequence continues for all 12 outgoing lines.

If the 9112 Connecting cable is unplugged from the RJ71C block, all 12 telephone lines to the building will go dead. A jumper plug attached to each block connects the inputs to the outputs of the Amphenol connector. When troubleshooting, the telephone company will use the jumper plug in place of the 9112 cable to make sure the Mirtel 9000 is not the cause of the problem.

Note:

RJ71C blocks vary as to which columns or pins, A,B,C,D are used to punch down CO input and apartment output wires. Usually, either column A or D is wired to the Amphenol connector. If A is used, punch wires on column B. If D is used, punch down wires on column C. Visually inspect the block for proper wiring.

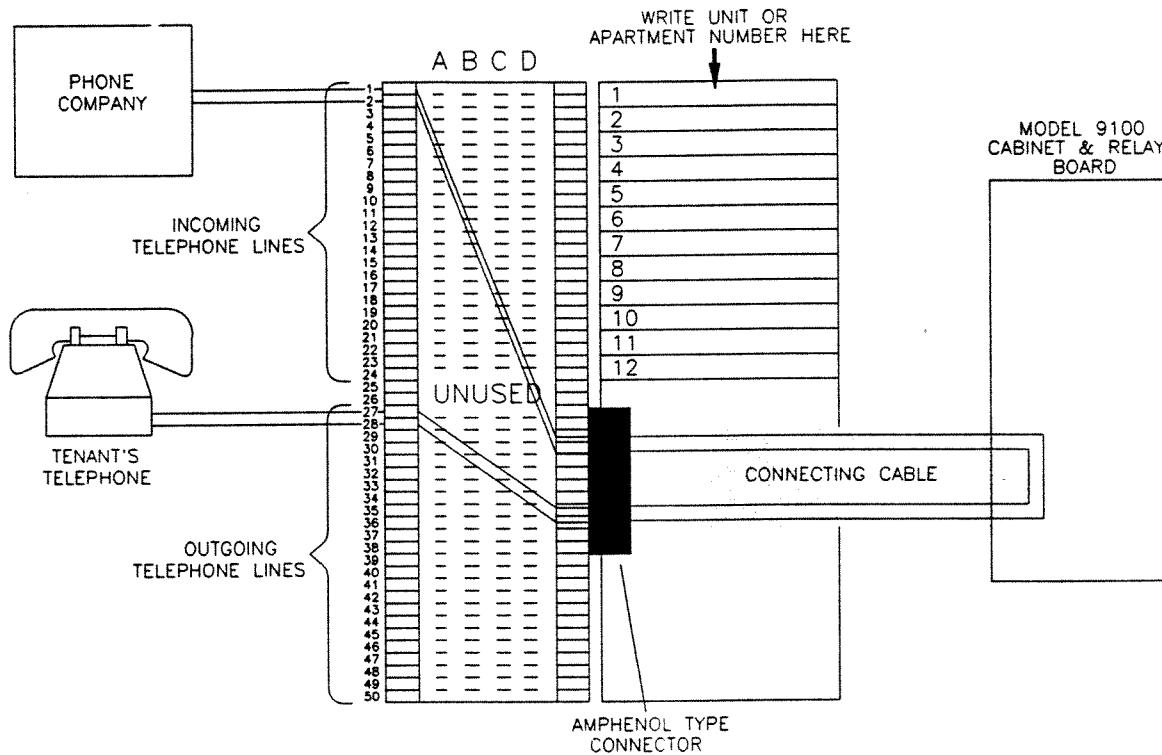


Figure 5

Figure 5 illustrates how a single telephone line is routed through the RJ71C block to the relay board and back to the block.

INSTALLATION

Mounting the 9100 Main & 9200 Auxiliary Cabinets

The 9100 and 9200 Cabinets house the 9012 Relay Boards.

1. Wall mount the cabinets so the 15 foot, 9112 Connecting Cable will reach the RJ71C Telephone blocks.

- use the four mounting holes in the back of the cabinets.
- mount the cabinets in order; 9100 Main, Auxiliary #0, Auxiliary Cabinet #1 etc.

2. Prevent debris from falling onto the circuit boards while mounting. If necessary, remove the boards.

Mounting the Front Door Entry System

Refer to the installation instructions for the 9300 Interface module. Refer to figure __ for wiring connects to the 9100 Main Control Cabinet.

Multiple Entry - Connect the four wires for each entry system in parallel to the 9100 Main Control Cabinet.

Regular Telephone As Entry System

A touch-tone phone may be used as a front entry system. We suggest the following parameters are met when using a regular telephone.

1. Locate the phone in a secure location where vandalism cannot occur.
2. Mount the phone close to the door or gate to be controlled. Mount the phone securely to prevent theft.

WIRING GUIDELINES

Grounding the System

1. Use #12 AWG wire to ground the 9100 Main Control Cabinet to a properly installed ground rod or grounded conduit.
2. In areas prone to lightning, additional surge protection may be required. Consult the factory for further details.

System Power

1. Plug the 16 VAC, 40 VA transformer supplied with the 9100 Main Control Cabinet to a continuously powered electrical plug within 200 feet of the Main Control Board.
2. If 9200 Auxiliary Cabinets are used, use one 16 VAC transformer each additional cabinet.
3. 9100 Main Control Cabinet power should be connected to terminals 23 and 24.

Use 18 AWG wire for distances up to 100 feet.
Use 16 AWG wire for distances between 100 - 200 feet.
DO NOT exceed 200 feet with 16 AWG wire.

4. 9200 Auxiliary Control Cabinet power should be connected to terminals 22 and 24.

Use 18 AWG wire for distances up to 100 feet.
Use 16 AWG wire for distances between 100 - 200 feet.

DO NOT exceed 200 feet with 16 AWG wire.

DO NOT POWER ANY OTHER DEVICES FROM THESE TRANSFORMERS.
--

5. Completely isolate wires from earth ground. Use 600 volt insulated building wire for the 16 VAC power.

Door or Gate Control Wiring

The 9100 Main Control Cabinet has a relay output to activate peripheral locking or opening devices. The Mirtel 9000 may also use the relay output on the 9300 Interface module. Use the following guide lines to determine which relay output would be best suited.

1. If a Front Entry system is required, use the relay on the 9300 Interface module.
2. If a Concierge Phone is required, use the relay output on the 9100 Main Control Cabinet. The relay output will need to be wired in parallel to the 9300 Interface relay output. Refer to 9300 Manual. This allows the Concierge to control the door or gate from their telephone. Connect 9100 Main Control Cabinet terminals 20 and 21 to the 9300 Interface Module terminals L1 and L2 or L3 and L4 respectively.
3. If a regular telephone is used as the entry phone or only a Concierge phone, use the 9100 relay output. Use a separate power transformer for the control device.

DO NOT POWER THE ELECTRIC STRIKE WITH THE 9300 INTERFACE MODULE OR 9100 MAIN CONTROL POWER TRANSFORMER. USE A SEPARATE POWER SUPPLY.

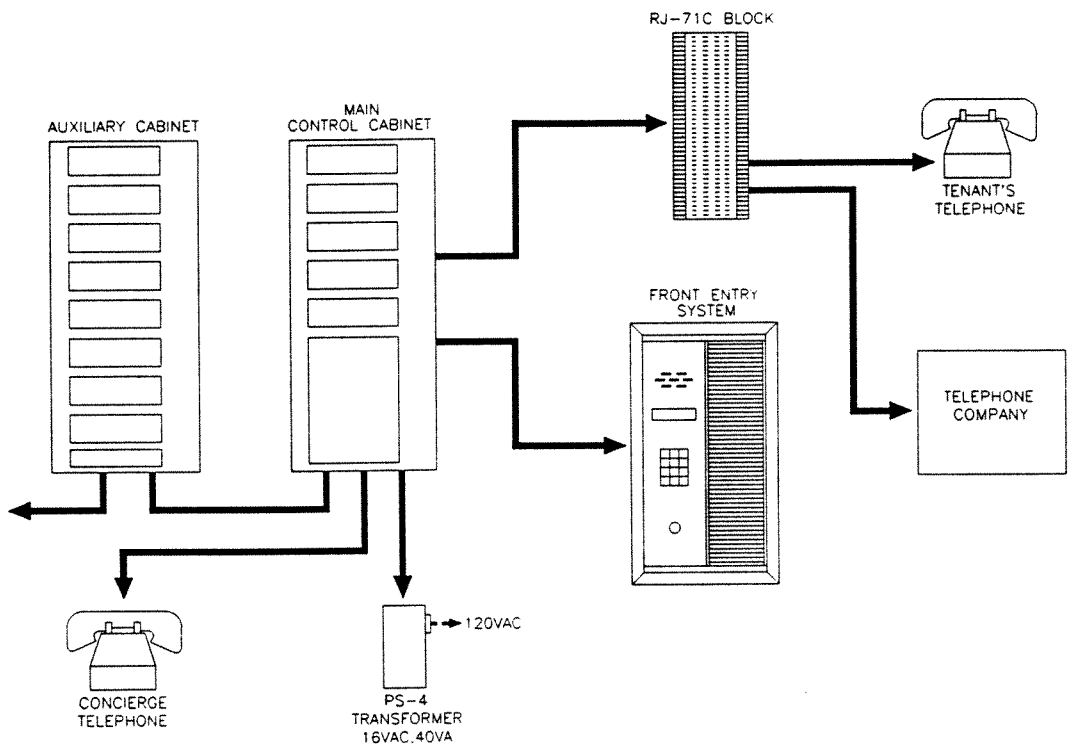


Figure 6

TELEPHONE LINE WIRING

Concierge Phone:

Two conductor telephone cable to terminals 12 and 13 of the 9100 Main Control cabinet.

Door Entry System:

Two conductor telephone cable to terminals 14 and 15 of the 9100 Main Control cabinet.

Use 24 AWG wire for 800 feet.

Use 22 AWG wire for 800 - 1600 feet maximum.

Off Premise Dialing:

If the Concierge requires to place calls outside the building, a dedicated phone line must be provided by the local phone company. Connect the line to terminals 16 and 17 of the 9100 Main Control Cabinet.

Postal Switch

When the Front Door entry system is used(Model 9300), refer to its manual for postal lock installation. If a regular phone is used at the front door, the postal switch must be connected to the 9100 Main Control Cabinet terminals #11 and #24.

9300 Interface Module

Connect to terminals P.O. and B.

9100 Main Cabinet

If a regular phone at the entry or a Concierge phone is used, connect the postal switch to terminals 11 and 24 of the 9100 Main Control Cabinet.

9200 AUXILIARY CABINETS

Parallel connect all 9200 Auxiliary Cabinets to the Main Cabinet with a 10 conductor #22 AWG cable. The total length should not exceed 500 feet from the main to the last cabinet.

Add one PS-4, 16 VAC transformer when additional Auxiliary Cabinets are required.

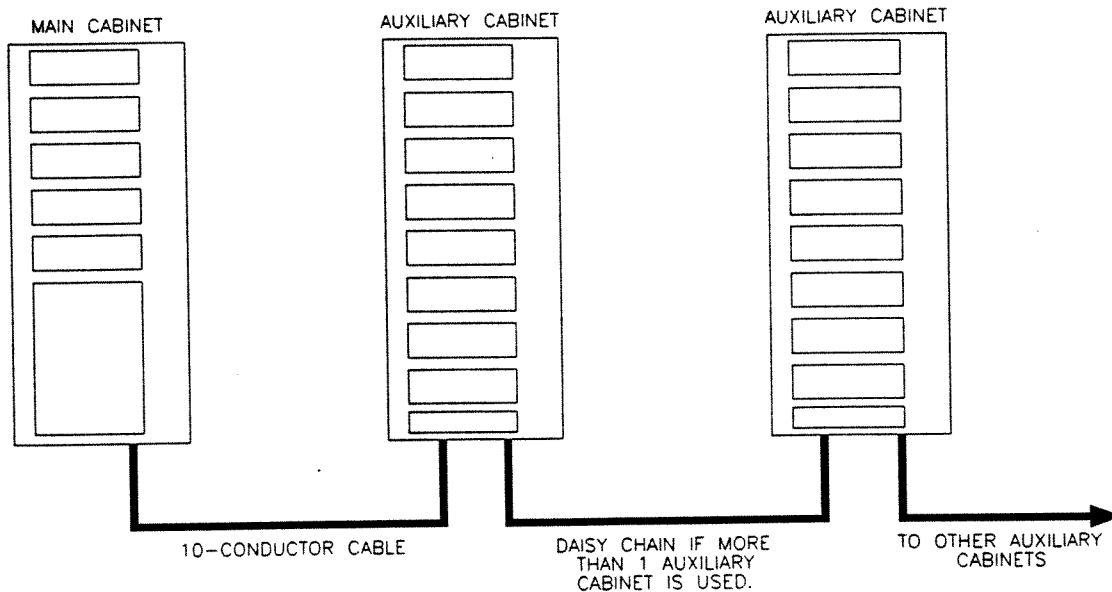


Figure 7

9100 MAIN CONTROL WIRING DIAGRAM

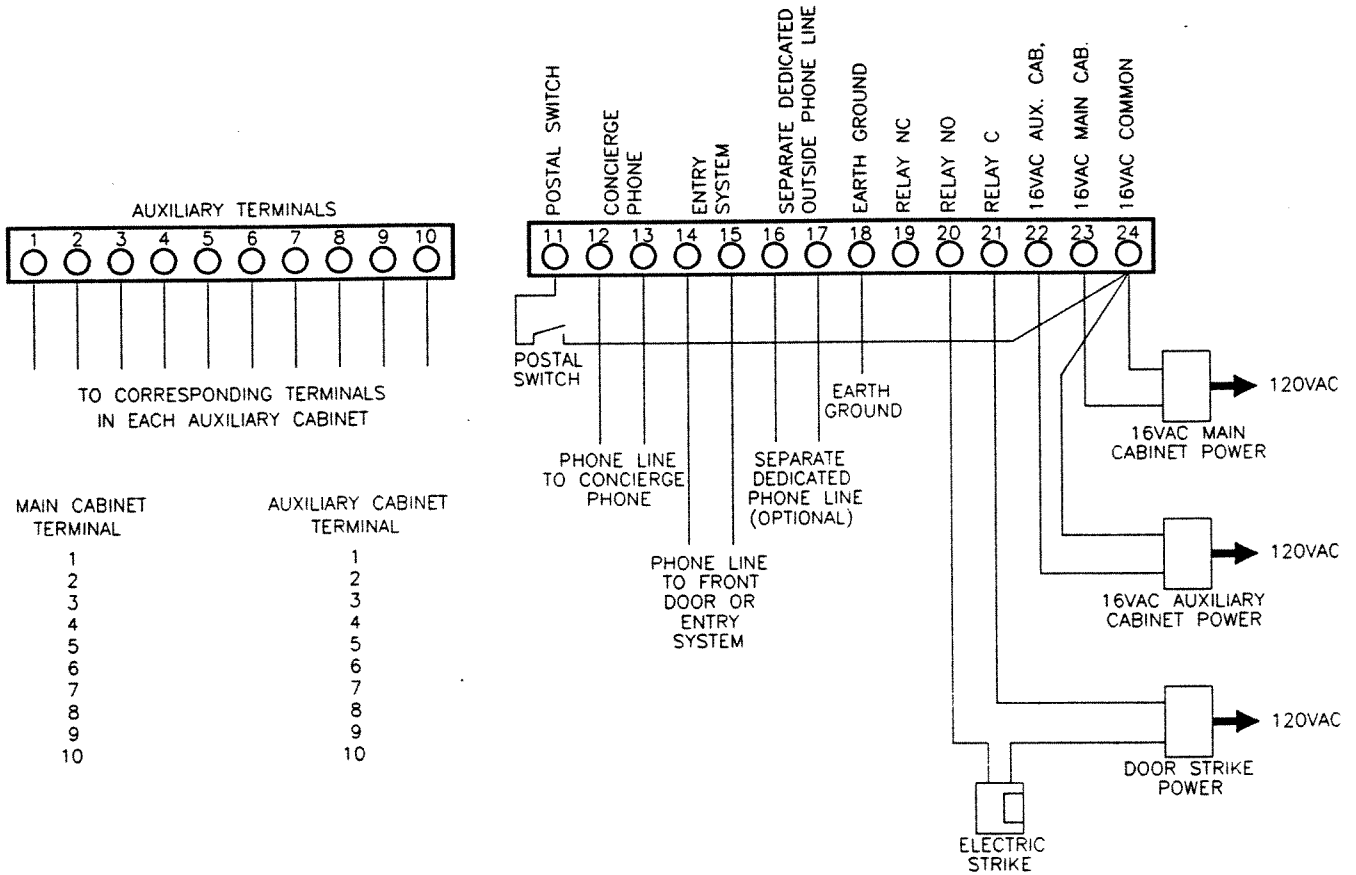


Figure 8

TYPICAL WIRING SCHEMES

Regular Phone for Front Entry and Concierge Phone

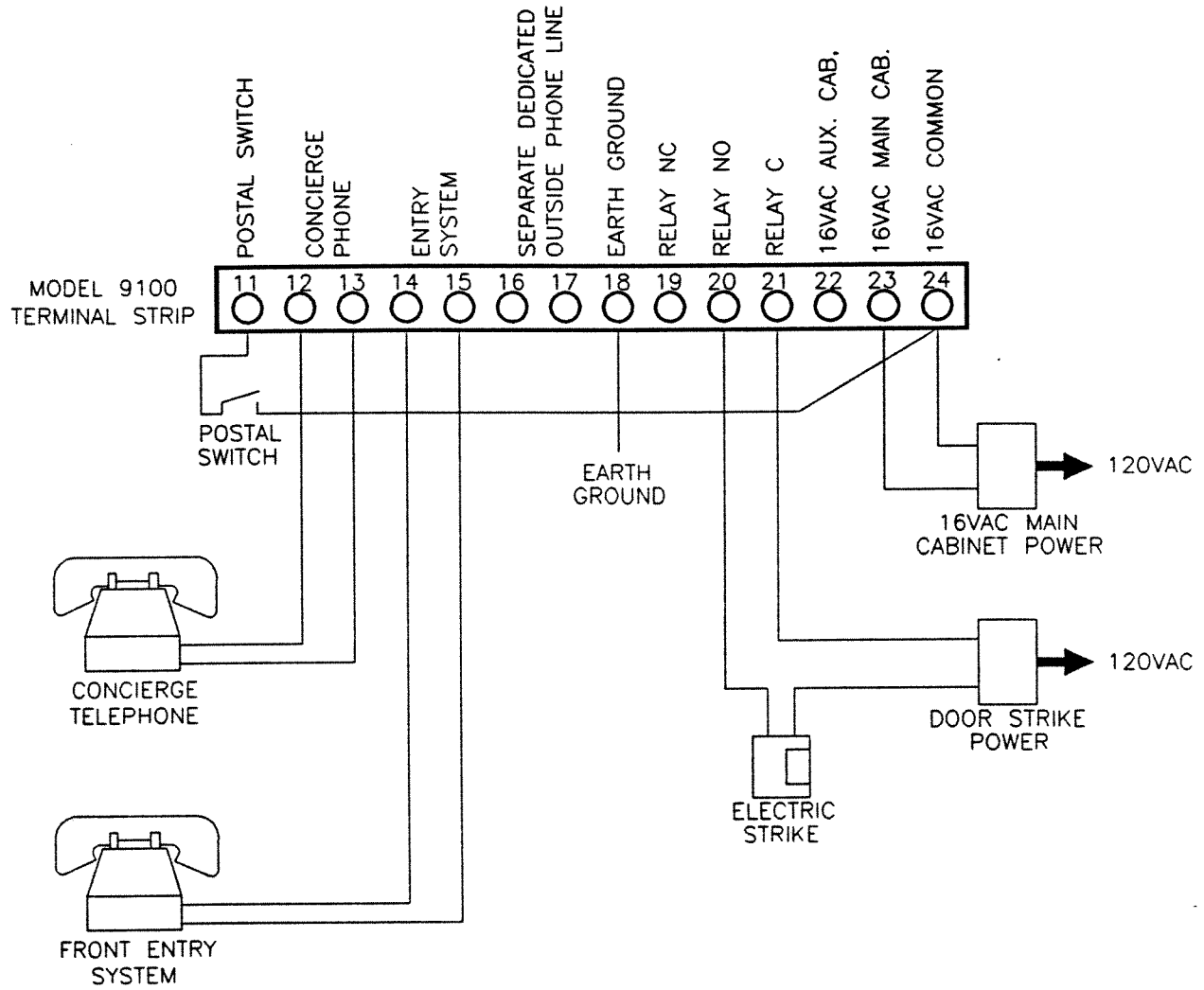
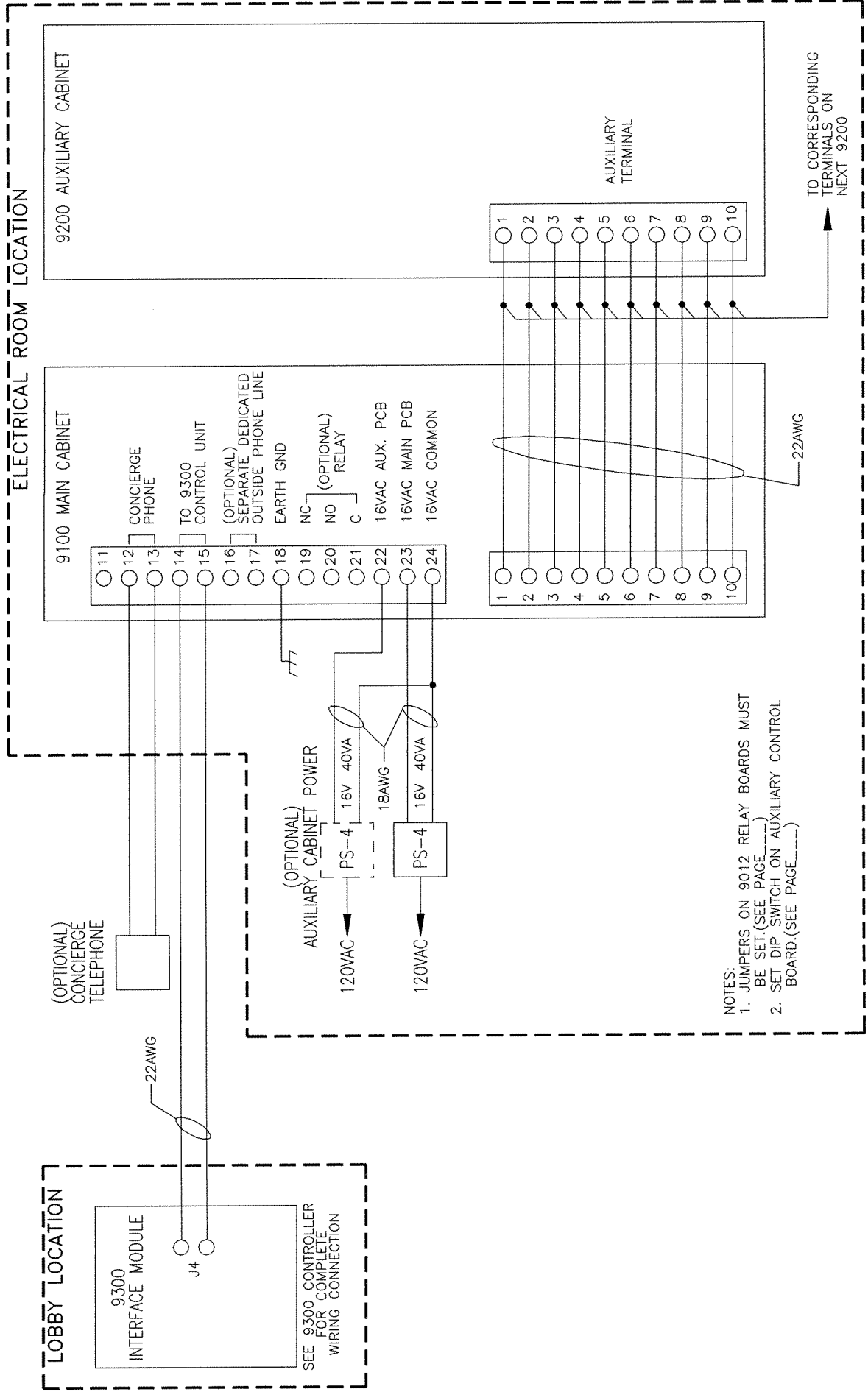


Figure 9

USING THE 9300 INTERFACE MODULE WITH THE 9100 MAIN CABINET AND 9200 AUXILIARY CABINET



OPERATING INSTRUCTIONS

Visitors

A visitor simply enters a four digit tenant code to ring the resident.

The display on the Entrance panel will confirm the code number and dialing sequence.

The resident will converse with the visitor before permitting entry to the building.

If the resident permits entry, the visitor shall hear and see on the display, indications the door or gate has been released.

Tenants

Tenants shall hear a distinguishable ring when visitors are calling.

If the resident, wishes the visitor access to the building, they dial a '9' on their phone. This will trigger the door or gate to open. If the resident wishes to hang up without permitting access to the visitor, they press '7'.

[The '9' tone can be changed to trigger the door. Refer to Tone Open Number Programming section]

Built-in Call Waiting Feature:

When a resident is engaged in a conversation from the outside, a 'click' will be heard on their handset, if a visitor is trying to reach them. To place the first call on HOLD, they dial '3' and establish conversation with the visitor. The resident may now dial '9' to permit access to the building and return to the original conversation. To return to the original conversation without permitting access, the resident dials a '3'.

When a resident is engaged in a conversation with a visitor and hears a 'click' on their handset, they must decide to permit or deny access to the visitor. Dialing a '9' will permit visitors access while a '3' will not. Upon dialing a number, the resident will immediately be connected to the calling person. Once either a '3' or '9' is dialed, the resident can not switch back to the visitor.

POSTAL LOCK ACTIVATION:

If no Front Door Entry system with a 9300 Interface Module is used, a postal lock switch may be connected at the 9100 Main Control Cabinet. A time delayed output will be triggered from terminal 11 and 24 on the 9100 Main Control.

DEDICATED PHONE LINE FEATURES:(Only available when a dedicated telephone line is connected to terminals 16 and 17 of the 9100 Main Control.)

- Remote Programming
- Calling the Concierge
- Calling the Front Door Phone.
- Remote Relay activation
- Calling Preprogrammed phone numbers.
- Outside Line Access

Concierge or Door Phone Calling:

An outside dedicated line must be installed for tenants to be able to call the Concierge or Front Door phone. Connect the outside line to terminals 16 and 17 on the 9100 Main Control.

To call the Concierge, the resident dials the 7-digit phone number of the dedicated line. After a couple of rings, a one second tone will be heard indicating the system has answered. The resident dials '# 1' to ring the Concierge.

To call the regular Entry phone, the resident dials the 7-digit phone number of the dedicated line. After a couple of rings, a one second tone will be heard indicating the system has answered. The resident dials '# 2' to ring the Front entry telephone. This feature is not available when the Entry system is used with the 9300 Interface module.

Remote Relay Activation

It is possible to activate the relay on the 9100 Main Control from any regular telephone.

Dial the 7-digit phone number of the dedicated line. After a couple of rings, a one second tone will verify the 9100 has answered the call.

Press any of the four tone open numbers from any touch-tone phone to trigger the relay. A short beep every two seconds confirms the relay has been activated. (Refer to Tone Open Number Programming for more details.)

Calling Pre-programmed Phone Numbers

The 9100 can dial two programmed telephone numbers from a remote touch-tone phone. To use this feature, determine the highest available relay used to call a tenant.

Example:

Highest Available Relay = 0015
Pre-programmed Phone Number 1 = ___ _ 6604655
Pre-programmed Phone Number 2 = 1714 4361301

Using the Concierge phone or Front Door Entry system:

Dialing touch tone 0015 will call the tenant's phone associated with 0015.

Dialing 0016 will have the 9100 dial the pre-programmed phone number 1 (660-4655) on the optional dedicated line.

Dialing 0017 will have the 9100 dial the pre-programmed phone number 2 (1-714-436-1301) on the optional dedicated line.

Persons called from the pre-programmed numbers are able to operate the relay in the 9100. Only the Tone Open Number for momentary relay activation may be used.

Outside Line Activation

The 9100 Main Control lets the Concierge use a dedicated outside line. The Concierge simply dials the 4-digit outside access code. A tone will confirm the outside line has been connected and the Concierge may dial any number. This feature does not use the "set talk time" or the "Tone Open Numbers."

This feature is not available from the Front Door Entry system.

PROGRAMMING FEATURES

All programming is accomplished from a regular touch-tone telephone set connected directly to the 9100 Main Control or remotely using the dedicated phone line.

Local Programming:

Connect a touch-tone phone to the Front Door Entry system (14,15) or the Concierge Phone input terminals (12, 13).

1. Lift handset and wait for dial tone.
2. Follow programming instructions as described in each section.

Caution! If phones with the dial pad on the handset is used, the short confirmation tones used when programming may not be heard since the handset is not against the ear.

Remote Programming: (Dedicated line must be connected)

1. Dial the 7-digit phone number of the dedicated line and wait for the system to answer. A one second tone will confirm the system has answered.
2. Follow programming instructions as described in each section.

Note: The Master Code cannot be programmed remotely.

Before any programming, a Master Code is required to gain access to the 9100 system memory. Each 9100 system comes with a Master Code and is stamped on the white label inside the door of the main cabinet. The Master Code may be changed to ensure confidentiality.

Master Code Change

1. Locate the Master Code switch on the 9100 Main Control Board and flip it to the ON position.
2. Lift the handset off the touch-tone phone and enter the desired new 4-digit Master Code. Press " * " to enter the code and a short tone will confirm the system has accepted the new code.
3. Replace the Master Code switch to the OFF position.
4. Record the new Master Code on the inside door label.

Entry Code programming

The 9100 Main Control has the capability to hold 1000 keyless access codes. These codes control the 9100 relay output. When a Front Door entry system is used, it will hold its own access codes independent to the 9100.

1. Press " * " then " 02 " before the 4-digit Master Code. A short tone will confirm access to the program.
2. Enter the 4-digit access code combination. Press " * " to enter the number. A short tone will confirm acceptance.
3. Repeat step 2 to program additional codes.

4. Hang up to end the programming session. Inactivity for 16 seconds will also cancel the programming session.

Note: When the maximum number of 1000 codes has been entered, a long tone will sound indicating the memory is full and the programming session has ended.

Erasing Access Codes

Individual Access codes may be erased or all of them.

Individually:

1. Press " * " then " 06 " and the 4-digit Master Code. A short tone will be heard.
2. Enter the 4-digit entry code to be erased then press " * " to enter. A short tone will be heard.
3. Repeat step 2 to erase additional entry codes individual.
4. Hang up or wait 16 seconds to end the programming session.

All Entry Codes:

1. Press " * " then " 00 " and the 4-digit Master Code. A short tone will be heard.
2. Press "9999" then " * " and a short tone will be heard confirming ALL the entry codes will be erased.
3. After a maximum of 11 seconds, a long tone will indicate the erasing process is complete.
4. Hang up.

Highest Available Relay Number

The Mirtel 9000 system can handle up to 3132 phones therefore it needs to select up to 3132 different relays numbered 0000 to 3131. The 9100 Main control must know the maximum number of relays being used.

Example:

A 16 suite Apartment building will use two, 9012 relay boards. Each board will have 12 relays. Since relays 0000 through 0015 will be used, the highest relay number is 0015.

Program the highest relay number into the 9100 Main Control.

1. Press " * " then " 07 " and the 4-digit Master Code. A short tone will be heard.
2. Enter the 4-digit number of the highest relay being used.
3. Press " * " to enter. A short tone will be heard.
4. Hang up or wait 16 seconds to end the programming session.

Access Control Relay Delay Period

The relay activation time on the 9100 Main Control may be programmed from 1 to 99 seconds. The relay is factory set for one second. When the relay is used as a door control, allow enough time for the visitor to pull the door open while the strike is still activated.

1. Press " * " then " 03 " and the 4-digit Master Code. A short tone will be heard.

2. Enter a 2-digit code, 01 to 99, for the desired time in seconds. Example: 05 for 5 seconds.
3. Press " * " to enter the relay time. A short tone will be heard.
4. Hang up or wait 16 seconds to end the programming session.

Ring Format

The number of rings may be programmed from 2 to 9 times before hanging up when calling a tenant. The 9100 has been factory set for 3 rings.

To distinguish a call from the entry system, the 9100 rings a "double ring" when calling a tenant. A "double ring" has two short rings followed by a four second pause. A "regular ring"

has a standard two second ring, followed by a four second pause. The 9100 is factory set for a double ring. A regular ring may be programmed.

1. Press " * " then " 04 " and the 4-digit Master code. A short tone will be heard.
2. Enter a two digit code for the characteristics required.
 - 2 to 9 Number of rings.
 - 0 Regular ring, 1 Double Ring.
3. Press " * " to enter. A short tone will be heard.
4. Hang up or wait 16 seconds to end the programming session.

Tone Open Number Programming

The Tone Open number refers to the 9100 relay. Tenants' phones or from a remote touch-tone phone will trigger the relay on the Tone number specified.

1. Press " * " then " 05 " and the 4-digit Master code. A short tone will be heard.
2. Enter the four consecutive numbers for the following control characteristics.
 - 1st number: Activate relay for programmed delay time.
 - 2nd number: Activate relay continuously.
 - 3rd number: Deactivate relay.
 - 4th number: Activate relay for one hour then automatically release it.

If the 2nd, 3rd and 4th numbers are not used, enter " # " to delete their function. The Tone open numbers are factory set as;

- 1st Number: 9, 2nd Number: #, 3rd Number: #, 4th Number: #.
3. Press " * " to enter the numbers. A short tone will be heard.
 4. Hang up or wait 16 seconds to end the programming session.

<p>DO NOT USE THE NUMBER "3" FOR ANY TONE OPEN NUMBER SINCE ITS RESERVED FOR THE "CALL WAITING" OPERATION.</p>

Talk Time Period

Talk Time period is how long the Mirtel system will allow a conversation before automatically hanging up. The time period restricts only calls to tenants or from the pre-programmed phone numbers. Calls to the Concierge or Front Door are not time restricted. Outside line access is not time limited. A ten second warning beep is heard before the unit hangs-up. Talk time is factory set for five minutes. (1 to 5 minutes.)

Outside Line Access Code

A four digit access code restricts the Concierge use of the optional dedicated line.

1. Press " * " then " 09 " and the 4-digit Master Code. A short tone will be heard.
2. Enter a 4-digit access code. It must be 4000 or larger.
3. Press " * " to enter the code. A short tone will be heard.
4. Hang up or wait 16 seconds to end the programming session.

Phone Number Entry

The 9100 is able to dial out 2 pre-programmed telephone numbers.

For the first number;

1. Press " * " then " 10 " and the 4-digit Master Code. A short tone will be heard.
2. Enter a 4-digit area code. Example: " 1416 " or " #### " if an area code is not required. Press " * " to enter. A short tone will be heard.
3. Enter the desired 7-digit phone number.
Press " * " to enter the number. A short tone will be heard.
4. Hang up or wait 16 seconds to end the programming session.

For the second number;

1. Press " * " then " 11 " and the 4-digit Master Code. A short tone will be heard.
2. Enter a 4-digit area code. Example: " 1416 " or " #### " if an area code is not required. Press " * " to enter. A short tone will be heard.
3. Enter the desired 7-digit phone number.
Press " * " to enter the number. A short tone will be heard.
4. Hang up or wait 16 seconds to end the programming session.

9100 MAIN CONTROL CABINET RJ71C BLOCK IDENTIFICATION FORM

RJ71 BLOCK/ RELAY BOARD	PHONE NUMBER	RJ71 PINS INPUT/OUTPUT	APT. NUMBER	DIRECTORY CODE	RELAY NUMBER	RJ71 BLOCK/ RELAY BOARD	PHONE NUMBER	RJ71 PINS INPUT/OUTPUT	APT. NUMBER	DIRECTORY CODE	RELAY NUMBER
1		1,2/27,28			0	5		1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11		23,24/49,50			11		
2		1,2/27,28			0			1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11			23,24/49,50			11	
3		1,2/27,28			0			1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11			23,24/49,50			11	
4		1,2/27,28			0			1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11			23,24/49,50			11	

RJ71C WIRING REFERENCE

THE FOLLOWING WIRE LIST IS HOW THE RJ71C
BLOCK MUST BE WIRED:

PUNCH DOWN PIN		AMPHENOL CONNECTOR PIN
1	---	26
2	---	27
3	---	28
4	---	29
5	---	30
6	---	31
7	---	32
8	---	33
9	---	34
10	---	35
11	---	36
12	---	37
13	---	38
14	---	39
15	---	40
16	---	41
17	---	42
18	---	43
19	---	44
20	---	45
21	---	46
22	---	47
23	---	48
24	---	49
25	NOT USED	
26	NOT USED	
27	---	1
28	---	2
29	---	3
30	---	4
31	---	5
32	---	6
33	---	7
34	---	8
35	---	9
36	---	10
37	---	11
38	---	12
39	---	13
40	---	14
41	---	15
42	---	16
43	---	17
44	---	18
45	---	19
46	---	20
47	---	21
48	---	22
49	---	23
50	---	24

INCOMING LINES FROM PHONE CO.

OUTGOING PHONE LINES TO APTS.

9200 AUXILIARY CABINET RJ71C BLOCK IDENTIFICATION FORM

RJ71 BLOCK/ RELAY BOARD	PHONE NUMBER	RJ71 PINS INPUT/OUTPUT	APT. NUMBER	DIRECTORY CODE	RELAY NUMBER	RJ71 BLOCK/ RELAY BOARD	PHONE NUMBER	RJ71 PINS INPUT/OUTPUT	APT. NUMBER	DIRECTORY CODE	RELAY NUMBER
1		1,2/27,28			0	5		1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11		23,24/49,50			11		
2		1,2/27,28			0	6		1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11		23,24/49,50			11		
3		1,2/27,28			0	7		1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11		23,24/49,50			11		
4		1,2/27,28			0	8		1,2/27,28			0
		3,4/29,30			1			3,4/29,30			1
		5,6/31,32			2			5,6/31,32			2
		7,8/33,34			3			7,8/33,34			3
		9,10/35,36			4			9,10/35,36			4
		11,12/37,38			5			11,12/37,38			5
		13,14/39,40			6			13,14/39,40			6
		15,16/41,42			7			15,16/41,42			7
		17,18/43,44			8			17,18/43,44			8
		19,20/45,46			9			19,20/45,46			9
		21,22/47,48			10			21,22/47,48			10
	23,24/49,50			11		23,24/49,50			11		

Notice For All Telephone Entry Systems Sold In Canada

NOTICE:

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE:

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the Load Numbers of all the devices does not exceed 100.

WARRANTY

MIRCOM Technologies Ltd., manufactured equipment is guaranteed to be free of defects in material and workmanship for a period of one (1) year from the date of original shipment. MIRCOM will repair or replace, at its option, any equipment which it determines to contain defective material or workmanship. Said equipment must be shipped to MIRCOM prepaid. Return freight will be prepaid by MIRCOM. We shall not be responsible to repair or replace equipment which has been repaired by others, abused, improperly installed, altered or otherwise misused or damaged in any way. Unless previously contracted by MIRCOM, MIRCOM will assume no responsibility for determining the defective or operative status at the point of installation, and will accept no liability beyond the repair or replacement of the product at our factory or authorised service depot.

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FAX: 714-436-1304

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