ǂ MIRCOM ®
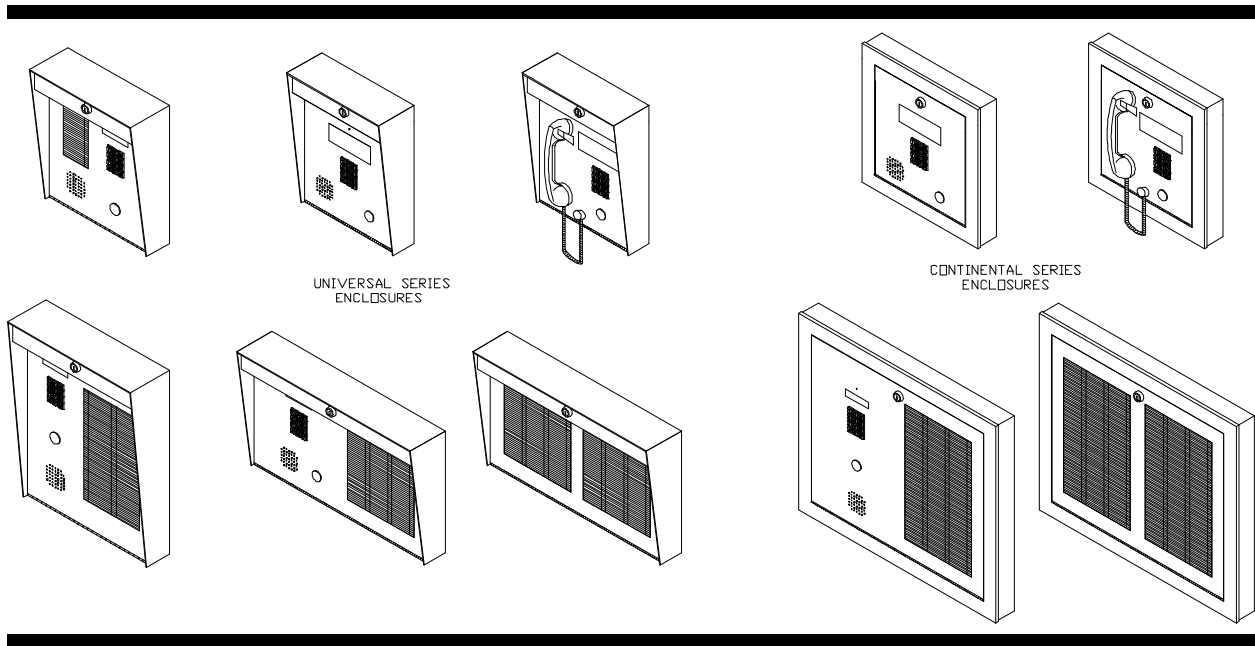
ADC Series
Autodialer Telephone Access Systems

Scrolling & Non-Scrolling Directory

INSTALLATION, PROGRAMMING, and TROUBLESHOOTING MANUAL

UNIVERSAL SERIES
ENCLOSURES

CONTINENTAL SERIES
ENCLOSURES

☞**NOTICE**
All information, documentation, and specifications contained in this manual are subject to change without prior notice by the manufacturer.

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IMPORTANT NOTICE

Notice for all ADC SeriesTelephone Entry Systems Sold in Canada

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 telecommunication 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 degradations 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 alteration 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 Earth 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 devices does not exceed **100**.

Industry Canada (formerly D.O.C.) Registration Number: **1156 6662 A**
Load Number: **4.4**

Notice for all ADC Series Telephone Entry Systems Sold in U.S.A.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING : Changes or Modifications not expressly approved by MIRCOM TECHNOLOGIES LTD. could void the users authority to operate the equipment.
F.C.C. Registration Number: **1M8CAN-22412-OT-E**
DC REN: **0.5**
AC REN: **0.3B**

Notice for all ADC series Telephone Entry System Sold Internationally:

Conformity to the local Tel. Co. standards must be reviewed before installation of ADC Series Telephone Access Systems.

SYSTEM FEATURES

SCROLLING DIRECTORY FEATURES:

✓ SCROLLING DIRECTORY
✓ Programmable using the lobby panel's keypad
  or IBM® PC
✓ 15 Characters Resident/Tenant Name length.
✓ Up to 1000 programmable Telephone Numbers; up to 11 digits
  with up to 10 Area Code prefixes.
✓ Up to 1000 4-digits programmable Keyless Entry Codes.
  Main Door activation codes from 0000 to 4999
  Auxiliary Door activation codes from 5000 to 9999
✓ 4 lines by 20 characters VFD (Vacuum Fluorescent Display)

NON-SCROLLING DIRECTORY FEATURES:

✓ Up to 1000 programmable Telephone Number; up to 11 digits
  with up to 10 Area Code prefixes.
✓ Up to 1000 4-digits programmable Keyless Entry Codes.
  Main Door activation codes from 0000 to 4999
  Auxiliary Door activation codes from 5000 to 9999
✓ SUPERTWIST 2 lines by 16 characters backlit
  extended temperature LCD display.

COMMON FEATURES FOR BOTH SCROLLING AND NON-SCROLLING TEL. ACCESS SYSTEMS:

✓ Programmable Pulse(Rotary) or Tone(DTMF) dialling.
✓ User selectable door activation number.
  Main Door relay: 0 to 9 (DTMF) or 7,8,9,0 (Pulse)
  Auxiliary Door relay: 0 to 9 (DTMF only)
✓ Programmable Master Code for security and programming access.
✓ One 11-digit telephone number for long distance call.
✓ Variable Dial Code length: 1,2,3, or 4 digits format.
✓ Single or Multiple Entrances capability.
✓ Door Override connection for fire alarm; doors will pulse open during emergency.
✓ Built-in Post Office Lock micro switch.
✓ Connection for "Lock Back" door contact to provide door timer cutoff to prevent "tailgating".
✓ Entrance Active Relay Contacts for use of camera activation.
✓ Programmable "Door Open" timer (99 seconds max.)
✓ Programmable "On Line or Conversation Time" timer (99 minutes max.).
✓ Nonvolatile memory (EEPROM), retains programmed information during power failure.
✓ Watch Dog Timer circuit to automatically reset the unit to eliminate system latch-up.
✓ Voice Mail Access capability -the required digits can be entered through the entry panel's keypad.

INTRODUCTION

MIRCOM'S ADC Series Controllers provides a hands-free communication (handset optional) and security controls of devices such as electric door locks, camera, and garage door (auxiliary) in a multi-unit dwelling establishments. The system required a dedicated telephone line to operate. It can be configured for Multiple entrances with independent doors and camera activation function. Its enhanced unique capability to access a voice mail telephone system enables the user to use the entry panel keypad to enter the required digit(s) to reach the individual extension number or to leave important messages. The system uses a nonvolatile memory (EEPROM) that retains programmed information even in the event of power failure. Installation is quick and simple featuring a low voltage operation and complete system programmability using the entry panel's keypad or IBM® PC[†].

†Trademark of International Business Machines

SPECIFICATIONS

The operating temperature range is 50°C (122°F) to -20°C(-4°F). For installation where the ambient temperature falls below 0°C (32°F), it is <u>necessary</u> that a TH-101 Thermostat Heater be installed within the enclosure.

The Power Supply voltage range should be 105 to 128 VAC.

Use only Loop Start telephones (not ground start), check with your local telephone company.

OPERATION

STANDARD OPERATION FOR SCROLLING DIRECTORY UNITS:

Visitor calling the Resident:
At the entry point (lobby), the visitors locates the Resident's *Dial Code and Name* by scrolling through the directory list displayed on the screen by using the ***** or **#** keys. Pressing the ***** or **#** key momentarily will scroll the list "up or down" one name at a time. Holding the ***** or **#** key will scroll the list "up or down" continuously and stop scrolling when the key is released. A known *Dial Code* can be entered directly on keypad without scrolling.When a call is placed, a confirmation ring should be heard on the speaker. When a call is answered, the visitor should be online with the Resident. While online, the Resident may open the appropriate door by dialling the designated number (as programmed) or simply by hanging-up the phone to refuse entry.

STANDARD OPERATION FOR NON-SCROLLING DIRECTORY UNITS:
Visitor calling the Resident:
At the entry point (lobby), the visitors locate the Resident's *Dial Code* on the directory and enter the appropriate code number on keypad. When a call is placed, a confirmation ring should be heard on the speaker. When a call is answered, the visitor should be online with the Resident. While online, the Resident may open the appropriate door by dialling the designated number (as programmed) or simply by hanging-up the phone to refuse entry.

Important Notice:
Residents' telephone (s) must be capable of generating a *"Touch Tone"* or *DTMF* (dual tone multi frequency) or rotary *"Pulse"* signal for the door release circuit to activate. Below are the valid numbers to open doors.

Main Door	*Auxiliary Door*
Select one from 0 to 9 (DTMF) or 7,8,9,0 (Pulse)	Select one from 0 to 9 (DTMF only)
Default is "**9**"	Default is "**6**"

SYSTEM BLOCK DIAGRAMS

SINGLE ENTRANCE APPLICATION:
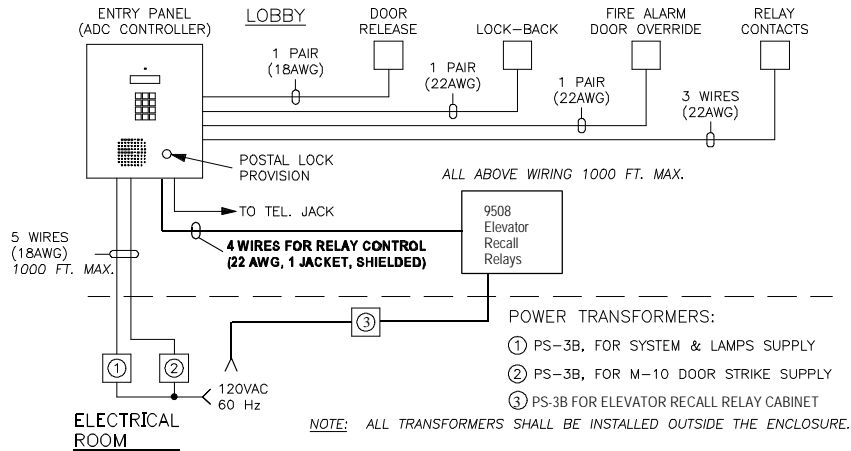
MULTIPLE ENTRANCES APPLICATION:
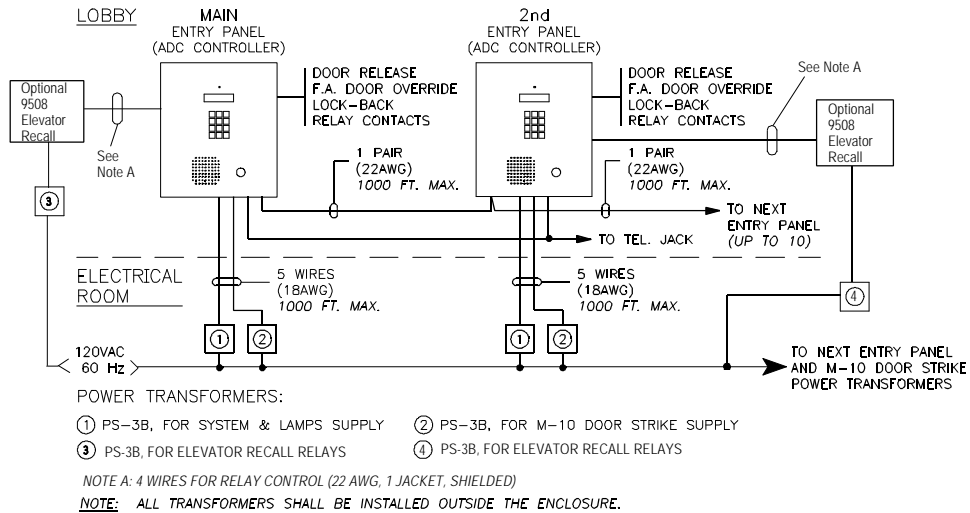
PRE-INSTALLATION PLANNING

Before the actual installation begins, the system requires various items to be prearranged and are described below:

1. ENTRY OR LOBBY PANEL TYPES

The **UNIVERSAL** series entry/lobby panels are hooded surface mount enclosures with built-in lighting for outdoor or indoor applications. Optional flush trim rings are available for semi-flush installations. There are eight (8) models available and are listed below:

Universal Panels for Scrolling Directory:

Model MUS-5000SV ⇨ Stainless Steel finish entry panel comes with keypad, 4x20 VFD display, microphone, speaker, and micro switch for postal lock. No controller.

Model MUS-5000SHV ⇨ Stainless Steel finish entry panel comes with keypad, 4x20 VFD display, armoured handset, and micro switch for postal lock. No controller.

Universal Panels for Non-Scrolling Directory:

Model MUS-5000 ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, microphone, speaker, and micro switch for postal lock. No directory and controller.

Model MUS-5000H ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, handset, and micro switch for postal lock. No directory and controller.

Model MUS-5024 ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, microphone, speaker, micro switch for postal lock, and paper directory for 24 names. No controller.

Model MUS-5120 ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, microphone, speaker, micro switch for postal lock, and paper directory for 120 names. No controller.

Model MUS-5120H ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, handset, micro switch for postal lock and paper directory for 120 names. No controller.

Model MUS-5120V ⇨ Stainless Steel finish **_Vertical (slim)_** entry panel comes with keypad, 2x16 LCD display, microphone, speaker, micro switch for postal lock, and paper directory for 120 names. No controller.

Accessories:

Model MUFT-5000P ⇨ Flush trim ring for MUS-5000/H/S/SH and MUS-5024 panels. Painted black (textured).

Model MUFT-5120P ⇨ Flush trim ring for MUS-5120/H, and MPD-5240 panels. Painted black (textured).

Model MUFT-5120VP ⇨ Flush trim ring for MUS-5120V panel. Painted black (textured).

Model MPD-5120 ⇨ Stainless Steel add-on paper directory panel, 120 names capacity.

Model MPD-5240 ⇨ Stainless Steel add-on paper directory panel, 240 names capacity.

Model MLK-040 ⇨ Magnetic strips directory kit, 40 names capacity. It comes with plastic letters, magnetic strips, brackets, and hexnuts.

Model TH-101 ⇨ Thermostat heater.

Note: Painted Silver, Gold & Copper Vein lobby panels are available by custom order.

The **CONTINENTAL** series entry/lobby panels are designed for indoor applications only. These elegant lobby panels can be mounted either flush or surfaced by selecting the appropriate backbox. There are six (6) models available and are listed below:

Continental Panels for Scrolling Directory:

Model MCS-6001SV ⇨ Stainless Steel finish entry panel comes with keypad, 4x20 VFD display, microphone, speaker, and micro switch for postal lock. No controller.

Model MCS-6001SHV ⇨ Stainless Steel finish entry panel comes with keypad, 4x20 VFD display, armoured handset, and micro switch for postal lock. No controller.

Continental Panels for Non-Scrolling Directory:

Model MCS-6000 ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, microphone, speaker, and micro switch for postal lock. No directory and controller.

Model MCS-6000H ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, handset, and micro switch for postal lock. No directory and controller.

Model MCS-6240 ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, microphone, speaker, micro switch for postal lock, and paper directory for 240 names. No controller.

Model MCS-6240H ⇨ Stainless Steel finish entry panel comes with keypad, 2x16 LCD display, handset, micro switch for postal lock and paper directory for 240 names. No controller.

Accessories:

Model MPD-6240 ⇨ Add-on paper directory panel, 240 names capacity.
Model MPD-6480 ⇨ Add-on paper directory panel, 480 names capacity.
Model BBF-6001 ⇨ Flush backbox for MCS-6001S/SH. Satin coat finish.
Model BBS-6003 ⇨ Surface backbox for MCS-6001S/SH. Painted black (textured).
Model BBF-6101 ⇨ Flush backbox for MCS-6000, MCS-6000H, and MPD-6120 panels.
Model BBF-6102 ⇨ Flush backbox for MCS-6240, MCS-6240H, and MPD-6480 panels.
Model BBS-6301 ⇨ Surface backbox for MCS-6000, MCS-6000H, and MPD-6240.
Model BBS-6302 ⇨ Surface backbox for MCS-6240, MCS-6240H, and MPD-6480 panels.
Model MLK-070 ⇨ Magnetic strip directory kit, 70 names capacity. It comes with plastic letters, magnetic strips, brackets, and hexnuts.

Note: Painted Silver, Gold & Copper Vein lobby panels are available by custom order.

2. CONTROLLERS

SCROLLING DIRECTORY CONTROLLERS: For both LCD and VFD Display

Model ADC-0040SDA ⇨ Autodialer Telephone Access Controller, 40 Residents capacity.
Model ADC-0120SDA ⇨ Autodialer Telephone Access Controller, 120 Residents capacity.
Model ADC-0360SDA ⇨ Autodialer Telephone Access Controller, 360 Residents capacity.
Model ADC-0800SDA ⇨ Autodialer Telephone Access Controller, 800 Residents capacity.

Optional Programming Software Kit:

Model **RS-485IMK** consists of MirSoft TAS programming software, RS-485 interface module, and cable is an optional programming kit to enable the user to **upload** or **download** Residents' names, dial codes, keyless entry codes, and relay line numbers using a personal computer. This software can be used on   IBM® PC/XT/286/386/486/Pentium Compatible PC under MS-DOS® version 5 or higher, Windows 95® or higher, OS/2® with Colour or Monochrome Text Screen (MDA, CGA, EGA, VGA, SVGA) capability and one serial port. To order this kit, please consult our factory for further information.

NON-SCROLLING DIRECTORY CONTROLLERS:

Model ADC-0040A	⇨	Autodialer Telephone Access Controller, 40 Residents capacity.
Model ADC-0120A	⇨	Autodialer Telephone Access Controller, 120 Residents capacity.
Model ADC-0360A	⇨	Autodialer Telephone Access Controller, 360 Residents capacity.
Model ADC-0960A	⇨	Autodialer Telephone Access Controller, 960 Residents capacity.

Note: Please see page 4 for System Block Diagram for more information.

3. SYSTEM & DOOR RELEASE POWER REQUIREMENTS

A single Mircom's **PS-3B** (Tri-Volt) power transformer is required to power the unit and lamps. A second power transformer is required to operate the door release. Please note that the transformer and the door release must be compatible. When using Mircom's **M-10** door strike, a compatible **PS-3B** power transformer with 8VAC tapped is used to power the door strike. If using an equivalent door release, the maximum strike load that may be switched through the control unit is 28 VAC or DC, 3 Amp. maximum.

Below are the available power supplies and door strikes:

Model PS-2	⇨	16 VAC / 20 VA, CSA approved Class 2 Power Transformer.
Model PS-4	⇨	16 VAC / 40 VA, CSA approved Class 2 Power Transformer.
Model PS-3B	⇨	8 VAC /13 VA, 16 VAC /17 VA, 24 VAC /20 VA, CSA approved Class 2 Power Transformer.
Model SPS-600W	⇨	600 Watts Standby Battery Supply.
Model M-10	⇨	DC (silent) or AC (buzzing) Door Strike. Use PS-3B transformer.
Model M-10HD	⇨	AC (buzzing) Heavy Duty Door Strike. Use PS-3B transformer.
Model M-20	⇨	DC (silent) or AC (buzzing) Heavy Duty Door Strike. Use PS-3B transformer.

<u>**Important note**</u>*:* The door strike must have its own separate power transformer. Do not tap or use the system power transformer.

Notes: Please see appendix "A", page 43 for specifications.
Please see page 4 for System Block Diagram for more information.

4. SITE SELECTION

Install the Entry Panel as near as possible to the controlled entry point. Do not install the system to a location where the LCD display is exposed to direct sunlight since it will degrade the visibility.

5. TELEPHONE LINE

A Pulse (rotary) or Touch-Tone (DTMF) dedicated telephone line is required for single or multiple entrances configuration. If possible, have the jack installed inside the control unit enclosure. Provide the following information to phone company when ordering a telephone line:

Industry Canada (formerly D.O.C.) Registration Number: **1156 6662 A**

F.C.C. Registration Number: **1M8CAN-22412-OT-E**

6. WIRING REQUIREMENTS

Count the number of wires and identify the proper gauges that are required for your system configuration. For typical Single or Multiple entrances applications, please refer to page 4 for System Block Diagram. For custom applications, we recommend to consult our Engineering Field Support Personnel for evaluation.

7. POST OFFICE LOCK

The system has a built-in micro switch and mounting hardware for postal lock installation. If a postal service is required, contact the Post Office to obtain the lock.

ENCLOSURES AND ACCESSORIES INSTALLATION INSTRUCTIONS

MOUNTING THE UNIVERSAL TYPE LOBBY/ENTRY PANEL

Mount the panel as shown in FIG.1, FIG.2, and FIG. 2A using the supplied screws.

FIG.1: SEMI-FLUSH TRIM RING INSTALLATION
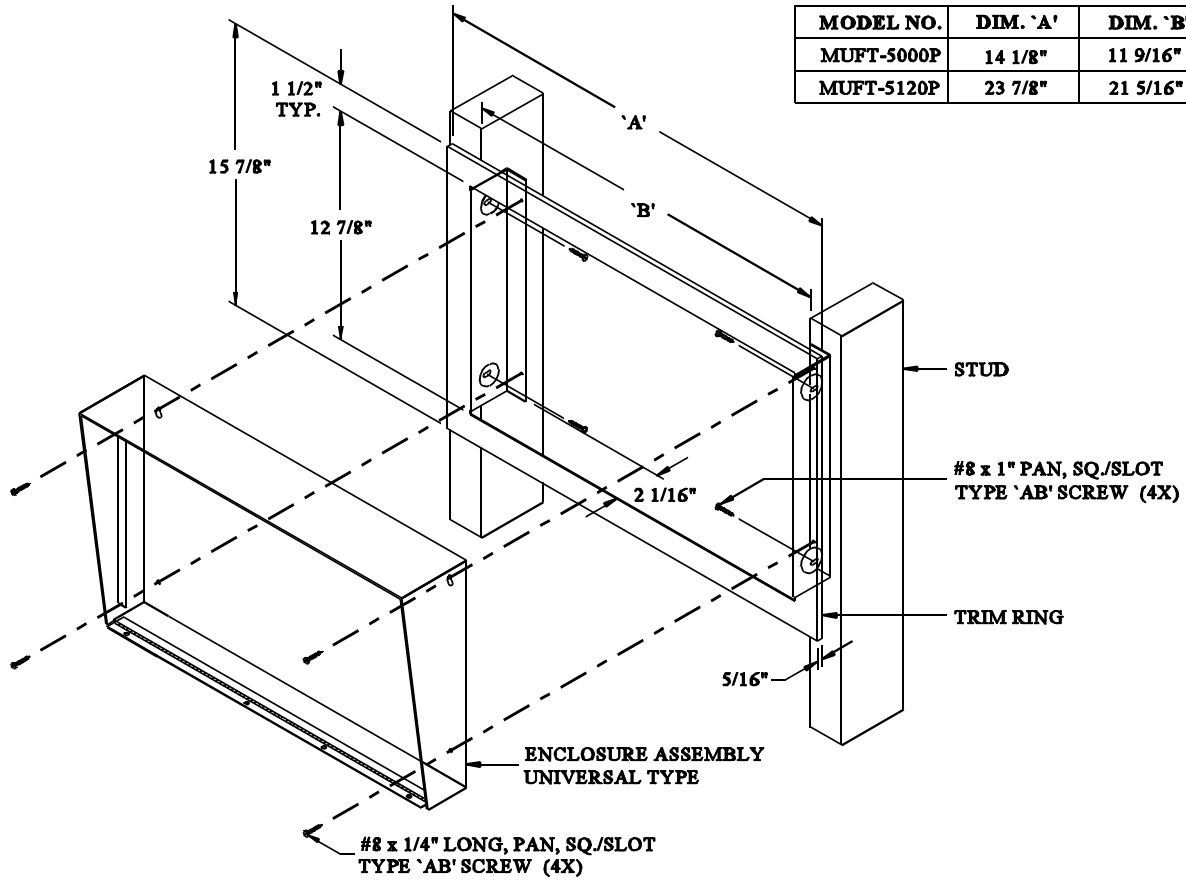
TRIM RINGS

MODEL NO.	DIM. `A'	DIM. `B'
MUFT-5000P	14 1/8"	11 9/16"
MUFT-5120P	23 7/8"	21 5/16"

1 1/2" TYP.

15 7/8"

12 7/8"

`A'

`B'

STUD

2 1/16"

#8 x 1" PAN, SQ./SLOT TYPE `AB' SCREW (4X)

TRIM RING

5/16"

ENCLOSURE ASSEMBLY UNIVERSAL TYPE

#8 x 1/4" LONG, PAN, SQ./SLOT TYPE `AB' SCREW (4X)

FIG. 2: PANEL INSTALLATION

`A`

`B`

9 11/16"

15/16"

1 7/16"

4 5/16"

2"

9 11/16"

12 3/4"

7/8" & 1 1/8"
KNOCKOUTS (6X)

1 7/16"

FRONT VIEW

4 1/2"

2"

3/4"

BOTTOM VIEW

4 3/16"

2 1/2"

WALL

SIDE VIEW
(SURFACE)

2 1/2"

1 3/4"

1 9/16"

FLUSH
TRIM
RING

5/16"

WALL

SIDE VIEW
(SEMI-FLUSH)
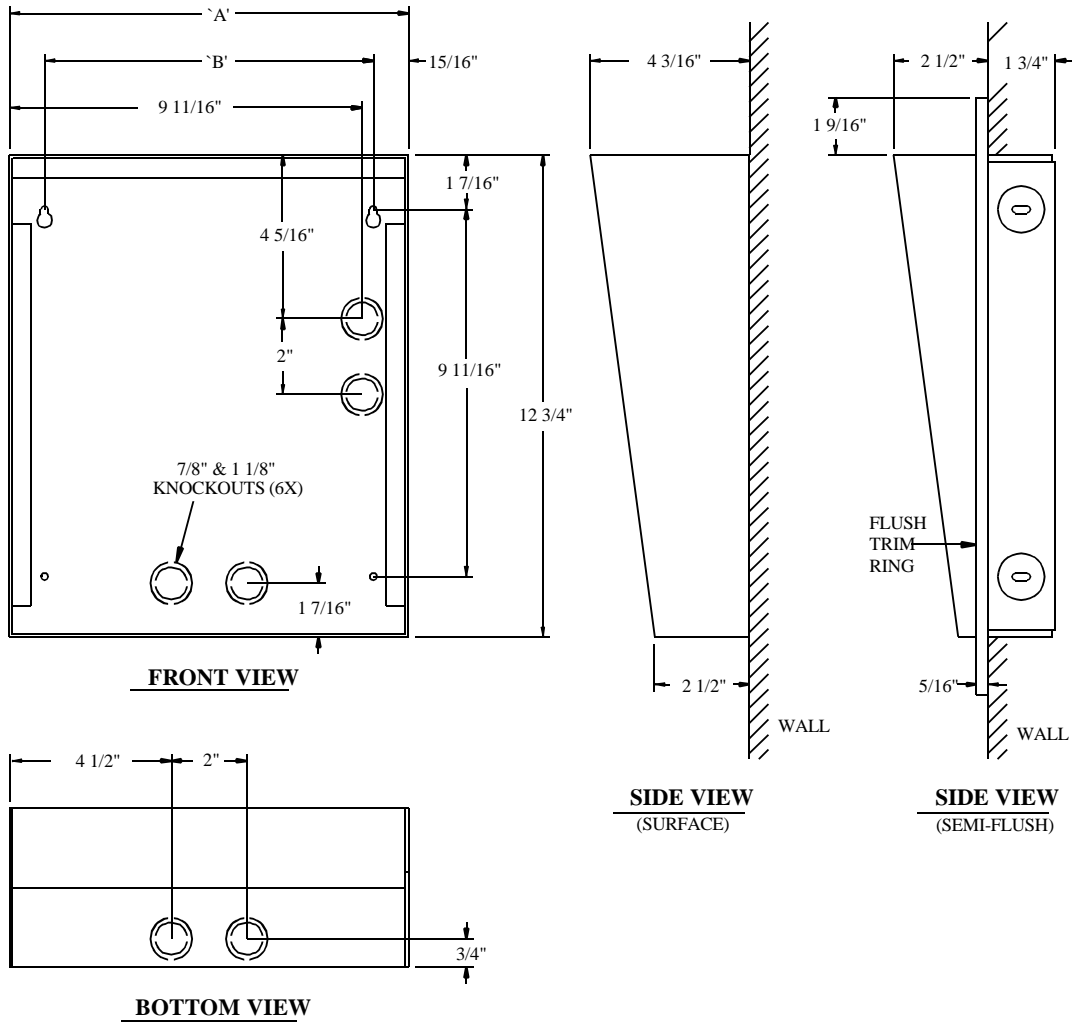
MODEL NO.	DIM. `A`	DIM. `B`	SEMI-FLUSH TRIM RING IF REQUIRED
MUS-5000/H/S/SH, MUS-5024,MPD-5120	11"	9 3/16"	MODEL MUFT-5000P
MUS-5120, MUS-5120H, MPD-5240	20 3/4"	18 15/16"	MODEL MUFT-5120P

FIG.2A: MUS-5120V (Slim Vertical) PANEL INSTALLATION

FRONT VIEW

13 3/8"
11 1/2"
1 7/16"
3"
1 1/2"
7 11/16"
2"
13 5/8"
17 3/8"
7/8" & 1 1/8"
KNOCKOUTS (6X)
1 7/16"
7 7/8"
2"

BOTTOM VIEW

5 11/16"
2"
3/4"

SIDE VIEW
(SURFACE)

4 3/16"
2 1/2"
WALL

SIDE VIEW
(FLUSH)

2 1/2"
1 3/4"
1 9/16"
FLUSH
TRIM
RING
5/16"
WALL

FLUSH—MOUNTING RING IF REQUIRED
MODEL MUFT—5120VP
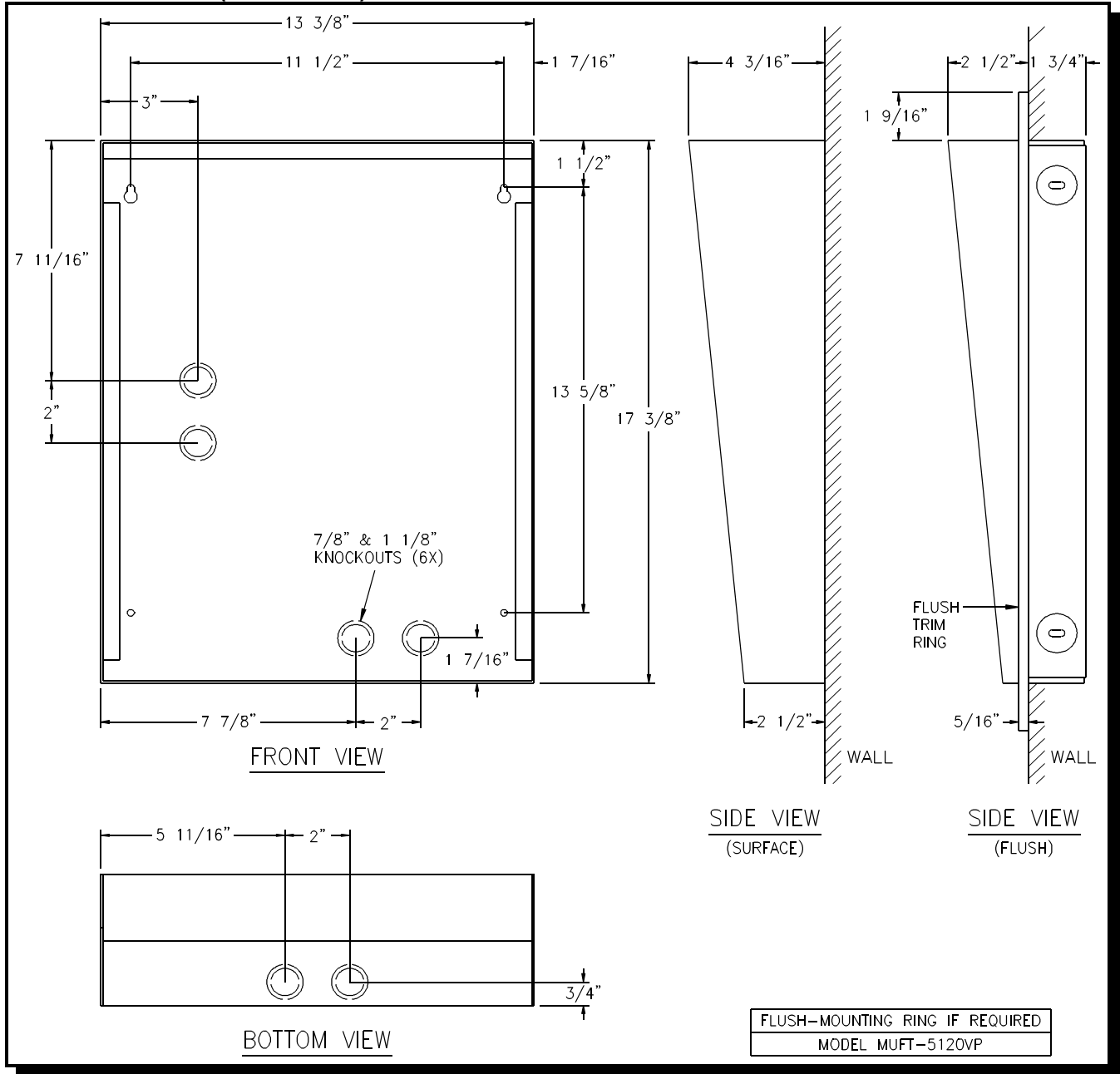
MOUNTING THE MAGNETIC LETTER KIT MODEL MLK-040 (OPTIONAL)

Mount the Magnetic Letter Kit according to the Installation Instruction (LT-460) that comes with the Kit. Extra characters and magnetic strips can be ordered separately. Please contact the factory or our nearest dealer.

MOUNTING THE THERMOSTAT HEATER KIT MODEL TH-101 (OPTIONAL)

Mount the Heater Kit according to the Fig 2B. Install the TH-101 Heater into bottom left hand corner of the universal enclosure using the two spacers and two hex nuts provided. Use a pair of #18 AWG wires to connect from the TH-101 unit to 24VAC tap on the PS-3B transformer. The transformer must be installed outside the enclosure.

Fig. 2B HEATER INSTALLATION

ENCLOSURE ASSEMBLY
UNIVERSAL TYPE

#6 HEX NUT (2X)

TH-101 HEATER

#6 SPACER (2X)

#18 AWG

24VAC

16VAC   8VAC

PS-3B
TRANSFORMER

NOTE: This transformer shall be
      installed outside the enclosure.

120VAC 60Hz
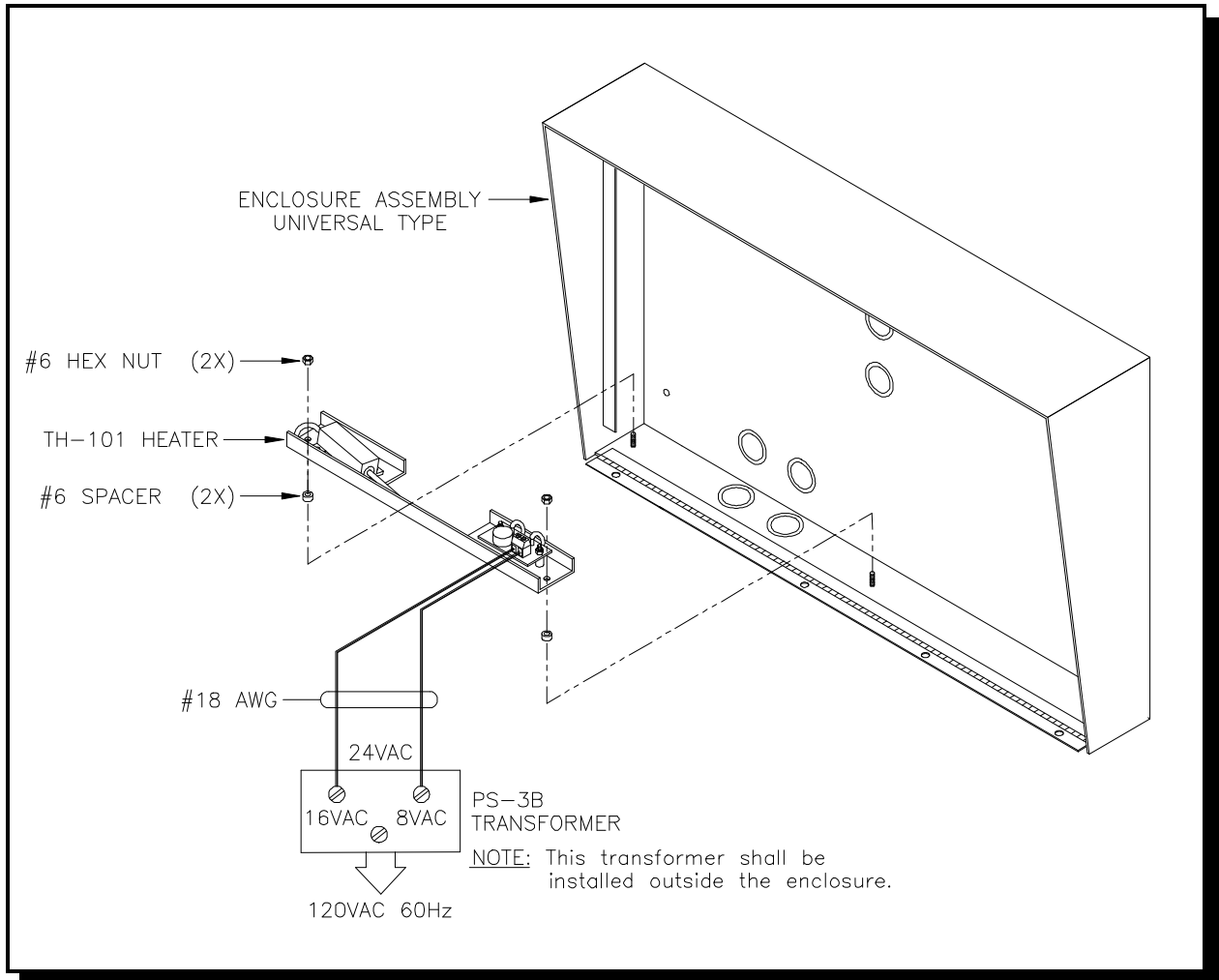
MOUNTING THE CONTINENTAL TYPE LOBBY/ENTRY PANEL

Mount the panels as shown in **FIG.3** (*for scrolling*) or **FIG.3A** (*for non-scrolling*) using the supplied screws.

FIG. 3: SCROLLING DIRECTORY PANELS

FRONT VIEW

(DOOR NOT SHOWN)

7/8" & 1 1/8"
KNOCKOUTS (4X)
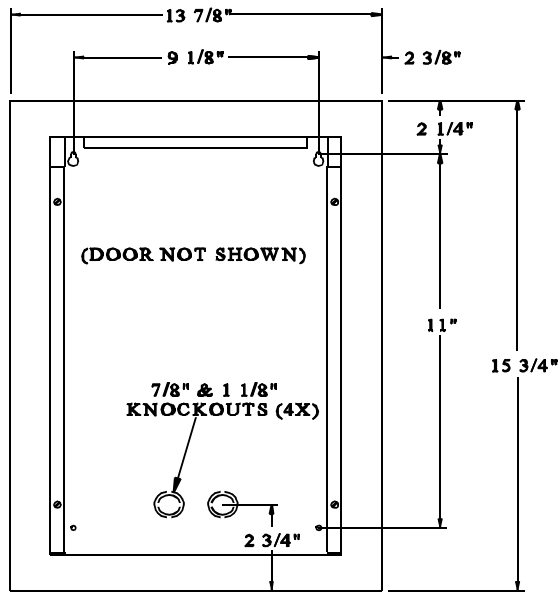
DOOR FRAME FOR
MCS-6001S , MCS-6001SH
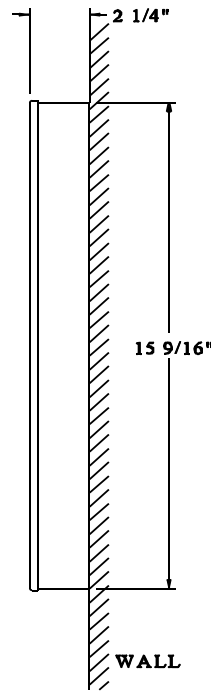
SIDE VIEW
(SURFACE)

SIDE VIEW
(FLUSH)

WALL
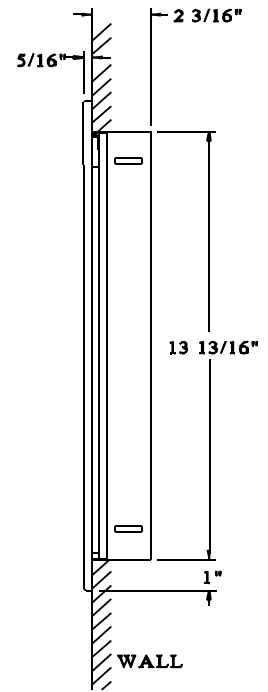
BOTTOM VIEW
(SURFACE)
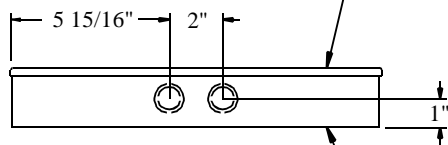
BACKBOX

BOTTOM VIEW
(FLUSH)

BACKBOX

BACKBOX (SURFACE)	WIDTH	HEIGHT	DEPTH
BBS-6003	13 11/16"	15 9/16"	2 3/16"

BACKBOX (FLUSH)	WIDTH	HEIGHT	DEPTH
BBF-6001	11 1/4"	13 13/16"	2 3/16"

FIG. 3A: NON-SCROLLING DIRECTORY PANELS

FRONT VIEW

(DOOR NOT SHOWN)

7/8" & 1 1/8"
KNOCKOUTS (4X)

DOOR FRAME

BOTTOM VIEW
(SURFACE)

BACKBOX

BOTTOM VIEW
(FLUSH)

BACKBOX

SIDE VIEW
(SURFACE)

WALL

SIDE VIEW
(FLUSH)

WALL

BACKBOX (SURFACE)	WIDTH	HEIGHT	DEPTH
BBS-6301	13 11/16"	20 5/16"	2 3/16"
BBS-6302	23 7/16"	20 5/16"	2 3/16"

BACKBOX (FLUSH)	WIDTH	HEIGHT	DEPTH
BBF-6101	11 1/4"	18 1/2"	2 3/16"
BBF-6102	21"	18 1/2"	2 3/16"

PANEL MODEL NO.	DIM. `A'	DIM. `B'
MCS-6000, MCS-6000H, MPD-6240	13 7/8"	9 3/16"
MCS-6240, MCS-6240H, MPD-6480	23 5/8"	18 15/16"

MOUNTING THE MAGNETIC LETTER KIT MLK-070 (OPTIONAL)

Mount the Magnetic Letter Kit according to the Installation Instruction (LT-460) that comes with the Kit. This kit is used only for Continental type lobby/entry panel.

SYSTEM WIRING INSTRUCTIONS

WIRING THE DOOR STRIKE
Wire the Door Strike as shown in FIG.4.

FIG. 4: DOOR STRIKE WIRING

CONTROLLER

DOOR	T3
SUPPLY	T4
DC DOOR +	L1
STRIKE -	L2
AC DOOR	L3
STRIKE	L4

18 AWG

CONNECT TO L1(+) & L2 (-) FOR
DC (SILENT) OR L3 & L4
FOR AC (BUZZING)

IF USING MIRCOM'S M-10
DOOR STRIKE, USE PS-3B
TRANSFORMER WITH 8VAC
TAP CONNECTED TO
TERMINALS T3 & T4

16VAC   8VAC   PS-3B
TRANSFORMER

120 VAC
60 Hz

M-10
DOOR
STRIKE

NOTES:

THE MAXIMUM STRIKE LOAD THAT
MAY BE SWITCHED THROUGH THE
CONTROL UNIT IS 28 VOLTS AC OR
DC, 3 AMP. MAXIMUM.

DOOR STRIKE AND DOOR STRIKE
TRANSFORMER MUST BE COMPATIBLE.

UNDER NO LOAD CONDITION S THERE MAY BE
VOLTAGE AT TERMINALS L1, L2 AND L3, L4

WIRING THE ELECTROMAGNETIC DOOR LOCK
Wire as shown in FIG. 5.

FIG. 5: ELECTROMAGNETIC LOCK WIRING

CONTROLLER

DOOR	T3
SUPPLY	T4
DC DOOR +	L1
STRIKE -	L2

18 AWG

ELECTROMAGNETIC
LOCK SUPPLY
VOLTAGE

16VAC   8VAC   PS-3B
TRANSFORMER

120 VAC
60 Hz

RL-1000
OR EQUIVALENT

N.C.

C

N.O.

18 AWG

ELECTROMAGNETIC
LOCK
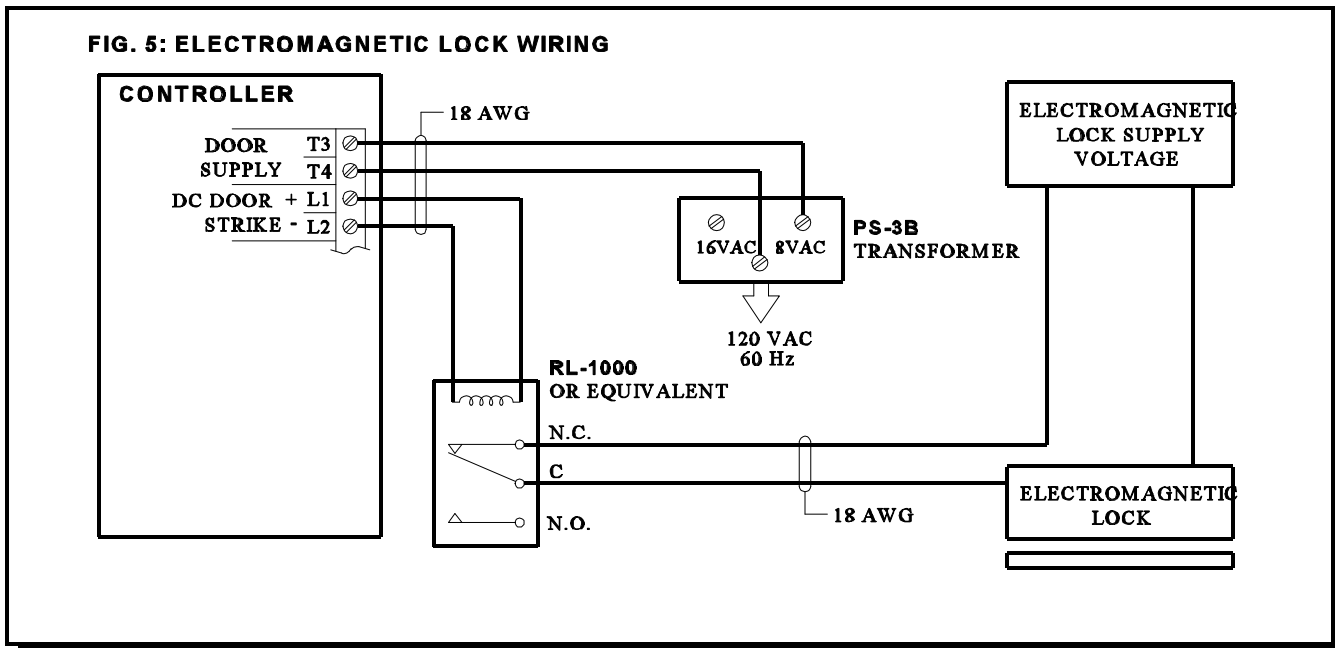
WIRING THE LOCK-BACK SWITCH

Wire the Lock-Back Switch as shown in FIG. 6 to enable automatic door-open timer cut-off.

FIG. 6: LOCK-BACK WIRING

CONTROLLER

22 AWG

B

(LOCK-BACK) LB

N.O.
MAGNETIC
SWITCH

FUNCTION:
When the door release is activated, the door will normally remain open until the programmed door-open timer expires. Using the Lock-Back feature, the door timer will be cut-off as soon as the door is opened. The door will be locked when it closes regardless of the programmed time. Thus, preventing the unauthorized entry of an individual who may follow behind the visitor.

WIRING THE DOOR OVERRIDE (Postal Lock & Fire Alarm)

Wire as shown on FIG.7.

FIG. 7: DOOR OVERRIDE WIRING

CONTROLLER

22 AWG

POSTAL LOCK
MICRO SWITCH

B

(DOOR OVERRIDE) DO

FIRE ALARM SYSTEM

22 AWG

N.C.
C
N.O.

N.O.
FIRE ALARM
DOOR
OVERRIDE
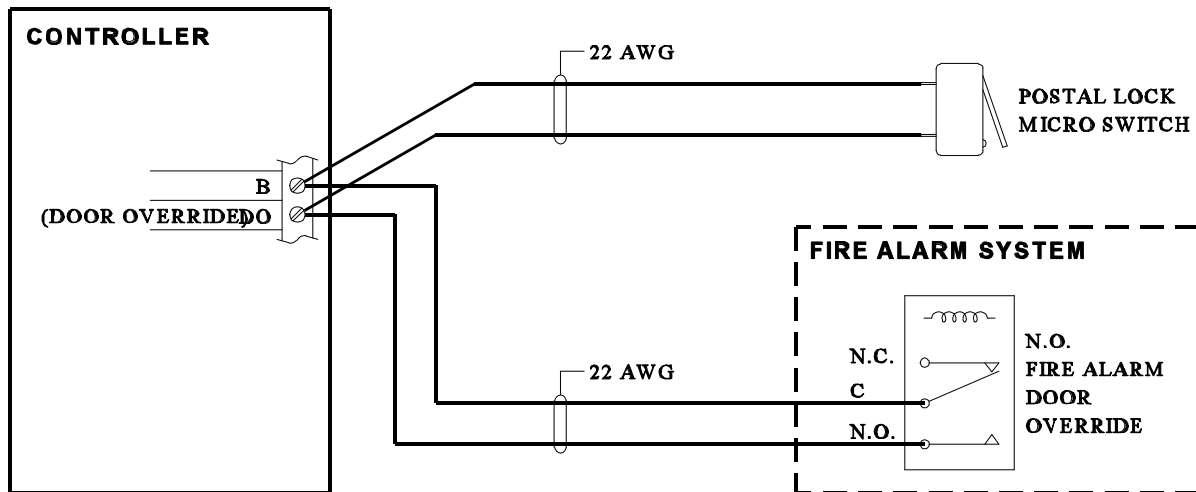
WIRING THE AUXILIARY RELAY and MAIN ENTRANCE ACTIVE RELAY CONTACTS
Wire as shown in FIG.8.

FIG. 8: RELAY CONTACTS WIRING

CONTROLLER

22 AWG

MAIN ENTRANCE ACTIVE RELAY — NC, C, NO

THESE CONTACTS ARE ACTIVATED WHEN COMMUNICATION LINK IS ENGAGED. IT IS INTENDED FOR USE OF CAMERA ACTIVATION OR MULTIPLE ENTRANCES APPLICATION. (28V AC or DC, 2 .0 AMP. MAXIM

AUXILIARY RELAY — NC, C, NO

THESE CONTACTS ARE ACTIVATED BY DIALING THE DIGIT "6". IT IS INTENDED FOR USE OF GARAGE DOOR OR LOBBY WITH AUXILIARY DOOR. (28V AC or DC, 3.0 AMP. MAXIMUM)

WIRING THE SYSTEM and LAMP SUPPLIES
Wire as shown in FIG. 9.

FIG. 9: SYSTEM and LAMP SUPPLY

CONTROLLER

LAMP REPLACEMENT: USE LEECRAFT #1873 ONLY.

For Universal type enclosure only.

TO LAMPS — L6, L5

LAMP SUPPLY — 24VAC — T7, T6

SYSTEM SUPPLY — 8VAC, COM, 16VAC — T5, T2, T1

18 AWG

PS-3B TRANSFORMER

16VAC   8VAC

120 VAC
60 Hz

WIRING THE SPEAKER, MIC., and KEYPAD/DISPLAY ASSEMBLY

FIG. 10: SPK., MIC., KEYPAD/DISPLAY ASSEMBLY WIRING
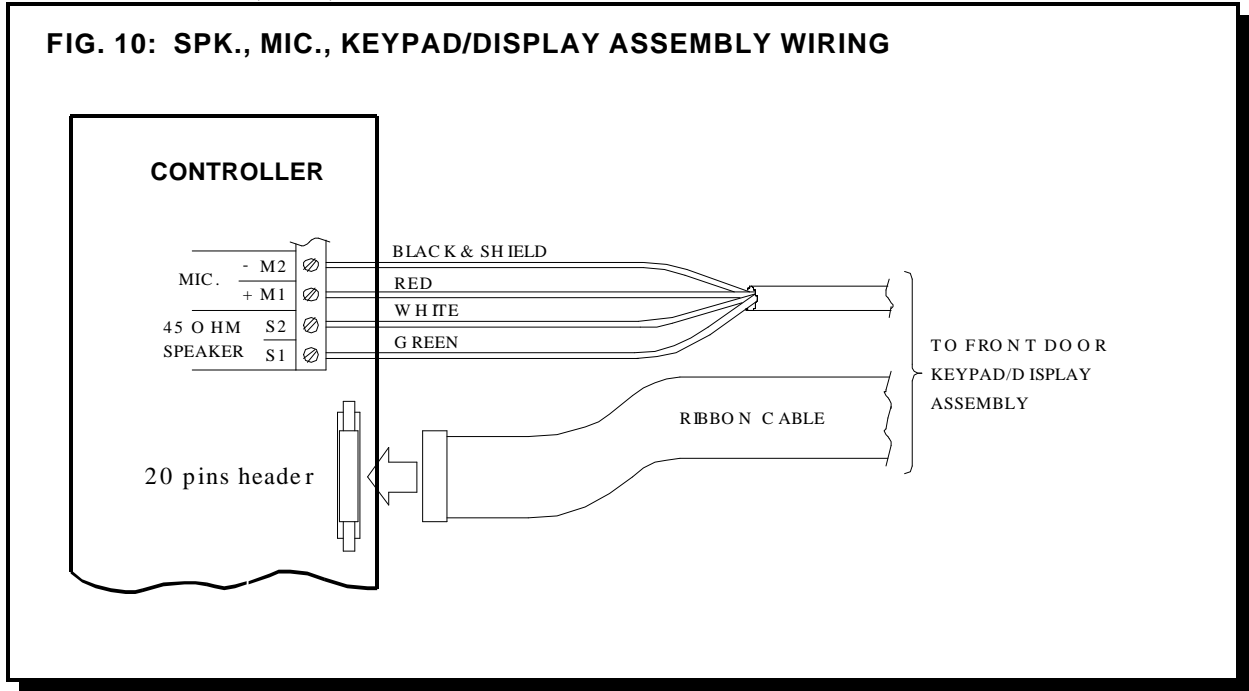
MULTIPLE ENTRANCES and TELEPHONE LINE WIRING

FIG.11: MULTIPLE ENTRANCES and ONE TELEPHONE LINE WIRING
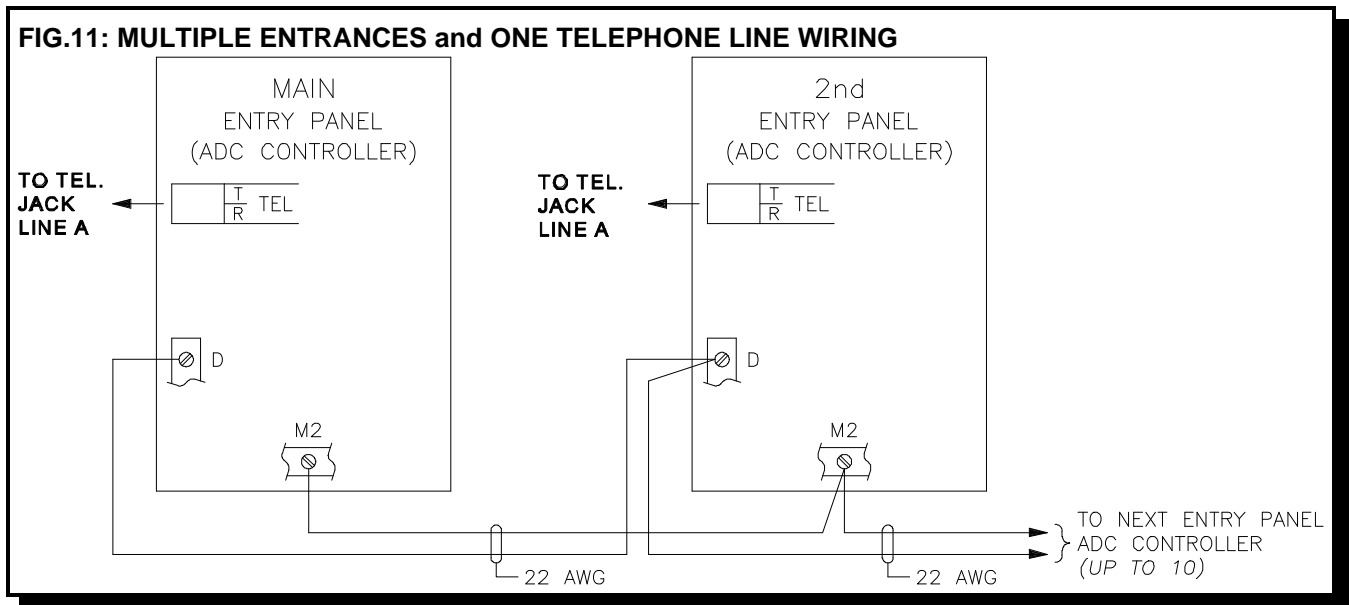
WIRING THE EARTH GROUND - IMPORTANT NOTICE:

Although the electronics of the ADC Series are not Earth Grounded, it is absolutely vital to have good solid **Earth Grounding** connections to each enclosure; that is, a ground bonding wire (preferably at least 14 AWG) that is run to the **NEAREST** confirmed building electrical system ground, or cold water pipe. Newer enclosures will have a clearly marked screw connection on the back marked **"CHASSIS GROUND"**. Older enclosures may be Earth Grounded via a mounting screw if the enclosure metal under the screw is sanded clean of paint to ensure a good electrical connection.

NOTE: IF PROPER GROUNDING REQUIREMENTS ARE NOT FOLLOWED AS OUTLINED, REPAIRS MAY NOT BE COVERED BY WARRANTY.

POWERING THE SYSTEM

Before powering the system, double check all the connections. When all connections are checked, power the system up and observe the system display. If necessary, adjust the contrast as described on Display Contrast Adjustment section.

ELEVATOR-RECALL(RESTRICTION) FEATURE

GENERAL OPERATION

Elevator-Recall(Restriction) is now a standard feature which has been implemented in the ADC Series system for software version 3.0 and up. The feature operates as such: a visitor calls a resident, is then allowed entrance at which point the entry door is opened and the floor relay is activated. When the visitor gets on the elevator, he can only access the floor of the resident. This feature is supported from both the Lobby as well as remote door points-of-access. The feature operates by allowing the installer to (directly) associate the first two digits of the Resident/Tenant Code which a visitor would enter on the lobby keypad (i.e. when trying to call a Resident Suite), with an elevator recall(restriction) relay number. This reserved relay will be activated only after a Resident makes the decision to allow the visitor access to the building (i.e. when the Resident presses the digit which has been programmed to activate the main/remote door latch), so that the main/remote door latch and elevator recall relay are activated at the same time and for the same length of time. We suggest a separate timer be used for each elevator floor relay.

Note: In order to have the Elevator-Recall (Restriction) function, a relay cabinet (with Model 9512E Elevator-Recall Relay Cards installed) is required and it must be jumpered in the 16th position as shown in Fig. 11A.

FIG. 11A: ADC ELEVATOR-RECALL DECODER/MOTHERBOARD JUMPER SETTINGS

DECODER/MOTHERBOARD
MD-342

SEE NOTE

JW1

16th DECODER JUMPER
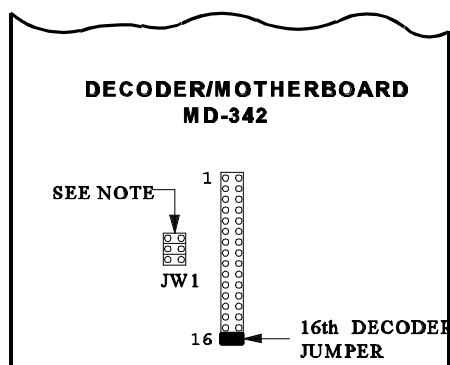
NOTE: INSTALL ALL THREE(3) JUMPERS ON THE DECODER/MOTHER BOARD

The first two digits of the Resident/Tenant Code allow for a range from 01-95 relays to be reserved for this purpose. The relay cabinet has space for 8 cards, each card containing 12 relays. The very last relay in this cabinet is however NOT available, as it is always reserved for use by the ADC system. Thus relays 1 to 95 are available for Elevator-Recall (Restriction).

As an example, take the two Resident/Tenant codes "1201" and "1215", both these codes would activate the same reserved relay number 12. For the purposes of the Elevator-Recall (Restriction) functionality, it is assumed that both Resident/Tenant Codes (i.e. 1201 and 1215) would be assigned to Residents on the same (i.e. 12th) floor. Thus, a maximum of 95 possible relays (each assigned to a separate floor) can be accessed in this manner.

Elevator-Recall (Restriction) is available with single and multiple entrances and is programmed accordingly.

1. SINGLE ENTRANCE - ELEVATOR-RECALL

At the ADC controller the relays are programmed to activate in association with a specific Resident/Tenant Code. Elevator-Recall (Restriction) relays are available as the relays in the relay cabinet designated as sixteen.

For example: A single entrance system consists of an ADC Controller and one relay cabinet. This relay cabinet is used as Elevator-Recall (Restriction) relays (the motherboard is jumpered as shown in Figure 11A). Therefore it is necessary to associate all residents on the same floor with <u>one</u> Elevator-Recall (Restriction) relay. Sample programming at the ADC Controller would be as such:

Resident/Tenant Code	Elevator-Recall Relay
1201	12
1202	12
1203	12
1301	13

Looking at the information above the first two digits of the Resident/Tenant Code represents the resident's floor and the relay. Therefore all residents on the twelfth floor activate the same Elevator-Recall (Restriction) relay (relay number 12 on the first relay card).

2. MULTIPLE ENTRANCES - ELEVATOR RECALL

For systems with more than one entrance, each ADC Controller must be programmed for the Elevator-Recall (Restriction) application separately. Each ADC Controller requires its own set of relays.

EXAMPLE:
When a Resident/Tenant Code of "1205" is entered on the ADC keypad at the entrance, then the <u>Elevator Recall (Restriction)</u> relay number **12** (twelfth relay on card number 1) will be activated. If the Resident/Code is 1822, then relay number **18** (sixth relay on card number 2) will be activated. The relay numbering scheme is tabled below.

**9512E ELEVATOR-RECALL RELAY CARDS IN
A 9508 RELAY CABINET**

Relay Card Number 1 (Relay number 1 to 12)
Relay Card Number 2 (Relay number 13 to 24)
Relay Card Number 3 (Relay number 25 to 36)
Relay Card Number 4 (Relay number 37 to 48)
Relay Card Number 5 (Relay number 49 to 60)
Relay Card Number 6 (Relay number 61 to 72)
Relay Card Number 7 (Relay number 73 to 84)
Relay Card Number 8 (Relay number 85 to 95) **LAST RELAY NOT USED**

NOTE: FIRST TWO DIGITS OF THE RESIDENT/TENANT CODE REPRESENTS THE ELEVATOR-RECALL RELAY NUMBER.

WHEN USING ELEVATOR-RECALL (RESTRICTION) IT IS NECESSARY TO USE A SEPARATE TIMER FOR EACH OF THE FLOOR RELAYS.

WIRING THE 9512E ELEVATOR-RECALL RELAY CARD

The 9512E Elevator-Recall Relay Card provides Common (C) and Normally Open (NC) contacts marked on the board silkscreen. The very first relay marked Aux Rly is an auxiliary relay which is activated any time another relay on the board is activated. The relays available for Elevator-Recall (Restriction) are labelled Relay 1 to Relay 12. Wiring is achieved at the terminal block which is removable for easy installation.

FIGURE 17: MODEL 9512E ELEVATOR-RECALL RELAY CARD WIRING
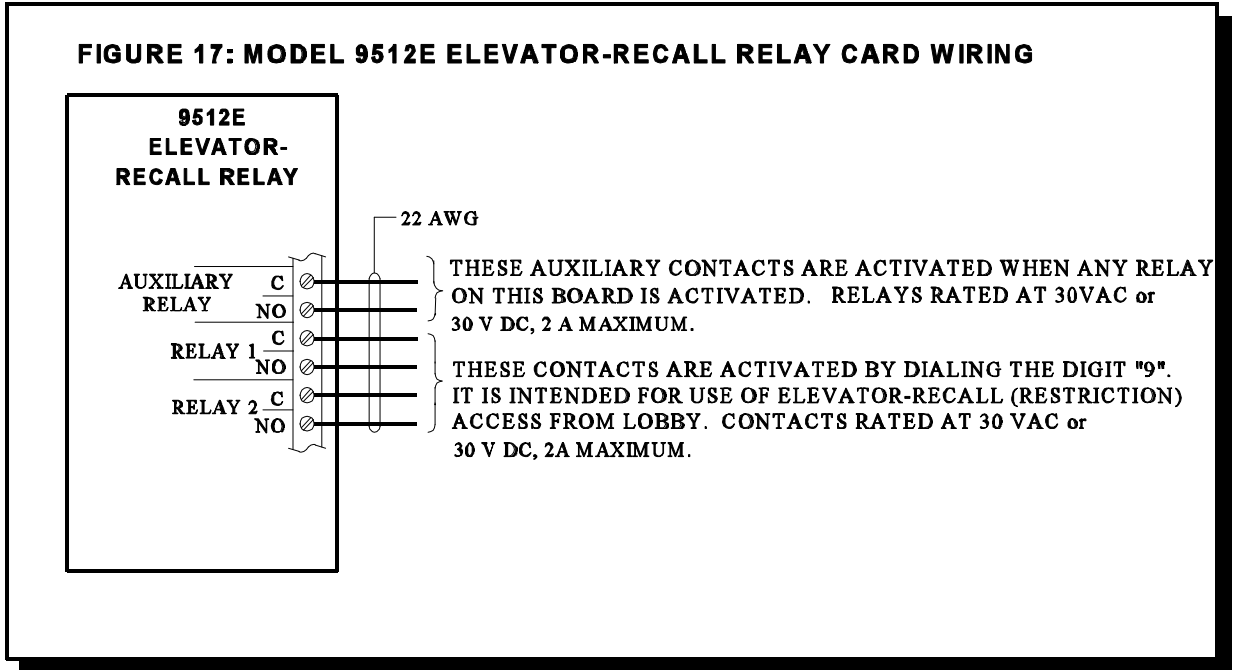
The following diagram shows the wiring between the ADC Controller and the Elevator Restriction (Recall) Relay Cabinet motherboard.
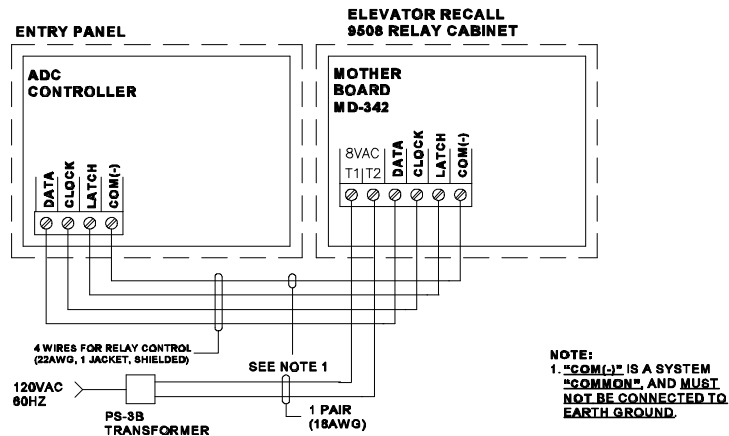
Before programming the system, obtain the required information by using the form provided in Appendix "B".

After the system initializations (power up), the display should appear as shown below.

```
        <  MIRCOM  >
     Enter tenant code or
      to view directory,
     press  * UP    # DOWN
```

This is the **Normal Mode** of the system. The system will accept all valid Access Codes entered directly on the keypad. Use the ***** or **#** key to scroll "up or down" the directory list. Pressing the ***** or **#** key momentarily will scroll "up or down" the list one name at a time. Holding the ***** or **#** key will scroll "up or down" continuously and stop scrolling when the key is released.

Before entering the *Programming Mode* for the first time, it is recommended to restore the factory default Master Code ***999** by shorting the reset pins for approximately 3 seconds. Please refer to Fig. 12 for the location of the reset pins. *Note: Shorting the reset pins will only restore the factory default Master Code *999 and **will not affect** any programmed information.*

ENTERING PROGRAMMING MODE

While at Normal Mode, press "**0**" then enter the **MASTER CODE** (factory default is ***999**) to enable PROGRAMMING MODE.

Pressing "**0**", the screen should appear ...
```
        <  MIRCOM  >
     *****  _ _ _ _  *****
     ******************
     -Keyless Entry Mode-
```

Pressing "*****", the next screen should appear...
```
        <  MIRCOM  >
     ***** *  _ _ _  *****
     ******************
     -Program Code Entry-
```

Enter Master Code (default is **999**), the next screen should appear...
```
        <  MIRCOM  >
        PROGRAM MODE
       -Please  Wait-
     -Program Code Entry-
```

for a few seconds then the screen should change to...
```
     <<< PROGRAM MODE >>>
        Enter the three
      digit program code
     [Use *888 for Menu]
```

This is the **PROGRAM MODE** menu. At this stage, the system is waiting for valid programming code.

Important note:
Before programming the system for the first time, it is recommended to clear-up all memories and restore all factory defaults by using a special command ***5*5** while at Program Mode menu . Since this special command **(*5*5)** is a destructive command which can erase all the programmed information without the provision to undo, the user must take a precaution when using this command.

There are two ways to program the system.

1. By using ***888** for Menu Driven type of programming.

2. By using the Direct Access Programming Codes for manual programming. Entering these codes will lead the user directly to the desired function. The Direct Access Programming Codes are listed on the table below.

Code	Function	Factory Default	Program	Choices
*000	Exit Programming Mode	*000	n/a	NONE
*101	Enter Residents Dial Codes and Telephone Numbers	Blank	See worksheet	4 digit resident code plus up to 8 digit telephone number
*202	Review, Edit,Delete Codes & Names	Blank	See worksheet	Up to 11 digits to review or delete
*222	Enter Prefix	(0) 0905	See worksheet	0-9 for the first digit and up to 4 digits for area code
*303	Enter Keyless Entry Codes	Blank	See worksheet	4 digits
*333	Quit Feature using the "#" key	11	__ __	00 Press # key once or 11 Press # key twice (2 digits)
*404	Review , Delete Keyless Entry Codes	Blank	See worksheet	4 digit code to review or delete
*444	Program On Line Timer for Minutes or Seconds	00	__ __	00 Seconds or 11Minutes (2 digits)
*505	Change Master Code	*999	*__ __ __	3 digits
*606	Select Pulse (Rotary) or Tone (DTMF)	11 Tone	___ ___	00 Pulse or 11 Tone (2 digits)
*707	Set Door Open Timer	10 seconds	__ __ seconds	00 to 99 seconds (2 digits)
*808	Set On Line Timer	60 seconds	__ __	00 to 99 (2 digits)
*909	Select MULTIPLE/SINGLE Entrance	Single (11)	__ __	11 Single or 00 Multi (2 digits)

"NO MANUAL" MENU DRIVEN PROGRAMMING USING *888

While at programming mode, enter the "***888**" to gain access to programming menu.
After entering the *888, the screen should appear...

```
        [1=Bck]       [3=Fwd]
         Welcome to the ADC
         On-Line Help Menu!
        [*=Abort]     [#=Yes]
```

      1 and **3** keys are for scrolling backward or forward the feature menus.
      # to access the displayed feature.
      * to quit, exit, cancel, or abort.

Press **3** for next menu. The screen should appear...

```
        [1=Bck]       [3=Fwd]
         Do you want to exit
          from PROGRAM Mode?
        [*=Abort]     [#=Yes]
```

      1 inactive key
      3 key to the first feature menu.
      # key to exit to Normal Mode.
      * key to Programming Mode menu

NOTE: *Repeat the above process to locate the desired feature.*
         *To exit to Normal Mode, enter ***000** while at PROGRAM MODE menu.*

      Press **3** again to first feature menu.

RESIDENTS'/TENANTS' DIAL CODE and TELEPHONE NUMBER ENTRY

Residents'/Tenants' Dial Codes can be entered in the format of 1, 2, 3, or 4 digits (less than 4 digits must be preceded by 0's). These codes are used to call the Residents using the Entry Panel's keypad. The corresponding "telephone number" for each dial code is set to 7-digits by default. ADC units will allow the user to define telephone numbers up to 11-digits with 10 user definable 4-digit "Area Code" prefixes.

CAUTION!   *Before programming the system, the user must determine the maximum telephone number digit length. Reformatting the telephone digit length **will erase** those programmed Dial Codes   a n d Telephone Numbers.*

SETTING THE TELEPHONE NUMBER DIGIT LENGTH:

Scroll through until you reach the feature as shown below.

```
        [1=Bck]       [3=Fwd]
         Do you want to edit
         Max. Digit/Listing?
        [*=Abort]     [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
            -Program Options-
              Enter size as
            07, 08 or 11 = _ _
            Please enter choice:
```

Select: **07** for seven digits telephone numbers (factory default),
        08 for eight digits telephone numbers, or
        11 for eleven digits telephone numbers
        * to abort entry and exit to PROGRAM MODE menu.

NOTE: *When selecting 11digits, the user must use the 4-digit "Area Code" prefix to form up to an 11 digit telephone number. There are ten user definable prefixes that can be assigned. Factory default for all the prefixes are set to* **0905**. *To assign a new prefix #, follow the instructions described under "TO CHANGE PREFIX CODES" section below. Prefix numbers are not required for 7 or 8 digit telephone numbers.*

After entering the choice for maximum digits per listing, the screen should change to...

```
            -Program Options-
             #=Store, *=Abort
            07,  08  or 11 = x x
            Please enter choice:
```

Press **#** to store or ***** to abort entry.
To quit, enter *000 while at PROGRAM MODE menu.

TO CHANGE THE PREFIX CODES:

To change the Prefix Codes, scroll through until you reach the feature as shown below.

```
            [1=Bck]        [3=Fwd]
             Do you want to edit
              Code and Prefix #?
            [*=Abort]      [#=Yes]
```

Press # to access the feature. The display should change to...

```
    -Program Options-
    Code        Prefix #      For Code:       enter any number from 0 to 9
    ( _ )       _ _ _ _       For Prefix #:   enter up to 4-digit "Area Code"
    Please enter choice:
```

Where: "**Code**" (from 0 to 9) is used to call up the corresponding Prefix number.
      "**Prefix #**" (up to 4 digits) is used for "Area Code" number that can be used with standard
   7-digits telephone number to form up to 11 digits. Factory defaults for all 10 Prefixes are 0905.
      Unused prefix digit(s) can be blanked-out by pressing the "**#**" key.

After entering the desired Code and Prefix **#**, the next screen should be...

```
            -Program Options-
             #=Store *=Abort
            ( x )      x x x x
            Please enter choice:
```

Press **#** to store or ***** to abort entry. Repeat this process to edit or to assign new prefix numbers.
To exit to Normal Mode, enter ***000** while at the PROGRAM MODE menu.

ENTERING RESIDENTS'/TENANTS' CODES AND TELEPHONE NUMBERS:

To enter codes and telephone numbers, scroll through until you reach the feature as shown below.

```
[1=Bck]       [3=Fwd]
Do you want to enter
    TENANT Codes?
[*=Abort]     [#=Yes]
```

Press **#** to access the feature. The screen should change according to the digit length chosen. Below are the possible screens.

7 digits telephone # (default)	*8 digits telephone #*	*11 digits telephone #*
```-Program Options-``` ```Code Telephone``` ```____ ___-____``` ```Please enter choice:```	```-Program Options-``` ```Code Telephone``` ```____ ___-____``` ```Please enter choice:```	```-Program Options-``` ```Code Telephone``` ```____ ___-____``` ```Please enter choice:```
Enter up to 7-digit telephone number.	*Enter up to 8-digit telephone number.*	*The first digit is used for prefix CODE number assigned. The remaining digits are used for standard 7-digit telephone number.*

Enter: **000x**   for one (1) digit dial code
Enter: **00xx**   for two (2) digit dial code
Enter: **0xxx**   for three (3) digit dial code
Enter: **xxxx**   for four (4) digit dial code

0 = ZERO   **x** = RESIDENT/TENANT DIAL CODE (numeric 0 to 9)

For example: To call a resident/tenant with two digits dial codes, simply enter **xx**.

Press # key to blank unused telephone digits. This feature (to be able to blank out any desired digit) is particularly useful when requiring shorter number of digits to be dialled out through a compatible private DTMF type telephone system.

When you make a mistake and wish to reenter the *Dial Code* and *Tel. #*, press *****.

After entering the *Dial Code* and *Telephone Number*, the next typical screen should display...

For 7-digits Tel.#	*For 8 & 11digits Tel.#*
```-Program Options-``` ```#=Store, *=Abort``` XXXX XXX-XXXX ```Please enter choice:```	```-Program Options-``` ```#=Store, *=Abort``` XXXX XXXX-XXXX ```Please enter choice:```

Press **#** to Store or ***** to abort entry. Repeat this process until all dial codes and telephone numbers are entered. Press ***** to return to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

ENTERING UP TO 11-DIGIT RESIDENTS' TELEPHONE NUMBERS: *Special Feature*

As mentioned previously, the user **must set** the *Code* and *Prefix* number when 9 to 11-digit telephone numbers are required. The following example will illustrate how the unit should be programmed.

Example*:* Ten digit telephone number is required.

Dial Code:	**2863**
Area Code:	**905**
Tel. #:	**660-4655**

Program the system as follows:

Set the telephone digit length to 11 as shown below.

```
-Program Options-
Enter size as           Enter 11  to select eleven digit
07, 08 or 11 = 11       telephone number
Please enter choice:
```

Set the Code and prefix number.

```
-Program Options-
Code    Prefix #
( 1 )      905_         Press # to blank out the last (unused) digit.
Please enter choice:
```

Enter dial Code and Telephone number using the Code for defined Prefix # as described above.

```
-Program Options-
Code          Telephone   NOTE:  The first digit of the telephone
2863          1660-4655          prefix code, in this case "1".
Please enter choice:
```

In normal **Operating Mode**, entering the Dial Code "**2863**" on the lobby keypad will dial **905 660 4655** through the public telephone network.

ENTER, REVIEW, EDIT or DELETE RESIDENTS'/TENANTS NAMES ON THE LIST

To enter, review, edit or delete Residents'/Tenants' Names on the list, scroll through until you reach the feature as shown below.

```
[1=Bck]        [3=Fwd]
 Do you want to edit
    TENANT Names?
[*=Abort]      [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
====TOP-OF-LIST=====
xxxx:                   <==   Second line with ":" displayed can
xxxx                          be selected by pressing  "0".
xxxx                          Where: xxxx are the Dial Codes.
                              Note: Press any number to exit.
```

Press ***** or **#** to scroll (review) "up or down" the list . To enter, review, edit and delete the Resident's/Tenant's name, scroll until the desired Access Code and Resident Name is in the second line of the display.

Press "**0**" to enter, edit or delete *Dial Code* and *Resident Name*. The next screen should appear....

<pre>
        7 digits telephone # (default)   8 &11 digits telephone #
      -Program Options-   -Program Options-   refer to worksheet
      CODE:xxxx@xxx-xxxx   CODE:xxxx@xxxx-xxxx <== APPENDIX B
      NAME:xxxxxxxxxxxxxxx   NAME:xxxxxxxxxxxxxxx <==15 characters max.
      Please enter choice: Please enter choice:
</pre>

    1and **3** to scroll "up or down" the character set. *Character Set Table* is given on Appendix C.
    7and **9** to move the cursor "left or right".
    # to **delete** the displayed Dial Code, Telephone number and Resident Name.

After entering Resident/Tenant name, press * . The next screen should appear...

<pre>
                    -Program Options-
                   * = Abort, # = Store
                   Name:xxxxxxxxxxxxxx
                    Please enter choice:
</pre>

Press * to abort or # to store entry. Repeat the above process until all Residents' /Tenants' names are entered. When finished, press any number from 1-9 to return to the PROGRAM MODE menu. To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

ENTER KEYLESS ENTRY CODES

The system can provide up to 1000 Keyless Entry Codes for Residents and 5 spares for building management. Entering any valid Keyless Codes on keypad will open the door without the necessity of calling the Resident. For obvious reasons, *keyless entry codes* should be **kept well guarded and controlled**. ADC units will allow the user to assign a specific code (within the given ranges) that would activate either the Main Door or Auxiliary Door relay. The *main door relay* can be activated using the range from **0000 to 4999** and the *auxiliary door relay* can be activated using the range from **5000 to 9999**. The user is advised to program the unit using these specified ranges if such operation is required.

[**Operation:** *To open door, press 0 followed by the <u>four digit</u> Keyless Entry Code*]

Scroll through until you reach the feature as shown below.

<pre>
                    [1=Bck]   [3=Fwd]
                   Do you want to enter
                      KEYLESS Codes?
                   [*=Abort]   [#=Yes]
</pre>

Press **#** to access the feature. The display should appear...

<pre>
                    -Program Options-
                      KEYLESS Entry
                      Code #_ _ _ _
                    Please enter choice:
</pre>

Enter the four digit Keyless Entry Code. If you make a mistake or wish to reenter the code, press * to enter code again. The next display should change to...

<pre>
                    -Program Options-
                    #=Store, *=Abort
                      Code # x x x x
                    Please enter choice:
</pre>

Press # to store or * to abort entry. Repeat this process until all codes are entered.

Press ***** to exit to PROGRAM MODE menu when finished. To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

REVIEW AND DELETE KEYLESS ENTRY CODES

To review and delete keyless entry codes, scroll through until you reach the feature as shown below.

```
[1=Bck]        [3=Fwd]
 Do you want to edit
    KEYLESS Codes?
[*=Abort]      [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
  -Program Options-
   Code To Review
     # _ _ _ _
 Please enter choice:
```

Enter the Keyless Entry Code to review or delete. The next display should appear...

```
  -Program Options-
    KEYLESS Entry
   Code # x x x x
 Please enter choice:
```

Press **1** or **3** to scroll up or down the list. To delete the displayed code, press **#**. When finished, press ***** to exit to the PROGRAM MODE menu for programming other functions. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

REPROGRAM MASTER CODE

Master Code (factory default ***999)** may be changed to any desired three (3) digit code number. Since this code is used to access all levels of programming, it would be a good idea to change the code to one that will be known only by the installer or management personnel. Please enter the new Master Code in the space provided below for future reference.

New Master Code: _____   Date: _____

To change the MASTER CODE, scroll through until you reach the feature as shown below.

```
[1=Bck]        [3=Fwd]
 Do you want to edit
   the MASTER Code?
[*=Abort]      [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
  -Program Options-
     MASTER  CODE
        *_ _ _
 Please enter choice:
```
Enter the New Master Code. Please do not use ***888** for Master Code. The next display should appear...

```
  -Program Options-
   #=Store, *=Abort
       * x x x
 Please enter choice:
```

Press **#** to store or ***** to abort entry. After pressing the store button, the next display should appear...

```
                    -Program Options-
                       Press     *
                         To exit
                    Please enter choice:
```

Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

NOTE*:* To restore Master Code, please see FIG. 12 for location of reset pads.

SELECT "*DOOR OPEN CODE***" FOR MAIN AND AUXILIARY DOORS (DTMF only)**

This feature will allow the user to change the Door Open Code (DTMF only) to any desired digit from 0 to 9. This feature is particularly useful when the default door open code for opening the Main or Auxiliary doors is false-triggering the door strike "open" due to a "series of tones" produced by some older answering machines when it answers a call. It is recommended to select a stable *Door Open Code* to improve security. These "*Door Open Codes*" are used by all Residents to release the door by simply dialling the assigned digit on their telephone while on-line with their visitors.

NOTE: The *Door Open Code* for pulse (rotary) type telephones is a fixed digit "**9**". Dialling a pulse digit "**9**" will activate the main door relay. An auxiliary door relay can be activated only by a standard DTMF Code as programmed; there is **no provision** for pulse activation.

To change the *Door Open Code* for the Main Door:

Scroll though until you reach the feature as shown below.

```
                    [1=Bck]        [3=Fwd]
                     Do you want to edit
                         DTMF Code#1?
                    [*=Abort]      [#=Yes]
```

Press # to access the feature. The next display screen should appear...

```
            -Program Options-
            Enter DTMF digit
            to open door ( _ )      Digit "9" is the factory default.
            Please enter choice:
```

Enter a number from **0** to **9** for code to open the **main door**. The next display screen should appear...

```
                     -Program Options-
                      #=Store, *=Abort
                     to open door ( x )
                    Please enter choice:
```

Press **#** to store or ***** to abort entry.
To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

To change the *Door Open Code* for the Auxiliary Door:

Scroll though until you reach the feature as shown below.

```
            [1=Bck]      [3=Fwd]
            Do you want to edit
               DTMF Code#2?
            [*=Abort]     [#=Yes]
```

Press # to access the feature. The next display screen should appear...

```
      -Program Options-
      Enter DTMF digit
      to open door ( _ )      Digit "6" is the factory default.
      Please enter choice:
```

Enter a number from **0** to **9** for code to open the **auxiliary door**.
The next display screen should appear...

```
            -Program Options-
             #=Store, *=Abort
            to open door ( x )
            Please enter choice:
```

Press **#** to store or * to abort entry.
To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SELECT PULSE (Rotary) or TONE (DTMF) DIALLING

To select Pulse or Tone dialling, scroll through until you reach the feature as shown below.

```
            [1=Bck]      [3=Fwd]
            Do you want to edit
                 dialing?
            [*=Abort]     [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
      -Program Options-
        Pulse or Tone
       P=00    T=11  _ _    <==   Factory default is 11.
      Please enter choice:
```

Enter **00** for pulse or **11** for tone. The next display should appear...

```
            -Program Options-
             #=Store,  *=Abort
             P=00    T=11  x x
            Please enter choice:
```

Press **#** to store or * to abort entry. After pressing the store button, the display should be as shown...

```
            -Program Options-
               Press     *
                  To exit
            Please enter choice:
```

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SET DOOR TIMER

To change Door-Open Timer (factory default is 10 seconds), scroll through until you reach the feature as shown below.

```
[1=Bck]      [3=Fwd]
 Do you want to edit
The Door-Open-Timer?
[*=Abort]    [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
-Program Options-
 Door-Open Timer
00 to 99 Sec.  _ _
Please enter choice:
```

Enter the desired door-open period. The next display should appear...

```
-Program Options-
 #=Store, *=Abort
00 to 99 Sec.  x x
Please enter choice:
```

Press **#** to store or * to abort entry. Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

SET ON-LINE TIMER

To change the On-Line period (factory default is 60 sec.), scroll through until you reach the feature as shown below.

```
[1=Bck]      [3=Fwd]
 Do you want to edit
   On-Line Timer?
[*=Abort]    [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
-Program Options-
  On-line Timer
00 To 99 Sec.  _ _          <==  99 seconds max.
Please enter choice:        Note: Set to 00 for 4 min. & 10 sec.
```

Enter the On-Line period. The next display should appear...

```
-Program Options-
 #=Store, *=Abort
00 To 99 Sec.  x x
Please enter choice:
```

Press **#** to store or * to abort entry. Press * to exit to the PROGRAM MODE menu. To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

MULTIPLE/SINGLE ENTRANCE SELECT

To select Multiple or Single entrance, scroll through until you reach the feature as shown below.

```
[1=Bck]      [3=Fwd]
 Do you want to edit
 Multi/Single option?
[*=Abort]    [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
-Program Options-
Multi or Single
M=00   S=11   _ _      <==   Factory default is 00.
Please enter choice:
```

Enter **00** for multiple entrances or **11** for single entrance, the default is 00 for multiple. The next display should appear...

```
-Program Options-
 #=Store, *=Abort
 M=00   S=11   x x
Please enter choice:
```

Press **#** to store or * to abort entry. Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

11 DIGIT TELEPHONE NUMBER ENTRY

To program an 11-digit telephone number, scroll through until you reach the feature as shown below.

```
[1=Bck]      [3=Fwd]
 Do you want to enter
 the 11-Digit number?
[*=Abort]    [#=Yes]
```

Press **#** to access the feature. The display should appear...

```
 -Program Options-
   Code:  _ _ _ _
 _ - _ _ _ - _ _ _ - _ _ _ _
  Please enter choice:
```

Enter the four digit DIAL CODE followed by the 11-digit telephone number. Please note that a 10-digit telephone number can be programmed if desired. This is useful for calling a local number with a different area code.

Example: Dial Code   **2863**
           Area Code   **905**   (local or not a long distance number)
           Telephone Number   **6604655**

Program the system as shown...

```
 -Program Options-
   Code:  2 8 6 3
 9 - 0 5 6 - 6 0 4 - 6 5 5 .
   Please enter choice:
```

Press **#** to blank the last digit or any digit as desired. When you make a mistake and wish to reenter the code, press *****. After entering all the digits, the display should change to...

```
            -Program Options-
             #=Store,  *= Abort
     9 - 0 5 6 - 6 0 4 - 6 5 5 .
               Please enter choice:
```

Press **#** to store or ***** to abort entry. After pressing the store button, the system should exit directly to PROGRAM MODE. To quit, press ***000** while at PROGRAM MODE to return to NORMAL MODE.

QUIT FEATURE

If the visitor picks up the telephone and dials an incorrect resident/tenant code, he has an option of hanging up prior to connection by pressing the # key twice. The # key must be depressed twice by default. In order to have this feature by depressing the # key once the following menu must be accessed by scrolling through to reach ...

```
     [1=Bck]      [3=Fwd]
     Do you want to pick
       No. Of # signs?
     [*=Abort]    [#=Yes]
```

Press # to access the feature. The display should appear ...

```
             -Program Options-
              # Once or Twice
      O=00 T=11 _ _     <== Factory default is 11
             Please enter choice:
```

Enter 00 to depress # key once or 11 to depress # key twice. The display should appear ...

```
             -Program Options-
              #=Store, *=Abort
      O=00 T=11 x x
             Please enter choice:
```

Press # to store or * to abort entry. After pressing the store button, the system should exit directly to PROGRAM MODE. To quit, press ***000** while at PROGRAM MODE to return to NORMAL MODE.

TO SET ON-LINE TIMER TO MINUTES

To set on-line timer to minutes, scroll through until you reach the feature as shown below.

```
        [1=Bck]      [3=Fwd]
          Do you want to pick
            minutes or sec?
        [*=Abort]    [#=Yes]
```

Press # to access the feature. The display should appear...
```
             -Program Options-
            Minutes or seconds
          M=11 S=00 _ _   <== Factory default is 00
              Please enter choice:
```

Enter digits 11 for minutes or 00 for seconds. The default is seconds. The next display should appear...

```
            -Program Options-
             #=Store, *=Abort
            M=11   S=00   x x
            Please enter choice
```

Press # to store or * to abort entry. Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SORT RESIDENTS'/TENANTS' NAMES

To sort Residents'/Tenants' names, scroll through until you reach the feature as shown below.

```
      [1=Bck]      [3=Fwd]
         Do you want to sort
          the tenant names ?
      [*=Abort]    [#=Yes]
```

Press **#** to sort Residents'/Tenants' names. While the system is sorting names, the display should appear...

```
         Sorting Tenant List!
           - Please Wait -
```

Sorting Residents'/Tenants' names may take a few minutes depending on the number of names to sort.

NOTE: Sorting cannot be done with more than 600 names in the scrolling directory.

The next screen should change to...

```
         Performing copy . . .
           - Please Wait -
```

When finished, the system should exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

Before programming the system, obtain the required information by using the form provided in APPENDIX "B". After the system initializations (power up), the display should appear as shown below.

```
            <<< MIRCOM >>>
          Please enter the
          Resident Code...
```

This is the **Normal Mode** of the system. The system will accept all valid codes such as Access Codes, Keyless Entry Codes, and programming Master Code.

Before entering the *Programming Mode* for the first time, it is recommended to restore the factory default Master Code ***999** by shorting the reset pins for approximately 3 seconds. Please refer to Fig.12 for location of reset pins. *Note: Shorting the reset pins will only restore the factory default Master Code ***999** and **will not affect** any programmed information.*

ENTERING PROGRAMMING MODE

Enter the MASTER CODE (factory default is ***999**) to enable PROGRAMMING MODE.

The screen should appear ...

```
            PROGRAM MODE
          -  Please  Wait  -
```

for a few seconds and then the display should change to...

```
          Enter Code  or
          <*888> for help
```

This is the PROGRAM MODE menu. At this stage, the system is waiting for valid programming code.

> **Important note:**
> Before programming the system for the first time, it is recommended to clear-up all memories and restore all factory defaults by using a special command ***5*5** while at Program Mode menu . Since this special command **(*5*5)** is a destructive command which can erase all those programmed information without the provision to undo, the user must take a precaution when using this command.

There are two ways to program the system:

1. Using ***888** for Menu Driven type of programming.

2. Using the Direct Access Programming Codes for manual programming. Entering these codes will lead the user directly to the desired function. The Direct Access Programming Codes are listed on the table below.

Direct Access Programming Codes

Code	Function	Factory Default	Program	Choices
*000	Exit Programming Mode	*000	n/a	NONE
*101	Enter Resident Code and Telephone #	Blank	See worksheet	4 digit resident code and up to 8 digit telephone number

Code	Function	Factory Default	Program	Choices
*111	Enter 11 Digit Telephone Number	Blank	See worksheet	4 digit resident code and up to 11 digit telephone number
*202	Review, Delete Dial Codes & Telephone Number	Blank	See worksheet	Up to 11 digits to review or delete
*222	Enter Prefix	(0) 0905	See worksheet	0-9 first digit and up to 4 digit area code
*303	Enter Keyless Entry Codes	Blank	See worksheet	4 digits
*333	Quit Feature using the "#" Key	11	__ __	00 Press # key once or 11 Press # key twice
*404	Review and Delete Keyless Entry Codes	Blank	See worksheet	4 digit code to review or delete
*444	Program On Line Timer for Minutes or Seconds	00	__ __	00 Seconds or 11 Minutes (2 digits)
*505	Change Master Code	*999	*__ __ __	3 digits
*606	Select Pulse(Rotary) or Tone(DTMF)	Tone 11	__ __	00 Pulse or 11 Tone (2 digits)
*707	Set Door Open Timer	10 seconds	__ __ seconds	00 to 99 seconds (2 digits)
*808	Set On Line Timer	60 seconds	__ __	00 to 99 (2 digits)
*909	Select MULTIPLE/SINGLE Entrance	Multi 00	__ __	00 for Multi or 11 Single (2digits)

"NO MANUAL" MENU DRIVEN PROGRAMMING USING *888

Enter " ***888** " to display a help menu.
The screen should appear...

```
          1=Up   3=Down
      #=Execute *= Quit
```

1 and **3** keys are used for scrolling up or down the feature menus.
key is used to access the displayed feature.
***** key is used for quit, exit, cancel, or abort.

Press **3** for next menu. The screen should appear...

```
       To Exit PROGRAM
      MODE - Press #
```

At this menu, pressing ***** will lead you to the PROGRAM MODE menu. Pressing **#** will exit to NORMAL MODE.

Press **3** again for next menu. The next screen should lead you to the first feature menu.

NOTE: Repeat the above process to locate the desired feature.
To exit to Normal Mode, enter ***000** while at PROGRAM MODE menu.

RESIDENTS' DIAL CODE and TELEPHONE NUMBER ENTRY

Residents' Dial Codes can be entered in the format of 1, 2, 3, or 4 digits. These codes are used to call the Residents using the Entry Panel's keypad. The corresponding "telephone number" for each dial code is set to 7-digits by default. The system will accept telephone numbers up to 11-digits with 10 user definable 4-digit "Area Code" prefixes.

CAUTION!   *Before programming the system, the user must determine the maximum telephone number   digit length. Reformatting the telephone digit length **will erase** those programmed dial codes   a n d telephone numbers.*

SETTING THE TELEPHONE NUMBER DIGIT LENGTH

Scroll through until you reach the feature as shown below.

```
                Max. digits per
                listing-Press #
```

Press # to access the feature. The display should appear...

```
                 Enter size as
             07, 08 or 11 = _ _
```

Select: **07** for seven digits telephone numbers (factory default),
       08 for eight digits telephone numbers, or
       11 for eleven digits telephone numbers
       * to abort entry and exit to PROGRAM MODE menu.

NOTE: When 11digits telephone number is selected, the user must set the 4-digit "Area Code" prefix to form up to an 11 digit telephone number. There are ten user definable prefixes that can be assigned. Factory default for Prefixes are set to **0905**. To assign a new prefix number, follow the instructions described under "TO CHANGE PREFIX CODES" section below. Prefix numbers are not required for 7 or 8 digits telephone numbers.

After entering the choice for maximum digits per listing, the screen should change to...

```
               #=Store, *=Abort
             07,  08  or 11 = x x
```

Press **#** to store or ***** to abort entry. To quit, enter *000 while at PROGRAM MODE menu.

TO CHANGE THE PREFIX CODES:
To change the Prefix Codes, scroll through until you reach the feature as shown below.

```
              To change PREFIX
              Codes - Press #
```

Press # to access the feature. The display should change to...

```
  Code          Prefix #      For Code:      enter any number from 0 to 9
  ( _ )         _ _ _ _       For Prefix #:  enter up to 4-digit "Area Code"
```

Where: "**Code**" (from 0 to 9) is used to call up the corresponding Prefix number.
       "**Prefix #**" (up to 4 digits) is used for "Area Code" number that can be used with standard

7-digit telephone number to form up to 11 digits. Factory defaults for 10 Prefixes are 0905.
Unused prefix digit(s) can be blanked out by pressing the "**#**" key.

After entering the desired Code and Prefix **#**, the next screen should be...

```
#=Store *=Abort
(  x  )     x x x x
```

Press **#** to store or * to abort entry. Repeat this process to edit or to assign a new prefix number.
To exit to Normal Mode, enter ***000** while at PROGRAM MODE menu.

ENTERING RESIDENTS' CODES AND TELEPHONE NUMBERS:

To enter codes and telephone numbers, scroll through until you reach the feature as shown below.

```
To Enter Resident
Codes - Press #
```

Press **#** to access the feature. The screen should change according to the digit length chosen. Below are the possible screen applications.

7 digits telephone # (default)	*8 digits telephone #*	*11 digits telephone #*
Code Telephone	**Code Telephone**	**Code Telephone**
____ ___ - ____	____ ___ - ____	____ ___ - ____
Enter up to 7-digit telephone number.	*Enter up to 8-digit telephone number.*	*The first digit is used for prefix CODE number assigned. The remaining digits are used for standard 7-digits tel. number.*

Enter: **000x**   for one (1) digit dial code
Enter: **00xx**   for two (2) digit dial code
Enter: **0xxx**   for three (3) digit dial code
Enter: **xxxx**   for four (4) digit dial code

0 = ZERO   **x** = RESIDENT/TENANT DIAL CODE (numeric 0 to 9)
For example: To call a resident/tenant with two digits dial codes, simply enter **xx**.

Press # key to blank-out unused telephone digits. This feature (to be able to blank-out any desired digit) is particularly useful when requiring a shorter number of digits to be dialled out through a compatible private DTMF type telephone system. When you make a mistake and wish to reenter the *code* and *tel. #*, press *.

After entering the Code and Telephone number, the next typical screen should display...

For 7-digits	*For 8-digits*	*For 11-digits*
#=Store, *=Abort	**#=Store, *=Abort**	**#=Store, *=Abort**
XXXX XXX – XXXX	XXXX XXX – XXXX	XXXX XXX – XXXX

Press **#** to Store or * to abort entry. Repeat this process until all dial codes and telephone numbers are entered. Press * to return to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

Entering up to 11-digit Residents' telephone numbers: Special Feature

As mentioned previously, the user must set the *Code* and *Prefix* number when 9 to 11-digit telephone numbers are required. The following example will illustrate how the unit should be programmed.

Example: Ten digits telephone number is required.

Dial Code: **2863**
Area Code: **905**
Tel. #: **660-4655**

Program the system as follows:
Set the telephone digit length to 11 as described above.

Enter size as
07, 08 or 11 = 11   Enter **11** to select eleven digit tel. #.

Set the Code and prefix number (for "Area Code") as shown below.

Code   Prefix #
(1)   9 0 5 .   Press **#** to blanked-out the last (unused) digit.

Enter dial Code and Tel. # using the Code for defined Prefix #:

Code   Telephone   *Note:*   The first digit is used by prefix Code. In this
2863   1660-4655   case is "**1**".

At normal operating mode, entering the Dial Code "**2863**" on keypad, the system will dial **905 660 4655**
through the public telephone network.

REVIEW AND DELETE RESIDENT CODES

To review and delete the residents' codes, scroll through until you reach the feature as shown below.

```
                   To Edit Resident
                   Codes - Press #
```

Press **#** to access the feature. The next display screen should appear...

```
                   Code to Review
                   _ _ _ _
```

Enter the code to review. The next typical display should appear...

7 digits telephone # (default)	*8 digits telephone #*	*11 digits telephone #*
Code Telephone	**Code Telephone**	**Code Telephone**
XXXX XXX − XXXX	XXXX XXXX − XXXX	XXXX XXXX − XXXX

Press **1** or **3** to scroll up or down the list.
To **delete** the displayed Code and Tel. Number, press **#**.
Press ***** to exit to PROGRAM MODE menu. To quit, press ***000** while at PROGRAM MODE menu to return to
NORMAL MODE.

ENTER KEYLESS ENTRY CODES

The system can provide up to 1000 Keyless Entry Codes for Residents and 5 spares for building management.
Entering any valid Keyless Codes on keypad will open the door without the necessity of calling the Resident. For
obvious reasons, *keyless entry codes* should be **kept well guarded and controlled**. ADC units allow the user to
assign a specific code (within the given ranges) that would activate either the Main Door or Auxiliary Door relay. The
main door relay can be activated using the range from **0000 to 4999** and the *auxiliary door relay* can be activated
using the range from **5000 to 9999**. The user is advised to program the unit using these specified ranges if such
operation is required.

[***Operation:*** *To open door, press* **#** *followed by the four digits Keyless Entry Code*]

Scroll through until you reach the feature as shown below.

```
                    To Enter KEYLESS
                  Codes - Press #
```

Press **#** to access the feature. The display should appear...

```
                  KEYLESS Entry
                Code #_ _ _ _
```

Enter the four digit Keyless Entry Code. If you make a mistake or wish to reenter the code, press * to enter code again. The next display should change to...

```
                #=Store,  *=Abort
                Code # x x x x
```

Press # to store or * to abort entry. Repeat this process until all codes are entered.

Press * to exit to PROGRAM MODE menu when finished. To quit, enter *000 while at PROGRAM MODE menu to return to NORMAL MODE.

REVIEW AND DELETE KEYLESS ENTRY CODES

To review and delete keyless entry codes, scroll through until you reach the feature as shown below.

```
                  To Edit KEYLESS
                Codes - Press #
```

Press **#** to access the feature. The display should appear...

```
                Code To Review
                  # _ _ _ _
```

Enter the Keyless Entry Code to review or delete. The next display should appear...

```
                KEYLESS Entry
                Code # x x x x
```

Press **1** or **3** to scroll up or down the list. To delete the displayed code, press **#**.
When finished, press * to exit to PROGRAM MODE menu for programming other functions. To quit, enter *000 while at PROGRAM MODE menu to return to NORMAL MODE.

REPROGRAM MASTER CODE
Master Code (factory default **999)** may be changed to any three (3) digit code number. Since this code is used to access all levels of programming, it would be a good idea to change the code to one that will be known only by the installer or management personnel. Please enter the new Master Code in the space provided below for future reference.

New Master Code: _____   Date: _____

To change the MASTER CODE, scroll through until you reach the feature as shown below.

```
                To Change MASTER
                Code - Press #
```

Press **#** to access the feature. The display should appear...

```
                MASTER  CODE
                  *_ _ _
```

Enter the New Master Code. Please do not use ***888** for Master Code. The next display should appear...

```
                    #=Store, *=Abort
                       * x x x
```

Press **#** to store or ***** to abort entry. After pressing the store button, the next display should appear...

```
                      Press  *
                      To exit
```

Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

NOTE: To restore Master Code, please refer to FIG. 12 for location of reset pads.

SELECT "*DOOR OPEN CODE*" FOR MAIN AND AUXILIARY DOORS (DTMF only)

This feature will allow the user to change the Door Open Code (DTMF only) to any desired code from 0 to 9. This feature is particularly useful when the default Code for opening the Main or Auxiliary doors are false-triggering the door strike "open" due to a "series of tones" produced by some older answering machines when it answers a call. It is recommended to select a stable *Door Open Code* when a similar type of problem occurs to improve security. These "*Door Open Codes*" are used by all Residents to release the door by simply dialling the assigned code on their telephone while on-line with their visitors.

NOTE: The *Door Open Code* for pulse (rotary) type telephones is fixed at "**9**". Dialling a pulse digit "**9**" will activate the main door relay. An auxiliary door relay can be activated only by a standard DTMF Code as programmed; there is **no provision** for pulse activation.

TO CHANGE THE DOOR OPEN CODE FOR MAIN DOOR:

Scroll though until you reach the feature as shown below.

```
                    To Change DTMF
                   Code#1 - Press #
```

Press # to access the feature. The next display screen should appear...

```
           Enter DTMF digit
           to open door ( _ )      Digit "9" is the factory default.
```

Enter a number from **0** to **9** for code to open the **main door**. The next display screen should appear...

```
                  #=Store, *=Abort
                 to open door ( x )
```

Press **#** to store or ***** to abort entry.
To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

TO CHANGE THE DOOR OPEN CODE FOR AUXILIARY DOOR:

Scroll though until you reach the feature as shown below.

<pre>
                        To Change DTMF
                        Code#2 - Press #
</pre>

Press # to access the feature. The next display screen should appear...

<pre>
    Enter DTMF digit
    to open door (_)   Digit "6" is the factory default.
</pre>

Enter a number from **0** to **9** for code to open the **auxiliary door**.

Important notice: Do not use the same Code chosen for main door.

The next display screen should appear...

<pre>
                        #=Store, *=Abort
                        to open door (x)
</pre>

Press **#** to store or * to abort entry. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SELECT PULSE (Rotary) or TONE (DTMF) DIALING

To select Pulse or Tone (factory default is Tone) dialling, scroll through until you reach the feature as shown below.

<pre>
                        Pick Pulse/Tone
                        Option - press #
</pre>

Press **#** to access the feature. The display should appear...

<pre>
                        Pulse or Tone
                     P=00   T=11 _ _
</pre>

Enter **00** for pulse or **11** for tone. The next display should appear...

<pre>
                        #=Store, *=Abort
                     P=00   T=11 x x
</pre>

Press **#** to store or * to abort entry. After pressing the store button, the display should be as shown...

<pre>
                        Press   *
                         To exit
</pre>

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SET DOOR TIMER

To change Door-Open Timer (factory default is 10 seconds), scroll through until you reach the feature as shown below.

<pre>
                        Adjust Door-Open
                        Timer - Press #
</pre>

Press **#** to access the feature. The display should appear...

```
                          Door-Open Timer
                        00 to 99 Sec.   _ _
```

Enter the desired door-open period. The next display should appear...

```
                         #=Store, *=Abort
                        00 to 99 Sec.  x x
```

Press **#** to store or * to abort entry. After pressing the store button, the next display should appear...

```
                            Press  *
                             To exit
```

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SET ON-LINE TIMER

To change the On-Line period (factory default is 60 sec.), scroll through until you reach the feature as shown below.

```
                          Adjust On-Line
                         Timer - Press #
```

Press **#** to access the feature. The display should appear...

```
                           On-Line Timer
                        00 To 99 Sec.  _ _
```

Enter the On-Line period. The next display should appear...

```
                         #=Store, *=Abort
                        00 To 99 Sec.  x x
```

Press **#** to store or * to abort entry. Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

MULTIPLE/SINGLE ENTRANCE SELECT

To select Multiple or Single entrance, scroll through until you reach the feature as shown below.

```
                          Pick Mult/Single
                          Option - Press #
```

Press **#** to access the feature. The display should appear...

```
                           Multi or Single
                        M=00   S=11   _ _
```

Enter **00** for multiple entrances or **11** for single entrance. The next display should appear...

```
                         #=Store, *=Abort
                        M=00   S=11   x x
```

Press **#** to store or * to abort entry. The next display should appear...

```
                            Press  *
                             To Exit
```

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to

NORMAL MODE.

11 DIGIT TELEPHONE NUMBER ENTRY

To program 11-digit telephone number, scroll through until you reach the feature as shown below.

```
            Program 11-digit
             No.  - Press #
```

Press **#** to access the feature. The display should appear...

```
            Code  _ _ _ _
      _ - _ _ _ - _ _ _ - _ _ _ _
```

Enter the four digit DIAL CODE followed by the 11-digit telephone number. Please note that a 10-digit telephone number can be programmed if desired. This is useful for calling a local number with a different area code.

Example:	Dial Code	**2863**
	Area Code	**905** (local or not a long distance number)
	Telephone Number	**6604655**

Program the system as shown...

```
            Code  2 8 6 3
        9 - 0 5 6 - 6 0 4 - 6 5 5 .
```

Press **#** to blank the last digit or any digit as desired. When you make a mistake and wish to reenter the code, press *****. After entering all the digits, the display should change to...

```
            #=Store,  *= Abort
        9 - 0 5 6 - 6 0 4 - 6 5 5  x
```

Press **#** to store or ***** to abort entry. After pressing the store button, the system should exit directly to PROGRAM MODE. To quit, press ***000** while at PROGRAM MODE to return to NORMAL MODE.

QUIT FEATURE

If the visitor picks up the telephone and dials an incorrect resident/tenant code, he has an option of hanging up prior to connection by pressing the # key twice. The # key must be depressed twice by default. In order to have this feature by depressing the # key once the following menu must be accessed by scrolling through to reach ...

```
            Pick No.of # key?
            Option - press #
```
Press # to access the feature. The display should appear ...
```
            Once or Twice
            O=00 T=11 _ _
```

Enter 00 to depress # key once or 11 to depress # key twice. The display should appear ...

```
            #=Store, *=Abort
            O=00 T=11 _ _
```
Press # to store or * to abort. The next display should appear ...

```
            Press *
            To Exit
```
Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

SET ON-LINE TIMER TO MINUTES

To set the on-line timer to minutes, press the 3 key to move to the following display.

```
                Do you want to pick
                min.or sec?- Press#
```
Press # to access the feature. The display should appear...

```
                Minutes or seconds
                M=11 S=00 _ _    <== Factory default is 00
```

Enter digits 11 for minutes or 00 for seconds. The default is seconds. The next display should appear...

```
                #=Store, *=Abort
                M=11   S=00   x x
```

Press # to store or * to abort entry.

```
                     Press *
                     To Exit
```

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to returen to NORMAL MODE.

**** End of Programming ****

ADC SERIES CONTROLLER

DOOR STRIKE FUSE
REPLACEMENT:
3.0 AMP SLOW BLOW

LAMP FUSE
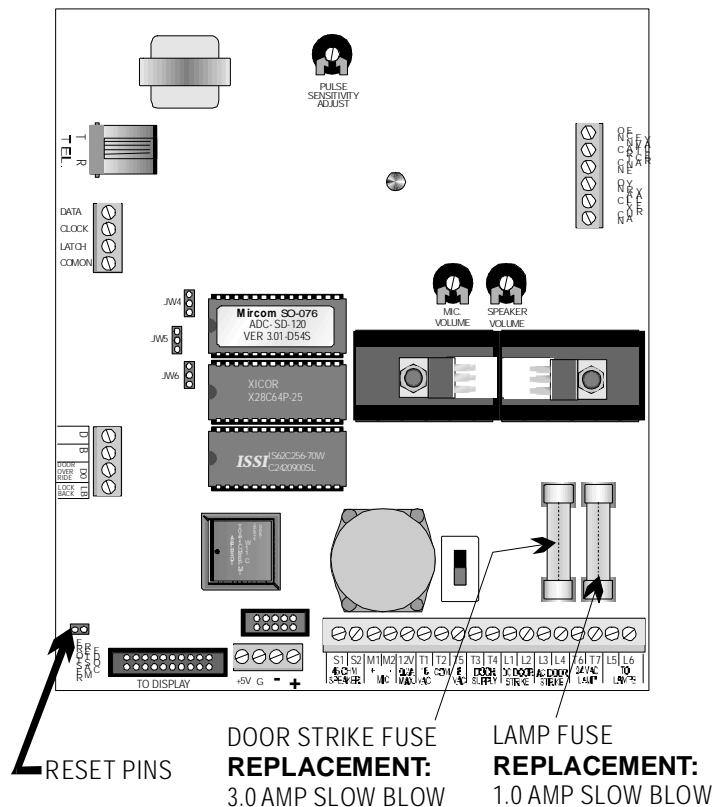**REPLACEMENT:**
1.0 AMP SLOW BLOW

RESET PINS

FIG. 12: ADC Series CONTROLLER'S RESET PINS & FUSES

REMOTE PROGRAMMING THE ADC NON-SCROLLING DIRECTORY USING DTMF

Mircom provides remote programming functions such as: entering, reviewing and deleting of resident codes, telephone numbers and keyless codes. To perform this function a telephone capable of generating a "Touch Tone" or DTMF (dual tone multi-frequency) signal is required.

To programme the ADC non-scrolling directory from a remote location the following steps should be followed:

1. Dial the phone number of the remote system directory to be programmed.

2. After it rings three times you will hear three short beeps indicating that you are connected to the system.

3. Dial the pass code (Factory Set for *999) and you will hear a long beep which indicates that you are logged in.

The options available to programme from a remote location are:

Code	Function
*000	Exit programming mode
*101	Enter 4 digit resident code and a seven digit number, then press # to store this information. Please wait for the tone that you hear to have sounded completely before you press the next button
*202	Review or Delete resident code and telephone number
*222	Enter Prefix Digit (digit 0 to 9) for area code
*303	Enter 4-digit keyless code
*404	Review or Delete keyless code

TONE **INDICATION**:

3 Short Beeps - indicates connection to remote system

1 Long Beep - indicates confirmation data has been received

Combination of 2 tones - indicates error

ENTER TENANT CODE

- To enter resident code and telephone number press *101 and wait for the confirmation tone (one long beep)

- **NOTE**: Remember to enter numbers and symbols slowly (1 per second)

- Dial the resident code (4-digit) and wait for confirmation tone, then dial the 7 or 8 digit telephone number and wait for the confirmation tone and press # to store or * to quit and wait for confirmation tone.

- NOTE: anytime there is an error tone, the system brings you back to the main menu. Also if the system is set for an 11-digit phone number i.e. an area code plus telephone number, the first digit entered is the prefix (area) code.

REVIEW RESIDENT CODE

• To review or edit resident code, dial *202 and wait for the confirmation beep.

• Dial the resident code which you want to review, if a long beep is heard then the code does exist. If an error tone is heard then that code does not exist.

• To delete the code and telephone, dial # or * to delete.

EXIT PROGRAMMING MODE

To exit from programming mode dial *000. If you do not use the exit code and hang up the telephone, the system will automatically disconnect after 2 minutes.

SYSTEM ADJUSTMENTS

CONTROL ADJUSTMENTS FOR ADC series CONTROLLERS (See FIG. 13)

1. *MICROPHONE VOLUME* : Adjust this control for the occupant's desired listening level. Turn clockwise to increase volume.
2. *SPEAKER VOLUME:* Adjust this control for the desired speaker loudness at the Entry Panel. Turn clockwise to increase volume.
3. *PULSE SENSITIVITY ADJUST:* Because of the condition of many of the older rotary "PULSE" type telephones in use, there is great variation with the signal they generate to release the door. The control units come factory preset to respond properly with these variations. If trouble is encountered in releasing the door when using a rotary phone, this control may require adjustments as outlined below.

   a) To increase sensitivity, turn the shaft of the control clockwise 1/10 of a revolution, then call the occupant whose phone was previously not energizing the door release. Ask the party to dial "9" and observe if the door release has been energized. Continue rotating the control 1/10 of a revolution at a time until the door release is positively energized.

   b) The control unit uses a crystal controlled electronic bandpass filter for the detection of the digit "9" for Touch Tone type phones. Therefore no adjustments are required for tone type detection as long as the Resident telephone can generate a "Touch-Tone" signal when on-line.

Figure 13: CONTROL LOCATIONS

DISPLAY CONTRAST ADJUSTMENT

Open the panel door and adjust the contrast control as shown on FIG. 14. Turn clockwise to increase contrast on the display.

FIG.14: DISPLAY CONTRAST LOCATION

SCROLLING DIRECTORY
KEYPAD/DISPLAY BOARD

ADJUST THIS
CONTROL TO
THE DESIRED
CONTRAST
LEVEL

NON-SCROLLING DIRECTORY
KEYPAD/DISPLAY BOARD

ADJUST THIS
CONTROL TO
THE DESIRED
CONTRAST
LEVEL
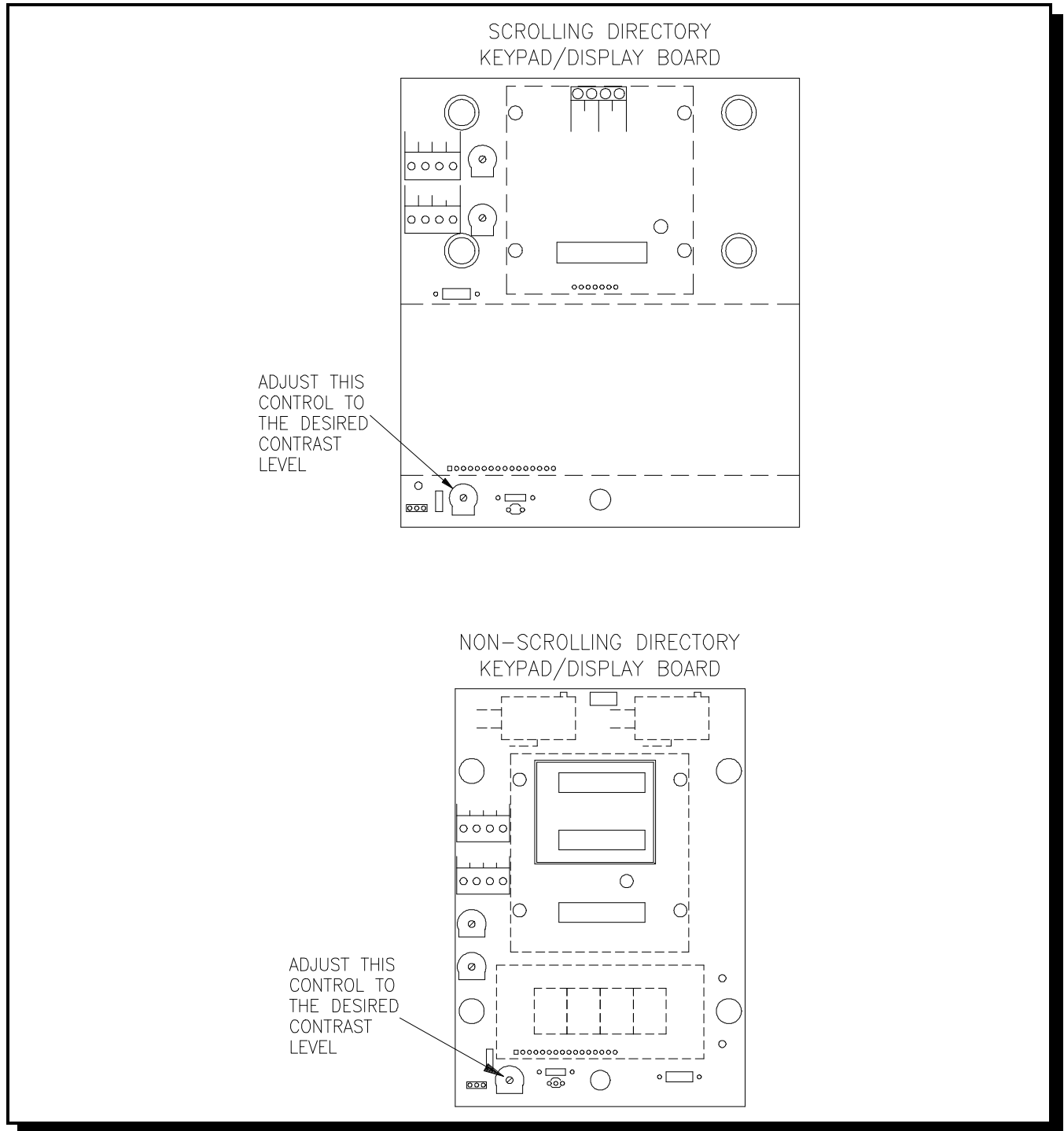
RESIDENT OPERATING INSTRUCTIONS

Mircom's state-of-the-art door entry system has been installed in this building to provide you and your guest with an increased level of confidence and security.

The system operates with your existing telephone. Your guest simply dials the code number next to your name on the entry panel directory and your telephone will ring. When you answer the telephone you will be able to communicate with your guest.

To unlock the door, dial the appropriate digit from your telephone.

To open the Main Door, press "**9**" (Pulse) OR _____ (Tone). (as programmed)
To open the Auxiliary Door, press _____ (Tone). (as programmed)

Normally, digit "**9**" is used to open the main door and digit "**6**" is used to open the auxiliary door.

To refuse entry, simply hang up or dial digit "**4**".

TROUBLESHOOTING

1. PROBLEM: *NO CHARACTERS DISPLAYED ON DISPLAY*

    ACTION: Open the door and locate the contrast control and ribbon cable on the Keypad/Display board. Check the connecting ribbon cable; push or plug into the socket if necessary. Adjust the contrast using a Phillips screw driver until the characters appeared distinct.

2. PROBLEM: *DOOR RELEASE NOT WORKING*

    ACTION: Check the door strike fuse and the power supply transformer connections . Please refer to FIG. 12 for fuse location and FIG. 4 for wiring scheme. Check programmed keyless entry code and door-open period.

3. PROBLEM: *SYSTEM LATCHED-UP*

    ACTION: Reset the system by removing the power and powering it back on again (on newer boards there is a switch to do this located just above the terminal blocks, bottom right hand corner of the 9501A and the 9502A). This action should initialize the system to normal mode. No programmed information will be lost since the system uses a nonvolatile memory to hold the information even at total power failure. Please note that the system must be Earth grounded properly to avoid latched-up problem.

4. PROBLEM: *RESIDENT TELEPHONE NOT RINGING*

    ACTION: Check programmed Resident Code and telephone number. Check system telephone line connection. Please note: for multiple entrances application, the system must be programmed to the multiple entrances mode. Please refer to multiple entrances section in the manual.

5. PROBLEM: *THE SYSTEM IS UNABLE TO MAKE A CALL*

    ACTION: Check the telephone line for dial tone using a regular phone. Check for proper line connection. *Note: The unit will dial only after it detects a valid dial tone.*

Note: For further help, please call or fax:

Application Engineering Department

Tel.: (888) 660-4655
Fax: (888) 660-4113

APPENDIX "A" -ACCESSORY SPECIFICATIONS

DOOR STRIKES

Model: M-10

VOLTAGE:	4-6V DC (silent), 8-16V AC (buzzing)
DIMENSION:	1 1/4" Wide by 5 7/8" High by 1 1/2" Deep
WEIGHT:	0.736 lb

Model: M-10HD

VOLTAGE:	8-16V AC (buzzing)
DIMENSION:	1 1/4" Wide by 5 7/8" High by 1 1/2" Deep
WEIGHT:	0.706 lb

Model: M-20

VOLTAGE:	4-6V DC (silent), 8-16V AC (buzzing)
DIMENSION:	1 3/4" Wide by 5 7/8" High by 1 1/2" Deep
WEIGHT:	0.986 lb

APPENDIX "B"

RESIDENT DIRECTORY WORK SHEET

Unit No.		Resident's Name	Dial Code				Phone Number	Phone Type Pulse/Tone	Keyless Entry Code				
Flr.	Apt.												

While at Resident Name Entry mode, scroll through the character set by pressing "**1**" to move backward or "**3**" to move forward.

ex. while at 7, press "**1**" to go backward to 6.
ex. while at c, press "**3**" to go forward to d.

Space	0	1	2	3	4	5	6
7	8	9	A	B	C	D	E
F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U
V	W	X	Y	Z	a	b	c
d	e	f	g	h	i	j	k
l	m	n	o	p	q	r	s
t	u	v	w	x	y	z	

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 authorized service depot.

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Notes