AeGIS NPB9000 Series

Installation and Programming Manual

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Chapter 1
GETTING STARTED

1.1 Introduction

Pach & Company thanks and congratulates you on the purchase of your AeGIS NPB9000 Series Telephone Access Control Systems with optional 26 Bit Wiegand Proximity Reader or Radio Reader with remote or local programming via software.

The manual is designed to guide you through the proper programming and use of the AeGIS NPB9000 Series. It is important for you to read and follow the manual completely.

The AeGIS NPB9000 Series comes with two years warranty, but we are so confident in our product and our dealer's ability to install them properly, we will include lightning strikes in our two years warranty if Pach and Company surge protector (ASP1) is installed with the systems.

1.2 System Description, Specifications and Accessories

AeGIS NPB9000 Series utilizes microprocessor technology to provide security as well as convenience to you. It is designed for residential and commercial buildings, military and government sites, industrial facilities, or any location where access control is required. It uses a dedicated phone line and connects to the public telephone network. Authorization for access control is through the telephone line or with the keypad access code or with optional card or a combination of keypad access code and card. The tenants MUST have a telephone to allow remote visitor access.

The system parameters and tenants data will be entered via the keypad and the LCD provides easy display. EEPROM technology is used for AeGIS NPB9000 Series. The tenant database will not be lost during a power failure.

Standard features:

- Program and store the tenant's name, directory code, telephone number and personal access code.
- Unlocking door or gate remotely by the tenant using his or her telephone keypad.
- Unlocking door or gate using keypad access code.
- Built-in two line back-light LCD directory, Postal Switch.
- Recess keypad with built-in night light.
- Programmable via Pach and Company Management Software (Modem or RS-232).
- Two relay with multi purpose secondary relay.
- Door sensor input.
- Built-in RS-485 to interface with Satellite Keypad (SK9).
- Works behind a PBX to dial extensions (analog only).
- Keypad Activated to support Voice Mail.
- Programmable features:
    - 2, 3 or 4 Digit Directory Code
    - Lock Out Count
    - Manual Unlock-Auto Countdown Re-lock.
    - Auto Unlock Schedules
    - Time Zones for restricted or non-restricted keypad access code or card access.
    - Open Interval
    - Talk Time

Optional features:

- 26-Bit Wiegand Proximity Card Reader.
- 26-Bit Wiegand Radio Reader.
- Vacuum Fluorescent Display (VFD).

Technical Specifications:

AeGIS NPB9000 Series

Power Input: 12 VAC 40 VA (supplied) or 12 VDC 40VA UL Listed Transformer

Current Consumption: **AeGIS 9000NCMain Lobby Control Panel:** Min 700mA idle, Max 900mA operation with optional Wiegand Card Reader and Radio Reader.
MS79xxx Main Relay Control Panel: 50 mA Idle, 680 mA Operation.
MX79xxx Expanded Relay Panel: 50 mA Idle, 680 mA Operation.

Emergency Battery: 12Vdc, 4Ahr rechargeable (not supplied)

Telephone Line: Standard voice grade RJ11 jack.

Night Light: 14V 0.080A 15,000 Average life hours.

Operating Environment: Temp. 32°F to +140°F Relative Humidity 0% to 95% non-condensing.
* Heater Pad (AHP5) is required if the ambient temperature is below 32°F.

Relay Output: Form C Dry Contact 120 VAC 10A/ 24VDC 10A/ 250VAC 7A

Memory Type: EEPROM

Tone Detection: Crystal controlled, capable of detecting short bursts 80 ms

Ringer Equivalence: 0.6B

Mounting: Surface or Semi-Flush. Indoor or Outdoor (Main Lobby) and Indoor Only (MS79xxx and MX79xxx).

Construction: 16-gauge cold rolled steel back box with brush stainless steel face plate or brass plating face plate.
16-gauge cold rolled steel box with enamel finished (MS79xxx and MX79xxx)
Shipping: 40 lbs-75 lbs.

Dimensions(HWD) : 13-1/2"x 11-1/4 x 3-7/8" (Main Lobby)
16-1/6”x 14-1/6”x 3-5/8” (MS79012-48 and MX79012-48)
23”x 12”x 3-5/8” (MS79060-120 and MX79060-120)

Specifications subject to change without prior notice

26 Bit Wiegand Card Reader (AWCR)

Power Input: 4.75 -18 VDC Regulated (Power by the AeGIS NPB9000 Series +5VDC).

Transmit Frequency: 125 Khz.

Cable Distance: 500 feet maximum.

Dimension: 5.0” x 1.6” x 0.75” (HWD)

26 Bit Wiegand Radio Reader (AWRR)

Power Input: 5.0 VDC Regulated (Power by the AeGIS NPB9000 Series +5VDC regulated) or
6.0 - 24 VDC Unregualted (not supplied).

Transmit Frequency: 318 Mhz.

Bandwith: 300 Khz minimum.

Read Range: 5 - 500 feet

Accessories and Replacement Parts:

AWCR	AeGIS 26-BIT Wiegand Card Reader.
ACLAM	26 Bit Wiegand Clam Shell Card..
AISO	26 BIT Wiegand ISO Card.
AFOB	26 BIT Wiegand Key Fob.
AWRR	AeGIS 26-BIT Wiegand Radio receiver.
AFOBT	AeGIS 26-BIT Wiegand Key Fob Radio Transmitter.
AHHT	AeGIS 26-BIT Wiegand Hand Held Radio Transmitter.
ACDM	AeGIS Management Software CD.
ABAT1	AeGIS 12 VDC 4.5 Ahr battery backup.
ABAT2	AeGIS 12 VDC 1.3 Ahr battery backup.
SFM9	Semi flush mounting ring.
ASP1	AC and Telephone Surge Protector**.**
AHP5	Heater pad with Thermostat.

APM1	AeGIS Pedestal Mounting Post for car and pedestrian.
APM2	AeGIS Pedestal Mounting Post for semi-truck, car and pedestrian.
APM3	AeGIS Pedestal Mounting Post for semi-truck.
AP9	Adapter plate for APM1, APM2 and APM3.
XMFR	Power Transformer.
9VFD	Vacuum Fluorescent Display.
AVP9C	AeGIS Video Package (Color).
AVP9	AeGIS Video Package (Black and White).
9MAN	AeGIS NPB9000 Series Installation and Program Manual.
AKYS	AeGIS key Sets (2 keys per set).

1.3 Unpacking the System

Standard AeGIS NPB9000 Series consists of the following items:

- AeGIS 9000NC and MS79xxx or MX79xxx.
- 2 of XMFR (Power Transformer, 12VAC 40VA).
- 7-pin terminal connector (inside the AeGIS 9000NC)
- Two 5-pin terminal connector (inside the AeGIS 9000NC and the MS79xxx).
- 2 of 3-pin terminal connector (inside AeGIS 9000NC).
- Two 6-pin terminal connector (inside the AeGIS 9000NCand the MS79xxx).
- RJ71X12 or RJ71X24.
- Two Key sets (2 keys per set)
- RJ-11 adapter (inside the AeGIS 9000NC).
- Owners Manual.
- Warranty Card with unit serial number.

1.4 Warranty

The AeGIS NPB9000 Series come with **two (2) years warranty for parts and labor.** We will include lightning strikes in our two years warranty if our ASP1 surge protector is installed with the systems. The above warranties are subject to the following conditions.

- The serial number on the printed circuit board must match the serial number on the cabinet.
- The system's failure is not caused by vandalism, improper installation, misuse or abuse.
- Physically damaged product is not acceptable for repair or exchange within or after warranty.
- The warranty will be void and null if the product has been repaired or modified by unauthorized party without authorization of Pach and Company Technical Department.
- If for some reason your system cannot be repaired, Pach and Company will replace it with an identical product of equal value.
- You must obtain a Return Merchandise Authorization (RMA) number from Pach and Company Technical Department before you can send back the product to factory for repair.
- You are responsible for all transportation and insurance charges for the products shipped to the Pach and Company repair center.
- Pach & Company will not be responsible for any labor cost to disconnect and reinstall the system(s).

Chapter 2

INSTALLATION

2.1 System's Wiring

A proper installation of the AeGIS system is very essential. You MUST follow the installation procedures, block diagrams and installation requirements as specified in this chapter.

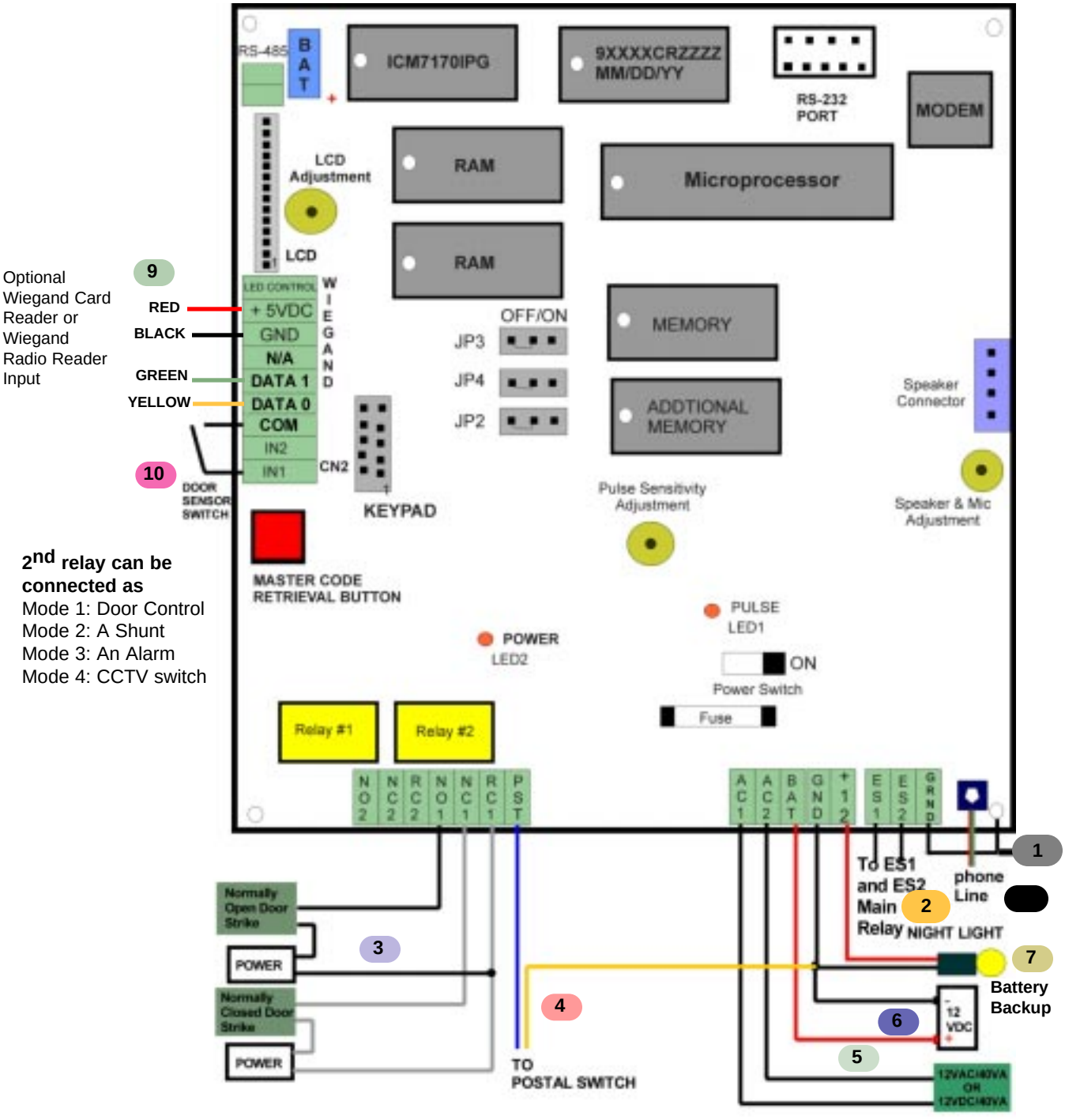
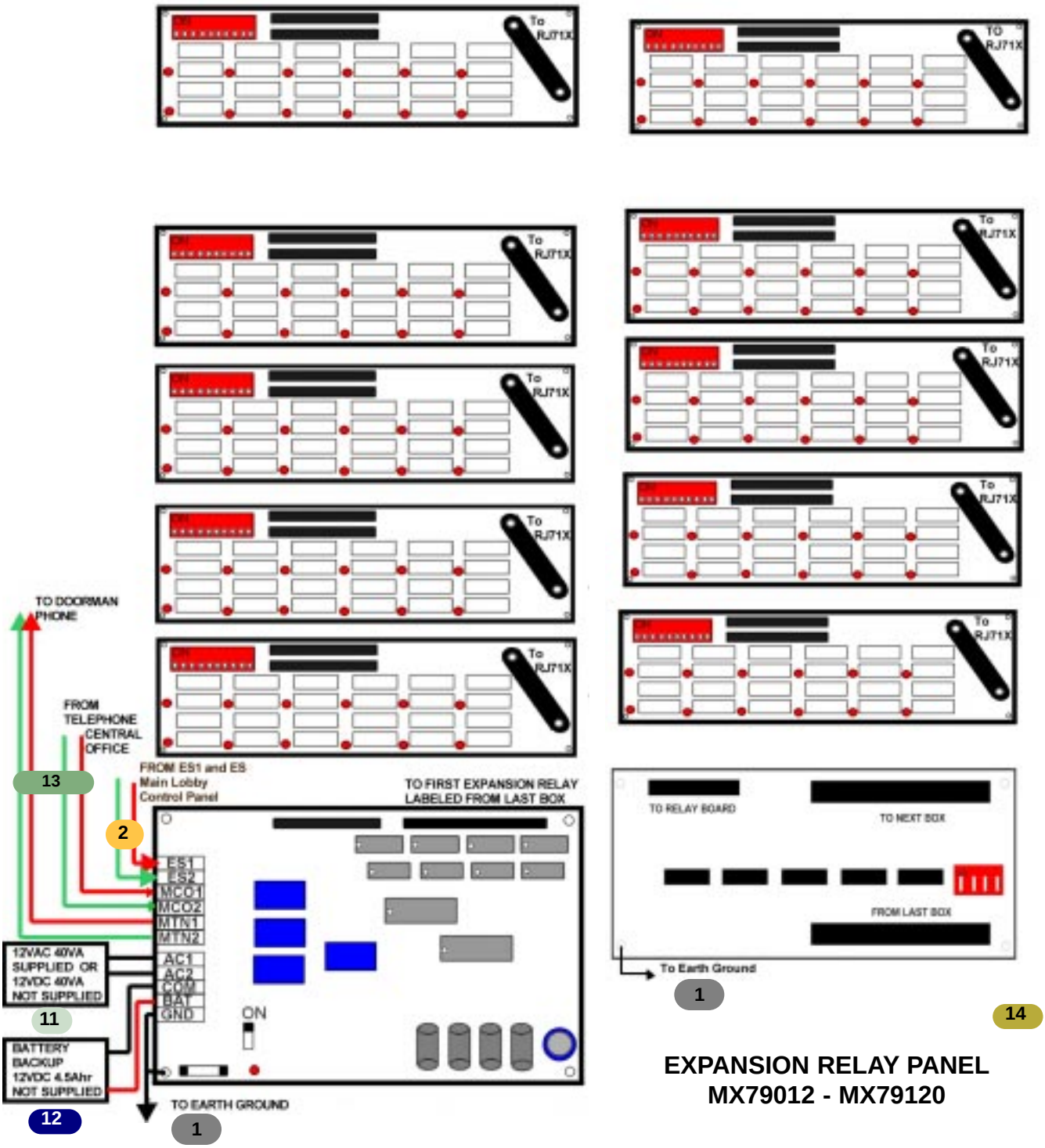


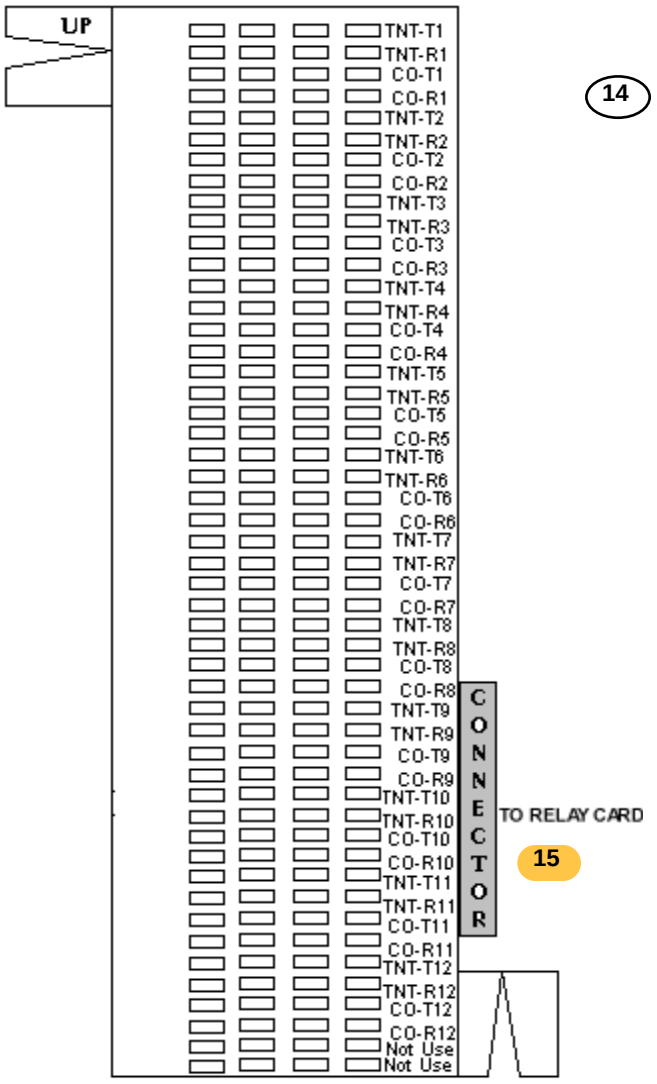
Figure 2.1



MAIN RELAY CONTROL PANEL
MS79012 - MS79120

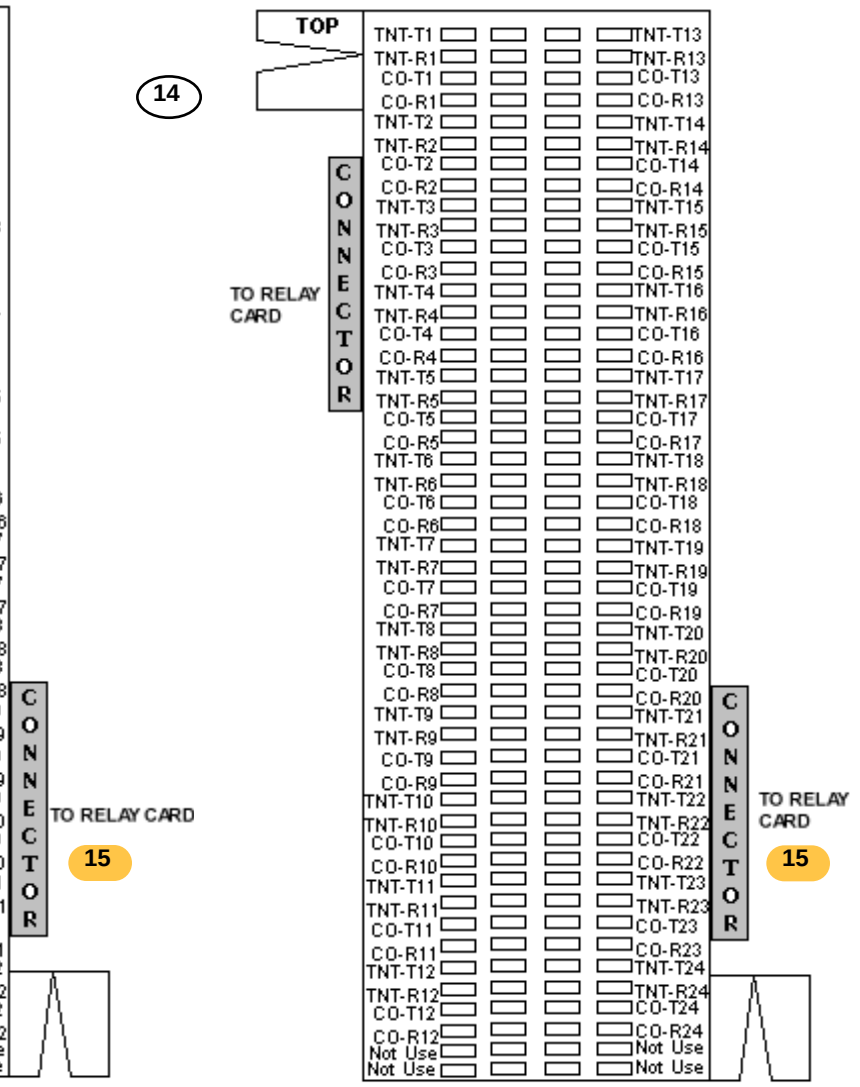
EXPANSION RELAY PANEL
MX79012 - MX79120

Figure 2.2



RJ71X12

Figure 2.3a



RJ71X24

Figure 2.3b

1 GROUNDING

Grounding the AeGIS 9000NC, MS79xxx and MX79xxx steel enclosure are essential. Please comply with all local ordinances and industry standard procedures to ensure a complete and safe ground. Recommended earth grounds are:

- Use 18-gauge solid wire for grounding.
- Installing a ground steel rod from the steel enclosure to the earth ground, use the same grounding point for best ground.
- Installing a solid heavy gauge wire from the AeGIS steel enclosure to a water pipe.
- Connecting the AeGIS steel enclosure to any earth grounded steel metal.
- Use the same ground point for all the systems to avoid cross-talk problem.

2 COMMUNICATION LINE

Always use AeGIS AC/Telephone Surge Protector (ASP1) to protect your investment. The Pach and Company "**Two Years Warranty**" will include lightning if Pach and Company Surge Protector (ASP1) is installed. One surge protector must be used for each system. You must claim the damages to the manufacturer of the surge protector, if another manufacturer surge protector is installed.

- Two Conductors, 18-gauge shielded stranded must be used for communication. Ground only one end of the shielded to the earth ground. Use the same earth ground for best ground.
  See installation instruction if ASP1 Surge Protector is used.
- Up to eight AeGIS 9000NC can be connected to the Main Relay Control Panel.

3 DOOR STRIKE OR ELECTRICAL STRIKE

The AeGIS NPB9000 Series provides TWO relay form "C" dry contact: Normally Open (NO) and Normally Closed (NC).

- 10 Ampere 120 VAC or
- 10 Ampere 24 VDC or
- 7 Ampere 250 VAC

See figure 2.1 for door strike wiring diagram. You MUST use two conductors 18 gauge stranded wire minimum.

Note: Some door strikes are creating electrical or magnetic noise or spikes and could create problem to the system's memory. Although the system's relay has built-in filtration circuit, installing an isolation relay is recommended if the system is experiencing with looses memory.

4 POSTAL LOCK

The AeGIS system comes with pre-wired "**Normally Open**" postal switch as shown on figure 2.2(a). If the postal switch is pressed, the gate will open. If you need "**Normally Closed**" postal switch, see figure 2.2(b).
The postal lock is not included. You have to purchase the postal lock from your local post office. See figure 2.2 to alter the postal switch to normally closed.

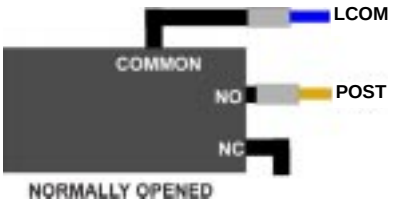


Figure 2.2 (a)

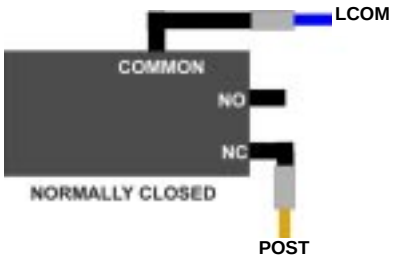


Figure 2.2 (b)

5 MAIN LOBBY PANEL POWER

A 12 VAC 40VA transformer is supplied by Pach and Company. However, 12 VDC 40VA power supply or 12VDC power supply with battery backup can be used to power the AeGIS 7000NC, use the same connection as shown on figure 2.1.

- Two conductors, 18-gauge wire must be used. **See installation instruction if ASP1 Surge Protector is used.**
- Do not share power transformer or power supply between the AeGIS 9000NC and other electronic equipment.
- Turn the power "ON" (left position). The Power Light Emitting Diode (LED2) should be "ON". You should see "Welcome to Pach's Telephone Access Systems" on the Liquid Crystal Display (LCD). If the display is blank, turn the system off and see Chapter 4.0 Operations and Chapter 6.0 Trouble Shooting Guides.
- **If 12 VDC 40VA with or without built-in battery backup is used, the output voltage must be 13.5 VDC - 14.0 VDC.**

6 MAIN LOBBY PANEL BATTERY BACKUP

The Main Lobby Panel has a built-in charging circuit for battery backup. The battery will keep the system in full operation during power failure. Recommended battery is 12 VDC, 4.5 Ahr rechargeable (customer supply). The life of the battery is approximately 8 hours in idle mode.

- Use two conductors 8-gauge shielded stranded wires.

WARNING: The connection is polarity sensitive. Connect the battery (+) terminal to the connector labeled (BAT) on the AeGIS and the battery (-) terminal to the connector labeled LCOM on the AeGIS. See figure 2.1 for wiring diagram.

7 NIGHT LIGHT

14V 0.080A 15,000 Average life hours light bulbs. Use the same rating of replacement light bulb.

TELEPHONE LINE

Optional telephone line for remote programming.

9 OPTIONAL 26 BIT WIEGAND CARD READER OR RADIO READER

ONLY USE FOR PACH AND COMPANY CARD READER OR RADIO READER

10 OPTIONAL DOOR SENSOR

Optional Normally Open door sensor switch can be installed to warn the manager if the gate is left open or forced open.

11 MAIN RELAY CONTROL PANEL POWER

A 12 VAC 40VA transformer is supplied by Pach and Company. However, 12 VDC 40VA power supply or 12VDC power supply with battery backup can be used to power the AeGIS NPB9000 Series, use the same connection as shown on figure 2.1.

- Two conductors, 18-gauge shielded stranded wires must be used. Ground one end of the shielded to earth ground. **See installation instruction if ASP1 Surge Protector is used.**
- Do not share power transformer or power supply between the AeGIS and other electronic equipment.
- Turn the power "ON" (left position). The Power Light Emitting Diode (LED2) should be "ON". You should see “Welcome to Pach's Telephone Access Systems" on the Liquid Crystal Display (LCD). If the display is blank, turn the system off and see Chapter 4.0 Operations and Chapter 6.0 Trouble Shooting Guides.
- If 12 VDC power supply is used, the OUTPUT must read between 13.5 VDC - 14.5 VDC. Note: Do not use a power supply higher than 12 VDC.

12 MAIN RELAY CONTROL PANEL BATTERY BACKUP

The Main Relay Control Panel has a built-in charging circuit for battery backup. The battery will keep the system in full operation during power failure. Recommended battery is 12 VDC, 4.5 Ahr rechargeable (customer supply). The life of the battery is approximately 8 hours in idle mode.

- Use two conductors 8-gauge shielded stranded wires.

WARNING: The connection is polarity sensitive. Connect the battery (+) terminal to the connector labeled (BAT) on the AeGIS and the battery (-) terminal to the connector labeled LCOM on the AeGIS. See figure 2.1 for wiring diagram.

13 DOORMAN PHONE

You must have a central office telephone line input on MCO1 and MCO2 to use the doorman phone. The door man phone is connected to MTN1 and MTN2. See figure 2.2.

- Use two conductors 22-twisted wire.

14 TENANTS PHONE WIRING

The RJ71X12 and RJ71X24 are supplied by Pach and Company. **The label UP or TOP must at top**. Use 22-gauge twisted wire.

RJ71X12 has 4-columns (A B C and D) and each column has 50 pins. Each pin on column C and D are connected.
WARNING: • DO NOT USE COLUMN A and B to connect the wires.
• THE CONNECTIONS ARE NOT IN PARALLEL.
Each pin is labeled (TNT-T1, TNT-R2, CO-T1, CO-T2,....., TNT-T12, TNT-R12, CO-T12, CO-R12).
TNT is the output telephone wires (Tip and Ring) to the tenant apartment or house.
CO is the input from telephone company wires (dial tone, tip and ring). See figure 2.3(a).

RJ71X24 has 4-columns (A B C and D) and each column has 50 pins. Each pin on column A and B are connected and each pin on column C and D are connected.
WARNING: THE CONNECTIONS ARE NOT IN PARALLEL.
Each pin is labeled (TNT-T1, TNT-R2, CO-T1, CO-T2,....., TNT-T24, TNT-R24, CO-T24, CO-R24).
TNT is the output telephone wires (Tip and Ring) to the tenant apartment or house.
CO is the input from telephone company wires (dial tone, tip and ring). See figure 2.3(b).

15 TELEPHONE STATION CONNECTOR CABLE

Connect the telephone station connector cable supplied to each relay board. The connection will restore the tenant's phone line. See figure 2.2, 2.3(a) and 2.3(b).

16 OPTIONAL HEATER PAD (AHP5)

A heater pad must be installed if the ambient temperature is below 32°F. See figure 2.3 for power connection.
Specifications: 12 VAC/12VDC 10 Watts, 55.4 °F

Step 1: Turn the system OFF.
Step 2: Install the heater pad behind the Liquid Crystal Display (LCD). Provide 1/4" - 1/2" clearance from the back of the LCD.
Warning: Do not install the heater pad on top of the LCD without a clearance, It may damage the LCD.
Step 3: Install a duct tape on the LCD's ribbon cable.

Figure 2.3

17 RS-232 CONNECTION

The AeGIS NPB9000 Series come with RS-232 DB9 Port. The port is used for local programming via AeGIS NPB9000 Series Management Software. See wiring diagram below for RS-232 connector wiring diagram.

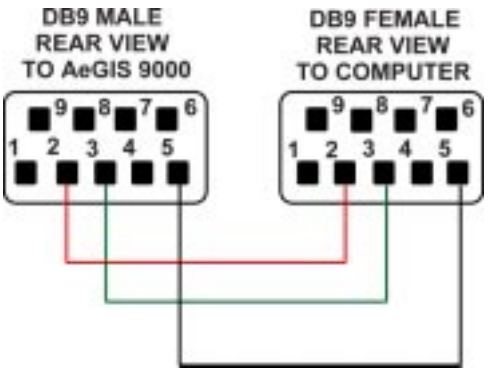


Figure 2.4 RS-232 CONNECTOR

2.2 Testing and Verifying the Installation

You must verify your telephone installation by calling every tenant. The easiest way to verify the installation is by connecting a standard telephone to ES1 and ES2 on the Main Relay Control Panel (see figure 2.2) and figure 2.4.

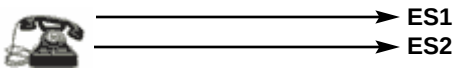


Figure 2.4

Call every tenant using the standard phone as follows (see also table 2.3):

Step 1: Lift the handset and wait for ***"Two Long Beeps"***. You also hear the relay click.

Step 2: Press # and the 4-digit relay number (i.e #0001, for relay #1) and the LED #1 on relay# 1 turns ON and the tenant phone connected to relay# should ring. Always check the tenant phone, do not depend on the LED on the relay.

Step3: Hang-up and repeat step 2 to test the next relay number.

Relay Board DIP Switches Setting

Each relay board in the Main Relay Control Panel and the Extended Relay panel represents 12 tenants. For example: MS79024 consists of Main Control board and two relay boards. The last three digit represents the number of tenant. The MX79xxx is needed to configure more than 120 tenants. See table 1.1 for DIP Switch setting.

MODEL MS79012 - MS79120 Main Relay Control Panel or MX79012-MX79120 Expansion Relay Panel										
Relay # / Switch #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Relay 1 (1-12 tenants)	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Relay 2 (13-24 tenants)	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Relay 3 (25-36 tenants)	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Relay 4 (37-48 tenants)	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
Relay 5 (49-60 tenants)	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
Relay 6 (61-72 tenants)	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
Relay 7 (73-84 tenants)	OFF	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
Relay 8 (85-96 tenants)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	OFF
Relay 9 (97-108 tenants)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**ON**	OFF
Relay 10 (109-120 tenants)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**ON**

Table 2.1 MS79012 - MS7910, MX79012 - MX79120 DIP SWITCHES SETTING

Expansion Relay Panel DIP switches setting

The expansion relay panel is needed to configure more than 120 tenants. Each of the MX79xxx can be used to configure additional 120 tenants. For example 168 tenants system requires MS79120 and MX79048. See table 1.1 and table 1.2 for expansion board setting.

MX79012 - MX79120 Expansion Board Switch Setting				
Expansion Board # / Switch	**1**	**2**	**3**	**4**
1 (121 - 240 tenants)	OFF	**ON**	**ON**	**ON**
2 (241 - 360 tenants)	**ON**	OFF	**ON**	**ON**
3 (361 - 480 tenants)	OFF	OFF	**ON**	**ON**
4 (481 - 600 tenants)	**ON**	**ON**	OFF	**ON**
5 (601 - 720 tenants)	OFF	ON	**OFF**	**ON**
6 (721 - 840 tenants)	OFF	OFF	OFF	**ON**
7 (841 - 960 tenants)	ON	ON	**ON**	OFF

Table 2.2 MX79012 - MX79120 DIP SWITCHES SETTING

The Relay Correlation Number

Relay Board	Relay# (LED#)	4-digit Phone#	Relay Board	Relay# (LED#)	4-digit Phone #	Relay Board	Relay# (LED#)	4-digit Phone#
1	1	0001	**3**	1	0025	**5**	1	0049
1	2	0002	**3**	2	0026	**5**	2	0050
1	3	0003	**3**	3	0027	**5**	3	0051
1	4	0004	**3**	4	0028	**5**	4	0052
1	5	0005	**3**	5	0029	**5**	5	0053
1	6	0006	**3**	6	0030	**5**	6	0054
1	7	0007	**3**	7	0031	**5**	7	0055
1	8	0008	**3**	8	0032	**5**	8	0056
1	9	0009	**3**	9	0033	**5**	9	0057
1	10	0010	**3**	10	0034	**5**	10	0058
1	11	0011	**3**	11	0035	**5**	11	0059
1	12	0012	**3**	12	0036	**5**	12	0060
2	1	0013	**4**	1	0037			
2	2	0014	**4**	2	0038			
2	3	0015	**4**	3	0039	**83**	**3**	**0987**
2	4	0016	**4**	4	0040	**83**	**4**	**0988**
2	5	0017	**4**	5	0041	**83**	**5**	**0989**
2	6	0018	**4**	6	0042	**83**	**6**	**0990**
2	7	0019	**4**	7	0043	**83**	**7**	**0991**
2	8	0020	**4**	8	0044	**83**	**8**	**0992**
2	9	0021	**4**	9	0045	**83**	**9**	**0993**
2	10	0022	**4**	10	0046	**83**	**10**	**0994**
2	11	0023	**4**	11	0047	**83**	**11**	**0995**
2	12	0024	**4**	12	0048	**83**	**12**	**0996**

Table 2.3 The Relay Number Correlation with 4-digit Phone Number

Chapter 3
PROGRAMMING

The AeGIS NPB9000 Series can be programmed locally using the built-in keypad or RS-232 via the Pach and Company Management Software or remotely via the Pach and Company Management Software (see the CD for Manual).

3.1 LOCAL PROGRAMMING VIA BUILT-IN KEYPAD

Log on to programming mode

Two ways to log on to programming mode:

1) PRESS 0 AND # SIMULTANEOUSLY THEN RELEASE, the display screen stops scrolling (If the display screen is still scrolling repeat this step again) then enter the valid 4-digit Master Code (default Master Code: 0000). Now, you are in programming mode, the display shows:

SELECT PROGRAM
ENTER: _ _ PRESS #

and proceed to Local Programming Table 3.1. If the system idles in 30 seconds, the display will return to a scrolling mode.

2) IF YOU DO NOT HAVE A VALID MASTER CODE, open the panel (key must be used) then press and release the "**RED BUTTON**" on the board and the display shows:

MASTER CODE: X X X X
NEW:_ _ _ _ # ENT

x x x x: 4-digit Master Code.

then press #. Now, you are in programming mode and proceed to Local Programming Table 3.1. If the system idles in 30 seconds, the display will return to a scrolling mode.

3.2 RS-232 AND REMOTE PROGRAMMING VIA THE PACH AND COMPANY MANAGEMENT SOFTWARE

See the enclosed CD for Manual. You may install up to eight systems on the same phone line but if Pach and Company Management Software is used, you must follow the requirements below:

- A Maximum of four AeGIS 9000NC can be connected on the same phone line for remote programming via modem and eight systems on the same phone line if RS-232 is used.
- Different Master Code must be assigned to each system for remote programming via modem.
- Not every computer's modem in the market will communicate (compatible) with multiple AeGIS NPB9000 Series on the same phone line, recommended modem is ZOOM.
- The Master Code may have to be sent more than once in order to communicate with one of the system.
- Only one system at a time can be connected using an RS-232 port and limited to 150 feet.

FUNCTION CODE	LOCAL PROGRAMMING
*	1. Exit the programming mode by pressing * once or twice. 2. Clear the programmed name, phone number or access code by pressing * 3. Press * then the 4-digit access code to unlock the door or gate via the system keypad.
#	Press # to accept program.

FUNCTION CODE	LOCAL PROGRAMMING
00 **REPLACE SYSTEM MASTER CODE** (**Default setting is 0000**) Master Code is used to log on to programming mode, not to unlock door or gate.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function code 00, then press #, the display shows **MASTER CODE: 0000** **NEW: _ _ _ _ # ENT** **Step 3** Enter the new 4-digit Master Code then press # the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** If you press * the display shows **** CODE ERROR** **NOTHING CHANGED!** Ignore the message, and your existing Master Code will remain in the system. **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode and the display shows **DIR # USED: XXXX** **Please Wait . . . .**
01 **CHANGE TALK TIME** (**Default setting is 090 Seconds**) Minimum setting is 10 seconds and Maximum setting is 240 seconds. Talk Time between the tenant and visitor. The talk time is also a hang-up time.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function code 01, then press #, the display shows **TALK TIME, 10-240** **ENTER: _ _ PRESS #** **Step3** Enter the talk time (10-240 seconds) then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
02 **OPEN INTERVAL RELAY 1 and RELAY 2** (**Default setting is 012 Seconds**) Minimum setting is 04 seconds and Maximum setting is 99 seconds. Unlock Time for Door 1 and Door 2.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function code 02, then press #, the display shows **Set which Relay?** **(1 or 2): _** **Step 3** Enter **1 for relay 1 (door 1)** or **2 for relay 2 (door 2)** then press #, the display shows

FUNCTION CODE	LOCAL PROGRAMMING
	UNLOCK TIME, SEC **ENTER: 12 PRESS #** **Step 4** Enter the unlock time value (04-99 Seconds) then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
03 **LOCK OUT COUNT** (**Default setting is 03**) Minimum setting is 1 and Maximum setting is 9 . The system will ignore further keypad code for 90 second if invalid keypad code has been entered a specific number of times. Does not valid for card code or combination between card code and keypad code.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function code 03, then press #, the display shows **LOCK-OUT COUNT** **ENTER: 3 PRESS #** **Step 3** Enter the Lock Out Count value (1-9) then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
04 **TONE OR PULSE** (**Default setting is TONE**) Always set for **TONE**, no phone bill will not work on pulse.	NOT APPLICABLE FOR NON SUBSCRIBER.
05 **SINGLE OR MULTI SYSTEMS** (**Default setting is SINGLE**) If more than one systems are on the same phone line, you must set each system to MULTI.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function code 05, then press #, the display shows **SINGLE=1 MULTI=0** **ENTER: 1 PRESS #** **Step 3** Enter 1 for **SINGLE or** 0 for **MULTI,** then press #, the display shows

FUNCTION CODE	LOCAL PROGRAMMING
	SELECT PROGRAM **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
06 **SYSTEM ID** (**Default setting is 0**)	Do not change the programming, leave the value as default. **The function code is not used.**
07 **REMOTE ENABLE/DISABLE** (**Default setting is Enabled**) Set the function code to **ENABLE** if the management software is used to program the system. If the function code is set to **DISABLE**, the system will not answer an incoming call.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 07 then press # and the display shows **REMOTE YES=1 NO=0** **ENTER: 1 PRESS #** **Step 3** Enter **1 to ENABLE and 0 to DISABLE** then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
08 **RELAY 2 MODE** (**Default setting is as DOOR. CONTROL)** **MODE1:** DOOR CONTROL **MODE 2:** A SHUNT **MODE 3:** AN ALARM TIMER **MODE 4:** A CCTV V SWITCH **See Chapter 4. System's Operation for more detail explanation.**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 08 then press # and the display shows **RELAY 2 MODE (1-4)** **ENTER: 1 PRESS #** **Step 3** Enter 1- **DOOR CONTROL** 2- **A SHUNT** 3- **AN ALARM TIMER** 4- **A CCTV SWITCH** then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
09 **ALARM TELEPHONE NUMBER** **NOT APPLICABLE FOR NON SUBSCRIBER**	NOT APPLICABLE FOR NO PHONE BILL
10 **MANUAL UNLOCK/LOCK OR UNLOCK HOLD DOORS TIMER** Set the timer to unlock/lock or unlock hold relay 1(door 1) or relay2 (door 2). **01-98 hours** - doors will unlock and lock for 01 - 98 hours. **99** - doors will unlock for indefinite time (unlock hold).	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 10 then press # and If relay 2 is set as a **DOOR CONTROL** in Function Code 08 the display shows **Set Which relay** **(1 or 2): _** If relay 2 is set other than a Door Control, proceed to step 4. **Step 3** Enter 1 for relay 1 (door 1) or 2 for relay 2 (door 2) then press #, the display shows **HOURS UNLOCK** **ENTER: _ _ PRESS #** **Step 4** Enter **01-98 (unlock 1-98 hours) or 99 (unlock hold)** then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
11 **EDIT WELCOME MESSAGE DISPLAY** The welcome screen is a scrolling display. A total 48-characters (16 - characters for each segment) can be programmed for the welcome message.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 11 then press # and the display shows **Welcome to Pach'** **MESSAGE SEGMENT 1**

FUNCTION CODE	LOCAL PROGRAMMING

Step 3 Enter 16 -characters on the first segment by rewriting the existing message or pressing * to clear the segment and reenter the message, see keypad correlation on figure 3.1, press # on every character you have entered and press ## after the last character you have entered on each segment, then the display shows

```
s Telephone Acce
MESSAGE SEGMENT 2
```

Step 4 Enter 16 -characters on the second segment, by rewriting the existing message or pressing * to clear the segment and reenter the message, press # on every character you have entered and press ## after the last character you have entered on each segment, then the display shows

```
ss Control . . . .
MESSAGE SEGMENT 3
```

Step 5 Enter 16 -characters on the third segment, by rewriting the existing message or pressing * to clear the segment and reenter the message, press # on every character you have entered and press ## after the last character you have entered on each segment, then the display shows

```
SELECT PROGRAM
ENTER: _ _  PRESS #
```

NOTE: IF YOU INTEND TO LEAVE THE WELCOME SCREEN BLANK PRESS * THEN PRESS ## ON EVERY SEGMENT.

Step 6 Select another Function Code to program different field from the table or press * to exit the programming mode.

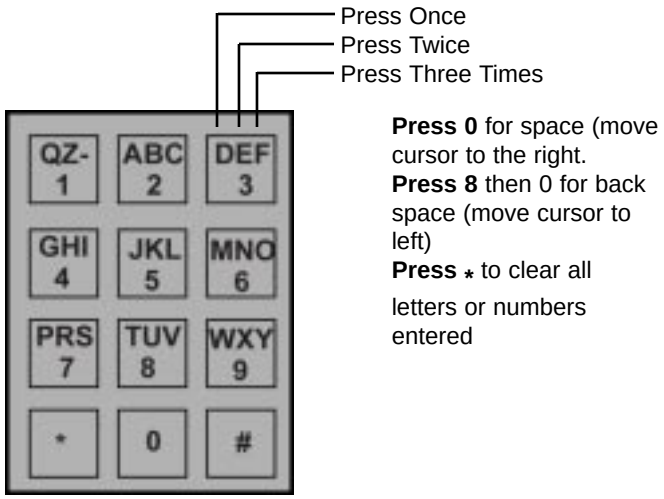


FIGURE 3.1

FUNCTION CODE	LOCAL PROGRAMMING

12

SET TIME AND DATE

• Time must be in military format.
• Time and Date must be set according to the current local time for event recording, time zone and auto unlock schedules.

Step 1 Log on to programming mode (see section 3.1). The display shows

SELECT PROGRAM **ENTER: _ _ PRESS #**

Step 2 Enter Function Code 12 then press # and the display shows

Current Time **ENTER: 12:00**

* Your display may not look identical.

Step 3 Enter the **HOUR** (military format) then press # and enter the **MINUTE** then press # the display shows

Daylight saving **Time? 1=YES 0=NO**

Step 4 Enter **1 for DAYLIGHT SAVING ZONE or 0 for NON DAYLIGHT SAVING ZONE (DO NOT PRESS #),** the display shows

Tue Jan. 01 2002 **Correct? 1=Y/ 0=N**

* Your display may not look identical.

Step 5 Enter **1 if the date is CORRECT** and proceed to step 8
or 0 if it is NOT CORRECT, the display shows

Enter today's **Date: MMDDYYYYD**

MM= Month, DD= Date, YYYY=Year
D= Day of Week (see table 3.1)

Step 6 Enter the current **DATE, YEAR, and DAY OF WEEK** (See table 3.1) then press # the display shows

Wed Jan. 01 2002 **Correct? 1=Y/ 0=N**

D	DAY OF WEEK	D	DAY OF WEEK
1	MONDAY	5	FRIDAY
2	TUESDAY	6	SATURDAY
3	WEDNESDAY	7	SUNDAY
4	THURSDAY		

TABLE 3.1

Step 7 Enter **1 if the date is CORRECT** and proceed to step 8
or 0 if it is NOT CORRECT, return to step 5

Step 8 The display shows

SELECT PROGRAM **ENTER: _ _ PRESS #**

Step 9 Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
13 **TIME ZONE** • **Time Zone 1-9** is programmable time zone. • **Time Zone 0** is 24 hour time zone, factory programmed. • Must be in military time format. • Begin time must be smaller than end time. • Time Zones are only valid within 24-hour period. • Time Zones are used for non-restricted keypad code, card or combination of both.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 13 then press # and the display shows **Time Zone Number** **ENTER: _ PRESS #** **Step 3** Enter the Time Zone Number (1-9) then press #, the display shows **ADD=1 DELETE=0** **ENTER: _ PRESS #** **Step 4** **IF 1 is entered to ADD** the display shows **Start Time: HH: MM** **ENTER: _ _ : _ _** **proceed to step 5** **IF 0 is entered to DELETE** the display shows **Enter another?** **YES=1 NO=0: _** **proceed to step 7** **Step 5** Enter the **START TIME HOUR** (military time format) then press # and enter the **MINUTES** then press # the display shows **On Which Day (s)** **ENTER: _ _ _ _ _ _ _** **Step 6** Enter the DAY OF THE WEEK (1=Mon, 2= Tue, 3= Wed, 4= Thu 5= Fri, 6= Sat, 7= Sun) then press #, the display shows **Enter another ?** **YES=1 NO=0** **Step 7** Enter **1 for YES** then press # and return to step 2 **or 0 for NO** then press # and the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 8** Select another Function Code to program different field from the table or press * to exit the programming mode.
14 **HOLIDAY SCHEDULE** 01-16 Holiday Schedules can be programmed. Keep the holiday schedules up to date every year. **If holiday schedule (s) is programmed, Time Zone Schedule(s) (TMZ) , Auto Unlock**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 14 then press # and the display shows **Holiday Number** **ENTER: _ _ PRESS #**

FUNCTION CODE	LOCAL PROGRAMMING
Schedule(s) (ATS) will be not enforced.	**Step 3** Enter 01 -16 then press #, the display shows **ADD=1 DELETE=0** **ENTER: _ PRESS #** **Step 4** Enter **1 to ADD** or **0 to DELETE** IF 1 is entered the display shows **Add Holiday MMDD** **ENTER: _ _/_ _ PRESS #** **proceed to step 5** IF 0 is entered the display shows **Enter another?** **YES=1 NO=0** **proceed to step 6** **Step 5** Enter month and date (MM=month, DD=date) then press #, the display shows **Enter another?** **YES=1 NO=0** **Step 6** Enter **1 for YES** then press # and return to step 2 or **0 for NO** then press # and the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 7** Select another Function Code to program different field from the table or press * to exit the programming mode.
15 **AUTO UNLOCK SCHEDULE** • To Unlock and lock door or gate according to open and close time programmed on the the Auto Unlock Schedule. • 0-9 auto unlock schedule(s) can be programmed. • Open time must be smaller than closed time. • Time must be in military format.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 15 then press # and the display shows **Schedule Number:** **ENTER: _ PRESS #** **Step 3** Enter schedule number (0-9) then press #, the display shows **ADD=1 DELETE=0** **ENTER: _ PRESS #** **Step 4** Enter **1 to ADD** or **0 to DELETE** IF 1 is entered the display shows **Which Door ?** **ENTER: _ PRESS #** **if relay 2 is set as door control (mode 1) on Function Code 08, proceed to step 5** **OR** **On Which Day (s)?** **ENTER: _ _ _ _ _ _ _** **if relay 2 is set other than mode 1, proceed to step 6**

FUNCTION CODE	LOCAL PROGRAMMING
	IF 0 is entered the display shows **Enter another YES = 1 NO = 0** **proceed to step 9** **Step 5** Enter 1 for Relay 1 (Door 1) or 2 for Relay 2 (Door 2) then press #, the dis play shows **On Which Day (s)? ENTER: _ _ _ _ _ _ _** **Step 6** Enter the DAY OF THE WEEK (1=Mon, 2= Tue, 3= Wed, 4= Thu 5= Fri, 6= Sat, 7= Sun) then press #, the display shows **Open Time HH:MM ENTER: _ _ : _ _** **Step 7** Enter **open time HOUR (military format) then press # and enter MINUTE** then press #, the display shows **Close Time HH:MM ENTER: _ _ : _ _** **Step 8** Enter **close time HOUR (military format) then press # and enter MINUTE** then press #, the display shows **Enter another ? YES=1 NO=0** **Step 9** Enter **1 for YES** then press # and return to step 2 or **0 for NO** then press # and the display shows **SELECT PROGRAM ENTER: _ _ PRESS #** **Step 10** Select another Function Code to program different field from the table or press * to exit the programming mode.
16 **REINITIALIZE TIME ZONE SCHEDULES**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM ENTER: _ _ PRESS #** **Step 2** Enter Function Code 16 then press # and the display shows **Reinitialize TMZ 1=YES 0=NO** **Step 3** Press **1 for YES or 0 for NO** then press #, the display shows **SELECT PROGRAM ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
17 **REINITIALIZE AUTO UNLOCK SCHEDULES**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 17 then press # and the display shows **Reinitialize ATS** **1=YES 0=NO** **Step 3** Press **1 for YES or 0 for NO** then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
18 **REINITIALIZE HOLIDAY SCHEDULES**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 18 then press # and the display shows **Reinitialize HLD** **1=YES 0=NO** **Step 3** Press **1 for YES or 0 for NO** then press #, the display show **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
19 **REINITIALIZE EVENTS RECORDING**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 19 then press # and the display shows **Reinitialize EVR** **1=YES 0=NO** **Step 3** Press **1 for YES or 0 for NO** then press #, the display show **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
20 **NEW TENANT CODE** consists of tenant code, name and phone number • Tenant Code (directory code) must be a unique number. You may use the apartment number, unit number , etc. • The directory code can be 2, 3 or 4 digit. See Function Code 28 to set Directory Digit. • ALL the field must be programmed. • Name up to 12 characters. • Phone number up to 11-digit.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 20 then press # and the display shows **NEW TENANT CODE** **ENTER: _ _ _ PRESS #** **Step 3** Enter a new tenant code then press # (**if the directory is already in used, the display shows TENANT EXIST**), the display shows **TENANT NAME** _ _ _ _ _ _ _ _ _ _ _ _ **Step 4** Enter a tenant name up to 12 characters then **press # after entering each character and press ## after entering the last character** (see figure 3.1 for keypad correlation), the display shows **TELEPHONE NUMBER** _ _ _ _ _ _ _ _ _ _ _ _ **Step 5** Enter a 4-digit relay number (i.e. 0001, 0002, etc)then press enter, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 6** Select another Function Code to program different field from the table or press * to exit the programming mode.
21 **MODIFY TENANT CODE** • To modify, you must know the tenant code (directory code) that you assigned on function code 20. • If you do not know use Function Code 78 to find the tenant code. **NOTE:** Function Code 78 cannot be used if you program a tenant with NO NAME on Function Code 20.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 21 then press # and the display shows **MODIFY TENANT** **ENTER: _ _ _ PRESS #** **Step 3** Enter the tenant code to be modified then press # (if the tenant code does not exist, the display shows TENANT NOT EXIST and proceed to step 4), the display shows **TENANT NAME** _ _ _ _ _ _ _ _ _ _ _ _ **Step 4** Enter a new tenant name (press * to clear the existing one) up to 12 characters then **press # after entering each character and press ## after entering the last character** (see figure 3.1 for keypad correlation), the display shows **TELEPHONE NUMBER** _ _ _ _ _ _ _ _ _ _ _ _ **Step 5** Enter a 4-digit relay number then press enter, the display shows

FUNCTION CODE	LOCAL PROGRAMMING
	SELECT PROGRAM **ENTER: _ _ PRESS #** **Step 6** Select another Function Code to program different field from the table or press * to exit the programming mode.
22 **DELETE A TENANT CODE** • To delete, you must know the tenant code (directory code) that you assigned on function code 20. • If you do not know use Function Code 78 to find the tenant code. **NOTE:** Function Code 78 cannot be used if you program a tenant with NO NAME on Function Code 20.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 22 then press # and the display shows **DELETE TENANT** **ENTER: _ _ _ PRESS #** **Step 3** Enter the tenant code to be deleted then press #, the display shows **Delete XXXX ?** **Push 5 To Confirm** **XXXX**= tenant code (directory code) **Step 4** Enter 5, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** if tenant code exists, proceed to step 5 OR **TENANT DOES NOT EXIST** if tenant code does not exist then the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** proceed to step 5 **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
23 **CLEAR ALL TENANTS**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 23 then press # and the display shows **CLR ALL TENANTS ?** **YES=1 NO=0** **Step 3** Enter **1 for YES then press # to continue the display shows** **Del ALL Tenants** **Push5 To Confirm** **proceed to step 4** **or 0 for NO then press # to cancel** and **proceed to step 5** **Step 4** Enter 5 and the display shows

FUNCTION CODE	LOCAL PROGRAMMING
	SELECT PROGRAM **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
24 **CARD AND CODE** **(Default setting is 0, for keypad code or card access)** • Optional 26 BIT Wiegand Card Reader can be used with the system. To gain access you may use card access, keypad access code or card access + keypad access code. • If no optional Wiegand Card Reader, you only can use the 4-digit keypad code **See Function Code 30 to program keypad access code** **See Function Code 26 and 30 to program card reader facility code, card number and keypad access code** 0= keypad code or card access 1= card access + keypad access code	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 24 then press # and the display shows **CARD AND CODE** **OR-(0); AND-(1):0** **Step 3** Enter **0 = KEYPAD ACCESS CODE or 1=CARD ACCESS + KEYPAD ACCESS CODE** then press # the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
26 **FACILITY CODE** Facility code for 26 BIT Wiegand Card Reader or Radio Reader (001-255)	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 26 then press # and the display shows **Fac Code (0-255)** **ENTER: _ _ _ PRESS #** **Step 3** Enter Card Facility Code (Facility code is provided by Pach and Company and range from 001-255) then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
27 **RS-232 or MODEM** **(Default setting is 1 for MODEM)** You may program the system via built-in RS-232 (local) or MODEM (remote) **1= MODEM** **0= RS-232**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 27 then press # and the display shows **Rs232/Modem** **0=232, 1=Modem: 1** **Step 3** Enter 0=RS-232 then press # and proceed to step 5 or 1=MODEM then press #, the display shows **Protocol: 1_V22** **0=Bell212 :1** **Step 4** Enter 1 or 0 then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
28 **DIRECTORY DIGIT** **(Default setting is 3-Digit)** The number of digit on the tenant code (directory code) must be set before the tenant database is programmed on Function Code 20 and Function Code 30.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 28 then press # and the display shows **DIR DIGITS** **ENTER: 3_ PRESS #** **Step 3** Enter the directory digit (2, 3 or 4 digit) then press # the display shows **% SORTING DATA %** **Please Wait . . .** then the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
29 **ALARM DELAY** **(Default setting is 15 seconds)** • Report ALARM (00-90 seconds) if Door 1 or DOOR 2 is open longer than the Door Open Interval set on Function Code 02 (door sensor switch must be installed) • Report ALARM (00-90 seconds) if DOOR 1 or DOOR 2 is forced open (door sensor switch must be installed). • Trigger relay 2 if set for MODE 2 (A SHUNT) (00-90 seconds).	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 29 then press # and the display shows **ALM DELAY: 00 - 90** **ENTER: 1 5 PRESS #** **Step 3** Enter 00 - 90 then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
30 **ADD KEYPAD ACCESS CODE AND CARD NUMBER (RADIO TRANSMITTER NUMBER)** • Add 4-digit keypad access code and optional card number or radio transmitter number (00001 - 65535). • Name up to 16 characters. • Up to three Time Zones Section can be assigned (restricted or non-restricted) for each code.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 30 then press # and the display shows **NEW ACCESS CODE** **ENTER: _ _ _ _ PRESS #** **Step 3** Enter 4-digit keypad access code then press # and the display shows **CARD No** **ENTER: _ _ _ _ _ PRESS#** **Step 4** Enter the card number or radio transmitter number (00001 - 65535) (leave this field blank if no Card Reader installed on the system) then press #, the display shows **Door 1 or Door 2** **3 for both: _** if door 2 is set for mode 1 (door control). If door 2 is set other than mode 1, proceed to step 6. **Step 5** Enter 1=Relay 1 (Door 1) , 2=Relay 2 (Door 2), 3=Both then press #, the display shows **TimeZone section** **3 MAX [1-3]: _** **Step 6** Enter 1-3 then press #, the display shows **Which Time Zone** **[0-9] : _** **Step 7** Enter the Time Zone (s) programmed on Function Code 13 (0-9) then press #, the display shows **Another sction** **(1=YES) (0=NO): _** **Step 8** Enter **1=YES** then press # and proceed to step 6 or **0=NO** then press # and the display shows **CODE HOLDER NAME** **_ _ _ _ _ _ _ _ _ _ _ _** **Step 9** Enter the name up to 12 characters then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 10** Select another Function Code to program different field from the table or press * to exit the programming mode.

FUNCTION CODE	LOCAL PROGRAMMING
31 **MODIFY CARD NUMBER (RADIO TRANSMITTER NUMBER)** • You must know the keypad access code to modify this field. • The keypad access code cannot be modified. You must delete it using Function Code 32. • Card number can be modified. **NOTE:** THIS FUNCTION CANNOT BE USED TO CHANGE THE KEYPAD CODE. YOU MUST DELETE IT FIRST USING FUNCTION CODE 32.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 31 then press # and the display shows **Access Code to** **modify: _ _ _ _** **Step 3** Enter the 4-digit keypad access code to be modified then press #, the display shows **CARD No:** **ENTER: _ _ _ _ _ PRESS#** **if the keypad code is valid and proceed to step 4** OR **No such a CODE!** **USE [30] TO ADD** **if the keypad code is invalid, proceed to step 2 or step 10** **Step 4** Enter the card number or radio transmitter number (00001 - 65535) (leave this field blank if no Card Reader installed on the system) then press #, the display shows **Door 1 or Door 2** **3 for both: _** if door 2 is set for mode 1 (door control). If door 2 is set other than mode 1, proceed to step 6. **Step 5** Enter 1=Relay 1 (Door 1) , 2=Relay 2 (Door 2), 3=Both then press #, the display shows **TimeZone section** **3 MAX [1-3]: _** **Step 6** Enter 1-3 then press #, the display shows **Which Time Zone** **[0-9] : _** **Step 7** Enter the Time Zone (s) programmed on Function Code 13 (0-9) then press #, the display shows **Another sction** **(1=YES) (0=NO): _** **Step 8** Enter **1=YES** then press # and proceed to step 6 or **0=NO** then press # and the display shows **CODE HOLDER NAME** **_ _ _ _ _ _ _ _ _ _ _ _** **Step 9** Enter the name up to 12 characters then press #, the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #**

FUNCTION CODE	LOCAL PROGRAMMING
	Step 10 Select another Function Code to program different field from the table or press * to exit the programming mode.
32 **DELETE KEYPAD ACCESS CODE AND CARD NUMBER (RADIO TRANSMITTER NUMBER)** • You must know the keypad access code to delete this field.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 32 then press # and the display shows **DELETE Access** **Code: _ _ _ _ PRESS #** **Step 3** Enter the 4-digit keypad access code then press # the display shows **DELETE XXXX?** **Push 5 to Confirm** XXXX= Keypad access code entered **Step 4** Press 5 to continue or * the display shows **XXXX Now is Gone** **Deletion Done !** XXXX= keypad access code deleted **if the keypad access code is valid** or Press * **to CANCEL** and proceed to step 5 **OR** **ACCESS CODE XXXX** **DOES NOT EXIST** if the keypad access code is invalid **THEN** display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
33 **CLEAR ALL KEYPAD ACCESS CODE AND CARD NUMBER (RADIO TRANSMITTER NUMBER)**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 33 then press # and the display shows **CLR ALL Codes ?** **YES=1 NO=0** **Step 3** Enter **1=YES** then press #, the display shows **Del ALL Codes !** **Push 5 to Confirm** proceed to step 4 Or Enter **0=NO** then press # and proceed to step 5. **Step 4** Press 5 to clear all keypad access codes and card numbers, the display shows

FUNCTION CODE	LOCAL PROGRAMMING
	SELECT PROGRAM **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
40 **MASTER CODE MASK** **(Default setting is disabled)** **WARNING !!!!!!!!** • Master Code **cannot be recovered** if Master Code Mask is enabled. You must request a new memory (EEPROM) from Pach and Company for nominal charge. • The square RED button (retrieval switch) on the board cannot recover your existing master code.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 40 then press # and the display shows **MC DISPLAY MASK** **0=NO 1=YES : 0** **Step 3** Enter **0=NO or 1=YES** then press # the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
41 **OPEN DOOR BEEP** **(Default setting is enabled)** • The system will beep if relay or relay 1 (door 1) or relay 2 (door 2) is unlocked.	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 41 then press # and the display shows **Open Door Beep** **0=NO 1=YES : 1** **Step 3** Enter **0=NO or 1=YES** then press # the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 4** Select another Function Code to program different field from the table or press * to exit the programming mode.
42 **ENABLE OR DISABLE PBX** **(Default setting is disabled)** NOT APPLICABLE FOR NON SUBSCRIBER (NPB 9000 SERIES)	**NOT APPLICABLE FOR NON SUBSCRIBER (NPB 9000 SERIES)**

FUNCTION CODE	LOCAL PROGRAMMING
43 **OPEN DOOR 1 AND DOOR 2 NUMBER (REMOTE ACCESS NUMBER) OR CCTV SWITCH** **(Default setting is 9 to unlock relay 1 (door 1) or 8 to unlock relay 2 (door 2) or CCTV is 6 to Open and 7 to close the camera)**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 43 then press # and the display shows **Open Door1No(0-9)** **ENTER: _ PRESS #** **Step 3** Enter (0-9) then press #, If relay 2 (door 2) is set for **Mode 1 (door control),** the display shows **Open Door2No(0-9)** **ENTER: _ PRESS #** **proceed to step 4** if the number is already used the display shows **This No is used** **Please try again** return to step 3 if relay 2 is set for **Mode 4 (CCTV Switch)**, the display shows **OpenCCTV No (0-9)** **ENTER: _ PRESS #** **proceed to step 4** if the number is already used the display shows **This No is used** **Please try again** return to step 3 **Step 4** Enter (0-9) then press # the display shows If relay 2 (door 2) is set for **Mode 1 (door control),** the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **proceed to step 5** if relay 2 is set for **Mode 4 (CCTV Switch)**, the display shows **CloseCCTV No (0-9)** **ENTER: _ PRESS #** Enter (0-9) then press # , the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **proceed to step 5**. If the number is already used, the display shows **This No is used** **Please try again** re-enter the number.

FUNCTION CODE	LOCAL PROGRAMMING
	Step 5 Select another Function Code to program different field from the table or press * to exit the programming mode.
46 **DISPLAY SYSTEM INFORMATION**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 46 then press # and the display shows **V ER AXXXRYYYY** **MM.DD.YYYY CR** XXXX= a maximum number of tenants YYYY= a maximum number of keypad access code and card. MM.DD.YYYY= Month. Date. Year the Firmware is released. Then the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 3** Select another Function Code to program different field from the table or press * to exit the programming mode.
50 **CLEAR THE EEPROM MEMORY TO FACTORY DEFAULT**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 50 then press # and the display shows **0/1 CLR eeprom . . .** **N/Y:0 # ENT * EX** **Step 3** Enter **1=TO CLEAR** or **0=TO CANCEL** then press #, the display shows **INITIALIZATION . .** **EEPROM Testing . .** **Step 4** Wait for a few minutes, the more tenants programmed the longer it takes to erase the memory the the display shows **Welcome to Pach's Telep** **Press 3 for Dir .** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.
78 **VIEW DIRECTORY AND NAME**	**Step 1** Log on to programming mode (see section 3.1). The display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 2** Enter Function Code 78 then press # and the display shows **NNNNNNNNNNN** **Press # to view** **NNNNNNNNNNN**= tenant name

FUNCTION CODE	LOCAL PROGRAMMING
	Step 3 Press # to view the tenant code (directory code), the display shows **NNNNNNNNNNN** **DIR No: XXXX** **NNNNNNNNNNNN**= tenant name **XXXX**= 2-digit, 3-digit or 4-digit tenant code (directory code) associated with the name. **Step 4** Press 3 to proceed to next tenant name and return to step 3 or proceed to step 5 or press * and the display shows **SELECT PROGRAM** **ENTER: _ _ PRESS #** **Step 5** Select another Function Code to program different field from the table or press * to exit the programming mode.

Chapter 4
SYSTEM'S OPERATION

HOW TO VIEW THE TENANT NAME.

Two ways to view the tenant name:

1. Press 3 to scroll the tenant name from A to Z.
2. Press 6 to scroll the tenant name from Z to A.

HOW TO INITIATE A CALL AND UNLOCK THE DOOR FOR VISITOR.

Two way to initiate a call:

1. USING THE SCROLLING ELECTRONIC DIRECTORY

Step 1 **Press 3 or 6 to scroll the tenant name**, when the tenant name you are intended to call is visible on the display, then press # to initiate the call. The display shows:

NNNNNNNNNNN **WAIT . . . DIALING**

_**NNNNNNNNNNN**= tenant name

then the display shows

[CALLING] PRESS **"* " KEY TO ABORT**

Step 2 Press * to cancel the call, otherwise wait for the tenant to answer your call.

Step 3 Tenant must press 9 (default setting to unlock relay 1 (door 1)) or 8 (default setting to unlock relay 2 (door 2)).

2. A DIRECT CALL

You must know the tenant directory number to use a direct call. The tenant directory number can be associated with apartment number, suite number, etc..

Step 1 Press # and wait for a dial tone, the display shows:

DIR . CODE: _ _ _ _ **N-digit Number**

N: tenant code (directory code) number of digit

Step 2 Press the 2, 3 or 4 digit directory number, the system will initiate the call, the display shows

DIR . CODE: NNNN **WAIT . . . DIALING**

NNNN: tenant code (directory code)

then the display shows

[CALLING] PRESS **"* " KEY TO ABORT**

Step 3 Press * to cancel the call, otherwise wait for the tenant to answer your call.

Step 4 Tenant must press 9 (default setting to unlock relay 1 (door 1)) or 8 (default setting to unlock relay 2 (door 2)).

HOW TO EXTEND THE TALK TIME	The talk time can be programmed from 10 - 240 seconds. You will hear ***" One Long Beep"*** **ten seconds** before the talk time expires. The tenant must **press #** immediately to extend the talk time to another cycle. For example: if the talk time is set for 30 seconds, pressing # will extend for another 30 seconds. You can continue pressing the # to extend the talk time after the " One Long Beep".
HOW TO USE THE CALL WAITING	Press 0 on your phone keypad to answer the incoming call and put the exsiting call on hold. **NOTE:** WORKS ONLY ON TONE PHONE.
HOW TO USE THE DOORMAN OR MANAGER PHONE	***To Place a call to tenant:*** press # then the 4-digit phone number (relay number, not tenant actual phone number. ***To Place a call using the outside line:*** because your phone is connected as a doorman or manager phone, to place a call using the outside line you must press 0 then dial the phone number (actual phone number). **NOTE:** WORKS ONLY ON TONE PHONE.
HOW TO USE THE KEYPAD ACCESS CODE	**Step 1** Press * then the screen stops scrolling, if the screen is still scrolling, repeat this step. **Step 2** Press a valid keypad access code and the door will unlock. If the keypad access code is invalid the display shows **ERROR Wrong Code** **PLEASE TRY AGAIN** **NOTE**: If invalid codes are entered more than the number program on Function Code 03, the display shows **INVALID CODE! !** **ACCESS DENIED** the system will ignore further keypad access code entries for 90 seconds. If a telephone number is programmed on Function Code 09, the display shows **ALARM ACTIVATED** **and will call the number programmed**
HOW TO USE THE CARD ACCESS OR RADIO TRANSMITTER	**Step 1** Place the card close enough to the red light emitting diode (LED) on the reader or press the radio transmitter button **Step 2** The Card Reader will beep if the card is read properly and the green LED blinks, the door will unlock if the code is valid or the display shows **ERROR Wrong Code** **PLEASE TRY AGAIN** **NOTE**: If invalid card access is used more than the number program on Function Code 03, the display shows **INVALID CODE! !** **ACCESS DENIED** If a telephone number is programmed on Function Code 09, the display shows **ALARM ACTIVATED** **and will call the number**

HOW TO USE THE COMBINATION OF CARD ACCESS AND KEYPAD ACCESS CODE

Step 1 Function Code 24 must set to 1

Step 2 Place the card close enough to the red light emitting diode (LED) on the reader, **if the card access is valid the display shows**

Input Access Code: _ _ _ _ #

proceed to step 3

if the card is invalid the display shows

ERROR Wrong Code PLEASE TRY AGAIN

NOTE: If invalid card access is used more than the number program on Function Code 03, the display shows

INVALID CODE! ! ACCESS DENIED

If a telephone number is programmed on Function Code 09, the display shows

ALARM ACTIVATED

and will call the number programmed

Step 3 Enter a valid keypad access code then press # and the door will unlock. If an invalid keypad access code is entered the display shows

ERROR Wrong Code PLEASE TRY AGAIN

NOTE: If invalid keypad code is entered more than the number program on Function Code 03, the display shows

INVALID CODE! ! ACCESS DENIED

If a telephone number is programmed on Function Code 09, the display shows

ALARM ACTIVATED

and will call the number programmed

HOW TO USE THE ALARM TELEPHONE NUMBER

NOT APPLICABLE FOR NON-SUBSCRIBER (NPB 9000 SERIES).

RELAY 2 MODES

Relay 2 is an auxiliary relay. It can be set into four (4) different modes: Door Control (mode 1), Shunt (mode 2), Alarm Timer (mode 3) and CCTV Switch (mode 4). You may use relay 2 for various applications as specified below.

Door Control (Mode 1)

Relay 2 can be connected to the second door or gate operator. The tenant can use number "8" on his or her phone to open relay 2 (door 2) remotely. The connection to the door strike is identical as relay 1 (see figure 2.1 for AeGIS NPB9000 wiring diagram).

	A Shunt (Mode 2) Relay 2 and relay 1 are opened and closed simultaneously. You can use this feature for the following applications: • Open and close relay 2 (door 2) and relay 1 (door 1) simultaneously, remotely or via a personal access code. • Open relay 1 (door 1) and send the elevator down simultaneously, remotely or via a personal access code. The elevator is connected to relay 2. • Connect relay 2 to a light, an alarm device or a buzzer. The light will turn on if door 1 is opened or an alarm or a buzzer will go off if door 1 is opened. **An Alarm Timer (Mode 3)** Relay 2 will be activated according to Function Code 29 if the following conditions are true: • Invalid access codes have been entered into the system for a specific number of times programmed on Function Code "03". • If relay 1 (door 1) is opened longer than the relay 1 open interval programmed on Function Code "02". Relay 2 can be connected to a light, an alarm device or a buzzer. **A CCTV Switch** Relay 2 can be use to turn "ON" a camera(s) to monitor a visitor(s) at the system. Follow these steps to activate relay 2 as a CCTV switch. **Step 1** A visitor calls a tenant from the AeGIS NPB9000. **Step 2** The tenant answers the incoming call. **Step 3** The tenant must press number "6" (default setting) on his or her phone to turn "ON" the camera and monitor the visitors at the system. The number can be changed, see Function Code 43. **Step 4** When finished, press "7" (default setting) to turn "OFF" the camera. See Function Code 43. **Step 5** Repeat step 3-4 if you need to turn the camera "ON" and "OFF".
HOW THE DOOR SENSOR OR SHOCK SENSOR OPERATES	The door sensor switch or shock sensor is an option (see figure 2.1 for wiring diagram). Door sensor is available on door 1 or door 2, cannot be both. The AeGIS NPB9000 provides the door sensor or shock sensor input. The door sensor switch is installed to notify or warn an authorized person if a door is left opened or forced open or the system. The shock sensor is notify an authorized person that the system is being vandalized. The system will send a warning signal by calling the phone number programmed on Function Code "09" or by turning an emergency light or a buzzer "ON" or the combination of the two. Below is how the door sensor or shock sensor operates according to Relay 2 Mode (Function Code "08"). **<u>MODE 1 (RELAY 2 AS DOOR CONTROL)</u>** **The system will make double beeps every 60 seconds if :** • Door 1 or Door 2 is still opened after the open interval is set on Function Code 02 on relay 1 has expired. • Or door 1or door 2 is forced open. If Function Code 09 is programmed to call a phone number, the system will • Make double beeps every 60 seconds. • Call to the number programmed on Function Code 09 every 60

seconds. The authorized person will hear continuous beeps when the phone is answered. The display shows

ALARM ACTIVATED

The scenarios above are valid until the problems are corrected.

MODE 2 (RELAY 2 AS A SHUNT)

The system will make double beeps every 60 seconds if :

- Door 1 is still opened after the open interval set on Function Code 02 on relay 1 has expired.
- Or door 1 is forced open. If Function Code 09 is programmed to call a phone number, the system will§ Make double beeps every 60 seconds.
- Call to the number programmed on Function Code 09 every 60 seconds. The authorized person will hear continuous beeps when the phone is answered. The display shows

ALARM ACTIVATED

The scenarios above are valid until the problems are corrected

MODE 3 (RELAY 2 AS AN ALRM TIMER)

The system will make double beeps every 60 seconds if :

- Door 1 is still opened after the open interval set on Function Code 02 on relay 1 has expired. }
- Or door 1 is forced open. Relay 2 will be activated and the display shows

ALARM ACTIVATED

You may connect an emergency light , an alarm device or a buzzer on relay 2.The scenarios above are valid until the problems are corrected.

MODE 4 (RELAY 2 AS A CCTV SWITCH)

The system will make double beeps every 60 seconds if :

- Door 1 is still opened after the open interval set on Function Code 02 on relay 1 has expired.
- Or door 1 is forced open. If Function Code 09 is programmed to call a phone number, the system will
    - Make double beeps every 60 seconds.
    - Call to the number programmed on Function Code 09 every 60 seconds. The authorized person will hear continuous beeps when the phone is answered. The display shows

ALARM ACTIVATED

The scenarios above are valid until the problems are corrected.

HOW TO ADJUST THE SPEAKER AND MICROPHONE VOLUME

The speaker volume and microphone are factory preset. See figure 2.1 to locate the speaker volume adjustment pot (VR2).

- **COUNTER-CLOCKWISE TO INCREASE**
- **CLOCKWISE TO DECREASE**

If you hear a "feedback" when you close the face plate, decrease the volume.

HOW TO ADJUST THE LCD DISPLAY

To locate the LCD adjustment pot, see figure 2.1 (VR3).

- **CLOCKWISE TO INCREASE**
- **COUNTER-CLOCKWISE TO DECREASE**

HOW TO ADJUST THE PULSE SENSITIVITY

To locate the Pulse Sensitivity adjustment pot, see figure 2.1 (VR1).The Pulse sensitivity is factory preset.

- **COUNTER-CLOCKWISE TO INCREASE THE PULSE SENSITIVITY.** An Adjustment is necessary if the LED flashes or ON if the system is in a dial tone mode (press #, to get a dial tone),
- **COUNTER CLOCKWISE TO DECREASE,** LED should goes off if the system is in dial tone mode.

HOW TO CHECK THE NUMBER OF TENANTS PROGRAMMED IN THE SYSTEM

You cannot program the tenant's directory more than the system capacity. An accurate tenant's record is essential. You must delete any unused tenant's directory to free the system's memory. You may check the total number of tenant in the system locally (using the unit keypad or optional AeGIS NPB9000 Management Software. The number of tenants may not be accurate if the tenant name is not programmed. **The steps below are to check the number of tenants in the system locally.** See the optional AeGIS NPB9000 Series Management Software to check the number of tenants in the systems.

Step 1 Log on to programming mode by pressing the 0 and # simultaneously then release, the display stops scrolling and shows

```
SELECT PROGRAM
ENTER: _ _  PRESS #
```

Step 2 Press * then the display shows

```
%DATABASE SORTING%
Please Wait  . . . .
```

then the display shows

```
DIR  # USED:  XXXX
Please Wait  . . . .
```

XXXX= total number of tenant programmed

NOTE: A directory without a tenant name will not be counted in the total number of tenant.

Chapter 5
TROUBLE SHOOTING GUIDE

AUDIO PROBLEM S	SOLUTIONS AND SUGGESTIONS
NO AUDIO WHEN KEY(S) IS PRESSED	The AeGIS NPB9000 does not provide a tone when key is pressed, but the ribbon cable's red line must be facing down and connected on pin 1 on the LCD's terminal pin connector on the board.
THE VISITOR CAN'T HEAR THE TENANT FROM THE SYSTEM BUT THE TENANT CAN HEAR THE VISITOR	• Check the speaker and microphone connection. The snap on clip connector on the speaker and microphone connector must be facing inside the board. • Check the red and orange wires, make sure they are soldered into the speaker. • Press the # key as soon as you hear a dial tone, tap your finger into the microphone and you should hear a finger tap sound from the speaker.
THE TENANT CAN'T HEAR THE VISITOR TALKING BUT THE VISITOR CAN HEAR THE TENANT THE LIQUID CRYSTAL	• Check the speaker and microphone connection. The snap on clip connector on the speaker and microphone connector must be facing inside the board. • Check the brown and black wires, make sure they are soldered into the microphone. • Turn the system's power "OFF" and disconnect the speaker connector from the board. Set your meter to Ohm and use 50 Ohm scale or higher. Place the two probes into the speaker (+) and (-) (polarity not important) and the meter should should read between 19 - 24 Ohms.
DISPLAY PROBLEM S	**SOLUTIONS AND SUGGESTIONS**
DISPLAY (LCD) SHOWS QUESTION MARKS (????)	• Turn the unit power "OFF" and "ON". • Erase the memory chip (EEPROM) using Function Code 50. If you have trouble to log on to programming mode, press and release the square red button then press #.
THE LIQUID CRYSTAL DISPLAY (LCD) IS BLANK, NO DISPLAY AT ALL	• The power LED must be "ON" (LED2 marked on the board). • The Power Switch's toggle must be on the left position ("ON"). • Check the fuse (3 Amp 250 Volt). • Measure the voltage on AC1 and AC2 (set your voltmeter to AC and place the probes on AC1 and AC2), it should read within 12VAC-13.8VAC or if you use 12 VDC, the meter must read 13.5 - 14.0 VDC. • The LCD's ribbon cable has red dots along the side. The red dots must be facing up. It must be connected to the terminal marked number 1. • The LCD's ribbon cable sits tight on the terminal pins marked LCD on the board. • The LCD's ribbon cable is connected into the LCD's terminal pins connector and the red dots along the side of the ribbon should be connected on pin 1. • Adjust the LCD's intensity. • Turn the system's power "OFF", wait for 15 seconds and turn it "ON". • If the sunlight hits directly into the the LCD, block the sunlight. If the LCD is readable after you block the sunlight, you may have to move the system to a different locationotherwise the system will collect heat and it may get damaged if the inside temperature reaches above 140 °F. • If the display only fails when the outside temperature is below 32°F or 0°C, you may need to install a heater (AHP-5).

DISPLAY PROBLEMS	SOLUTIONS AND SUGGESTIONS
THE LCD SHOWS EIGHT SQUARES OR UNDERLINES	• If the system beep when the keypad is pressed, try to adjust the LCD's intensity, if the LCD display is still blank. possibility the LCD is bad. • The LCD's ribbon cable has red dots along the side. The red dots must be facing up and connected to pin 1. • It must be connected to the terminal marked LCD on the board. • The LCD's ribbon cable sits tight on the terminal pins marked LCD on the board. • The LCD's ribbon cable is connected into the LCD's terminal pin connector and the red dots along the side of the ribbon should be connected on pin 1. • Turn the system's power "OFF", wait for 15 seconds and turn it "ON". • The input voltage to AC1 and AC2 should read within 12VAC-13.8VAC or if you use 12 VDC, the meter must read 13.5 - 14.0 VDC. • If the display only fails when the outside temperature is below 32°F or 0°C, you may need to install a heater (AHP-5).
COMMUNICATION PROBLEMS	**SOLUTIONS AND SUGGESTIONS**
THE VISITOR CAN'T PLACE A CALL TO A TENANT OR TENANTS	• Check to see if the problem occurs on all tenants. • Check the phone number (must be 4-digit relay number) on the system programming. • If LineBusy/No Ctrlr shows on the display, turn Off and On the Main Relay Control Panel. If the problem still exist, proceed to the next step. • Disconnect the communication wires between the Main Lobby Control Panel and the Main Relay Control Panel (ES1 and ES2), then connect a standard phone into ES1 and ES2 as shown on figure 2.4. Try to dial each tenant by pressing #xxxx (xxxx is the 4-digit relay number). • If you can place a call to each tenant, you may have a problem with the Main Lobby Control panel. • If you can't place a call to each tenant, you may have a problem with the Main Relay Control Panel.
THE VISITOR HEARS A RADIO STATION ON THE MAIN LOBBY CONTROL PANEL (AEGIS 7000NC) SYSTEM WHILE TALKING TO A TENANT.	• Check if the problem occurs on all tenants. • Disconnect the ground wire (marked GND, see figure 2.1)) from the board. • If the problem still exists, install a Modular RFI Filter. • If the problem disappear, find a different Earth Ground and connect all the system's ground (GND) to the same point of earth ground. • Disconnect the communication wires between the Main Lobby Control Panel and the Main Relay Control Panel (ES1 and ES2), then connect a standard phone into ES1 and ES2 as shown on figure 2.4. Try to dial each tenant by pressing #xxxx (xxxx is the 4-digit relay number). • If the problem still exists, install a Modular RFI Filter. • If the problem disappear, find a different Earth Ground and connect all the system's ground (GND) to the same point of earth ground.
BOTH THE VISITOR AND TENANT HEAR STATIC OR CROSS-TALK WHILE THEY ARE TALKING.	• Check if the problem occurs on all tenants. • Disconnect the communication wires between the Main Lobby Control Panel and the Main Relay Control Panel (ES1 and ES2), then connect a standard phone into ES1 and ES2 as shown on figure 2.4. Try to dial each tenant by pressing #xxxx (xxxx is the 4-digit relay number). • If the problem still exists, install a Modular RFI Filter. • If the problem disappear, find a different Earth Ground and connect all the system's ground (GND) to the same point of earth ground. • Disconnect the ground wire (marked GND, see figure 2.1)) from the board. • If the problem still exists, install a Modular RFI Filter. • If the problem disappear, find a different Earth Ground and connect all the system's ground (GND) to the same point of earth ground.
TENANT PHONE DOES NOT RING	• The connection on the RJ71X block may be reversed. • The tenant phone may not tolerate with the system ring, you may have to try different phone. • Too many phone is connected to the same phone line. • Bad Main Relay Control Panel.

THE SOUND KEEPS GOING OUT WHILE THE TENANT AND VISITOR ARE TALKING	• The Main Lobby Control Panel does not have full-duplex speakerphone. If the AeGIS 9000NC is installed in a noisy environment, you may experience with this problem. • Short wiring on the RJ71X block. • Both the visitor and tenant can't talk simultaneously. • Try to speak a little further from the system
GATE PROBLEMS	**SOLUTIONS AND SUGGESTIONS**
THE GATE OR DOOR DOES NOT OPEN WHEN THE TENANT PRESSES NUMBER "9" OR “8”	• Check power on the gate operator or door strike. • Check Function Code 43. • Check for loose connections on relay 1 and relay 2 (RC1 and NO1 or RC2 and NO2 (if you use "Normally Open" gate or door strike) or RC1 and NC1 or RC2 and NC2 (if you use "Normally Close" gate or door strike)) on the AeGIS system. • Remove the two wires on RC1 and NO1 or RC2 and NO2 and short the two wires, the door or gate should open or remove the two wires on RC1 and NC1 or RC2 and NC2, the gate or door should open. If the door or gate does not open, you may have a problem with the gate or door strike. • Test the relay and follow the steps below: • Set your multi-meter to Ohm (touch the two probes, the meter will read about 0 (zero value) • Connect the meter's probes to RC1 and NO1 or RC2 and NO2(if "Normally Open" strike is used, the meter will read as an open circuit) or RC1 and NC1 or RC2 and NC2 (if "Normally Close" strike is used your meter will read about 0 value). • Place a call from the system to one of the tenants and tell the tenant to press "9" or "8" and you should get the following results: • Your meter should read about 0 value if RC1 and NO1 or RC2 and NO2 contacts are used, otherwise the system's relay is bad. • Your meter should read as an open-circuit if RC1 and NC1 or RC2 and NC2 contacts are used, otherwise the system's relay is bad. • Function Code "08" must be set to Mode 1 to set relay 2 as a door control. You can use number 8 on your touch tone phone to open relay 2 (door 2) remotely.
THE GATE OR DOOR DOES NOT OPEN WHEN THE TENANT PRESSES NUMBER "9" OR “8” BUT IT OPENS USING THE KEYPAD ACCESS CODE OR CARD	• Try to call a few different tenants. If the problem precists, erase the system's memory to default factory (use function code 50). • Call the Technical Support, you may have a bad board. • Check Function Code 43.
KEYPAD PROBLEMS	**SOLUTIONS AND SUGGESTIONS**
ALL OR SOME OF THE KEYPAD'S KEYS DO NOT WORK	• The keypad's ribbon cable has red dots along the side, the red dots must be facing down and connected to pin 1. • Turn the power "OFF" and disconnect the keypad's ribbon cable from the board and
CARD READER PROBLEMS	**SOLUTIONS AND SUGGESTIONS**
CARD ACCESS DOES NOT WORK	reconnect it and turn the power "ON". • Facility code must be programmed on Function Code 26. • Card number must be programmed on Function Code 30. • You must use incorrect card. • Bad card.

The technical support team at Pach and Company are highly trained and committed to providing you with the best in support and repair services. Our Services are available between 7:30 AM - 4:30 PM Pacific Standard Time. **TOLL FREE (888) 678-7224.**

GENERAL FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules. Located on the back of your AeGIS system is a label that contains, among other information, the FCC registration and ringer equivalence number (REN) for the system. Prior to installing your AeGIS system, please call your telephone company and provide them the FCC registration and REN numbers as well as the telephone number of the line to which you will connect the system.

Your AeGIS system connects to the telephone line by means of a standard jack called the USOC RJ11C. If this type of jack is not available at the location you want to install your AeGIS system, you will need to call your telephone company and order one.

Your AeGIS system connects to the Public Switching Telephone Network via standard-device telephone lines. **IT SHOULD NOT BE CONNECTED TO "PARTY" OR "COIN SERVICE" LINES.**

Should you have any questions about the telephone line you intend to connect your AeGIS system to, or other questions such as how many other devices you can connect to your telephone line, your telephone company will provide you upon request.

In the unlikely event your AeGIS system develops a problem, **IMMEDIATELY DISCONNECT IT FROM YOUR TELEPHONE LINE** to avoid harmful causes to the telephone network.

If repairs are ever needed on your AeGIS system, **ONLY** Pach and Company technician should perform them. Please contact our **Toll Free Technical Service Department at 888-678-7224** for immediate assistance.

Should your telephone company determine that your AeGIS system developed a problem, they may notify you in advance that temporary discontinuance of service may be required. In some cases advance notice isn't practical, so your telephone company will notify you as soon as possible. You will also be advised by your telephone company of your right to file complaint with the FCC if you believe it necessary.

From time to time the Telephone Company may make changes to it's facilities equipment, operations, or procedures that could affect the operation of your AeGIS system. If this happens, the Telephone Company will provide advanced notice in order for you to make the necessary modifications to your AeGIS system to maintain uninterrupted service.

AeGIS NPB9000 Series QUICK REFERENCE

LOCAL PROGRAMMING

1) PRESS 0 AND # SIMULTANEOUSLY THEN RELEASE, the display screen stops scrolling (If the display screen is still scrolling repeat this step again) then enter the valid 4-digit Master Code (default Master Code: 0000). Now, you are in programming mode and see table below to continue.

2) IF YOU DO NOT HAVE A VALID MASTER CODE, open the panel (key must be used) then press and release the "**RED BUTTON**" on the board and the display shows: **x x x x: 4-digit Master Code,** then press #. Now, you are in programming mode and see table below to continue.

SYSTEM'S OPERATION

TO PLACE A CALL FROM THE AeGIS NPB9000 Series: • Press 3 to scroll the tenant name from A to Z. o r Press 6 to scroll the tenant name from Z to A, then press #.

TO PLACE A DIRECT CALL: Press # , wait for a dial tone then press the 2, 3 or 4 digit directory number.

TO GRANT ACCESS TO VISITOR: Press 9 or 8, can be programmed on Function Code 43

TO USE THE 4-DIGIT ACCESS CODE: Press * then the 4-digit code.

TO USE THE PROXIMITY WIEGAND CARD READER: Place the card on the red LED, if the card is valid door will open.

TO USE THE CARD AND THE KEYPAD ACCESS CODE: Place the card on the red LED then press the 4-digit keypad access code.

TO EXTEND THE TALK TIME: Tenant must press the # after the time-out warning beep, the talk time will be extended to another cycle.

TO Use the Call Waiting: Press 0 to answer the call and put the existing call on hold.

KEYPAD LAYOUT

See manual for more detail

FUNCTION CODE TABLE

CODE	DESCRIPTION	CODE	DESCRIPTION
*	Exit the programming (local programming) or clear the existing field	19	Reinitialize Holiday Schedules
#	To accept program.	20	New Tenant Code (Directory Code)
00	Replace System Master Code.	21	Modify Tenant Code (Directory Code)
01	Change Talk Time	22	Delete a Tenant Code (Directory Code)
02	Open Interval Relay 1 and relay 2	23	Clear All Tenants
03	Lock-out Count	24	Card and Code
04	Not applicable	26	Facility Code
05	Single or Multi Systems	27	RS-232 or Modem
06	System ID	28	Directory Digit
07	Remote Enable or disable	29	Alarm Delay
08	Relay 2 Mode	30	Add Keypad Access Code and Card Number
09	Not applicable	31	Modify Keypad Access Code and Card Number
10	Manual Unlock/Lock or Unlock hold doors timer	32	Delete Keypad Access Code and Card Number
11	Edit Welcome Screen Display	33	Clear All Keypad Access Codes and Card
12	Set Time and Date	40	Master Code Mask
13	Time Zones	41	Open Door Beep
14	Holiday Schedules	42	Not applicable
15	Auto Unlock Schedules	43	Open Door 1 and Door 2 Number
16	Reinitialize Time Zone Schedules	46	Display System Information
17	Reinitialize Auto Unlock Schedules	50	Clear the EEPROM Memory to Factory Default
18	Reinitialize Holiday Schedules	78	View Directory by Name