

AeGIS Satellite Keypad (SK9)

Installation and Operation Manual



INTRODUCTION

Pach & Company thanks and congratulates you on the purchase of your AeGIS Satellite Keypad (SK9).

The manual is designed to guide you through the proper installation and operation of the SK9. It is important for you to read and follow the manual completely.

The AeGIS SK9 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 in our two years warranty if surge protection is installed with the systems.

SYSTEM DESCRIPTIONS

AeGIS SK9 utilizes microprocessor technology to provide security as well as convenience to you. The SK9 must interface with the AeGIS 9000 Series via an RS-422. The SK9 only allows access to tenants or visitors via a 4-digit access code programmed on the AeGIS 9000 Series. There is no audio intercom capability.

SYSTEM SPECIFICATIONS

Power Input: 12 VAC/DC 20VA UL Listed Transformer (12 VAC is supplied by Pach & Company).

Current Consumption: 72 mA Idle, 144 mA operation.

Emergency Battery: 12 VDC, 4 Ahr rechargeable (customer supplied).

Communication: RS-422 (maximum distance between the AeGIS 9000 Series and the SK9 not exceeded 4000 Ft., a maximum 32 of SK9 can be interfaced with the AeGIS 9000 Series).

Night Light: 14 VAC 200 mA Incandescent Lamp.

Operating Environment: Temp. 0° F to +140° F. Relative Humidity 0% to 95%.

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

Mounting: Surface (accessories **APM1:** AeGIS Pedestal Mounting Post).

Construction: 16 Gauge Cold Rolled Steel with Brushed Stainless Steel Faceplate.

Dimension: 6 3/4" (17.1 Cm) (H) x 5 3/4" (14.6 Cm)(W), Depth 3 1/2" (8.9 Cm) to 2 1/2" (6.4 Cm).

Shipping Weight: 4 Lbs.

UNPACKING THE SYSTEM

Check the serial number on the printed circuit board, cabinet and warranty card, they must be matched. If they do not match, please contact Pach & Company toll free number at 1-888-678-7224. All the items listed below come with the AeGIS SK9.

- AeGIS SK9 Satellite Keypad.
- 12 VAC Transformer.
- Two of 4-pins terminal connector (inside the system).
- Key sets (2 keys per set).
- Installation and operation manual.
- Warranty Card with system's serial number.
- Two of 100 Ohms 1/4 Watt resistor.



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WARRANTY

The AeGIS SK9 comes with a two years warranty for parts and labor. We will include lightning strikes and power surge on our two years warranty if surge protector is installed with the system.

- 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.

WIRING REQUIREMENTS

- 18 gauge, two conductors, stranded, shielded cable, from 0 Ft. up to 4000 Ft, see Fig. 2.0 for Communication Wiring Diagram.
- Two of 100 Ohms 1/4 Watt resistor for the last system termination (included), see Fig 2.0.
- 20 gauge, two conductors, stranded cable for power.
- 18 gauge, two conductors, stranded, shielded cable for door strike.
- See Fig. 1.0 for door strike wiring diagram for Normally Open (NO) or Normally Closed (NC). System's relay is dry contact and provides Normally Open (NO) and Normally Closed (NC).
 - If the door or gate is locked when the strike is not energized, use Normally Open connection.
 - If the door or gate is locked when the strike is energized, use Normally Closed connection.
- **WARNING:** If battery backup is used, **DO NOT USE 12VAC 20VA** transformer comes with the system to charge the battery (explosion may occur), use a rechargeable battery backup with power-supply. See Fig. 3.0 Battery Backup Wiring Diagram.

SYSTEM'S OPERATIONS

- **SET SYSTEM'S ID NUMBER** (0-31) on the Hexadecimal Rotary switch is shown on the diagram. JP2 (see Fig.1) is ON (ID number 0-15), JP2 is OFF (ID number 16-31). Every system must have different system ID number, see table below.

| Rotary Switch Setting (JP2 is ON) | | | |
|-----------------------------------|---------|-----|---------|
| Hex | Decimal | Hex | Decimal |
| 0 | 0 | 8 | 8 |
| 1 | 1 | 9 | 9 |
| 2 | 2 | A | 10 |
| 3 | 3 | B | 11 |
| 4 | 4 | C | 12 |
| 5 | 5 | D | 13 |
| 6 | 6 | E | 14 |
| 7 | 7 | F | 15 |

| Rotary Switch Setting (JP2 is OFF) | | | |
|------------------------------------|---------|-----|---------|
| Hex | Decimal | Hex | Decimal |
| 0 | 16 | 8 | 24 |
| 1 | 17 | 9 | 25 |
| 2 | 18 | A | 26 |
| 3 | 19 | B | 27 |
| 4 | 20 | C | 28 |
| 5 | 21 | D | 29 |
| 6 | 22 | E | 30 |
| 7 | 23 | F | 31 |

- **TO OPEN THE GATE OR DOOR** , PRESS * then **4-digit personal access code**.

NOTE: Keypad will beep each time a key is pressed.

- **Valid Access Code**, you will hear one long beep and door or gate will open.
- **Invalid Access Code**, you will two short beep.
- **RELAY OUTPUT DURATION TIME** (Door open interval) always set for 5 seconds. If you need longer duration time, an isolation relay with timer must be used.
- **THE NIGHT-LIGHT** is on all the time.

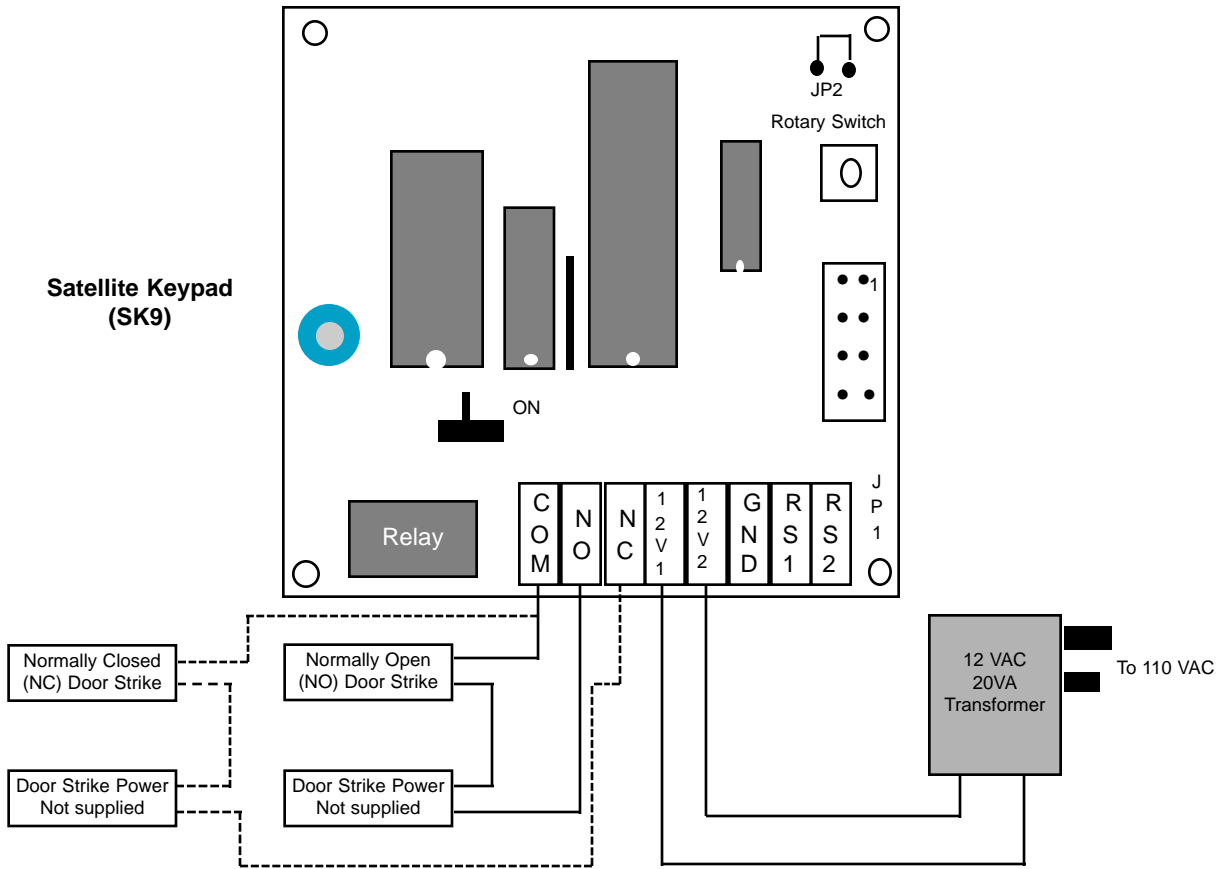


Figure 1.0
Door Strike and 12 VAC Power Wiring Diagram

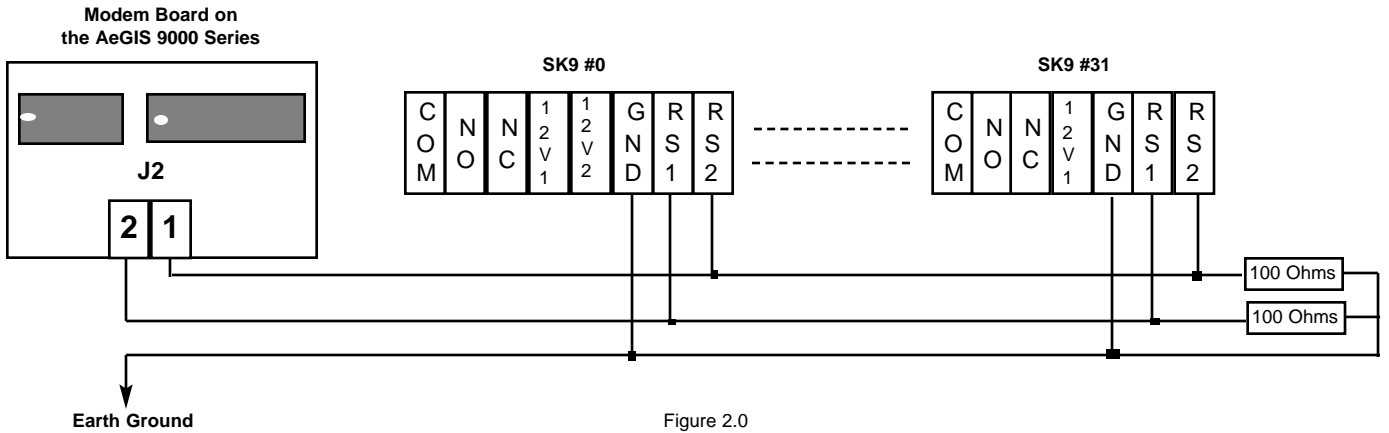


Figure 2.0
RS-422 Communication Wiring Diagram

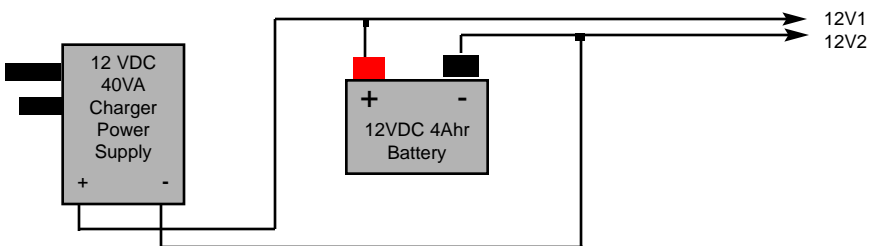


Figure 3.0
Battery Backup Wiring Diagram

Trouble Shooting Guide

KEYPAD DOES NOT BEEP WHEN KEY IS PRESSED.

- Problem:**
1. System may not have power.
 2. Keypad ribbon cable connection into the board may be incorrect.
 3. System's Power Switch may be in OFF position.

- Solution:**
1. Check the following: the transformer output must read 12.5 VAC - 12.8 VAC, power is connected to the correct terminal pins as shown on Fig. 1.0., the main power must read 110 VAC - 115 VAC.
 2. The red line on keypad ribbon cable must connect to pin 1.
 3. Turn the switch to ON position.

THE SK9 DOES NOT COMMUNICATE WITH AeGIS 9000.

- Problem:**
1. System may not have power.
 2. The communication wiring may be reversed or not connected.
 3. Keypad ribbon cable connection into the board may be incorrect.
 4. The 4-digit access code may be incorrect.
 5. The 4-digit access code may be not program on the AeGIS 9000.

- Solution:**
1. Check the following: the transformer output is reading 12.5 VAC - 12.8 VAC, power is connected to the correct terminal pins as shown on Fig. 1.0., the main power must read 110 VAC - 115 VAC, Power switch must be ON.
 2. See Fig. 2.0 for communication wiring diagram, proper gauge of wires must be used.
 3. The red line on keypad ribbon cable must connect to pin 1.

