

CHAPTER 1

CHAPTER 1 – BASIC OPERATIONS



POWER SERIES NEO TECHNICAL TRAINING MANUAL

BASIC SYSTEM INFORMATION:

This chapter provides an overview of system keypads as well as zone information

SYSTEM OVERVIEW:

The Power Series Neo panels are 4 hybrid hardwired/wireless alarm systems



Depending on the model, the Neo series supports:

- Up to 128 zones (hardwired or wireless)
- Up to 32 wireless keys
- Up to 16 keypads
- Up to 95 user codes (with up to 94 proximity tags)
- Up to 8 partitions
- Up to 144 programmable outputs (PGMs)
- Up to 16 wireless sirens
- Up to 8 wireless repeaters
- Up to 1000 events in the event buffer
- Communication over PSTN (phone line), cellular and IP
- Visual verification with the central station

KEYPAD OVERVIEW:

There are 4 main types of keypads supported by the Power Series Neo:

HS2LCD -> CUSTOM LCD KEYPAD



This keypad provides system information using a custom LCD screen. It has the ability to display the time and date and customize system messages making a number of functions more intuitive for system users. Installer programming is made easy with the use of a menu based programming locations, and the event buffer (event history of the system) can be viewed from this keypad.

There are several variations available for the HS2LCD:

HS2LCD -> Standard LCD keypad

HS2LCDP -> LCD keypad with built-in proximity tag sensor

HS2LCDRF8 -> LCD keypad with built-in HOST (wireless transceiver module)

HS2LCDRFP8 -> LCD keypad with built-in HOST and proximity tag sensor

HS2LED -> 16 ZONE LED DISPLAY KEYPAD



This keypad provides system information using a simple 16 zone LED display screen. It uses LED's to display armed status, alarms, zone violations and the system time. Installer programming can be done from this keypad, however the user must rely on programming sections rather than the menu based programming.

There are no variations available for the HS2LED keypad.

HS2LCDWF9 -> WIRE-FREE (WIRELESS) CUSTOM LCD KEYPAD



This keypad is completely wire-free, runs on batteries and/or an AC adapter and provides system information using a custom LCD screen. It has the ability to display the time and date and customize system messages making a number of functions more intuitive for system users. Installer programming is made easy with the use of a menu based programming locations, and the event buffer (event history of the system) can be viewed from this keypad.

There are several variations available for the HS2LCDWF8:

HS2LCDWF8 -> Standard wireless LCD keypad

HS2LCDWFP8 -> Wireless LCD keypad with built-in proximity tag sensor

HS2LCDWFPV8 -> Wireless LCD keypad with built-in proximity tag sensor and voice prompting

HS2TCHP -> LCD TOUCH SCREEN KEYPAD



This is a custom touch screen LCD display keypad and is the keypad with the most features; it supports the ability to program the entire system with an easy menu based touch screen programming system. It also has the ability to show the time and date. It has an SD card slot for a picture wallpaper and screensaver.

There is only one model of the HS2TCHP

HS2TCHP -> Standard customizable touch screen LCD display keypad with prox tag support.

KEYPAD OVERVIEW/OPERATION:

SYSTEM STATUS LED'S (ALL KEYPADS):

The following LED's are common to each type of keypad:



= Ready - This LED will be active when the system is 'Ready' to arm. All zones must be secure (not opened or violated) in order to be in the 'Ready' state



= Armed - This LED will be active when the system is 'Armed'

NOTE: BOTH THE 'READY' AND 'ARMED' LED'S ARE ACTIVE DURING EXIT DELAY



= Trouble - This LED will be lit when there is a system trouble



= AC Power Status - This LED will be lit when 'AC Power' is present on the system (Installer Programmable Option)

KEYPAD OVERVIEW/OPERATION:

KEYPAD BUTTONS:



1. **Arrow Keys** – These keys are used for advancing through programming and listing open zone when using a WT5500 or the built in Impassa keypad.
2. **[F], [A], [P]** – These are quick emergency keys to activate alarms from the keypad.
 - [F] = Fire Alarm
 - [A]=Auxiliary Alarm
 - [P] = Panic Alarm
3. **Door (Inside)** – This is the keypad door. The keypad is packaged with a sticker may be added to provide information specific to the installation (i.e. zone list)
4. **Function Keys** – These keys are used to perform system features using a single key press. Press and hold corresponding function key to perform the required operation (Installer Programmable Options)
5. **Number Keys** – Used for number entries for system operations

ZONE INFORMATION:

ZONE CLASSIFICATIONS – 24HR/NON-24HR:

When a zone is described as being either '24Hr' or 'Non-24Hr', the description refers to how the zone responds when violated when the system is armed or disarmed

24HR ZONES:

24Hr zones will generate an alarm condition when a violation is detected when the system is armed or disarm

Common 24Hr zone applications include:

Panic buttons – required to be active at all times as they need to generate an alarm in the event of a panic or holdup situation

Smoke detectors – required to be active at all times in the event of a fire alarm

NON-24HR ZONES:

These zones will only generate an alarm if a violation is detected only while the system is armed. Violations detected while the system is disarmed will be displayed on the keypad only

Common non-24Hr zone applications include:

Doors and Windows – only required to be active when the customer is not at the location (system armed)

Motion Detectors – only required to be active when the customer is not at the location (system armed)

ZONE CLASSIFICATIONS – PERIMETER/INTERIOR:

When a zone is described as being either 'Perimeter' or 'Interior', the description refers to if the zone is detecting someone entering a location from the outside (perimeter – door contact) or the presence of someone who is already in the location (interior – motion detector).

PERIMETER ZONES:

These zones are connected with contact that detects intrusions entering the location from the outside. Examples of perimeter zones are door and windows

INTERIOR ZONES:

These zones are connected with contacts that are used to detect intrusions in a room. Examples of interior zones are motions, glass break detectors, Interior Doors.

ARMING AND DISARMING:

ARMING:

Arming is the act of placing the system into the 'active' state. During this state, violations on non-24hr zones may cause an alarm. One method of arming the system is using a valid 4-digit access code.

Arming a system is typically performed when the home or business owner is leaving the location

NOTE: IN ORDER TO ARM THE SYSTEM, ALL ZONES MUST BE SECURE (CLOSE ALL DOOR, WINDOWS ETC.. THIS WILL ENSURE THAT NO AREAS OF PROTECTION ARE LEFT OPENED. WHEN ALL ZONES HAVE BEEN SECURED, THE GREEN 'READY' LED WILL BE INDICATED.

DISARMING:

Disarming is the act of placing the system into the 'non-active' state where zone violations will not generate alarm condition. Violations will still be indicated on system keypads. One method of disarming the system is using a valid 4-digit access code.

Disarming is typically performed when the home or business owner enters the location

ARMING MODES – STAY AND AWAY ARMING:

Arming in either the 'Stay' or 'Away' mode refers to whether or not interior zones are active while the system is armed

STAY ARMING:

Stay arming involves arming the system where only the perimeter zones are active. While armed in the Stay mode interior zones (i.e. motion detectors) will not be active therefore allowing the homeowner to walk freely throughout the home without causing an alarm when walking in front of a motion detector.

How to Arm in Stay Mode: Stay arming may be performed by:

Stay Function Key or 4 digit code entry and the user doesn't leave the premises.

AWAY ARMING:

Away arming involves arming the system where all zones, both perimeter and interior zones are active. The system is typically armed when the user is leaving the home or business

How to Arm in Away Mode: Away arming may be performed by:

Press the Away Function Key or 4 digit code entry and the user leaves the premises through an entry/exit door.

DELAY ZONE OPERATION:

A common type of zone is a 'Delay Zone' which can be found in almost every installation. The front door used to enter and exit a home or business will be configured as a 'Delay Zone'

'Delay Zones' are non-24 hour therefore when the system is disarmed; a violation will only be indicated on the keypad.

The following is an example the operation of a Delay Zone (starting from the disarmed state):

1. ARM SYSTEM:

- Ensure that the system is in the 'Ready' state (all zone secure, 'Ready' LED lit)
- Enter a valid access code (4-digits) or press and hold away key for 2 seconds.

2. EXIT DELAY:

- After a valid access code has been entered, the system will provide the user with 'Exit Delay' (Exit delay provides time for the user to exit the location)
- Exit delay is indicated by the keypad as follows:
- 'Ready' and 'Armed' LED are both active (provides visual indication that exit delay is active) 1 beep/sec for the exit delay time
- For the last 10 seconds, the keypad will provide 3 beeps/sec, this is an audible indication that exit delay is about to end. If the user has not left yet, they should either leave or disarm the system if more time is required (installer programming option)

3. SYSTEM ARMED:

- The system will be armed after exit delay has expired
- This is indicated by the 'Armed' LED ON ('Ready' LED turns off at the end of exit delay)

4. DELAY ZONE VIOLATION:

- With the system is armed, the user enters the location through the designated 'Delay' type zone (i.e. front door)
- The violation is detected and the system will then begin 'Entry Delay'

5. ENTRY DELAY:

- Entry delay provides the user time to disarm (after entering the front door) before an alarm is generated
- The keypad will indicate entry delay as follows: Long steady tone when the door is opened, last 10 seconds: the keypad will provide 3 beeps per second, this is an audible indication that entry delay is about to end.
- If a valid code is entered before entry delay expires, no alarm is generated

Chapter 1 – Basic Operations

If a valid code is not entered before entry delay expires, an alarm is generated siren activates and a signal is sent to the central station if monitored.