



POWER SERIES NEO TECHNICAL TRAINING MANUAL

WIRELESS:

OVERVIEW:

Wireless transmitters and receivers allow for additional zones on the alarm panel without adding additional wires, saving time and cost for the installers.



TECHNOLOGY:

- Much improved range over previous Power Series and SCW panels (2 Km line of site without a repeater)
- Frequency-Hopping spread spectrum selection is more robust to environment changes (4 Channels from 868 to 869 MHz)
- 2-way synchronous TDMA
- 128 Bit AES Encryption
- Adaptive transmission power means we use less battery power for devices close to the receiver
- Link Quality Test (Placement Test) can be entered at the device itself simply by tampering and restoring the unit. Test results are shown at the device itself for a period of 15 minutes.
- Power G devices have configuration options which can be customized from the panel.
- Auto-enroll and manual enrollment can be done all in the same place in installers programming on the NEO system. [804][000]
- Dynamic node selection when using repeaters, the panel figures out which repeater to use for devices

DEVICE IDENTIFICATIONS (ID)

- Device ID's (electronic serial numbers) are 7 digit decimal
- Format – ID:TTT-XXXX
- TTT = Device type
- Label is located on the back of most devices

WIRELESS SUPERVISION

Each wireless transmitter sends a “check-in” signal to the receiver every 255 seconds. The purpose of this signal is to let the receiver know the status of the zone and if the battery level is good or bad.

By default, the receiver looks for at least one signal from the transmitters every 24 hours. If the panel does not get at least one signal from the transmitters within 24 hours, we get a **Zone Fault** trouble condition on that zone, which will clear the next time we receive a signal from that wireless device (secure, violation, tamper or the check-in).

PROPER MOUNTING LOCATIONS

Certain materials can reduce the effectiveness of wireless transmissions; avoid mounting wireless devices and receivers on the following materials: Metal objects such as metal doors or window frames, concrete surfaces, brick surfaces, stucco walls.

PROGRAMMING WIRELESS DEVICES:

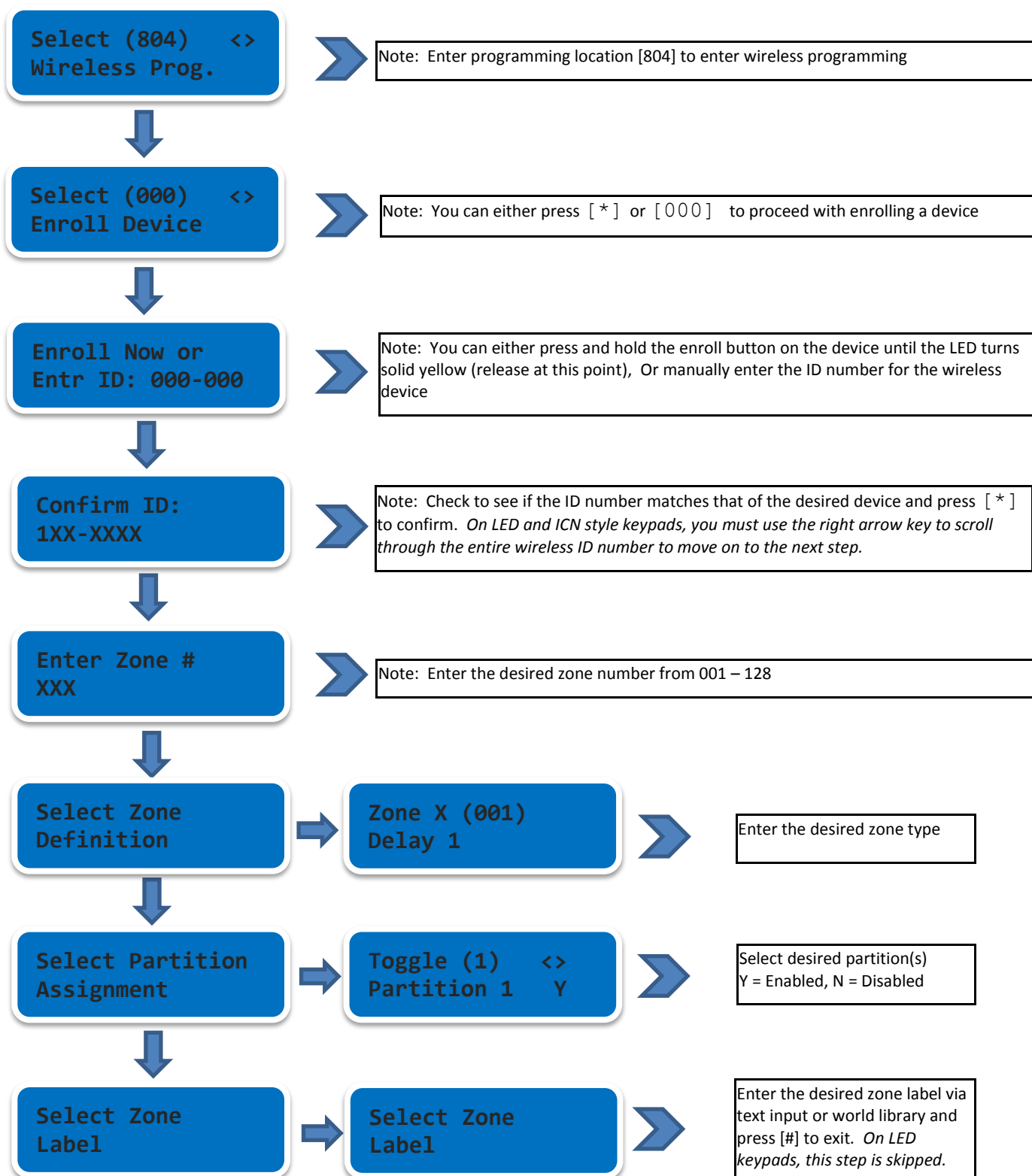
WIRELESS AUTO-ENROLL (SECTION [804] > [000]):

OVERVIEW:

Wireless auto-enrollment is available on all NEO panels on both standalone HOST (wireless receiver) modules as well as RF keypads (HOST module built in to LCD keypads) to allow installers the ability to automatically program wireless devices by activating the device, confirming the device ID then selecting the zone/slot location, definition, partition and zone label all from one screen.

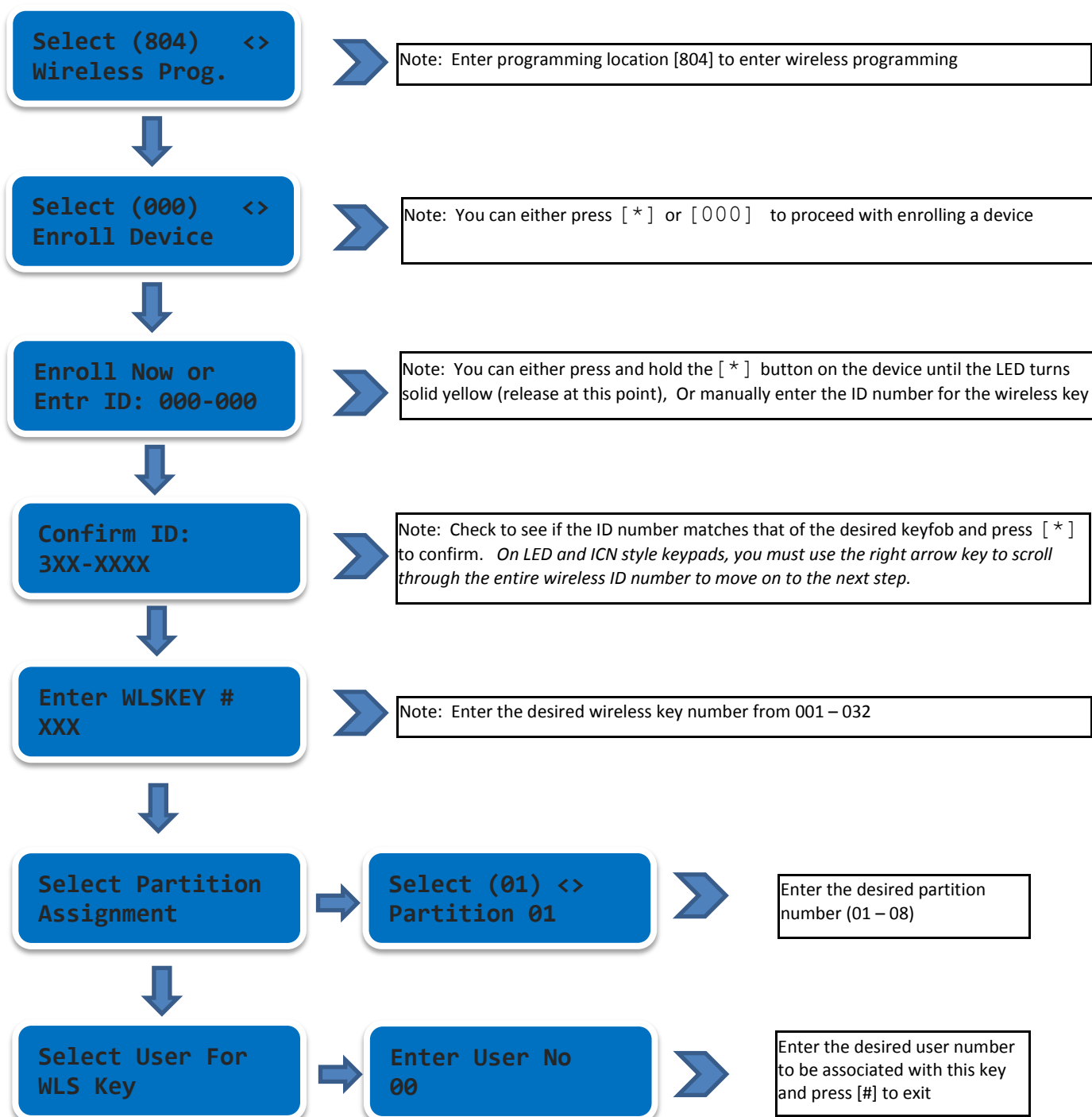
PROCEDURE FOR AUTO-ENROLLING WIRELESS ZONES:

Enter Installer's programming mode: [*][8][Installer's Code]



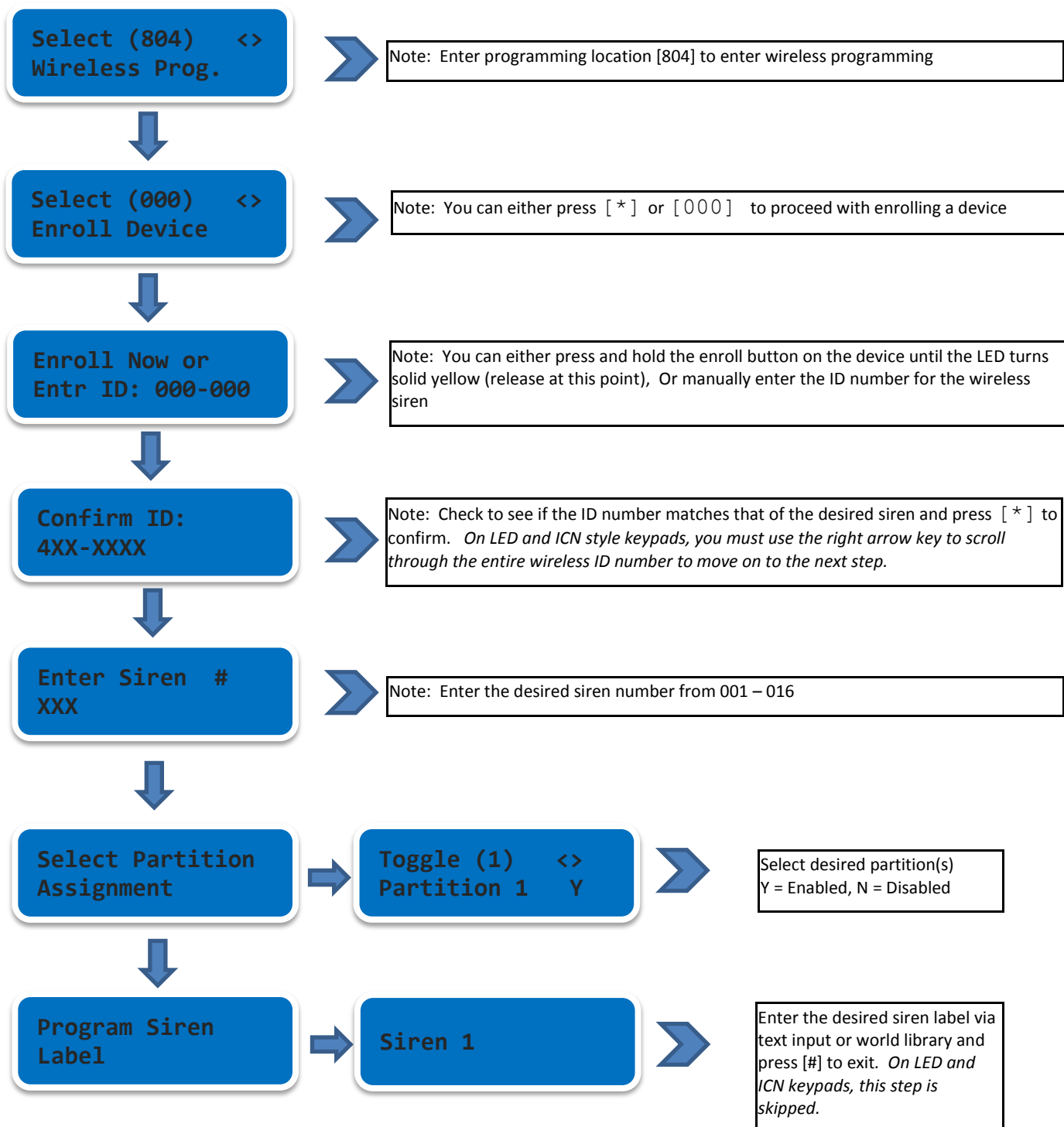
PROCEDURE FOR AUTO-ENROLLING WIRELESS KEYS:

Enter Installer's programming mode: [*][8][Installer's Code]



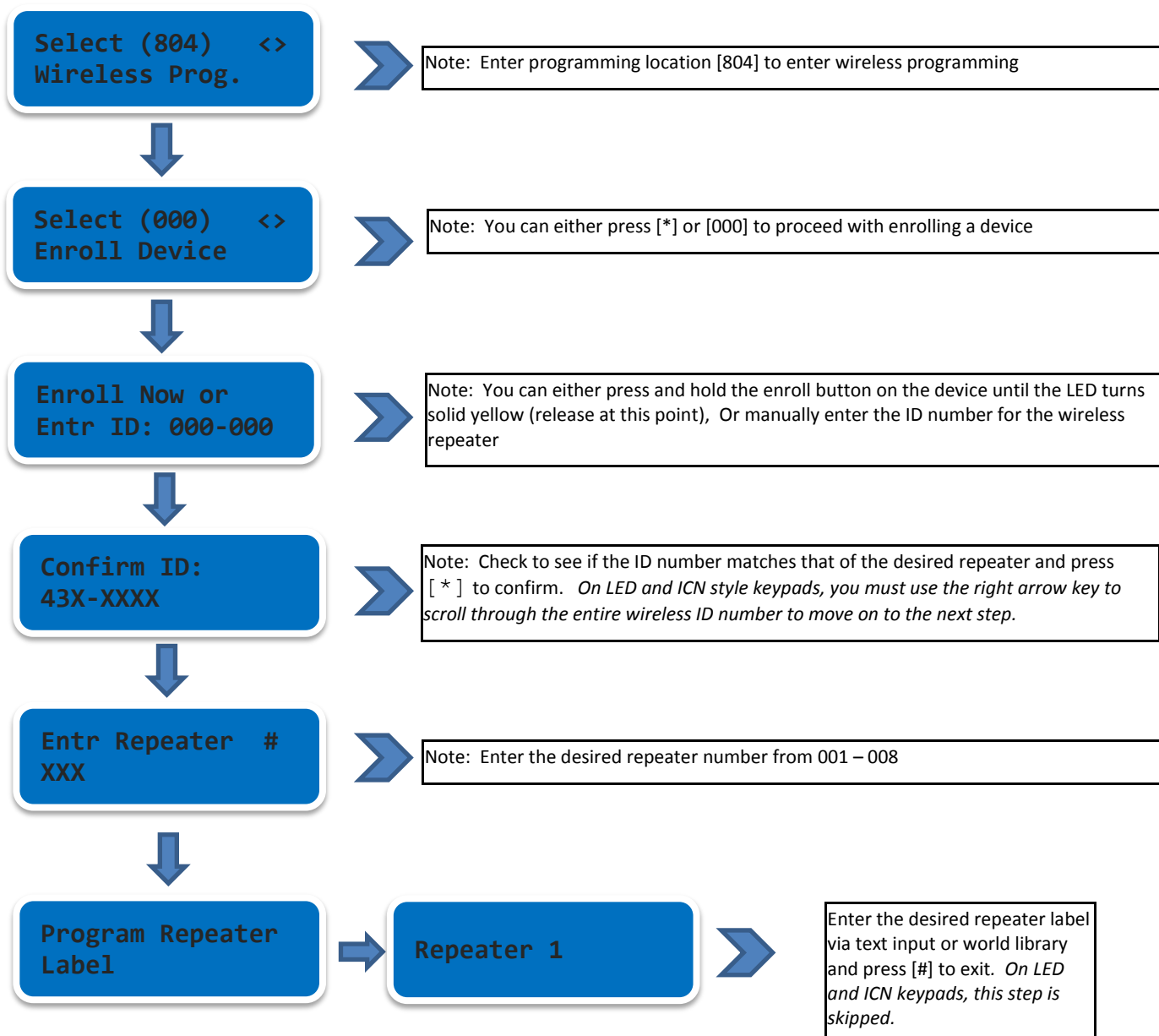
PROCEDURE FOR QUICK ENROLLING WIRELESS SIRENS:

Enter Installer's programming mode: [*][8][Installer's Code]



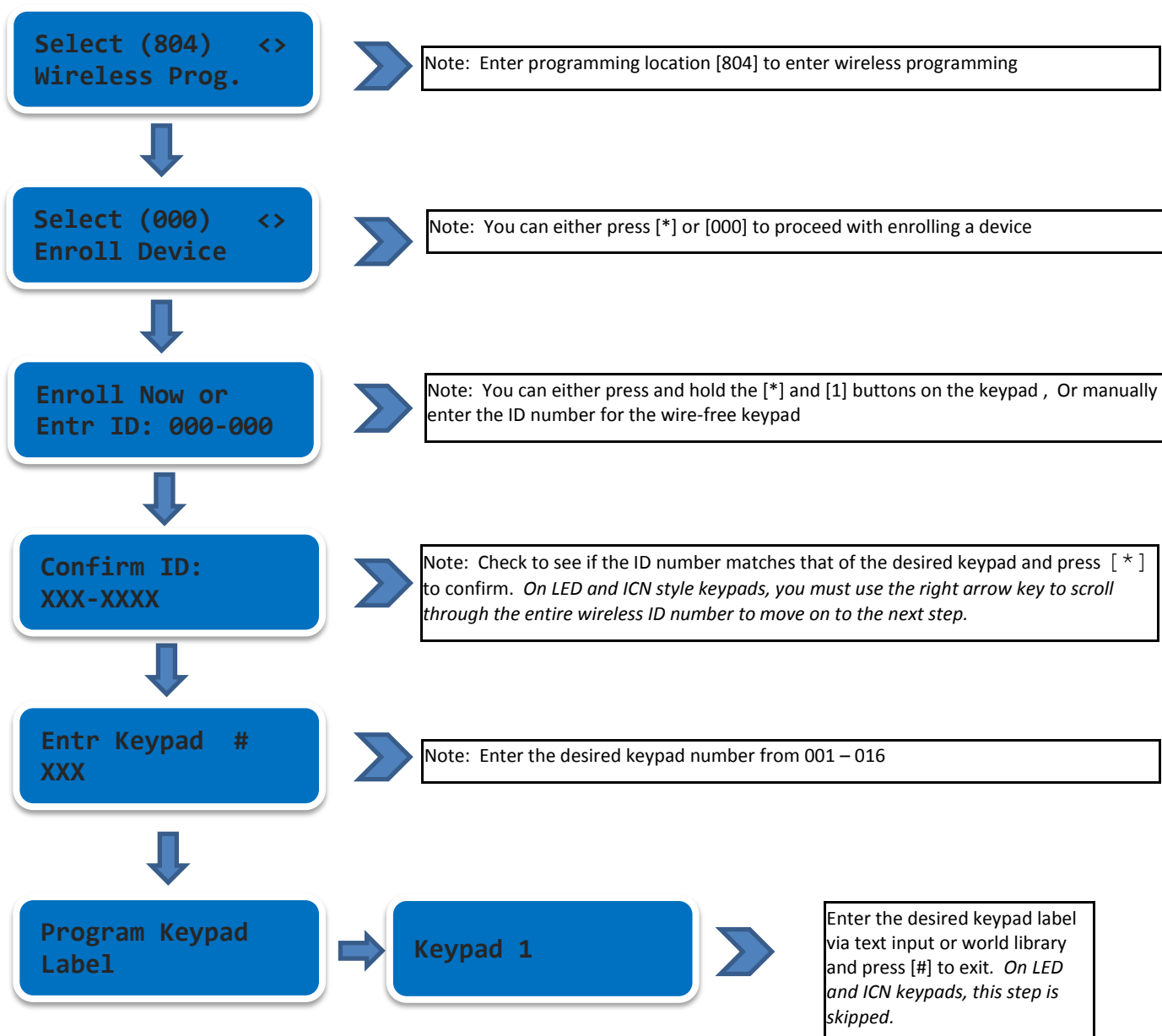
PROCEDURE FOR QUICK ENROLLING WIRELESS REPEATERS:

Enter Installer's programming mode: [*][8][Installer's Code]



PROCEDURE FOR QUICK ENROLLING WIRE-FREE KEYPADS:

Enter Installer's programming mode: [*][8][Installer's Code]



WIRELESS PROGRAMMING SECTIONS

Programming location [804] allows access to the standalone HOST or RF keypad wireless transceiver for programming the wireless devices and options, it contains the following sub-sections:

[000] – Enroll Device

[001] - [128] – Wireless Zone 1 – 128 device programming

[551] - [566] – Wireless siren device programming

[601] - [632] – Wireless key device programming

[801] – RF Jam detect

[802] – Supervisory window (1 – 24 hrs.)

[810] – Wireless Options

[841] – Motion Cameras

[901] – Delete Zones > Select desired wireless zone and press [*] to confirm

[902] – Delete WLSKeys > Select desired wireless key and press [*] to confirm

[903] – Delete Sirens > Select desired wireless siren and press [*] to confirm

[904] – Delete Repeaters > Select desired wireless repeater and press [*] to confirm

[905] – Delete Keypads > Select desired wire-free keypad and press [*] to confirm

[921] – Replace Device > Select desired zone and press enroll button (or enter ID) for new device

[922] – Replace WLSKey > Select desired wireless key and press enroll button (or enter ID) for new device

[923] – Replace Siren > Select desired wireless siren and press enroll button (or enter ID) for new device

[924] – Replace Repeater > Select desired wireless repeater and press enroll button (or enter ID) for new device

[925] – Replace Keypad > Select desired wire-free Keypad and press enroll button (or enter ID) for new device

[990] – Show All Devices > Select zones, repeaters, sirens, keys or keypads

[999] – Default Module > Factory default the HOST wireless module.

WIRELESS PLACEMENT TEST

[*][8][INSTALLER CODE][904]

This section allows us to test the signal strength of our wireless zones with the wireless HOST module. After entering this section, select a zone, repeater, siren, wireless key or wire-free keypad.

The receiver will automatically test the device (you do not need to violate or tamper them) and will display the signal strength received (strong, good, poor, not test)

When the receiver gets a signal from a device via a repeater, the keypad will display “Data Received From Repeater X”.

When the receiver is picking up interference from outside sources, the trouble light will flash

A successful wireless placement tests proves the following:

1. Adequate signal strength
2. A working device
3. Adequate battery strength
4. The device has been enrolled correctly

DEFAULT WIRELESS RECEIVER (SECTION [996]):

OVERVIEW:

Enter [996][Installer Code][996] to set the Wireless Receiver back to Factory Defaults

NOTE: THIS WILL ERASE ALL WIRELESS ZONE AND DEVICE ID'S FROM THE PANEL.

HARDWIRED ZONES

There are three types of hardwired devices that can be used on Power Series NEO:

- 1) Onboard zones on the panel
- 2) Hardwired zones on a HSM2108 zone expander
- 3) Keypad zones

PROGRAMMING ZONE DEFINITIONS (ZONE TYPES)

Enter Installer's programming mode: [*][8][Installer's Code]

Select (001) <>
Zone Definitions



Select (001) <>
Zone 1



Note: You can scroll to the desired zone and press [*] or enter a 3 digit zone number



Zone 1 (001) <>
Delay 1



Note: Select a zone type. You can scroll to the desired zone definition and press [*] or enter a 3 digit zone definition



Zone 2 (002) <>
Instant



Note: Once the first selected zone is programmed, you are automatically taken to the next zone and are able to define the zone definition. Press [#] to exit when finished.

NOTE: SEE APPENDIX FOR AVAILABLE ZONE DEFINITIONS

ZONE ATTRIBUTES

Enter Installer's programming mode: [*][8][Installer's Code]

Select (002) <>
Zone Attributes



Select (001) <>
Zone 1



Note: You can scroll to the desired zone and press [*] or enter a 3 digit zone number



Zone 1 (1) <>
Bell Audible Y



Note: You can scroll to the desired zone attribute and press [*] to enable/disable or enter the desired 1 digit zone attribute to enable/disable it. Press 9 for more options. Y = enabled, N = disabled.

NOTE: SEE APPENDIX FOR AVAILABLE ZONE ATTRIBUTES

POWER G WIRELESS ALARM DETECTORS



PG8945 DOOR/WINDOW SENSOR

The PG8945 is a wireless door/window sensor with a built in reed switch and an optional auxiliary hardwired zone input which can be enabled/disabled and also EOL can be selected. This sensor uses a magnetic reed switch operation.



PG8975 ULTRA SLIM DOOR/WINDOW SENSOR

The PG8975 is a thin door/window sensor designed to be sleek and hardly noticeable. This detector does not offer an internal hardwired zone input. This sensor also uses a magnetic reed switch operation.



PG8904P WIRELESS PET IMMUNE MOTION DETECTOR (PIR)

The PG8904p is a wireless motion detector with the ability to ignore most small pets (pet immune)

The following are the features of this motion detector:

- PIR (passive infrared) sensor uses changes in temperature to detect intruders
- Walk test mode that allows the installer to determine the ideal positioning to protect the desired area
- LED that can be enabled or disabled
- High traffic shutdown: a feature that shuts down the motion detector for a programmable amount of time after a violation to conserve battery life. During these 3 minutes, the motion detector will not send any violations to the alarm panel
- Programmable sensitivity adjustment



PG8924 WIRELESS CURTAIN MOTION DETECTOR

This is a wireless motion detector with “Target Specific Imaging”™ and “True Motion Recognition”™ technology for reducing false alarms.



PG8934P WIRELESS MOTION DETECTOR WITH INTEGRATED CAMERA

This is a wireless pet immune motion detector with an integrated camera for use with visual verification. The system is able to send images during an alarm to the central station (requires SG System 5 receiver).



PG8994 WIRELESS OUTDOOR PIR MOTION DETECTOR

This is a wireless outdoor motion detector which uses Octa-Quad Technology and black mirror optics for false alarm reduction.



PG8916 AND PG8926 WIRELESS SMOKE DETECTORS

The PG8916 is a wireless photoelectric smoke detector with a built in heat detector (137 degree F trigger). The PG8926 is identical to the PG8916 except there is no built in heat detector



PG8912 WIRELESS GLASS BREAK DETECTOR

The PG8912 is a wireless glass break detector capable of detecting plate, tempered, laminated and wired glass with a range of up to 20 ft. and 360 degree coverage.



PG8905 WIRELESS TEMPERATURE DETECTOR

The PG8905 is a programmable wireless temperature detector with adjustable thresholds for high temperature warning, high temperature alarm, low temperature warning and low temperature alarm. Optional probe can be used to monitor outdoor temperatures as well as refrigeration units.



PG8985 WIRELESS FLOOD DETECTOR

This detector is similar to the PG9945, but it comes with a 6 ft. water probe that can be mounted at a desired height to indicate a flood alarm.

WIRELESS KEYFOBS



PG8939 STANDARD 4 BUTTON WIRELESS KEYFOB

The PG8939 is a 4 button keyfob with programmable functions as well as a visual and audible indicator to acknowledge functions. The default functions are 1) Away arm (top left), 2) Stay arm (top right), 3) Disarm (bottom left) and 4) Panic alarm (bottom right). Note: The panic alarm has a default 3 second delay (you must hold the button for 3 seconds to activate the panic)



PG8929 STANDARD 4 BUTTON WIRELESS KEYFOB

The PG8929 is a 4 button keyfob with programmable functions as well as a visual and audible indicator to acknowledge functions. The default functions are 1) Away arm, 2) Stay arm, 3) Disarm and Panic alarm. Note: The panic alarm has a default 3 second delay (you must hold the button for 3 seconds to activate the panic)



PG8949 TWO BUTTON KEYFOB

The PG8949 is a 2 button keyfob with programmable functions as well as a visual and audible indicator to acknowledge functions. It is built with a water resistant casing.



PG8938 WIRELESS PANIC KEY

Although this looks like a keyfob, it enrolls and acts like a zone. This device takes up a zone and keyfob slot and it is typical to program this device as a 24 hour panic zone. It is built with a water resistant casing.

WIRELESS SIRENS



PG8901 WIRELESS INDOOR SIREN

This is an indoor wireless siren, with a built in strobe light. The main feature is to sound on alarm conditions, however you can enable other features such as trouble beeps and door chime as well in [804][551 – 566]



PG8911 WIRELESS OUTDOOR SIREN

This is an outdoor siren that also has strobe LED's. The enclosure is meant to be mounted on the side of a building under the eaves trough to protect against direct precipitation. It is built with a weatherproof housing

The main feature is to sound on alarm conditions, however you can enable other features such as trouble beeps and door chime as well in [804][551 – 566]



PG8920 WIRELESS REPEATER

The wireless repeater is designed to extend the range of the wireless HOST modules (standalone or keypad transceiver) and also reduce transmission power for transmitters to conserve battery life. Also has an LED indication for power loss, wireless activity and diagnostics.



MPT PROX TAGS

All keypads with a "P" in the model number support the mini prox tags. These tags are enrolled as a user in the [*][5] menu and can perform the same functions as a 4 digit user access code.

BATTERY TYPES

