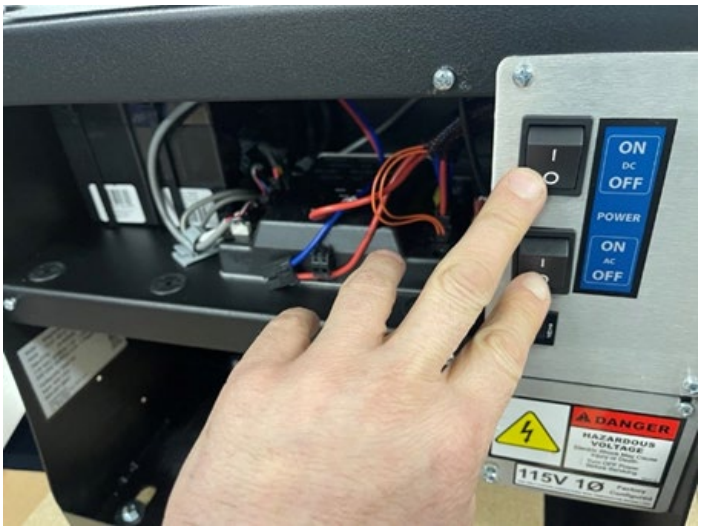
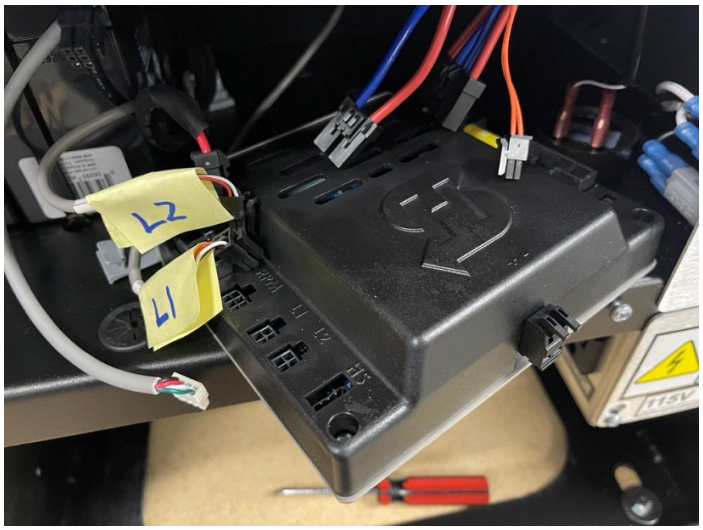
# D1246_RETROFIT INSTRUCTIONS - CNX to 535

*rev A 10/23/25*

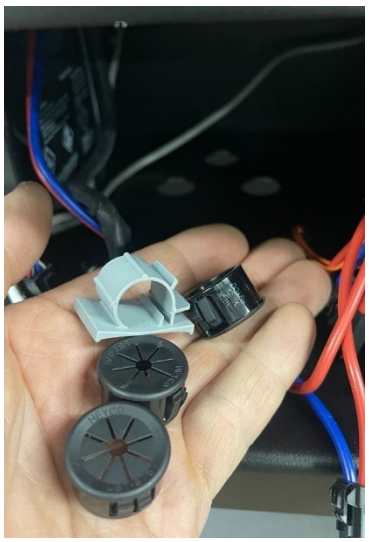
## Replace Drive board (Same for Swing & Slide)

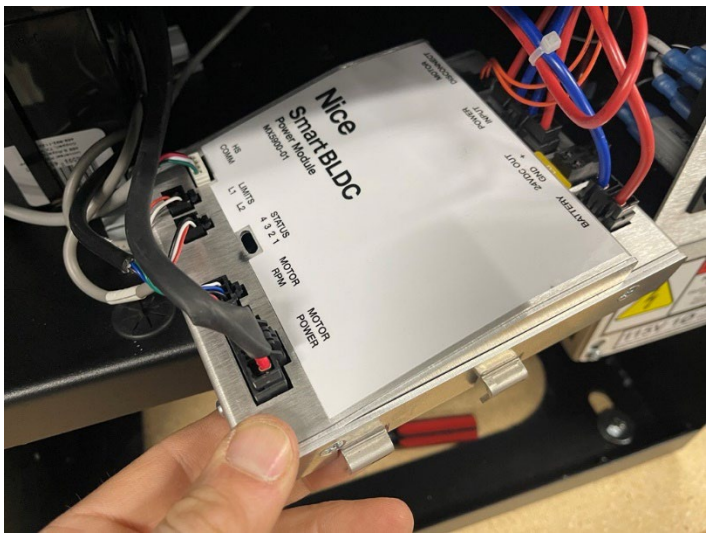
1. Verify AC and DC power is OFF.
2. Remove power shelf access panel.



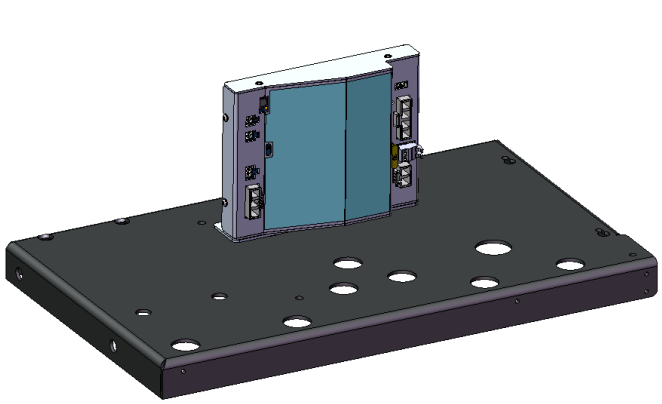



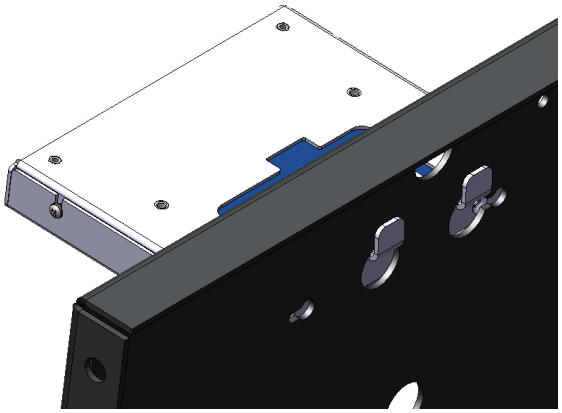

3. Remove the screws holding CNX drive module to the shelf.
4. Disconnect all wires from the CNX drive module.
    a. Identify which limit sensor connectors are L1 and L2
5. Remove 3 bushings and gray wire route connector at the rear of the power shelf.
    a. If 3 holes are used for wire routing, relocate wiring to clear these holes.
6. Connect all wires to the new power module.
    a. Place L1 & L2 in the correct positions (see image below).



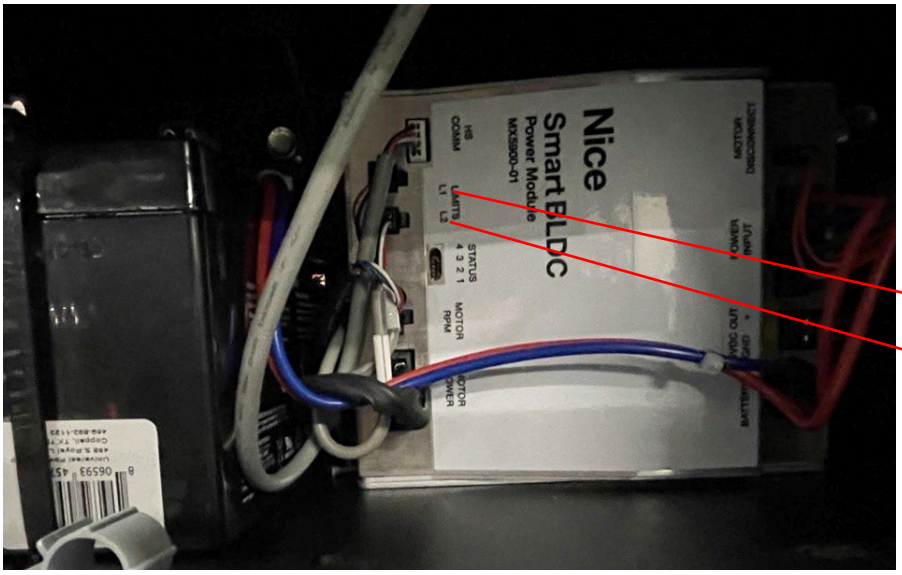


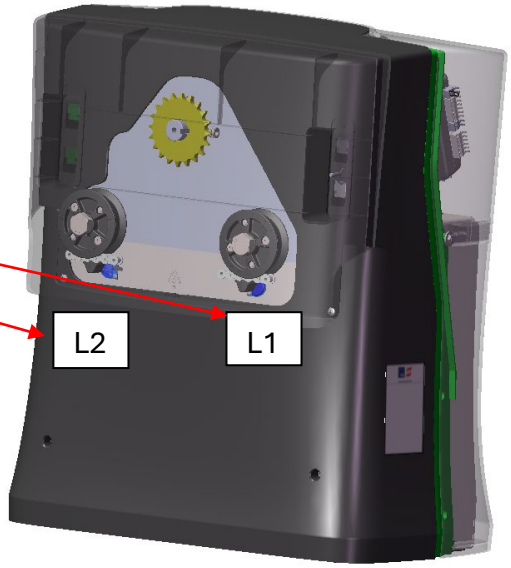
7. The new power module mounts vertically on the power shelf.



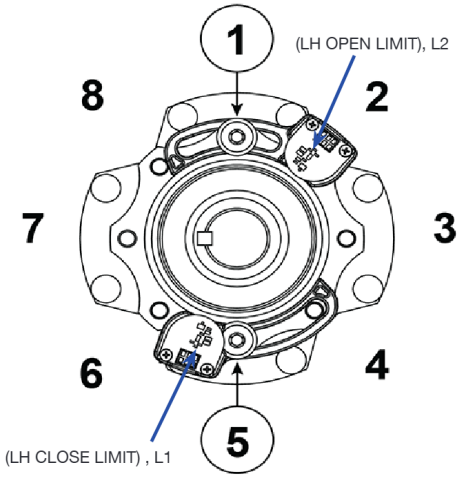


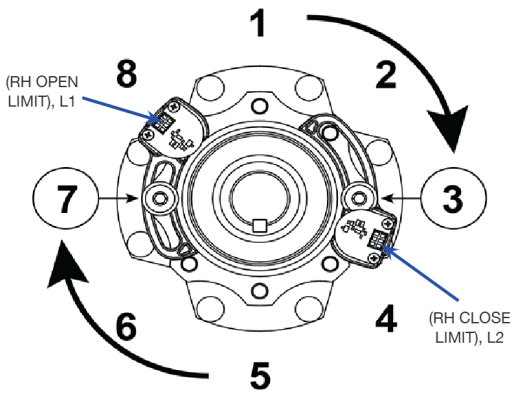
8. Align the power module bracket tabs with the two 7/8” holes towards the back of the power shelf.
    a. The friction/press-fit of the tabs is enough to hold the power module in place vertically.
    b. Verify limit wires connect to the correct L1 & L2 positions on the drive board




SlideSmart L1 & L2 locations

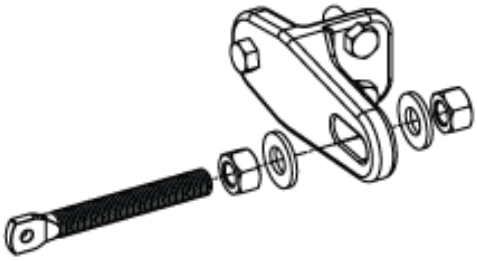


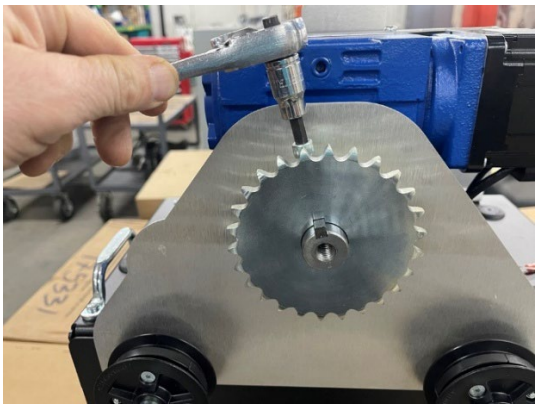




SwingSmart L1 & L2 locations (as viewed standing on controller side)

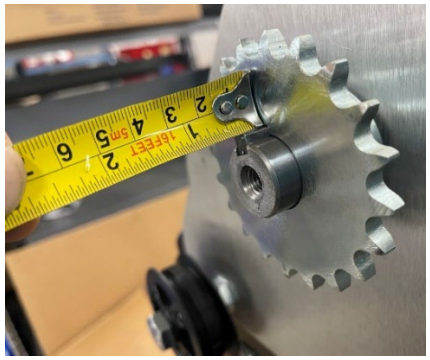
## Sprocket replacement (Slide ONLY)

1. Verify SlideSmart's AC and DC power is turned OFF.
2. Disconnect the chain from gate attachment bracket.
3. Carefully unwrap the chain from the output sprocket.
    a. If chain is worn and rusted, consider replacing the chain.
4. Remove old sprocket and shaft key. Clean output shaft of rust and grime.

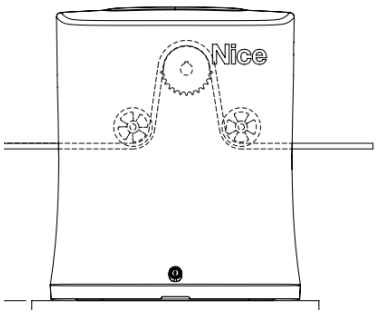




5. Add new 'smaller' sprocket. Face aligns between 5/16 to 3/8" from end of shaft.
    a. Replace shaft key if worn/deformed.
    b. Add Loctite to the M8 socket head cap screws. Tighten screws ~60-80 ft*lbs



6. Wrap chain over the new sprocket and under the idlers.



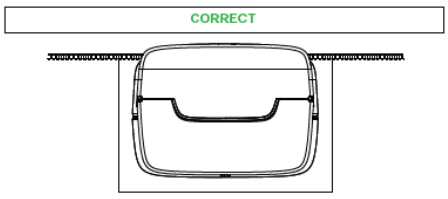




Figure 17. Correct Distance to Gate

7. Connect chain end to gate bracket.
    a. You may need to shorten the chain to achieve previous tension.
    b. Do not let chain sag more than 1 inch per 10 ft of chain length.
    c. Verify chain is parallel to gate travel.

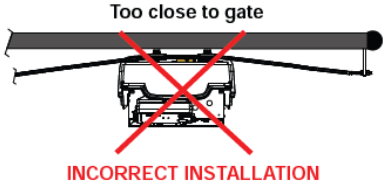



Figure 18. Incorrect Distance to Gate

**Attach Limit Magnets – (Slide ONLY)**

# Attach Limit Magnets and Chain Cover

## ATTACHING LIMIT MAGNETS

The SlideSmart 535 **requires two limit magnets** for the firmware's gate position monitoring. Two limit sensors are provided, one for the open limit and one for the close limit.

1. Set the AC and DC switches to OFF.
2. Push the gate to the full CLOSED position.
3. With a Sharpie, mark the fixed link directly in front of the limit sensor.
   a. Note: fixed link will be in contact with the idler.
4. Push the gate open ~12 inches to access the mark on the chain.
5. Attach the limit magnet to the marked fixed link. (Figure 20) Point the magnet towards the operator.

Note: Do not set limits at the physical OPEN and CLOSE stop. Leave a 1 to 2 inch (2.5 - 5 cm) gap to allow slack in the chain to prevent wear and avoid stress on gate hardware.

6. Repeat steps for the OPEN position magnet.
   a. Move gate to Open.
   b. Mark fixed link directly in front of the limit sensor.
   c. Push closed ~12".
   d. Add limit magnet to marked fixed link.

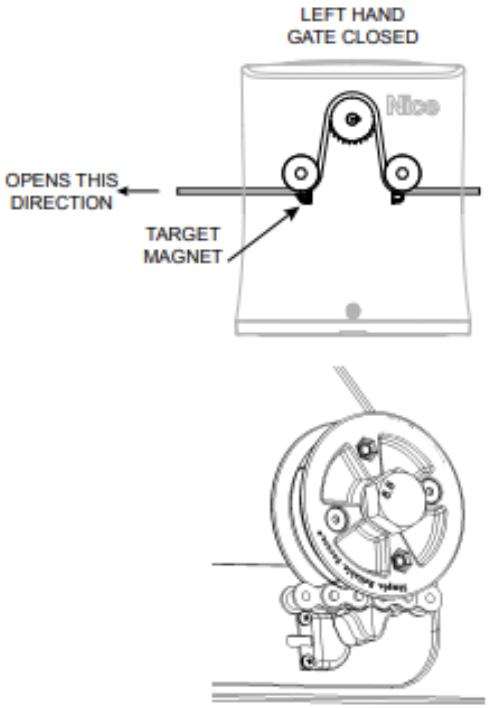



Figure 19. Magnet aligns with Limit Sensor at Full Open and Close positions.

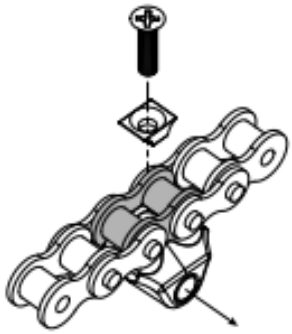


Figure 20. Target Magnet Toward Operator Attached to a Fixed Link

## INSTALLING CHAIN COVER

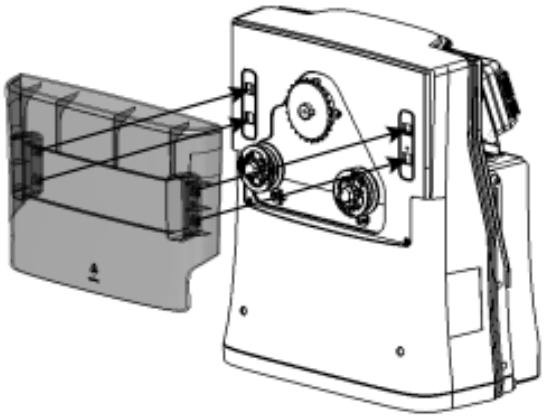


Figure 21. Attach Chain Cover

1. Align the chain cover tabs to the rear cover slots and then push down to snap it in place.
2. For additional safety, install the lock pin to prevent easy removal of the chain cover.

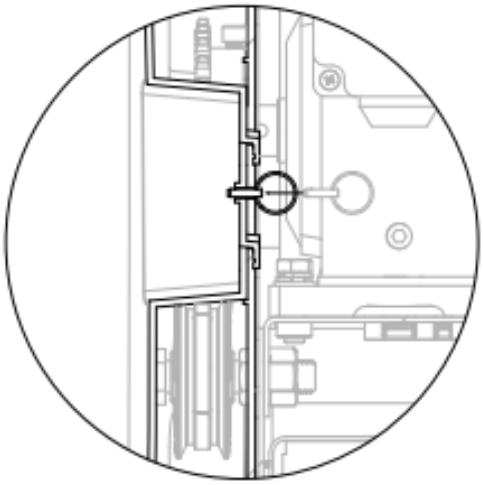


Figure 22. Install Spring Pin

## Load Software - (Same for Swing & Slide)

Use the USB supplied with the retrofit kit to update the controller and drive boards. When loading is complete, the software version should be h6.09 or higher. Note: on rare occasions, the software may need to be loaded twice to assure both controller and drive board software are at the save revision.

# Firmware Updates and Debug Data

**Download the firmware to a USB drive:**

1. Go to support.hysecurity.com, click on Software, click SmartTouch 725 Code h6.##, and click h6.##. cnx to download the firmware file.
2. Connect a USB drive to your computer.

Note: FAT32 is the preferred file system for USB drives used for firmware updates.

3. Navigate to the download folder with the .cnx file.
4. Copy the .cnx file to the root folder of the USB drive.
5. Properly disconnect the USB drive.

**Install the firmware:**

1. Move the gate to the open position to allow free flow of traffic. The SmartTouch 725 Controller ignores all inputs and outputs during the firmware update.
2. Plug the USB drive into the USB port on the SmartTouch 725 Controller (Figure 57).
3. Press SELECT when USB OPTIONS MENU appears.
4. Press the UP or DOWN arrow to LOAD SW and press SELECT.
5. Press the UP or DOWN arrow to YES and press SELECT.
6. The display shows LOADING FW while the firmware loads. It could take up to 10 minutes to load the firmware.

**NOTICE**

Do not shut off power. Do not remove the USB or HSP1 communication cable during download. This can cause SmartTouch 725 Controller communication to stop and requires a SmartTouch 725 Controller replacement.

7. The display shows COMPLETE and the controller beeps once when software loading ends.
8. Remove the USB drive.

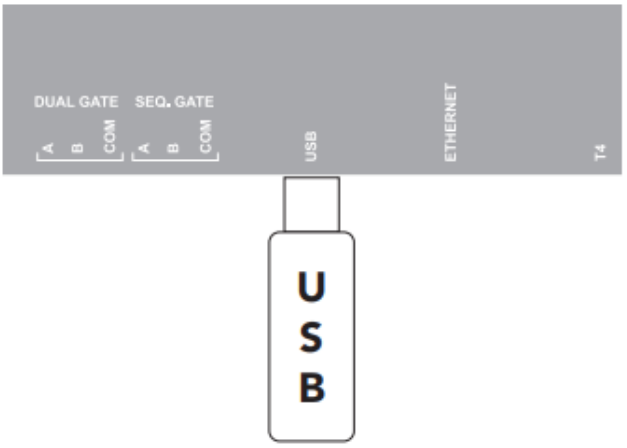
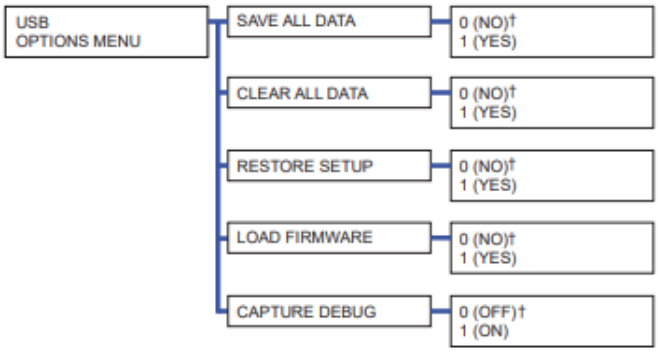



Figure 57. USB Port




SAVE ALL DATA save the event log data, any stored debug data events, and the menu setup file.

CLEAR ALL DATA clears the event log and any stored debug data.

RESTORE SETUP loads a saved menu setup file onto a new SmartTouch 725 controller or operator.

LOAD FIRMWARE loads new firmware after plugging in a USB drive with firmware for updates.

CAPTURE DEBUG saves real time debug data onto a USB drive until the setting is changed to 0 (OFF) or the stop button is pressed. The debug data can be used to determine if there are any intermittent input activations.

**Setting Limits – (Slide ONLY)**

# Initial Setup

## CONFIGURE THE SETUP MENU (SLIDE)

The first time the SmartTouch 725 controller powers on, you must set USAGE CLASS, GATE HANDING, and LEARN LIMITS before normal operation.

1. Set the DC and AC switches to ON. Firmware version appears on the display and then USAGE CLASS - 0.
2. Press SELECT, press the UP or DOWN arrow to navigate to the correct USAGE CLASS (page 5), and press SELECT to accept value.
3. Press the UP or DOWN arrow until GATE HANDING appears on the display, press SELECT, press the UP or DOWN arrow to navigate to the correct option, and press SELECT to accept value.
4. The SmartTouch 725 controller resets, display shows "1 (STARTING) - SCAN BLUEBUS" then shows "SCANNING FOR BLUBUS".
5. After BlueBus Scan, operator display shows "LEARN OPEN - INCHES 000.0".
6. Hold the OPEN button until the gate slides to the desired open position. Release the OPEN button.

When Open limit magnet is directly in front of its sensor, the Open Limit LED will illuminate on the SmartTouch 725 board.

7. Press SELECT twice to store the full open position in memory.
8. Hold the CLOSE button until the gate slides to the desired close position. Release the CLOSE button.

When Close limit magnet is directly in front of its sensor, the Close Limit LED will illuminate on SmartTouch 725 board.

9. Press SELECT twice to store the full close position in memory.
10. Operator resets, and GATE CLOSED appears on the display.

Note: NO AC POWER flashes if the AC power is not connected or the AC power switch is set to OFF.

**⚠ WARNING**

Do not set limits at the physical OPEN and CLOSE stopLeave a 1 to 2 inch (2.5 - 5 cm) gap to allow slack in th chain to prevent wear and avoid stress on gate hardware.

11. Press Open to cycle operator to Open position. Press Close to cycle operator close. Verify the limts are not set at the physical stops. If required, relearn limits to establish this necessary gap.

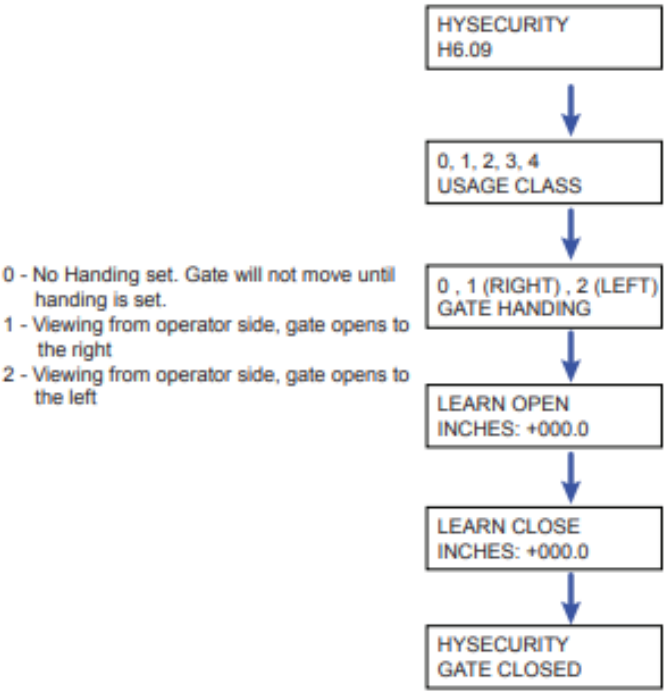



Figure 21. Configuring Setup Menu

## NAVIGATE THE MENUS

Press MENU/BACK to enter the menus or to exit the current screen (up one level without saving any changes).

Press the UP or DOWN arrow to change the current selection until you find the one you want.

Press SELECT to access the menu or sub-menu. Press SELECT to accept the current option or value.

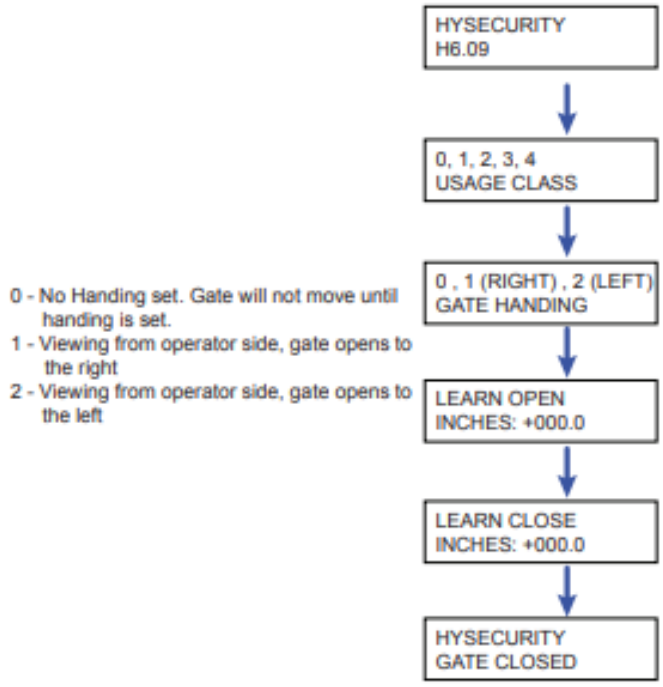
Note: These navigation instructions are the same throughout the SmartTouch 725 controller menus.

## Setting Limits – (Swing ONLY)

# Initial Setup

### CONFIGURE THE SETUP MENU (SWING)

The first time the SmartTouch 725 controller power on, you must set USAGE CLASS, GATE HANDING, and LEARN LIMITS before normal operator.




1. Set the DC and AC switches to ON. Firmware version appears on the display and then USAGE CLASS - 0
2. Press SELECT, press the UP or DOWN arrow to navigate to the correct USAGE CLASS (page 5), and press SELECT to accept value.
3. Press the UP or DOWN arrow until GATE HANDING appears on the display, press SELECT, press the UP or DOWN arrow to navigate to the correct option, and press SELECT to accept value.
4. The SmartTouch 725 controller resets, display shows "1 (STARTING) - SCAN BLUEBUS" then shows "SCANNING FOR BLUBUS".
5. After BlueBus Scan, operator display shows "LEARN OPEN - DEGS 000.0".
6. Press the OPEN button and the gate will slowly move to, and stop on, the open limit.
7. Press the stop/select button twice to store the open limit position. Display will show Learn Close.
8. Press the CLOSE button and the gate will slowly move to, and stop on, the close limit.
9. Press the SELECT button twice to store the close limit position. Operator will reset and display Gate Closed.

### NAVIGATE THE MENUS

Press MENU/BACK to enter the menus or to exit the current screen (up one level without saving any changes).

Press the UP or DOWN arrow to change the current selection until you find the one you want.

Press SELECT to access the menu or sub-menu. Press SELECT to accept the current option or value.

Note: These navigation instructions are the same throughout the SmartTouch 725 controller menus.


Figure 42. Configuring Setup Menu