

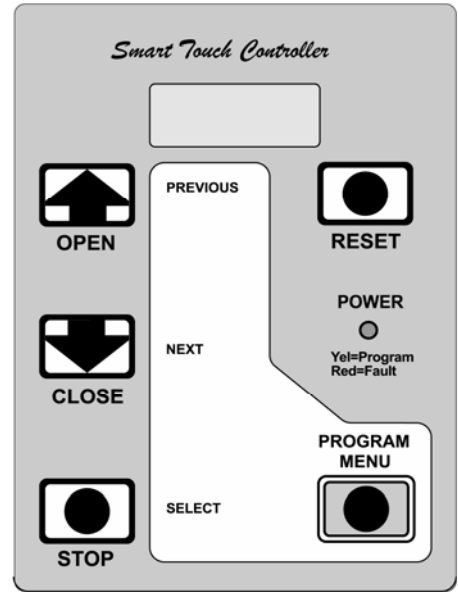
## Smart Touch Basics

Read this page if you are unfamiliar with using the Smart Touch Controller.

You must learn to navigate and change menu settings with the Smart Touch Controller before an installation can be completed or any control settings or function changes can be made.

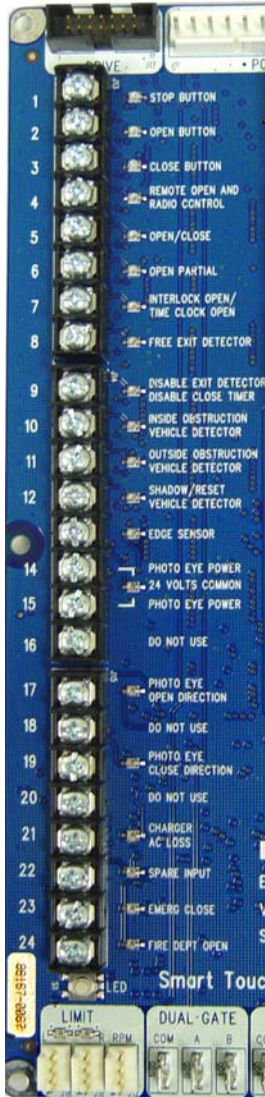
**Until a new operator has been configured, the controls are not functional and the display is locked in the menu mode until the User Class 1-4, and Left or Right hand use have been selected. See the page 19 for instructions on how make these settings.**

1. There are five buttons on the membrane switch pad that provide total operator control. The Open, Close and Stop buttons serve as a three-button control station, but in Menu Mode, they become Previous, Next and Select buttons. The Program Menu button is used to both enter and exit Menu Mode. The Reset button clears all Errors and Faults and returns the operator to its normal functioning state.
  - a. Press the Next button to move forward through the list of available menu items, as shown on pages 25 and 26, or press the Previous button to move back an item.
  - b. Press the Select button to select a menu item to change. The menu item will flash to indicate that its setting is ready to be changed.
  - c. Press Next to move forward or Previous to go back through available settings.
  - d. When you have located the new setting that you want to use, press the Select button and the program accepts the change and stops blinking.
  - e. The Program Menu button does not allow an Exit to Run while a selection is still blinking. Press the Select button to confirm the new setting and stop the blinking. Then exit to Run Mode.
  - f. Pressing the Next or Previous buttons when the menu item is not blinking moves to the next or previous menu item.
  - g. When done, press Program Menu to exit to Run Mode.
2. When in a Menu Mode, changes to be made to a Menu setting are accomplished by pressing the Previous, Next and Select buttons in the following sequence:
  - a. Press the Next button to move forward through the list of available menu items, as shown on pages 25 and 26, or press the Previous button to move back an item.
  - b. Press the Select button to select a menu item to change. The menu item will flash to indicate that its setting is ready to be changed.
  - c. Press Next to move forward or Previous to go back through available settings.
  - d. When you have located the new setting that you want to use, press the Select button and the program accepts the change and stops blinking.
  - e. The Program Menu button does not allow an Exit to Run while a selection is still blinking. Press the Select button to confirm the new setting and stop the blinking. Then exit to Run Mode.
  - f. Pressing the Next or Previous buttons when the menu item is not blinking moves to the next or previous menu item.
  - g. When done, press Program Menu to exit to Run Mode.
3. Once configured, the operator is in the Run Mode. To gain access to the User Menu or the Installer Menu from the Run mode, follow these steps:
  - a. Note that the Program Menu button will not function unless the gate is at rest, no open or close inputs are active and the operator is not showing a Fault, Alert or Error. Verify system status by viewing lighted (active) inputs. Active inputs are lighted on this and all "New Generation" (post September 2006) Smart Touch operators (other than DC operators without AC power). Verify active inputs on New Generation DC operators (running without AC power) and "Classic" pre-September 2006 operators, by pressing the tact button on the Smart Touch Controller (see page 23). If necessary, clear Alerts, Faults or Errors by pressing the Reset button on the Smart Touch Controller membrane switch.



# Wiring Control Inputs

1. Test open and close before wiring the external control inputs. This makes it easier to troubleshoot if an unexpected functionality arises. Smart Touch Operator inputs use an LED to indicate when it is active. This button is in bottom corner near the Fire Department Open input.
2. All the control device inputs listed below are shown as a single input. The 2nd wire is connected to the Common Terminal Buss on the Power Supply board. The Emergency Close and Fire Dept. Open inputs are an exception and require a +24 Volt input. The +24 is located on the spade terminals next to the Common Buss. See pictures on the next page.



## Smart Touch Controller Inputs

1.	<b>*Stop Push button</b> N.C. input, jumper to Common if unused
2.	<b>*Open Push Button</b> Not for radio or remote access controls
3.	<b>*Close Push button</b> Not for radio or remote access controls
4.	<b>Remote Open &amp; Radio Control</b> For radio / remote open device – Program to also Close using Smart Touch menu
5.	<b>Open/Close button</b> Pushbutton or radio controls
6.	<b>Partial Open</b> Installer adjustable from 7- 99 seconds
7.	<b>Open interlock input or Time clock Open</b> Menu configurable
8.	<b>Free Exit vehicle detector</b>
9.	<b>Disable Free Exit vehicle detector or Timer to Close</b> Free Exit is only disabled if Close Limit Switch is tripped. If the gate is partially opened, the Free Exit detector will trigger the gate to open fully.
10.	<b>Inside Obstruction vehicle detector</b> Inside reversing loop
11.	<b>Outside Obstruction vehicle detector</b> Outside reversing loop
12.	<b>Shadow/Reset vehicle detector</b> Shadow function used for Swing gates only - Reset function is for Arm gates
13.	<b>Edge Sensor</b> One input works for both travel directions
14-15.	<b>Photo eye Common Power</b> 24V common connection for open and close photo eyes
17.	<b>Photo eye Open direction</b>
19.	<b>Photo eye Close direction</b>
21.	<b>Charger AC power loss</b> Only used in DC, battery type operators
22.	<b>Spare Input</b> Software ≤ h3.26,- non functional, <b>Gate Lock Interlock Input</b> Software > h3.26, prevents start until external gate lock releases
23.	<b>**Emergency Close</b> Must menu enable and input +24 Volts to trigger. Requires constant hold or maintained input. This overrides photo eyes, gate edges & vehicle detectors.
24.	<b>**Fire Dept. Open</b> Must menu enable and input +24 Volts to trigger. Overrides photo eyes & gate edge.



\*Do not connect an external control to terminals #1, 2 or 3, unless controls are located in clear view of the entire gate area. Out of sight controls: use input terminals #4, 5, 6 or 7.

\*\*The Emergency Close and Fire Dept. Open inputs are to be used only if access to these controls is guarded such that there is always supervision when activated.

## Installation Configuration for Smart Touch Controller

### Setting Operator Handing and Usage Class

1. Connect the hydraulic hoses to the quick couplers on the pump in order to configure left or right hand opening function (as viewed from the secured side of the gate). There is a label near the connection point describing this procedure. Also see the illustration on page 13. If the hoses are connected incorrectly, the gate will run backwards (close when open button is activated) and this may trigger an error [Err 1] on the LCD display. (The Reset button must be pushed if this happens).
2. Turn on the power switch and observe that the LCD will first show the software version, and then stop at a steady display within two seconds. If the display reads [uC 0] go to step 3. If the operator has previously been configured, the Installer Menu must be accessed in order to reach the system configuration menu items: See step #3d at the top of this page.
3. When turning on the power for a new machine, the LCD display directly enters the Installer Menu at the [uC \_\_] menu item, which is for selecting the user class as defined by UL. Select [uC 1] - [uC 2] - [uC 3] or [uC 4] depending upon the use application. See page 34 for UL usage class definitions.
4. To set the operator handing, use the "Next" button and move one click down the menu to item [Sh \_\_] Enter r for right hand or L for a gate that opens to the left. Never alter the limit switch mounting or change the order of their connection to the controller board. At this point you should exit the Installer Menu, by pressing the Program Menu button. The LCD display jumps to the close timer [Ct\_\_] setting in the User menu, which may now be set. Either press the Program Menu button again to exit to normal run mode or set the close timer by the same programming sequence described at the previous page.
5. **Note that the Installer menu cannot be exited by any means until the selection for UL usage class [uC \_\_] and the selection for gate handing [Sh \_\_] have been entered.**
6. Test for normal function of the gate operator, with the wheels unclamped, by running it both open and closed from the pushbuttons on the membrane switch pad. Neither limit switch should be triggered at the start of this test or an alert [ALE6] may trigger because the control did not sense gate motion. If this occurs a new input will restart the motor.

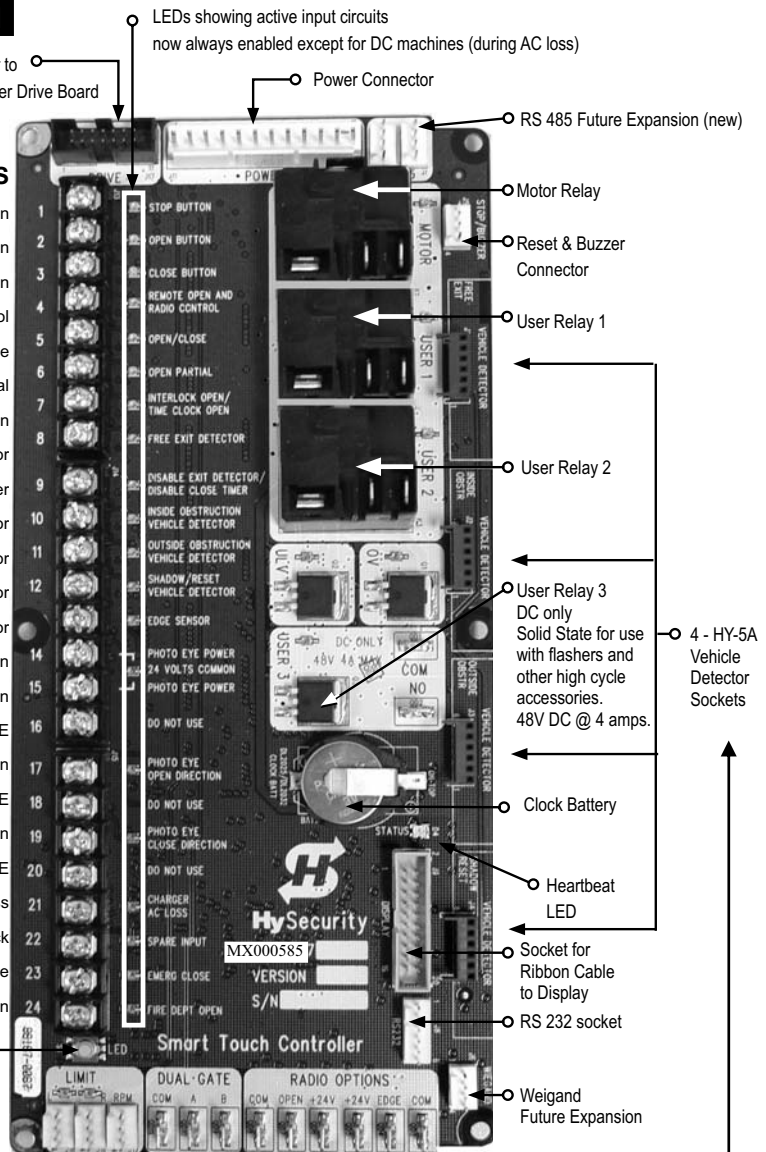
- b. Press the Program Menu button and watch the LCD scroll the system data, or press the Program Menu key a 2<sup>nd</sup> time to skip the scroll. The scrolled data displays the information in the table on page 25.
  - c. The LCD display scroll will stop at the menu item for the automatic close timer setting [Ct \_\_]. This is the first item in the User Menu.
  - d. To access the more detailed Installer Menu, first go to the User Menu. Then press and hold the Reset button and while holding, press the Open button. The LCD will change to display the UL usage class menu item [uC \_\_] This is the first item in the Installer Menu.
4. Pressing the Program Menu button when the User or Installer Menu is not blinking will return the system to the Run Mode.

**“New Generation” Smart Touch Board**

Runs software 4.xx and higher

- |     |   |
|-----|---|
| 1.  | Stop Button                                 |
| 2.  | Open Button                                 |
| 3.  | Close Button                                |
| 4.  | Remote Open & Radio Control                 |
| 5.  | Open / Close                                |
| 6.  | Open Partial                                |
| 7.  | Interlock Open / Time Clock Open            |
| 8.  | Free Exit Detector                          |
| 9.  | Disable Exit Detector / Disable Close Timer |
| 10. | Inside Obstruction Vehicle Detector         |
| 11. | Outside Obstruction Vehicle Detector        |
| 12. | Shadow / Reset Vehicle Detector             |
| 13. | Edge Sensor                                 |
| 14. | Photo Eye Power (-) 24 Volts Common         |
| 15. | Photo Eye Power (-) 24 Volts Common         |
| 16. | DO NOT USE                                  |
| 17. | Photo Eye Open Direction                    |
| 18. | DO NOT USE                                  |
| 19. | Photo Eye Close Direction                   |
| 20. | DO NOT USE                                  |
| 21. | Charger AC Loss                             |
| 22. | Gate Lock Interlock                         |
| 23. | Emergency Close                             |
| 24. | Fire Department Open                        |

Tact button. Push tact button to make active input LEDs light up when AC is off on DC operators.



**Power Supply Board**



24V AC Accessory power

24V DC Accessory Power (+)

Common Buss (-)

**HY-5A Vehicle Detector**

