

FIGURE 1—SAM Layout & Wiring Connections

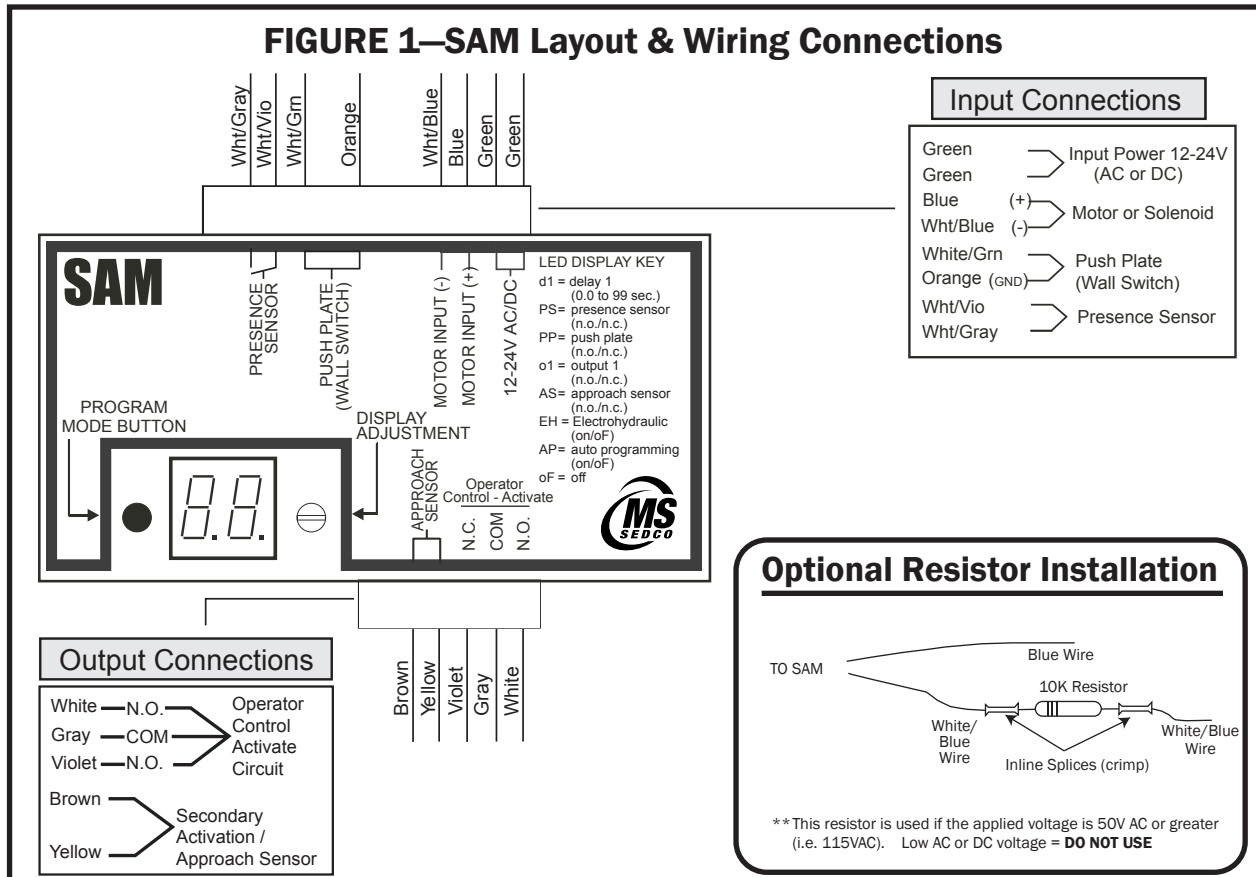


FIGURE 2a—SAM Wiring Diagram

Operator Type: Electromechanical

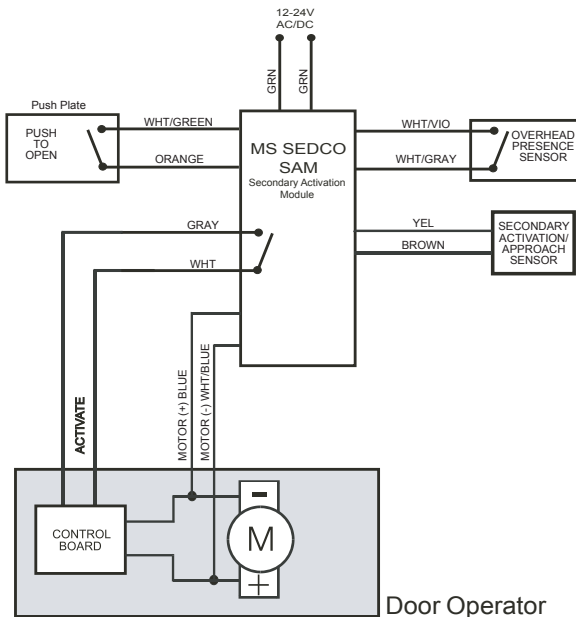


FIGURE 2b—SAM Wiring Diagram

Operator Type: Electrohydraulic with or without Solenoid

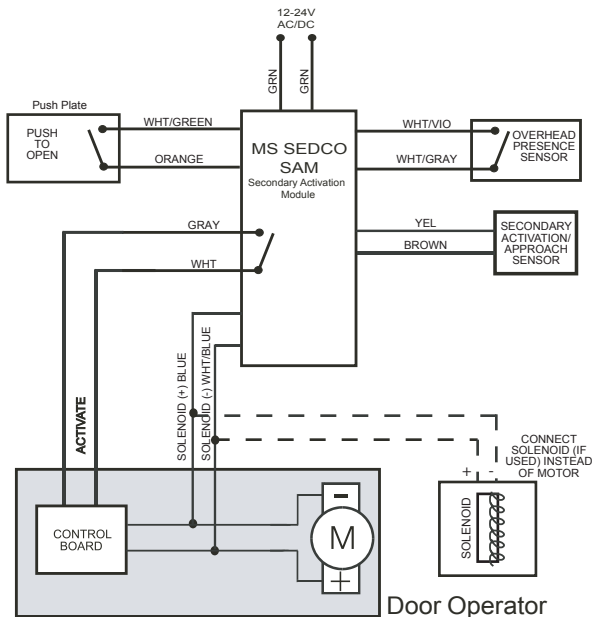
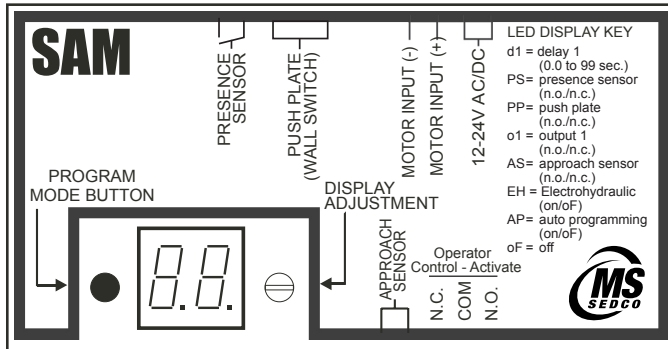


FIGURE 3—Operating and Programming Instructions



LED DISPLAY KEY

- (flashing) = Ready Mode
- Push **Program Mode Button**
- 1 Time = d1 0.0 - 99 seconds (Relay Lock Out Time)
- 2 Times = PS n.o. or n.c. (PS = Presence Sensor)
- 3 Times = PP n.o. or n.c. (PP = Push Plate)
- 4 Times = o1 n.o. or n.c. (o1 = Relay Output 1)
- 5 Times = AS n.o. or n.c. (AS = Approach Sensor)
- 6 Times = EH On or Off (EH = Electrohydraulic)
- 7 Times = AP On or Off (AP = Auto Program Mode for Relay Lockout Time)

Programming Instructions: Please read these instructions completely before proceeding.

- 1) Apply power to the SAM. The display will flash double bars (--). This indicates the SAM is ready to be programmed.



NOTICE: The SAM is equipped with an **Auto Program Mode** that will automatically program the necessary relay lockout time for the presence (safety) sensor (electromechanical operators only)—OR— you can manually select the relay lockout time you desire.

- 2) Press the **Program Mode Button** one time. The **LED display** will flash between d1 and 3.0. This is the factory setting relay lockout time of 3 seconds for the presence (safety) sensor. (a) If you want to use the **Auto Program Mode**, simply press the **Program Mode Button** again and proceed to step 3. (b) If you want to manually set the relay lockout time, use a screwdriver to turn the **Display Adjustment Knob** clockwise to increase or counter-clockwise to decrease the time. Press the **Program Mode Button** to save the setting.
- 3) The **LED display** is now flashing between PS (Presence or Safety Sensor) and n.o. (normally open) and n.c. (normally closed) by turning the **Display Adjustment Knob**, depending upon how the presence (safety) sensor relay output is wired. In most applications the output should be set to n.o. (factory setting). Press the **Program Mode Button** again to save the setting.
- 4) The **LED Display** is now flashing between PP (Push Plate) and n.o. Select between n.o. and n.c. by turning the **Display Adjustment Knob**, depending upon how your push plate output is wired. In most applications, the output should be set to n.o. (factory setting). Press the **Program Mode Button** again to save the setting.
- 5) The **LED Display** is now flashing between o1 (Output 1) and n.o. Output 1 is the output to the activate circuit on the operator control. Select between n.o. and n.c. by turning the **Display Adjustment Knob**, depending upon the desired relay output for Output 1. The activate circuit of most operator controls is n.o. (factory setting). Press the **Program Mode Button** to save the setting.
- 6) The **LED Display** is now flashing between AS (Approach Sensor) and n.o. Select between n.o. and n.c. by turning the **Display Adjustment Knob**, depending upon how your Approach Sensor relay output is wired. In most applications, the output should be set to n.o. (factory setting). Press the **Program Mode Button** again to save the setting.
- 7) The **LED Display** is now flashing EH (electrohydraulic) and oF (off). Select between ON and OFF by turning the **Display Adjustment Knob**, depending upon the type of door operator. EH=ON is for an Electrohydraulic and EH=OFF is for an Electromechanical operator. Press the **Program Mode Button** again to save the setting. Note: If electrohydraulic mode is selected, the AP (**Auto Program Mode**) will always be locked in the OFF position and the time set for d1 will be used. (See step 2).
- 8) The **LED Display** is now flashing AP (**Auto Program Mode**) and oF (OFF). Select between OFF and ON by turning the **Display Adjustment Knob**. When set to ON, the relay lockout time d1 is automatically programmed. When set to OFF, the relay lockout time d1 must be manually programmed (step 1). Press the **Program Mode Button** to save the setting.



NOTICE: Once the **Auto Program Mode** has been set to ON and saved, no other programming changes can be made without first removing and then reapplying power to the unit.

Auto Program Mode ON = LED Display is Blank. Clear the opening and activate the door. It will open and close one time. The **LED Display** will flash (--). This indicates the relay lockout time has been successfully programmed. Activate the door again and the **LED Display** will count down the closing cycle time.

Auto Program Mode OFF = LED Display flashes (--). This indicates the relay lockout time d1 was manually programmed. Clear the opening and activate the door. The **LED Display** will count down the closing cycle time selected in step 1.

SAM Programming is Complete.



Troubleshooting:

Problem: When I activate the door it does not open and the LED Display Flashes PS when the presence (safety) sensor is not activated.

Solution: The presence (safety) sensor is not programmed correctly (Step 3). Make sure the wiring of the presence (safety) sensor relay output matches the SAM programming of either n.o. or n.c.

Problem: When I apply power to the door it immediately goes to hold open.

Solution 1: Output o1 is programmed incorrectly (Step 5). Make sure program setting matches the activate circuit on the operator control of either n.o. or n.c.

and/or

Solution 2: The Push Plate is not programmed correctly (Step 6). Make sure the wiring of the push plate output matches the SAM programming of either n.o. or n.c.

Problem: I set the Auto Program Mode ON and activated the door one time to program the door's closing time. Now the door will not reopen when I activate it.

Solution: The motor input wires connected to the SAM are polarity sensitive. Remove power to the SAM, reverse the motor input wire connections and reapply power. Refer to Figure 3 and reprogram the device.



WARNING: You must first remove power to the SAM BEFORE reversing the motor wire connections & then reapply power or the device will malfunction.

Problem: I set the Auto Program Mode OFF and activated the door. Now the door keeps reactivating by itself and is standing open.

Solution: The motor input wires connected to the SAM are polarity sensitive. Prop the door open first then remove power to the SAM, reverse the motor input wire connections and reapply power. Refer to Figure 3 and reprogram the device.



WARNING: Removing power to the SAM will cause the door to close. If the door is in the open position when power is removed, be sure to prop it open.

Problem: The timer countdown begins during the opening cycle.

Solution: The electrohydraulic (EH) setting is incorrect (Step 7).
EH=ON=Electrohydraulic operators.
EH=OFF=Electromechanical operators.