

ECO Pro™
Retrofit and New Installation Instructions
204082
Rev. B 10/11/2012

Prohibition on Copying

Any unauthorized reproductions, disclosure or distribution of copies by any person of any portion of this work may be a violation of copyright law of the United States of America and other countries, could result in the awarding of statutory damages of up to \$250,000 (17 USC 504) for infringement, and may result in further civil and criminal penalties. All rights reserved.

Purpose:

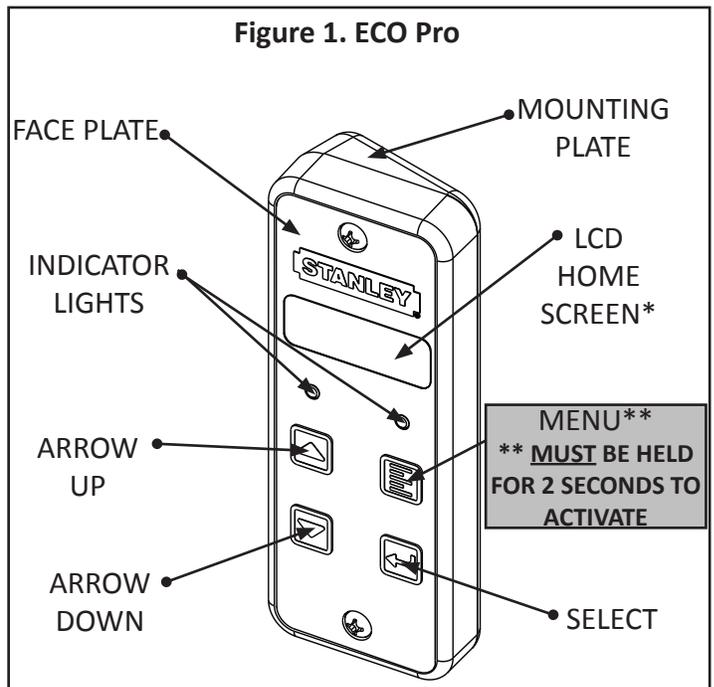
The ECO Pro replaces the conventional function switch and provides advanced user-defined automatic scheduling options, basic troubleshooting instructions, and door performance and history. It is intended to provide an integrated means for two way communication between the door system and the user.

1. Prerequisites

- 1.1 Door system installation instructions
- 1.2 Stanley document #204066 MC521 Pro Installation Instructions
- 1.3 Wiring for MC521 Pro is complete
- 1.4 FIS is performed or controller is showing "A1"

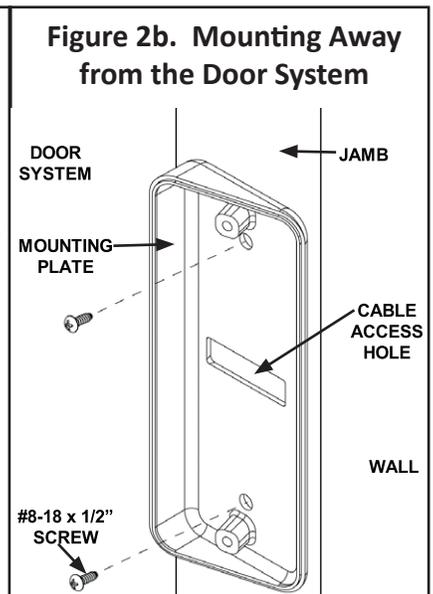
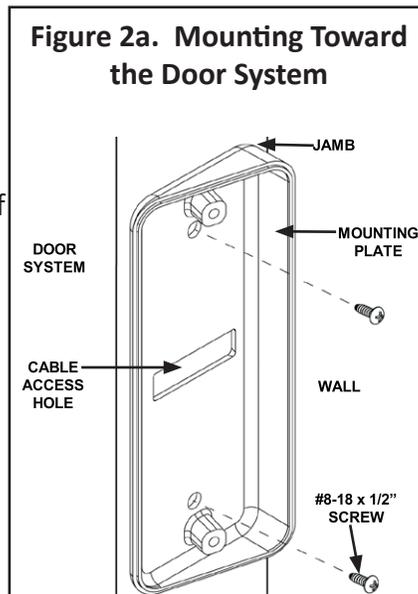
2. Install the ECO Pro

- 2.1 Connect Wiring Harness to Controller
 - 2.1.1 Open the header and Refer to Attachment 1 "ECO Pro Wiring Diagram."
 - 2.1.2 Connect wiring harness to TB7 on MC521 Pro Controller.
- 2.2 Route Wiring Harness
 - 2.2.1 Route harness across header using best practices and through the jamb to cable access hole.

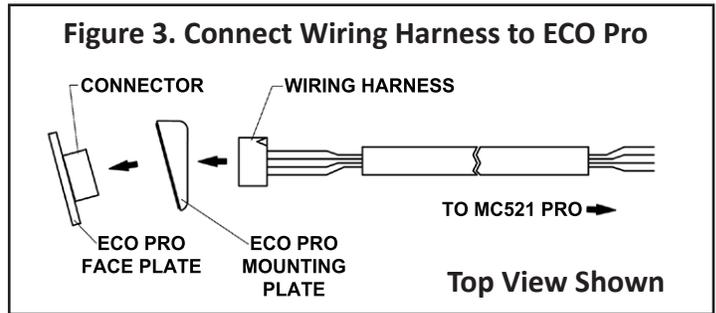


Note:
This may be in the general or same location as the typical rotary switch

- 2.3 Attach Mounting Plate
 - 2.3.1 Determine customer-preferred orientation of mounting plate. Refer to Figures 2a & 2b for orientation options.
 - 2.3.2 If necessary, use Mounting Plate as a template. Refer to Attachment 2, Machining Diagram for additional information.
 - 2.3.3 Attach using # 8-18 x 1/2" screws, provided.



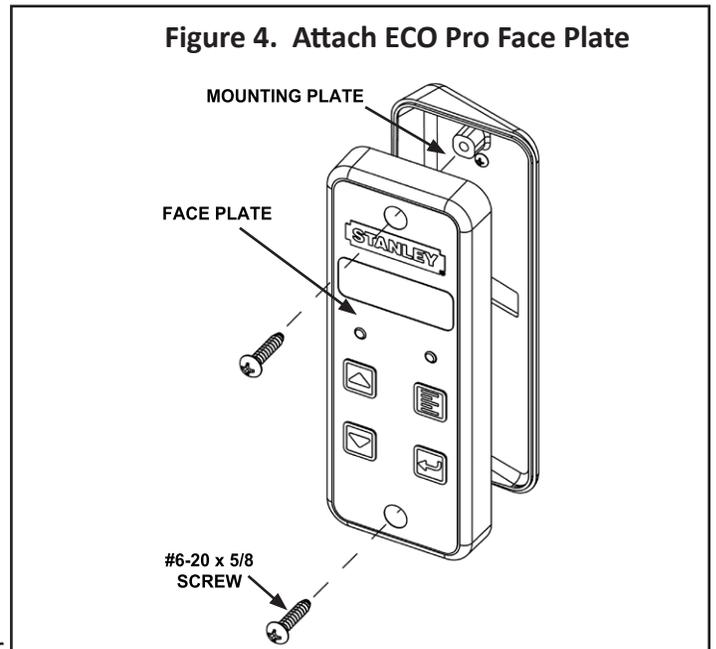
- 2.4 Connect Wiring Harness to ECO Pro
 - 2.4.1 Locate connector on back of ECO Pro face plate.
 - 2.4.2 Refer to Figure 3 and plug wiring harness from MC521 Pro to ECO Pro connector.



- 2.5 Verify Power to ECO Pro
 - 2.5.1 Turn on the MC521 Pro Controller and verify the ECO Pro is receiving power.

Note:
Screen will read "Closed Locked"

- 2.5.2 Turn off power.
- 2.6 Attach ECO Pro Face Plate
 - 2.6.1 Refer to Figure 4. Using the #6-20 X 5/8" screws provided, attach ECO Pro face plate to mounting plate.
 - 2.6.2 Feed unused wiring length into the jamb; use best practices to avoid causing damage to harness.



- 2.7 Set Date and Time
 - 2.7.1 Power on MC521 Pro Controller.
 - 2.7.2 From the ECO Pro Home Screen, Press the Menu button, then arrow to "Set Date & Time" and press "Select."



2.7.3 Follow the prompts on the LCD Screen.

3. Configure ECO Pro - Service Menu

- 3.1 Power on MC521 Pro Controller
- 3.2 Access the Service Menu
 - 3.2.1 From the Main Menu, arrow to highlight "Service Functions" and press "Select."



3.2.2 Enter the key sequence as follows:

- Hold “Menu” button (1) and Press “Down Arrow” (2) and **RELEASE both buttons**.
- Then hold “Select” (3) and Press “Up Arrow” (4) and **RELEASE both buttons**.

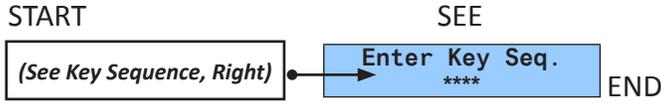
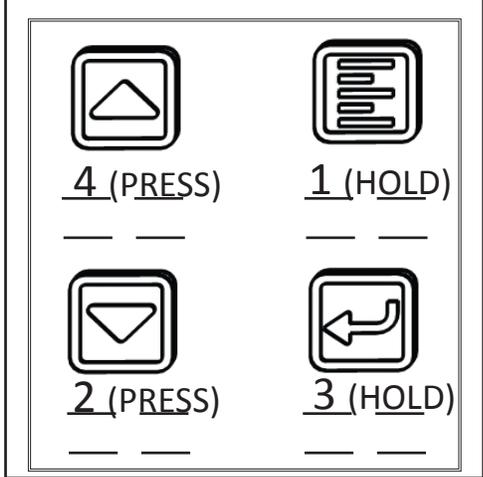


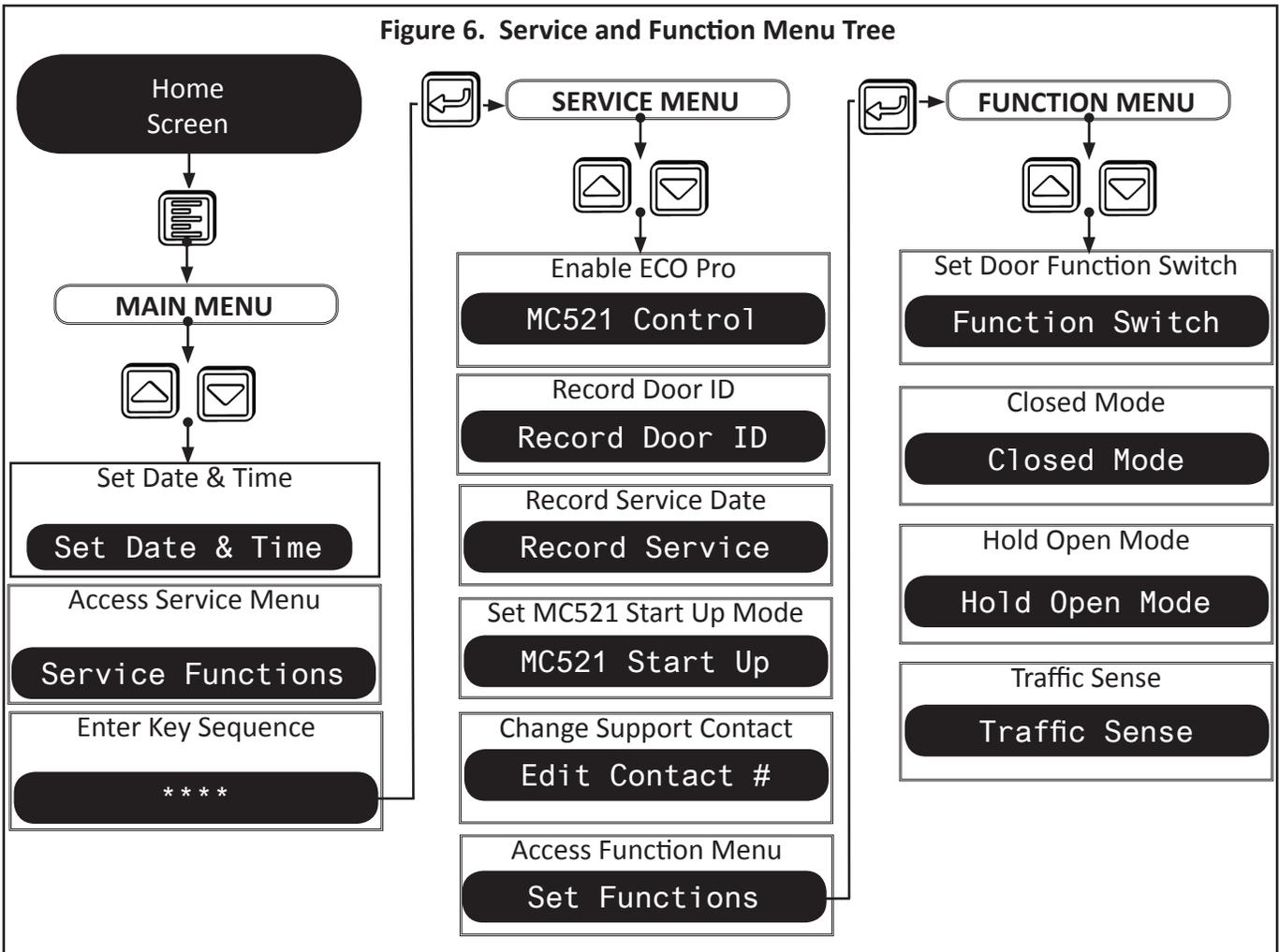
Figure 5. Access the Service Menu



Note:

1. This is a menu intended only for service. It is not intended for customers or end-users.
 2. Reference Figure 6 at any time during installation for additional information.

Figure 6. Service and Function Menu Tree

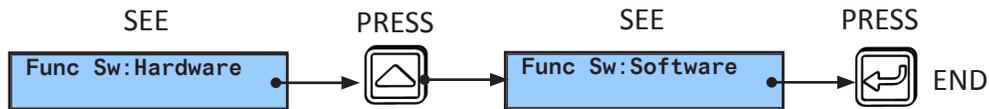


3.3 Enable ECO Pro

3.3.1 From the Service Menu, arrow to “MC521 Control” and press “Select.”



3.3.2 Arrow up to “Function Sw: Software” and press “Select” to save.



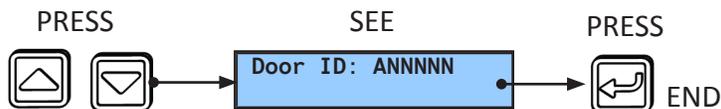
3.4 Record Door ID

3.4.1 From Service Menu, arrow to “Record Door ID” and press “Select.”



3.4.2 Arrow to change letter or number value and press “Select” to move to the next number.

3.4.3 After pressing “Select” on the last character, the Door ID is automatically saved to memory.



Note:
If necessary, the Door ID can be corrected at any time by repeating Section 3.4.

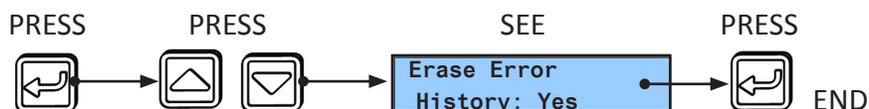
3.5 Record Service Date and Erase Error History

3.5.1 From Service Menu, arrow to “Record Service” and press “Select.”



3.5.2 Confirm service date changed to today’s date. Press Select.

3.5.3 Arrow to “Erase Error History: Yes” and press “Select” to save and return to Home Screen.



3.5.4 Cycle power to the MC521 Pro to erase errors stored in the controller as well.

3.6 Set MC521 Pro Start Up Mode (if necessary)

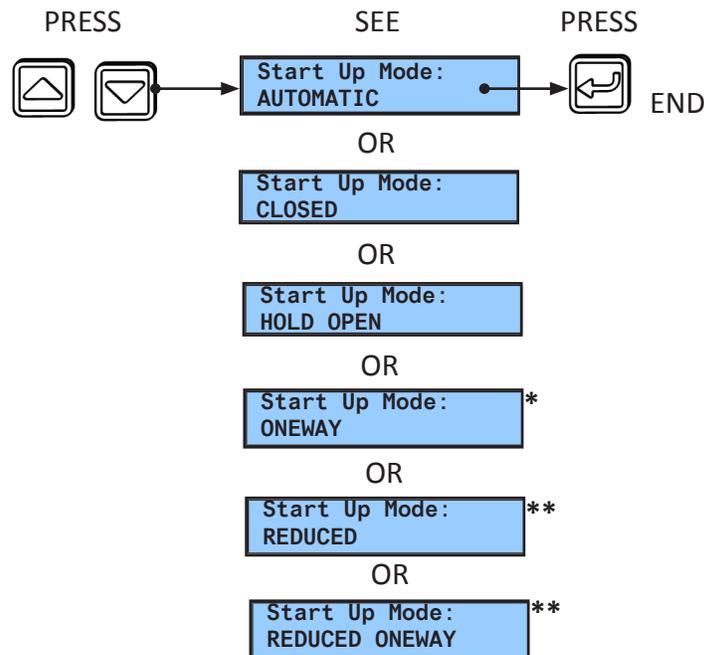
The MC521 Pro Start Up Mode determines the initial operating mode of the door when powered on. The default Start Up Mode is "Automatic."

3.6.1 From the Service Menu, arrow to "MC521 Start Up" and press "Select."



3.6.2 Arrow to the desired Start Up Mode and press "Select" to save.

Note:
The available operating modes depend on selected door functions. See Section 4.2



* 4 or 6 Position Switch Only
** 6 Position Switch Only

3.7 Change Support Contact Information (if necessary)

3.4.1 From Service Menu, arrow to "Edit Contact #" and press "Select."



3.4.2 Arrow to change letter, number value, or symbol {0-9, A-Z, -, (space)} and press "Select" to move to the next character.

3.4.3 After pressing "Select" on the last character, the support contact phone number is automatically saved to memory.

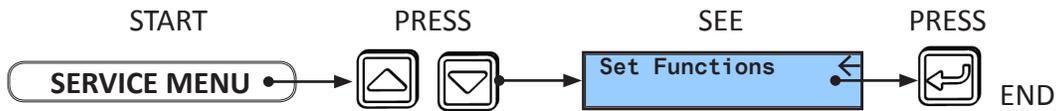


Note:
If necessary, the Contact Service number can be corrected at any time by repeating Section 3.7.

4. Configure ECO Pro - Function Menu

4.1 Access Function Menu

4.1.1 From Service Menu, arrow to "Set Functions" and press "Select."

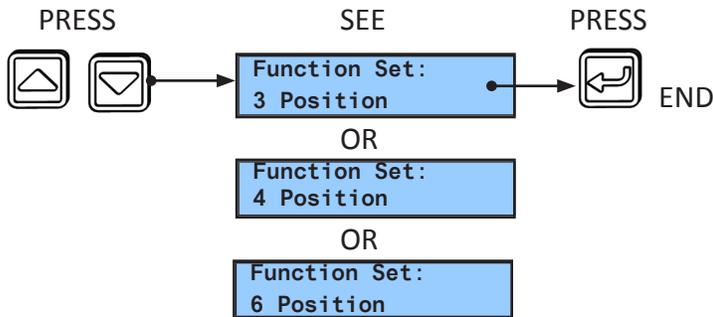


4.2 Set Door Function Switch

4.2.1 From Function Menu, arrow to "Function Switch" and press "Select."



4.2.2 Arrow to either "3 Position," "4 Position," or "6 Position" and press "Select" to save.



Function Set	Modes
3 Position	Hold Open, Closed Locked, Automatic
4 Position	Hold Open, Closed Locked, Automatic, Oneway
6 Position	Hold Open, Closed Locked, Automatic, Oneway, Reduced, Reduced Oneway

Note:
Technicians can change the door function at any time, depending on customer preference.

4.3 Set Options

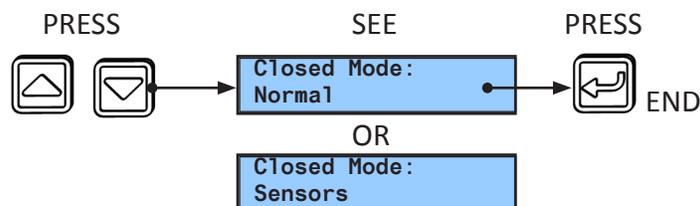
4.3.1 Set Closed Mode.

Closed Mode programs the door operating mode to enable "Oneway" once "Closed Locked" is selected. The door operating mode switches to proper "Closed Locked" once the door is fully closed. This enables full function of sensors while the door closes. Once the door reaches full closed, the sensors will be disabled. Closed Mode is set to "Normal" by default.

- From Function Menu, arrow to "Closed Mode" and press "Select."



- Arrow to either "Normal" for Closed Locked without Oneway function OR to "Sensors" for Closed Locked with Oneway function and press "Select" to save.



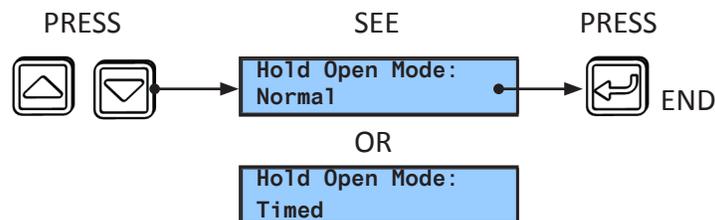
4.3.2 Set Hold Open Mode.

Hold Open Mode allows for ECO Pro to use two different methods of Hold Open. "Normal" Hold Open Mode is the standard method of keeping the door open permanently. "Timed" Hold Open Mode allows the user to select a timed Hold Open selection which keeps the door open for 15 minutes, 30 minutes, 45 minutes or permanently. Once the selected Hold Open time is expired, the doors will return to previous operating mode. Hold Open Mode is set to "Normal" by default.

- From the Function Menu, arrow to "Hold Open Mode" and press "Select."



- Arrow to either "Normal" or "Timed" and press "Select" to save.



4.3.3 Set Traffic Sense.

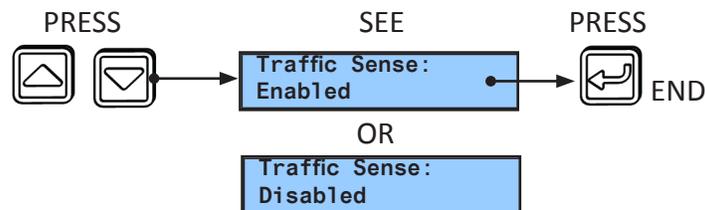
Enabling Traffic Sense allows the ECO Pro to temporarily switch the operating mode from Reduced to Automatic (or Reduced Oneway to Oneway) during periods of high traffic. When traffic returns to lower levels, the operating mode automatically returns to reduced. Traffic Sense is disabled by default and the Traffic Sense Level is set to Off by default.

Note:
Traffic Sense Level is adjusted in the main menu. The user must select a reduced operating mode to utilize Traffic Sense.

- From the Function Menu, arrow to "Traffic Sense" and press "Select."



- Arrow to either "Enabled" or "Disabled" and press "Select" to save.



5. Perform ECO Pro Closeout Procedure

5.1 Remove the LCD Screen protector

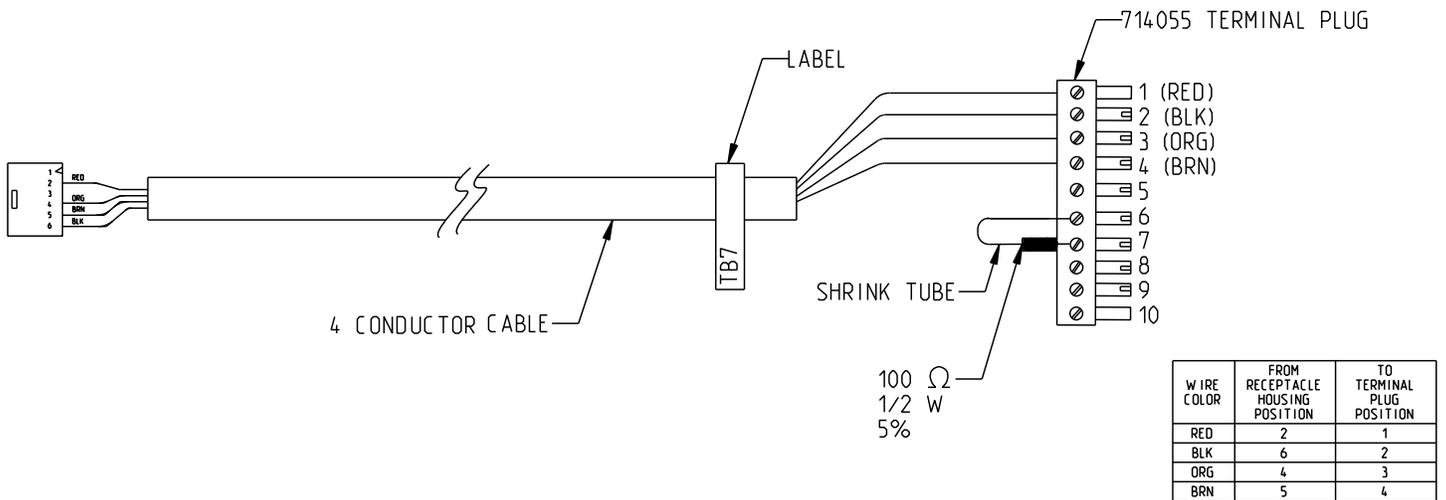
5.2 Verify the door is being controlled by the ECO Pro

5.2.1 From the Home Screen, use Up/Down Arrow keys to change the operating mode of the door from "Automatic" to "Closed Locked." Verify door goes to "Closed Locked." Use Up/Down Arrow keys to change operating mode back to "Automatic." Verify door returns to "Automatic" operation.

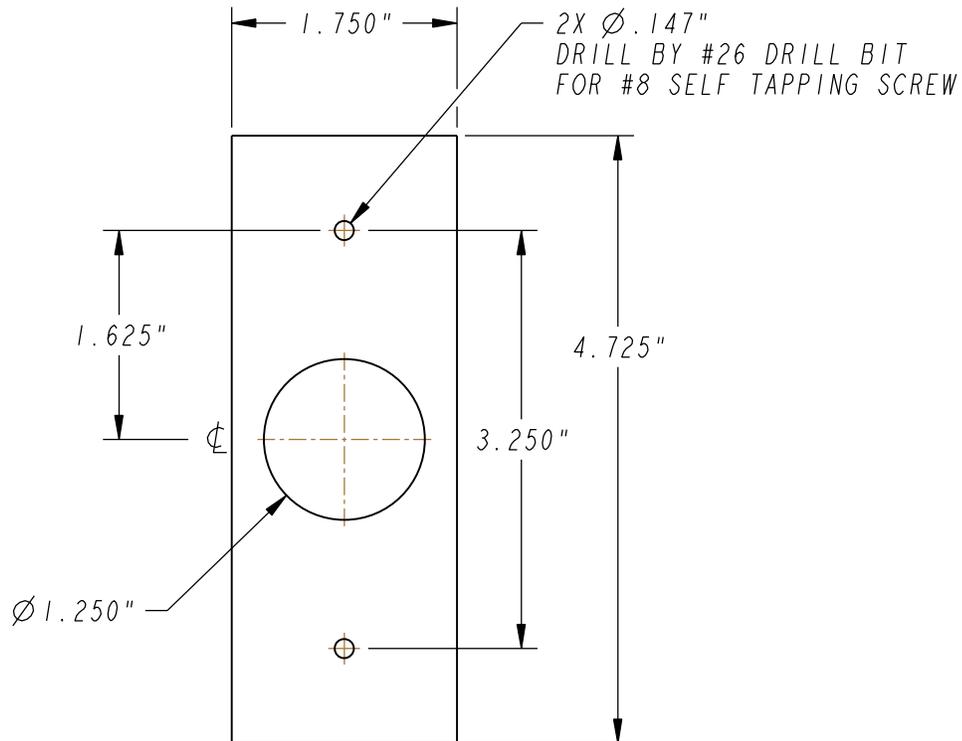
5.3 Refer to Attachment 6 "Quick Start Manual."

5.3.1 Remove Attachment 6 and review basic operation of ECO Pro with the facility owner or person overseeing the daily operation of the door.

Attachment 1. ECO Pro Wiring Diagram



Attachment 2. ECO Pro Machining Reference



Note: This is a reference only drawing. Drawing is not to scale.

ECO Pro Machining Instructions

1. Locate the area where the ECO Pro is to mount.
2. Using a center punch, locate the center for the cable access hole and the mounting holes for the screws.
3. Mark/punch the mounting screw locations.
4. Cut a 1.250" hole using a hole saw.
5. Using a #26 drill bit (.147" dia), drill the 2 holes for the mounting screws.

Attachment 3. ECO Pro Checklists

ECO Pro Configuration Checklist

Step	Action	Reference Section	Complete?
1	Set Date and Time	2.7	
2	Enable ECO Pro	3.3	
3	Record Door ID	3.4	
4	Record Service Date and Erase Error History	3.5	
5	Set MC521 Pro Start Up Mode (Option) <i>Default Start Up Mode is "Automatic"</i>	3.6	
6	Set Door Function Switch <i>Default Function Set is "3 Position"</i>	4.2	
7	Set Closed Mode (Option) <i>Default Closed Mode is "Normal"</i>	4.3.1	
8	Set Hold Open Mode (Option) <i>Default Hold Open Mode is "Normal"</i>	4.3.2	
9	Set Traffic Sense (Option) <i>Default Traffic Sense is "Off"</i>	4.3.3	
10	Perform ECO Pro Closeout Procedure	5	

ECO Pro Service Checklist

Step	Action	Reference Section	Complete?
1	Review Error History: <ul style="list-style-type: none"> • <i>From Main Menu, arrow to "Access Diagnostics Menu" and press "Select"</i> • <i>Arrow to "Display Door Error History" and press "Select"</i> • <i>Press "Menu" to return to Main Menu</i> 	NA	
2	Service Door as Necessary	NA	
3	Record Service Date and Erase Error History	3.5	

Attachment 4. Replacement Parts

Product Description	Stanley Part Number
Harness, ECO Pro to Control Box, 180 inches	417161-1
Harness, ECO Pro to Control Box, 480 inches	417161-2

Attachment 5. Applications

1. Access Control – Full Control by ECO Pro

The ECO Pro / MC521 Pro system can be used with access control systems by connecting the activation output of the access control system to the push plate input of the MC521 Pro (TB4-9 to TB4-10).

In this way the ECO Pro can automatically schedule the correct operating mode of the door with full control.

2. Access Control – Access Control Override of ECO Pro

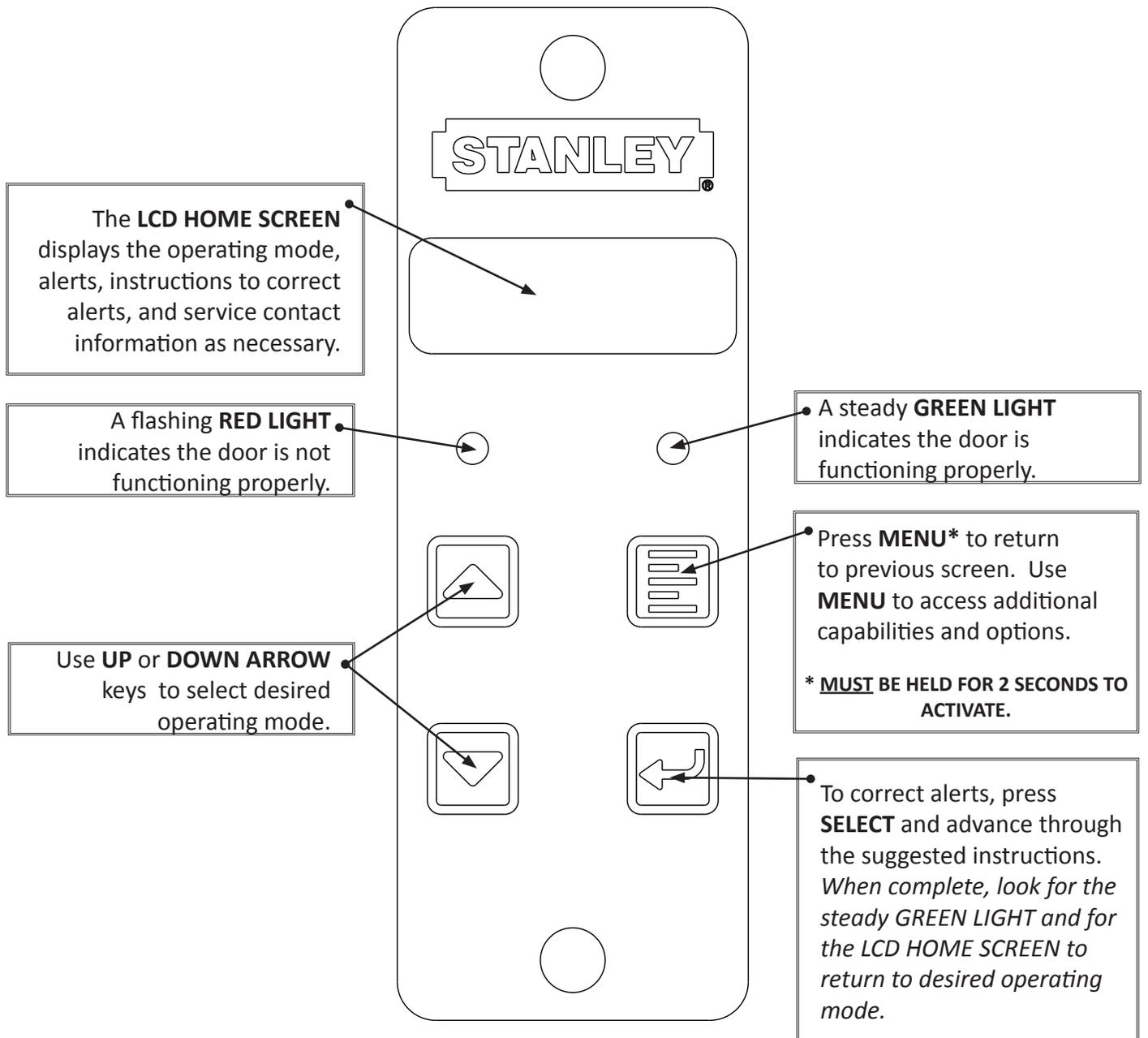
The ECO Pro / MC521 Pro system can be used with access control systems by connecting the activation output of the access control system to the hold open input of the MC521 Pro (TB2-1 to TB2-2).

In this way the ECO Pro can automatically schedule the correct operating mode of the door with full control.

3. “Morning Entry Switch”

The ECO Pro / MC521 Pro system can be used with a morning entry switch that permits users to open the door even though the ECO Pro is set to keep the door in Closed mode. This is accomplished by connecting a switch / key-switch to the hold open input of the MC521 Pro (TB2-1 to TB2-2).

Attachment 6. ECO Pro Quick Start Guide



Installer, Separate from Installation Manual.

This page left intentionally blank.