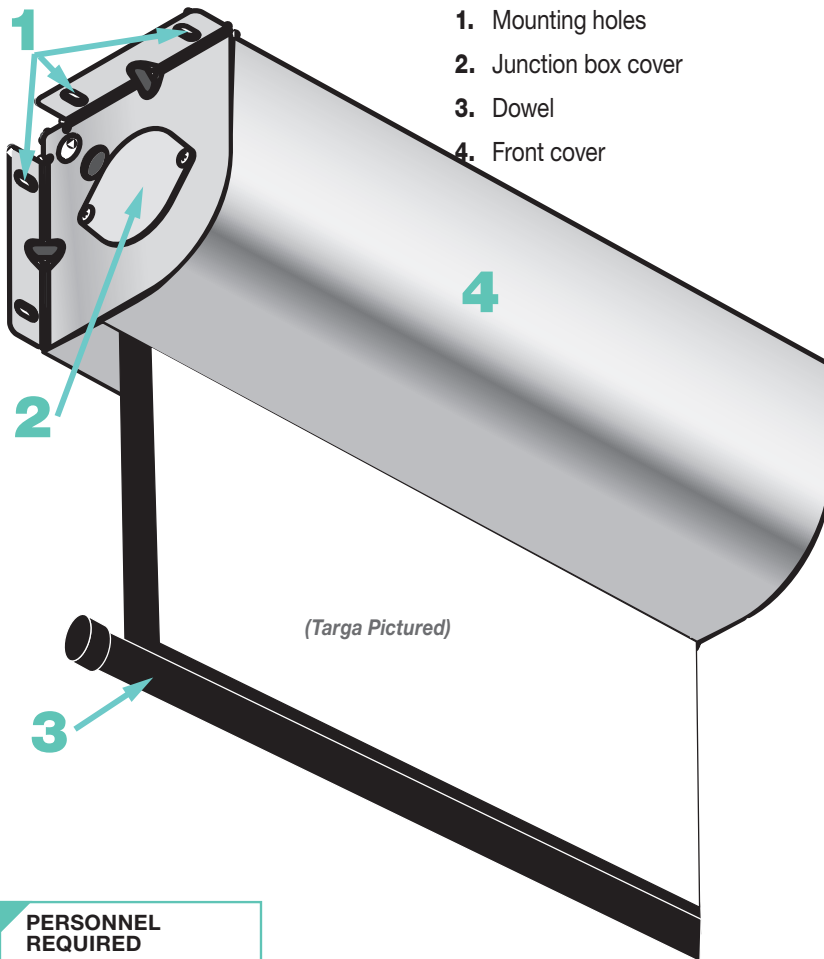


#### Overview - Components



1. Mounting holes
2. Junction box cover
3. Dowel
4. Front cover

(Targa Pictured)



#### ⚠ CAUTION ⚠

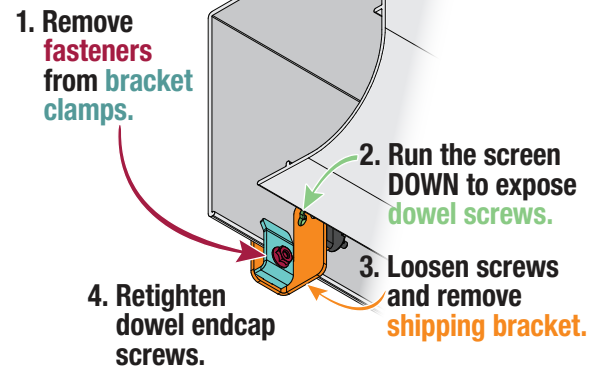
**Read and understand all warnings** (Page 2 of this document) before beginning installation.

#### Section 1 - Removing Shipping Brackets

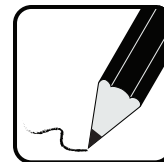
⚠ **CAUTION:** Shipping support brackets must be removed from bracket clamps at each end of dowel before initial operation, and before screen is operated in UP direction.

⚠ **CAUTION:** Raise and lower viewing surface several times to confirm satisfactory operation. If viewing surface does not operate properly, turn power **off** and check electrical connections.

Figure 1



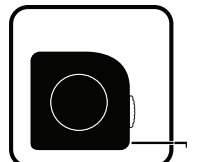
#### TOOLS REQUIRED



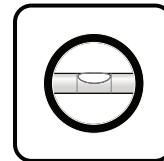
PENCIL



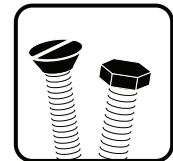
POWER DRILL



TAPE MEASURE



LEVEL



HARDWARE (by others)

#### Contents

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If you have any difficulties installing or servicing your Premier XL / Targa XL, call your dealer or Draper, Inc.

Section 2 - **Electrical Connections**

Screen operates on 110-120V, 60 Hz. current. Screen ships with internal wiring complete and control switch(es) fully boxed.

Wire to connect screen to switch(es) and switch(es) to power supply should be furnished by installer.

**Please Note:** Screen must be installed in accordance with requirements of Local Building Codes, Canadian Electrical Code (CEC), CAN/CSA C22.1 and National Electric Code (NEC), NFPA 70. An appropriate disconnect device shall be provided as part of building installation.

**CAUTION:** All operating switches should be "off" before power is connected.

**FOR OPTIONAL PLUG AND PLAY:**

Plug-in power cord option available for motor with internal low-voltage controller. For reconfiguration/conversion of non-detachable power cord to field wiring for models PRE-28, PRE-29, TAR-28, and TAR-29 Only:

1. Disconnect cord plug from outlet.
2. Remove junction box cover.
3. Disconnect wire nuts from black, white, and green wires.
4. Remove power cord and strain relief from screen.
5. Connect black motor wire to "hot" supply wire.
6. Connect white motor wire to "neutral" supply wire.
7. Connect green/yellow wire to "ground" supply wire.
8. Replace junction box cover.

PLEASE READ - **Safety Information****Important Safety Information****WARNING****Important Safety Information**

**Improper installation and use of the Premier XL / Targa XL screen can result in serious injury or death. Primarily, injuries can occur if the unit falls due to imprecise installation, mishandling of the unit during installation, or installation on an insufficient wall or ceiling structure. Please use extreme care.**

1. Please read the following installation guidelines thoroughly and follow them carefully. Failure to do so may cause product to fall or otherwise fail, and could result in serious injury.
2. Installation and calibration of the unit should only be performed by an authorized, qualified, and experienced professional. In particular, electrical work and wiring [indicated in diagram by dashed lines] must be completed only by a qualified professional electrician who has read this manual completely and is familiar with the construction and operation of this equipment and the hazards involved.
3. Do not affix the unit to walls or ceilings that have inadequate strength to permanently hold the unit during use. It is the owner's and installer's responsibility to confirm the wall or ceiling to which the unit attaches is sufficient to permanently hold the weight and stress loads of the unit at all times. Draper, Inc., is not responsible for improper installation, application, testing, or workmanship related to the product at place of installation.
4. It is the installer's responsibility to make sure appropriate fasteners are used for mounting.
5. All hardware must be installed level. Unit must be level and square.
6. Never leave the area while operating the unit during installation, maintenance, or normal operation, unless it is secure and safe.
7. Before testing or operation, carefully inspect the entire area and path (especially underneath) of unit to be sure no persons or objects are in the area.
8. Turn off power and any nearby equipment or cables carrying electricity before connecting switches, wires, controls, or electrical components.
9. Do not wire motors in parallel without written permission from Draper, Inc.
10. During testing or operation, carefully watch the surrounding area for any potential safety concerns including nearby persons or objects.
11. After installation, the entire system, including all sensors, should be carefully tested to ensure safe and normal operation. Extreme care should be taken during testing to remain clear of moving parts to avoid possible injury.
12. Operation of unit should be performed only by authorized and qualified personnel, who have been trained in its safe and effective operation and understand its safety features.
13. The safety features of the unit should never be disabled, bypassed, or overridden. The system should not be operated until all safety features are properly and completely installed, calibrated, and tested.
14. Unit may need to comply with local, state, or district rules and regulations, in particular when installed in schools. All applicable rules and regulations should be reviewed before installation and use.
15. **Failure to precisely follow installation guidelines invalidates all warranties.**
16. Custom products/installations may not be reflected in this manual. Call Draper, Inc., if you have questions about the installation of custom products or any questions about your installation.

**Before Beginning Installation**

1. Look for any job site conditions that could interfere with installation or operation of the system.
2. Read carefully and be sure to understand all installation instructions and all related operations manuals. These instructions are intended to serve as a guide for the installer and owner. They should be followed closely and combined with the expertise of experienced qualified installers. Draper, Inc., is not responsible for improper installation, application, testing, or workmanship related to the product at place of installation. Please retain all instructions for future use.
3. Open cartons lengthwise.
4. Locate and lay out all pieces.
5. Inspect all boxes to make sure you have received the proper unit and parts. Controls may be shipped separately, or in same carton as unit.
6. If you have any difficulties with installing, servicing, or operating your unit, call your dealer or Draper, Inc., 765-987-7999.

## Section 3 - Hanging Screen

### General:

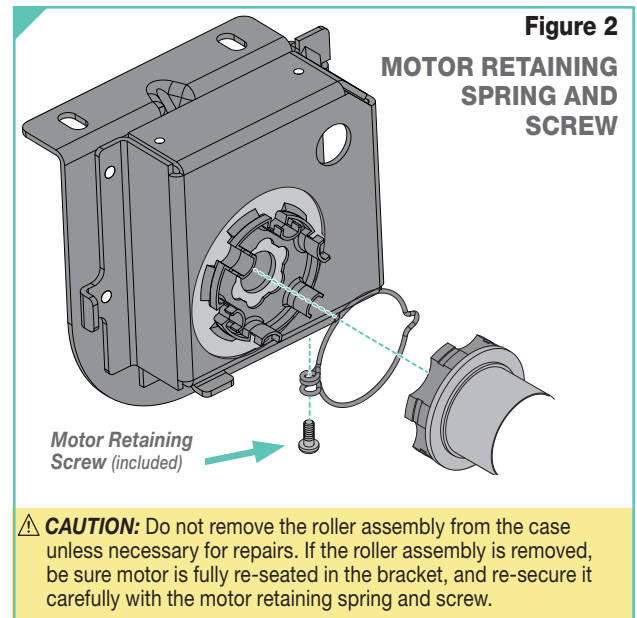
1. Screen should be lifted into position only by end mounting brackets. Keep case level by lifting end plates simultaneously to prevent surface damage. Never attempt to lift screen along its length.
3. When locating viewing surface and checking clearance for screen's operation, remember surface is centered in case. Handle case carefully to protect its finish.
4. Regardless of mounting method, screen should be positively and securely supported so that vibration or even abusive pulling on viewing surface will not cause case to loosen or fall. Installer must ensure that fasteners used are of adequate strength and suitable for mounting surface chosen.

### Ceiling and Wall Installation:

**CAUTION:** Product is very heavy: Installer must provide adequate attachment hardware and anchors as required. Installer must also ensure that structure is of adequate strength.

**CAUTION:** Case must be mounted low enough from ceiling to gain access to bracket screws.

**Please Note:** Do not use a power screwdriver to tighten screw. Maximum torque for tightening screw is 5 nm.



## Section 4 - Operation

**Please Note:** Before fully operating screen: For Targa, remove tape; on Premier, lower viewing surface enough to fully expose shipping brackets, then remove shipping brackets by loosening screws, removing end shipping brackets, sliding center shipping brackets off dowel. Then, re-tighten screws (Fig. 3).

**110-120V Single Station Control** — 3-position up-off-down switch permits operation to be stopped at any point. Factory adjusted limit switches automatically stop screen when fully down or fully up.

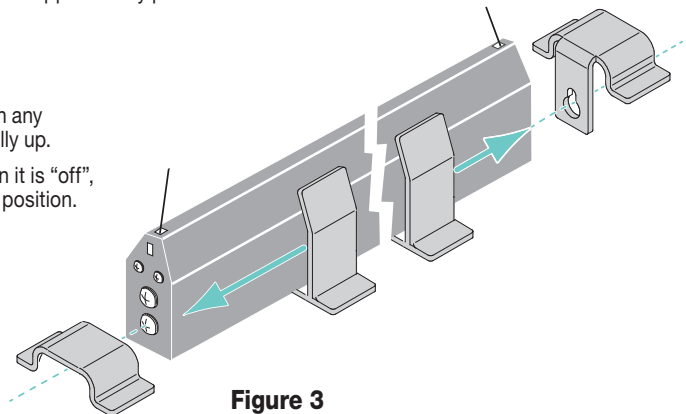
### For LVC-IV Controls:

**24V Control** — Three-button up-stop-down switch(es) stop at any point desired, operate in any sequence. Factory adjusted limit switches automatically stop screen when fully down or fully up.

1. The key-operated power supply switch controls power to unit and switches. When it is "off", switches will not operate. Key may be removed from switch in either "on" or "off" position.
2. A three-position key switch permits screen to be operated directly by key. In this case, screen operator must always have a key.

**RS232 / Ethernet** — Serial communication and network communication available.

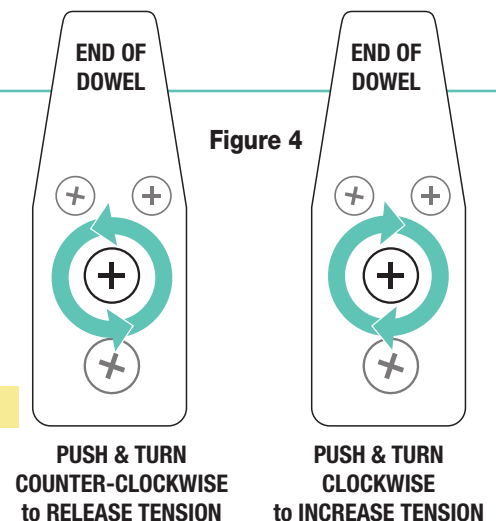
**Plug & Play** — Supplied with a 9'8" (2.9m) cable lead. No wiring is necessary. Screen is equipped with a handheld remote or 3-position operating switch. Three positions (up-off-down) permit operation to be stopped at any point. Factory adjusted limit switches automatically stop screen when fully down or fully up.



## Section 5 - Tab-Tension Adjustment Procedure

**Please Note:** The Draper Tab-Tensioning System is factory-set, and under normal circumstances will not require field adjustment. If wrinkles are observed, however, follow the adjustment procedure shown in Figure 4.

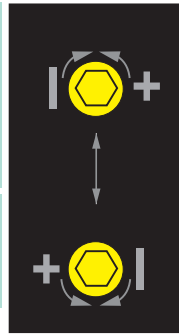
**CAUTION:** Do not touch or bend surface.



## Section 6 - Limit Adjustments

**Please Note:** Screen limits are factory set for optimum performance of the screen. Any adjustment of these limits could void the warranty. Please check with Draper prior to resetting screen limits.

**Please Note:** If screen is "Right Hand Motor," the WHITE/DOWN (I) and YELLOW/UP (II) limit screws are reversed (Fig. 10).



**Figure 9**

**DOWN Limit (I):**  
Clockwise decreases **down** travel.

**UP Limit (II):**  
Counterclockwise increases **up** travel.

### Section 6.1 - Standard Motors (Fig. 9)

#### Section 6.1.1 - "Down" Limit Adjustment (requires 5/32" (4 mm) hex key wrench)

##### To Reduce Screen Drop:

1. Raise screen surface approximately 1' (30 cm) above desired setting and turn off.
2. Turn DOWN (I) limit screw clockwise (3 screw turns = 1/2 roller revolution).
3. Test by lowering screen. Repeat steps 1 & 2 until desired position is reached.

##### To Increase Screen Drop:

1. Lower screen to down limit.
2. With down switch on, turn DOWN (I) limit screw counterclockwise (3 screw turns = 1/2 roller revolution) to increase drop.
3. Test by raising screen approximately 1' (30 cm) then down to new down limit.
4. Repeat steps 2 and 3 until desired position reached.

#### Section 6.1.2 - "Up" Limit Adjustment

##### If Screen Raises Too High:

1. Lower screen surface approx. 1' (30 cm) below desired setting and turn off.
2. Turn UP (II) limit screw clockwise (3 screw turns = 1/2 roller revolution).
3. Test by advancing screen up.
4. Repeat steps 1 through 3 until desired position is reached.

##### If Screen Needs to Raise Higher:

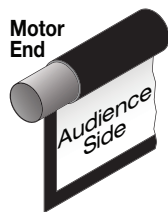
1. Lower screen surface approx. 1' (30 cm) below desired setting and turn off.
2. With UP switch on, turn UP (II) limit screw counterclockwise (3 screw turns = 1/2 roller revolution).
3. Repeat steps 1 and 2 until desired position is reached.

**CAUTION:** DO NOT allow dowel to wrap over roller when operating screen! This could damage screen.

#### CAUTION:

- Be sure all switches are in "off" position before adjusting limit switches.
- Be prepared to shut off manually while testing.
- Screen may be damaged by lowering it too far and exposing roller.
- Motor must be installed so that limit switches are pointed down.

**Figure 10**



#### Standard Roll

**Left hand motor:**  
White Socket—Down  
Yellow Socket—Up  
**Right hand motor:**  
White Socket—Up  
Yellow Socket—Down



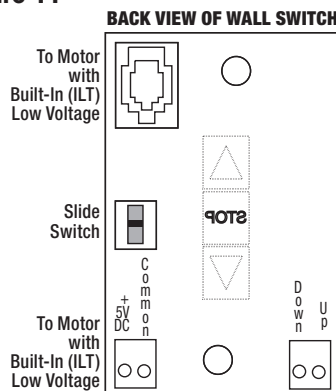
#### Reverse Roll

**Left hand motor:**  
White Socket—Down  
Yellow Socket—Up  
**Right hand motor:**  
White Socket—Up  
Yellow Socket—Down

## Section 6.2 - Limit Adjustments for Motors with Internal Low-Voltage Controllers (Fig. 11)

**Please Note:** Hold STOP button for 3-5 seconds while in programming mode to reverse motor direction.

**Figure 11**



POSITION	FUNCTION
DOWN	Set LOWER limit
UP	Set UPPER limit
CENTER	Normal Operation

1. Connect internal low-voltage switch to motor via terminal blocks, or via modular port using a four conductor modular cable. When using modular cable, cable connectors MUST NOT be crimped in reverse, as with standard telephone cable. (For Dry Contacts Wiring Diagram, see Section 8.)
  2. Set slide switch to lower position. Hold DOWN button to move viewing surface to desired lower limit. If screen moves in opposite direction, release DOWN button and hold STOP button for 4 seconds. This reverses operation of UP and DOWN switches.
  3. Move slide switch into center position. Wait several seconds.
- Please Note:** Do Not move slide switch from DOWN to UP in one motion. This will set limits in same position.
4. Set slide switch to higher position. Move viewing surface to desired upper limit by holding UP button on wall switch.
  5. Return slide switch to center position to resume normal operation.
  6. To set viewing surface to alternate format position, move viewing surface to desired position and press STOP button. Hold STOP button for at least 3 seconds to record position.

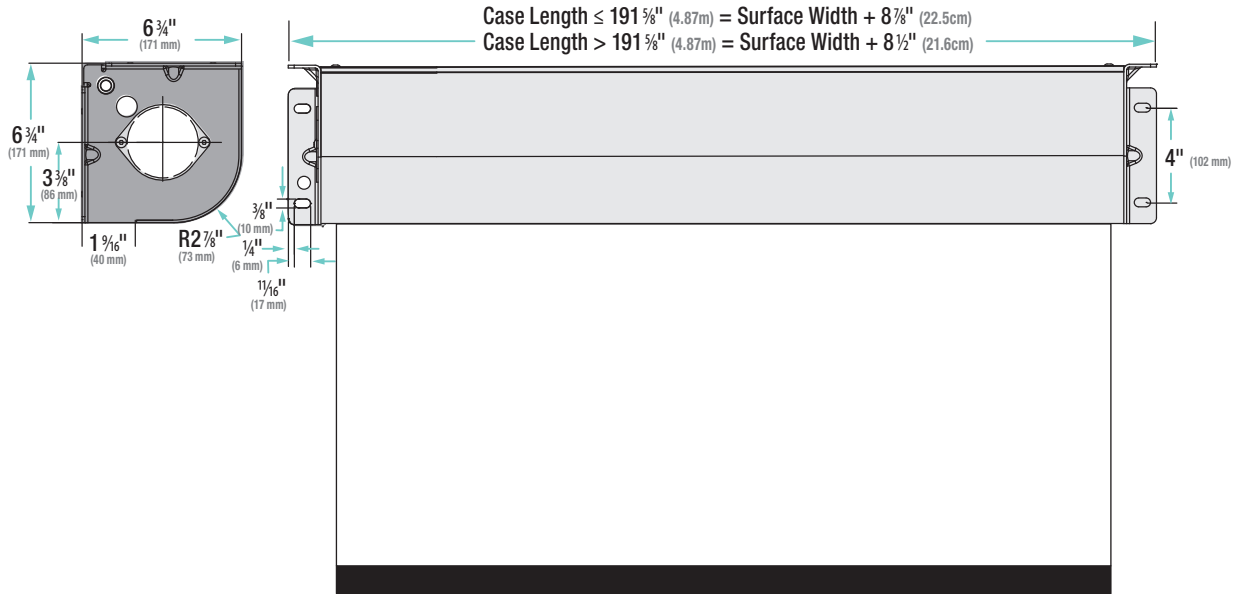
**Please Note:** Press and release UP button on switch to move screen to upper limit. Press and release DOWN button to move screen to lower limit.

- While motor is in motion, press STOP button for less than 2 seconds to stop viewing surface at present position.
- Once motor is stopped, press STOP button to move viewing surface to alternate format position.
- Hold STOP button, when motor is at rest or in motion, for 3-5 seconds to record new alternate format position.
- Hold STOP button for 3-5 seconds while in programming mode to reverse motor direction.

**Please Note:** 5V DC must be connected to be able to set limits using the wall switch.

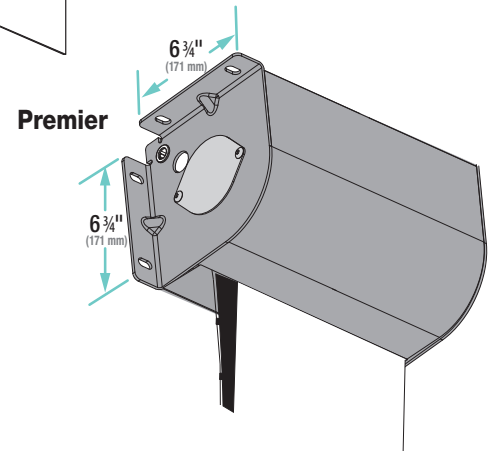
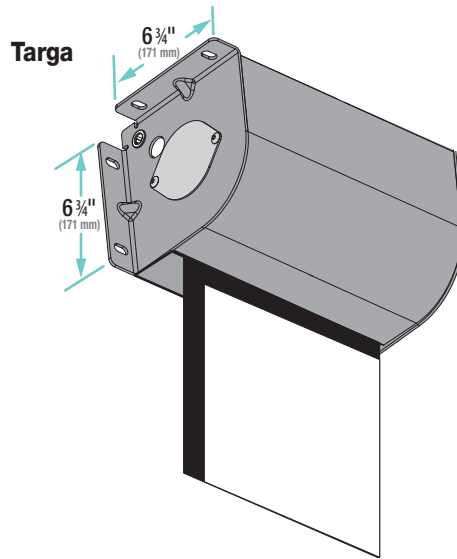
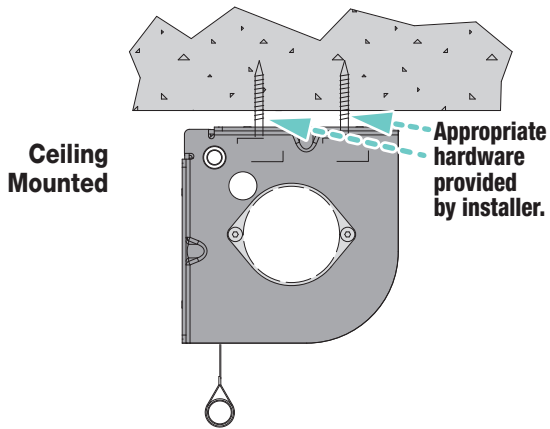
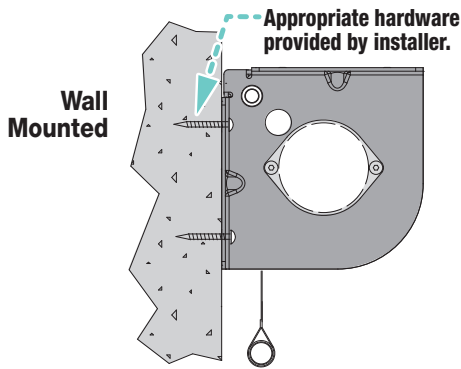
## Section 7 - Dimensions and Methods of Installation

### Case Dimensions\* (Premier Tab-Tensioned Surface Shown)



### Methods of Installation (Targa Dowel Shown)

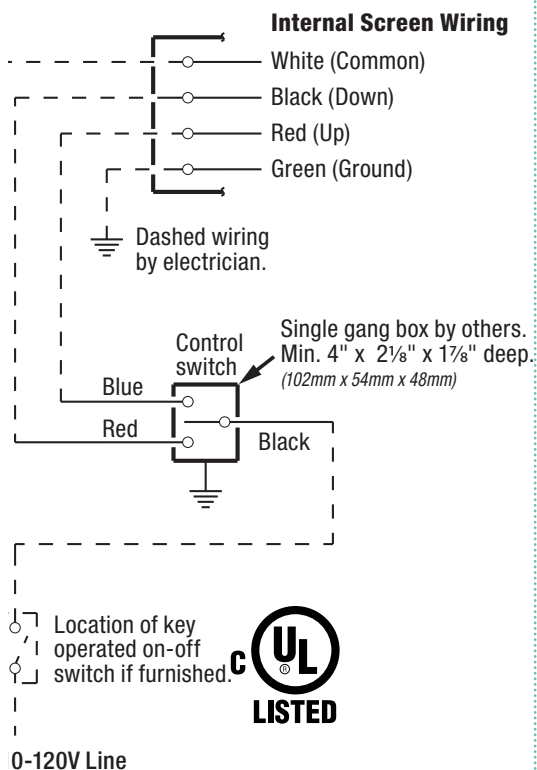
**CAUTION:** Product is very heavy: Installer must provide adequate attachment hardware and anchors as required. Installer must also ensure that wall or ceiling structure is of adequate strength.



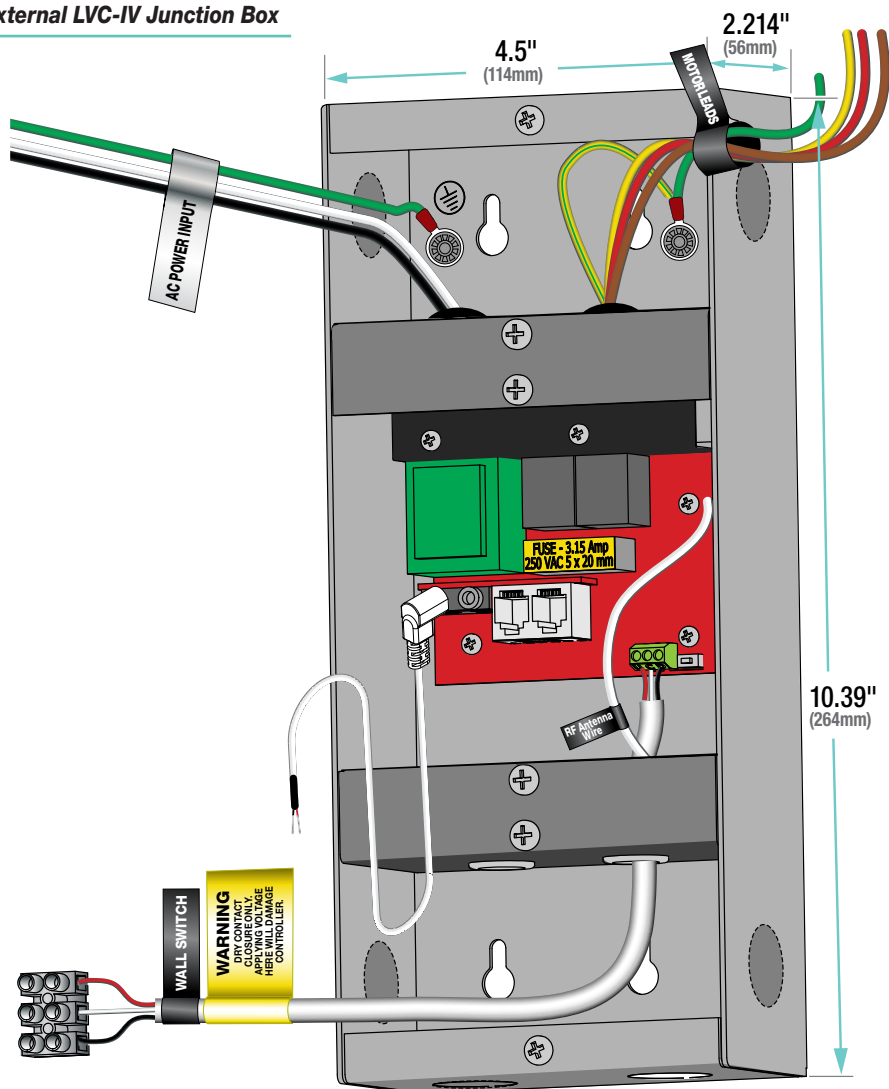
## Section 8 - Wiring Diagrams: Standard and Quiet Motor

**Please Note:** Do not wire motors in parallel.

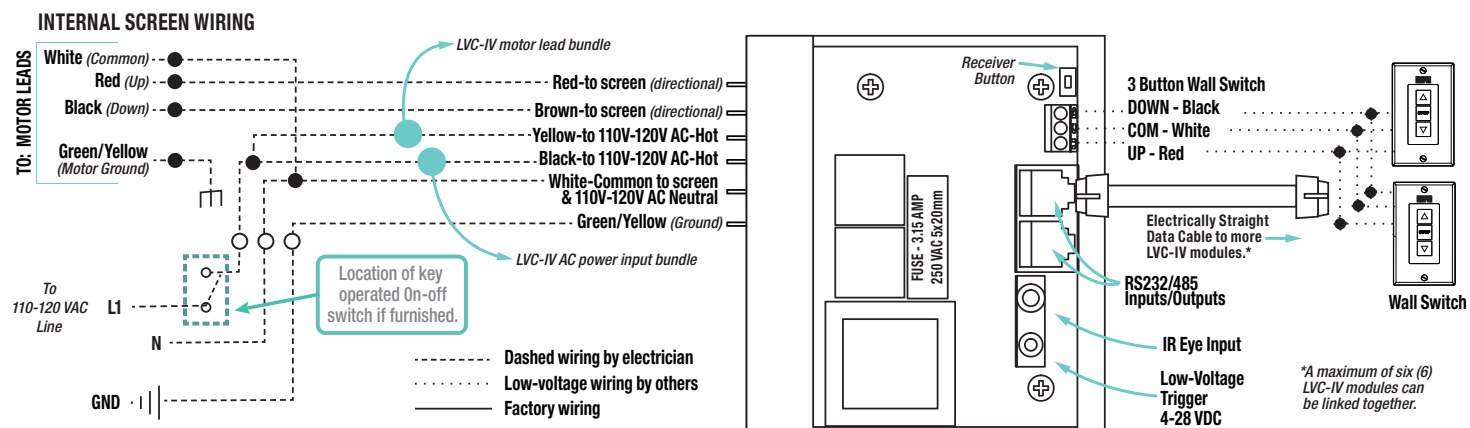
### STANDARD Single Station Control



### External LVC-IV Junction Box

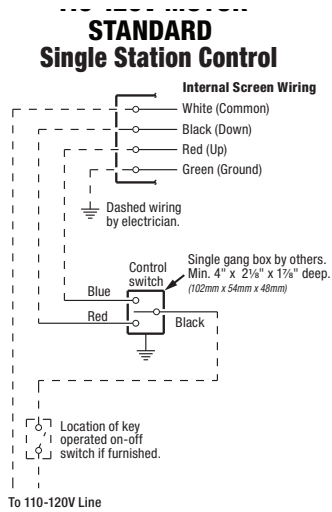


### WIRING DIAGRAM - External LVC-IV (Low-Voltage Control Module)

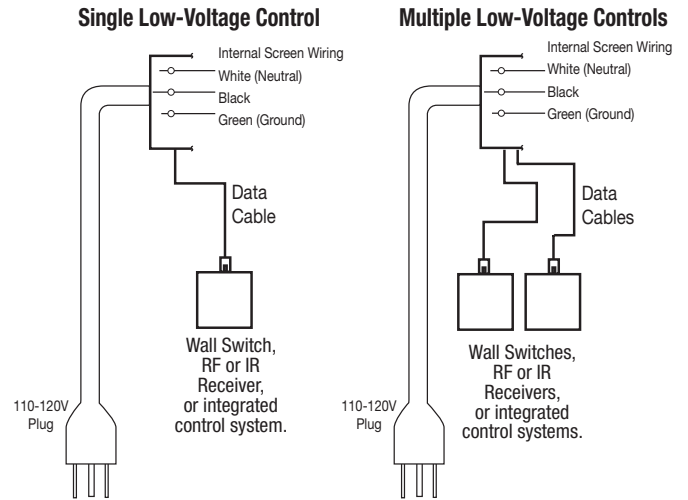


## Section 9 - Wiring Diagrams: Motor with internal low-voltage controller

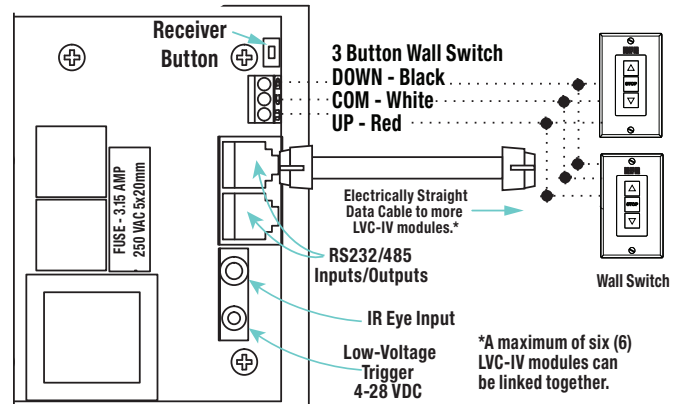
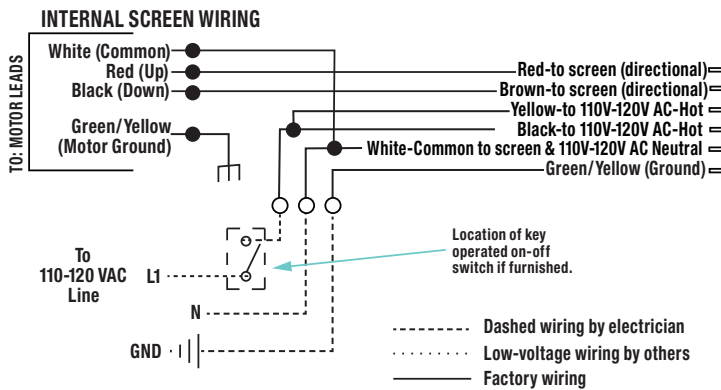
### 110-120V Motor (Motor with internal low-voltage controller)



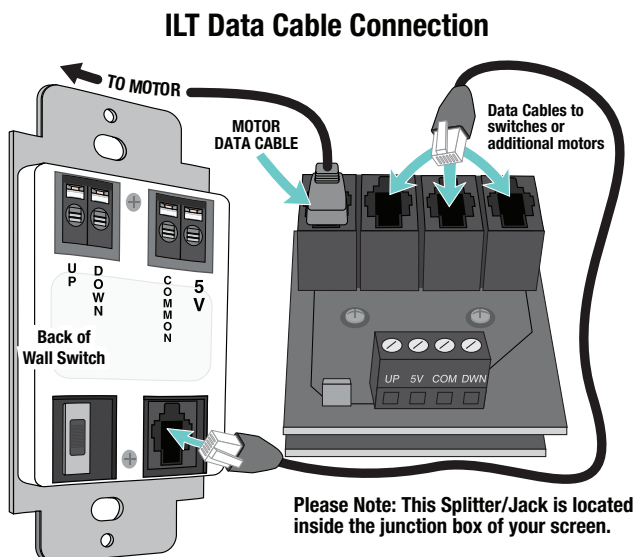
### Plug & Play 110-120V Motor (Motor with internal low-voltage controller)



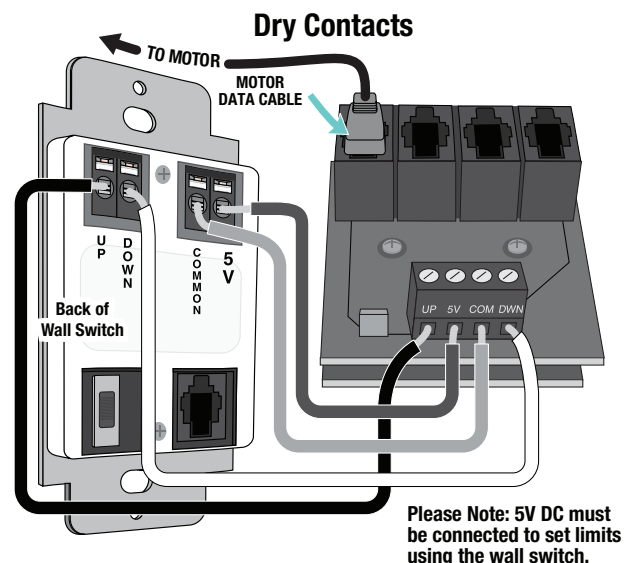
### Internal LVC-IV - Single or Multiple Projection Screen Wiring Diagram



### Motor with Internal Low-Voltage Controller: Switch-to-Motor (Dry Contacts or Data Cable connection)



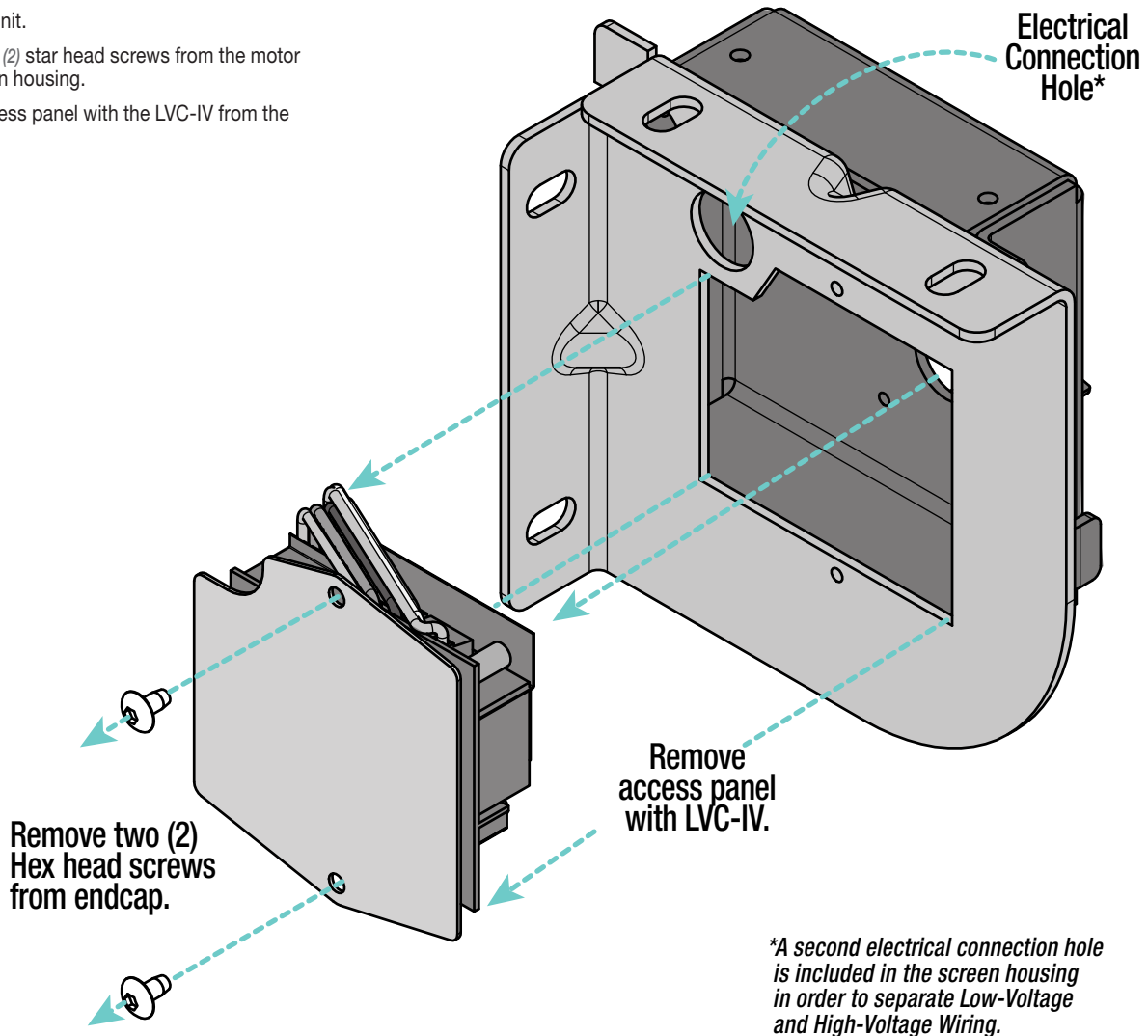
OR



## Section 10 - Accessing Internal Low-Voltage Control Unit (LVC-IV)

**PLEASE NOTE:** Applies ONLY if Unit is built into case.

1. Locate LVC-IV Unit.
2. Remove the two (2) star head screws from the motor end of the screen housing.
3. Remove the access panel with the LVC-IV from the screen housing.



*\*A second electrical connection hole is included in the screen housing in order to separate Low-Voltage and High-Voltage Wiring.*