

# Installation/Operating Instructions

## Targa and Premier Electric Projection Screens—Large Sizes by Draper

### **Caution**

- ① Read instructions through completely before proceeding.
  - ② Follow instructions carefully. Installation contrary to instructions invalidates warranty.
  - ③ Screen should be accessible for complete removal should fabric become damaged or should other service be required.
  - ④ Screen should be installed level (using a carpenter's level). The case must also be installed so that the top of the case is level (front-to-back) to prevent the fabric from contacting the case housing.
  - ⑤ Nothing should be fastened to screen dowel or viewing surface.
  - ⑥ Operating switch(es) packed separately in screen carton. Do not discard with packing material.
  - ⑦ Screen operates on 110-120V, 60 Hz. current.
- NOTE:** Screen has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.

*These instructions are meant as a guide only. They do not imply any responsibility on the part of Draper, Inc. for improper installation or faulty workmanship at the jobsite.*

### **Hanging Screen**

#### **General:**

Screen should be lifted into position **only by the end mounting brackets. Keep case level by lifting end plates simultaneously to prevent surface damage. Never attempt to lift screen along its length.**

**Installer must also insure that wall or ceiling structure is of adequate strength.** Supporting hardware must be essentially vertical. **Do not suspend this product using chain or cable unless also using Targa /Premier (Large Case) Direct Cable Kit. The screen must be securely fastened using at least two of the mounting holes provided in each of the case mounting brackets.**

When locating viewing surface and checking clearance for screen's operation, remember surface is centered in case. Handle case carefully to protect its finish.

Regardless of mounting method, screen should be positively and securely supported so that vibration or even abusive pulling on the viewing surface will not cause case to work loose or fall. Installer must insure that fasteners used are of adequate strength and suitable for the mounting surface chosen.

#### **Ceiling and Wall Installation:**

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

**Please Note:** Large size Targa and Premier screens ship with brackets installed to help hold fascia in place. These brackets (shown to the right) must be removed if you wish to remove the fascia. Case must be mounted low enough from ceiling to gain access to bracket screws.

**⚠ Caution: If you remove the brackets, remember to re-install them when you put the fascia back on!**

**⚠ Caution: Do not remove the roller assembly from the case unless necessary for repairs. If the roller assembly is removed, be sure motor is fully re-seated in the bracket, and re-secure it carefully with the motor retaining spring and screw (see diagram at right).**

**Screw is included with Large Targas and Large Premiers.**

**Please note: Do not use a power screwdriver to tighten screw. Maximum torque for tightening screw is 5 lb-inches.**

# DRAPER

### **Electrical Connections**

Screen operates on 110-120V, 60 Hz. current. Screen is shipped with internal wiring complete and control switch(es) fully boxed, and standardly supplied with a 6' cable lead. Longer lead can be substituted by removing two screws in motor end of roller, removing lead, plugging new lead in, and replacing screws. 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 the requirements of the Local Building Codes, the Canadian Electrical Code (CEC), CAN/CSA C22.1 and the National Electric Code (NEC), NFPA 70. An appropriate disconnect device shall be provided as part of the building installation.

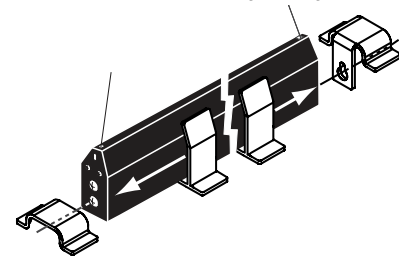
**⚠ All operating switches should be "off" before power is connected.** Plug-in power cord option available with built-in low voltage motor.

**For Reconfiguration/Conversion of Non-detachable Power Cord to Field Wiring for Models PRE-28, PRE-29, PRE-30, TAR-28 TAR-29 and TAR-30 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 the 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.

### **Operation**

Before fully operating screen: On Large Targa, remove tape; on Large 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, and re-tightening screws (see diagram).



**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.

**110-120V Multiple Station Control** — Switches are similar in appearance to 110-120V Single Station Control. Screen stops when switch is released and may be restarted in either direction. Factory adjusted limit switches stop screen automatically when fully down or fully up.

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

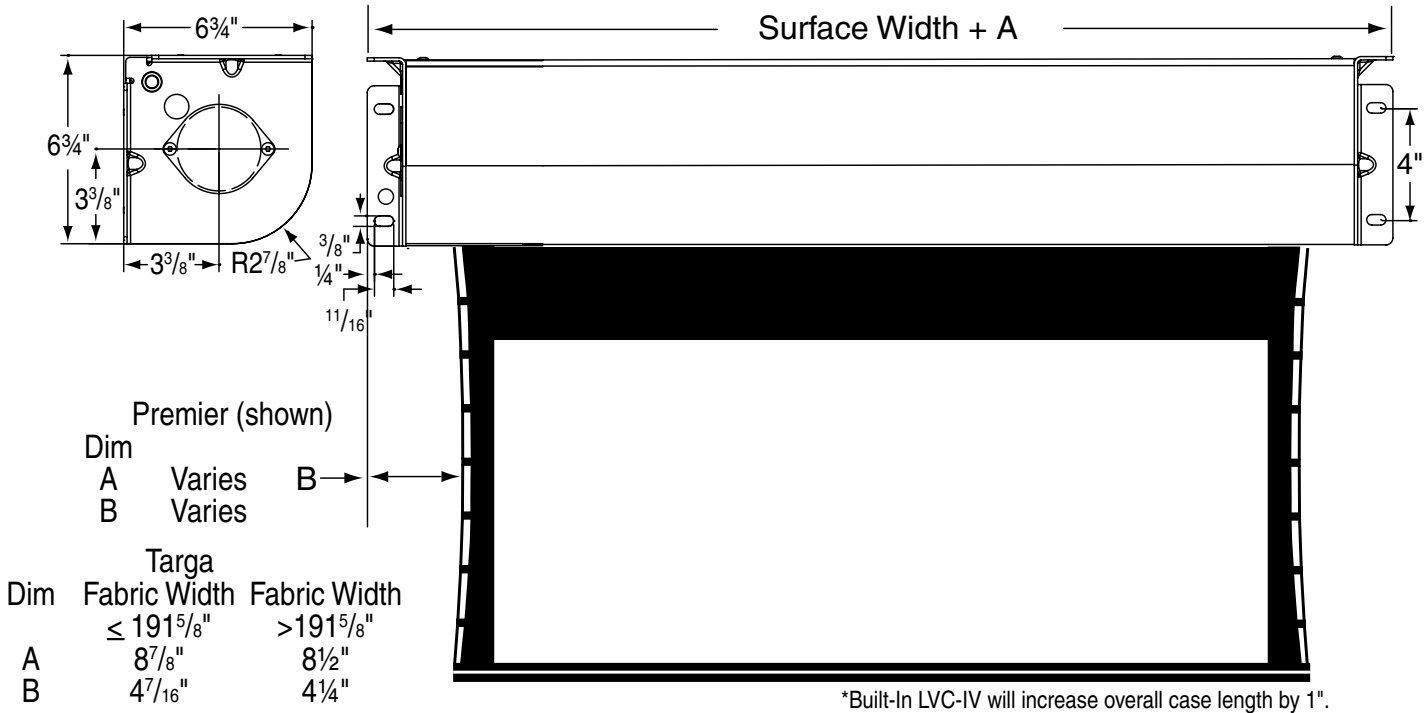
**Key Operated Switching** — Two kinds of key-operated switches are optionally available with this unit. ① The key-operated power supply switch controls power to the screen and switches. When it is "off", the switches will not operate screen. Key may be removed from the switch in either "on" or "off" position. ② A three-position key switch permits the screen to be operated directly by key. In this case, the screen's operator must always have a key.

**RS232/Ethernet** — Serial communication and network communication optionally available with wall switches, RF or IR remote.

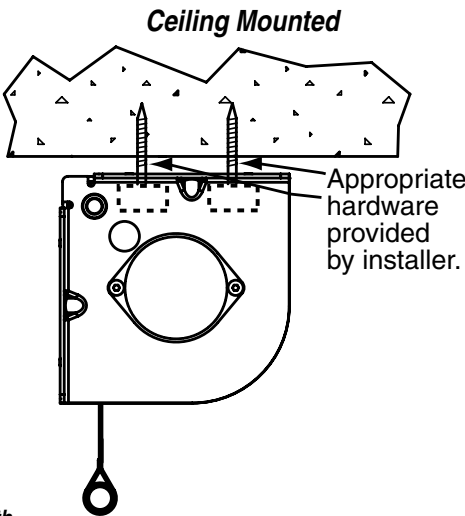
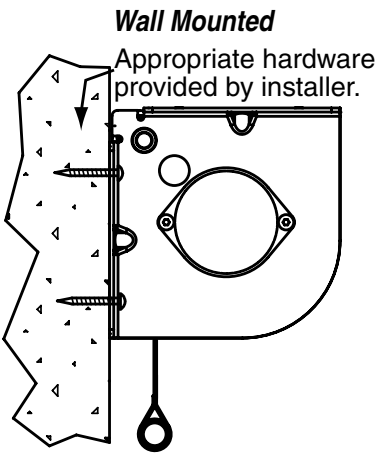
**Plug & Play™** — Provided with handheld IR remote control transmitter and 10' (3m) cord. No wiring necessary except to connect to RS232. Screen is equipped with a handheld remote or 3-position operating switch (see below). Three positions (up-off-down) permit operation to be stopped at any point. Factory adjusted limit switches automatically stop screen when fully down or fully up.

**Continued on page 2**

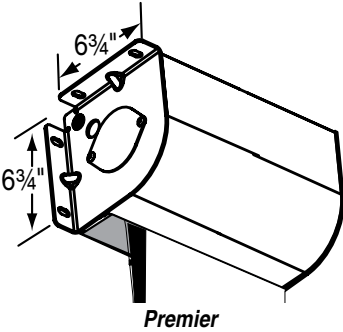
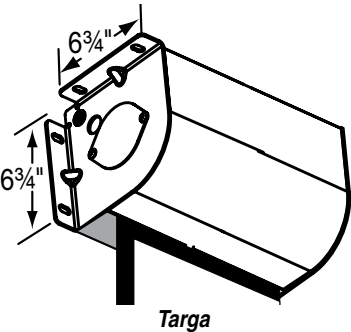
Case Dimensions\* (Premier Tab Tension Surface Shown)



Types of Installation (Targa Dowel Shown)



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



**⚠ IMPORTANT**  
Use of Large Case Targa or Large Case Premier screens with TorkStar Utility Lineset requires Targa / Premier (Large case) Direct Cable Kit. Contact Draper for details.

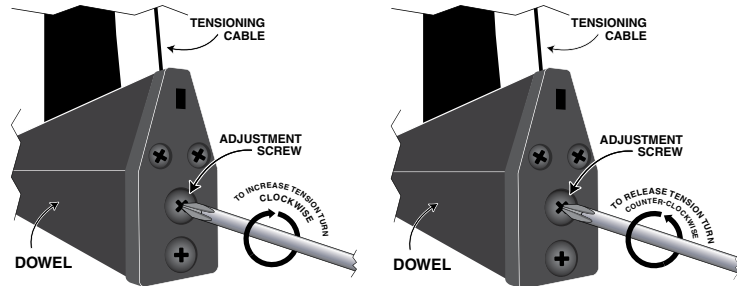
## Tab-Tension Adjustment Procedure

*Draper's Tab-Tensioning System is factory-set, and under normal circumstances will not require field adjustment.*

*If, however, you notice wrinkles, waves or other indications that the tensioning cables need to be adjusted, follow the procedure below.*

- ① Determine which side requires adjustment.
- ② Secure dowel with one hand.
- ③ Using Phillips-head screwdriver, depress spring-loaded adjustment screw and slowly turn **CLOCKWISE TO INCREASE** tension, or **COUNTER-CLOCKWISE TO RELEASE** tension. The screw adjusts in ¼ turn increments. Adjust only **one increment (¼ turn) at a time**.
- ④ If problem is not corrected, leave screen in position for 24 hours to allow surface material to stretch into position.
- ⑤ If problem still is not corrected, repeat steps 2 and 3.

⚠ **Caution:** Do not touch or bend surface.



### Limit Adjustments (Standard/Quiet Motors)

**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.

⚠ **CAUTION:** Always be prepared to shut screen off manually when new adjustment is being tested. Screen may be severely damaged if viewing surface is allowed to run too far up or too far down.

⚠ **CAUTION:** Be sure all switches are in "off" position before adjusting limit switches.

**Adjusting "fully up" position** —You should never have to adjust this limit! If you do, however, the "Up" stopping position may be adjusted by turning the yellow limit switch adjustment socket. The yellow socket is located on left end of screen roller and is accessible to a screwdriver/Allen wrench (4mm or 5/32"). Turning the socket counterclockwise will allow the viewing surface to retract farther into the case. Turning it clockwise will cause the surface to stop farther out of the case. One full revolution of the socket will alter the stopping position of the viewing surface by approximately 1½".

**Adjusting "fully down" position** —"Down" stopping position may be adjusted by turning the white limit switch adjustment socket. The white socket is located on the left end of screen roller and is accessible to a screwdriver/Allen wrench (4mm or 5/32"). Turning the socket counterclockwise will allow the viewing surface to run farther down. Turning it clockwise will shorten the viewing surface, causing it to stop in a less extended position. At no time should viewing surface be unrolled enough to expose any part of screen roller.

### Limit Adjustments (Built-in Low Voltage Motors)

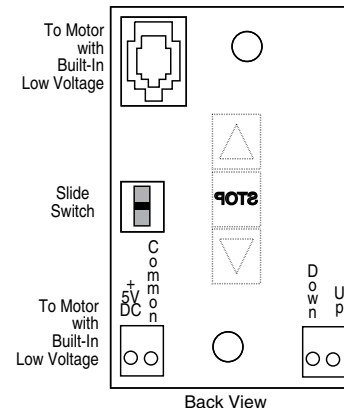
**Please Note:** Screen limits are factory set for optimum performance of the screen. Any adjustment of these limits could void the warranty. Please check with Draper prior to resetting screen limits.

⚠ **CAUTION:** Always be prepared to shut screen off manually when new adjustment is being tested. Screen may be severely damaged if viewing surface is allowed to run too far up or too far down.

⚠ **CAUTION:** Be sure all switches are in "off" position before adjusting limit switches.

**(Height adjustments are made from wall switch)**

- ① Connect the ILT switch to the motor via the terminal blocks, or via the modular port using four conductor modular cable. When using modular cable, the cable connectors **MUST NOT** be crimped in reverse, as with standard telephone cable.
- ② Set the slide switch to the lower position. Press and hold the DOWN button on the switch to move the viewing surface to the desired lower limit. If the screen moves in the opposite direction, release the DOWN button and press and hold down the STOP button for four seconds. This will reverse the operation of the UP and DOWN switches.
- ③ Move slider switch into center position. Wait a couple of seconds.



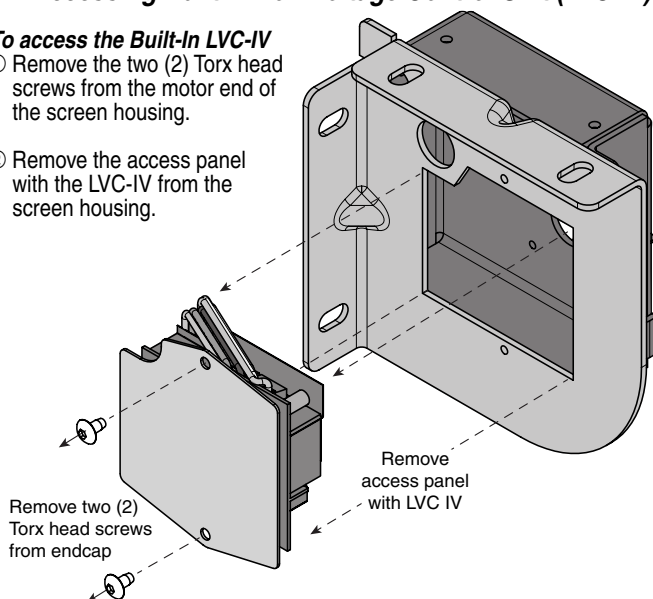
**Please Note:** 5V DC must be connected to be able to set limits using the wall switch.

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

### Accessing Built-In Low Voltage Control Unit (LVC-IV)

**To access the Built-In LVC-IV**

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



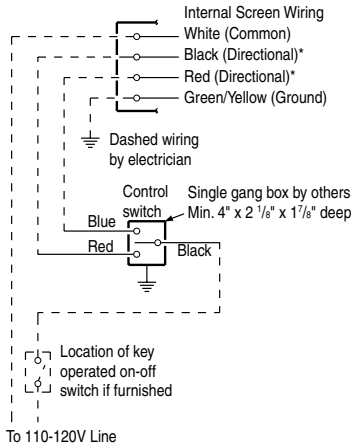
**Please Note:** If you move the slider switch from down to up in one motion it sets the two limits in the same position.

- ④ Set the slide switch to the higher position. Move the viewing surface to the desired upper limit by pressing and holding the UP button on the wall switch.
- ⑤ Return the slide switch to the center position to return to normal operation.

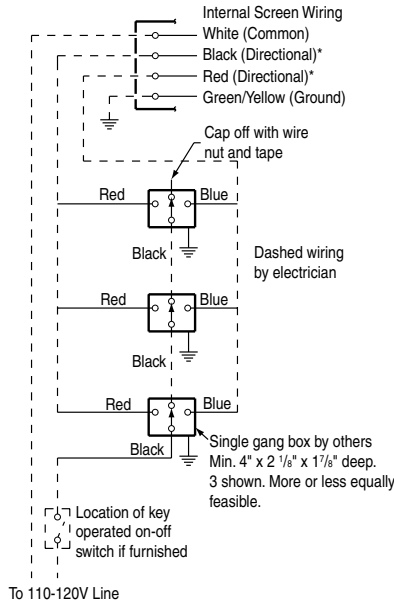
## Wiring Diagrams (Standard and Quiet Motors)

Please Note: Do not wire motors in parallel.

### Single Station Control



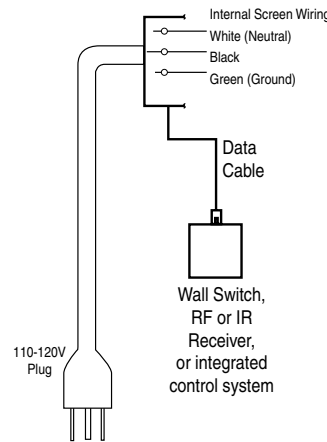
### Multiple Station Control



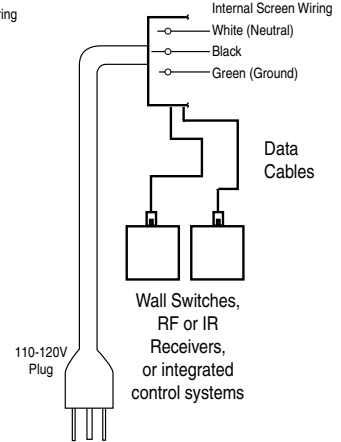
*Motor Direction		
Motor Type	Up	Down
Standard	Black	Red
Quiet	Red	Black

## Wiring Diagrams—Plug & Play 110-120V Motor (Low Voltage Control Built Into Motor)

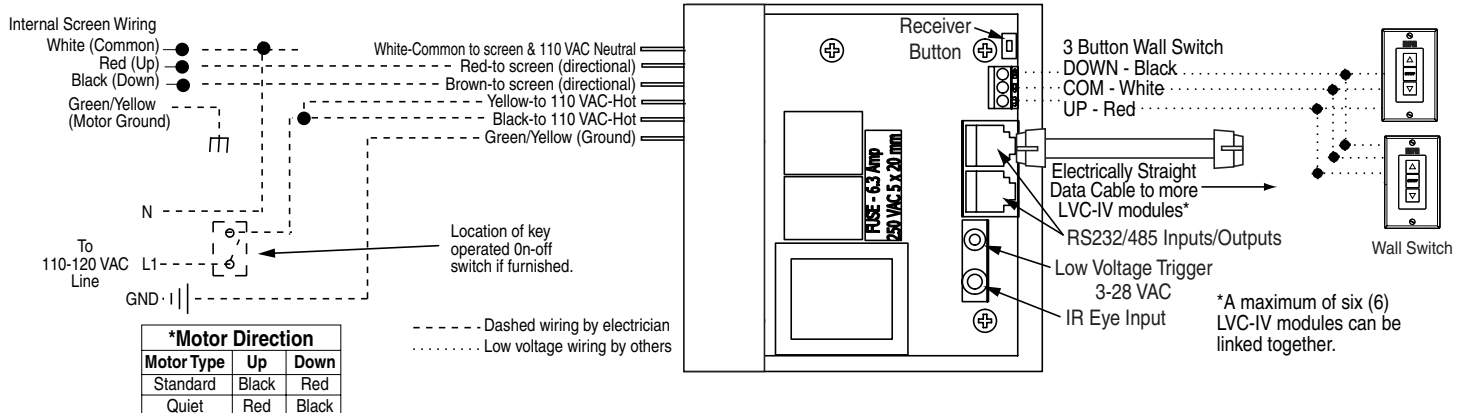
### Single Low Voltage Control



### Multiple Low Voltage Controls

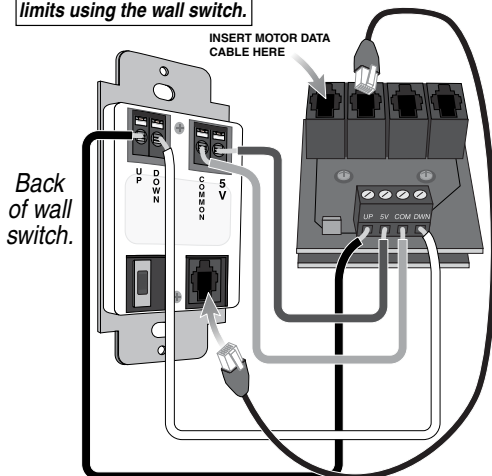


## Wiring Diagram – External LVC-IV



## Built-in Low Voltage Motor: Switch-to-Motor—Dry Contacts or Data Cable connection

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



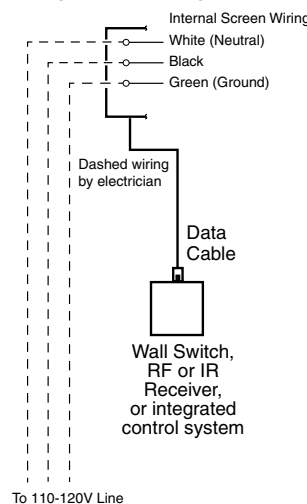
Please Note: Although both Dry Contact and Data Cable connections are shown, you should only use one connection type per motor.

Please Note: This Splitter/Jack is located inside the motor-end endcap of your screen. To access, remove access panel from endcap.

Data Cables to switches or to additional motors can be plugged into any of the three open jacks.

## Wiring Diagrams—110-120V Motor and Quiet Motor with Built-in Low Voltage Controller (LVC-IV)

### Single Low Voltage Control



### Multiple Low Voltage Controls

