Overview - Components

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

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

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Draper, Inc. | 411 S. Pearl St. Spiceland, IN 47385
draperinc.com | 765.987.7999 | 800.238.7999
© 2021 All Rights Reserved | FORM: Premier_XL_TargaXL_220V_Inst20
Screen operates on 220V AC, 50 Hz., 1 ph. current. Screen is shipped 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.

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### Electrical Connections

**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.**

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**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 fail 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.

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**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 2 - 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.

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

3. 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.

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

**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 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.

**Section 3 - 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, and re-tightening screws (Fig. 3).

**220V 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.

**220V Multiple Station Control** — Switches similar in appearance to 220V 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.

**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 & PlayTM** — 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. Factory adjusted limit switches automatically stop screen when fully down or fully up.

**Section 4 - 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 (Fig. 4).

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

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(Please refer to figures 2, 3, 4 for visual aids)
Section 5 - 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.

Figure 9

DOWN Limit (II): Clockwise decreases down travel.

UP Limit (II): Counterclockwise increases up travel.

WARNING: 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.

To Increase Screen Drop:
1. Lower screen to down limit.
2. With down switch on, turn DOWN (II) limit screw counterclockwise (3 screw turns = ½ 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.

To Reduce Screen Drop:
1. Lower screen surface approx. 1’ (30 cm) below desired setting and turn off.
2. Turn UP (II) limit screw clockwise (3 screw turns = ½ roller revolution) to decrease travel.
3. Test by lowering screen. Repeat steps 1 & 2 until desired position is reached.
4. Repeat steps 1 through 3 until desired position is reached.

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 5.1 - Standard Motors (Fig. 9)

Section 5.1.1 - "Down" Limit Adjustment (requires 5/32" (4 mm) hex key wrench)

To Increase Screen Drop:
1. Lower screen surface approx. 1’ (30 cm) below desired setting and turn off.
2. Turn DOWN (II) limit screw counterclockwise (3 screw turns = ½ 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.

To Reduce Screen Drop:
1. Lower screen surface approx. 1’ (30 cm) below desired setting and turn off.
2. Turn UP (II) limit screw clockwise (3 screw turns = ½ roller revolution) to decrease travel.
3. Test by lowering screen. Repeat steps 1 & 2 until desired position is reached.
4. Repeat steps 1 through 3 until desired position is reached.

Section 5.1.2 - "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 = ½ roller revolution) to decrease travel.
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 = ½ roller revolution) to increase drop.
3. Repeat steps 1 and 2 until desired position reached.

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

Figure 11

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

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

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.
Section 6 - Dimensions and Methods of Installation

Case Dimensions* (Premier Tab-Tensioned Surface Shown)

<table>
<thead>
<tr>
<th>Wall Mounted</th>
<th>Ceiling Mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 3/4&quot; (171 mm)</td>
<td>6 3/4&quot; (171 mm)</td>
</tr>
<tr>
<td>R2 1/4&quot; (6 mm)</td>
<td>R2 1/4&quot; (6 mm)</td>
</tr>
<tr>
<td>1 1/4&quot; (32 mm)</td>
<td>1 1/4&quot; (32 mm)</td>
</tr>
<tr>
<td>3&quot; (76 mm)</td>
<td>3&quot; (76 mm)</td>
</tr>
</tbody>
</table>

Case Length ≤ 191 1/4" (4.87m) = Surface Width + 8 1/8" (22.5cm)

Case Length > 191 1/4" (4.87m) = Surface Width + 8 1/8" (21.6cm)

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 7: Wiring Diagrams: Standard Motor

Please Note: Do not wire motors in parallel.

**External LVC-IV Junction Box**

- **Blue** (Common)
- **Brown** (Down)
- **Black** (Up)
- **Green/Yellow** (Motor Ground)

**INTERNAL SCREEN WIRING**

- **Blue** (Common) 220V (Common)
- **Brown** (Down) 220V (Down)
- **Black** (Up) 220V (Up)
- **Green/Yellow** (Motor Ground)

**External LVC-IV - Single or Multiple Projection Screen Wiring Diagram**

- **Blue** (220V Common)
- **Brown** (220V Down)
- **Black** (220V Up)
- **Green/Yellow** (Motor Ground)

**Warning**

DRY CONTACT CLOSURE ONLY. APPLYING VOLTAGE HERE WILL DAMAGE CONTROLLER.

**RF Antenna Wire**

*A maximum of six (6) LVC-IV modules can be linked together.
Section 8 - Wiring Diagrams: Motors with internal low-voltage controller

220V Motor (with Internal Low Voltage Controller)

**Single Low-Voltage Control**
- Internal Screen Wiring
  - Blue (Neutral)
  - Brown
  - Green (Ground)
- Dashed wiring by electrician
- Data Cable
- Wall Switch, RF or IR Receiver, or integrated control system
- To 220V Line

**Multiple Low-Voltage Controls**
- Internal Screen Wiring
  - Blue (Neutral)
  - Brown
  - Green (Ground)
- Dashed wiring by electrician
- Data Cables
- Wall Switches, RF or IR Receivers, or integrated control systems
- To 220V Line

Plug & Play 220V Motor (with Internal Low Voltage Controller)

**Single Low-Voltage Control**
- Internal Screen Wiring
  - Blue (Neutral)
  - Brown
  - Green (Ground)
- Data Cable
- Wall Switch, RF or IR Receiver, or integrated control system

**Multiple Low-Voltage Controls**
- Internal Screen Wiring
  - Blue (Neutral)
  - Brown
  - Green (Ground)
- Data Cables
- Wall Switch, RF or IR Receiver, or integrated control system

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

**INTERNAL SCREEN WIRING**
- Green/Yellow (Motor Ground)
- Black (Up)
- Brown (Down)
- Blue (Common)
- White (Common to screen & 230V AC Neutral)
- Yellow-to 230V AC-Hot
- Black-to 230V AC-Hot

Location of key operated on-off switch if furnished.
- Dashed wiring by electrician
- Low-voltage wiring by others
- Factory wiring

To 230V Line

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

**ILT Data Cable Connection**
- Data Cables to switches or additional motors
- Please Note: This Splitter/Jack is located inside the junction box of your screen.

**Dry Contacts**
- MOTOR DATA CABLE
- Please Note: 5V DC must be connected to set limits using the wall switch.
Section 9 - 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.

*Electrical Connection Hole*

Remove two (2) Hex head screws from endcap.

Remove access panel with LVC-IV.

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