

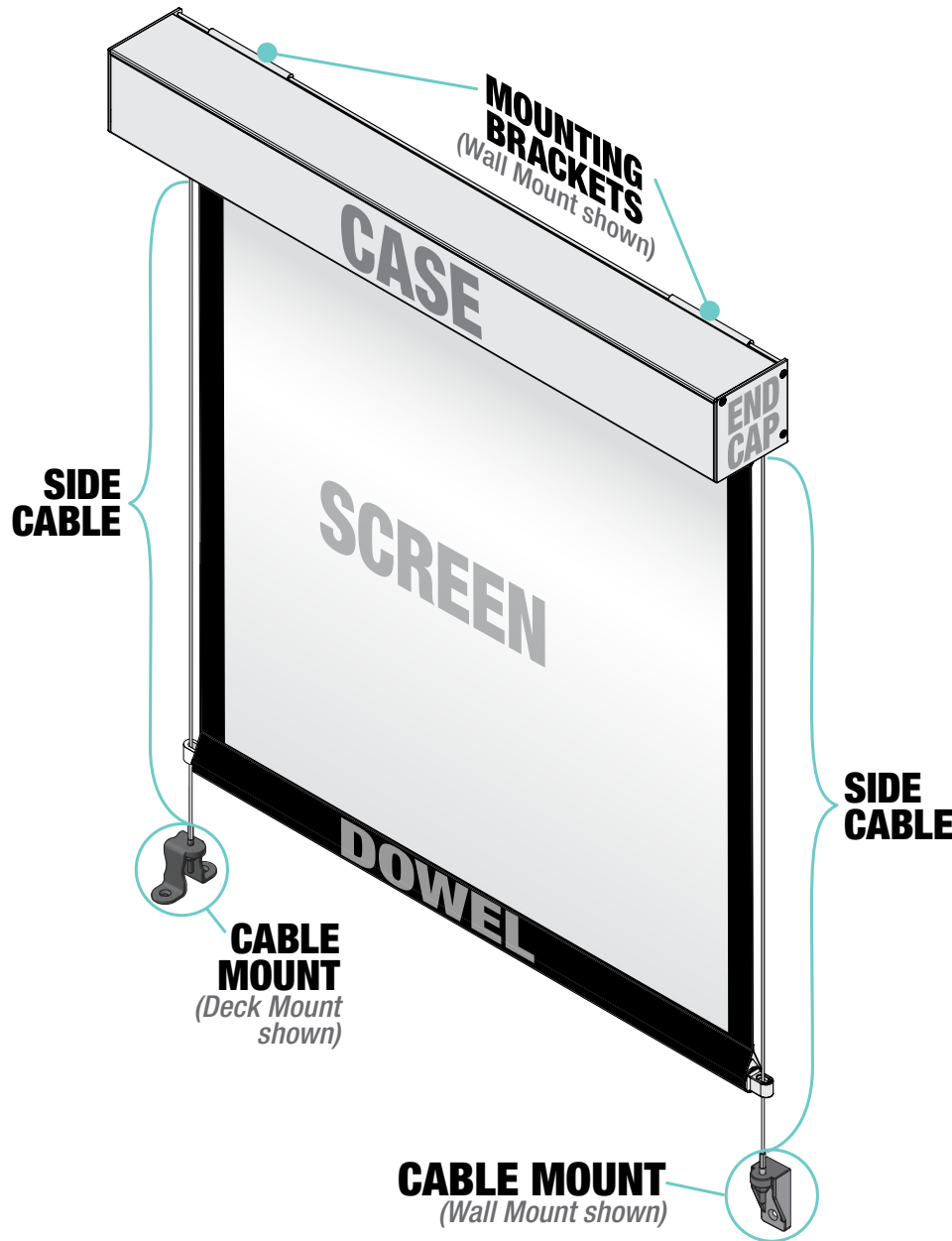
# Nocturne®+ E 220V

Outdoor electric projection screen

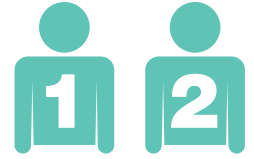
## INSTRUCTIONS

INSTALLATION & OPERATION

### Overview - Components



#### PERSONNEL REQUIRED



#### TOOLS REQUIRED



#### ⚠ CAUTION ⚠

**Read and understand all warnings before beginning installation.**

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If you have any difficulties installing or servicing your Nocturne+ E, call your dealer or Draper, Inc.

## Section 1 - Prepare for Installation

1. Make sure mounting surface is strong enough to hold Nocturne+.

**Please Note:** Installer is responsible for selecting mounting hardware appropriate for site conditions. Ensure that fasteners are of adequate strength and suitable for the mounting surface chosen.

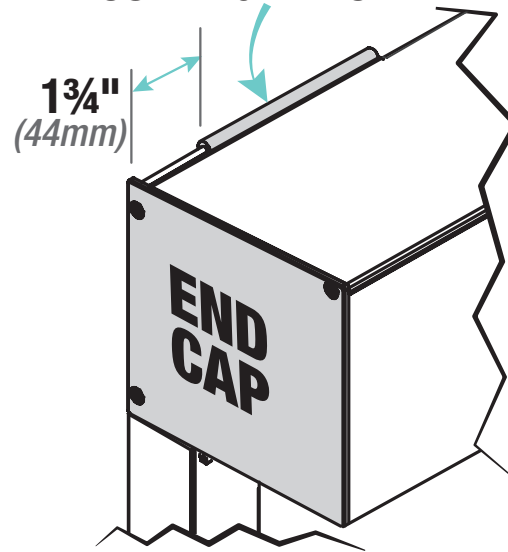
2. Verify unit measurements, and make sure it will fit in desired location.

**Please Note:** The Dowel does not retract into Case. This will need to be accounted for if mounting over a swinging window or door.

3. Mounting brackets MUST be installed with a gap of 1 3/4" (44mm) between Endcap and Mounting Bracket edge (Fig. 1). Mark wall, jamb, or ceiling.

4. Drill small starter holes (if necessary) in mounting surface.

Figure 1 **MOUNTING BRACKET**



## PLEASE READ - Safety Information

### Important Safety Information



### Important Safety Information

**Improper installation and use of the Nocturne+ E 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.

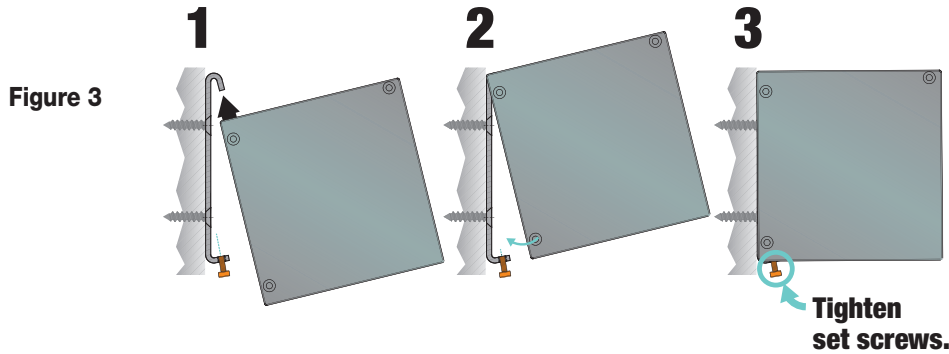
## Section 2 - Mounting Case with Brackets - Wall Installation

### Section 2.1 - Attaching Mounting Brackets

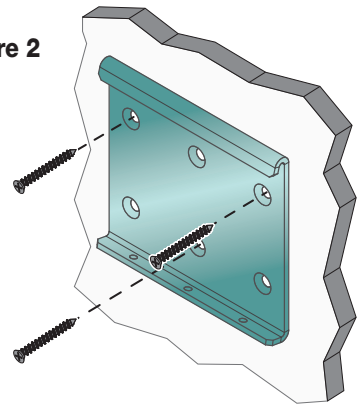
1. Attach mounting brackets to wall using #10 flat head screws installed flush with bracket. Be sure to use AT LEAST 2 of top mounting holes (Fig. 2).

### Section 2.2 - Attaching Case to Mounting Brackets

1. Attach Case to brackets and tighten Set Screws (Fig. 3).
2. Proceed to Section 4 (Installing Cable Guides).



**Figure 2**



## Section 3 - Mounting Case Directly to Ceiling or Wall

1. Attach Mounting Brackets to Case as a spacer between Case and wall.

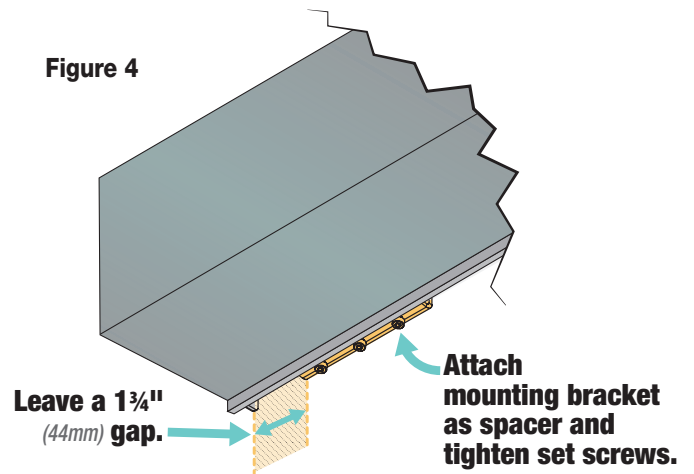
**Please Note:** Leave a 1¼" (44mm) gap between Endcap and Mounting Bracket (Fig. 4), and tighten set screws.

2. Remove roller assembly.
  - A. Remove screws from bottom of Case, remove Cover and set aside (Fig. 5).
  - B. Remove Quick Release Pin from Idler End of Roller Assembly.
  - C. Remove Roller Assembly, Idler End first, and set aside.
3. Mount to Ceiling / Wall.
  - A. Using mounting holes in endcaps as a guide (Fig. 6), drill pilot holes on both ends of Case.
  - B. Attach to mounting surface using appropriate fasteners.

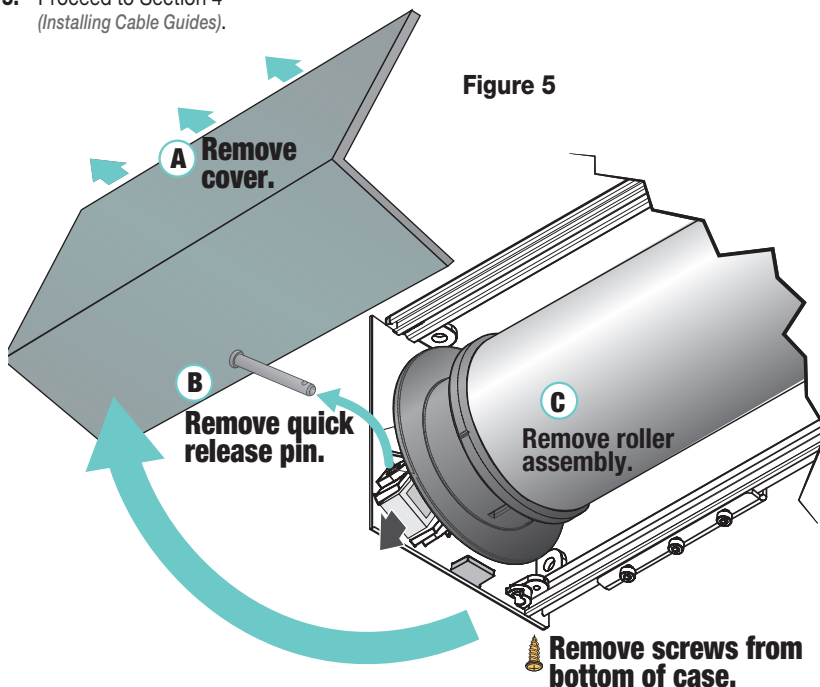
**Please Note:** Installer is responsible for selecting mounting hardware appropriate for site conditions.

4. Once Case is secured to mounting surface, re-install Roller Assembly, Quick Release Pin and Cover.
5. Proceed to Section 4 (Installing Cable Guides).

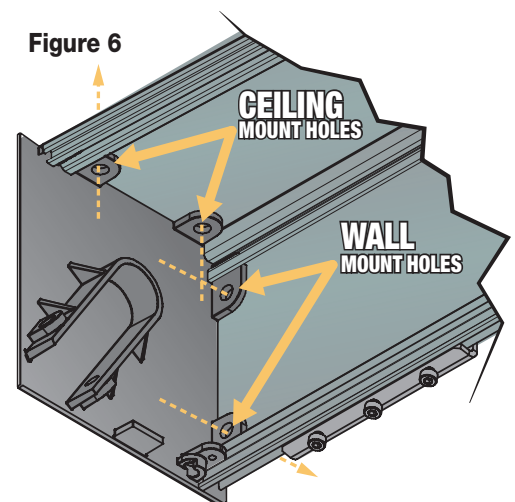
**Figure 4**



**Figure 5**

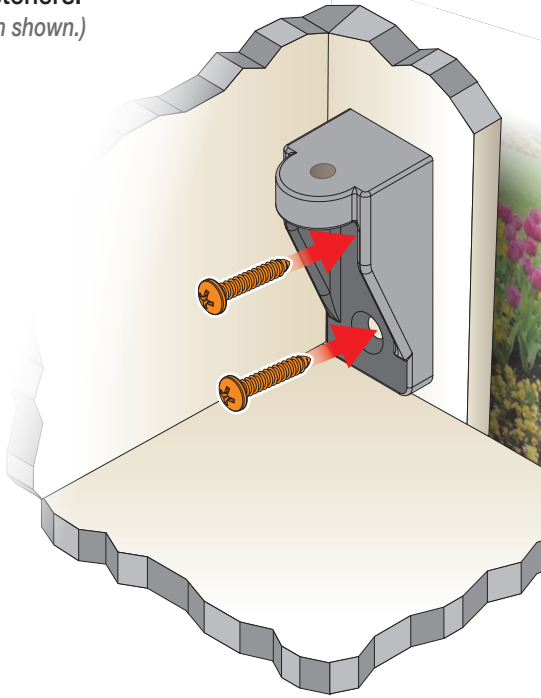


**Figure 6**

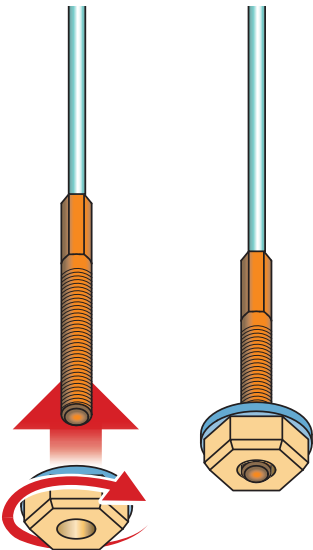


## Section 4 - Installing Cable Guides

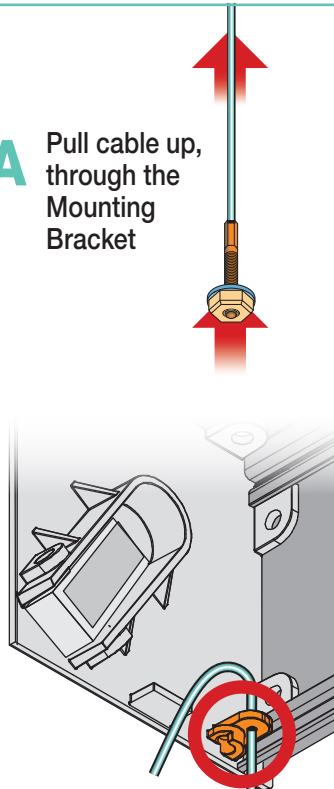
- 1.** Install Mounting Bracket using appropriate fasteners.  
(Wall mount option shown.)



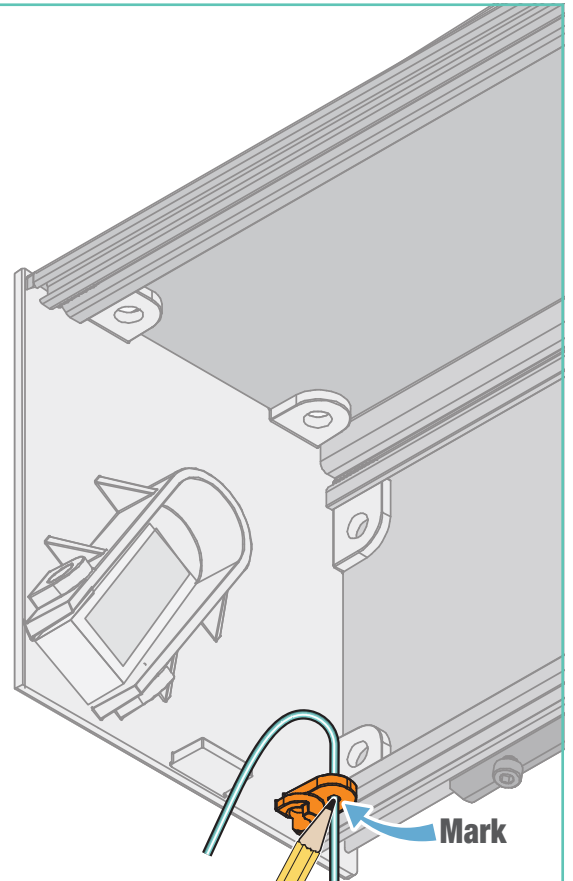
- 2.** Place washer and nut on threads of bolted end of cable to allow space for travel.



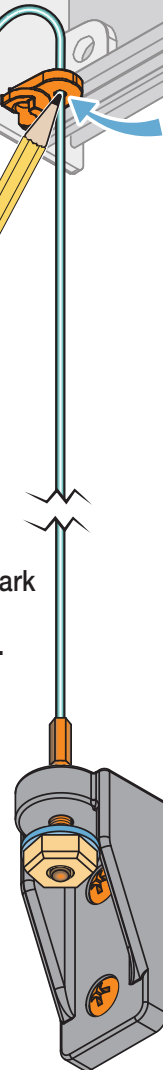
- 3A** Pull cable up, through the Mounting Bracket

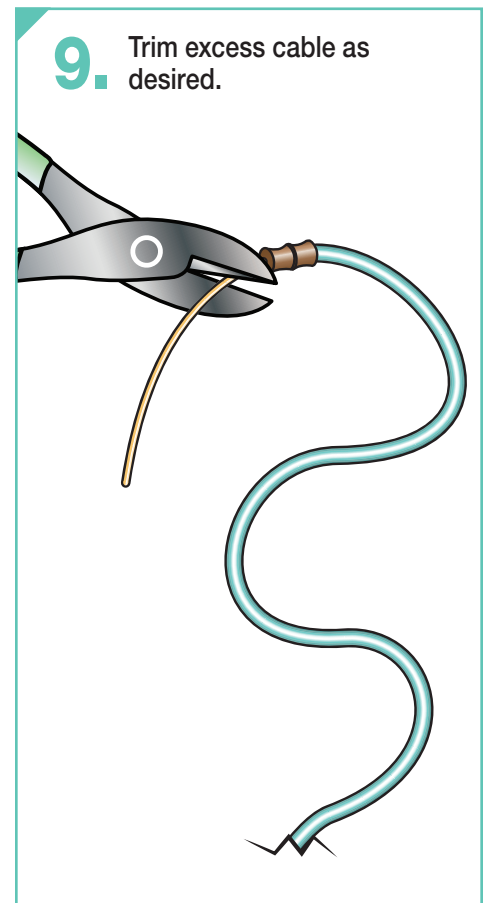
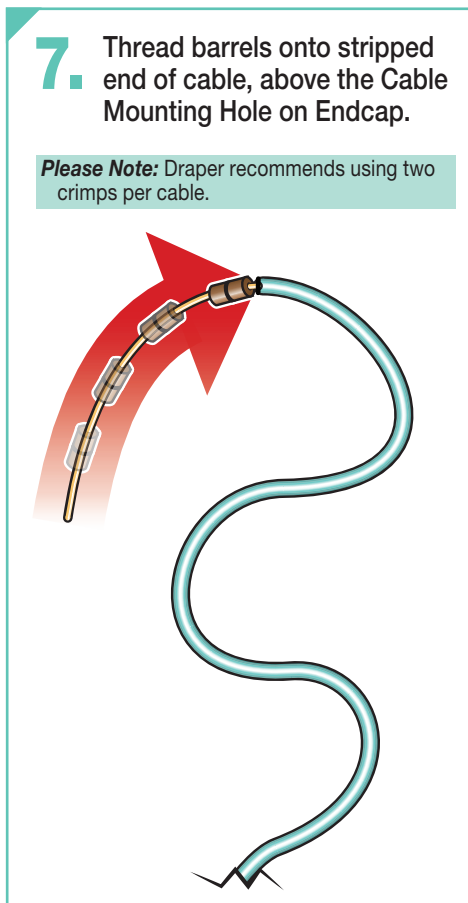
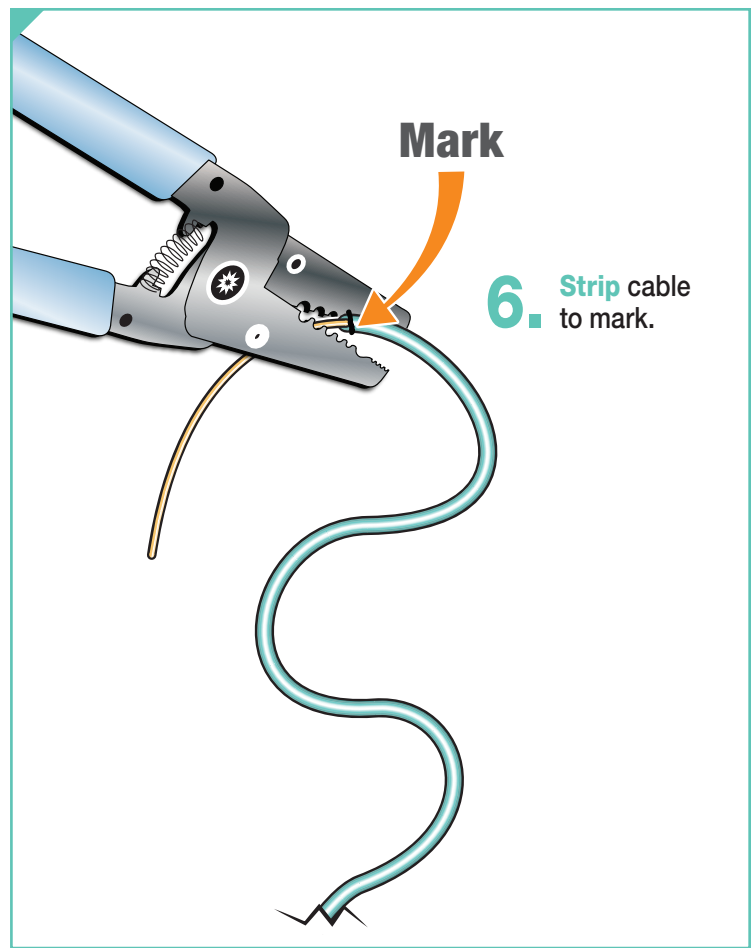
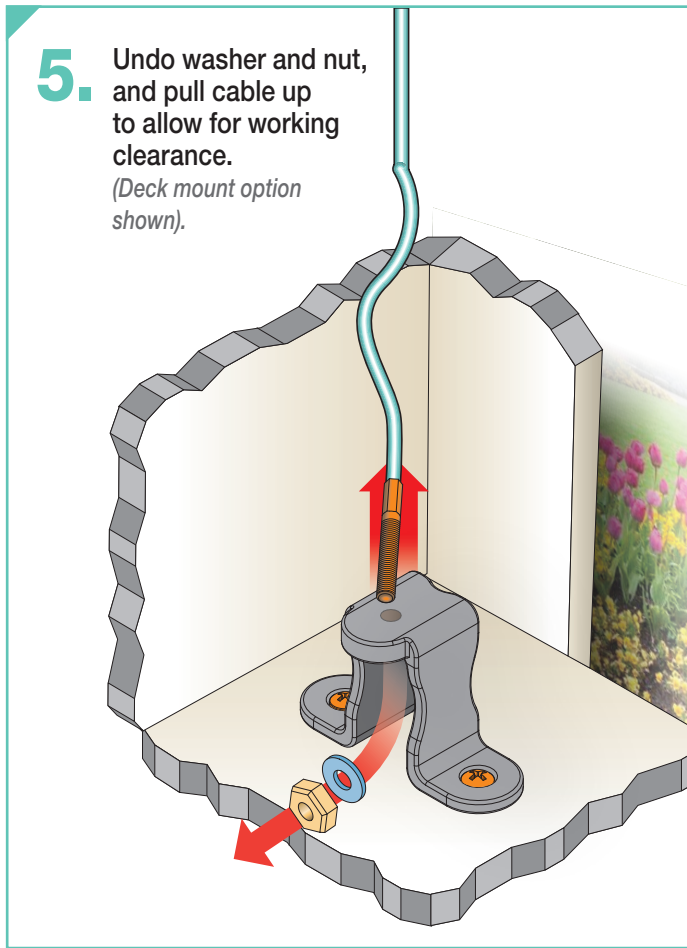


- 3B** Pull cable up, through Cable Mounting Hole on Endcap.  
(Wall mount option shown.)



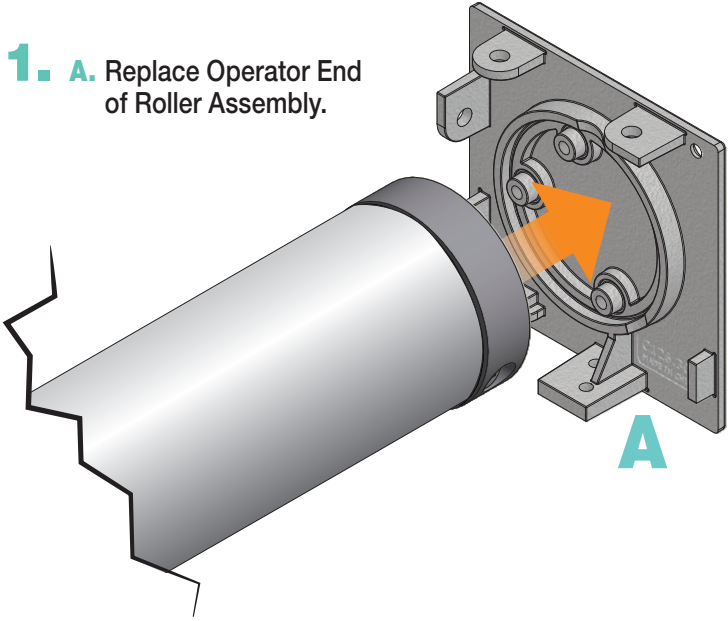
- 4.** Pull cable taut and mark cable under Cable Mounting Hole.  
(Wall mount option shown.)



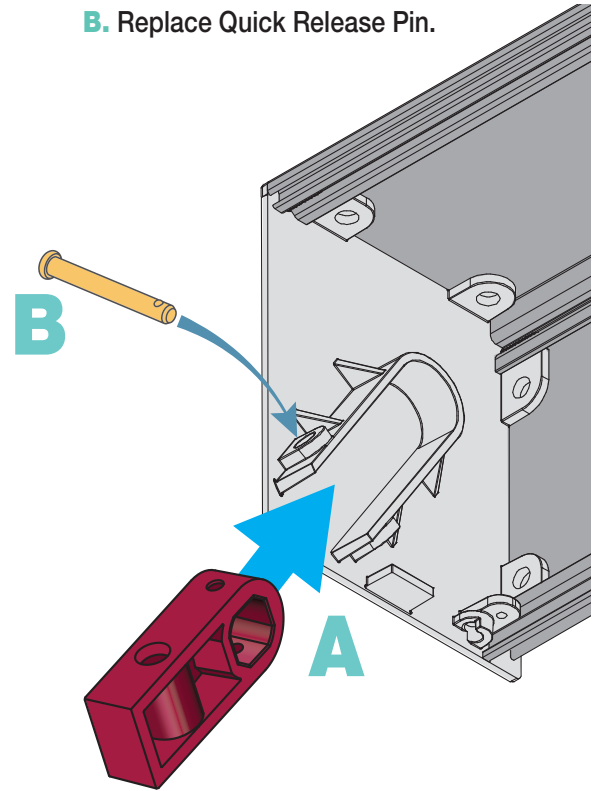


## Section 5 - Replace Roller Assembly & Fascia

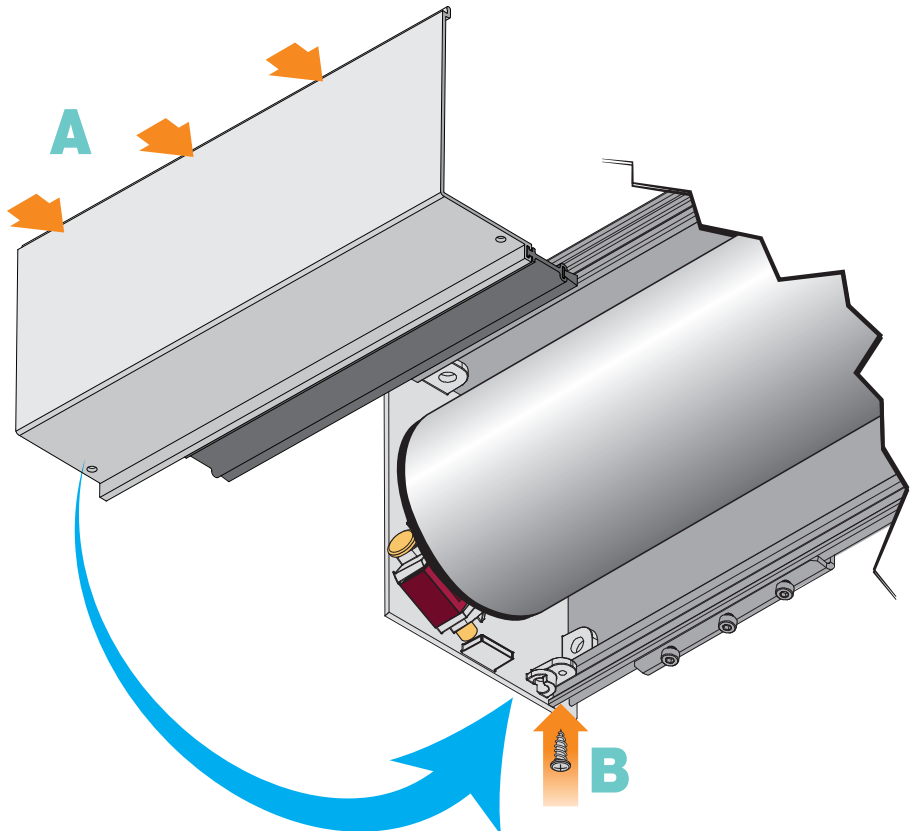
- 1.** **A.** Replace Operator End of Roller Assembly.



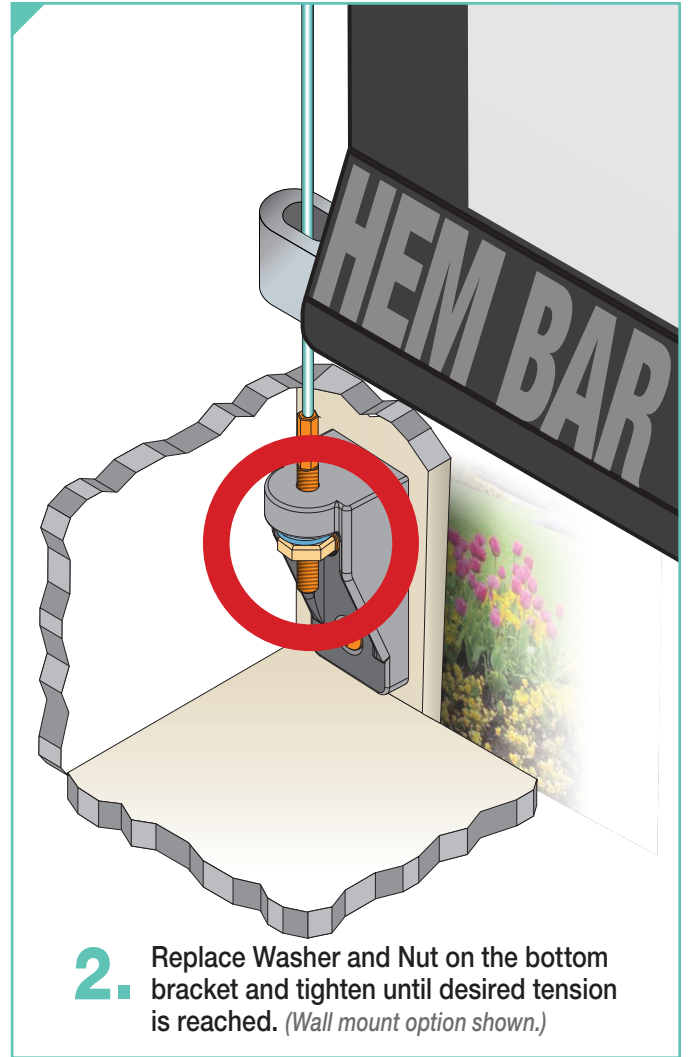
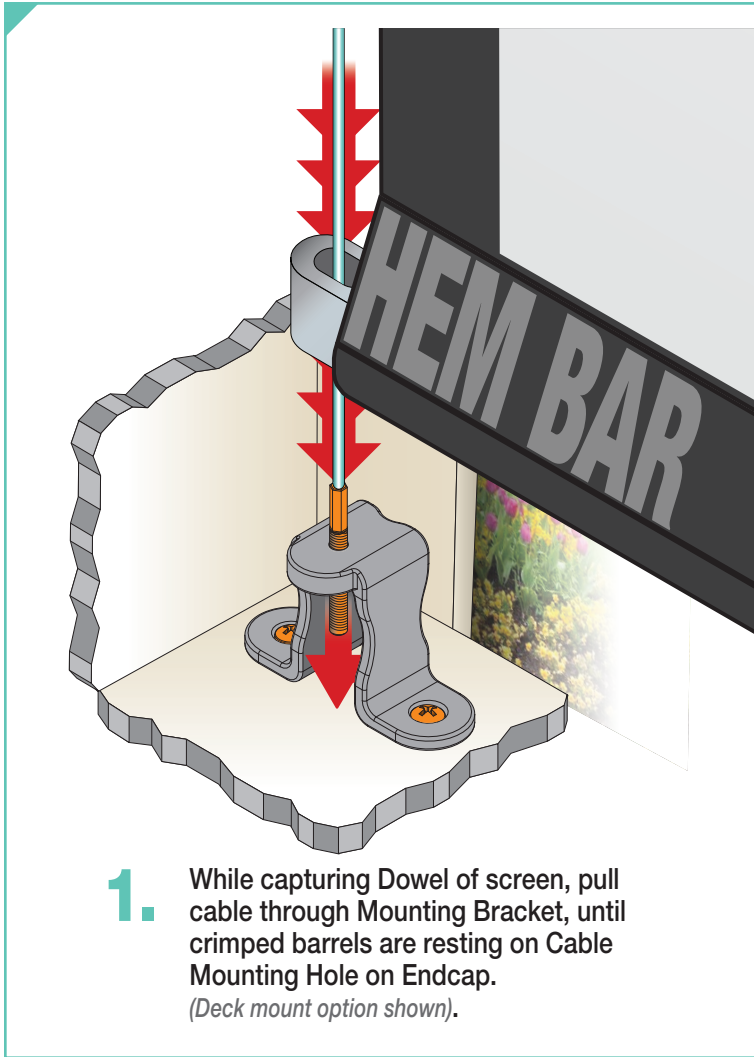
- 2.** **A.** Replace Idler Mounting Gudgeon on Idler End of Roller Assembly.  
**B.** Replace Quick Release Pin.



- 3.** **A.** Replace Fascia.  
**B.** Replace screws on bottom of Case.



## Section 6 - Securing Guide Cable



## Section 7 - Electrical Connections

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

- Screen operates on 220V AC, 50 Hz. or 60 Hz., .55 Amp, 1 ph. current draw. Duty cycle: On 28 seconds/Off 4 minutes.
- Junction box is located inside left endcap and cover plate secures to endcap with two screws which may be removed with star key or small flat head screwdriver. Junction box contains red, black, and white pigtail leads and green internal ground wire, per wiring diagram.
- Screen ships complete with internal wiring. Control switch(es) may be packed in cartons separate from screen. Wire connecting screen to switch(es) and switch(es) to power supply 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.

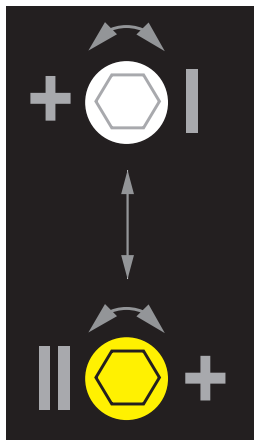
**Please Note:** Do NOT wire motors in parallel.

## Section 8 - Limit Adjustments (Standard Motors)

**Please Note:** Screen limits are factory set for optimum performance. 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. 7).

Figure 6



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

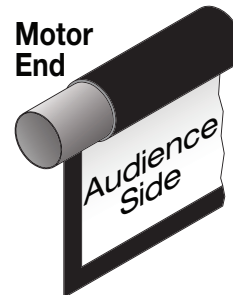
**UP Limit (II):**  
Counterclockwise  
increases **up** travel.

**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.

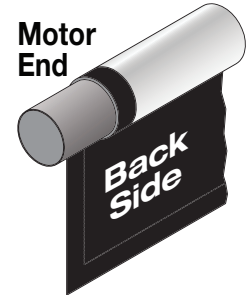
**CAUTION:** DO NOT allow dowel to wrap over roller when operating screen! This could damage screen.

Figure 7



### 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

### "Down" Limit Adjustment (requires 5/32" (4mm) Allen wrench)

#### To Reduce Screen Drop:

1. Raise screen surface approximately 1' (30cm) 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' (30cm) then lower to new down limit.
4. Repeat steps 2 and 3 until desired position reached.

**Please Note:** For Quiet Motor with alternate limit screws: WHITE screw = UP and RED screw = DOWN. (Fig. 10).

### "Up" Limit Adjustment

#### If Screen Raises Too High:

1. Lower screen surface approx. 1' (30cm) 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:

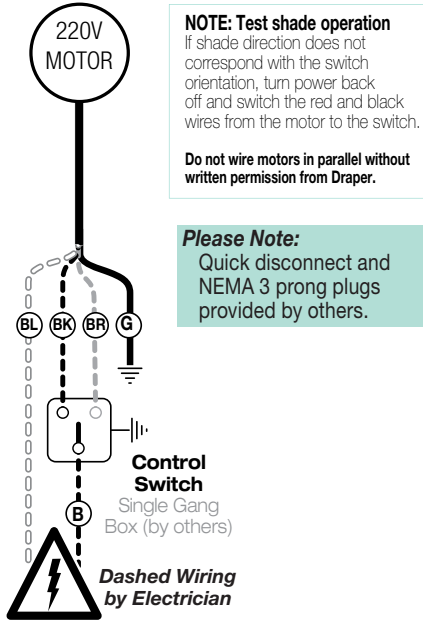
1. Lower screen surface approx. 1' (30cm) below desired setting and turn off.
2. With UP switch on, turn UP (II) limit screw counterclockwise (3 screw turns = 1/2 roller revolution).
3. Repeat steps 1 and 2 until desired position is reached.



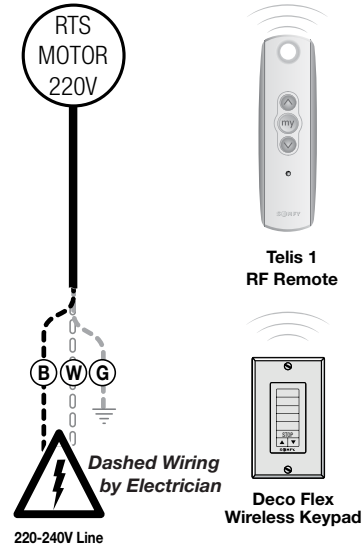
## Section 9 - Wiring Diagrams

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

### Sonesse 220VAC Motors

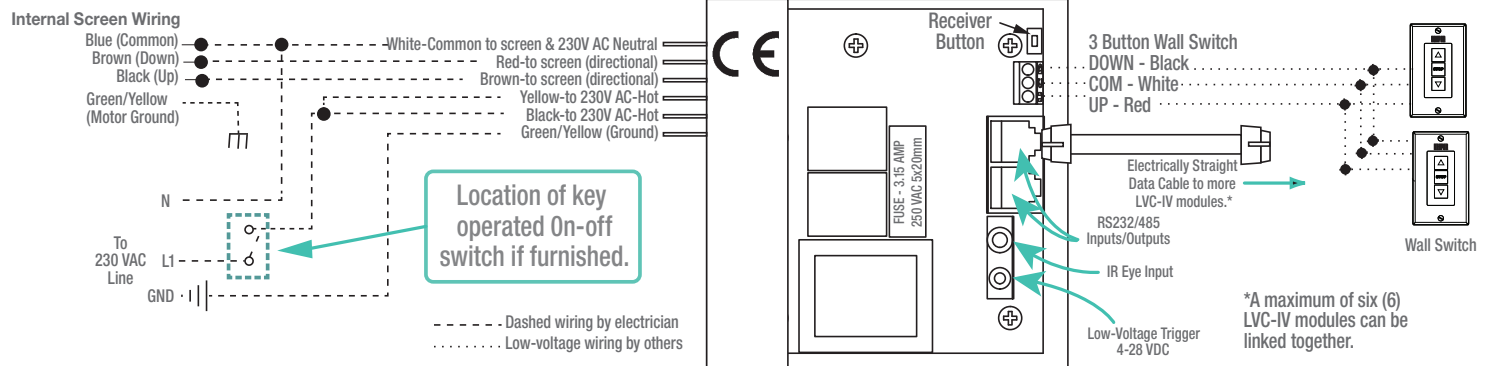


### Sonesse RTS 220VAC Motors



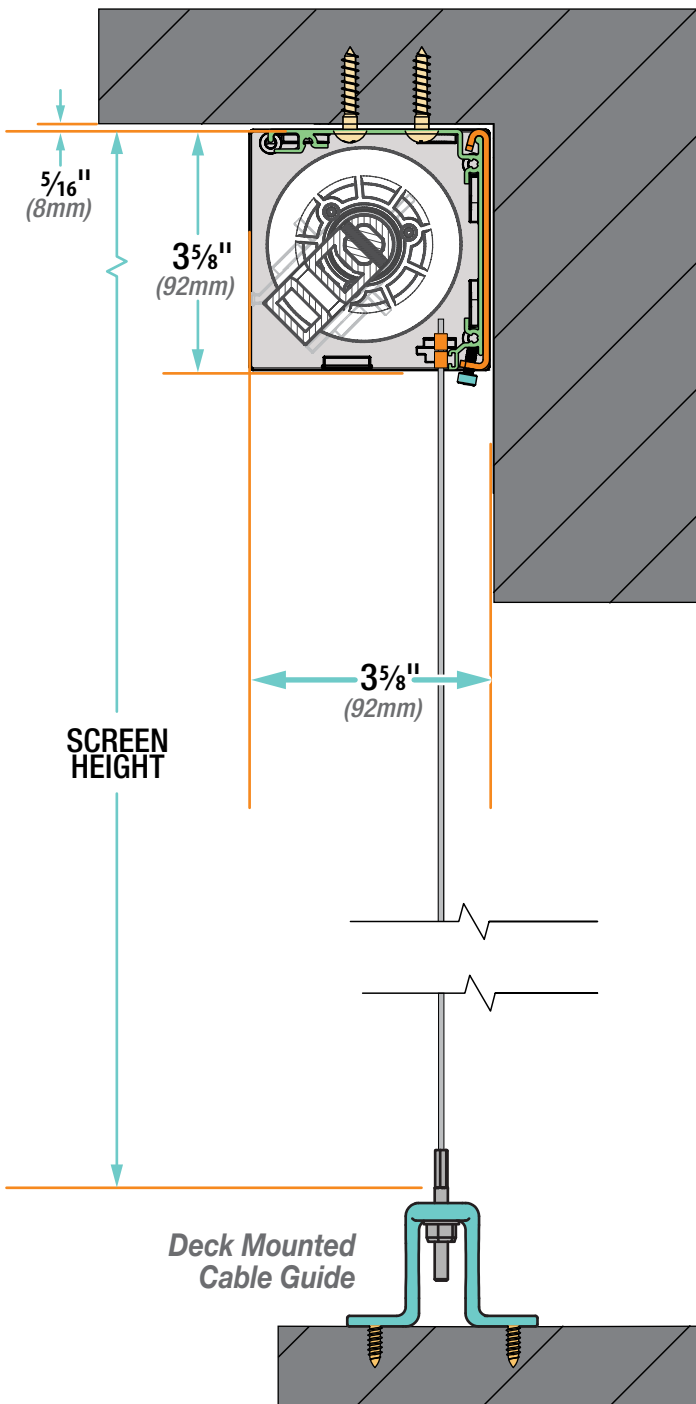
Sonesse® is a registered trademark of Somfy® Systems, Inc.

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

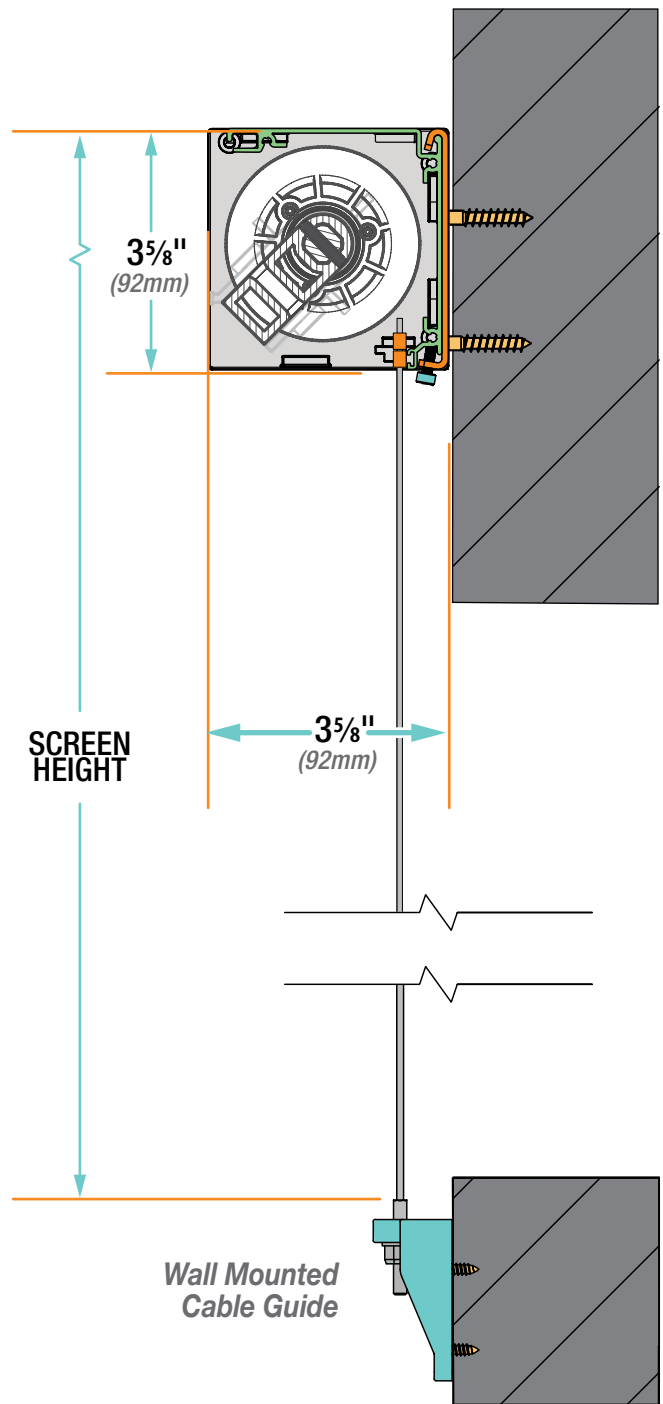


## Section 10 - Dimensions: Components

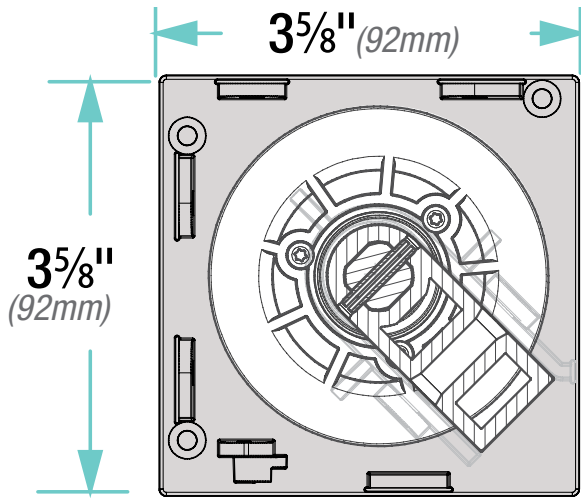
**Side Cable Wall Mount Option**



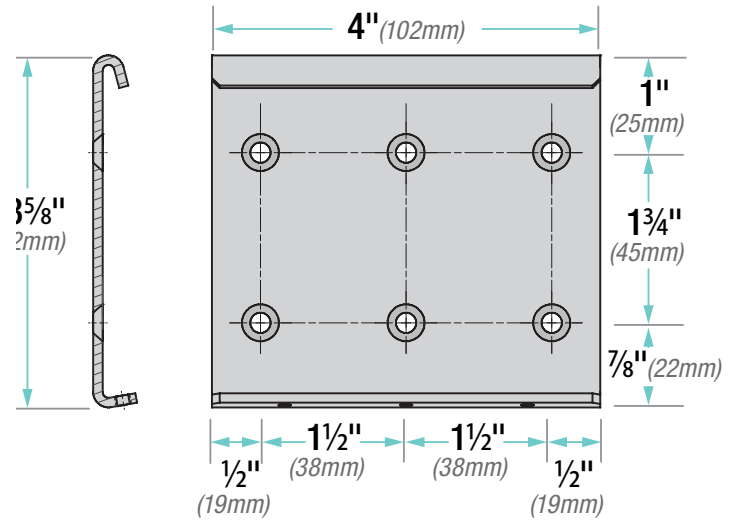
**Side Cable Ceiling Mount Option**



## Case

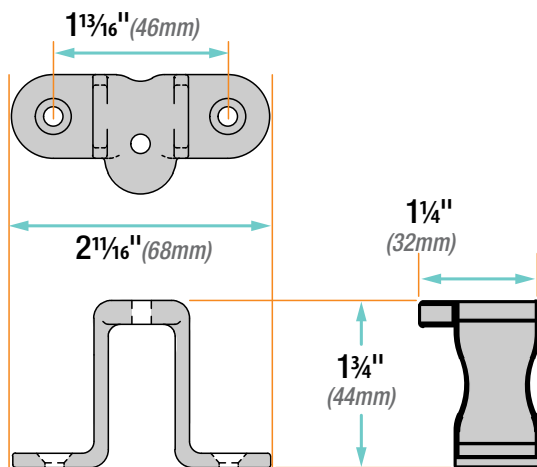


## Wall Mounting Bracket

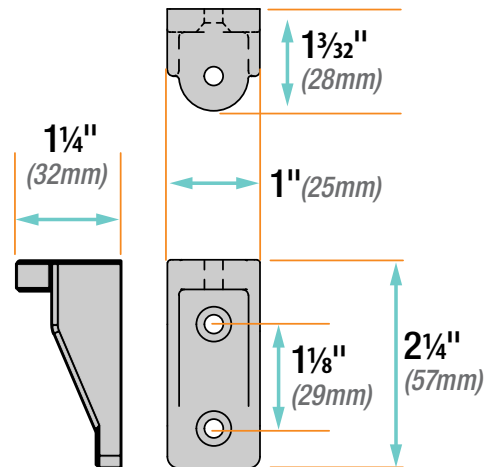


NOTE: Mounting brackets attach to surface with #10 Flat Head Screw

## Cable Guide - Deck Mount



## Cable Guide - Wall Mount



## Section 11 - Assembled Dimensions

