

Crestron **CCS-TS-6500-WMK**  
Tilting Wall Mount for 65" Display

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Installation Guide



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# Tilting Wall Mount for 65" Display: CCS-TS-6500-WMK

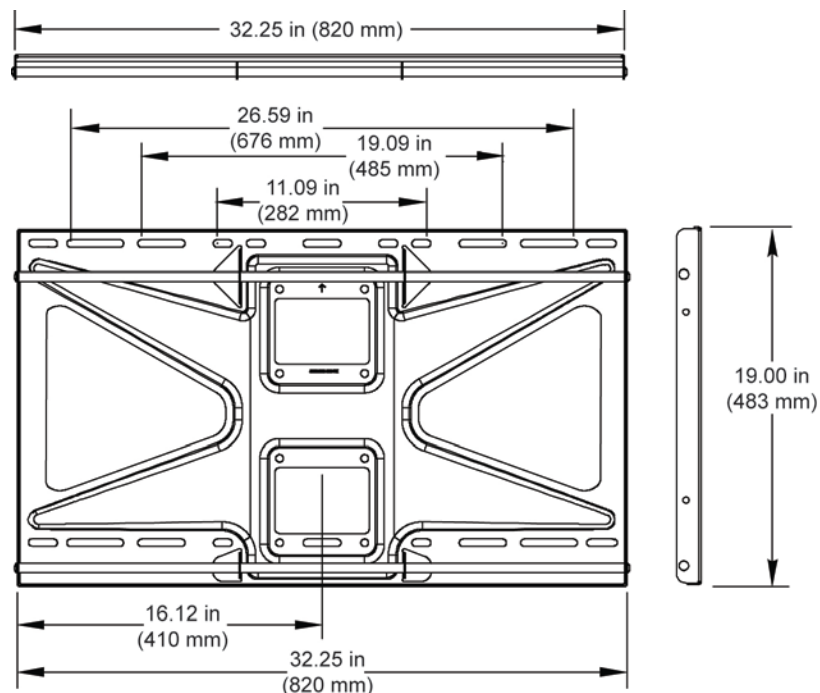
## Introduction

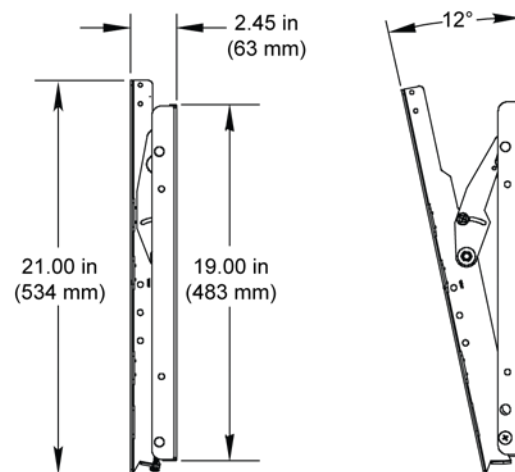
The Crestron® tilting wall mount for 65" flat panel displays is crafted to support flat panel displays from 37" up to 65", along with associated electronic devices, hardware, and interconnecting cables.

## Features and Functions

- Supports combined weight of display and associated hardware up to 160 pounds (72 kg)
- Permits flat panel to be tilted forward up to 12°
- Can be mounted to walls with wood studs or steel studs
- Multiple safety options prevent the flat panel from being accidentally removed or dislodged from the wall mount

*CCS-TS-6500-WMK Overall Dimensions*

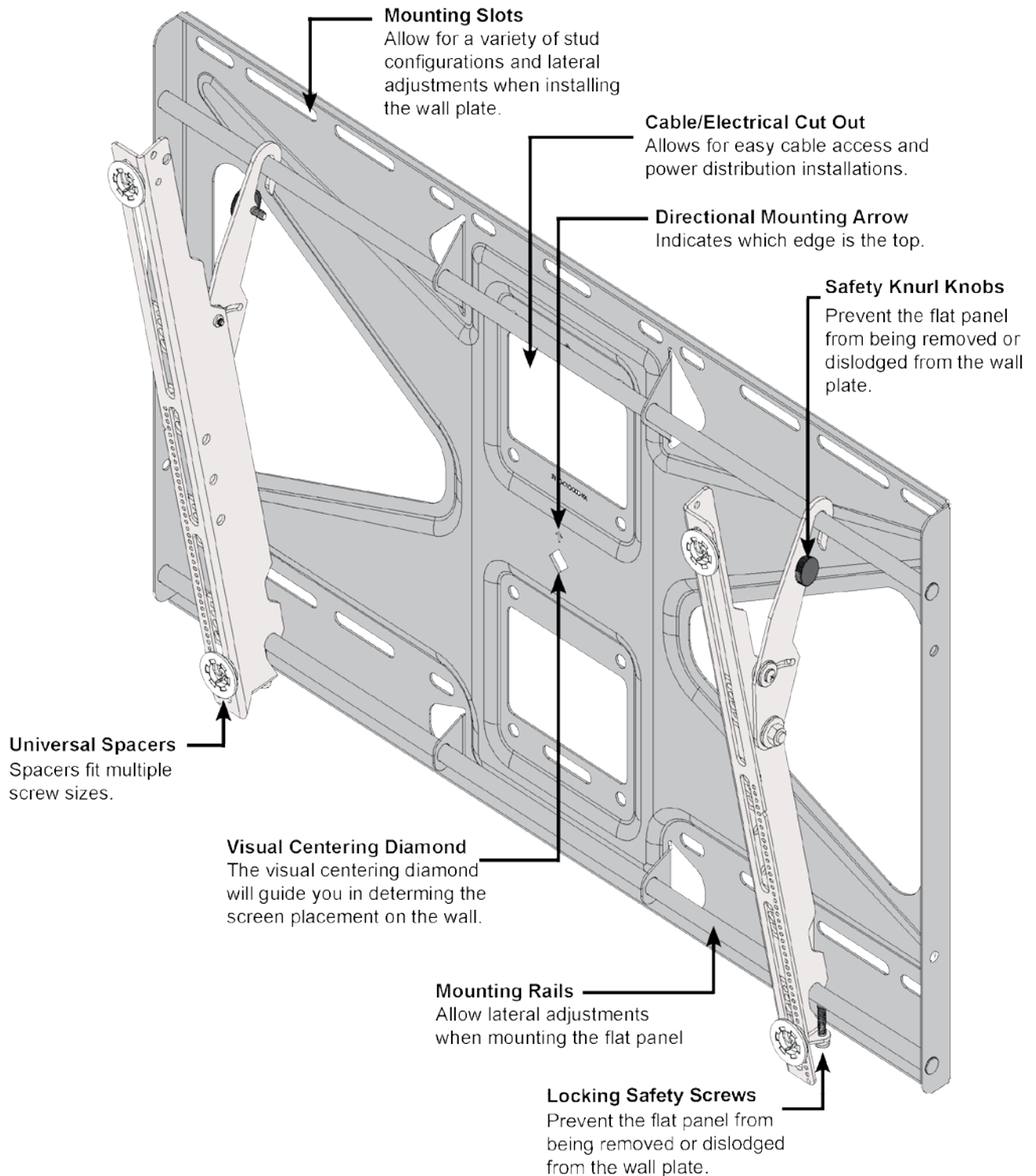


*CCS-TS-6500-WMK Mounting Bracket Dimensions (Shown Attached to Wall Plate)*

## Illustrated Features

The illustration on the following page highlights important features of the tilting wall mount assembly.

*Tilting Wall Mount Features*



## Setup

### Supplied Hardware

The hardware supplied with the CCS-TS-6500-WMK is listed in the following table.

*Supplied Hardware for the CCS-TS-6500-WMK*

DESCRIPTION	QUANTITY
Wall Plate	1
Mounting Bracket	2
Thread Depth Indicator	1
Griplate™ Washer	6
M6 Safety Knurl Knob	2
Universal Spacers	24
Panelock™ Hooks	2
M6 x 12 mm Security Head Screw	2
Security Head Allen Wrench	1
5/16" x 3" Lag Bolts (Wooden Studs Only)	6
5/16" Flat Washers	6
M6 x 30 mm Locking Safety Screw	2
Extension Bracket	2
Horizontal Support Bracket	2
M8 Nylon Insert Locking Nut	4
M8 x 12 mm Pan Phillips Screw	4
M4 x 16 mm Screw	6
M4 x 25 mm Screw	6
M4 x 30 mm Screw	6
M5 x 16 mm Screw	6
M5 x 25 mm Screw	6
M5 x 30 mm Screw	6
M6 x 16 mm Screw	6
M6 x 25 mm Screw	6
M6 x 30 mm Screw	6
M6 x 45 mm Screw	6
M8 x 16 mm Screw	6
M8 x 25 mm Screw	6
M8 x 30 mm Screw	6
M8 x 45 mm Screw	6
M8 x 70 mm Screw	4

**NOTE:** Use the M8 x 25 mm screws to attach the mounting bracket assembly to the 65" display provided with the CCS-UC-100-1/-2 PAK KITS.



## Installation

This section provides installation procedures for the wall plate, extension brackets and horizontal support brackets, mounting brackets, and the flat panel display. Be sure to review each procedure before starting.

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**WARNING:** The wall structure must be capable of supporting at least five times the weight of the flat panel display (maximum flat panel weight; 160 lb). If not, the wall structure must be reinforced. Proper installation procedure by a qualified service technician, as outlined in the installation instructions, must be followed. Failure to do so could result in serious personal injury.

**WARNING:** Be aware of the mounting environment. If drilling or cutting into the mounting surface, always make sure that there are no electrical wires in the wall. Cutting or drilling into an electrical line may cause serious personal injury.

**WARNING:** Make sure there are no water or natural gas lines inside the wall where the mount is to be located. Cutting or drilling into a water or gas line may cause severe property damage or personal injury.

**WARNING:** At least two qualified people should perform the assembly and mounting procedure. Personal injury or property damage can result from dropping or mishandling the flat panel.

**CAUTION:** Do not install near sources of high heat. Do not install on a structure that is prone to vibration, movement or chance of impact.

**CAUTION:** If mounting to wall studs, make sure that the mounting screws are anchored into the center of the wall studs. Use of an edge-to-edge stud finder is recommended.

**NOTE:** If installing the wall plate on the CCS-TS-6500-MCK mobile cart mount rather than a wall, refer to the instructions given in the CCS-TS-6500-MCK Installation Guide (Doc. 7512) at [www.crestron.com/manuals](http://www.crestron.com/manuals).

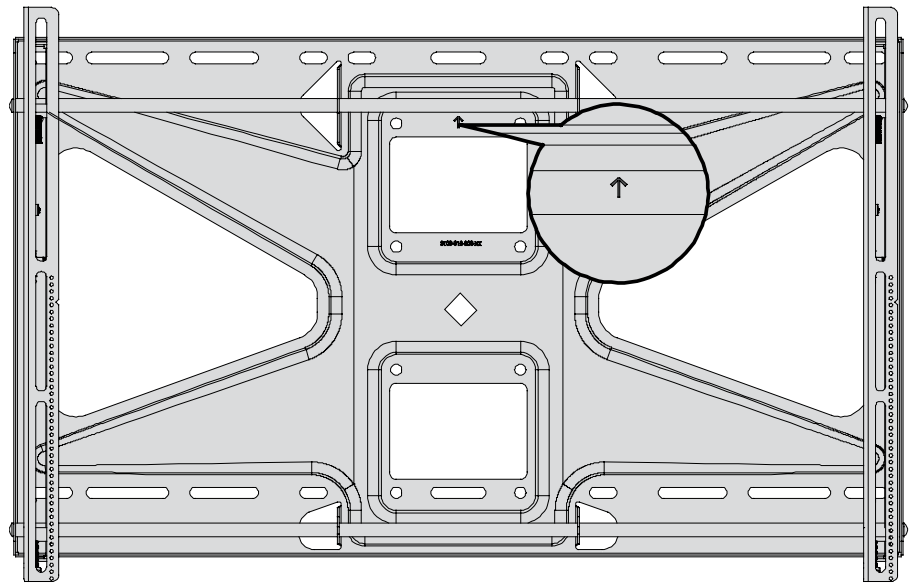
**NOTE:** Installation requires the use of a #1 or #2 Phillips screwdriver as well as a socket wrench with 1/2" and 7/16" sockets.

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### Wall Plate Installation

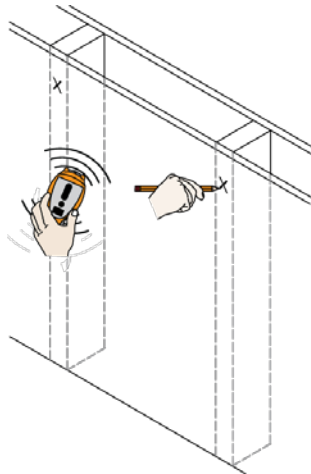
Refer to the illustration on the following page and install the wall plate as follows:

- The directional arrow stamped into the wall plate indicates which edge is the top.
- The visual centering diamond acts as a guide in determining placement on the wall.

*Wall Plate with Directional Arrow and Centering Diamond***Locate Wall Studs**

The wall plate must be secured to two wall studs using four lag bolts (two lag bolts per stud).

1. Use a stud finder to determine the exact center of wall studs where the wall plate is to be mounted.
2. Use a pencil to mark the exact center of each wall stud.

*Locate Wall Studs***Mark the Upper Right Mounting Location**


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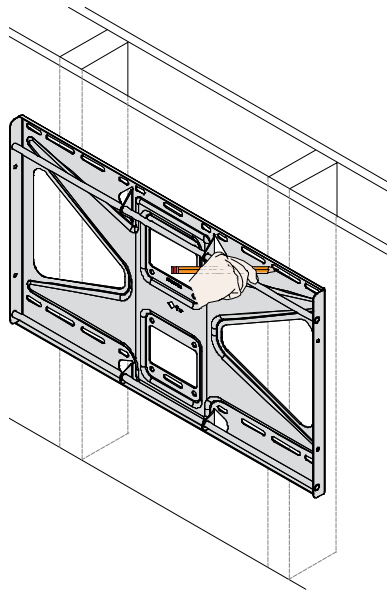
**NOTE:** Two people are recommended for this step: one to level the wall plate and hold it in position; the other to mark the wall stud location.

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1. Place the wall plate against the wall in the desired viewing location.
2. Adjust the wall plate to align the mount slots in the wall plate with the center line of the wall studs.

3. Level the wall plate and mark the upper right mounting location along the center of the wall stud.

***Mark the Upper Right Mounting Location***



***Install First Lag Bolt***

1. Drill a pilot hole in the center of the upper right mark using a 1/4" drill bit and power drill.

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**NOTE:** Only use a 1/4" drill bit when drilling pilot holes.

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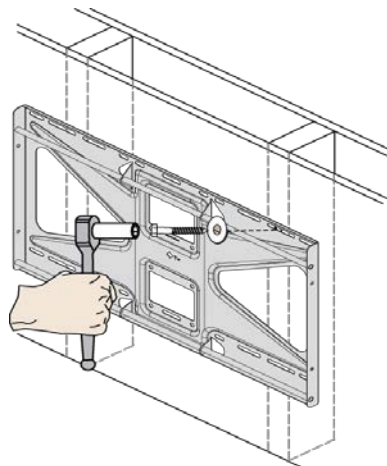
2. Place the wall plate against the wall and align it with the pilot hole.
3. Insert one 5/16" x 3" lag bolt with one 5/16" washer into the upper right pilot hole.
4. Use a socket wrench and a 1/2" socket to tighten the lag bolt.

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**NOTE:** Do not over tighten the lag bolt.

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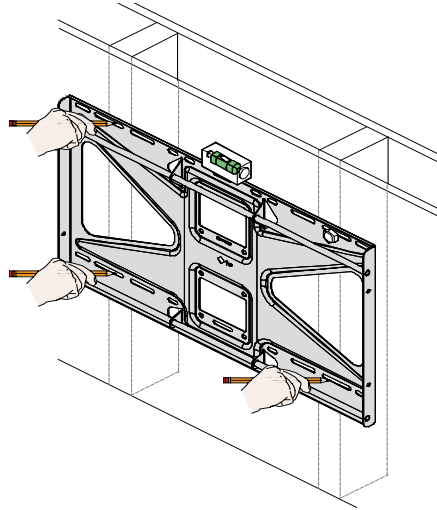
***Install First Lag Bolt***



### ***Mark Remaining Mounting Locations***

1. Level the wall plate.
2. Use a pencil to mark the remaining three mounting locations along the center line of each wall stud.

#### ***Mark Remaining Mounting Locations***



### ***Install Remaining Lag Bolts***

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**NOTE:** Two people are recommended for this step: one to level the wall plate and hold it in position; the other to drill the remaining pilot holes.

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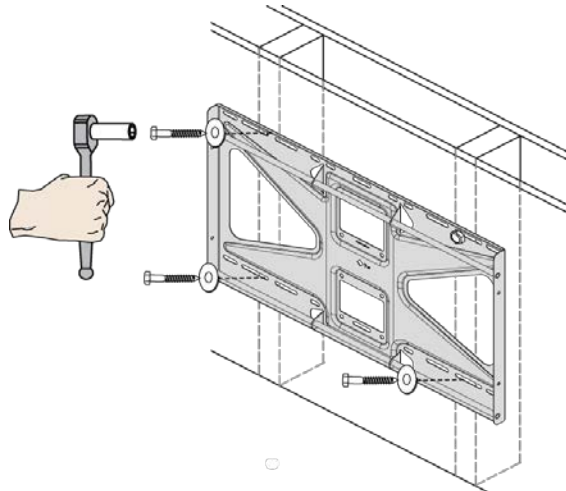
1. Drill a pilot hole in the center of each of the marks using a 1/4" drill bit and power drill.
2. Insert one 5/16" x 3" lag bolt with one 5/16" washer into each pilot hole.
3. Tighten all lag bolts using a socket wrench and a 1/2" socket.

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**NOTE:** Do not over tighten the lag bolts.

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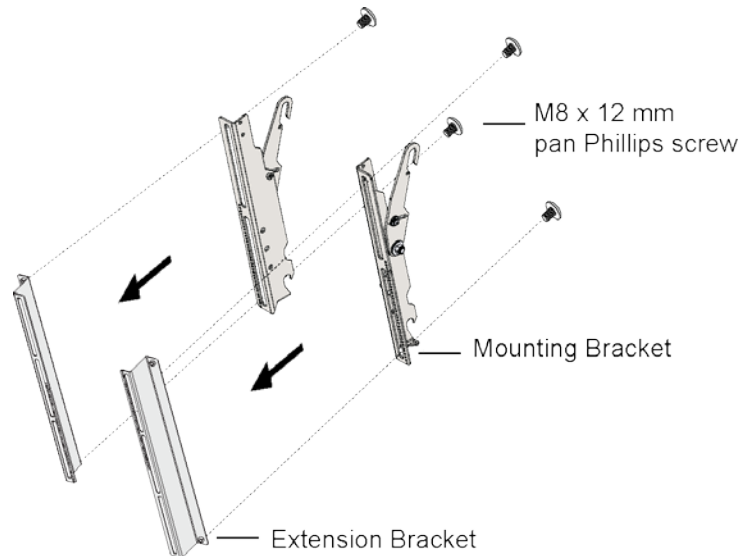
#### ***Install Remaining Lag Bolts***



**Extension Bracket Installation**

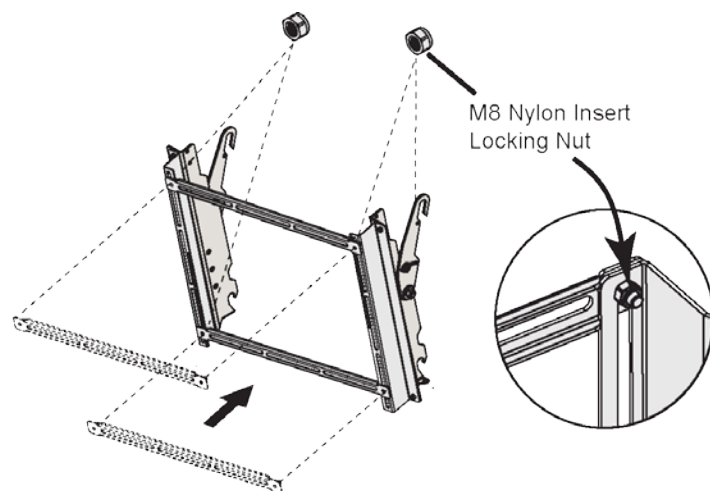
Install the extension brackets as follows:

1. Use four M8 x 12 mm pan Phillips screws to attach two extension brackets to the two mounting brackets.
2. Insert the screws through the back of the PEM nuts on the extension brackets.

**Extension Bracket Installation****Horizontal Support Bracket Installation**

Install the horizontal support brackets as follows:

1. Use four M8 nylon insert locking nuts to attach two horizontal support brackets to the two extension brackets.
2. Insert the nuts on the pegs that are on the backs of the horizontal support brackets.

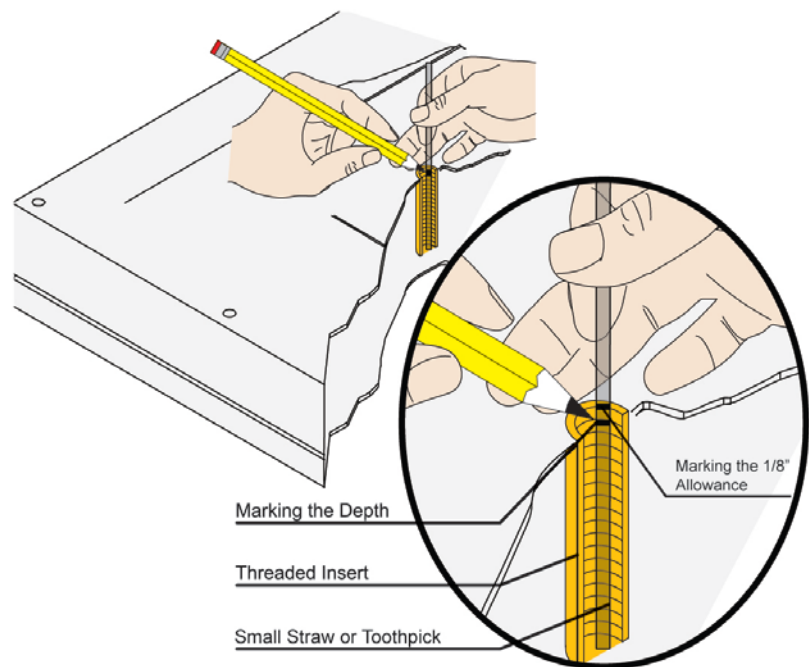
**Horizontal Support Bracket Installation**

**Mounting Bracket Assembly  
Installation**

Install the mounting bracket assembly as follows:

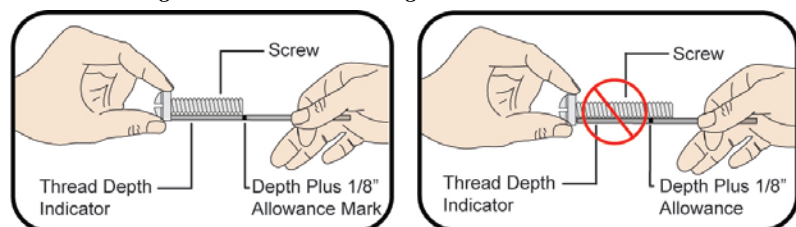
**Select Mounting Hardware**

1. Insert a thread depth indicator into the threaded inserts found on the back of the flat panel. (Refer to the illustration below.)
2. Use a pencil to mark the depth of the threaded insert on the thread depth indicator.
3. Mark the thread depth indicator 1/8" above the depth of the threaded insert, as shown in the illustration.
4. Insert the thread depth indicator into the remaining threaded inserts to compare and verify their depth using the thread depth indicator's 1/8" allowance mark.
5. Locate the correct diameter screw for the threaded insert.

**Select Mounting Hardware – Mark Depth**

**NOTE:** If the selected screw is longer than the 1/8" allowance mark on the thread depth indicator, as shown in the illustrations below, do not use this screw. The screw must not bypass this mark.

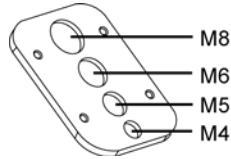
6. Test each size of the screws provided. The correct screws should thread easily into the mounting point and not pull out when tension is applied.

**Select Mounting Hardware – Screw Length**

### ***Griplate Washer Installation***

Griplate™ washers are designed to accommodate M4, M5, M6 and M8 screw sizes required by flat panels.

#### ***Griplate Screw Hole Sizes***



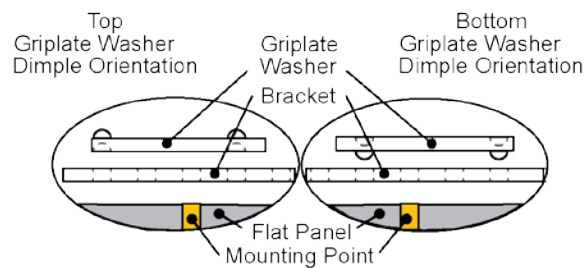
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**CAUTION:** Do not place excessive pressure on the back of the flat panel, as this may damage the panel.

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1. Griplate washers installed at the top portion of the flat panel must have the points of the dimples facing away from the flat panel.
2. Griplate washers installed at the bottom portion of the flat panel must have the points of the dimples facing toward the flat panel.

#### ***Griplate Mounting Orientation***



### ***Nylon Spacer Installation***

Nylon spacers permit the mounting brackets to be attached to flat panels that have recessed or uneven mounting points, a curved surface, or obstructions near the mounting points.

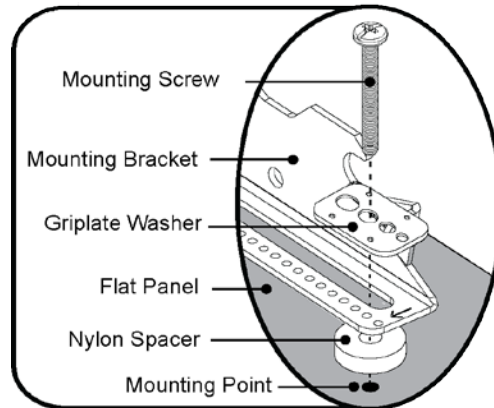
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**NOTE:** Nylon spacers must only be installed between the mounting bracket and the flat panel.

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Refer to the illustration below for typical hardware arrangement.

*Typical Nylon Spacer Installation*



*Mounting The Flat Panel*

Mount the flat panel as follows:

***Attach the Flat Panel to the Wall Plate***

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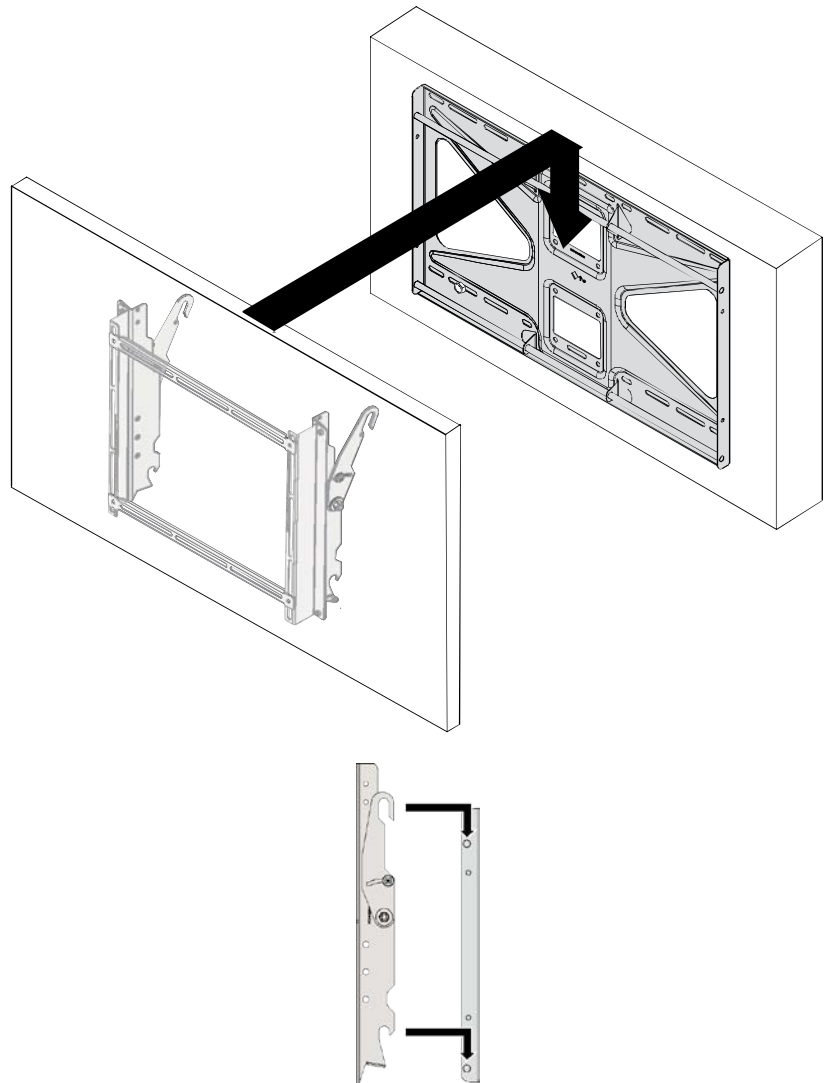
**CAUTION:** Two people are required for mounting the flat panel.

**CAUTION:** Do not release the flat panel until it is certain that the top and bottom hooks of both mounting brackets are securely seated on the upper and lower mounting rails of the wall panel.

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1. Refer to the illustration on the following page and raise the flat panel mounting bracket hooks past the top and bottom rails of the wall panel.
2. Slide the flat panel down slowly, keeping it close to the wall, and engage the top and bottom mounting bracket hooks to the rails of the wall plate.
3. Secure the flat panel to the wall plate by installing either the supplied safety knurled knobs or the supplied Panelock hardware as described beginning on the following page.



*Attach Flat Panel to Wall Plate****Safety Knurled Knob Installation***

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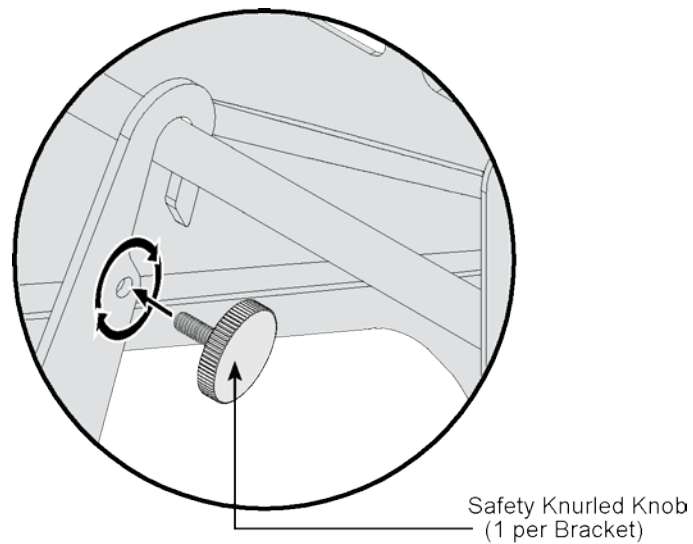
**NOTE:** The safety knurled knobs keep the flat panel from being accidentally dislodged from the wall plate.

**NOTE:** If the Panelock theft deterrent device is preferred, skip these instructions and proceed to “Panelock Installation”, which follows.

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1. Fully extend the flat panel away from the wall.
2. Refer to the illustration on the following page and install and tighten a safety knurled knob at the top of each mounting bracket.

### *Safety Knurled Knob Installation*



### **Panelock Installation**

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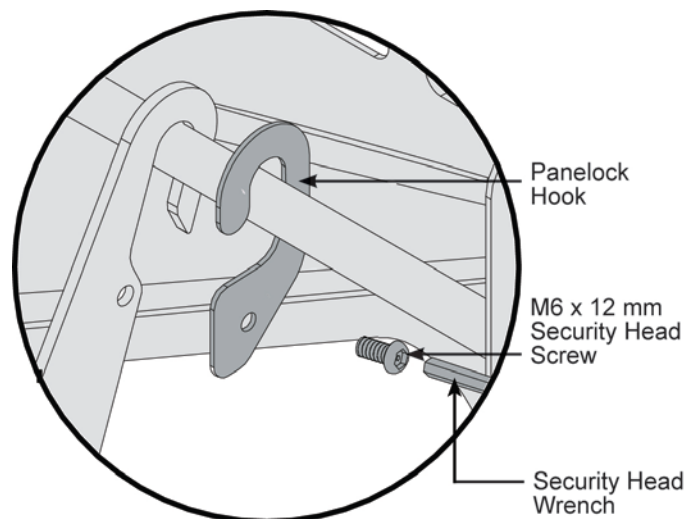
**NOTE:** If the safety knurled knobs were previously installed, they must be removed prior to installing the Panelock hardware.

**NOTE:** Make certain that the Panelock hooks face in the same direction as shown in the following illustration.

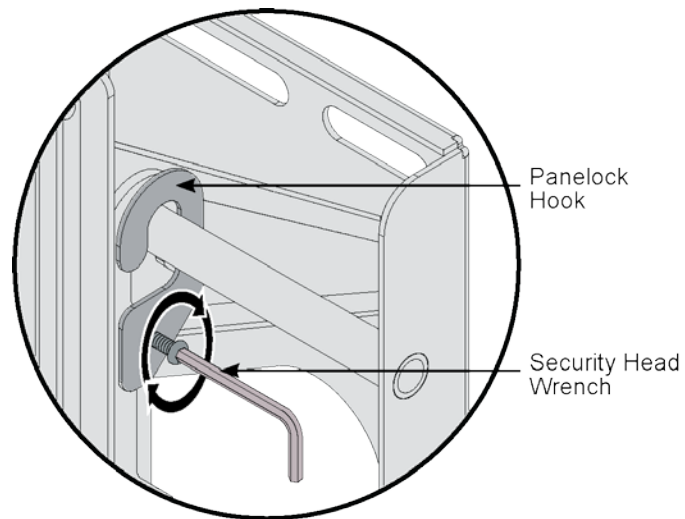
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1. Fully extend the flat panel away from the wall.
2. Place a Panelock hook on the top mounting rail to the outside of each mounting bracket hook.
3. Insert and tighten the supplied M6 x 12 mm security head screws to secure the Panelock hooks to the mounting brackets.

### *Panelock Installation*



### *Securing the Panelock Hooks*



### **Safety Screw Installation**

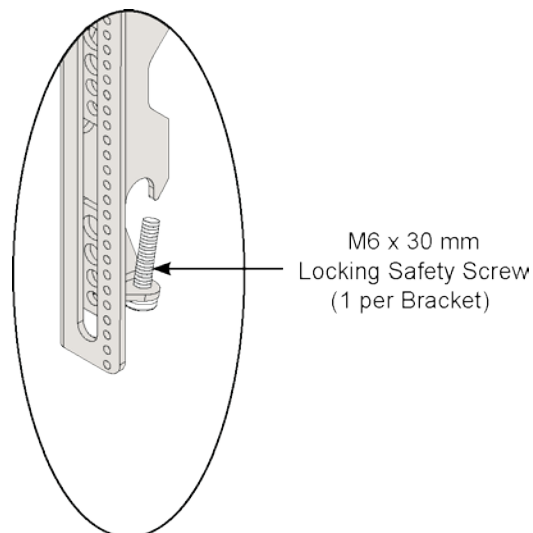
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**NOTE:** The locking safety screws keep the flat panel from being accidentally dislodged from the wall panel mounting rails.

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1. Thread an M6 x 30 mm locking safety screw into the bottom of each mounting bracket, as shown in the following illustration.
2. Use a Phillips head screwdriver to tighten the locking safety screws.

### *Safety Screw Installation*



### **Tilt Adjustment**

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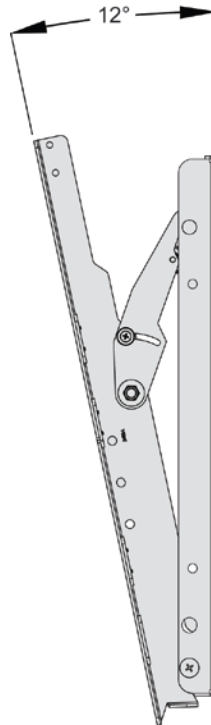
**NOTE:** It is recommended to use two hands to adjust the flat panel viewing angle.

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1. Place one hand at the top center edge of the flat panel, and the other hand at the bottom center position.

2. To tilt the flat panel downward, gently pull the top of the flat panel outward while pushing the bottom edge away to achieve the desired viewing angle.
3. Reverse the procedure to return the panel to its flat position.

*Tilt Adjustment Range*



## Resources

### Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or, for assistance within a particular geographic region, refer to the listing of Crestron worldwide offices at [www.crestron.com/offices](http://www.crestron.com/offices).

To post a question about Crestron products, log onto Crestron's Online Help at [www.crestron.com/onlinehelp](http://www.crestron.com/onlinehelp). First-time users must establish a user account to fully benefit from all available features.

### Future Updates

As Crestron improves functions, adds new features and extends the capabilities of the CCS-TS-6500-WMK, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron Web site periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

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## Return and Warranty Policies

### Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange or service without prior authorization from Crestron. To obtain warranty service for Crestron products, contact an authorized Crestron dealer. Only authorized Crestron dealers may contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number and return address.
2. Products may be returned for credit, exchange or service with a Crestron Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to Crestron, 6 Volvo Drive, Rockleigh, N.J. or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. Crestron reserves the right in its sole and absolute discretion to charge a 15% restocking fee plus shipping costs on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by Crestron, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

### Crestron Limited Warranty

Crestron Electronics, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from Crestron, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touch screen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from Crestron or an authorized Crestron dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

Crestron shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended or if it has been subjected to misuse, accidental damage, modification or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall Crestron be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. Crestron is not liable for any claim made by a third party or made by the purchaser for a third party.

Crestron shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, Crestron makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

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Specifications subject to  
change without notice.