

# Installation and Assembly:

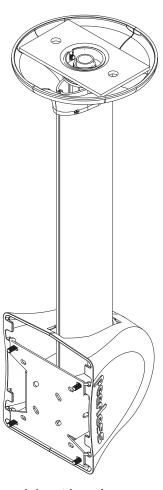
# Ceiling mount for LCD screens up to 29"

Models: LCC 18-C, LCC 18-CS, LCC 36-C, LCC 36-CS

Patent Pending

# Peerless.





Vertical Position

#### Features:

- Comes in two adjustable height ranges (in 1" increments): 18"-30" and 36"-48"
- -5° to +20° adjustable tilt
- Screen can be mounted in standard position or face-down
- · Portrait or landscape orientation
- · Ceiling plate included
- Hardware included for wood or concrete installations
- Snap-together cover provides sleek aesthetics and cord management
- · Theft resistant security fasteners included
- VESA® 75/100 mm compliant (Non-VESA adapter offered separately)
- · Comes in black and silver
- 360° swivel action



This product is UL Listed. It must be installed by a qualified professional installer.

Max UL Load Capacity: 40 lb (18.1 kg)

#### **A WARNING**

- Do not begin to install your Peerless product until you have read and understood the instructions and warnings contained in this Installation Sheet. If you have any questions regarding any of the instructions or warnings, please call Peerless customer care at 1-800-729-0307.
- This product should only be installed by a qualified professional.
- Make sure that the ceiling will safely support the combined load of the equipment and all attached hardware and components.
- Never exceed the Maximum UL Load Capacity of 40 lb (18.1 kg).
- If mounting to wood ceiling joists, make sure that mounting screws are anchored into the center of the joists. Use of an "edge to edge" stud finder is highly recommended.
- Always use an assistant or mechanical lifting equipment to safely lift and position equipment.
- Tighten screws firmly, but do not overtighten. Overtightening can damage the items, greatly reducing their holding power.

#### Accessories

- Lightweight Adjustable Suspended Ceiling Kit (CMJ 500)
- Lightweight Suspended Ceiling Kit (CMJ 455)
- Accessory Pack for CMJ 455 (ACC 455)
- Lightweight Cathedral Ceiling Plate (ACC 912)
- Unistrut or Structural Ceiling Plates (CMJ 300, CMJ 310)
- Anti-Vibration Ceiling Plates (ACC 845)
- I-Beam Clamps (ACC 558, ACC 559)
- Truss Ceiling Adapter (ACC 557)
- Unistrut Adapter (ACC 550)

#### **Tools Needed for Assembly**

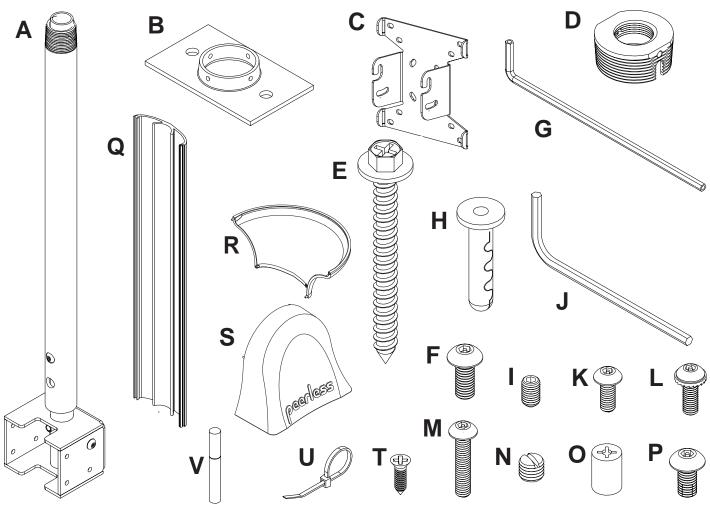
- stud finder ("edge to edge" stud finder is recommended)
- · phillips screwdriver
- drill with 1/4", 3/8", 5/32", and #46 drill bits

- 3/4" Pipe Reducer (ACC 913)
- Fixed Length 1 1/2" Extension Columns (EXT models)
- Adjustable Length 1 1/2" Extension Columns (ADJ models)
- Extension Column Stabilizer Kit (ACC 050)
- Extension Column Connector (ACC 109)
- 1/2" Threaded Rod (ACC 820)
- Threaded Rod Adapter (ACC 810)
- Non-VESA® Adapter Plates (LC models)
- handsaw
- carpenter's knife

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| Parts List LCC 18-CS LCC 36-C LCC 36-CS |  |      |             |             |             |             |  |
|---|--|------|-------------|-------------|-------------|-------------|--|
|   | Description                                      | Qty. | Part #      | Part #      | Part #      | Part #      |  |
| Α                                       | tube assembly                                    | 1    | 055-1520    | 055-4520    | 055-1521    | 055-4521    |  |
| В                                       | ceiling plate                                    | 1    | 580-1042    | 580-4042    | 580-1042    | 580-4042    |  |
| С                                       | tilt bracket                                     | 1    | 055-1551    | 055-4551    | 055-1551    | 055-4551    |  |
| D                                       | reducer  | 1    | 580-1009    | 580-4009    | 580-1009    | 580-4009    |  |
| E                                       | #14 x 2.5" wood screw                            | 2    | 5S1-015-C03 | 5S1-015-C04 | 5S1-015-C03 | 5S1-015-C04 |  |
| F                                       | M5 x 12 mm socket pin screw                      | 4    | 520-1064    | 520-2064    | 520-1064    | 520-2064    |  |
| G                                       | 4 mm security allen wrench                       | 1    | 560-9646    | 560-9646    | 560-9646    | 560-9646    |  |
| Н                                       | Alligator® concrete anchor                       | 2    | 590-0097    | 590-0097    | 590-0097    | 590-0097    |  |
| ı                                       | 10-32 x 3/8" socket set screw                    | 1    | 520-1127    | 500-2018    | 520-1127    | 500-2018    |  |
| J                                       | hex wrench                                       | 1    | 560-1034    | 560-1034    | 560-1034    | 560-1034    |  |
| K                                       | M4 x 10 mm socket pin screw                      | 4    | 520-1060    | 520-2060    | 520-1060    | 520-2060    |  |
| L                                       | M4 x 12 mm serrated washer head socket pin screw | 4    | 510-1079    | 510-2079    | 510-1079    | 510-2079    |  |
| М                                       | M4 x 20 mm socket pin screw                      | 4    | 520-1061    | 520-2163    | 520-1061    | 520-2163    |  |
| N                                       | #10-32 x 3/16" slotted set screw                 | 1    | 520-1187    | 520-2187    | 520-1187    | 520-2187    |  |
| 0                                       | retaining spacer                                 | 4    | 590-5005    | 590-5003    | 590-5005    | 590-5003    |  |
| Р                                       | M5 x 10 mm socket pin F-type screw               | 1    | 520-1164    | 520-2031    | 520-1164    | 520-2031    |  |
| Q                                       | vertical cover                                   | 2    | 590-1183    | 590-4183    | 590-1184    | 590-4184    |  |
| R                                       | top cover  | 2    | 590-1185    | 590-4185    | 590-1185    | 590-4185    |  |
| S                                       | tilting cover                                    | 2    | 590-1186    | 590-4186    | 590-1186    | 590-4186    |  |
| Т                                       | #4-24 x 3/8" flat head phillips screw            | 3    | 560-1715    | 560-4715    | 560-1715    | 560-4715    |  |
| U                                       | cable tie  | 3    | 590-1168    | 590-1168    | 590-1168    | 590-1168    |  |
| ٧                                       | super glue                                       | 1    | 600-0017    | 600-0017    | 600-0017    | 600-0017    |  |
| W                                       | alcohol pad (not shown)                          | 1    | 600-0018    | 600-0018    | 600-0018    | 600-0018    |  |



# Installation to Wood Joist Finished Ceilings, Exposed Wood Joists, or Wood Beam Ceilings

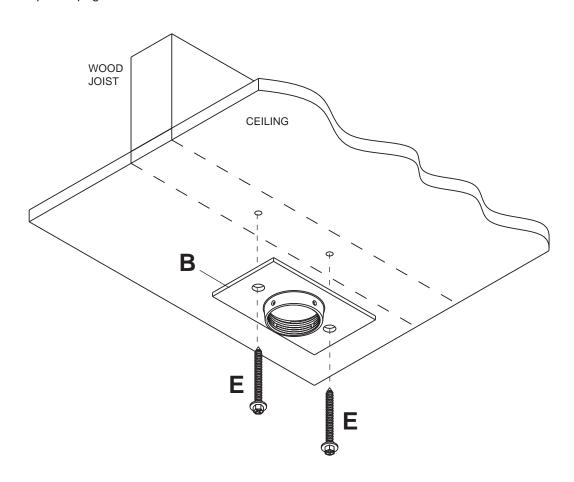


Drill two 5/32" (4 mm) dia. holes to a minimum depth of 2.5" (64 mm). Attach ceiling plate (**B**) with two #14 x 2.5" (6 mm x 65 mm) wood screws (**E**) as shown using 3/8" (10 mm) socket wrench. Tighten wood screws (**E**) so ceiling plate (**B**) is firmly attached.

## **A WARNING**

- Tighten wood screws so that ceiling plate is firmly attached, but do not overtighten. Overtightening can damage the screws, greatly reducing their holding power.
- Never tighten in excess of 80 in lb (9 N.M.).
- Make sure that mounting screws are anchored into the center of the joist. The use of an "edge to edge" stud finder is highly recommended.

Skip to step 2 on page 6.



## Installation to Concrete Ceilings

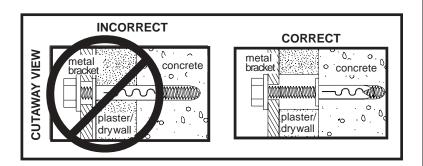
Drill two 1/4" (6 mm) dia. holes to a minimum depth of 2.5" (64 mm). Attach ceiling plate (B) using two concrete anchors (H) and #14 x 2.5" wood screws (E) as shown in **Illustration A** and 1, 2, and 3 (below). Tighten all fasteners.

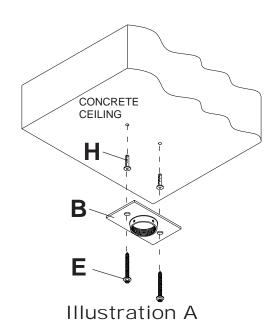
## **A WARNING**

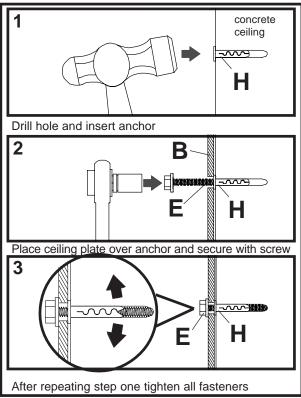
- Tighten wood screws firmly, <u>but do not overtighten</u>.
  Overtightening can damage the bolt, greatly reducing its holding power.
- Never tighten in excess of 80 in lb (9 N.M.).



 Concrete anchors are **not** intended for attachment to concrete wall covered with a layer of plaster, drywall, or other finishing material. If mounting to concrete wall covered with plaster/drywall is unavoidable, plaster/drywall (up to 5/8" thick) must be counterbored as shown below. If plaster/drywall is thicker than 5/8", custom fasteners must be supplied by installer.



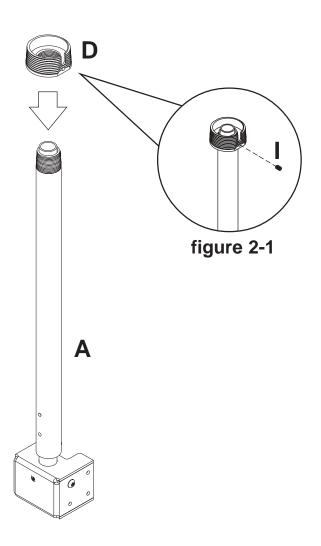




# Installing Reducer

2

Thread reducer (**D**) onto tube assembly (**A**) until tight. Insert set screw (**I**) into reducer as shown in figure 2-1. Tighten screw using hex wrench (**J**). **Note**: Set screw (**I**) is used to jam against the threads of tube assembly to prevent any excess movement.

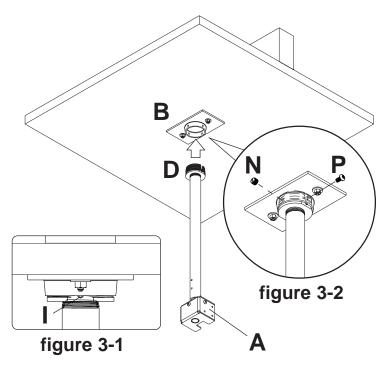


#### Flush Mount Installation

3

Screw reducer (**D**) into ceiling plate (**B**) until notch in reducer is aligned with one of the four holes in ceiling plate and set screw (**I**) is at least partially covered by ceiling plate as shown in figure 3-1. Secure reducer with one M5 x 10 mm F-type socket pin screw (**P**) using security allen wrench (**G**) as shown in figure 3-2. **Note**: Slotted set screw (**N**) is used to jam against the threads of the reducer to prevent any excess movement of the tube assembly (**A**). Do not overtighten screw; overtightening screw will damage threads making it difficult to separate the products.

Skip to step 4 on page 10.



# Installation to Threaded Rod

Accessory ACC 810, threaded rod adapter, is required. Not UL Listed.

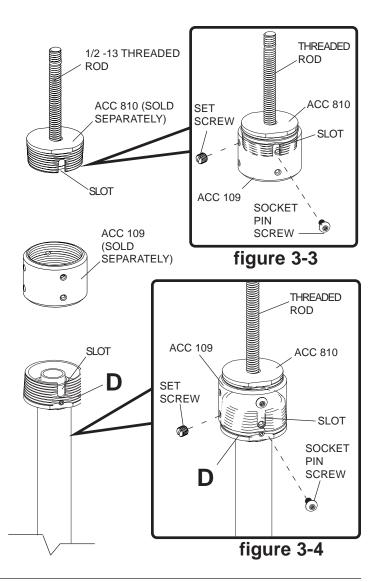


Screw threaded rod adapter (ACC 810) into extension column connector (ACC 109). Align slot in threaded rod adapter with one of the top holes in extension column connector. Insert and tighten one #10-32 x 3/8" socket pin screw provided with extension column connector through extension column connector into slot on threaded rod adapter using 4 mm security allen wrench (G). See figure 3-3.

Align slot in reducer (**D**) to one of the bottom holes in extension column connector. Insert and tighten one #10-32 x 3/8" socket pin screw provided with extension column connector through extension column connector into slot in reducer. See figure 3-4.

**Note**: Slotted set screws provided with extension column connector are used to jam against the threads of each connecting joint to prevent any excess movement. Do not overtighten screws; overtightening screws will damage threads making it difficult to separate the products.

Skip to step 4 on page 10.



#### Installation to Extension Column

3

Screw extension column (**EXT or ADJ Series**) to ceiling plate (**B**). Align the notch with one of the four holes in the ceiling plate and secure extension column with a M5 x 10 mm socket pin screw (**P**) using security allen wrench (**G**). See figure 3-5.

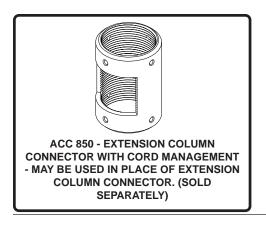
**Note**: Slotted set screw (**N**) is used to jam against the threads of the reducer to prevent any excess movement of the extension column. Do not overtighten screw; overtightening screw will damage threads making it difficult to separate the products.

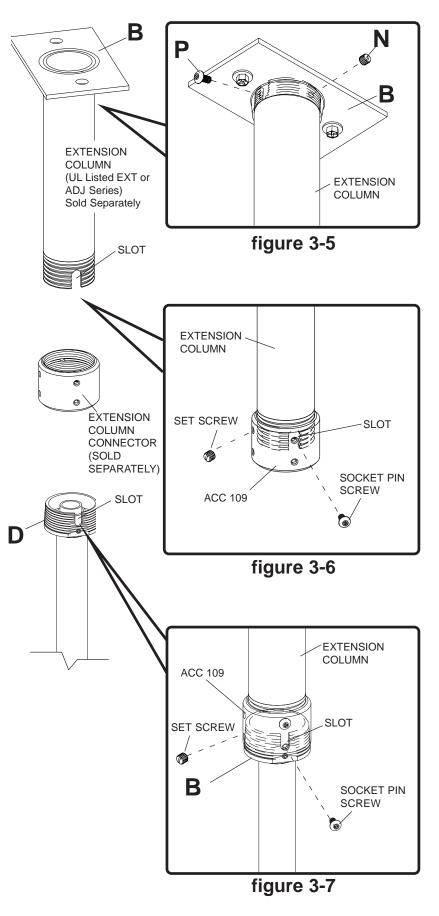
Screw extension column connector (**ACC 109**) to extension column. Align slot in extension column with one of the top holes in extension column connector. Insert and tighten one #10-32 x 3/8" socket pin screw provided with projector through extension column connector into slot on extension column using security allen wrench (**G**). See figure 3-6.

Screw reducer (**D**) to extension column connector. Align reducer to one of the bottom holes in extension column connector. Insert and tighten one #10-32 x 3/8" socket pin screw provided with connector through extension column connector into slot in reducer using security allen wrench (**G**). See figure 3-7.

**Note**: Slotted set screws provided with extension column connector are used to jam against the threads of each connecting joint to prevent any excess movement. Do not overtighten screws; overtightening screws will damage threads making it difficult to separate the products.

Skip to step 4 on page 10.





# Installation to Lightweight Suspended Ceiling Plate

3

Refer to instruction sheet for lightweight suspended ceiling plate (**CMJ 455**) for attachment of ceiling plate to ceiling.

Screw extension column (**EXT or ADJ Series**) to retaining collar in ceiling tray. Align the notch with one of the four holes in retaining collar and secure extension column with one M5 x 10 mm socket pin screw (**P**) using security allen wrench (**G**). See figure 3-8.

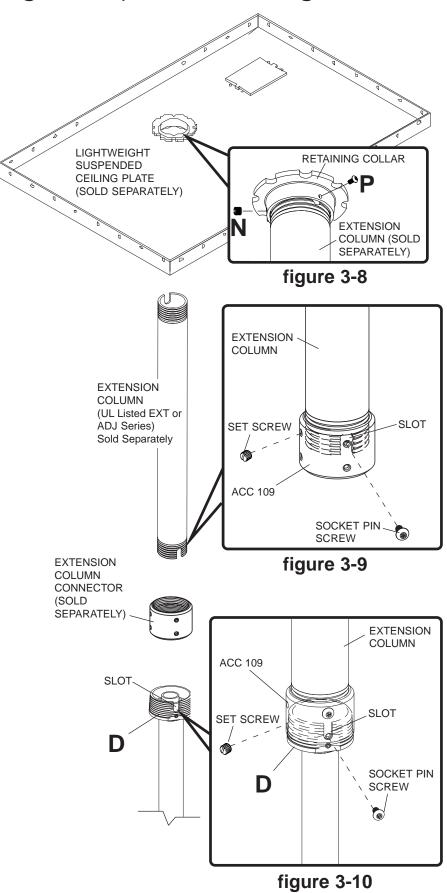
**Note**: Slotted set screw (**N**) is used to jam against the threads of the reducer to prevent any excess movement of the extension column. Do not overtighten screw; overtightening screw will damage threads making it difficult to separate the products.

Screw extension column connector to extension column. Align slot in extension column with one of the top holes in extension column connector. Insert and tighten one 10-32 x 3/8 socket pin screw provided with connector through extension column connector into slot on extension column using security allen wrench. See figure 3-9.

Screw reducer (**D**) to extension column connector. Align slot in reducer to one of the bottom holes in extension column connector. Insert and tighten one 10-32 x 3/8 socket pin screw provided with connector through extension column connector into slot in reducer using security allen wrench. See figure 3-10.

Note: Slotted set screws provided with extension column connector are used to jam against the threads of each connecting joint to prevent any excess movement. Do not overtighten screws; overtightening screws will damage threads making it difficult to separate the products.





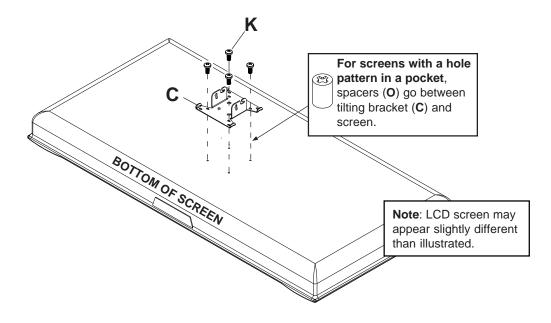
## Attaching Tilt Bracket to LCD Screen



**Note**: This product is designed to accommodate screens with VESA® compliant hole patterns. For safe mounting, please make sure that mounting screws turn at least three complete turns in the screen inserts.

#### FOR VESA 75 MOUNTING PATTERN:

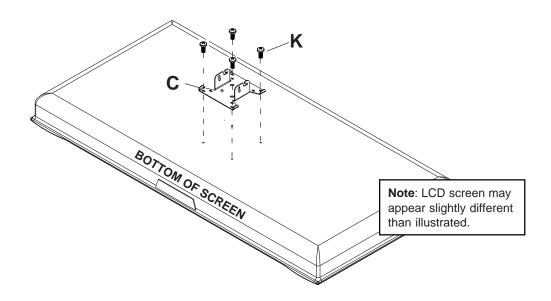
1) Choose hole pattern indicated below. 2) Attach tilt bracket (**C**) to back of screen using four M4 x 10 mm screws (**K**) as indicated below. 3) If hole pattern is in a pocket, attach tilt bracket to back of screen using four M4 x 20 mm screws (**M**) and four retaining spacers (**O**) as indicated below. Tighten all security screws with security allen wrench (**G**).



#### FOR VESA 100 MOUNTING PATTERN:

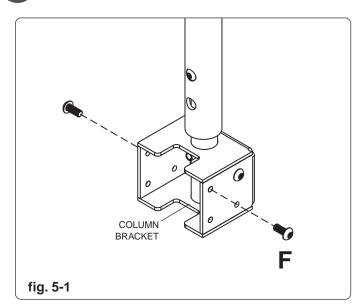
1) Choose hole pattern indicated below. 2) Attach tilt bracket (**C**) to back of screen using four M4 x 10 mm screws (**K**) as indicated below. Tighten all security screws with security allen wrench (**G**).

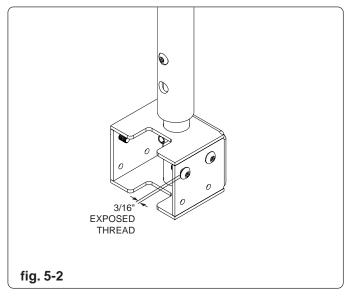
**Note**: If installing LCD screen model Sharp® LC-13E1U, LC-15E1U, LC-20E1U, or if you don't get three complete turns in the screen inserts, use four M4 x 12 mm screws (**L**) instead of four M4 x 10 mm screws (**K**).



# Installation of Screen in the Vertical Position

Insert two M5 x 12 mm screws (**F**) into column bracket of tube assembly (**A**) (see figure 5-1). Leave approximately 3/16" of thread exposed (see figure 5.2).

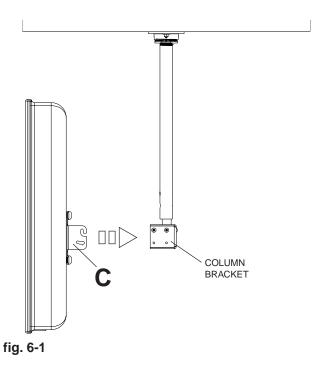


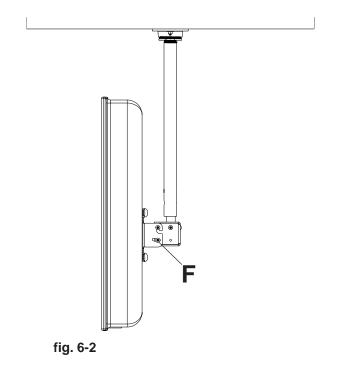


Hook tilt bracket (**C**) onto column bracket (see figure 6-1). Secure with two M5 screws (**F**) (see figure 6-2). Adjust tilt (20° forward and 5° back) and swivel to desired position. Tighten all screws using security allen wrench (**G**). **Note**: Cable ties (**U**) are provided for optional cord management.

## **A WARNING**

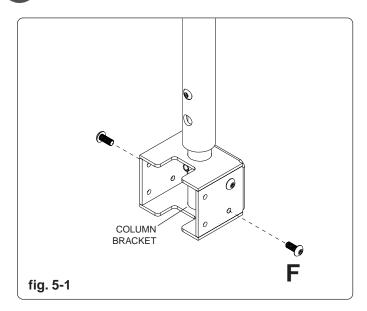
Always use an assistant or mechanical lifting equipment to safely lift and position the LCD screen.

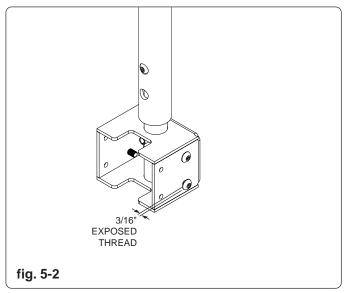




# Installation of Screen in the Horizontal Position

Insert two M5 x 12 mm screws (**F**) into column bracket of tube assembly (**A**) (see figure 5-1). Leave approximately 3/16" of thread exposed (see figure 5-2).

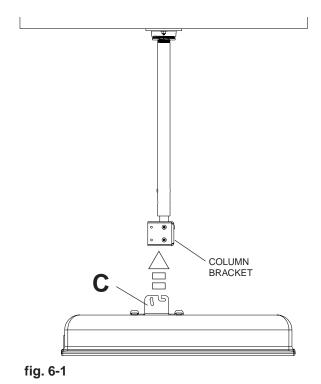


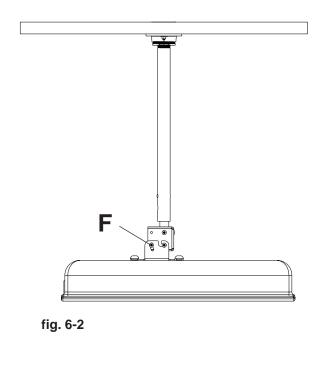


Hook tilt bracket (**C**) onto column bracket (see figure 6-1). Secure with two M5 screws (**F**) (see figure 6-2). Adjust tilt (20° forward and 5° back) and swivel to desired position. Tighten all screws using security allen wrench (**G**). **Note**: Cable ties (**U**) are provided for optional cord management.

## **A WARNING**

Always use an assistant or mechanical lifting equipment to safely lift and position the LCD screen.

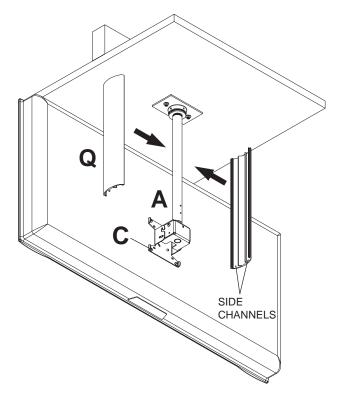




#### Installation of Vertical Covers



Route cords through side channels of one vertical cover  $(\mathbf{Q})$ . Snap two vertical covers together on tube assembly  $(\mathbf{A})$  so that they are perpendicular to tilt bracket  $(\mathbf{C})$ . If necessary, use a handsaw to cut vertical covers to match the length of tube assembly.



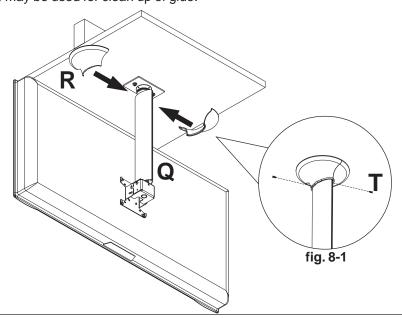
# Installation of Top Covers



Snap two top covers ( $\mathbf{R}$ ) together flush with finished ceiling. Use holes in top covers to mark vertical covers ( $\mathbf{Q}$ ). Using a #46 (approx. .0810") drill bit, drill holes in vertical covers. (**Note**: It may be necessary to remove vertical covers before drilling holes to avoid damaging cables.) Remove top covers ( $\mathbf{R}$ ). Use glue ( $\mathbf{V}$ ) on the inside edge of one of the two top covers ( $\mathbf{R}$ ) so that the two sides will stick together when they are connected. Secure top covers to vertical covers using two #4-24 x 3/8" flat head phillips screws ( $\mathbf{T}$ ) as shown in figure 8-1.

**Note**: One extra flat head phillips screw (**T**) has been provided.

Note: Alcohol pad (W) may be used for clean up of glue.

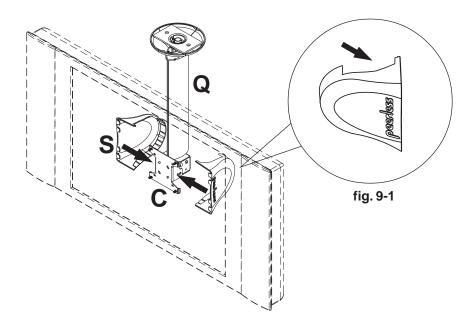


## Installation of Tilt Covers in the Vertical Position

9

Using a carpenter's knife, cut out any sections of tilt covers (**S**) necessary to allow them to snap together over vertical covers (**Q**) as shown in figure 9-1. **Note**: Cut out sections of one tilt cover should mirror cut out sections of the other. Use glue (**V**) on the inside edge of one of the two tilting covers (**S**) so that the two sides will stick together when they are connected. Insert tabs of tilt covers into slots of tilt bracket (**C**) and snap tilt covers together.

Note: Alcohol pad (W) may be used for clean up of glue.



### Installation of Tilt Covers in the Horizontal Position

9

Using a carpenter's knife, cut out any sections of tilt covers (**S**) necessary to allow them to snap together over vertical covers (**Q**) as shown in figure 9-1. **Note**: Cut out sections of one tilt cover should mirror cut out sections of the other. Use glue (**V**) on the inside edge of one of the two tilting covers (**S**) so that the two sides will stick together when they are connected. Insert tabs of tilt covers into slots of tilt bracket (**C**) and snap tilt covers together.

Note: Alcohol pad (W) may be used for clean up of glue.

