Retractor Series/2 • Installation Guide

This guide provides basic instructions for an experienced technician to install the Extron Cable Retraction System with Speed Control for Cable Cubby® Enclosures. The retraction system can be installed in Cable Cubby, Cable Cubby Series/2, AVEdge™, and Cable Cubby TouchLink® Touchpanel enclosures, as well as the TMK 120 R Table Mount Kit. Additional instructions are available in the user guides for the enclosures and TMK 120 R at www.extron.com.

NOTE: For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the “Extron Safety and Regulatory Compliance Guide” on the Extron website.

Planning

The Retractor modules can be mounted in a horizontal, vertical, or angular orientation depending upon under-table clearance and accessibility.

- **Horizontal mounting** is recommended to provide maximum legroom and to protect the Retractor modules against accidental damage.
- **Vertical mounting** is used where insufficient under-table space exists for horizontal mounting or where under-table access is limited.
- **Angular mounting** is used where insufficient under-table space exists for horizontal mounting and tabletop to floor clearance prevents vertical mounting. The enclosure has additional mounting holes that enable mounting at a fixed angle between vertical and horizontal.

NOTES:
- For horizontal mounting, a mounting bracket kit is required.
- Filler modules are required to occupy unused Retractor space.
- For Retractor Series/2 DC modules, refer to the website for laptop compatibility. Always use a power supply recommended by the laptop manufacturer.

Mounting kits, filler modules, and accessories are available at www.extron.com.

For new installations, to determine the best location for the enclosure, keep in mind the under-table space required for the retraction system. Refer to the enclosure installation guide to mount the enclosure.

NOTE: When connectivity brackets, AAP plates, and AAP modules are relocated or removed to provide space for the retraction system, associated hardware can require reconfiguration or replacement. Before starting an installation, determine if additional hardware is needed.

Required Tools and Additional Accessories

- **Horizontal Mounting Bracket** (Optional)
- **Marker Pen**
- **Phillips Screw Driver**
- **Tape Measure**
- **Zip Ties**
- **Hex Nut Driver** (10 mm)
- **Tweezer**
- **Filler Module** (Optional)

To Determine Under-Table Clearances

Follow the Retractor installation instructions provided in your enclosure user guide to determine a suitable mounting location. The diagrams on the following page show the space required for a retraction system installation in a compatible enclosure.

NOTES:
- To prevent objects from impeding cable retraction, ensure the exposed cable clears nearby obstructions.
- Excess cabling can cause clearance issues. Use zip ties to secure under-table cabling to prevent accidental contact or entanglement with users.
The Retractor modules are mounted from below the enclosure.

**Horizontal Mounting:** Be certain the Horizontal Mounting Bracket can be fastened under the table or on a table support without bending the pulley system or forcing it from perpendicular with the enclosure (see *Prepare the Enclosure* on the next page).

**Vertical Mounting:** Ensure the retraction system hangs freely without touching the floor and is not obstructed by anything under the table. The standard system requires about 24 inches (61 cm). An XL system requires about 30 inches (76.2 cm) from the top of the furniture to clear the floor.

**Angular Mounting:** Angular mounting is necessary where the enclosure size and installation location makes retractor installation too long for vertical mounting and there is not adequate under-table clearance for horizontal mounting. An additional mounting hole allows the system to install at an angle providing extra floor clearance (see diagrams below, right).

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### Retractor Series/2

<table>
<thead>
<tr>
<th>Mounting</th>
<th>Horizontal</th>
<th>Vertical</th>
<th>Angular</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.2&quot; (23.4 cm)</td>
<td>23.4&quot; (59.4 cm)</td>
<td>8.3&quot; (22.1 cm)</td>
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<tr>
<td></td>
<td>14.4&quot; (36.6 cm)</td>
<td>20.4&quot; (51.8 cm)</td>
<td>21.7&quot; (55.1 cm)</td>
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<tr>
<td></td>
<td>17.7&quot; (45.0 cm)</td>
<td>23.7&quot; (60.2 cm)</td>
<td>30°</td>
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</table>

**NOTE:** Retractor Series/2 and Retractor Series/2 XL illustrations are shown with optional Cable Cubby 1200 enclosure.

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### Retractor Series/2 XL

<table>
<thead>
<tr>
<th>Mounting</th>
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<th>Vertical</th>
<th>Angular</th>
</tr>
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<tbody>
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<td>9.2&quot; (23.4 cm)</td>
<td>20.4&quot; (51.8 cm)</td>
<td>10.6&quot; (27.0 cm)</td>
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<tr>
<td></td>
<td>23.7&quot; (60.2 cm)</td>
<td>29.4&quot; (74.7 cm)</td>
<td>30°</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>28.4&quot; (72.1 cm)</td>
</tr>
</tbody>
</table>

**NOTE:** Retractor Series/2 and Retractor Series/2 XL illustrations are shown with optional Cable Cubby 1200 enclosure.

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### Pigtails

To make connections to devices under the table, standard Retractor modules have 6 feet (1.8 m) and XL Retractors have 4 feet (1.2 m) of pigtail from the exit of the cable retainer as shown at right. Depending on the Retractor mounting and the location of the devices, you may require patch cables to extend the reach of the pigtail.

If you need to connect to devices further than the pigtails allow, contact your Extron representative or go to [www.extron.com](http://www.extron.com) for a full line of patch cables.
Prepare the Enclosure

Ensure the retraction system has adequate under-table clearance for installation and that proper legroom is provided to avoid accidental contact with the system. You should have the required accessories for mounting the retraction system and to configure the enclosure.

DANGER:
• Disconnect the power from the Cable Cubby enclosure before beginning a Retractor system installation.
• Débranchez l'alimentation du boîtier Cable Cubby avant de commencer l'installation d'un système de Rétracteur.

Prepare the Retractors

The Retractor modules are delivered ready to mount vertically. No further modifications are required. Confirm proper tension alignment using the cable tension adjustment instructions on the product label. If the connector (or stop collar) does not seat fully against the cable release assembly, confirm proper tension adjustment using the instructions on the product label.

To Mount a Retractor Horizontally or at an Angle:

1. Remove two enclosure screws (one on each side) from this position for horizontal and angular mounting.

2. For angular mounting, move the cable release assembly upward until the angular mounting hole is visible. Go to 3. -or- For horizontal mounting, proceed to the Installation section.

To Mount a Retractor in an Angled Position for Increased Under-Table Clearance:

3. Install two enclosure screws (one on each side) in the angular mounting location.
Installation

The enclosure must be installed and properly configured before beginning the retraction system installation.

1. Follow the enclosure installation instructions for new installations, or prepare an existing enclosure installation to mount the Retractor modules.
2. Follow the Retractor mounting instructions in the enclosure installation guide (see the example installation at right).
3. Connect retraction system cables and other AAP cables (if installed).
4. For horizontal mounting, proceed to the Horizontal Bracket Mounting section below.
5. For vertical and angular mounting, proceed to Locking Screw on page 5 for final installation details.

NOTE: Example installation shown with optional Cable Cubby 700 enclosure.

Horizontal Bracket Mounting

For horizontal mounting, use the horizontal mounting bracket to fix the Retractor module under the table. Slotted holes allow for tolerance in placing the bracket.

To ensure accuracy follow these procedures:

1. With the Retractor modules installed in the enclosure, attach the horizontal mounting bracket to the end caps using the provided hardware.

TIP: Hand tighten the nut enough to keep the bracket from easily moving. The bolt and nut are removed later.

2. Raise the Retractors with attached bracket to the desired mounting location.

NOTE: Be certain the system is perpendicular to the enclosure (see the Top View diagram on page 3) to prevent binding of the pulley system.

3. Ensure the bracket is flush with the surface and trace a line around the bracket perimeter.
4. Lower the assembly and remove the horizontal bracket from the Retractor modules.
5. Position the bracket inside the lines drawn in step 3 and fasten with the supplied screws.

**ATTENTION:**
- Ensure the supplied screws do not pierce through the top of the table. Use appropriate screws based on the table material and thickness.
- Assurez-vous que les vis fournies ne transpercent pas la surface de la table. Utilisez des vis plus appropriées en fonction du matériau de la table et de son épaisseur.

6. Raise the Retractor system up into the installed bracket, run the bolt through the bracket and end caps, and secure with the supplied nut.

7. See the **Locking Screw** section below for final installation details.

**ATTENTION:**
- Do not overtighten the horizontal mounting nut. It only needs to be snug. Overtightening could deform the end caps and cause misalignment of the system resulting in poor cable extension and retraction.
- Ne serrez pas trop l’écrou de montage horizontal. Il faut seulement qu’il soit bien ajusté. Le fait de trop serrer pourrait déformer les capuchons aux extrémités et provoquer un mauvais alignement du système, ce qui limiterait l’extension et la rétraction des câbles.

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**Locking Screw**

A locking screw on each Retractor and filler module prevents them from rotating on the enclosure mounting bolt during operation. Tighten each locking screw to prevent movement of the Retractor.

**NOTE:** Do not overtighten. The locking screw only needs to be snug.

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**Initial Adjustments**

Once installed, proper Retractor operation must be verified and necessary adjustments performed.

**CAUTION:**
- Do not operate a Retractor until it is installed.
- Retraction should be a slow, controlled motion.
- Keep hands away from moving parts.

**ATTENTION :**
- Ne vous servez pas d’un rétracteur avant qu’il soit installé.
- La rétraction doit être un mouvement lent et contrôlé.
- N’approchez pas vos mains des parties en mouvement.
Confirm Proper Cable Extension
To extend the cable, grab the connector and pull it from the Retractor to its full length.

Confirm Proper Cable Retraction
To retract a cable (see diagram at right):

**CAUTION:** Use one hand to control the cable as it retracts. A cable allowed to retract too quickly and without control can cause possible injury to the user or damage the furniture surface, Cable Cubby, and nearby items.

**ATTENTION:** Utilisez une main pour contrôler le câble lorsqu’il se rétracte. Un câble qu’on laisse se rétracter trop rapidement et qu’on ne contrôle pas peut provoquer d’éventuelles blessures ou endommager la surface du meuble, du Cable Cubby, ou des objets à proximité.

- If the cable does not retract to suit your application, see the **Speed Control Adjustment** below.
- When the stop collar (or connector, if the cable does not have a stop collar) is seated against the cable release assembly, release the button and cable.
- If the stop collar (or connector) does not seat fully against the cable release assembly, confirm proper tension adjustment using the instructions on the product label.

**Speed Control Adjustment**
The Retractor Series/2 is delivered with the speed control adjusted for nominal operation in all mounting orientations (vertical, horizontal, and angular). However, speed control adjustment may be required in your application.

**NOTES:**
- Ensure the speed control knob remains fully seated, with the teeth of the knob engaged throughout adjustments.
- Retraction speed is affected by the installation orientation (vertical, horizontal, or angular). Always test speed adjustments with the Retractor in its installed position.

The speed control adjusts the cable retraction speed. Turn the speed control a quarter-turn clockwise (the control “clicks” as it turns) to slow the cable retraction. Test the speed after each quarter-turn until the desired speed is reached. If the retraction is too slow after the final quarter-turn, turn the knob counterclockwise one “click” at a time, retesting after each “click”, until the desired speed is reached.

If the cable retraction is too slow, adjust the speed control counterclockwise in the same manner.

**Retractor Operation**
When initial adjustments are complete, the Retractor is ready for operation. To connect a cable, grip the connector and pull enough cable from the Retractor to connect it to the device. There is no need to press the cable release button. When you stop pulling the cable, the Retractor fixes the length automatically.

To retract the cable, press and hold the cable release button until the cable is seated on the cable release assembly.
Laptop Power

The Retractor Series/2 DC, Retractor Series/2 XL DC, Retractor Series/2 Lenovo DC and Retractor Series/2 XL Lenovo DC modules provide a connection for a device on the tabletop to a compatible power supply (not supplied) under the furniture. Installation of the Retractor is identical to other Retractor modules.

The cable has a female connector under the furniture (2) for connection to a power supply (1), and male connector on the topside (3) of the table for connection to a compatible device.

**ATTENTION:**

- Use only the power supply recommended by the manufacturer of the laptop.
- Utilisez uniquement la source d’alimentation recommandée par le fabricant de l’ordinateur portable.
- See the Cable Retraction System DC Power Compatibility Guide at [www.extron.com](http://www.extron.com) for devices compatible with the Retractor modules.

Under-furniture space for the Retractor and power for the OEM power supply must be available. The power supply module must be safely located and supply leads dressed to avoid entanglements and accidental contact.

The power supply (1) must be compatible with both the device power requirements and the female connector (2) on the under-table end of the Retractor cable.

The male DC power connector (3) must be compatible with the power connection of the device.

The Retractor Series/2 DC and Retractor Series/2 XL DC include labels (Dell, HP, and blank-printable) for the topside connector to identify the laptop it is compatible with. Affix the appropriate label as shown at right.
Quick Installation Checklist

Planning (page 1)
- Ensure there is adequate space available in the enclosure.
- Obtain optional mounting brackets and accessories necessary for the application.
- If reconfiguration of the Cable Cubby enclosure is required, obtain the necessary connectivity brackets, AAPs, and mounting frames.
- If necessary, obtain filler modules to occupy unused Retractor space in the enclosure.
- Gather tools needed for installation.

Determine Under-table Clearances (pages 1-2)
- Follow the Retractor system instructions provided with the enclosure user guide.
- Choose the Retractor orientation (page 2):
  - Horizontal mounting: Ensure space is available for the horizontal bracket location.
  - Vertical mounting: Ensure the retraction system hangs freely.
  - Angular mounting: Use angular mounting where vertical mounting is desired but the tabletop to floor distance is less than 30 inches.

Prepare the Cable Cubby Enclosure (page 3)
- Disconnect all power to the Cable Cubby.
- Configure the connectivity brackets, AAPs, and mounting frames.

Prepare the Retractors (page 3)
- To mount the Retractor modules horizontally or at an angle, remove the two Retractor enclosure screws.

Install the Retractors (pages 4-5)
- Connect all retraction system cables and other cables (page 4).
- For horizontal mounting, determine the bracket mounting location and install the bracket (page 4).
- Tighten the locking screws (page 5).

Initial Adjustments (page 5-6)
- Verify proper operation of each Retractor and adjust tension or speed control as necessary.

Retractor Operation (page 6)
- After initial adjustments, the Retractor system is ready for normal operation.

Laptop Power (page 7)
- If a Retractor Series/2 DC or Retractor Series/2 Lenovo DC is installed, connect your laptop power supply.