

## Cambridge Qt® Emitter Pendant Mount

### Installation Guide

#### PRODUCT DESCRIPTION

The Cambridge Qt® Pendant Mount offers a simple and attractive way to install Qt Active or Standard Emitters in an open or raised ceiling space, and suspends them at the optimum height for best coverage. The mount can also be used with a 3/4" NPT conduit connector and conduit if desired.

The mount ceiling box cover is intended for use with a standard 4" octagonal electrical ceiling box at the suspension point. The electrical box and the emitter are not included in the pendant mount package and must be purchased separately.

#### INSTALLATION SUMMARY

The ceiling box cover has an attached PCB (printed circuit board) for all connections and will screw to a 4" octagonal junction box (not included). The cover matches the pendant mount color and has an opening to accept the cable assembly (cable, nut, clamp).

The cable clamp folds around the cable and is secured with the cable clamp nut. There are two clamps, one for each end of the cable. The cable clamps are designed to securely hold the cable without damaging it while providing for a convenient cable length adjustment.

The pendant top mates to the cylinder to form the body of the pendant. Two tabs on either side of the top snap into the star shaped holes in the cylinder to hold it in place. The emitter is inserted and rotated to lock into the cylinder.

The cable is preassembled with a cable clamp and nut and a RJ45 connector on one end (pendant end). The other end of the cable is not terminated. It is 20 feet (6m) long and can be trimmed to length.



#### CONTENTS

- Ceiling box cover assembly
- Cable assembly
- Cable clamp (2)
- Cable clamp nut (2)
- Pendant mount top and accessory cylinder

#### SPECIFICATIONS:

- Pendant Height: 7" (178 mm)
- Diameter: 3.3" (84 mm)
- Hanging Weight: 12 oz. (340g)
- Material: ABS and Polypropylene (except cable)
- Color: White or Black
- Mounts to: 4" octagonal electrical ceiling box
- Cable: 4 wire UTP, 24 AWG

## PRE-INSTALLATION

Use the standard Qt cabling system between pendant locations - the RJ plugs will connect to the incoming terminal on the ceiling box cover PCB. The ceiling box cover includes screws to secure the cover to the junction box. Prior to pendant installation, run all cables to installed octagonal junction boxes.

The pendant mount system provides a single cable connection from the pendant emitter to the emitter string run. The ceiling box cover connector PCB provides RJ45 jacks for the emitter run input and output similar to a Qt emitter, as well as an RJ45 jack and 3-terminal screw connections for the included pendant cable. Either connection can be used. The emitter string input connector is set at a slight angle to make it easier to identify it.

**Note:** Do not include the pendant cable length in the maximum emitter cable run length calculation.

Identify the locations for the emitters and install all octagonal ceiling junction boxes. Run the emitter cables between the boxes and secure as necessary. Be sure to test any field terminated cables. Troubleshooting incorrectly wired cables after installation is extremely difficult.

Conduit connectors may be used with both the cover and pendant top. The connector is used instead of the cable clamp and nuts, and will fit in the opening provided.

## DETERMINING THE CABLE LENGTH

To determine the required cable length for the emitters, subtract the pendant height from the ceiling height. Add 3" (76mm) to accommodate the cable connections from the top cable clamp to the connectors in the ceiling cover. See diagram at right.

When installing multiple pendant mounts, unpack the cables and trim one to length as a prototype. Finish and install one mount to test the length. After the length is confirmed, the remaining cables may be trimmed to match that length.

Trim the cable insulation back 1" (25mm) on the unterminated end of the cable. The blue/white wire is not used and can be trimmed off. Strip the insulation from the remaining wires by .25" (7 mm).

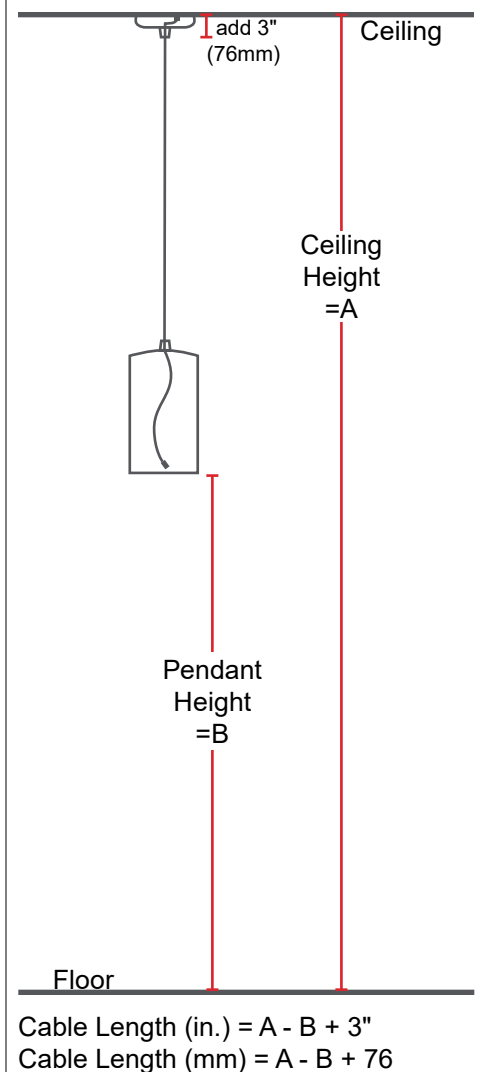
## CONNECTIONS

Insert the stripped wires into the 3-terminal plug, matching the color wire in the sockets as marked on the PCB. Remove the 3-terminal plug from the board once the wires are inserted and tighten the connections.

If using an RJ45 connector, assemble using the following connections:

- RJ45 pin 3 to Green/White
- Pin 4 to Green
- Pin 5 to Blue/White
- Pin 6 to Blue

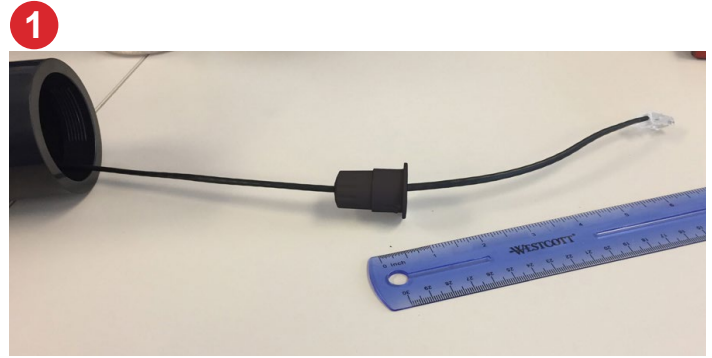
### Pendant Cable Length



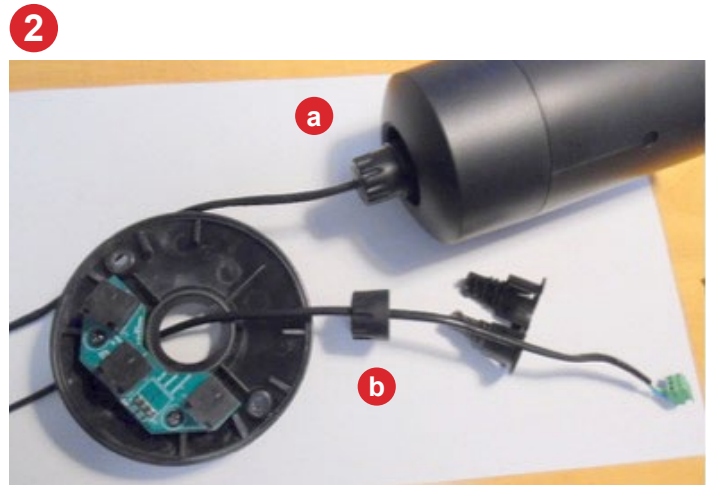
## PENDANT AND COVER ASSEMBLY

Assemble the pendant - snap the tabs on the sides of the pendant top into the star shaped holes in the cylinder to form the body of the pendant.

1. Slide the trimmed and newly terminated (terminal block) end of the cable up through the bottom wider opening and out the top of the pendant cylinder. The preassembled end with the cable clamp and RJ45 plug should appear as shown.



2. (a) Pull the clamp up into the pendant top. Align the slot in the top opening with the hinge on the clamp. Pull it into the top until it clicks. The RJ45 connector should be level with or protruding slightly from the cylinder for emitter attachment later.  
(b) Pass the 3-terminal plug through the ceiling box cover so the PCB faces away from the pendant mount. Slide the nut over the plug onto the cable with the smaller end towards the ceiling box cover. Wrap the cable clamp around the cable with the threads toward the nut. Slide the nut onto the cable clamp and screw it on loosely. Slide the cable clamp and nut to a position 3" (76mm) from the stripped end of the cable and tighten the nut snugly. Check that the cable is held tightly and doesn't easily slide through the clamp.



3. Insert the clamp into the cover and pull it through until it clicks into place. Reattach the 3-terminal connector to the PCB, or if you are using an RJ45 connection, plug the cable into the "TO PENDANT" jack on the board.



## FINAL INSTALLATION

Plug the RJ45 connector into the emitter "IN" jack and then slide the emitter into the cylinder. Turn it clockwise 90° to lock it in place.

**Important:** Once the emitter is in the cylinder the pendant mount top cannot be removed!

At the ceiling box, plug the cable from the controller (or previous emitter in the run) into the "IN" jack on the cover PCB. The cable to the pendant should already be plugged into the "TO PENDANT" jack (RJ or terminal block). Plug the cable to the next emitter in the string into the "OUT" jack.

Confine the cables in the ceiling junction box and, using the screws that came with the ceiling cover, screw the cover to the box.

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