# Installation Guide

## TCK Series

### Steerables™ Tilt Cable Kit

The Steerables Tilt Cable kit serves as a suspension and pull back device for flyable loudspeakers and can be used in a wide range of rigging applications. It provides an easy and infinitely adjusting tilt feature for loudspeakers and other objects weighing up to 220 lbs. (134 kg). The Steerables Tilt Cable Kit comes in standard fixed cable lengths of 8.25", 10", 14", 18" and 22". Custom length tilt cable kits are also available.

The Steerables Tilt Cable Kit contains all the necessary hardware to hang one loudspeaker in a two point or 3 point configuration. One kit includes a pair of structural fixed length cables, an adjustable pull back cable, shackles, clutch lock and pulley. A four point configuration requires an extra pair of fixed cables.

***Note to installers***

Due to the wide variety of wall structures, materials and mounting methods, the installing contractor must exercise proper judgment in selecting the mounting area and hardware.

As a guide, the installation, when complete should be capable of supporting 5 times the actual applied load. Always use a back up safety system such as a safety cable.

To assure a trouble free installation, read through and follow these instructions carefully before beginning. If you have doubts about the integrity of the structure you are mounting to or you are not sure about the proper hardware to use, consult a structural and/or hardware specialist.

**Be sure that all of the following items are included in this kit before proceeding:**

Figure 1 (1 pc Adjustable Pull Back Cable assy)

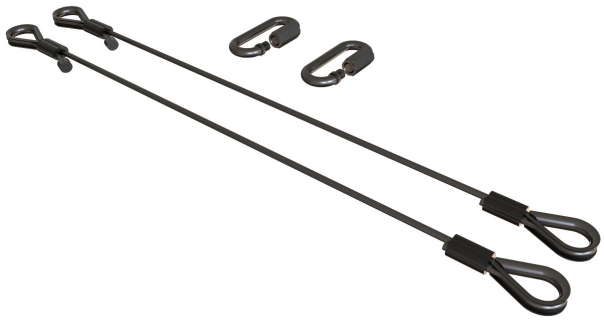
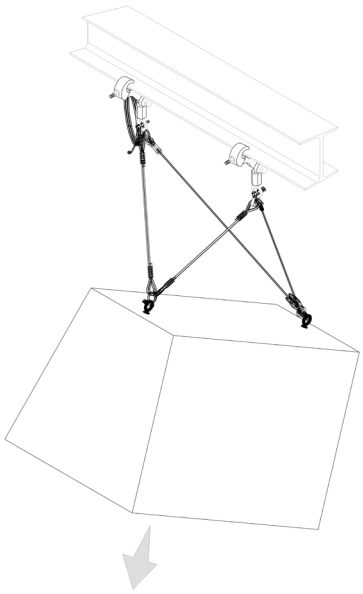


Figure 2 ( 2 pcs Fixed length Structural Cable)

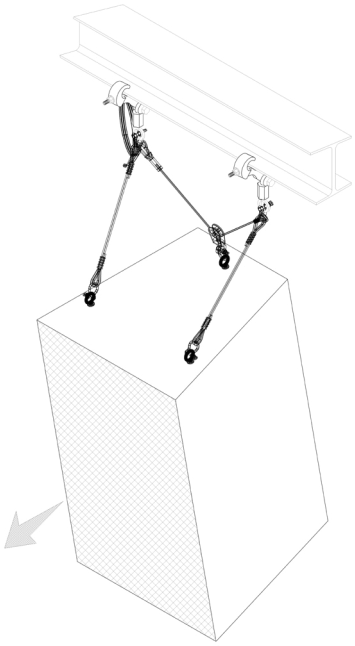
**Before Starting:**

Select the type of application from the illustrations below then go to the corresponding page that describes that application. The application will depend on the mounting points available on the speaker.

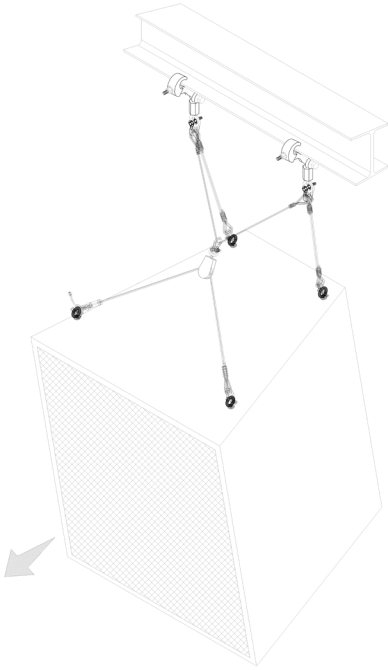
**Two point Configuration For Steep Tilt Angles**

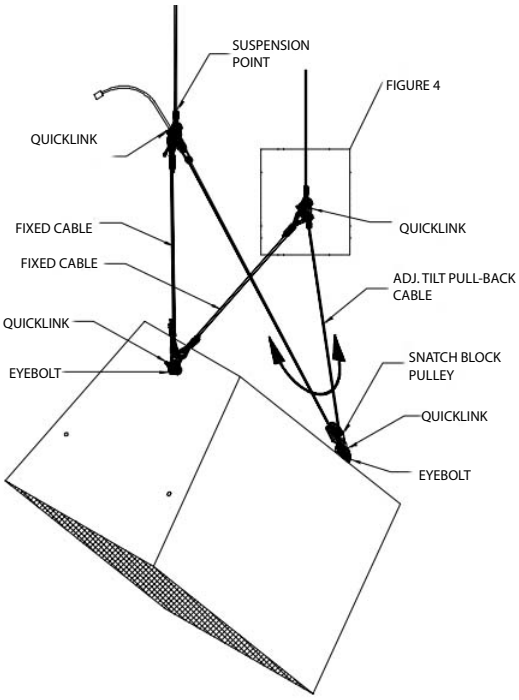


Three Point Configuration For Medium Tilt Angles



Four Point Configuration For Shallow and Medium Tilt Angles Requires Extra Pair of Fixed Length cables






**Two point Configuration**

**TWO POINT CONFIGURATION:**

**Step 1: Attached Fixed Cables**

Attach one end of each fixed cable to the top anchor point of the speaker (such as eyebolt, track fitting, etc) using a supplied quicklink (Figure 1).

**Step 2: Assemble Pull-Back Cable to Fixed Cable**

Capture the eye of the clutch lock (at the end of the pull back cable) and one of the fixed cables with one of the selected suspension points using a supplied quicklink. (Figure 5) Repeat with the other fixed cable, suspension point and the other end of the pull back cable (Figure 4).

**Step 3: Attach Pulley to the Pull-Back Cable**

Using the pulley's shackle, capture the eyebolt or fitting at the speaker's pull back point (Figure 2).

**Step 4: Adjust / Increase Slack of Tilt Cable**

Loosen the knurled end of the clutch lock. Compress the knurled end inward while pulling the cable towards the pulley until the desired length is achieved (Figure 6). If there is no rigging point available at the back of the speaker, use a rigging point from the bottom of the speaker to connect a back chain extension (Figure 3).



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**ALWAYS INSTALL SAFETY CABLES**

**WARNING:** Mounting and/or suspension loudspeakers requires experienced professionals. Improperly installed loudspeakers can result in property damage, personal injury and/or liability to the installing contractor.

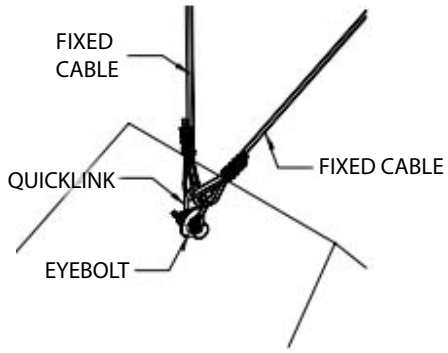



Figure 1
Fixed Cable Assembly

Figure 2
Pull back-Direct Connection

Figure 3
Pull back relocated
(Requires b`ck chain extension)

Figure 5

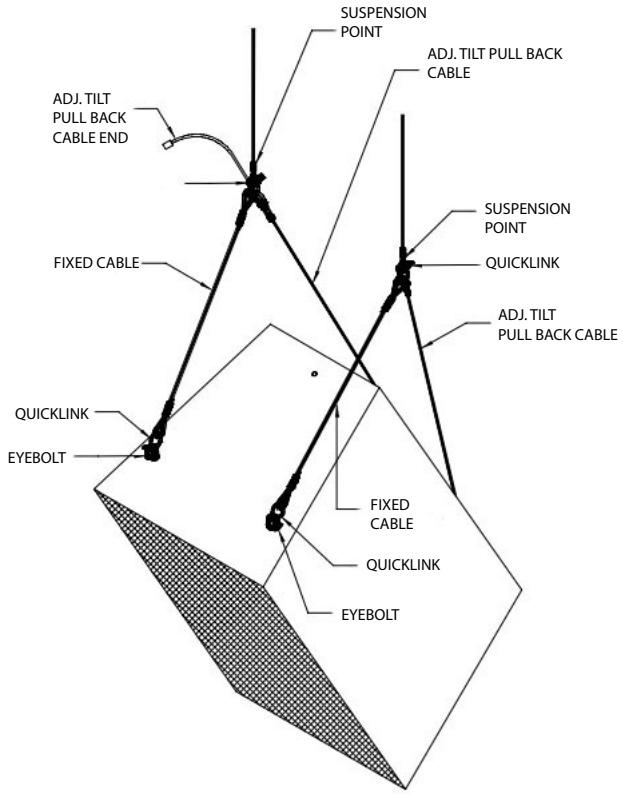
**Step 5: Adjust Speaker's Tilt Angle**

To increase the tilt angle of the speaker, compress the knurled end of the clutch lock then pull the pull back cable away from the pulley until the desired angle is achieved. To decrease the tilt angle of the speaker, support the weight of the speaker while compressing the knurled end of the clutch lock then slowly lower the speaker until the desired tilt angle is achieved. Release the knurled end to lock in place then tighten (Figure 6). Coil the extra cable or trim cable and place a stop swage on the end.

**Step 6: Secure quicklink and Clutch Lock**

To prevent the quicklink from loosening over time, apply threadlock to the threads (Figure 8). Tape the knurled end of the clutch lock to avoid long term loosening.

**THREE POINT CONFIGURATION:**




**Three point Configuration**

**Step 1: Attach Fixed Cables**

Attach one end of each fixed cable to the top anchor points of the speaker (such as eyebolt, track fitting, etc) using supplied quicklink as shown in the above drawing.

**Step 2: Assemble Pull-Back Cable to Fixed Cables**

Capture the eye of the clutch lock (at the end of the pull back cable) and one of the fixed cables with one of the selected suspension points using a supplied quicklink. (Figure 5) Repeat with the other fixed cable, suspension point and the other end of the pull back cable (Figure 4).

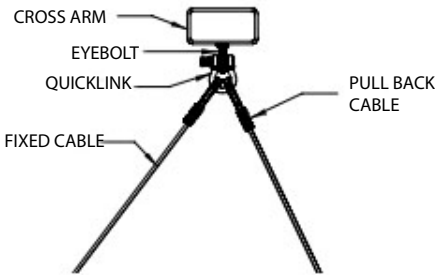



Figure 4
With Cross Arm Suspension Point

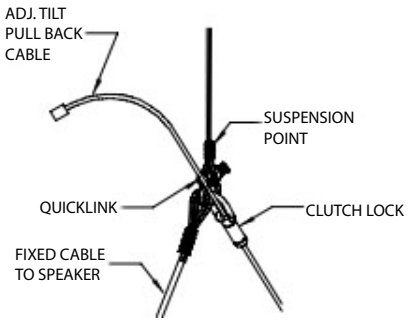



Figure 5
Clutch Lock and Fixed Cable Assembly

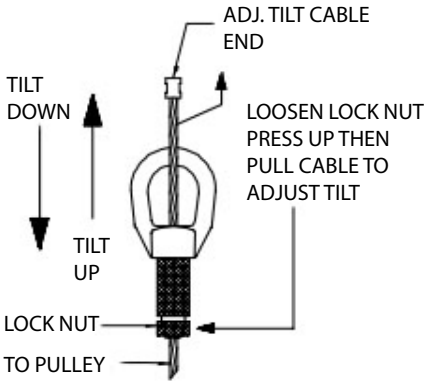



Figure 6
Clutch Lock Tilting Mechanism

**Step 3: Attach Pulley to the Pull-Back Cable**

Using the pulley's quicklink, capture the eyebolt or fitting at the speaker's pull back point (Figure 2).

**Step 4: Adjust / Increase Slack of the Pull-Back Cable**

Loosen the knurled end of the clutch lock. Compress the knurled end inward while pulling the cable towards the pulley until the desired length is achieved (Figure 6). If there is no rigging point available at the back of the speaker, use a rigging point from the bottom of the speaker to connect a back chain extension (figure 3).

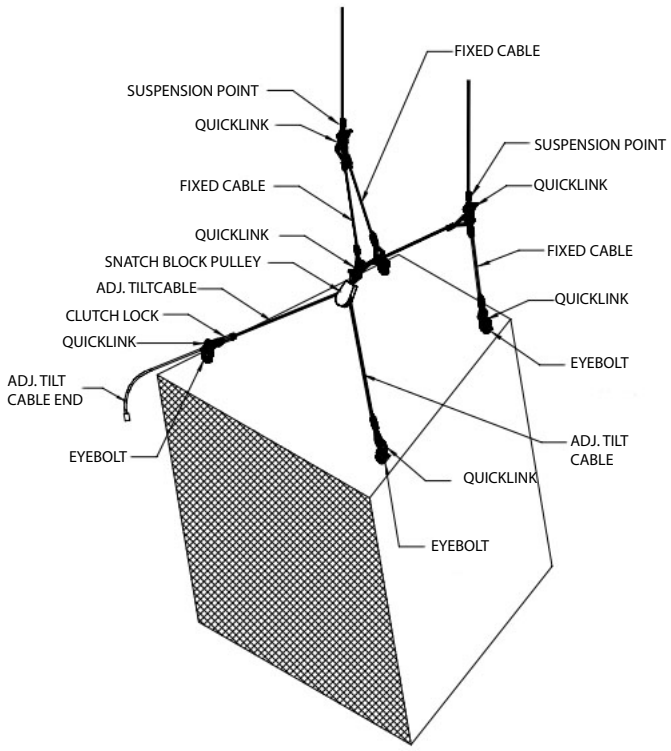
**Step 5: Adjust Speaker's Tilt Angle**

To increase the tilt angle of the speaker, compress the knurled end of the clutch lock then pull the pull back cable away from the pulley until desired angle is achieved. To decrease the tilt angle of the speaker, support the weight of the speaker while compressing the knurled end of the clutch lock then slowly lower the speaker until the desired tilt angle is achieved. Release the knurled end to lock in place then tighten (Figure 6). Coil the extra cable or trim and place a stop swage on the end.

**Step 6: Secure quicklink and Clutch Lock**

To prevent the quicklink from loosening over time, apply threadlock to the threads (Figure 8). Tape the knurled end of the clutch lock to avoid long term loosening.

**FOUR POINT CONFIGURATION:**




**Four point Configuration**



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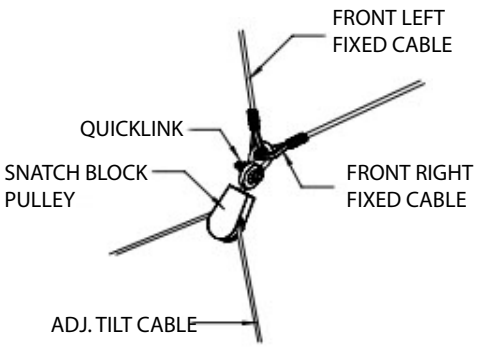


Figure 7
Pulley and Fixed Cable Assembly

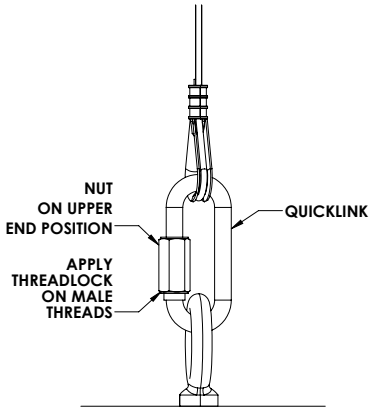


Figure 8
Securring the Quicklink

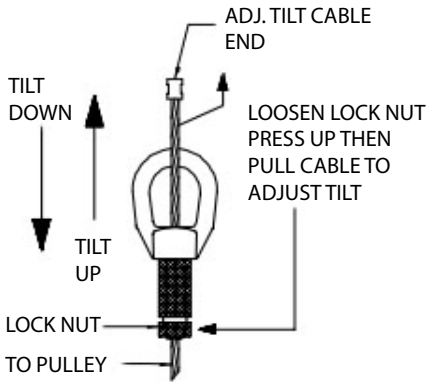


Figure 3
Clutch Lock Tilting Mechanism

**Step 1. Attach Fixed Cables**

Attach one end of each fixed cable to the top anchor points of the speaker (such as eyebolt, track fitting, etc) using supplied shackles as shown in the above drawing.

**Step 2. Assemble Pull-Back Cable to Fixed Cable**

Capture the eye of the clutch lock (at the end of the pull back cable) and one of the fixed cables with one of the selected suspension points using a supplied shackle (Figure 5) Repeat with the other fixed cable, suspension point and the other end of the pull back cable (Figure 4).

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**Step 6. Secure Shackles and Clutch Lock**

To prevent the quicklink from loosening over time, apply threadlock to the threads (Figure 8). Tape the knurled end of the clutch lock to avoid long term loosening.