BEAST CABLING SYSTEMS

BEAST I AND II CABLE MANAGEMENT AND LABELING UNITS

Instruction Manual: Revised March 13, 2007

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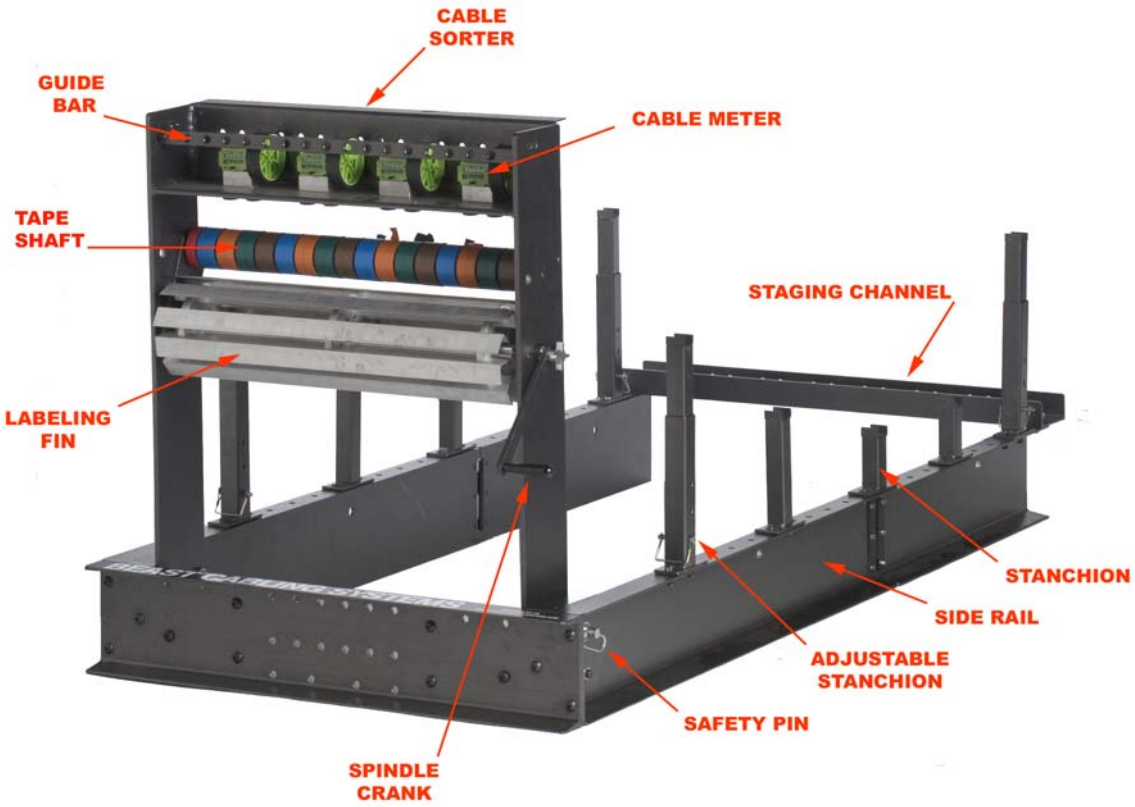
1.0 The Beast I and II Cable Management and Labeling Units™



The Beast I and Beast II models share the same design and are set-up in the same manner. The photograph above shows the Beast II fully extended for use. In each case, the head assembly is secured in the upright position with a safety pin on each side. The head assembly consists of a cable sorter at the top with guide bars that prevent cables from tangling and kinking as they pass through the machine. Between the two guide bars are positioned cable meters that record the length of the cable as it passes over the meter's friction wheel. Below the cable sorter is the tape shaft, loaded with rolls of colored electrical tape. A labeling spindle with ten fins and a turning handle simplify the labeling of cables (pages 4 and 5). In this picture, the side rails have been unfolded and stabilized by the staging channel, secured by large wing nuts. Fixed length and variable length stanchions are provided to support the axles when stocked with reels of cable.

2.0 Setting up the Beast I/II

At the work site, find a space for the Beast I/II at a convenient distance from the communications closet where the cables will be terminated.

Ideally, the space should measure at least six feet wide by 15 feet long for the Beast I. The area can be somewhat smaller if you don't extend the side rails (page 3) or if you are setting up a Beast II. Too small an area can become cramped, possibly slowing the work.

The Beast I and the Beast II differ only in dimensions, weight and cable capacity–48 for the Beast I, 32 for the Beast II. The instructions below, which feature the Beast I, serve for both machines.

Position either Beast so that the cable meters face the opening in the ceiling through which you intend to pull cable. Then proceed as follows to ready the Beast for action..

Caution: *Safely erecting the Beast I/II requires a crew of two.*

2.1 Removing stanchions

To prevent the cable-pole support stanchions from falling out of their storage holes when you lay the Beast I/II on its side to remove the wheels, lift all the stanchions from the base of the machine (right), and set them aside.

Also unscrew the wing nuts that secure the two adjustable stanchions to the top of the frame (far right) and set them aside.

2.2 Tipping the Beast I/II to the floor

Standing on the side of the Beast I/II opposite the cable meters, position your hands on the staging channel.

Tilt the machine and lower it gently to the floor.

Caution*: Lowering the Beast I/II is best done by two workers.*

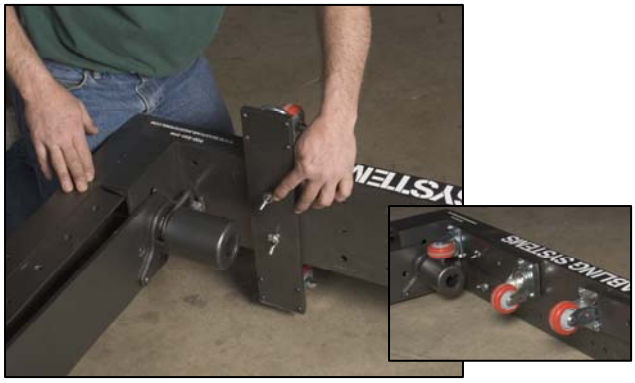
Caution: *Grasp the Beast I/II by the staging channel to prevent the machine from trapping your hands against the floor.*

2.3 Removing the wheels

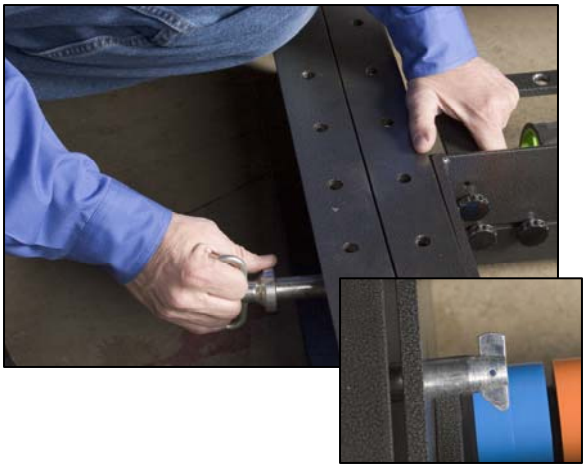
With the Beast I/II on its side, detach both sets of wheels by removing the wing nuts that secure them *(right)*.

Slightly raise the Beast I/II to remove the wheel assembly and then lower back to the ground.

Turn the wheel assembly over and use the wing nuts to fasten them to the frame of the Beast I/II as shown in the inset.



2.4 Unlocking the head



Find the safety pin in each side rail. They are located between the cable sorter and the tape shaft.

On the inner end of each pin is a toggle set perpendicular to the pin to prevent it from slipping out *(inset)*. Reach inside the rail to turn and hold the toggles parallel to the pins, then pull the side pins out of their holes *(left)*.

Tip: *To ease removal of the pins, lift and jiggle the head as you extract them.*

2.5 Raising and securing the head

Raise the head of the Beast I/II to an upright position *(right)*. For safety, the head is counterbalanced so that it will not fall if released *(bottom, left)*.

Insert the safety pins through holes in the side rails two inches from the pivot *(bottom right)*, and push them through the uprights

Turn the safety toggles perpendicular to the pins.

Caution: *Push the pins completely through the rails and the head uprights, then position the safety toggles at right angles to the pins.*

2.6 Installing the crank for the labeling spindle

Unscrew the knob holding the crank in its travel location below the cable meters *(right)*.

Insert the crank into the opening in the end of the spindle shaft *(far right)*, ensuring that it fully mates with the slot there *(inset)*.

Secure the crank with the knob.

2.7 Extending the side rails

If you wish to use the Beast I/II at its full cable capacity, extend and secure the side rails as shown here.

Remove the two wing nuts that hold the staging channel to the side rails, and set aside the channel and its bolts.

Unfold the left and right side rails one at a time.

Place the staging channel on top of the side rails, and secure it with the bolts and wing nuts.

Tip: *Mounting the staging channel with its holes toward the rear leaves additional side-rail holes available for stanchions.*

3.0 Preparing the Cable Sorter

3.1 Attaching tape to the labeling unit

The labeling unit permits methodical labeling of each cable. Perform this step before the first use of the Beast I/II and after replenishing tape *(page 10)*.

Pull about 10 inches of tape from each roll, enough to reach to the front of the third fin below the tape shaft. Wrap each tape over the edge of the fin and stick it to the back of the fin *(right)*.

Turn the labeling-spindle handle clockwise to align the taped edge of the fin with the hole in frame *(inset)*.

Tip: *Pulling the tape stretches it. Let the tape relax before sticking it to the labeling fins.*

3.2 Inserting stanchions

Uprights called stanchions support the ends of aluminum or steel bars that carry reels of cable. Insert stanchions of equal height into the side rails directly opposite each other. Stanchion placement depends on the size of the reels you are using, but leaving three holes between stanchions is a good starting point.

Tip: *Taller stanchions are best placed nearest the head of the Beast I/II, shorter ones farther from the head (bottom). This minimizes bend radius and tension on the cable during the pull.*

The Beast I/II comes with 3 sets of fixed height stanchions and two adjustable stanchions *(inset)*.

To change the height of the adjustable stanchions, slip the clip from the end of the safety pin and remove it. Raise or lower the stanchion as needed, reinsert the safety pin, and engage the clip.

Caution: *As an added safety measure, secure adjustable stanchions with wing nuts to the side rail so they do not fall over.*

3.3 Loading the staging channel

Set reels of cable on the staging channel. It can accommodate up to four cable reels, depending on their width.

After loading the staging channel, insert one of the poles supplied with the Beast I/II through the cable reels.

Tip: *Place reels on the staging channel so that cable feeds over the tops of reels. This helps to reduce the bend radius of the cable as it is fed into the sorter.*

Tip: *Steel poles may be required to support the weight of 3000-foot reels of cable.*

3.4 Transferring cable to the stanchions

With a helper, lift the reels from the staging channel onto a pair of the stanchions that you installed earlier *(left)*.

Repeat Steps 3 and 4 until poles on stanchions support all the reels of cable that you intend to pull.

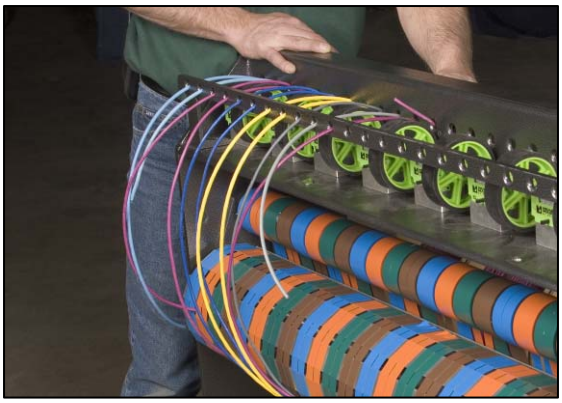
Tip: *The cable sorter can handle as many as 48 strands of cable. See a sample of configurations on the back pages of this manual.*

3.5 Threading the cable sorter

For fewer than 24 cables for the Beast I (16 for the Beast II), thread each cable through both guide bars.

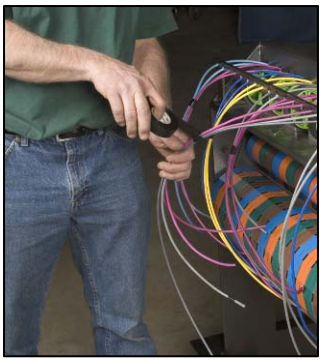
Position a counter below any cable that you wish to measure. To do so, loosen the knob under the counter and slide it under the cable, then tighten the knob.

Zero the counter by pressing the reset button.



Tip: *To thread additional cables, remove cable counters and thread each cable through only one guide bar.*

3.6 Bundling and trimming cables



Pull a couple of feet of each cable through the cable sorter.

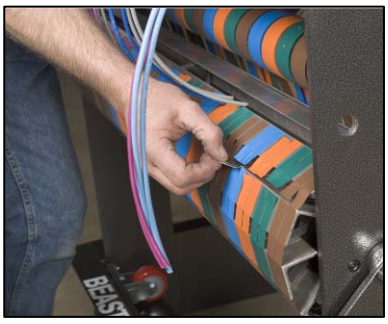
Gather the cables for each drop and tape them together about nine inches from the guide bar nearest you *(left)*.

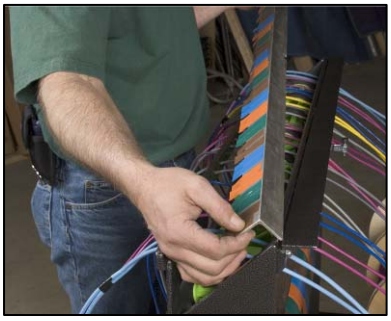
Trim the cables about ten inches from the tape *(far left)*.

3.7 Positioning the labeling fin

Reach behind the cable sorter and open the clamp there–shown closed in the inset–by lifting the red handle.

Using a fin as a guide, trim all the tapes with a sharp utility knife or single-edge razor blade *(left)*.





Lift the uppermost fin from the labeling spindle *(middle)* and insert it in the slot along the top of the head *(right)*, making sure that the cutout midway along the fin fits around the clamp.

Reengage the clamp.

3.8 Preparing labels

Write a number or other identifying code for each cable on two adjacent tape labels of the same color.

Wrap one of the two labels around the end of the corresponding cable.

(The second label will be used after you have pulled the cable.)

4.0 Pulling cable with The Claw

After each cable has been labeled, you are ready to pull them to their destinations. At this point you can continue to pull cable in your normal fashion. However, use of The Claw (below) is recommended to help minimize cable twisting and damage as you are pulling it through its pathway. The Claw can also help you keep groups of cables separated in the cable pathway.

NOTE: We recommend Beast Cabling System's Wirewolf to ease the passage of cables into the ceiling and to help organize them for punching into patch panels. ease see the instructions that accompany the Wirewolf for the proper set-up and use of this handy timesaver.

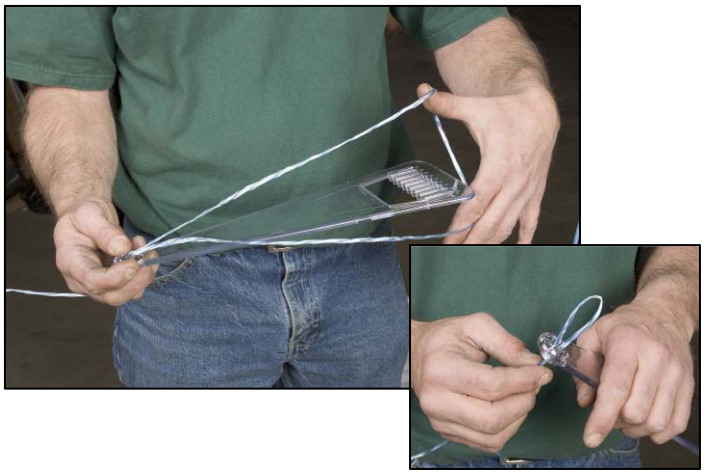
4.1 Attaching the lead line to The Claw

Fish a lead line to the cable destination.

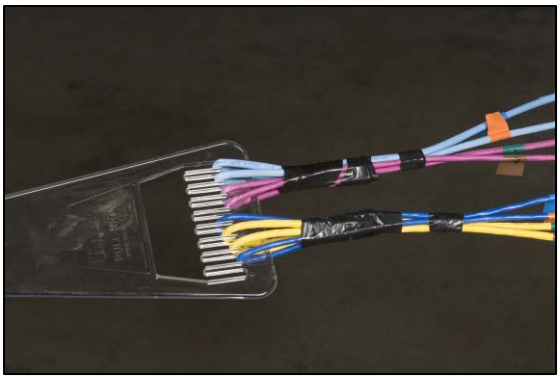
Near the Beast I/II, make a loop in the line. Pass the loop through the eye in the narrow end of The Claw *(right)*.

Expand the loop and pass it over the toothed end of The Claw *(far right)*.

Snug the loop to fasten the lead line securely to The Claw.



4.2 Securing cables to the Claw



Fold cables into the comb at the wide end of The Claw, placing the cables for each drop next to each other–or on top of each other in the same comb space. Each can hold four cables.

Tape the cables for each drop to themselves, as shown at right.

When all the cables are securely fastened to the Claw, pull it along the cable route, detaching the cables for each drop at their destinations.

After you have removed all the cables from The Claw, untie it from the lead line and repeat Step 1 to begin the next pull.

Tip: *When different types of cable–copper and fiber optic, for example–must be separated from each other in the ceiling, attach one type to the right side of The Claw, the other to the left side.*

Tip: *Assure that the lead line is on top of The Claw as it enters the ceiling. Doing so will keep the lead line from becoming entangled with the cables and allow for smoother pulls.*

5.0 Packing up after a job

5.1 Preparing the Beast I / II for transport

Return the labeling-spindle handle to its travel position *(right)*.

Remove unused labels from the fin clamped in the slot atop the Beast I/II.

Unclamp the fin and return it to the labeling spindle.

Pull cable ends from the cable sorter, re-spool them onto their reels, and secure the cable ends.

Return cable reels to the staging channel, extract the pole, and set the reels aside.

Repeat the process for all the reels of cable.

Tip: *Instead of discarding leftover labels, consider using them to tag each cable with its corresponding counter number. Doing so helps keep track of how much cable remains on a reel.*

5.2 Folding the side rails

Remove all the stanchions.

Unbolt the staging channel from the rear of the Beast I/II, and set it aside.

Stow the side rails by folding them inward, one at a time *(left)*.

5.3 Securing the head

Extract the safety pins inserted on page 2, Step 5.

Lower the head to the floor *(right)*.

Insert the safety pins through the side rails and head uprights *(upper inset)*, then turn the toggles so they sit at right angles to the pins *(lower inset)*.

Caution: *Keep hands and feet clear of the side rails as you lower the head. Although the head is counterweighted with springs to keep it from falling, there is risk of injury if the head is lowered on a hand or foot.*

5.4 Stowing the staging channel

Bolt the staging channel to the side rails at the joint where they fold.

5.5 Reattaching the wheels

Unbolt the wheels from their storage position on the base of the Beast I/II *(left)*.

Lift the base slightly, slip the wheels onto their mounting bolts, and secure them with wing nuts *(right)*.

Standing at the top of the Beast I/II, near the cable counters, raise the machine onto its wheels. It is now ready to move to another location.

Tip: *To support the Beast I/II while you reinstall the wheels, slip a scrap of two-by-four under the base.*

6.0 Loading the Tape Shaft

When you run out of tape or wish to change tape colors, restock the tape shaft as illustrated here. The following steps show the work done with the Beast I/II in its travel configuration, but you can also change tapes with the machine set up for pulling cable.

6.1 Dismounting the tape shaft

Remove the tape shaft from the Beast I/II by lifting it upward *(right)*. The ends of the tape shaft rest in brackets mounted to the head of the Beast I/II *(inset)*.

Carry the shaft horizontally to a table or other convenient work surface.

6.2 Adding tape to the shaft

Stand the tape shaft vertically on the work surface.

Slide two nylon bushings off the top of the shaft *(left)*. The bushings at the bottom of the shaft will drop onto the work surface.

Remove all the rolls of tape and plastic washers from the shaft *(right)*.

To reload the shaft, alternatively slip a roll of tape and a plastic washer onto the tape shaft. Remember, to load the tape rolls in the proper color sequence (i.e. two rolls of the same color followed by two more rolls of identical color)

Follow the above sequence until tape shaft is fully loaded. Orient all the rolls to feed in the same direction.

When you have loaded all the tape onto the shaft, return the nylon bushings to the top of the shaft.

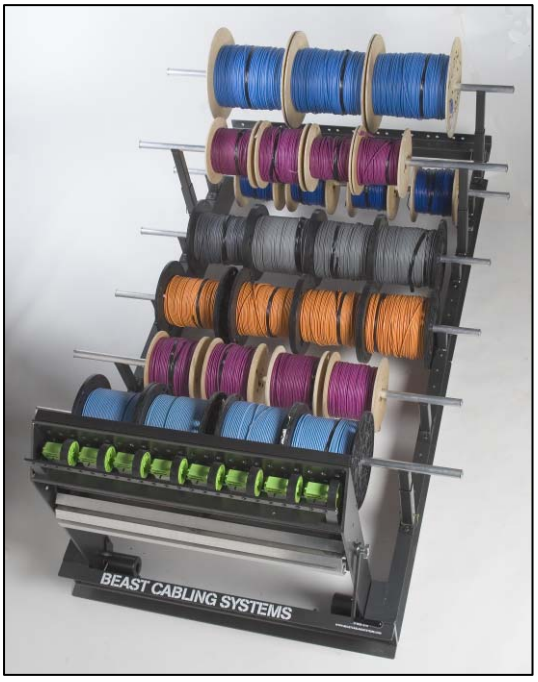
Tilt the shaft horizontal, holding the lower bushings in place. Center the rolls of tape on the shaft.

Return the shaft to the Beast I/II.

Orient the shaft so that tape unreels from the bottoms of the rolls.

7.0 Typical Beast I and II Reel Configurations

The Beast I supports the labeling and pulling of up to 48 cables at a time and the Beast II supports the labeling and pulling of up to 32 cables. Due to variances in cable reel size and capacities, both Beast units have been designed to accommodate many configurations. Some typical examples appear below.



For additional information and support for all Beast Cabling Systems products, please go to our website at http://beastcablingsystems.com

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