BEAST CABLING SYSTEMS

BEAST III CABLE MANAGEMENT AND LABELING UNITS

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TAPE SHAFT

LABELING
SPINDLE

WHEEL LOCK

SPINDLE CRANK

BRAKE

The photograph above shows the Beast III ready for use. The head consists of a cable sorter and labeling station at the top with guide bars that prevent cables from tangling as they pass through the machine. Between the two guide bars sit cable meters that record the length of cable as it passes. Below the cable sorter is the tape shaft, loaded with spools of colored electrical tape. A labeling spindle with several fins and a crank simplify the labeling of cables (*pages 2-7*). Two cable-support stanchions carry up to twelve, 1,000-foot reels of cable on aluminum poles. For reels up to 3,000 feet in length, a 3K Kit is available (*page 8*). A Box Kit (*page 13*) facilitates pulling cable from boxes instead of from reels. Furthermore, you can as much as double the reel capacity of the Beast III by hitching to it one or more Beast III Capacity Expander Drones (*page 15*).

2.0 Setting up the Beast III Cable Management and Labeling Unit

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

Without accessories, the Beast III can handle as many as twelve 1000-foot reels of cable. For larger reels—up to 3,000 feet in length—there is a 3K Kit (*page 10*). A Box Kit (*page 13*) facilitates pulling cable from boxes instead of from reels. In addition, the reel capacity of the Beast III can be doubled by hitching to it one or more Beast III Capacity Expander Drones™.

Tip: *Although the following instructions show positioning the Beast III before loading it with cable reels, you can also use the unit to transport reels from a storage area or vehicle.*

2.1 Positioning the Beast III

Roll the Beast III into position so that the cable meters face the opening in the ceiling through which you intend to pull cable.

The Beast III wheels swivel freely, maximizing maneuverability.
However, you can lock each wheel in one of four positions. To do so, pull the ring in the wheel's spring-loaded locking pin as you rotate the wheel. Then release the ring so that it enters the deeper slot of the locking mechanism (*left inset*).

When you have the Beast III where you want it, set the brake on each wheel (*right inset*) to prevent the machine from moving.

2.2 Raising the head assembly

Standing in front of the Beast III, position your hands as shown at right, then lift the head assembly, rotating it toward the vertical.

When the head assembly is vertical, it slides downward an inch or so, automatically locking in position (*inset*).

Caution: Grasp the Beast III as shown here to prevent the machine from pinching your fingers as the head slides into position.

2.3 Raising the cable-support stanchions

Slide an axle from one of the cable-support stanchions *(right)*. To do so, flip the ring of the safety pin in one end away from the axle (*inset*), and remove the pin.

Raise the stanchion to align the lower hole in the upper section with the upper hole in the lower section, then insert an axle there as shown at far right.

In one of the remaining two holes, insert the axle removed earlier. in the other hole, place one of the four additional axles that are supplied with the Beast III.
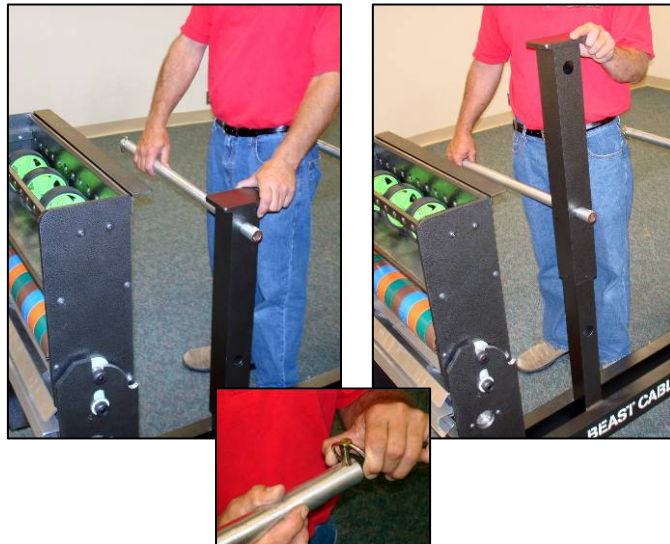
Repeat this procedure to raise the other cable-support stanchion

2.4 Installing the crank for the labeling spindle
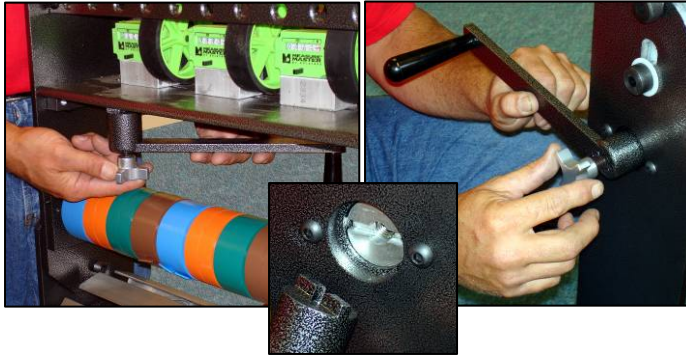
Unscrew the knob holding the crank in its travel location below the cable meters (*far left*).

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

Secure the crank with the knob.

2.5 Attaching tape to the labeling unit

Perform this step before the first use of the Beast III and after replenishing tape as shown on *page 18*.

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


2.6 Trimming the tape
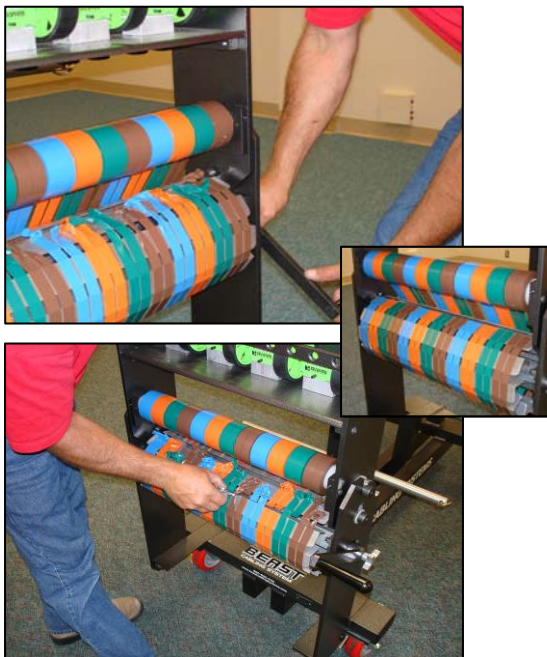
Turn the labeling-spindle crank clockwise. As you do so, you will hear a ratchet mechanism click. Stop turning when the ratchet clicks with the tapes on the first taped fin positioned as shown at right, top.

Using the next fin as a guide, slice the tapes with a sharp utility knife or single-edge razor blade (*far left, bottom*). Lift the fin from the spindle, then discard the scraps of tape on the fin.

Restore the fin to its spindle slot, then advance the spindle one ratchet click.

Repeat this procedure two or three times, or until pairs of like-colored tapes are spaced evenly on the spindle (*inset*).

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Tip: Avoid turning the spindle so far that the ends of the tapes encounter the tape feeding from the rolls. If that happens, cut the tapes near the rolls, remove the scraps from the fins, and repeat Step 5.

2.7 Loading cable reels

Slide reels of cable onto the axles (*right*). Slip a safety pin into the end of each axle, and flip the ring over the end, as shown in the inset.

NOTE: On the top axle, load the reel so that the cable unspools from the bottom. On the center and lower axles, the cable must unspool from the tops of the reels.

Load the axles with as many reels of cable as you intend to pull.

Tip: To ensure proper balance load the same number of reels on both sides of the Beast III. Place larger or heavier reels on the bottom axles.

Tip: If you need to pull more than twelve cables, you can add one or more Beast III Capacity Expander Drones (pages 15-17).

Tip: Each cable stanchion can support as many as six 1,000-foot reels of cable. Larger reels, up to 3,000 feet, require the 3K Kit (page 10)

2.8 Threading the cable sorter
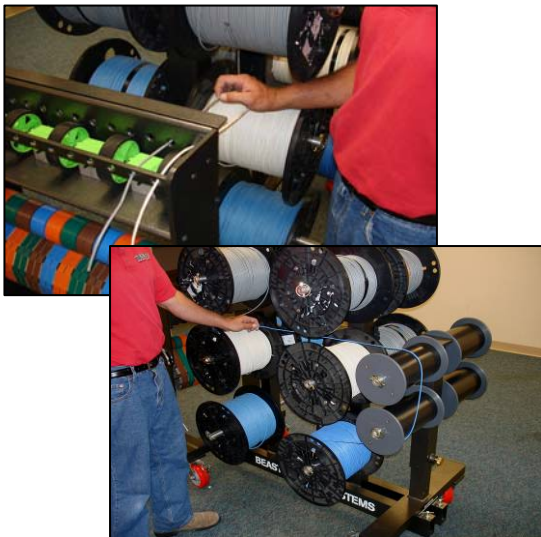
Feed cables from the top four reels on the front and rear cable stanchions directly to the cable sorter and thread each of them through two holes in the guide bars, as shown at right, top. Every third cable will pass over a wheel that turns a cable meter.

To reposition a meter under a different cable, see *page 16, step 9.3*

From the four bottom reels, unwind enough cable to pass around the drums at the rear of the machine, then feed the cables between the upper two reels *(left, bottom)* and through holes in the sorter.

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Set the cable meters to zero by pressing the reset button on each.

2.9 Bundling and trimming cables

Pull about 24 inches of each cable through the cable sorter.

Group 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 *(right)*.

2.10 Setting up the cabling station

Advance the labeling-spindle crank clockwise one ratchet click.

Reach behind the cable sorter and open the clamp there by lifting the red handle *(right, top)*.

Using a fin as a guide, cut all the tapes with a sharp utility knife or single-edge razor blade *(Step 2.6)*.

Remove the fin thus freed from the labeling spindle *right, center)* and insert it in the slot along the top of the head *(right, bottom)*. Make sure that the notches near the ends mate with the corresponding ridges in the slot.

Reengage the clamp.

2.11 Preparing Labels
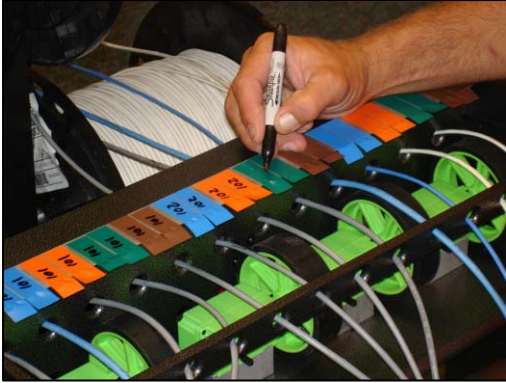
Write a number or other identifying code for each cable on two adjacent tape labels of the same color. Place the number on the tape where it is supported by the fin.

Wrap one of the two labels around the end of the corresponding cable. (The second label will be used for the tail end after you have pulled the cable.)

3.0 Pulling Cable with the Claw™ Anti-Twist and Tensile Pressure Equalizer

After each cable has been labeled, you are ready to pull them to their destinations. Use of the Claw (*below*) helps to minimize twisting cable and damaging it as you pull it through the cable pathway. The Claw can also help you keep groups of cables separated in the cable pathway.

NOTE: Use the Beast Cabling System's Wirewolf Pathway Guide and Patch Panel Organizer to ease the passage of cables into the cable pathway and to sort them for terminating at a patch panel. Please see the instructions that accompany the WireWolf for the proper set-up and use of this unique and patented timesaving device.

3.1 Attaching the lead line to the Claw

Fish a lead line to the cable destination.

Near the Beast III, 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.
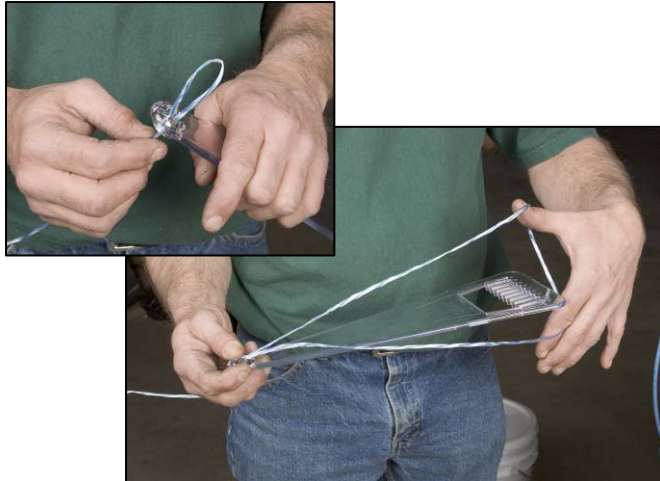
3.2 Inserting Securing cables to the Claw
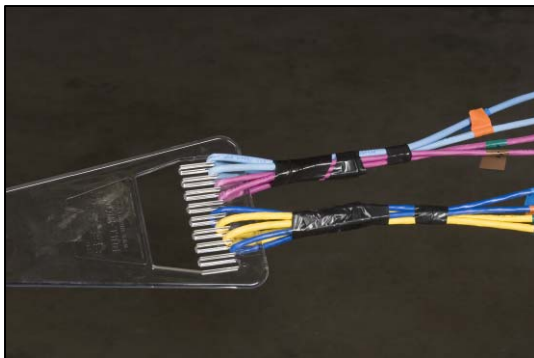
Fold cables into the comb at the wide end of the Claw, placing the cables in each bundle next to each other—or on top of each other in the same comb space. (Each comb space can hold multiple cables.)

Tape each bundle to itself, 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 3.1* 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 cable pathway, 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 quicker, smoother pulls.*

4.0 Components of the 3K Kit™

The 3K Kit permits the mounting of as many as eight 3,000-foot reels of cable on the Beast III. This kit consists of extensions for the rear cable-support stanchion and the drum stanchion, longer axles for the top and bottom cable-support stanchion holes, as well as axle stubs that fit through the middle holes to secure stanchions in their raised positions.

5.0 Setting up a 3K Kit

5.1 Preparing the cable-support stanchions

Remove all the axles from both stanchions.

At the front cable-support stanchion, lift the upper section and secure it at its extended height by inserting an axle stub through the center holes. Insert a long axle in the stanchion's top and bottom holes.

At the rear stanchion, align the bottom holes of the extension with the top holes of the stanchion base, and secure it with a long axle, as shown at right.

Insert a long axle through the top holes in the extension.

Slip safety pins into both ends of all the axles.

5.2 Extending the drum stanchion

Slip the safety pins from the ends of the drum axles, and remove the drums and axles from the stanchion (*left*).

At the rear of the Beast III, pull the drum-stanchion locking knob to release the stanchion (*far left*), and remove the top section by lifting it from the bottom section.

5.3 Transferring the drums

Slide the drum-stanchion extension onto the base while pulling the locking knob *(right).*

Release the knob to lock the stanchion in place.

Slide a short axle into the stanchion extension, then place a drum on each end *(far right).*

Secure the axle with safety pins

5.4 Loading cable reels

Slide a 3,000-foot cable reel onto the ends of each axle.

NOTE: Reels on the lower axles in each stanchion should feed cable from the top; on the upper axles, cable should unreel from the bottom.

Secure each reel with a safety clip.

Tip: *Enlist a helper to hold the axles in position as you slide each reel of cable into place.*

5.5 Routing the cables

For reels on the lower stanchion axles, pass the cables directly to holes in the cable sorter.

Route cables from reels on upper stanchion axles first to the rear of the Beast III and around a drum as shown at right. Then pass the cables between reels to the cable sorter.

Prepare the cables for pulling as explained on *pages 5-7, steps 2.8-2.11.*

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6.0 Components of the Box Kit™
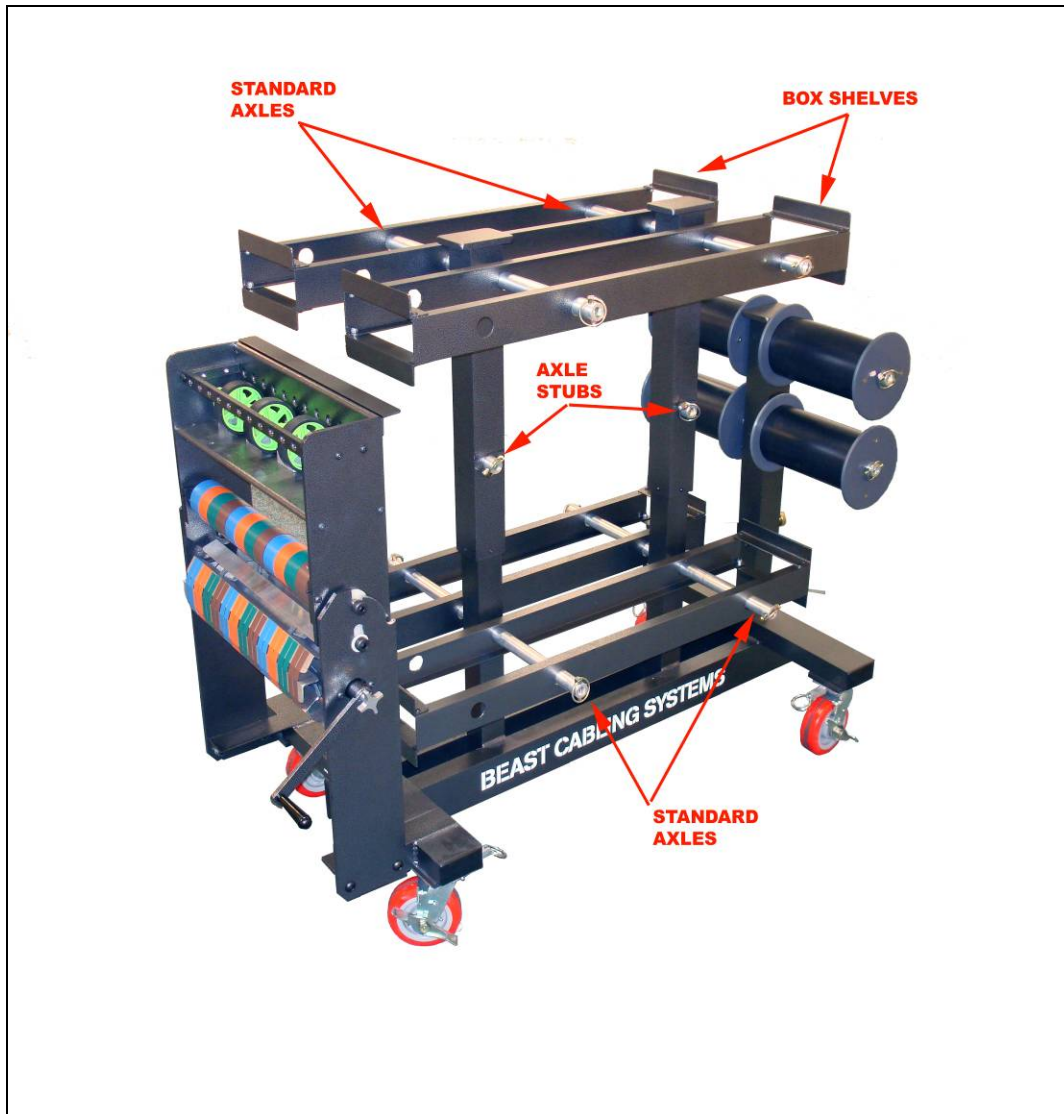
The Beast III is designed to work with cable supplied on reels or, when fitted with a Box Kit, with cable deployed from boxes. The kit consists of two axle stubs and four box-support shelves that slide onto axles that you would otherwise load with reels. Each shelf can accommodate three boxes containing 1,000 feet of cable.

7.0 Adding a Box Kit to the Beast III

7.1 Preparing the Beast III

Raise the stanchions as described on page *8, Step 1* with the following exception: Insert an axle stub instead of a long axle through the center hole in the stanchion, and secure the stub with safety pins—as shown at right for the front stanchion.

7.2 Fitting the shelves

Slide a shelf onto the upper axles (*right*), then secure it with safety pins.

NOTE: Be sure that the end of the shelf with the unused holes is adjacent to the front of the Beast III.

In the same way, mount the remaining three shelves to the axles.

Tip: You may find a helper useful to prevent the axles from slipping through the stanchion as you slide the shelf onto them.

7.3 Arranging boxes of cable

Orient boxes on the shelves so that the cable will not bind on the box when you pull it.

As shown at right, it is usually best to arrange boxes on the upper shelves so that the cable feeds downward (*right*).

Often, the best plan for the lower shelves is to position boxes so that cables exit upward.

An exception is a cable box that has no plastic core to ease the passage of cable. In this case, the best solution may be to position the box so that cable exits to the rear. Then route the cable around one or both drums to redirect it toward the cable sorter.

After you have installed the shelves and positioned cable boxes on them, feed the cables through the cable sorter as explained on *pages 4-5, Steps 8-11.*

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8.0 The Beast III Capacity Expander Drone™

The Beast III Capacity Expander Drone hitches to the rear of the Beast III (*inset*). It has a single cable-support stanchion with the same capacity as the Beast III's stanchions. Several drones hitched to the Beast III takes maximum advantage of the versatility designed into the Beast III.

A Drone can support up to six 1,000-foot reels of cable. Fitted with a 3K Kit similar to the one shown on page 7, it can accommodate up to four 3,000-foot reels.

Using two Expander Drones increases the capacity of the Beast III by twelve reels or, when fitted with a Box Kit (*page 13*), by twelve boxes. This configuration takes full advantage of the cable-sorter's complement of 24 cable holes.

NOTE: When you feed more than twelve cables through the sorter, you may have to remove one or more of the cable meters from the Beast III to prevent blockage of the lower row of holes.

## 9.0 Increasing Beast III Capacity with Expander Drones

9.1 Preparations for hitching an Expander Drone

Position an Expander Drone behind the Beast III with the tongues in the Drone's chassis rails pointed toward the rear of the Beast III *(right).*

With a screwdriver or other suitable tool, pry the plastic end caps from the Beast III chassis rails *(inset).*

9.2 Securing the Expander Drone
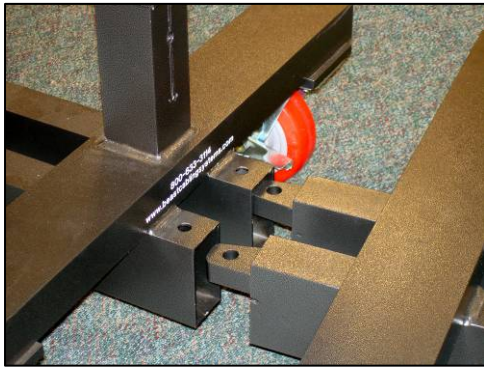
Pull the pins from the tongues, then roll the Expander Drone forward, inserting the tongues into the chassis rails *(left).*

Reinsert the pins to hitch the Expander Drone securely to the Beast III.

Tip: *To hitch a second drone to the first, repeat Steps 9.1 and 9.2*

9.3 Moving and removing cable meters

Cable meters may block access to the lower row of holes in the cable sorter. By removing, a single meter, you can unblock three of the twelve holes available there.

To detach a meter, find the knob under it, and turn the knob counter-clockwise to remove the meter screw from the head assembly *(right).*

To keep track of the mounting screw, thread it into the meter, before setting the meter aside.

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9.4 Mounting reels and threading cables

Place reels of cable on the Expander Drone's axles as shown for the Beast III on pages *steps 2.7-2.11*

NOTE: Although the picture at right shows cable reels loaded onto only one side of the Beast III and Expander Drone, in practice, it is better to distribute the load on both sides of the equipment.

Pass the cables between the upper and middle reels already mounted on the Beast III, using the drums as necessary to avoid excessive bend in the cables that may cause damage.

Thread the cables through unused holes in the cable sorter.

Bundle cables together (*top*) and secure them to the Claw as described in *step 2.9*

Caution: *The Expander Drone has a small footprint. To prevent tipping, load cable reels on the bottom axle first, followed by the middle and top axles.*

Caution: *When rolling a loaded Expander Drone, place your hands no higher than the middle axle to prevent tipping.*

10.0 Packing up after a job

In most cases, you can move the Beast III to the next work site simply by releasing the brake at each wheel and rolling the machine away. If necessary, however, you can decrease the height of the Beast III by lowering the stanchions and the head assembly as shown here.

10.1 Preparing the Beast III for transport

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

Remove unused labels from the fin clamped in the labeling station on the top of the Beast III.

IMPORTANT: 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.

Remove cable reels from the axles, and set the reels aside.

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

10.2 Lowering the cable-support stanchions

Remove the safety pins from the end of the axles.

Extract the axles from one stanchion, supporting the top of the stanchion to keep it from falling (*left*), then gently lower it.

Repeat this process for the other stanchion.

10.3 Lowering the head assembly

Stand in front of the Beast III and grasp the head as shown at right.

Lift the head assembly straight up as far as it will go—about an inch—then rotate it away from you to a horizontal position.

Caution: *To avoid pinching, keep hands clear of the head pivots and guides as you lower the head.*

11.0 Refilling 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 III in its travel configuration, but you can also change tapes with the unit set up for pulling cable.

11.1 Dismounting the tape shaft

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

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

11.2 Adding tape to the shaft

Stand the tape shaft vertically on the work surface.

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

Remove from the shaft all the rolls of tape and nylon bushings that separate rolls of one color from rolls of another (*right, bottom*).

To reload the shaft, slip two rolls of tape having the same color onto the tape shaft, followed by a bushing.

Orienting all the rolls to feed in the same direction, continue to load like-color pairs of rolls and bushings until tape shaft is fully loaded.

When you have filled the shaft with tape, return the four nylon bushings to the top and bottom of the shaft. Center the rolls of tape on the shaft.

Remount the shaft so that tape feeds from the bottoms of the rolls.

12.0 A variety of Beast III Configurations

The pictures below show some of the many ways that the Beast III Cable Management and Labeling Unit, by itself or, augmented with a 3K Kit, a Box Kit, or a Capacity Expander Drone, can be loaded with additional reels of cable.

A Beast III fully loaded 12 cable reels.

The Beast III with a fully loaded 3K Kit(page 7).
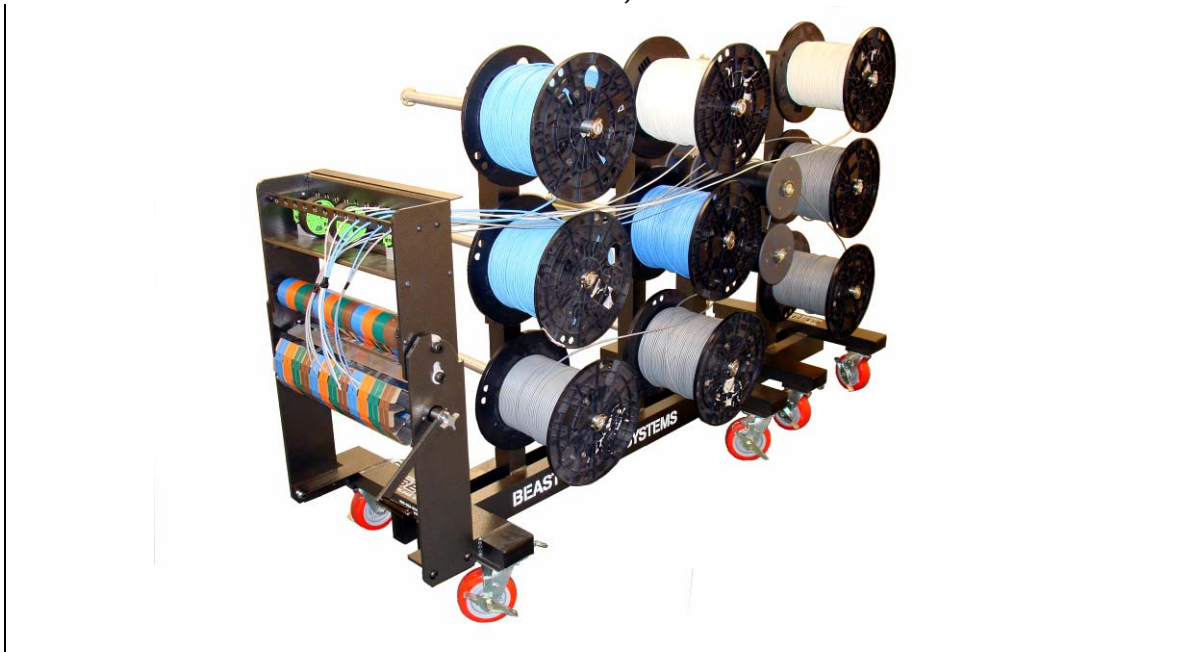
This Beast III, to which a Capacity Expander Drone is attached, carries nine reels of cable, half its capacity. In practice, it's better to load half the reels on one side of the machine, half on the other.

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

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