Independence
Sovereignty

Excell™ Internal Halyard Flagpoles

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

A flagpole is a machine and, like all machines, requires routine maintenance to insure that it operates safely and efficiently. This manual will help maintain your flagpole in its best operating condition. It will identify areas where wear is expected to occur and establish a system for recognizing worn parts and instructions for servicing or replacing them before they fail.

Read these instructions completely before any installation is started. Pay close attention to all safety concerns. In the unlikely event that you encounter any difficulty, contact the dealer or representative from which the flagpole was purchased and if necessary they will contact us. Become familiar with the material as it will help eliminate emergency repairs and downtime.

Warning, do not install your flagpole near overhead power lines and always be aware of anything under the soil. Contact the utility departments to confirm that it is safe to dig in the area where the flagpole is to be installed. It is advisable to have someone help in the installation. Any pole with a 5" diameter base or larger or over 25' in length may require some type of lifting device. Following a review of these instructions, the purchaser of the flagpole should determine if they are qualified to perform the installation or should obtain the services of a professional sign/flagpole installation company. Due to various methods of installation used by installers, as the manufacturer of the flagpole, cannot be liable for structural damage or injury occurring during the flagpole assembly and installation. Unless specifically designed and ordered otherwise, these flagpoles and their specifications are designed for ground mount applications only. Flagpoles mounted above grade, such as on a building, must be designed to take the height application into account.

INSTALLATION

1.Unwrapping and Inspection of the Shaft and Components The packaging in which the flagpole is shipped is used to protect the finish in transportation. **Any tear in the package should be suspect for possible damage.** A pair of cotton gloves worn during the assembly and installation process keeps finger prints from the flagpole during installation.

Remove the flagpole from this shipping tube. This can be done by removing the screws from the wooden end caps and sliding the shipping tube off the shaft. Caution: if the wooden end caps are open or damaged, it is possible that debris has entered the shipping tube. This could scratch the pole so, if this is the case, put one end of the tube on a sawhorse and tap or shake the tube to shake out the debris. Then slowly pull off the tube being aware of any resistance. The shipping tube is of a spiral wrap construction and can also be "pulled" apart if desired.

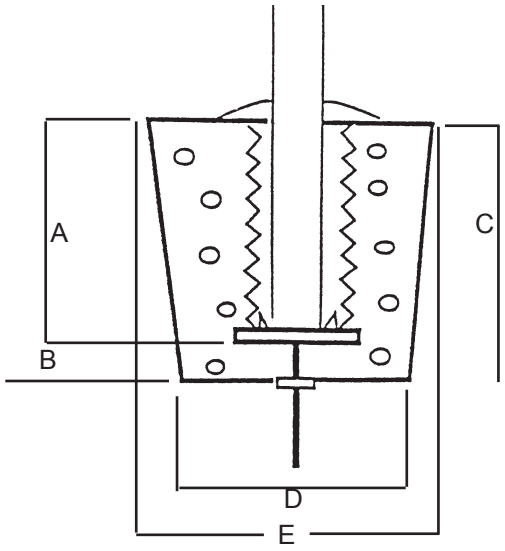
Remove the paper wrapping for inspection. Keep the paper as it will be used in various steps in the installation process. The flagpole should be stored either in a dry area or on blocks off the ground with the shaft at an angle until installation. If the flagpole gets wet with the packaging still on it, the pole may develop stains as it dries. These are extremely difficult to remove and are not a warranty issue. This is the proper time to inspect the shaft for any damage that might have occurred during shipping. Verify that all parts have been received and are in good and acceptable condition.

If the flagpole has received an anodized finish, there might appear to be slight differences or variations in the color under different light conditions. For example, when viewing the straight section of the flagpole it might appear to be a slightly different color than the tapered section. This can be due to the angle of the light that hits the surface. Various components of an aluminum flagpole are manufactured using different types of aluminum and, in the case of an anodized flagpole, these components will be affected differently by the process. Due to this, some components are not anodized but are finished in other methods. This will cause a slight difference in appearance but not in operation.

If there is any damage to the shaft or components, do not continue with the installation without first contacting the dealer. To continue with the installation signifies the acceptance of the product in the condition received. Carrot-Top will not be responsible for later installation expenses for missing or damaged parts.

2. Foundation Preparation Prepare the foundation hole as detailed in these instructions. **Note that these dimensions are considered minimum dimensions for an in-ground or embedded flagpole in firm dry soil.** Variations in these dimensions may be needed in different soil conditions. Your dealer should be able to assist you with the proper dimensions for soil in your area. Note: If your flagpole was purchased with a shoe base mount, similar to a street light, there will be an additional set of installation instructions for the base. If this additional set is not included, contact the dealer before proceeding.

FC11 spun aluminium flash collar



Minimum Recommended Foundation Dimensions

Exposed Height	A	B	C	D	E
20'	3'0"	6"	3'6"	24"	30"
25'*	3'0"	6"	3'6"	24"	30"
30'	3'0"	6"	3'6"	24"	30"
35'	3'6"	6"	4'0"	30"	36"
40'	4'0"	6"	4'6"	36"	42"
45'	4'6"	6"	5'0"	42"	48"
50'	5'0"	8"	5'8"	42"	48"
60'	6'0"	10"	6'10"	42"	48"
70'	7'0"	12"	8'0"	48"	60"
80'	8'0"	12"	9'0"	48"	60"

* Due to freight limitations, 25' exposed height flagpoles maybe purchased with an overall length of 26'6". If this is the shaft length of your flagpole, the “A” dimension for the Ground Sleeve will be 2'6" and the “C” dimension will be 3'0". Attachment of the components will produce an exposed flagpole height of 25'.

Set the Ground Sleeve in the center of the hole with the top of the sleeve approximately 2” above grade. Push the sleeve rod into the ground so the sleeve assembly is resting on the small setting plate. When the concrete is poured, it will fill in the area between the setting plate and the base plate. Carefully plumb the Ground Sleeve tube vertically and brace it so it cannot move or rise up during the pouring of the concrete. You may use a simple level inserted into the sleeve to insure it is vertical.

Slowly pour the concrete, continuing to verify vertical plumb. Care should be taken that the pouring of the concrete is not at a rate that might cause the ground sleeve to “ float up” as the concrete goes under the sleeve base plate. Trowel to desired finish. Keep the inside of the sleeve dry and free of debris by covering the opening of the sleeve. Allow the concrete to cure for at least 24 hours.

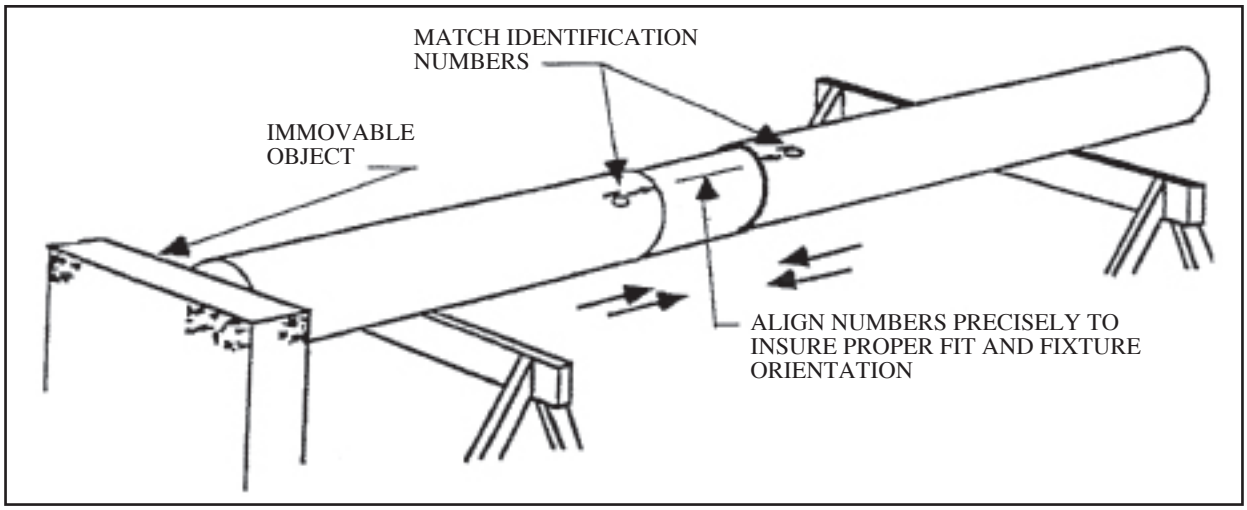
If your flagpole has a single piece shaft, refer to section 3A. If the flagpole is a multiple piece shaft, proceed to section 3B

3A. Single Piece Flagpole Place the flagpole shaft on sawhorses in order to attach the components. If your flagpole has a single piece shaft, there are no additional steps needed before the assembly of the components. Skip Section 3B and proceed to Section 4.

3B. Multi- Section Flagpole Assembly Instructions Multiple section flagpoles are fabricated with a self aligning jam sleeve with close tolerances that are used in joining the shaft sections into a single unit. Inspect the shaft sections for damage before any assembly. It is imperative that these sections be handled with extreme care to avoid creating an out of round condition which would prevent the sections from completely joining and forming a snug fit when assembled. This is not only an appearance issue but can affect the structural integrity of the flagpole. **Do not expect to be able to disassemble the shaft sections after they have been put together. Taking them apart without damage is extremely difficult or impossible.** No hardware should be installed until the shaft sections are totally assembled. The following information is intended to be a helpful guide to the installer. Previous experience in installing multiple piece flagpoles is beneficial.

Set the bottom section on blocks or saw horses in a horizontal position with the base of the shaft against an immovable object. Protect all ends with wooden blocks and padding. Rotate the shaft until the match marks can be seen. They are stamped near the ends of each section. Check the alignment of the match marks. **All numbers must be the same. If they are not, do not proceed.** They will not properly fit together. If you have purchased more than one pole, verify that all sections are grouped with the correct match number. They are not interchangeable.

Carefully clean all mating surfaces of the both the outside of the jam sleeve and the inside of the bottom part of the next smaller shaft into which the jam sleeve will be fitted. Cleanliness is imperative. Carefully look for and remove any debris that might be in the section after the manufacturing or shipping process. Any foreign material may stop the sections from properly fitting. Check for and remove any burrs.



Cover the jam sleeve and the immediate inner section of the section that it will be fitted into with a light layer of liquid soap. Do not use grease, oil or other petroleum products as these lubricants can seep out over time and stain the flagpole. Keep the finish surfaces free of hand prints and excess lubricants.

Gently slide the section of the flagpole over the jam sleeve as far as possible without forcing the two pieces together. The two pieces should be within 2" of closure. If not, gently remove the section and recheck for any obstructions, burrs or an out of round condition in either piece. Place blocks so that the two sections

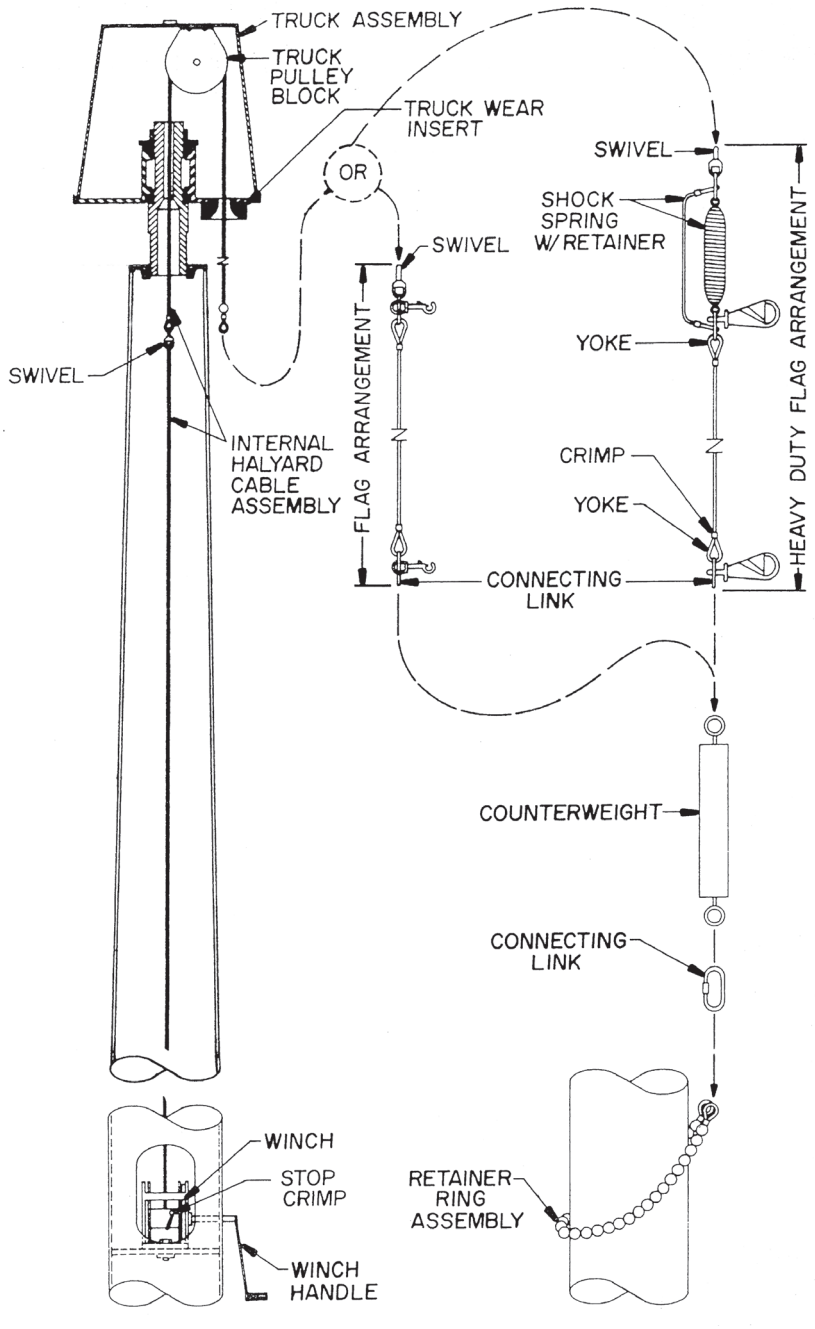
have a straight centerline. This is critical. If the flagpole is a 3 piece unit, debur, clean, and lubricate the next section in the same manner

With the pieces in line, place a 4x4 block of wood against the top of the flagpole to absorb the direct shock and firmly strike the wood to drive the sections together. Excessive force, that which will damage the ends, is not necessary. If the pieces are not coming together inline, contact your dealer.

4. Assemble the hardware. When working with threaded components in aluminum, a light coat of an anti-seize compound is recommended. This is available at most hardware stores. Extreme care should be exercised when starting the threads of any components to prevent cross threading.

(a) The Truck assembly and cable assembly are assembled as a unit at the factory. The Truck assembly for an Independence or Sovereignty Flagpole will generally be one of two different configurations. If your flagpole has the Cone or Top Hat style, the finial must be assembled at this time. To do this, remove the two screws on top of the Truck Assembly. Noting the position of the pulley being over the exit grommet, separate that top casting from the base casting by removing the screws. It is not necessary to undo the cable assembly as only a small work area inside the Truck is necessary. Screw the flagpole Ball or Eagle into the threaded hole on top of the truck cover. Extreme caution should be taken to avoid cross threading. Once the threads on the ball have begun to thread into the truck, continue to tighten by hand only. When the ball shaft protrudes approximately ¼" inside the Truck cover, tighten the locknut. Reassemble the Truck cover onto the base, being careful of the direction of the pulley and be sure that the cable has not been pinched.

If the flagpole came with the combination Cast Aluminum Ball/Truck, no additional preparation is needed.



(b)Uncoil the cable leg which extends from the spindle. Fish the cable through the threaded shaft opening. Continue to feed the cable into the shaft until the end of the cable is seen in the door. The swivel on the cable fits in side the shaft. This swivel is an important part of the operation of the cable and should never be omitted.

(c) Check the end of the Truck spindle and the threaded end of the flagpole shaft for any burrs. A small amount of anti-seize can be placed on the spindle threads. Gently align the spindle threads and begin screwing the Truck assembly into the shaft. If there is any resistance that feels like the threads are not lining up, back the spindle out, check for stripping and try again. The threads are 1 ¼" NPT tapered pipe threads and will begin to snug up as the truck is screwed in. Over half of the spindle threads should be screwed into the shaft. Use a wrench to tighten.

(d) To connect the inside cable to the winch, there are also different points to address.

* If the winch is bolted to the rear of the flagpole, skip this section and go to (e). If the winch is mounted on a round cast aluminum platform that is in turn attached to a bridge assembly inside the flagpole, find and remove the hex head bolt in the front which appears to be holding the round winch platform in a fixed position. The removal of this bolt allows the winch to be horizontally rotated to get to the cable mounting bolt. Place the handle in the winch, rotate the winch as far to one side as possible and slowly turn the winch handle until a small slot and a pan head screw can be seen at the end of the winch barrel. This procedure might need to be repeated several times to locate the slot and screw.

(e) Remove the pan head screw covering the slot. Note: this is a ¼"-20 x 1/4" screw. Use of a longer screw will cause the winch to slip. Do not substitute another size. Bring the cable behind, under, and up in front of the winch. Put the copper cable stop into the slot on the winch barrel. Several taps from a hammer might be needed to get it to seat properly. Make certain that the cable stop is not cocked and is firmly set in the slot. Reinsert the screw and tighten to hold the cable stop in place.

(f) If the winch is mounted to the rotating plate, rotate the winch and winch mount plate assembly to align the hold down tab with the threaded hole in front. Reinsert and tighten the lock down bolt. If the winch was bolted to the back of the flagpole shaft, this step is not applicable.

(g) Uncoil the outside leg of the cable assembly. Pull as much cable from the truck as possible. It will stop when the swivel meets the bottom of the Truck spindle. The end of the cable which has a crimped yoke used to attach the flag arrangement should be in the vicinity of the door opening. The overall operational length of the cable can be tested at this point. While someone is supplying resistance at the end of the cable that has the yoke, slowly crank the winch handle as if raising the flag. The yoked end should go almost to the grommet on the truck.

(h) Using the quick link, attach the upper end of the flag arrangement to the cable assembly. Using another quick link, attach the bottom of the flag arrangement to one end of the counterweight. The attachment bars that are cast into the counterweight are sized so that the link may need to be forced over it by a gentle tap of a hammer. Attach one end of the Retainer Ring to the link at the other end of the counterweight with the third quick link. Wrap the retainer ring around the flagpole and attach the other end to the same lower link. DO NOT ATTACH THE RETAINER RING TO THE SAME LINK AS THE CABLE ASSEMBLY. BOTH LINKS MUST BE USED TO PROVIDE THE SAFEST ASSEMBLY. Make sure all three thimbles on the quick links are secure.

(i) Temporarily tape the counterweight against the pole after placing a piece of the wrapping paper around the pole to avoid tape marks and scratches. Gently take up any slack in the cable by slowly rotating the winch handle in a clockwise direction

5. Setting the Flagpole into the Ground Sleeve

Gently slide the collar up the pole from the bottom and tape it out of the way near the door. Using some of the paper in which the shaft was wrapped will provide further protection to the finish.

Single Piece Flagpole Shaft If the flagpole is a single piece shaft, raise the shaft in a safe and secure manner and carefully slide it into the setting tube, rotating it so that the door faces the desired direction.

Multi Piece Flagpole Shaft If the flagpole is a multiple piece, extra care must be used when setting it into the sleeve. Before standing the pole, make certain that the joints are fully seated and that the shaft is straight. **Never stand a flagpole that is not properly assembled and straight.** If a lifting device is used, never pick up the assembled pole from the top. The pole should be moved to a position that places the base of the pole close to the foundation. Prior to lifting the flagpole, make sure that any shaft joint below the lift point is securely lashed together with ratchet straps to prevent a possibility of separation during lifting. If lifting by crane, bucket truck, etc. the point of attachment should be above the pivot point or center of gravity point of the shaft so that the bottom of the shaft is the last to rise from the ground. **Caution: The flagpole joint IS NOT designed to support the weight of the bottom or middle section of the flagpole**

6. Finishing Up Make sure the flagpole is plumb and slowly fill the void between the flagpole and the ground sleeve with sharp river washed play sand – do not use silica sand. After some sand has been added, tamp the sand to compact it. Add and tamp more sand until the sand is within ½" from the top of the setting tube. Caulk the remainder of the distance to the top of the sleeve. Never use concrete to seal the spacing between the flagpole and the ground sleeve.

Lower the flash collar over the ground sleeve and caulk where the shaft passes through the collar.

It is important to always remember that when raising or lowering the flag, the counterweight is also being raised and lowered above the operator. Always be aware of the location of the counterweight as a safety issue. At a monthly minimum, inspect the condition of the cable, yoke, links, snaps, winch, winch attachment bolts, retainer ring and counterweight. Replace worn components to insure the safe and correct operation of your flagpole. Do not allow anyone to operate the flagpole that is not capable of firmly gripping the winch handle and operating the winch. Caution should always be applied due to the forces applied by the flag and counterweight while raising and lowering the flag.

Attach your flag to the flag snaps and operate the winch to raise the flag. Do not put excess pressure on the handle or try to "jam" the flag arrangement into the Truck Assembly. Allowing some "give" in the components can help to extend the life of the various parts. When the flag is at the desired height, remove the handle and confirm that the door is locked.

We again want to thank you for choosing a Carrot-Top Industries, Inc. Flagpole and hope that you have many years of pride and pleasure with your flagpole and flag.

Independence
Sovereignty

Stainless Steel Cable Based Internal Halyard Flagpole

We wish to thank you for the purchase of what many feel is the best value in a flagpole available in today's market. We are pleased that you have chosen our flagpole to proudly fly the flag of your choice. We hope that you have many years of product satisfaction ahead of you.

We are proud to say that our flagpole shafts and the large majority of the components are made in America. If you encounter any problems or need items for repair or maintenance in the future, please contact the company from which you purchased the flagpole. They will contact us for the necessary parts or information. They are also an excellent source for replacement flags.

We have provided a list of parts that make up the flagpole assembly. There can be some variations when considering the options that you have chosen. Please review this list against the parts received **before** you begin the installation process. In the event that you have a shortage or damage, please contact the dealer at your earliest opportunity so that we can correct the issue.

Enjoy your flagpole.

			Packed By
Shaft with Winch and Door	Sections	_____	_____
Finial (Ball, Eagle, Other)	Each	_____	_____
Pulley (Truck) Assembly	Each	_____	_____
Main Cable	Each	_____	_____
Flag Arrangements	Each	_____	_____
Flash Collar	Each	_____	_____
Counterweight	Each	_____	_____
Retainer Ring	Each	_____	_____
Winch Handle	Each	_____	_____
Ground Sleeve	Each	_____	_____
Installation Instructions	Each	_____	_____

Optional Items

Snap Covers	Each	_____	_____
Ball/Truck Assembly	Each	_____	_____
Other _____	Each	_____	_____