**Mod-U-Dock Assembly**

**FLOATING DOCK SYSTEM**

**UNPACKING AND PRE-ASSEMBLY**

**UNPACKING:** Remove modules and floats from the shipping pallets and lay out the modules in numeric order if possible (refer to installation drawing). Though not critical, we suggest that the assembly process be accomplished in numeric sequence. The module number can be found on a 2” round, colored label applied to the side or end of each module. These numbers will aid in the installation process by defining the assembly sequence as well as helping you locate those modules that have been pre-drilled for accessory items. All brackets, hardware and accessories are packed inside the lower modules on the skid.

**WORK AREA PREPARATION:** Depending on site conditions, a float installation area (using two floats as a work bench) might be preferred to working on the ground.

**PRE-ASSEMBLY CONSIDERATIONS:** Check to see which modules have accessory items (bench, ladder, cleats, etc.) that need to be mounted and/or Inside Corner Brackets labeled “C” or “D” that will be located under a float. It saves a lot of frustration if these items are mounted prior to installing the floats.

**MODULE ASSEMBLY**

**FLOAT INSTALLATION:** (5/16” Allen Wrench or large, flat blade screw driver for float plugs, and a ½” socket for float fastener kits): Refer to the drawing to determine which float(s) are needed for each module. One float fastener kit is required for each float. BEFORE installing the float be sure to install the black 3/8” IPS plastic float plug (from float fastener kit) in the top of the float. Screw in the plug only until flush – DO NOT over tighten. Then turn the float over and align the float with the float brackets on the module. Fasten the float to the module using the carriage bolts, washers and nuts from the float fastener kit. Insert the bolt up through the bracket and float flange and install washer and nut. Install all four bolts hand tight, align float with the module and then tighten to secure, but DO NOT over tighten. Repeat this procedure for all other modules. NOTE: In some cases, when inside corner brackets are used, the bracket will need to be installed prior to installing the float. Be sure to check the drawing to see if a spline, module bracket or a mounting bracket for an accessory item needs to be pre-installed, it will be noted on the drawing.

**SPLINE KIT INSTALLATION** – Install the 1½” x 1¼” HDPE plastic splines by inserting the spline in the pre-cut openings in the side rail, as shown on the drawing. Align the hole in the spline with the small hole in the side rail and insert the spline retention pin through the side rail to hold the spline in place. NOTE: The brackets located at the spline joints will be installed after the modules and module fastener kits (“K” and/or “U”) have been assembled.

**BRACKET INSTALLATION** – (3/4” socket wrench, 3/4” box, open end or adjustable wrench): Refer to the drawing to determine the correct brackets for each location. Install each bracket as shown on the drawing and tighten the 1/2” bracket mounting bolts hand tight only. The brackets have been labeled for your convenience. See “BRACKET BOLT ASSEMBLY” below.

**BRACKET BOLT ASSEMBLY** – (no tools): Locate the bracket bolt package(s). The package contains the required number of ½ x 2½ hex head bolts, ½ x 1¼ white PVC trim washers, and ½” Nylock nuts. Pre-assemble the bolts by slipping a PVC washer on each bolt.
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ACCESSORY INSTALLATION – (1/2” and/or 9/16” socket wrench): Refer to drawing for the location of accessory items (bench, ladder, mooring cleats, module hinge kits, etc). Install accessory item(s) and/or backing plates on modules after installing the brackets and before putting the module in the water.

PILING BRACKET COVERS – (no tools): The 5” diameter PVC piling bracket covers for AP & BP brackets should be installed prior to putting the modules in the water. To install the cover, firmly wiggle the cover to get the slot in the cover started on the top guide ring, then firmly push the cover down until the bracket snaps over the lower guide ring.

DOCK INSTALLATION

SHORELINE TRANSITION – (no tools): If a gangway or module with hinge kit is included in the dock package, it should be assembled and staged separately. Depending upon site conditions and the method of mounting, it may be installed after the dock system is complete.

FLOATING MODULE INSTALLATION – (3/4” socket wrench, 3/4” box, open end or adjustable wrench): After the modules have been assembled with floats and splines, turn them right-side-up and put the modules in the water in numeric sequence. If the dock is large or has finger piers and/or platforms, it can be assembled and installed in small blocks or stages if desired. Using the drawings as a guide, connect modules as shown using the splines for alignment and fasten with the 1½” x 4” bolts (“K” and/or “U”) as shown. After the modules have been connected with the splines and module fastener bolts install the brackets as indicated on the drawings.

NOTE: The modules can be assembled on land if necessary, but it is considerably easier to install brackets and hardware when the modules are floating.

Connect the modules and install bracket bolts HAND TIGHT. Check the drawing to determine where additional “k” or “u” module fastener kits are required – bolt modules together as shown. After all bracket bolts and module fastener kits have been installed, all bolts should be tightened. The bracket bolts should be tightened only until the bracket face firmly contacts the side on the dock module - DO NOT over-tighten. Over tightening will crush and deform the module side and cause excessive noise (squeaking). Some initial noise is normal and will diminish over time. A light coat of high grade silicone spray applied between the bracket and module will significantly minimize this initial squeaking.

ANCHORING OPTIONS

AUGER PILING INSTALLATION – (9/16” socket, 24” pipe wrench or Mod-U-Dock Gahooley tool - optional): Attach all auger feet to 2.375” OD high tensile galvanized steel tubes and secure with the bolts supplied with the augers. Position the dock or subsections as desired and insert auger foot through the top of the white PVC auger piling cover and bracket. While maintaining the piling in a plumb position, lower it to the bottom. Using either a pipe wrench or Gahooley auger piling tool, screw the piling into the bottom until secure. If the bottom is soft, the auger piling will need to be installed deeper. With a standard mud bottom, one to two feet of insertion is recommended. The top of the auger piling should normally be about one foot above the top of the piling bracket cover, but this can be modified to accommodate site conditions and water level fluctuation.
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ANCHOR CABLE INSTALLATION— (3/4” socket wrench, 3/4” box, open end or adjustable wrench): If an anchor cable is being used to secure the dock system, in lieu of pilings or auger pilings, be sure ramp or gangway is fully assembled and that all railings and module hinge kits are secure. Then secure ramp or gangway to shore side anchor point (seawall, stairs, concrete pad, etc.). Be sure that dockside anchor points (eye bolts, shackle posts or winch and cable brackets) are secure. Orient the assembled dock system to align with the ramp or gangway and secure with the module hinge pin. Attach cable or chain to both the shore side and dock anchor points and tighten until the dock is properly positioned and secure.

EXISTING PILING INSTALLATION— (3/4” socket, Battery drill w/1/2” bit - if not pre-drilled):

NOTE: See separate installation instructions for specific existing piling brackets

FINAL ADJUSTMENTS

TIGHTEN BRACKET BOLTS – (3/4” socket wrench, 3/4” box, open end or adjustable wrench):
Double check to make sure all bracket bolts have been installed and tightened properly. Again, just snugly tighten the bracket bolts – the bolt should be through the nut by just a couple of threads – DO NOT overtighten.

INSTALL POST COVERS – (no tools): If standard brackets (designated by an upper case “A” or “B”) are used, for either aesthetic or functional purposes, make sure that all of the vertical posts are secured with the set screw on the side of the bracket sleeves and that the top of the posts are between 5” and 14” above the top of the dock. After confirming that the legs are secured properly, the post covers can be installed. The post covers have the same letter designation as the brackets (“A”, “B”, etc.) To install the cover, firmly wiggle the cover to get the slot in the cover started on the bracket, then firmly push the cover down until the bracket set screw pops through the access hole in the cover. Once the cover is on, it is very difficult to remove. We find it easiest to completely remove the bracket set screw and then remove the cover.

THAT’S IT, YOU’RE DONE - We hope you will stand back and appreciate your efforts, and enjoy your dock for many years to come.

FOOTNOTES

"K" – Module Fastener Kit – The “k” Module Fastener Kit includes: 1- ½” x 4½” Hex Head Bolt; 2- ½” Standard Washers; 1- ½” Nylock Hex Nut.

"U" – Module Fastener Kit - The “u” Module Fastener Kit includes: 1- 16ga galvanized “U” bracket; 1- ½” x 4” Hex Head Bolt; 1- ½” Nylock Hex Nut.

Float Fastener Kit - The float fastener kit includes: 1- 3/8” IPS black plastic float plug; 4- 5/16 x 2 ½” Carriage Bolts; 4- 5/16” x 1 ½” Fender Washers; 4- ½” Nylock Hex Nut.

Module Spline Kit - The Module Spline Kit includes: 1- 1½” x 1¼” x 24” HDPE Plastic Spline; 1- #10 x1 ¼” Flat Head Retainer Pin.

Module Hinge Kit Installation - When installing a module hinge, the hinge plate goes on the outside of the bracket – typically a “b” bracket. If the bracket bolts are already installed, they should be replaced with the 2 ¾” Hex Head Bolts, Nylock Nuts and 2” Fender Washers provided with module hinge kit.