FLOE MAXIS TILTING CANOPY 24V KIT-10'-10.5 (VSD 3800-5000 Pontoon) ASSEMBLY INSTRUCTIONS



P/N 512-65025-00





TOOLS REQUIRED -1/4" ALLEN WRENCH -(2) 9/16" SOCKET/WRENCH -(2) 3/4" SOCKET/WRENCH -5/16" HEX SOCKET -TORQUE WRENCH -SCISSORS -1/2" SPACER

*LIFT AND CANOPY NOT INCLUDED

INSTALLATION REQUIREMENT

TWO SETS OF ANCHORING SYSTEMS (FOUR TOTAL ANCHORS) MUST BE USED WHEN INSTALLING A MAXIS CANOPY.

> ANCHORING SYSTEMS: 512-00051-00: ANCHORING SYSTEM, 6-8K 512-00053-00: ANCHORING SYSTEM, 6-8K DEEP

INSTRUCTION P/N: 612-65025-00 RELEASED 7/12/23

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CANOPY CONFIGURATION SETUP

THE ORIENTATION OF THE CANOPY IS DEPENDANT ON THE THE SIDE OF THE DOCK WHERE THE BOAT LIFT IS INSTALLED (LEFT SIDE OF THE DOCK OR RIGHT SIDE OF THE DOCK). THE LEFT OR RIGHT ORIENTATION IS DETERMINED WHEN YOU ARE WALKING ON THE DOCK SECTION(S) AWAY FROM THE SHORE LINE. THE FIRST SECTION OF THE INSTRUCTIONS EXPLAINS HOW TO INSTALL THE TILT KIT ONTO A BOAT LIFT WHEN THE BOAT LIFT IS PLACED ON THE RIGHT SIDE OF THE DOCK. THE NEXT SECTION OF THESE INSTRUCTIONS EXPLAIN HOW TO INSTALL THE TILT KIT WHEN THE BOAT LIFT IS PLACED ON THE LEFT SIDE OF THE DOCK. IN BOTH CONFIGURATIONS, THE V-BRACE SIDE IS CLOSEST TO THE DOCK.





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ANCHORING SYSTEM PLACEMENT





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BILL OF MATERIALS

512-65025-00 (VSD 3800-5000 Pontoon)

P/N 512-65025-00	Kit, Maxis-Tilt VSD3800-5k Pon. W. 24 Volt Actuators		
NUMBER	PART NUMBER	DESCRIPTION	<u>QTY.</u>
1	001-70113-00	HHCS, 3/8-16 x 2 1/2" 18-8 SS	4
2	001-70119-00	HHCS, 3/8-16 x 4" 18-8 SS	4
3	001-70205-00	HHCS 1/2-13 X 1" SS 18-8	2
4	001-70219-00	HHCS, 1/2-13 x 4" 18-8 SS	2
5	001-71021-00	FLAT WASHER, 1/2" 18-8 SS	6
6	001-73536-00	SHCS, 3/8-16 x 1/2" 18-8 SS	1
7	001-76071-00	Nut, Nylock 3/8-16 Alum.	8
8	001-76072-00	Nut, Nylock 1/2-13 Alum.	16
9	002-00074-00	Bolt, Canopy Support (Fab)	4
10	002-00151-00	Bolt, Canopy Rail 1/2 x 1-1/4" (Fab)	8
11	002-00263-00	Tab, Maxis Guide	4
12	002-00264-00	Spacer, Maxis Contaiment Bracket	4
13	003-20001-00	Harness, Tilting Canopy-33'	1
14	003-20002-00	Harness, Tilting Canopy-13 [,]	1
15	003-20005-00	Harness, Maxis Extension 15' 14 GA.	2
16	003-60001-00	24V Actuator 18" 400lbs	2
17	007-00018-00	Bracket, Maxis Containment Plastic	2
18	014-02310-00	Velcro, 1/2" Double Side Black	10 yd.
19	112-01060-00	Weld't, Upper Act. Mount	2
20	112-00142-00	Weld't, ASC Battery Tray Mnt.	1
21	112-01064-00	Weld't, Lower Act. Mount 10'	2
22	112-01065-00	Weld't, Canopy Rail Hinge 10'	2
23	112-01071-01	Ass'y, 10' Tilt Canopy Vert. Guide	2



INSTALLATION (RIGHT SIDE OF DOCK CONFIGURATION)

TILT BRACKETS / RECIEVER MOUNT / ACTUATORS STEP 1

-PLACING CANOPY LEGS

INSERT A CANOPY LEG **(INCLUDED IN CANOPY HOOPS)** IN EACH OF THE CORNER POSTS. TILTING LEGS (002-00156-00, SHOWN BELOW) ARE PLACED IN PIVOTING SIDE (SHORE-END) CORNER POSTS. NON-TILTING LEGS (911-14203-00) ARE PLACED IN NON PIVOTING SIDE CORNER POSTS. ATTACH USING A ½-13 x 1-1/4" BOLT, FLAT WASHER, AND NYLOCK NUT **(INCLUDED WITH CANOPY HOOPS)** (FIG.1).

PLACE BOLT AND WASHER IN CORNER POST (FIG.2).

SLIDE CANOPY LEG INTO CORNER POST. BOLT AND WASHER ARE INSERTED INTO CANOPY LEG NUT TRACK (FIG. 3).

PLACE NUT ON BOLT. TORQUE TO 60 FT-LBS. <u>LEG MUST BE INSERTED TO HAVE 18</u> INCHES ABOVE CORNER POST (FIG.4).



INSERT SPECIAL BOLTS INTO BOTH CANOPY RAILS AS SHOWN.



-ASSEMBLE CANOPY VERTICAL GUIDES (FIG. 1) PLACE ¹/₂-13 x 1" BOLT AND WASHER IN VERTICAL GUIDE (FIG. 2) SLIDE CANOPY VERTICAL GUIDES OVER REAR CANOPY LEGS (FIG. 3) PLACE NUT ON BOLT OVER GUIDE. POSITION THE VERTICAL GUIDE **5 INCHES** FROM TOP OF CANOPY LEG (FIG. 4) **TORQUE TO 60 FT-LBS.**

FIG. 1





FIG. 2



ASSEMBLE CONTAINMENT BRACKET AND SLIDE OVER VERTICAL GUIDE WITH FASTENERS IN PREPARATION FOR NEXT STEP (FIG. 1 & 2).



-BRACKET PLACEMENT

CENTER UPPER BRACKETS TO POSITION ABOVE EACH CANOPY LEG (FIG. 1). PLACE CONTAINMENT BRACKET 1/2" FROM SIDE OF VERTICAL GUIDE FACING FRONT OF LIFT (FIG. 2).

TORQUE NUTS TO 60 FT-LBS (FIG. 1 & 3)







-ALIGN CANOPY

ALIGN RAILS (SHOWN ASSEMBLED WITH HOOPS) ON LIFT TO DESIRED OVERHANG. ARRANGEMENT WILL DEPEND ON POSITION OF BOAT ON LIFT (FIG.1).

IMPORTANT: WHEN ASSEMBLING CANOPY, PLACE END HOOPS WITH RIVET NUTS FACING INWARDS. THIS IS FOR ATTACHMENT OF THE END HOOP SUPPORT BRACKETS. THE BRACKETS SHOWN IN <u>FIGURE 2</u> ARE PLACED ON THE NON-TILTING SIDE, OR NON-ADJUSTING END. THE BRACKETS SHOWN IN <u>FIGURE 3</u> ARE PLACED ON THE TILTING SIDE, OR ADJUSTING END..



-FASTEN TILTING BRACKETS (FIG. 1)

INSERT 1/2-13 x 4" BOLT, WASHERS, AND NUT INTO TILTING BRACKET.

ONLY TIGHTEN TO ENGAGE NYLOCK AND REMOVE FREE PLAY IN BOLT. <u>DO NOT</u> <u>TORQUE.</u>



-ATTACH ACTUATORS TO CANOPY RAILS

PLACE ACTUATORS INTO UPPER BRACKETS (FIG.1). ATTACH USING 3/8-16 x 2 $\frac{1}{2}''$ BOLTS AND 3/8-16 NYLOCK NUTS (FIG.1).

ACTUATOR MOTORS MUST FACE DOWN TOWARDS BOTTOM OF LIFT AS SHOWN BELOW.



WIRING

STEP 10.1

-ACTUATOR WIRING

ARRANGE WIRE SUCH THAT EACH ACTUATOR HAS MALE AND FEMALE CONNECTORS (FIG. 1).



FIG. 1

STEP 10.2

-ATTACHING WIRING

ROUTE WIRING AS SHOWN TO PREVENT WIRING DAMAGE (FIG. 1). NOTE THAT WIRING MUST GO OVER PIVOTING CANOPY CONNECTION.

FOR THE ACTUATOR ON THE SIDE OF THE LIFT, OPPOSITE OF THE ASC, USE THE 33 FOOT LONG CABLE WITH THE GREY END AND ROUTE THE WIRES UP THE CANOPY SUPPORT LEG, ALONG THE CANOPY HOOP NEAREST THE SUPPORT LEG, AND ALONG THE CANOPY MAIN RAIL TO THE ACTUATOR (AS SHOWN BELOW).

FOR THE ACTUATOR NEAREST TO THE ASC, USE THE 13 FOOT LONG CABLE WITH THE BLACK ENDS AND ROUTE THE WIRES UP THE CANOPY SUPPORT LEG AND ALONG THE CANOPY MAIN RAIL TO THE ACTUATOR (AS SHOWN BELOW).

ATTACH WIRE WITH VELCRO ALONG CANOPY RAILS AND HOOPS (FIG. 2-5).

EACH SIDE SHOULD HAVE ATTACH POINTS ON 4 HOOPS. CANOPY HOOP CLOSEST TO CORNER POST WITH PIVOT SHOULD HAVE 12 ATTACH POINTS OF THE WIRE TO THE HOOP WITH VELCRO.

WRAP EXCESS CORD NEAR ACTUATOR AND ALLOW FOR 2 INCHES OF SLACK (FIG. 6).

NOTE: EXTENSION WIRES (003-20005-00) WITH YELLOW ZIP TIES ARE NOT USED IN THIS CONFIGURATION.









FIG. 3



FIG. 4



FIG. 5

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STEP 10.3

-CONNECTING ACTUATORS

CONNECT EACH ACTUATOR WITH RESPECTIVE CONNECTORS. WIRING IS CONSTRUCTED SUCH THAT THERE IS ONLY ONE CORRECT CONFIGURATION.



STEP 10.4

-CONNECT BATTERY

FOLLOW THE WIRING DIAGRAM BELOW. CONNECT THE ACTUATOR LEADS TO THE ACTUATOR HARNESSES AND FOLLOW THE VSD DRIVE INSTRUCTIONS FOR THE REMAINING WIRES.





FULL 24V ASC HARNESS (INCLUDED IN VSD DRIVE KIT)

LIMIT SWITCH WIRE (FOLLOW VSD INSTUCTIONS)



BATTERY LEADS

ACTUATOR LEADS



VSD LEADS (FOLLOW VSD INSTRUCTIONS)

REMOTE LEADS (FOLLOW VSD INSTRUCTIONS)

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- ATTACH ACTUATORS TO CORNER POSTS

ALIGN ACTUATOR TO DIMENSION SHOWN IN FIGURE 1.

IMPORTANT: RUN ACTUATORS IN COMPLETELY BEFORE ATTACHING TO LOWER BRACKET (FIG. 1).

PLACE ACTUATORS INTO LOWER BRACKETS. ATTACH USING 3/8-16 x 2 1/2" BOLTS AND 3/8-16 NYLOCK NUTS. TIGHTEN NUTS UNTIL NYLOCK IS ENGAGED (FIG. 2).

SWING ACTUATOR AND BRACKET TO CORNER POST (FIG. 3).

ATTACH LOWER ACTUATOR BRACKET TO CORNER POST USING FASTENERS SHOWN IN FIG. 4. DO NOT TIGHTEN.

PLACE A SPACER BETWEEN THE CANOPY RAIL GUIDE AND CANOPY LEG TO ENSURE A 1/4" GAP (FIG. 5).

TORQUE LOWER NON PIVOTING BRACKET NUTS TO 20 FT-LBS (FIG. 6).





PLACE $1\!\!/_2''$ Spacer between canopy rail guide bracket and canopy leg to ensure that a $1\!\!/_4''$ gap is present.

WHEN USING THE SPACER, THIS GAP WILL RESULT WHEN THE ACTUATOR IS INSTALLED.

IMPROPER SETUP WILL RESULT IN DAMAGE TO TILTING AND LIFT COMPONENTS.



FIG. 5



- TESTING OPERATION

AT THIS POINT IN THE INSTALLATION, THE CANOPY AND CRADLE BEAM ARE IN THE DOWN POSITION. WHEN THE LIFT IS IN OPERATION, THE TILTING CANOPY AND LIFT WILL MOVE SIMULTANEOUSLY, MEANING THAT WHEN THE LIFT IS LOWERING, THE CANOPY WILL TILT UP, AND WHEN THE LIFT IS BEING RAISED, THE CANOPY WILL BE LOWERED.

TO ENSURE CORRECT OPERATION OF LIFT AND TILTING CANOPY, CYCLE THE LIFT COMPLETELY UP (FIG. 1) AND COMPLETELY DOWN (FIG. 2). ONCE COMPLETED, THE LIFT AND CANOPY WILL CORRECTLY PERFORM THE FUNCTIONS STATED ABOVE.





NOTE:

IN THIS CONFIGURATION, ACTUATORS ARE PLACED ON THE MOTOR SIDE AND THE MAXIS ASC IS MOVED TO THE BATTERY TRAY.

-UPPER BRACKET PLACEMENT (FIG.1)

GUIDE BRACKET ON CANOPY RAIL WILL BE POSITIONED OVER CORNER POSTS CLOSEST TO LIFT MOTOR AND BATTERIES.

HINGE BRACKET ON CANOPY RAIL WILL BE POSITIONED OVER OPPOSITE CORNER POSTS.



FIG. 1

-ASSEMBLE CANOPY VERTICAL GUIDES (FIG. 1) PLACE ¹/₂-13 x 1" BOLT AND WASHER IN VERTICAL GUIDE (FIG. 2)

SLIDE CANOPY VERTICAL GUIDES OVER CANOPY LEGS NEAREST TO MOTOR PLACE NUT ON BOLT OVER GUIDE. POSITION THE VERTICAL GUIDE **5 INCHES** FROM TOP OF CANOPY LEG (FIG.3) **TORQUE TO 60 FT-LBS**.

GUIDES MUST BE ASSEMBLED FACING TOWARD INSIDE OF LIFT (FIG. 4). ASSEMBLE CONTAINMENT BRACKET AND SLIDE OVER VERTICAL GUIDE WITH FASTENERS IN PREPARATION TO BE ATTACHED TO CANOPY RAIL (FIG. 5 & 6). **REFER TO STEP 6 IN STANDARD CONFIGURATION INSTRUCTIONS FOR FINAL PLACEMENT.**







-ATTACH ACTUATORS TO CANOPY RAILS

PLACE ACTUATORS INTO UPPER BRACKETS (FIG.1). ATTACH USING 3/8-16 x 2 $\frac{1}{2}''$ BOLTS AND 3/8-16 NYLOCK NUTS (FIG.1).

ACTUATOR MOTORS MUST FACE DOWN TOWARDS BOTTOM OF LIFT AS SHOWN BELOW.



-ASC MOUNTING (FIG. 1)

PLACE ASC MOUNTING BRACKET ON BATTERY TRAY. TIGHTEN BOLT ON INSIDE OF TRAY (FIG. 2).

ATTACH ASC TO BRACKET WITH NUT AND BOLT (FIG. 3).

WIRING

STEP 6.1

-ACTUATOR WIRING

ARRANGE WIRE SUCH THAT EACH ACTUATOR HAS A MALE AND FEMALE CONNECTOR (FIG. 1).

FIG. 1

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STEP 6.2

-ATTACHING WIRING

ROUTE WIRING AS SHOWN TO PREVENT WIRING DAMAGE (FIG. 1). NOTE THAT WIRING MUST GO OVER PIVOTING CANOPY CONNECTION.

FOR THE ACTUATOR ON THE SIDE OF THE LIFT, OPPOSITE OF THE ASC, USE THE 33 FOOT LONG CABLE WITH THE GREY END AND A 15 FOOT LONG EXTENSION WIRE (WIRE WITH YELLOW ZIP TIE) AND ROUTE THE WIRES ALONG THE BALL SCREW TUBE, UP THE CANOPY SUPPORT LEG, ALONG THE CANOPY HOOP NEAREST THE SUPPORT LEG, AND ALONG THE CANOPY MAIN RAIL TO THE ACTUATOR (AS SHOWN BELOW).

FOR THE ACTUATOR NEAREST TO THE ASC, USE THE 13 FOOT LONG CABLE WITH THE BLACK ENDS AND A 15 FOOT LONG EXTENSION WIRE (WIRE WITH YELLOW ZIP TIE) AND ROUTE THE WIRES ALONG THE BALL SCREW TUBE, UP THE CANOPY SUPPORT LEG, AND ALONG THE CANOPY MAIN RAIL TO THE ACTUATOR (AS SHOWN BELOW).

BOTH ACTUATOR WIRES MUST RUN ALONG BALL SCREW TUBE AND ALL ACTUATOR WIRES MUST GO OVER THE PIVOT BRACKET (FIG. 2).

ATTACH WIRE WITH VELCRO ALONG CANOPY RAILS AND HOOPS (FIG. 3-5).

EACH SIDE SHOULD HAVE ATTACH POINTS ON 4 HOOPS. CANOPY HOOP CLOSEST TO CORNER POST WITH PIVOT SHOULD HAVE 12 ATTACH POINTS OF THE WIRE TO THE HOOP WITH VELCRO.

WRAP EXCESS CORD NEAR ACTUATOR AND ALLOW FOR 2 INCHES OF SLACK (FIG. 6).

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STEP 6.3

-CONNECTING ACTUATORS

CONNECT EACH ACTUATOR WITH RESPECTIVE CONNECTORS. WIRING IS CONSTRUCTED SUCH THAT THERE IS ONLY ONE CORRECT CONFIGURATION.

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STEP 6.4

-CONNECT BATTERY

FOLLOW THE WIRING DIAGRAM BELOW. CONNECT THE ACTUATOR LEADS TO THE ACTUATOR HARNESSES AND FOLLOW THE VSD DRIVE INSTRUCTIONS FOR THE REMAINING WIRES.

FULL 24V ASC HARNESS (INCLUDED IN VSD DRIVE KIT)

LIMIT SWITCH WIRE (FOLLOW VSD INSTUCTIONS)

BATTERY LEADS

ACTUATOR LEADS

VSD LEADS (FOLLOW VSD INSTRUCTIONS)

REMOTE LEADS (FOLLOW VSD INSTRUCTIONS)

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- ATTACH ACTUATORS TO CORNER POSTS

ALIGN ACTUATOR TO DIMENSION SHOWN IN FIGURE 1.

IMPORTANT: RUN ACTUATORS IN COMPLETELY BEFORE ATTACHING TO LOWER BRACKET (FIG. 1).

PLACE ACTUATORS INTO LOWER BRACKETS. ATTACH USING 3/8-16 x 2 1/2" BOLTS AND 3/8-16 NYLOCK NUTS. TIGHTEN NUTS UNTIL NYLOCK IS ENGAGED (FIG. 2).

SWING ACTUATOR AND BRACKET TO CORNER POST (FIG. 3).

ATTACH LOWER ACTUATOR BRACKET TO CORNER POST USING FASTENERS SHOWN IN FIG. 4. DO NOT TIGHTEN.

PLACE A SPACER BETWEEN THE CANOPY RAIL GUIDE AND CANOPY LEG TO ENSURE A 1/4" GAP (FIG. 5).

TORQUE LOWER NON PIVOTING BRACKET NUTS TO 20 FT-LBS (FIG. 6).

PLACE $1\!\!/\!_2''$ Spacer between canopy rail guide bracket and canopy leg to ensure that a $1\!\!/\!_4''$ gap is present.

WHEN USING THE SPACER, THIS GAP WILL RESULT WHEN THE ACTUATOR IS INSTALLED.

IMPROPER SETUP WILL RESULT IN DAMAGE TO TILTING AND LIFT COMPONENTS.

- TESTING OPERATION

AT THIS POINT IN THE INSTALLATION, THE CANOPY AND CRADLE BEAM ARE IN THE DOWN POSITION. WHEN THE LIFT IS IN OPERATION, THE TILTING CANOPY AND LIFT WILL MOVE SIMULTANEOUSLY, MEANING THAT WHEN THE LIFT IS LOWERING, THE CANOPY WILL TILT UP, AND WHEN THE LIFT IS BEING RAISED, THE CANOPY WILL BE LOWERED.

TO ENSURE CORRECT OPERATION OF LIFT AND TILTING CANOPY, CYCLE THE LIFT COMPLETELY UP (FIG. 1) AND COMPLETELY DOWN (FIG. 2). ONCE COMPLETED, THE LIFT AND CANOPY WILL CORRECTLY PERFORM THE FUNCTIONS STATED ABOVE.

FIG. 1

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LIFT DOWN, CANOPY UP

FIG. 2

LIFT UP, CANOPY DOWN

NOTES

NOTES

