



EXPANDABLE PONTOON DECK OWNER'S MANUAL

LIPPERT
COMPONENTS®

TABLE OF CONTENTS

Introduction	2
Safety	3
Watercraft Area Orientation and Designations	4
Helm Orientation	5
Operation	6
Expandable Pontoon Controls	6
Troubleshooting	8
Manual Override	8
Maintenance	10
Hydraulic Fluid Requirements	10
Hydraulic Fluid Inspection	10
Hydraulic Fluid System Purge	10
Periodic Inspection	11
System Description	11
Hydraulic Power Unit Hose Connections	13
Three-Position Selector and Single Momentary Switch Electrical Configuration	15
Wiring Diagram	16
Hydraulic Diagram	17

Introduction

The Expandable Pontoon Deck is intended for the sole purpose of extending the watercraft's deck. The system should not be used for any other purpose other than to actuate the port and starboard sliding decks. Using the system for any other purpose may cause death, serious personal injury, severe product and/or property damage, including voiding of the LCI Limited Warranty.

The Expandable Pontoon Deck operates on a 12V DC power source that energizes a two-valve, horizontal two-quart hydraulic system controlled by switch(es) that individually or simultaneously extend or retract a port-side and starboard-side sliding, expandable floor.

Additional information about this product can be obtained from [lci1.com/support](https://support.lci1.com/support) or by using the myLCI app. Replacement components can be ordered from <https://store.lci1.com/> or by using the myLCI app.

The myLCI app is available for free on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

iTunes®, iPhone® and iPad® are registered trademarks of Apple Inc. Google Play™ and Android™ are trademarks of Google Inc.

For information on the assembly or individual components of this product, please visit:

<https://support.lci1.com/expandable-pontoon-deck>

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Read and fully understand all instructions before operating this system. Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

WARNING

The "WARNING" symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

WARNING

Failure to follow instructions provided in this manual may result in death, serious personal injury and/or severe product and property damage, including voiding of the component warranty.

WARNING

Watercraft **MUST** be supported per manufacturer's recommendations before working underneath. Failure to do so may result in death or serious personal injury.

CAUTION

The "CAUTION" symbol above is a sign that a procedure has a safety risk involved and may cause personal injury, product and/or property damage if not performed safely and within the parameters set forth in this manual.

CAUTION

Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

CAUTION

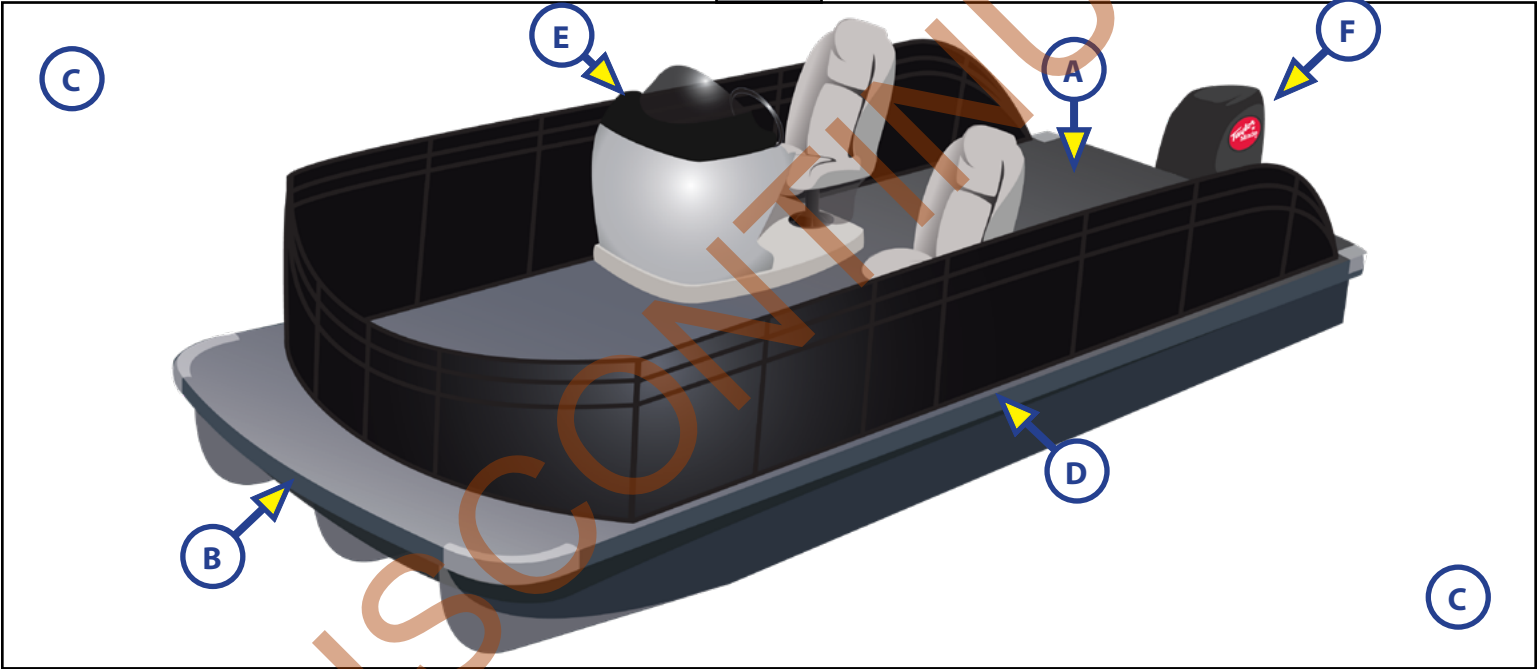
Moving parts can pinch, crush or cut. Keep clear and use caution.

Watercraft Area Orientation and Designations

The following chart and figure 1 provide general watercraft area orientation and designations nomenclature used throughout this manual.

General Watercraft Terms		
Callout	Term	Definition
A	Aft	Towards the back/stern of the boat.
B	Bow	The front of the vessel.
C	Open waters	Navigable waters which are not enclosed waters. Often referred to as "ocean waters".
D	Port side	The left-hand side of a vessel when you are looking forward from the stern and the side on which a red navigation side light is displayed.
E	Starboard side	The right-hand side of the vessel when you are looking forward from the stern and the side on which a green navigation side light is displayed.
F	Stern	The back or rear of the vessel.

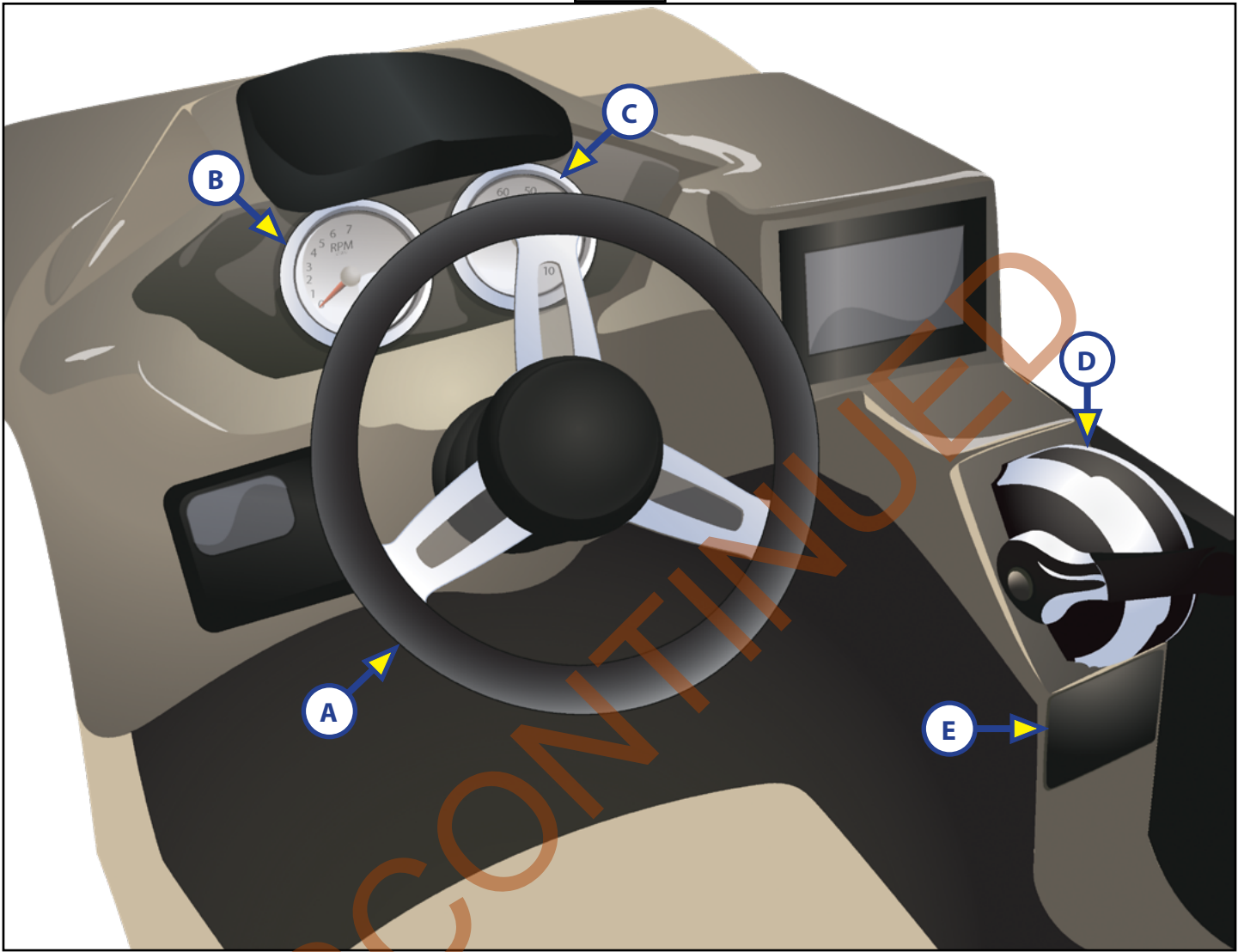
Fig. 1



Helm Orientation

The following chart and figure 2 provides general watercraft helm orientation.

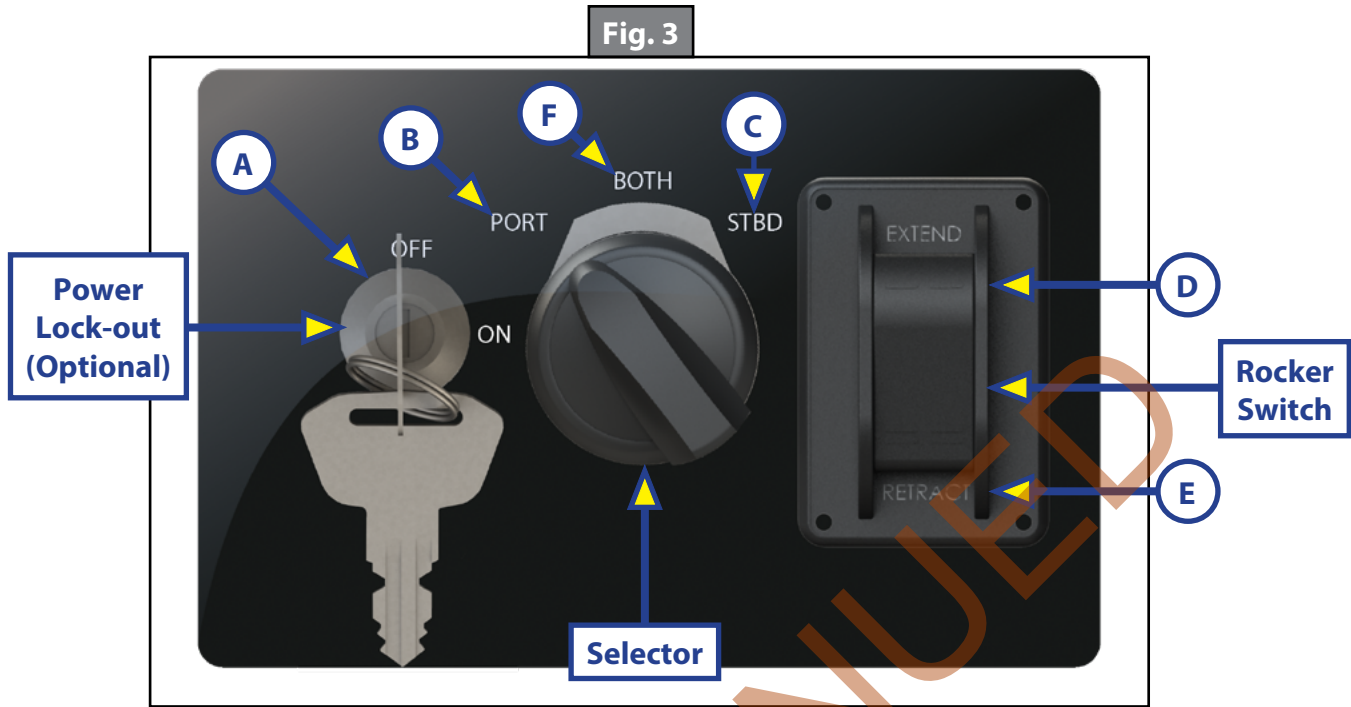
Fig. 2



Helm Orientation Terms		
Callout	Term	Definition
A	Wheel	Steering input for vessel.
B	RPM Gauge	Monitors engine speed.
C	Speed Gauge	Monitors vessel speed.
D	Throttle/Trim Adjustment	Controls engine speed and engine trim.
E	Expandable Pontoon Controls	Controls for the operation of the expanding pontoons.

Expandable Pontoon Controls

The following chart and figure 3 identifies and provides functionality of the Expandable Pontoon controls.



Expandable Pontoon Control Terms		
Callout	Term	Definition
A	Power Lock-out	Main power to the expandable pontoon system.
B	Port Selection	Selection for port side (left) pontoon operation.
C	Starboard Selection	Selection for the starboard side (right) pontoon operation.
D	Extend Pontoon(s)	Extend selected pontoon(s) out.
E	Retract Pontoon(s)	Retract selected pontoon(s) out.
F	BOTH Port and Starboard Selection	Selection for the simultaneous operation of both port and starboard side.

Operation

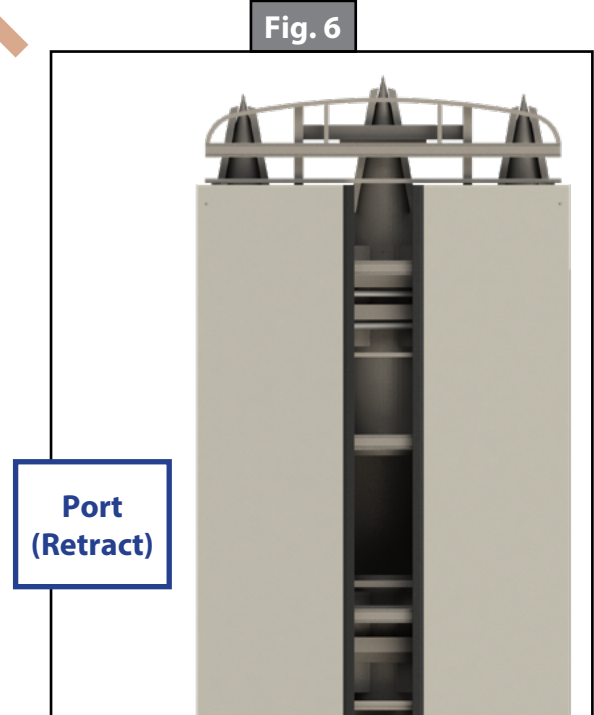
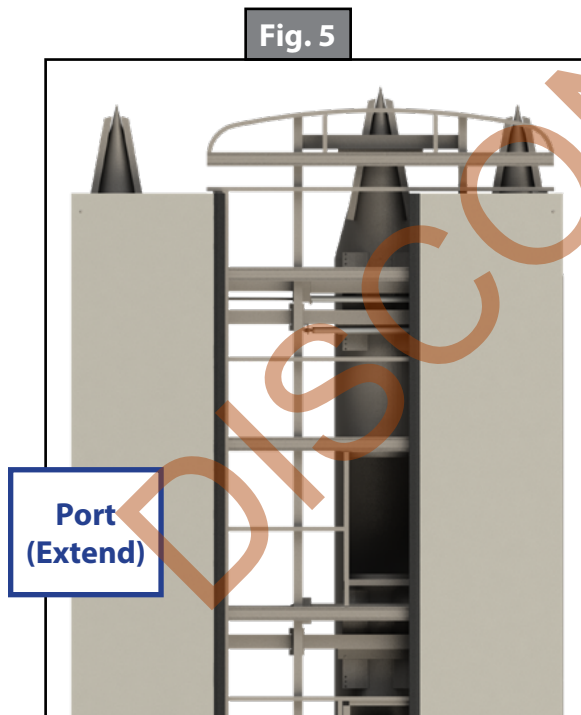
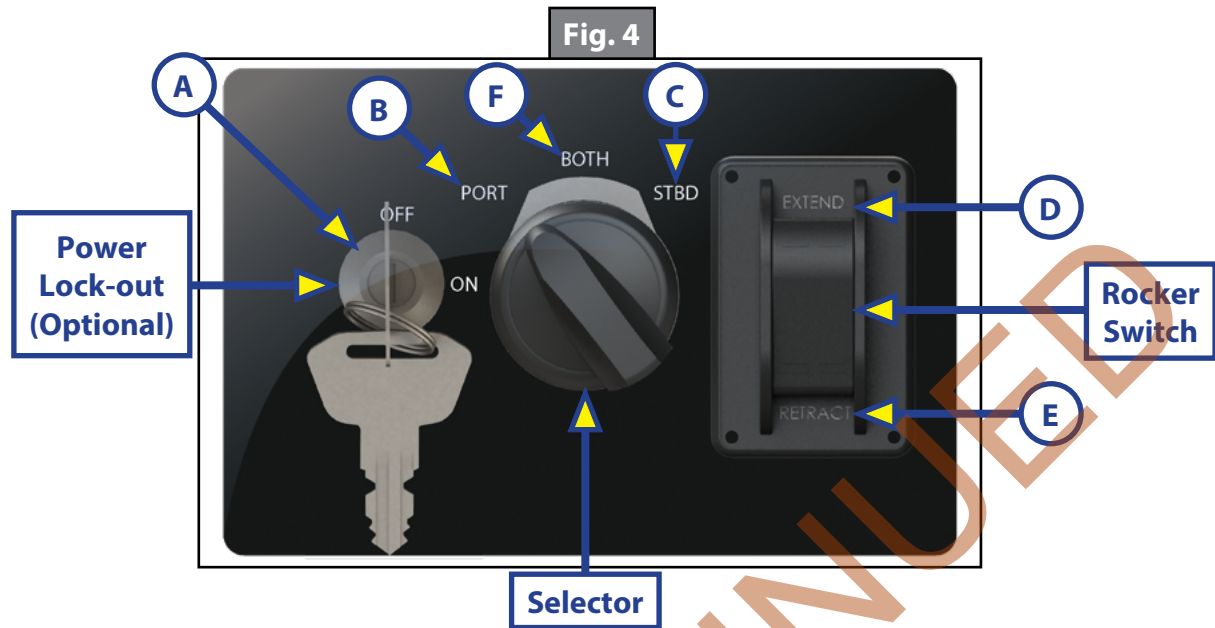
The sliding pontoon decks should only be extended or retracted when at idle speed. Extending or retracting sliding decks at high speeds can cause the slides to become out-of-time (crooked).

⚠ CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

- Make sure the 12V DC battery is fully charged before operating the expandable pontoon decks as follows:
1. If so equipped, turn the power lock on (Fig. 4A).
 2. Set the three-position selector to either PORT (left) (Fig. 4B) or STARBOARD (right) (Fig. 4C), then press and hold the EXTEND (Fig. 4D) end of the rocker switch until the selected sliding deck fully extends (Fig. 5).

3. To retract the extended deck, make sure the selector is still set in the same position (step 2), then press and hold the RETRACT (Fig. 4E) end of the rocker switch until the sliding deck fully retracts (Fig. 6).
4. To extend or retract both sliding decks simultaneously, set the three-position switch to BOTH (Fig. 4F), then press and hold the EXTEND or RETRACT end of the rocker switch until both sliding decks fully extend or retract.



Troubleshooting

What is Happening	Why?	What Should Be Done?
Sliding deck does not extend or retract.	No electrical power.	Make sure 12V DC battery is fully charged. Make sure all electrical connections are secure. Inspect all electrical wiring for nicks, cuts or disconnections. Reconnect, repair or replace electrical connections and/or wires if necessary.
	No hydraulic power.	Make sure hydraulic pump fluid reservoir is full and without contaminants capable of plugging hydraulic lines.
		Inspect all hydraulic hoses for leaks or disconnected fittings. Make sure all hydraulic hose connections are secure and properly tightened. Replace any damaged fittings if necessary.
		Inspect all hydraulic hoses for nicks and cuts. Replace damaged hydraulic hoses if necessary.
	Loss of hydraulic pressure.	Contact LCI Customer Service, (574) 537-8900.
	Obstruction in the slide tube.	Remove obstruction. Inspect slide tube for additional damage. Replace damaged inner slide tube if necessary.
Sliding deck does not operate smoothly.	Damaged slide tube.	Replace damaged inner slide tube.
	Obstruction in the slide tube.	Remove obstruction. Inspect slide tube for additional damage. Replace damaged inner slide tube if necessary.
Sliding deck is extending/retracting at an angle.	Damaged slide tube.	Replace damaged inner slide tube.
	Cylinders are out-of-sync.	Press and hold the EXTEND or RETRACT button on the rocker switch until the cylinders sync (realign) and the deck extends or retracts evenly. If attempting to sync in the extend direction does not work (realign), then run the deck in the opposite direction until the cylinders sync.

Manual Override

If the cylinders will not extend or retract the decks, the valves can be manually overridden by using a 5/32" hex wrench and an electric or cordless drill.

⚠ CAUTION

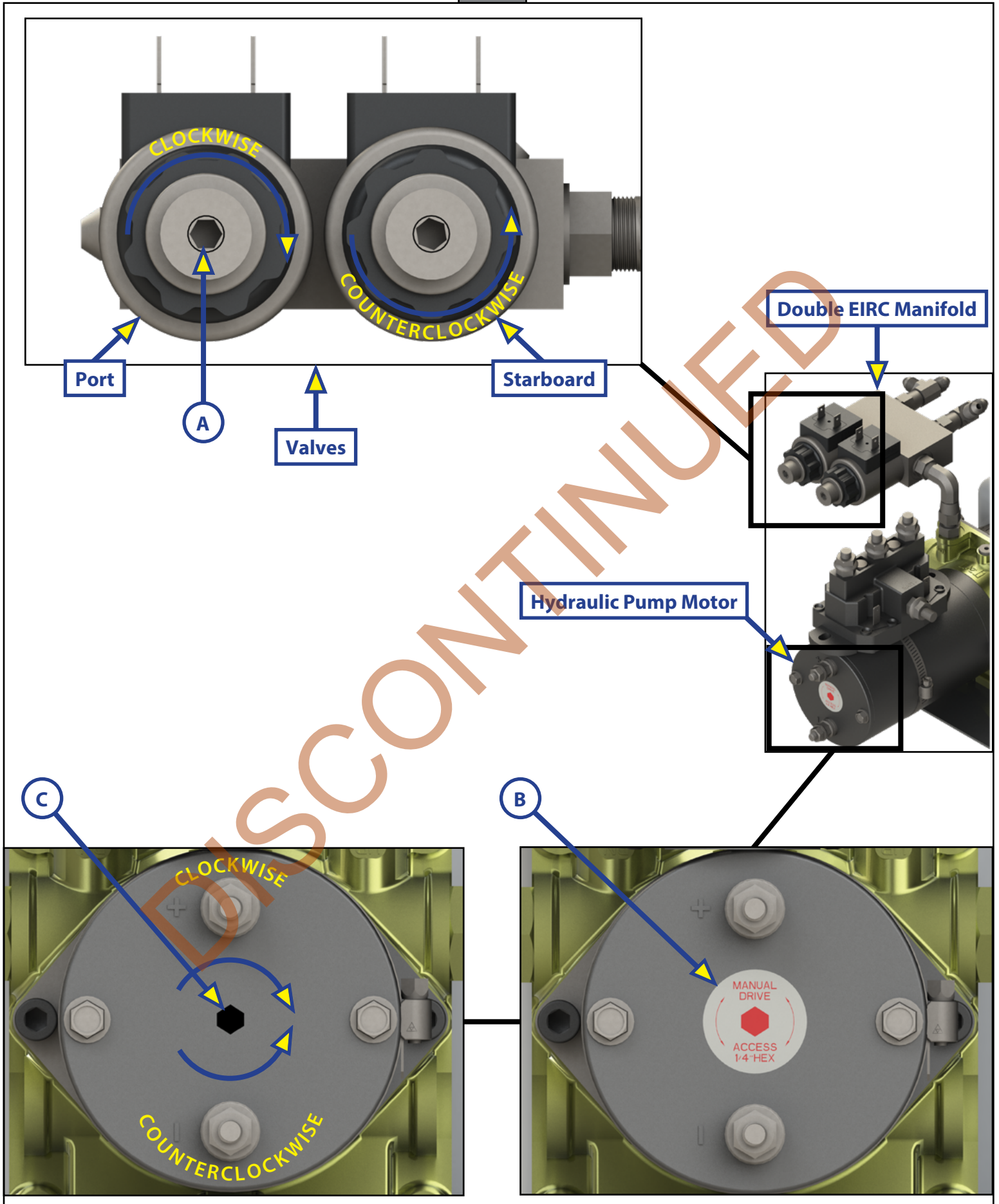
Do NOT use an impact driver or impact wrench for any manual override procedure. Use of an impact driver or impact wrench will cause product damage, rendering the product inoperable. Use a cordless or pneumatic screw gun for the override procedure.

NOTE: Use of a 12-18 volt cordless screw gun or pneumatic screw gun is acceptable to manually override the slide-outs. Do not use an impact screw gun to perform any of the override procedures, as this may damage the motor.

NOTE: Each valve, Port and Starboard (Fig. 7), must be opened to manually extend/retract the decks and both valves closed after decks have been manually extended/retracted.

1. Insert the 5/32" hex wrench into the set screw at the end of the valve (Fig. 7A).
2. Turn the hex wrench clockwise to open the valve (Fig. 7). Remove the hex wrench.
3. Repeat steps 1 and 2 on the second valve.
4. Remove the protective label (Fig. 7B) from the hydraulic pump motor to reveal the manual override coupler (Fig. 7C).
5. Use a drill with a 1/4" hex bit. Insert the hex bit into the motor's override coupler (Fig. 7C).
 - A. Run the drill forward (clockwise) to retract the decks.
 - B. Run the drill in reverse (counterclockwise) to extend the decks.

Fig. 7



6. After the decks have been fully extended or retracted:
 - A. Remove the drill and 1/4" hex bit from the motor's coupler.
 - B. Reinsert the hex wrench into each valve's set screw.

⚠ CAUTION

Do NOT over-tighten the valve's set screw. Over-tightening the set screw can damage the valve.

- C. Turn the valves counterclockwise until the valves can no longer turn—to close the valve.
- D. Remove the hex wrench.

Maintenance

Hydraulic Fluid Requirements

⚠ CAUTION

Do NOT use any hydraulic fluid containing zinc and is NOT approved by U.S. Fish and Wildlife and the EPA for use in environmentally sensitive areas.

⚠ CAUTION

Wear personal protective equipment appropriate for working with chemicals. At a minimum, wear eye protection or a full face shield and Nitrile rubber gloves.

⚠ CAUTION

Hydraulic fluid spilled into natural waterways should be immediately contained and cleaned up, if it can be done safely. Notify applicable authorities.

The following hydraulic fluid recommendations for use in Lippert Components, Inc. (LCI) marine hydraulic systems are based upon hydraulic systems operating in environmentally-sensitive areas and are required to be zinc-free.

- Kendall® Glacial Blu Hydraulic Fluid
- Any hydraulic fluid meeting the requirements and specifications of MIL-H-5606

Hydraulic Fluid Inspection

1. Check hydraulic fluid in reservoir every 12 months.

NOTE: Check hydraulic fluid level only when both sliding decks are fully retracted.
2. If fluid is milky or murky, drain reservoir and fill with new fluid.

NOTE: When necessary, fill reservoir to within 1/4" to 1/2" of fill spout.
3. Hydraulic fluid should be changed every five years.

Hydraulic Fluid System Purge

The basic purge procedure to bleed a LCI hydraulic system is performed without the use of any tools. The system's own function purges the air from the hydraulic lines and cylinders by simply running the pump.

1. Start with the sliding decks fully retracted.
2. Find the hydraulic pump location and note the amount of fluid currently in the reservoir. The fluid level should be about 1/4" from the top of the reservoir and no more than 1/2" from the top.

NOTE: When checking the fluid level after making sure that all hydraulic components are retracted, note if there are any bubbles, froth or foam on top of the fluid. This is an indication that air has been pushed back to the reservoir when the hydraulic components were retracted in the last cycle. Wait 15-20 minutes for the foam to dissipate before beginning the purge process.

3. If there is no froth or foam in the reservoir and the fluid is not within 1/2" of the top, fill the reservoir to within the level described in step 2.
4. With the fluid level full and no foam in the reservoir, begin cycling the hydraulic system.
 - A. Fully extend the sliding decks. Once the decks are extended, immediately retract them.
 - B. Check the reservoir for foam. If foam is present, see the **NOTE** in step 2, then repeat steps 3 and 4.
 - C. Repeat steps 3 and 4 until no foam is present in the reservoir.

If no foam is present, the system is purged of air.

Periodic Inspection

Periodic inspections of the electrical and hydraulic systems, including their attaching hardware, is recommended to aid in the lifetime of the Expandable Pontoon Deck system. Cycle times between inspections depends on frequent use of the watercraft, its operational environment and prior to storage or at the beginning of the boating season.

Inspect for the following:

- Hydraulic fluid level.
- Electrical wires for nicks, cuts and loose or disconnected terminals.
- Corrosion on battery posts and solenoid terminals.
- Hydraulic hoses for nicks, cuts, leaks and loose or disconnected fittings.
- Loose or missing attachment hardware on or around the hydraulic cylinders, hydraulic pump and the pumps mounting plate.
- Excessive scale build-up on or around sliding tubes and hydraulic fittings that may interfere with the operation of the sliding decks.
- Damage to a sliding tube or its guide tube.

Tighten, repair or replace any loose, damaged or missing system components as necessary before operating the sliding deck system.



Do NOT use a high pressure power washer on hydraulic hoses or fittings. High pressure washers can cut through the outer protective sleeve of the hose. Use a manual cleaning method on all hydraulic hoses and fittings.

Refer to the watercraft's owner's manual for cleaning recommendations.

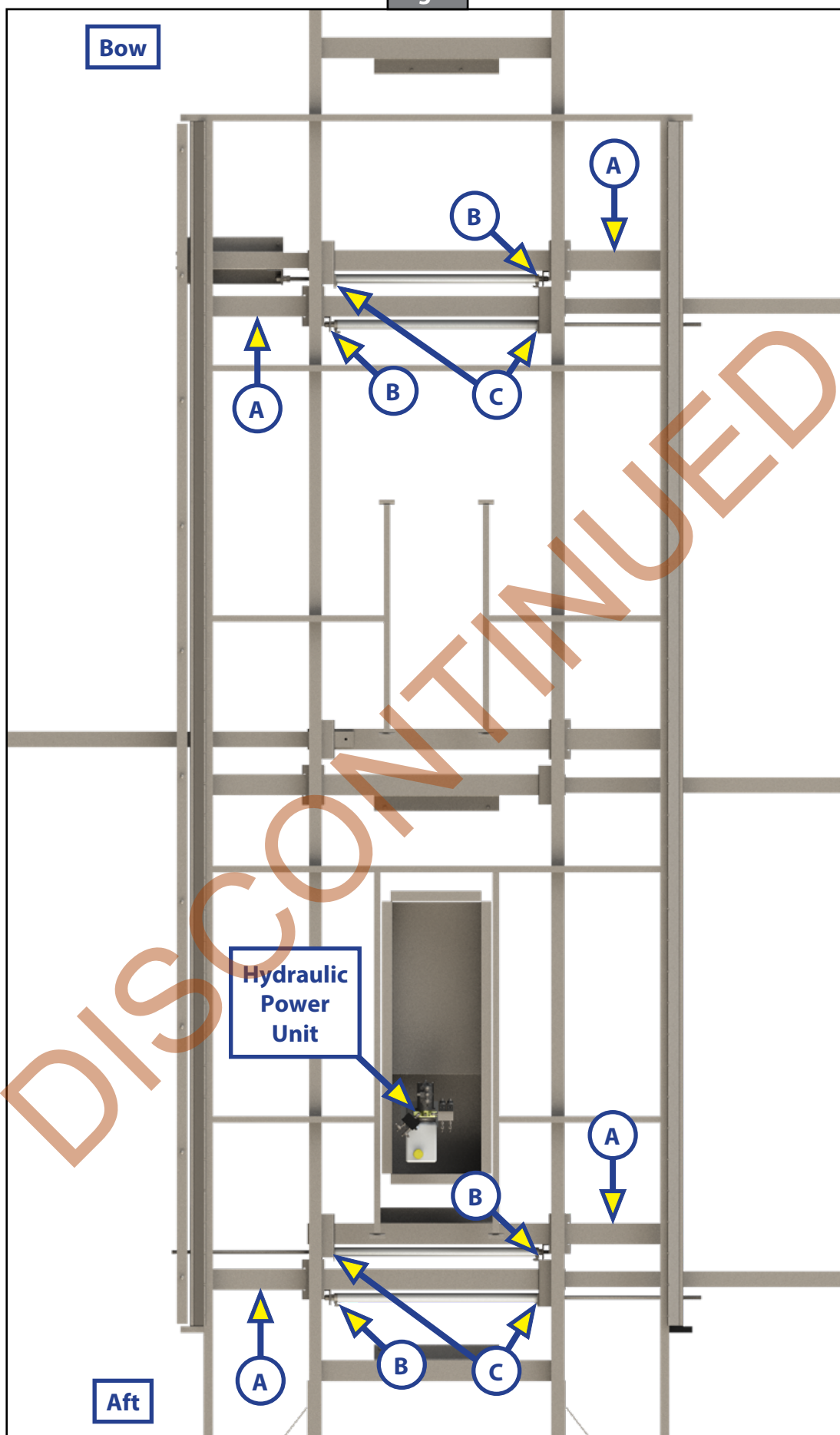
System Description

The Expandable Pontoon Deck has two pairs of hydraulic cylinders; one that straddles the bow and the aft room-bar—square tube—telescoping deck guides (Fig. 8A). Starting from the bow, each cylinder's extend port (Fig. 8B) alternates from starboard-to-port. Similarly, starting from the bow, each cylinder's retract port (Fig. 8C) alternates from starboard-to-port.

NOTE: Some of the watercraft framework (Fig. 8) has been hidden for clarity.

There are no hydraulic cylinders installed on the middle telescoping deck guides. These deck guides simply aid in the even and stable deployment of the sliding decks.

Fig. 8



Hydraulic Power Unit Hose Connections

Refer to the Hydraulic Hose Connection chart and see figures 9 and 10 for hydraulic connections between the hydraulic cylinders and their corresponding hydraulic power unit fitting connections.

Figure 9 is an enlarged view of the hydraulic pump unit fittings area identified in figure 10. The "Cylinder to Power Unit" column in the Hydraulic Hose Connection chart correlates pump fitting locations to cylinder ports (Fig. 10). See Hydraulic Diagram.

Hydraulic Hose Connection		
Cylinder-to-Power Unit Callout Location (Fig. 9)	Hose Assembly Color	Function
A-A	Black	Retract—Port-Bow Hydraulic Cylinder
B-B		Retract—Starboard-Aft Hydraulic Cylinder
C-C		Retract—Starboard-Bow Hydraulic Cylinder
D-D		Retract—Port-Aft Hydraulic Cylinder
E-E	Orange	Extend—Starboard-Bow Hydraulic Cylinder
F-F		Extend—Starboard-Aft Hydraulic Cylinder
G-G		Extend—Port-Bow Hydraulic Cylinder
H-H		Extend—Port-Aft Hydraulic Cylinder

Fig. 9

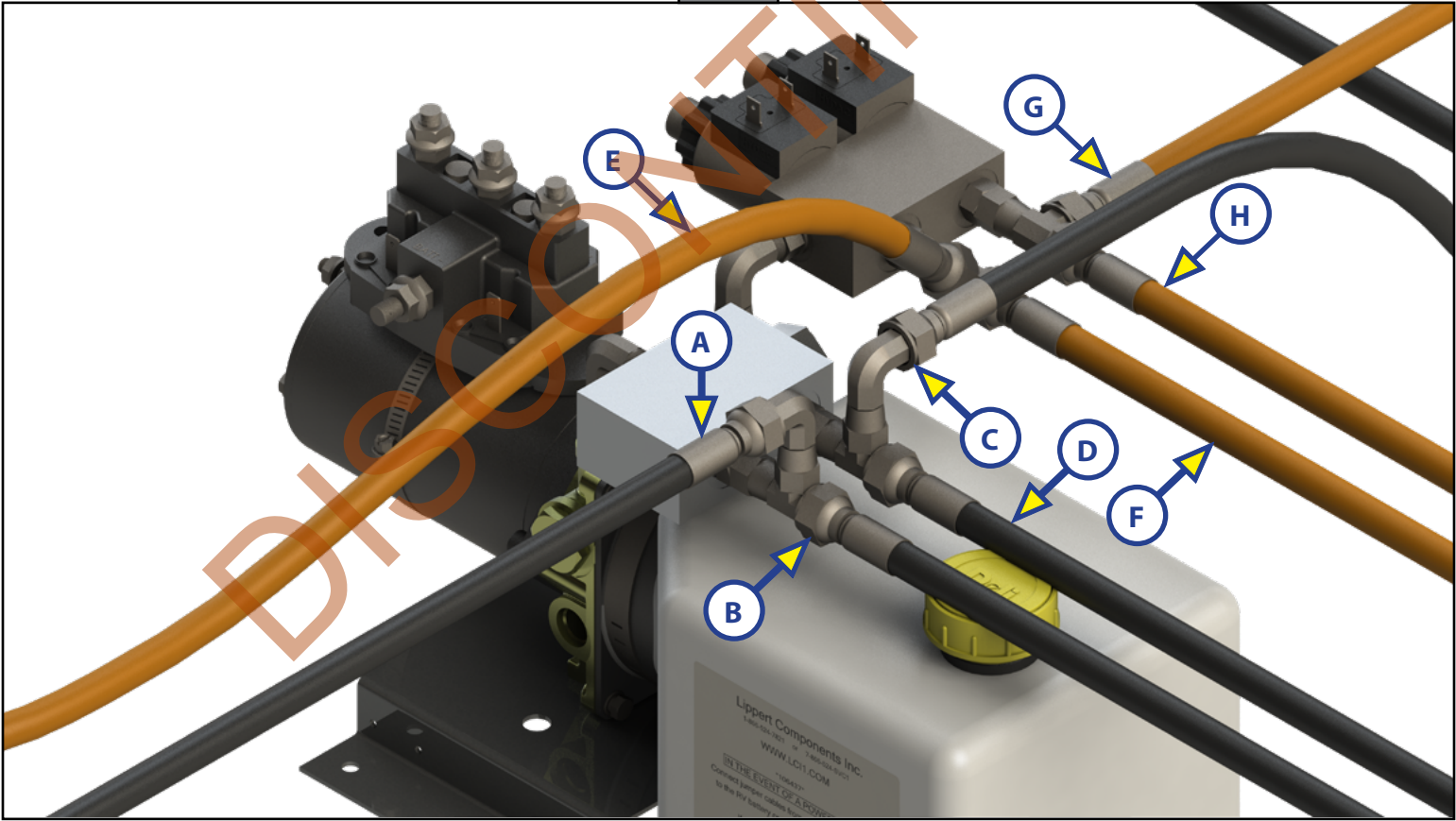
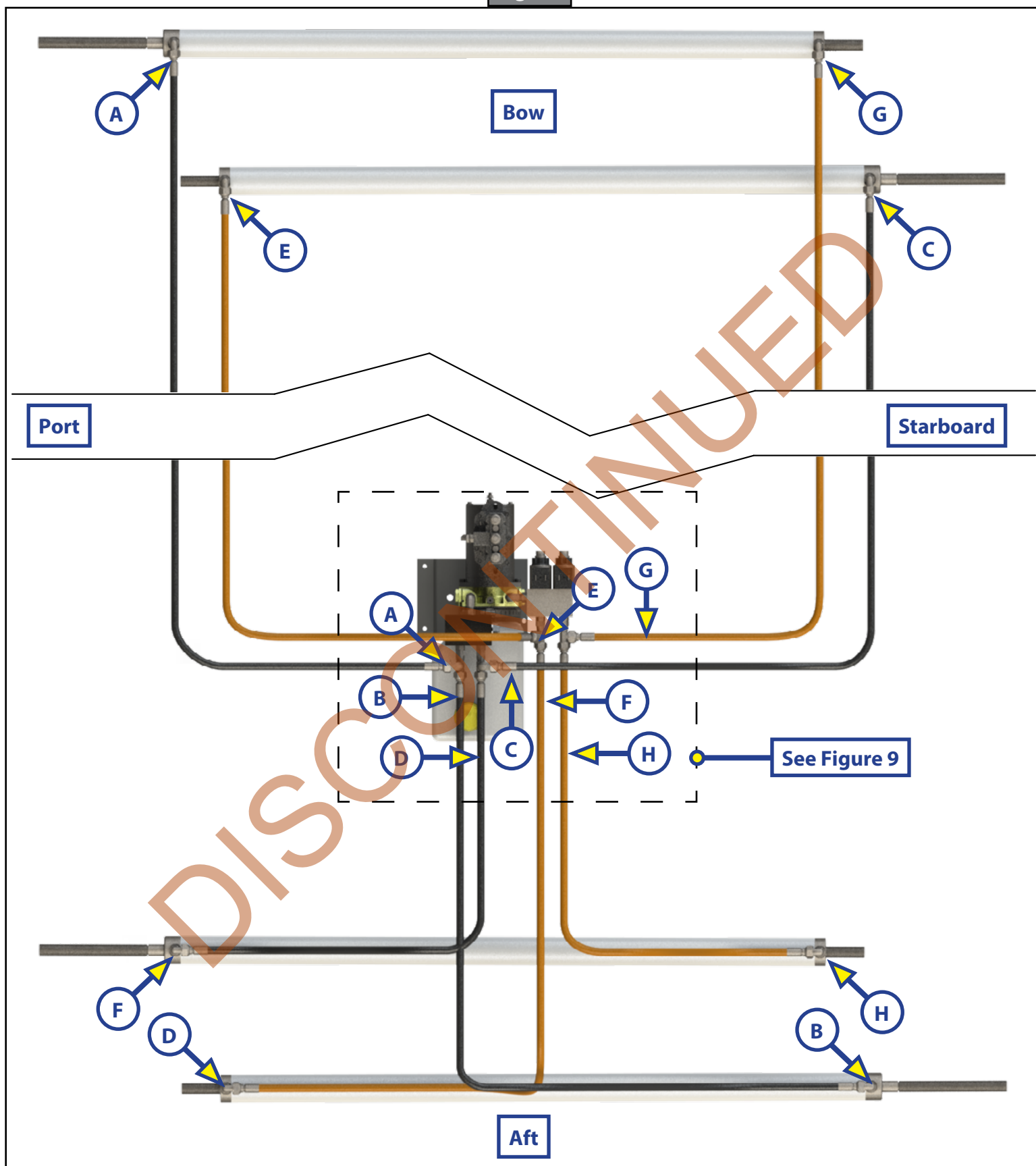


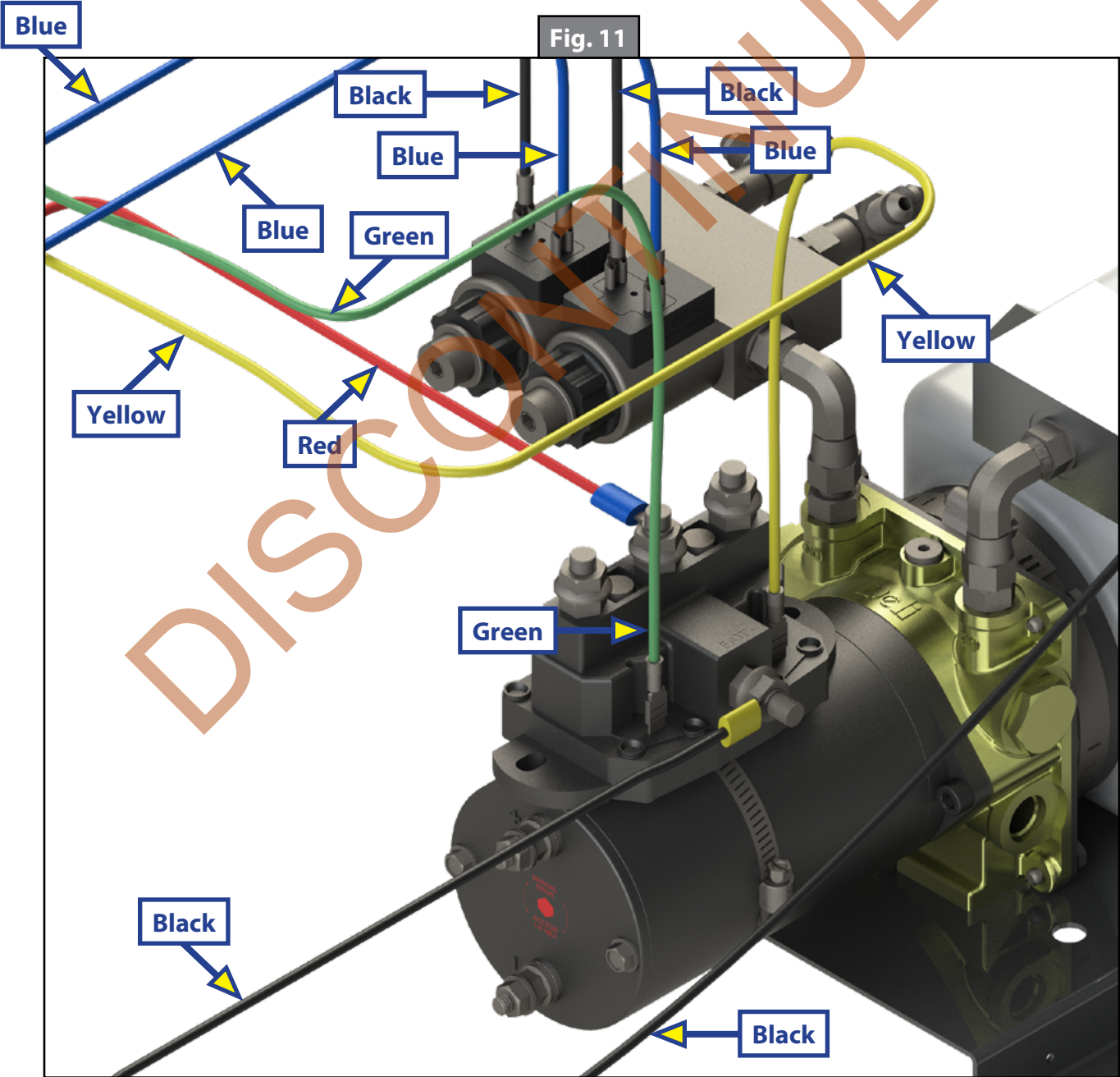
Fig. 10



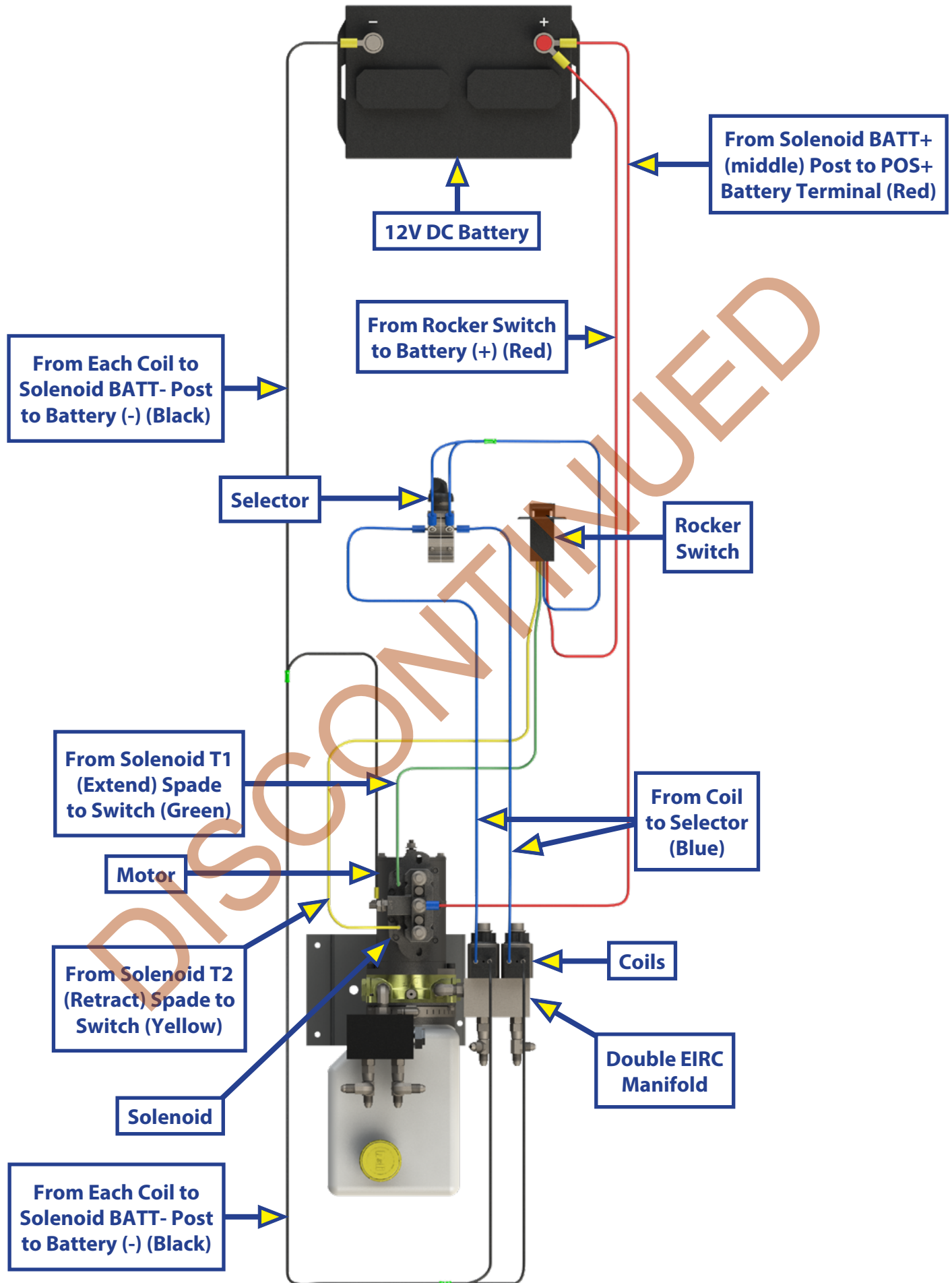
Three-Position Selector and Single Momentary Switch Electrical Configuration

Refer to the Electrical Wiring Chart and see figure 11 for electrical connections between the hydraulic pump motor, dual polarity solenoid, valve coils, the selector and momentary (rocker) switch. See Wiring Diagram.

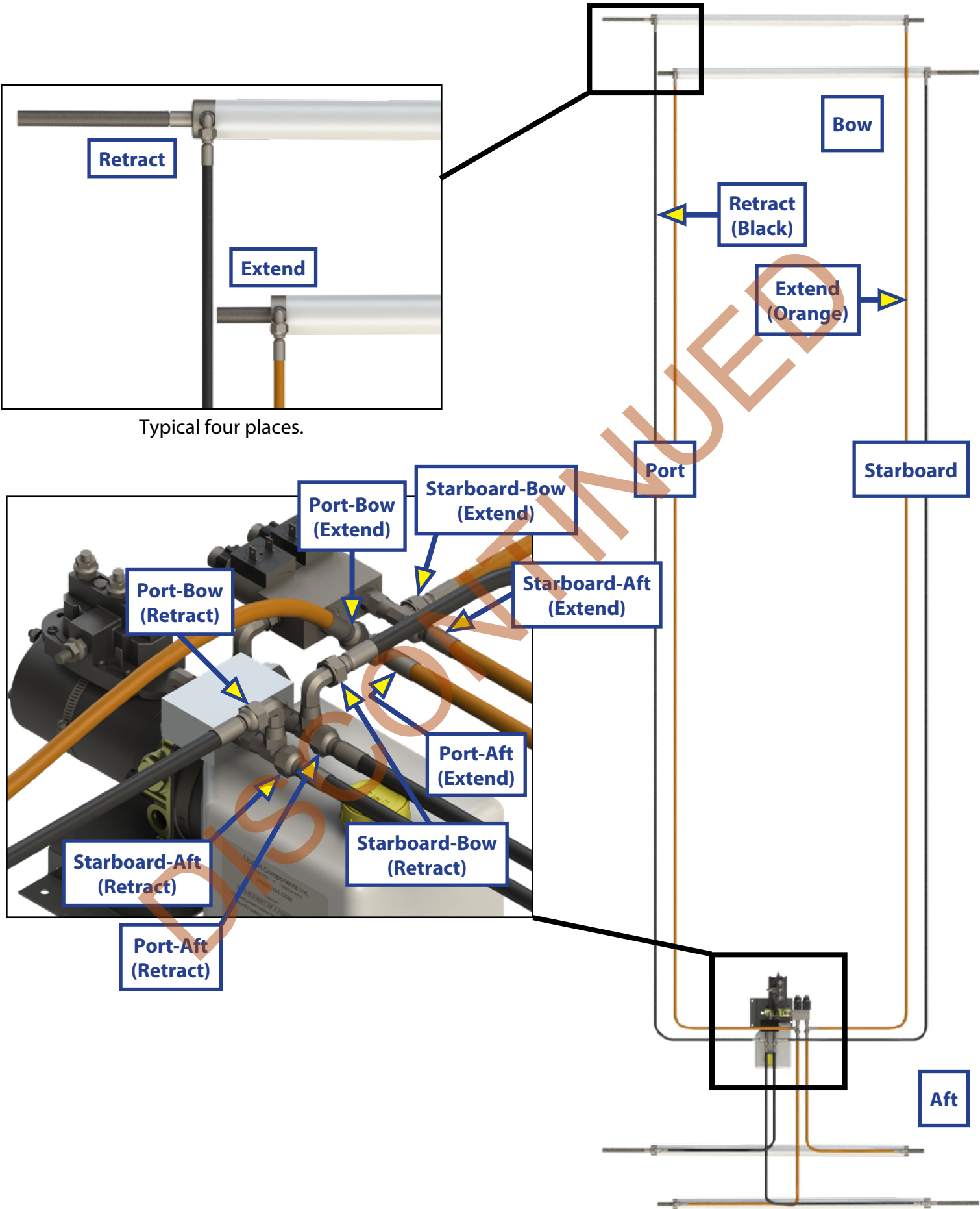
Electrical Wiring Chart				
12V Spade-style Coil	Dual Polarity Solenoid	12V DC Battery	Rocker Switch	Selector
Black (Jumper)		Neg (-)		
Blue			Blue	Blue-2 (Top)
Blue			Blue	Blue-2 (Bottom)
			Blue	Blue-1 (Top and Bottom)
	Green - T1		Green	
	Yellow - T2		Yellow	
	Red - BATT+	Pos (+)	Red	
	Black - BATT-	Neg (-)		



Wiring Diagram



Hydraulic Diagram



Typical four places.



LIPPERT COMPONENTS®

The contents of this manual are proprietary and copyright protected by Lippert Components, Inc. (LCI). LCI prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized LCI representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of LCI.

Revised editions are available for free download from lci1.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact
Lippert Components, Inc.

Ph: (574) 537-8900 | Web: lci1.com | Email: customerservice@lci1.com



This manual is provided courtesy of **RV Tech Cheat Sheet**



Professional resources for the whole RV industry — free.

We put manuals, wiring diagrams and hard-won tech knowledge in every technician's hands, so repairs get done right the first time, techs work faster, and RV owners everywhere get better service.



rvtechcheatsheet.com/manuals

Find thousands more RV manuals, wiring diagrams and parts lists

RV techs: share fixes, ask questions and learn from each other.

Join our free Facebook group →



Follow proper safety practices. If in doubt, consult a professional RV technician.