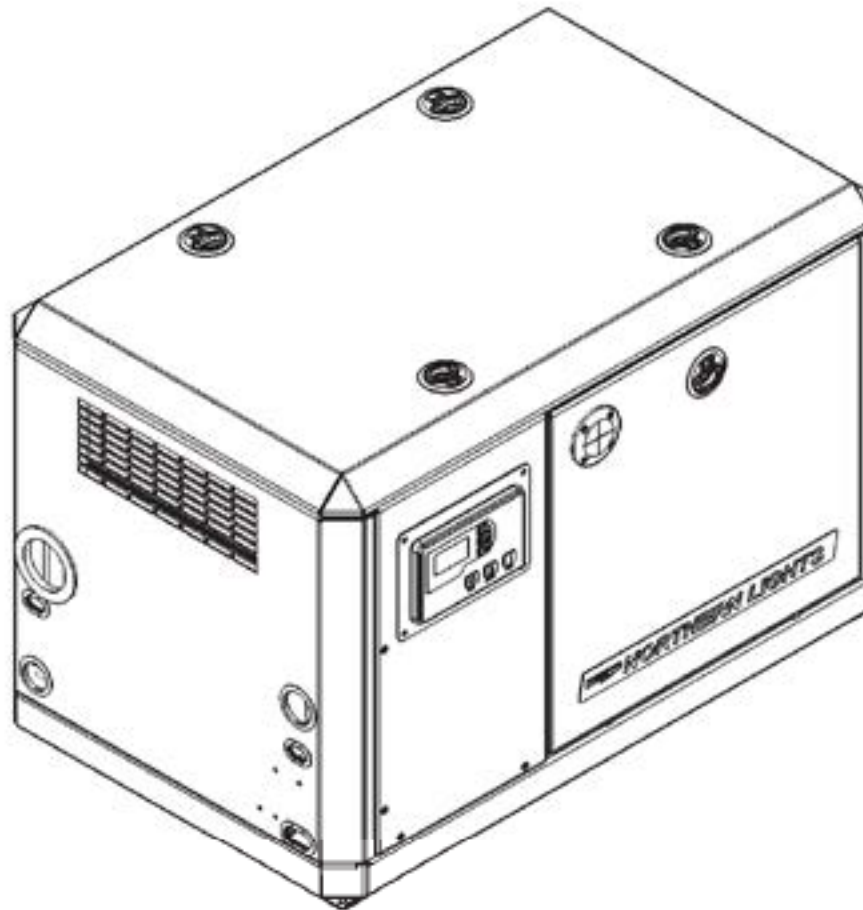




M773LW3

GEM Series Sound Enclosure

Assembly Instructions



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LIT NO.: L814 10/20



M773LW3 GEM Sound Enclosure

ITEM #	DESCRIPTION	NLI P/N	QTY	NOTES
1.	Junction box bridge cover assembly	06-78632	1	
2.	Rear panel assembly	06-78602	1	
3.	1/4-20 x 3/4" hex head cap screw, S/S	12-30111	3	
4.	1/4" external star washer, S/S	15-09103	3	
5.	Rear bottom valence assembly	06-78608	1	
6.	Bottom side valence assembly	06-78008	1	
7.	Nylon bumper/rivet	11-467	12	
8.	Bottom front valence assembly	06-78613	1	
9.	Non-service side panel assembly	06-78606	1	
10.	Front panel assembly	06-78601	1	
11.	Service side panel assembly	06-78604	1	
12.	Seal bar assembly	06-78614	1	
13.	Top panel assembly	06-78605	1	
14.	Forward service side panel assembly	06-78603	1	
15.	Grommet 1-18" ID x 1-7/8" OD	00-70146	2	
16.	M8 flat washer, S/S	15-11000	2	
17.	M8 lock washer, S/S	15-00705	2	
18.	M8 Hex head cap screw	12-00776	4	
19.	Sound foam snorkel receiver	55-78676	1	
20.	Wire harness	22-72026	1	

SPECIFICATIONS

Enclosure:

Length (OA)	35.0 in (889 mm)
Width	22.0 in (559 mm)
Height	24.4 in (620 mm)
Assembled weight (shield only)	43 lbs (19.5 kg)
Assembled weight (with generator set)	580 lbs (263 kg)

Prior to assembly, inspect all components for damage. Report any damage to the shipping company. Check the packing list in the back of this manual to be sure all parts are included.

Note: The Generator set features a single point lifting eye. However, the generator may still possess original factory lifting points, which need to be loosened and rotated down, until they are below the highest point of the engine. Be sure to retighten those bolts before moving on.

Select a mounting location in accordance with the guidelines in the IM1000 Installation Manual. The generator set must typically be mounted on a rigid, flat surface above a strong structure, such as the vessel's stringers, to minimize vibration transference to the hull.

Note that the generator set is designed for single side service. When viewed from the rear, the right hand side is the service side and should be exposed for easy maintenance access.

Install the generator set in the vessel as near to a level attitude as possible. Ensure that the enclosure's left hand side and rear are at the recommended distances (6 inch recommended, 4 inch minimum.) from the vessel's bulkheads.

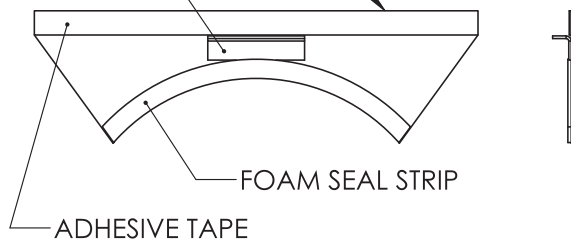
AVOID POSITIONING THE ENCLOSURE INTO CORNERS WITH OVERHEAD BLOCKED TO REDUCE CHANCE OF INTAKE/EXHAUST AIR RECIRCULATION OUTSIDE THE SHIELD.



PRIOR TO SOUND SHIELD ASSEMBLY, START WITH ITEM #1 INSTALLATIONS SHOWN IN FOLLOWING ILLUSTRATIONS. NUMBERS INDICATE ASSEMBLY SEQUENCE.

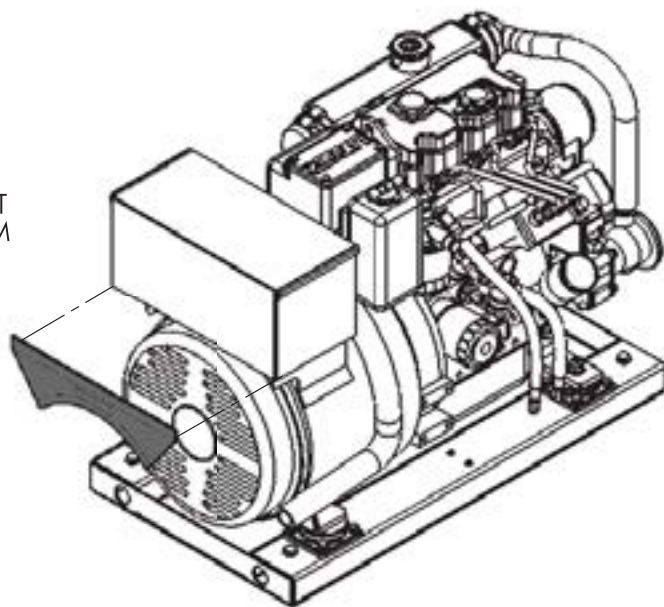
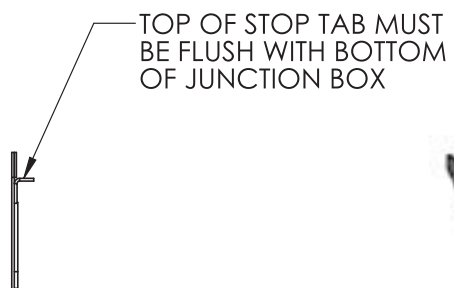
JUNCTION BOX BLOCK
OFF PLATE (item 1)

STOP TAB

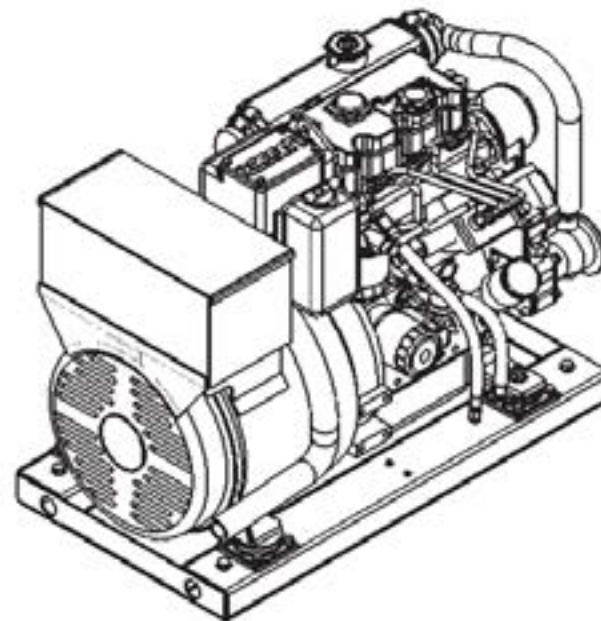
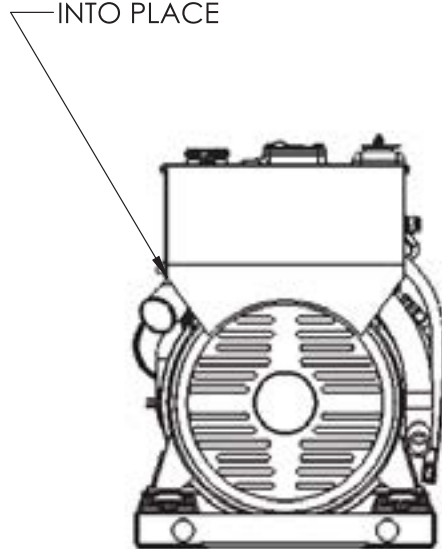


FOAM SEAL STRIP

ADHESIVE TAPE

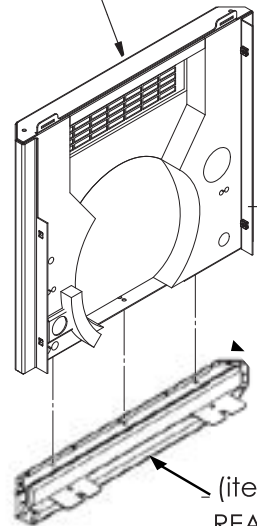


REMOVE ADHESIVE BACKING FROM
ADHESIVE TAPE AND ALIGN EDGES
OF BLOCK OFF PLATE WITH EDGES
OF JUNCTION BOX AND PRESS FIRMLY
INTO PLACE



- ② INSTALL REAR PANEL/LOWER VALENCE ASSEMBLY TO BACK OF BASE FRAME. LOCATE MOUNTING TABS TO TAPPED MOUNTING HOLES ON TOP OF BASE FRAME WITH FLAT WASHER, LOCK WASHER AND HEX HEAD CAP SCREW (ITEMS 16, 17, 18)

(item 2)
REAR PANEL



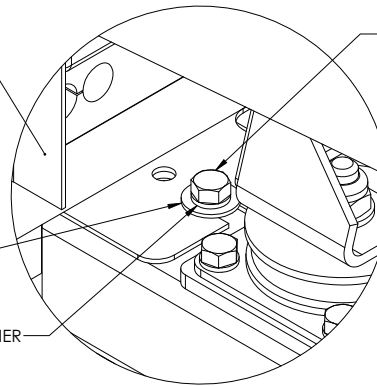
- ① MOUNT REAR PANEL TO REAR LOWER VALENCE WITH 1/4-20" HEX HEAD CAP SCREW (item 3) QTY: 3
1/4" EXTERNAL STAR WASHER (item 4) QTY: 3

(item 5)
REAR LOWER VALENCE

B

M8 FLASH WASHER
(ITEM# 16)

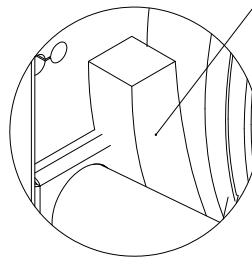
M8 LOCK WASHER
(ITEM# 17)



DETAIL A

③

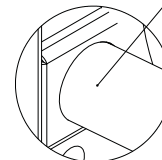
- INSTALL RECEIVER SEAL (ITEM# 19) TO REAR PANEL AS SHOWN, ENSURE FIT IS SNUG TO GENERATOR BARREL.



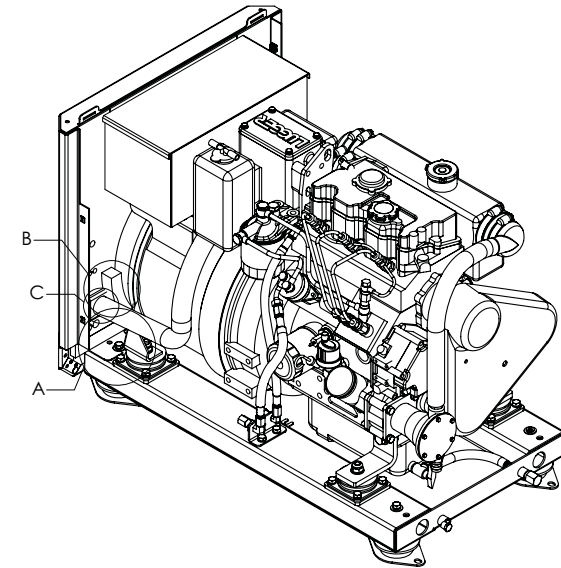
DETAIL B

④

- INSERT ENGINE AIR INTAKE SNORKEL HOSE INTO SNORKEL RECEIVER UNTIL IT HITS THE STOP.



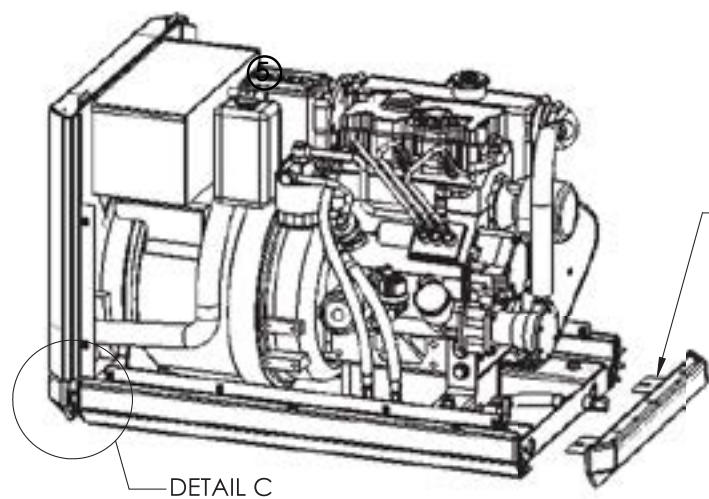
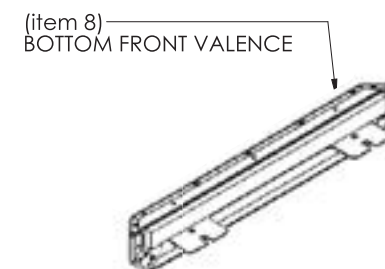
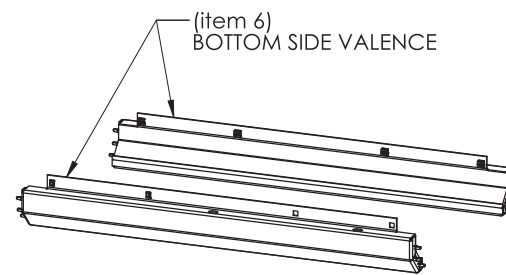
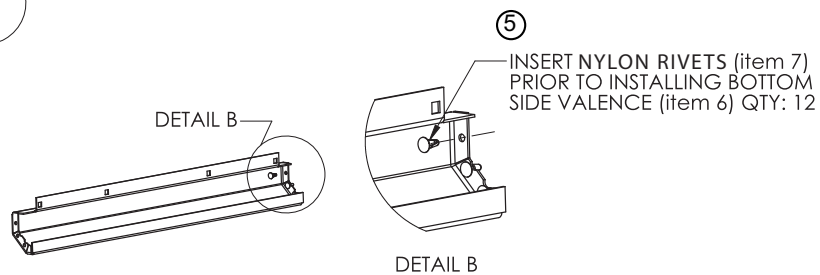
DETAIL C



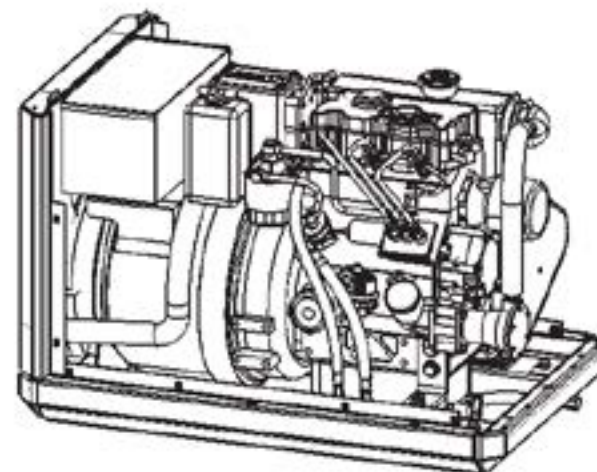
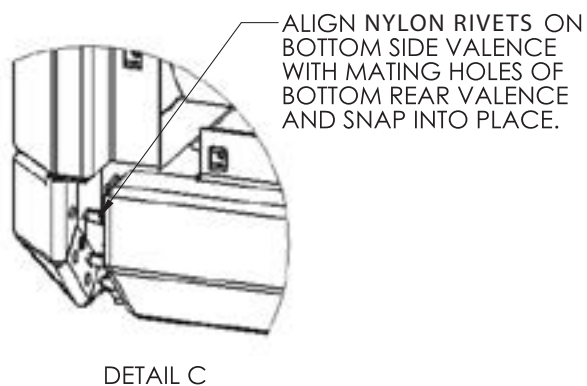
You may encounter some resistance as the rear panel comes into contact with the intake air snorkel hose. Note that the rear panel has a small hole in the vicinity of the intake snorkel. Guide this hose so that it is inserted within the panel hole, ensure that the hose does not go too far into the rear panel so that the hose end is blocked. (Generally this hose will install without adjustment at the retaining clamp.)

When making the intake air snorkel hose connection, it is important to ensure that the hose is not kinked or bent in such a way to restrict the engine's intake air flow. This arrangement is designed to allow the hose to follow it's natural path when properly installed into the rear panel. Some adjustment is possible by loosening either bolt of the snorkel hose's supporting bracket. Be sure to retighten any loosened bolt.

C

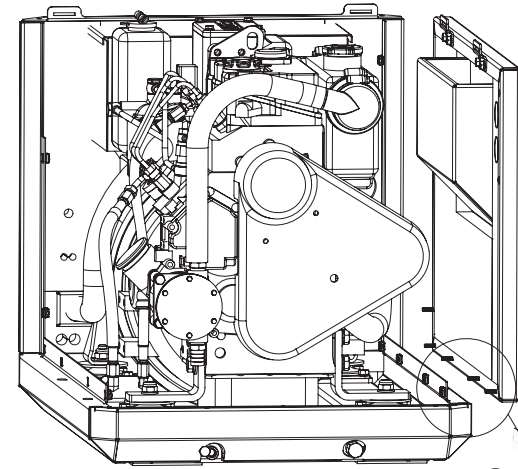
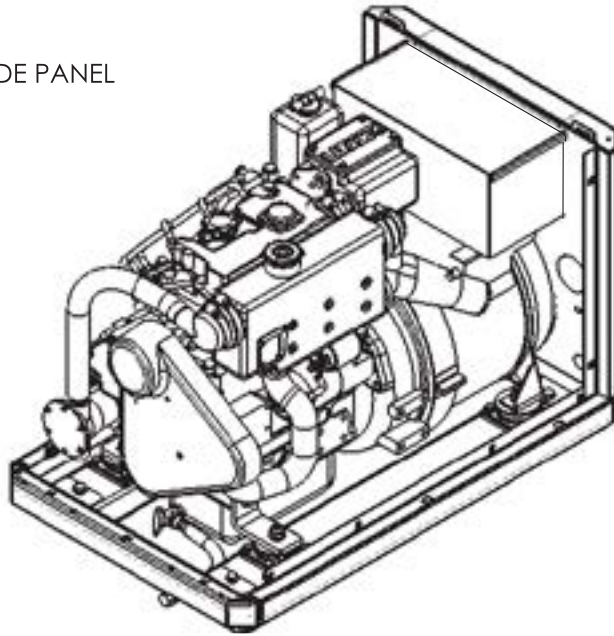


- 6
- ALIGN MATING HOLES ON BOTTOM FRONT VALENCE WITH NYLON RIVETS ON BOTTOM SIDE VALENCE AND SNAP INTO PLACE.
 - ENSURE FRONT VALENCE MOUNTING TABS ENGAGE WITH FRONT BASE FRAME MOUNTING BOLTS WITH THE WASHER ON TOP OF THE TAB.
 - ONCE FRONT AND SIDE VALENCE ARE SNUG, FIRMLY TIGHTEN BASE FRAME MOUNTING BOLTS.



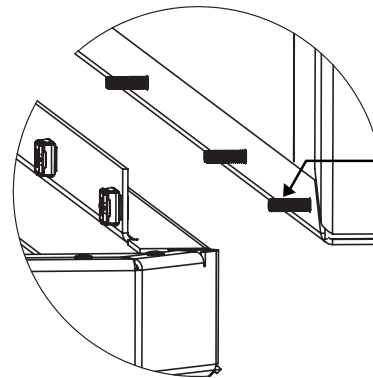
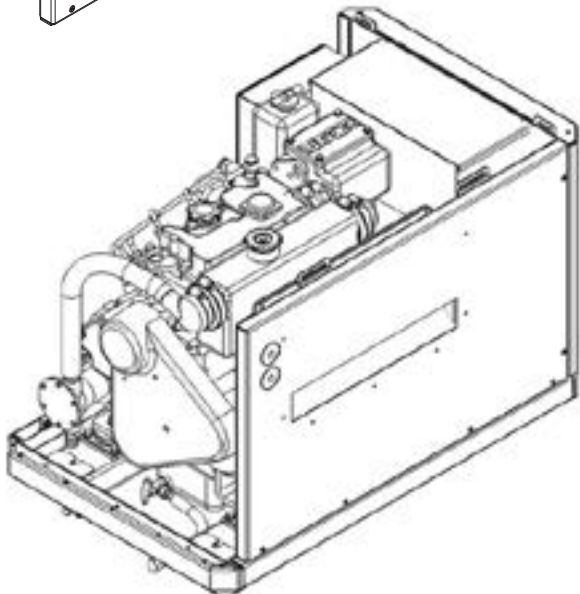
D

(item 9)
NON-SERVICE SIDE PANEL



DETAIL D

7

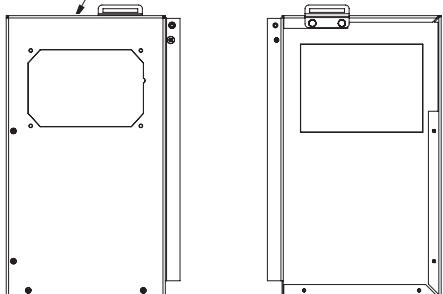


ALIGN THE CAPTIVE 10-32 MACHINE SCREWS
ON THE PANEL WITH THE CAGED NUTS LOCATED
ON THE BOTTOM SIDE VALENCE BY HAND
INITIALLY. TIGHTEN WITH HAND TOOLS. USE OF
POWER TOOLS MAY CAUSE DAMAGE TO
HARDWARE.

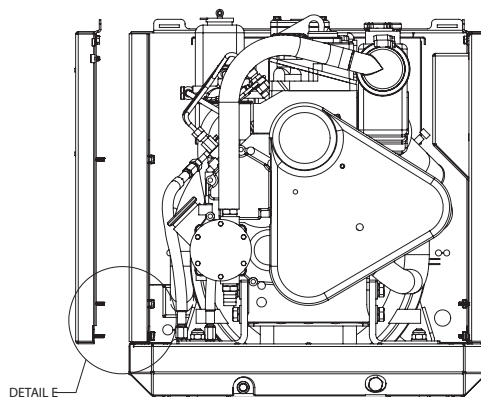
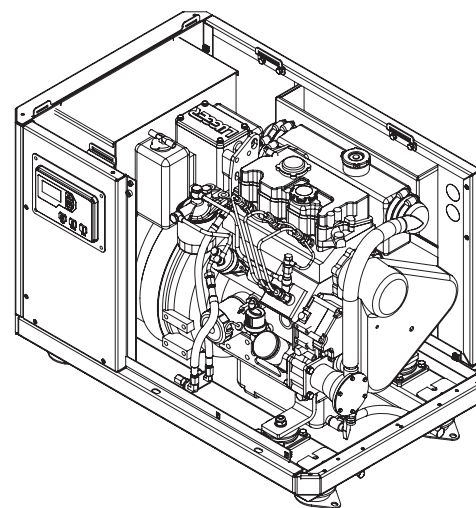
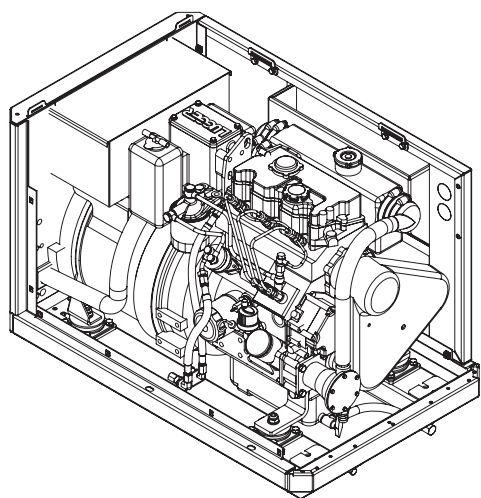
DETAIL D

E

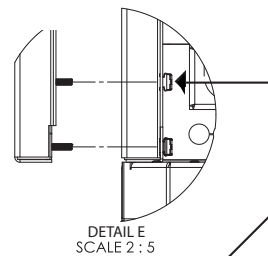
(item 11)
SERVICE SIDE PANEL, AFT



NOTE: BEFORE INSTALLING THIS PANEL
PLEASE REFER TO THE WIRE HARNESS
INSTALLATION INSTRUCTIONS ON
PAGES 8 AND 9.



⑧

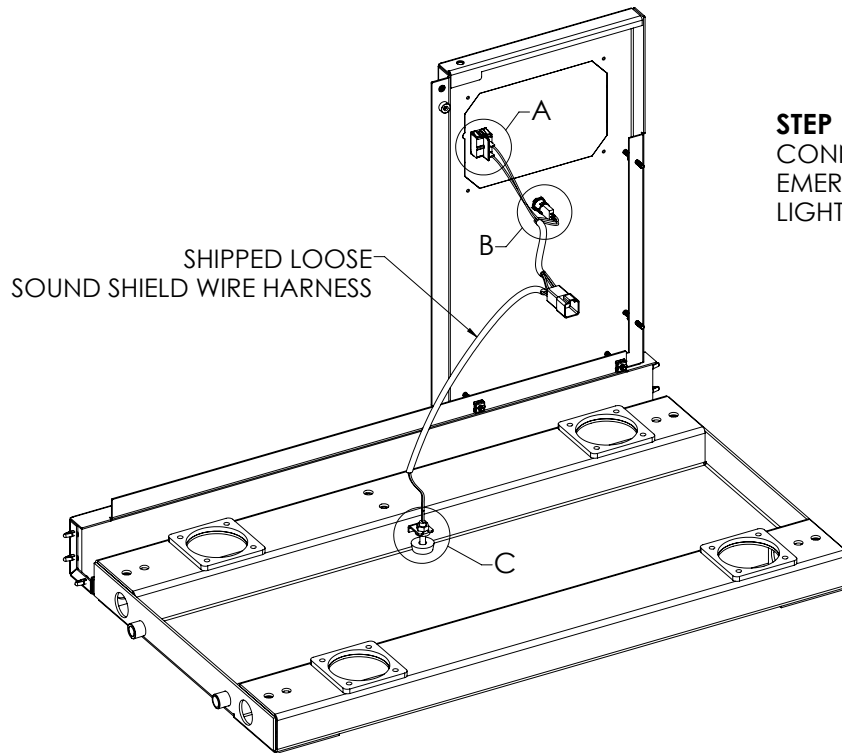


ALIGN 10-32 MACHINE SCREWS ON PANEL
WITH CAGED NUTS LOCATED ON REAR PANEL
AND BOTTOM SIDE VALENCE AND HAND
TIGHTEN INITIALLY. TIGHTEN WITH HAND TOOLS.
USE OF POWER TOOLS MAY CAUSE DAMAGE
TO HARDWARE.

SOUND SHIELD WIRE HARNESS INSTALLATION

STEP 1

CONNECT SOUND SHIELD WIRE HARNESS TO EMERGENCY STOP SWITCH AND LEAK ALARM LIGHT AS SHOWN IN DETAIL A AND DETAIL B.



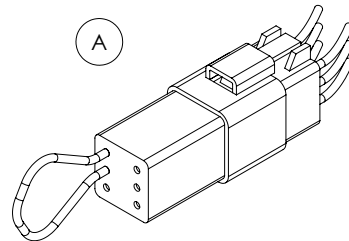
STEP 2

INSTALL FLOAT SWITCH TO THE CORRESPONDING BRACKET ON THE BASE FRAME. BE SURE TO CHECK THE LEAK ALARM LIGHT BY LIFTING UP THE FLOAT AFTER GENERATOR SET IS CONNECTED TO STARTER BATTERY.

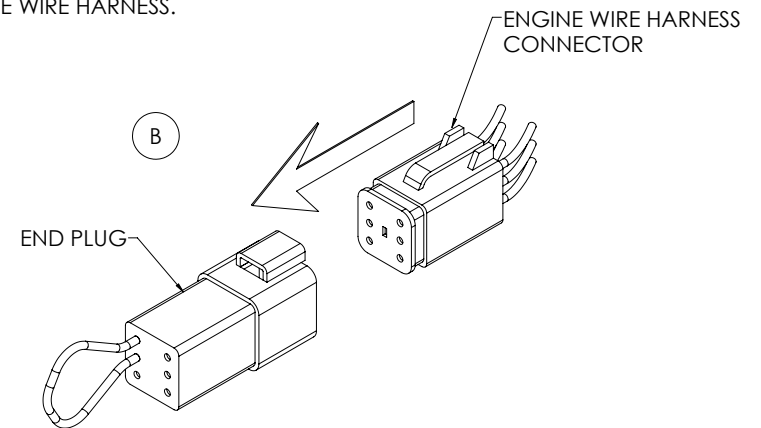
INSTALL FLOAT SWITCH TO THE BRACKET ON THE BASE FRAME. BE SURE TO CHECK THE LEAK ALARM LIGHT BY LIFTING UP THE FLOAT AFTER GENERATOR SET IS CONNECTED

STEP 3

- A. LOCATE AND IDENTIFY THE ENGINE WIRE HARNESS.
- B. REMOVE THE ENGINE WIRE HARNESS END PLUG.
- C. CONNECT SOUND SHIELD WIRE HARNESS TO THE ENGINE WIRE HARNESS.

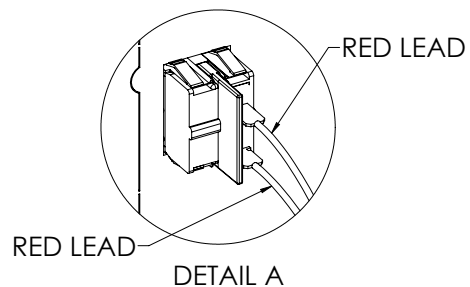


STANDARD ENGINE HARNESS CONNECTOR WITH PRE-INSTALLED END PLUG

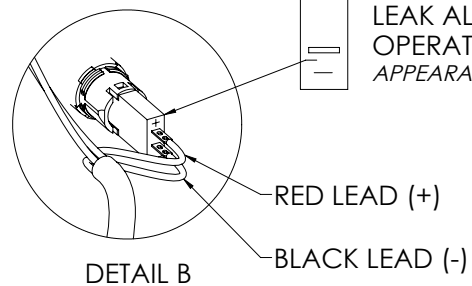


ENGINE HARNESS CONNECTOR WITH THE END PLUG REMOVED

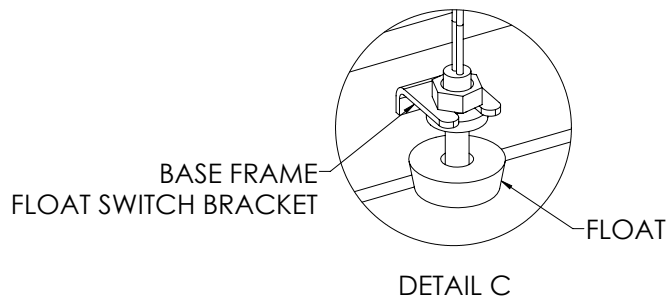
PRE-INSTALLED
EMERGENCY STOP SWITCH



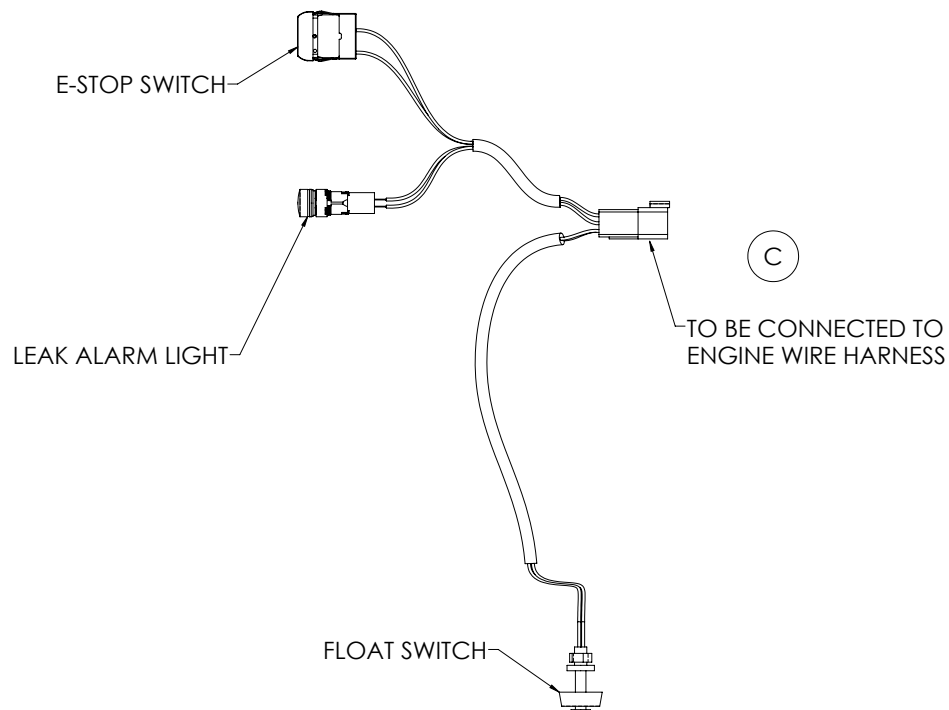
SHIPPED LOOSE
LEAK ALARM LIGHT



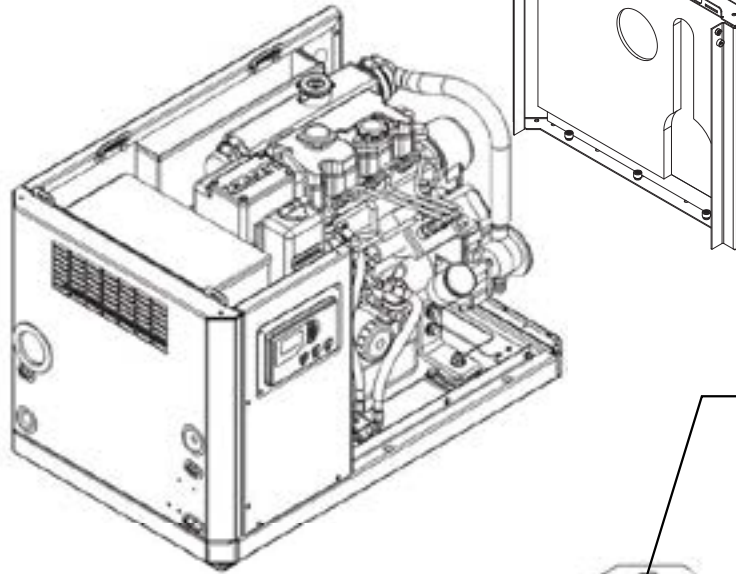
NOTES:
LEAK ALARM LIGHT WILL NOT
OPERATE IF POLARITY IS SWITCHED.
APPEARANCE MAY VARY.



SHIPPED LOOSE
SOUND SHIELD WIRE HARNESS



F

(item 10)
FRONT PANEL

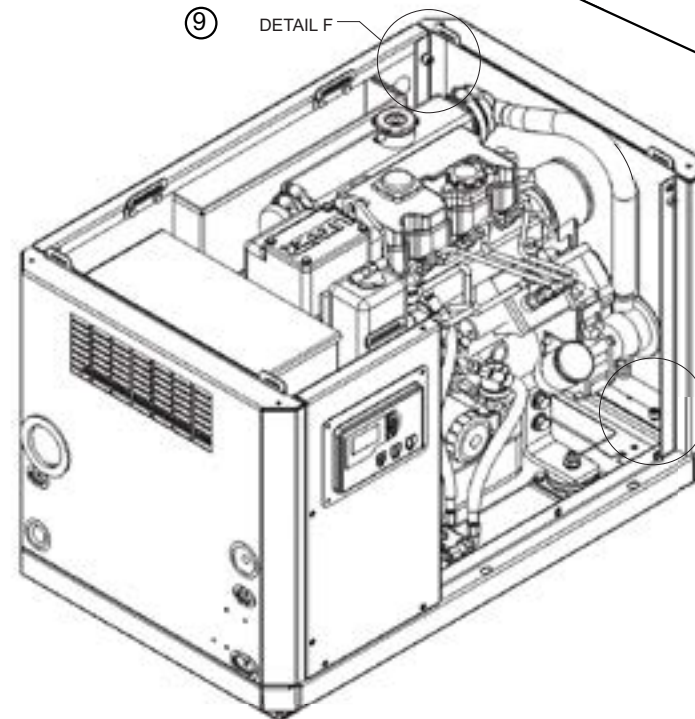
ALIGN CAPTIVE THUMB SCREWS ON FRONT PANEL
WITH CAGED NUTS LOCATED ON NON-SERVICE
SIDE PANEL AND BOTTOM FRONT VALENCE AND
HAND TIGHTEN ONLY.



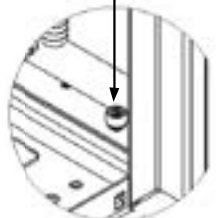
DETAIL F
SCALE 2 : 5

⑨

DETAIL F

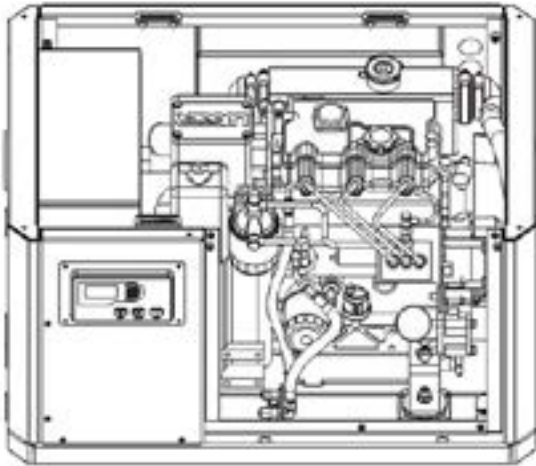


DETAIL G



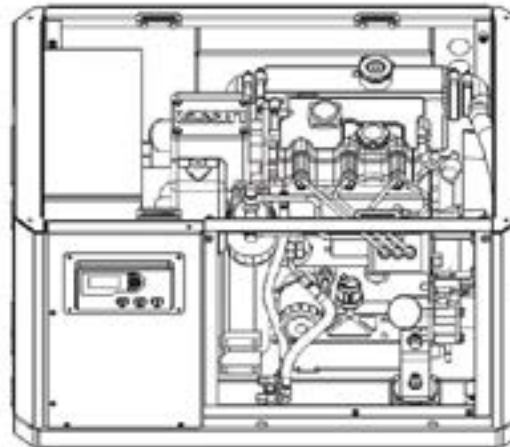
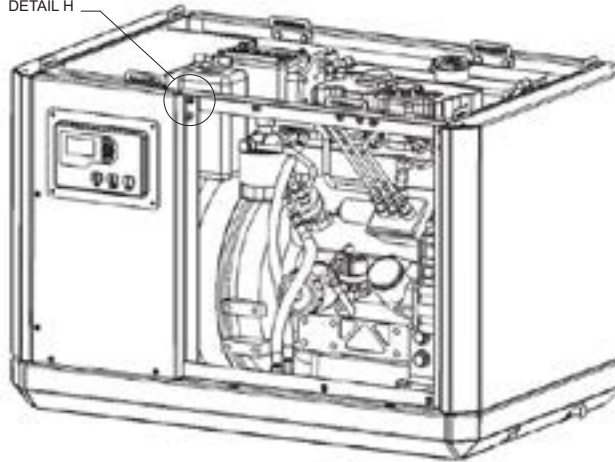
DETAIL G
SCALE 2 : 5

G

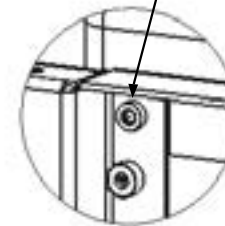


⑩

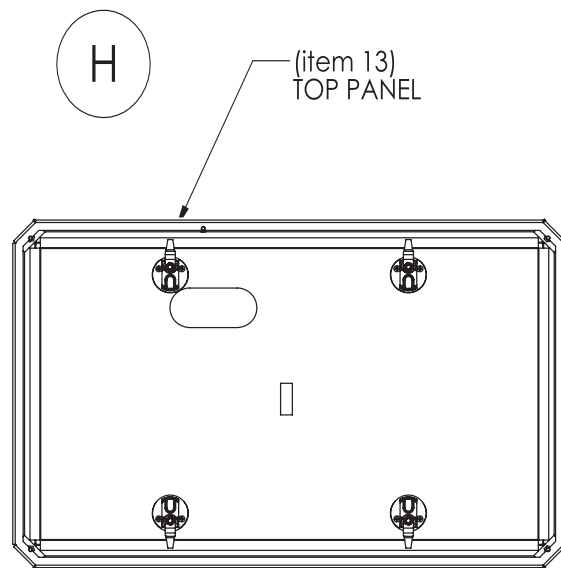
DETAIL H



ALIGN SEAL BAR SO THAT CAPTIVE
THUMB SCREWS ENGAGE WITH
PRESS NUTS LOCATED IN FRONT
PANEL AND AFT SERVICE SIDE PANEL
-HAND TIGHTEN ONLY



DETAIL H
SCALE 2 : 5



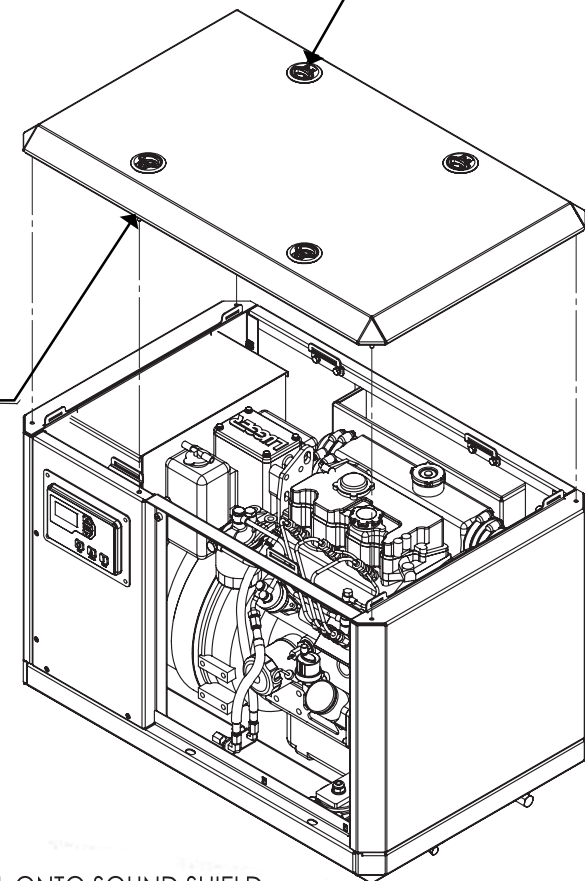
SEE PAGE 16 FOR RING
LATCH ADJUSTMENT
PROCEDURE.

⑫

TOP PANEL MUST BE
ALIGNED SO THIS
LOCATING PIN WILL
ENGAGE WITH MATING
HOLE ON AFT SERVICE SIDE
PANEL

⑪

OPEN LATCHES AND TURN LEVER 90°
BEFORE MOUNTING TO SOUND SHIELD

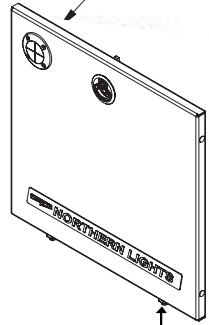


⑬

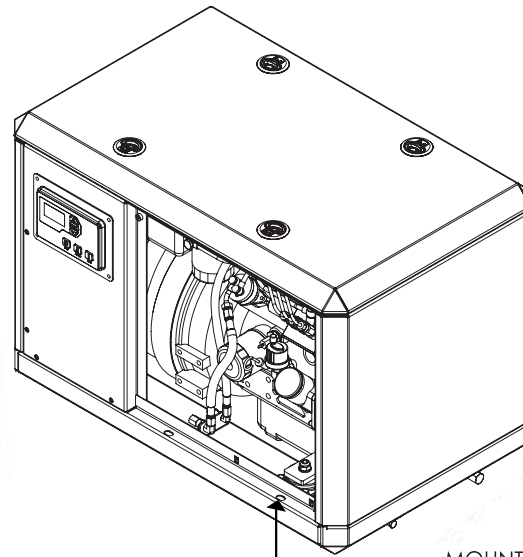
-LOWER TOP PANEL ONTO SOUND SHIELD.
-ENSURE THAT ALL FIVE (5) LOCATING PINS
ENGAGE WITH MATING HOLES.
-TURN ALL LEVERS BACK TO THEIR STARTING
POSITION.
-MAKE SURE THERE IS A TIGHT SEAL BETWEEN
TOP PANEL AND ENCLOSURE AND CLOSE
THE LATCHES.

I

(item 14)
SERVICE SIDE PANEL, FWD



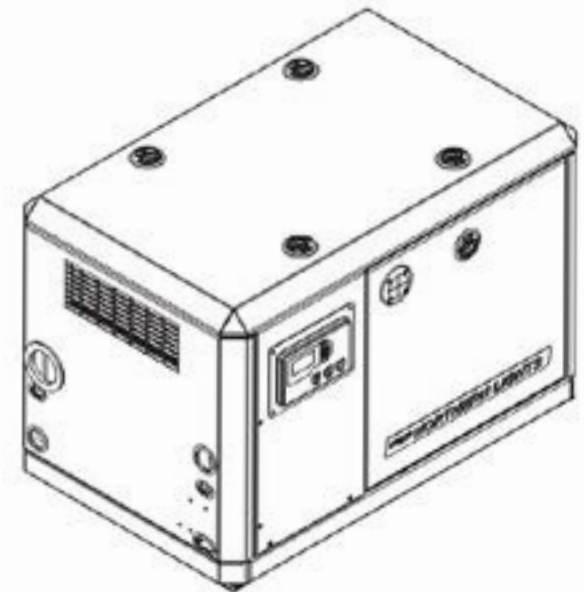
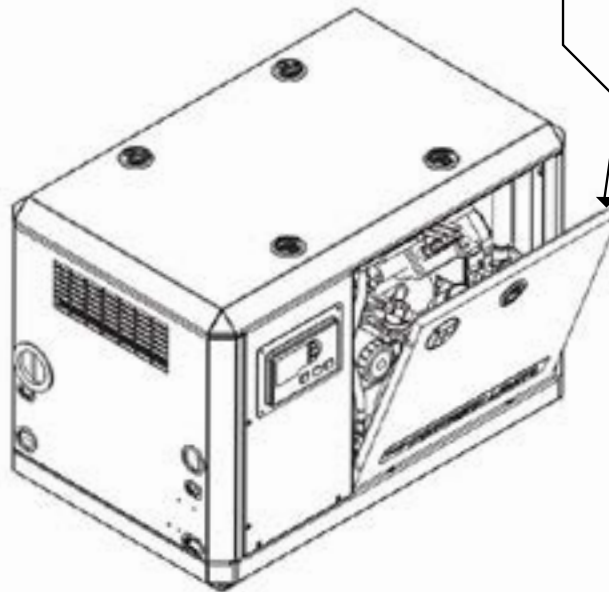
NYLON RETAINER



MOUNTING HOLES
FOR RETAINERS

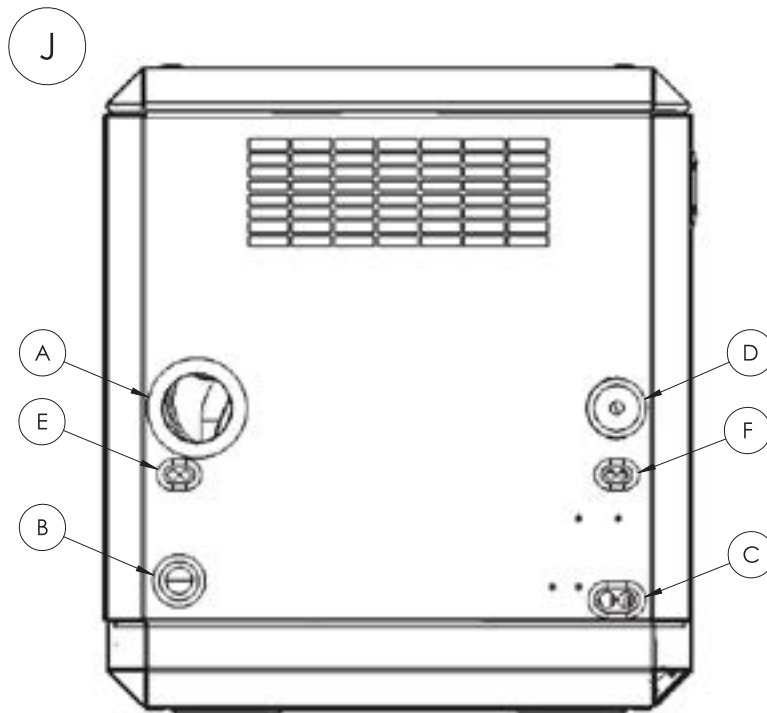
14

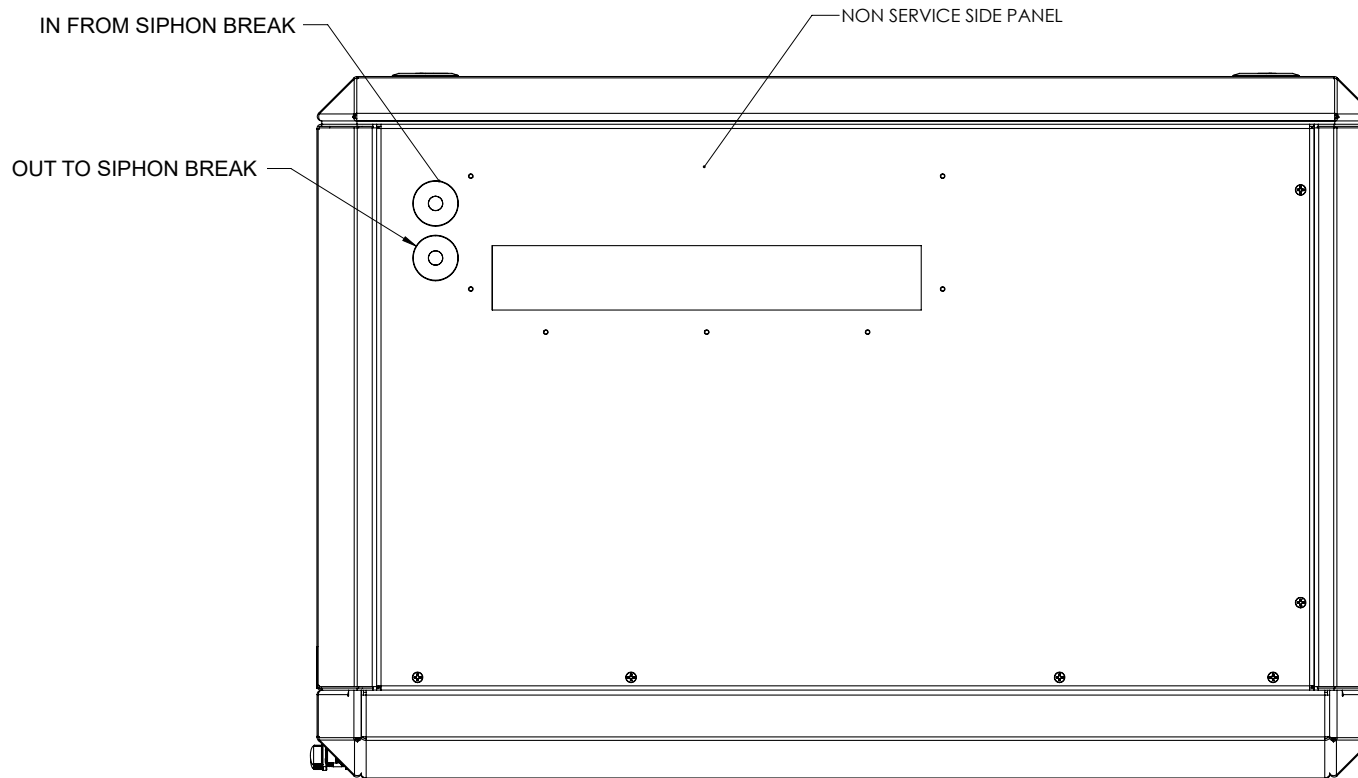
- WITH THE LATCH IN THE OPEN POSITION
- INSERT NYLON RETAINERS LOCATED ON THE BOTTOM OF THE FWD SERVICE PANEL INTO THE OBOURD MOUNTING HOLES ON THE BOTTOM SIDE VALENCE.
- PUSH TOP OF PANEL SNUGLY INTO PLACE AND TWIST LATCH TO CLOSE.



Install connections for exhaust, AC power leads, DC Control panel leads, battery and water through holes in the rear panel as shown and as described below:

- a. Connect the genset 2" OD exhaust outlet to the exhaust system of the vessel.
- b. Connect the sea water pump to the vessel's water inlet.
Push a 3/4" hose from the vessel's sea water strainer through the lower hole at the bottom left of the rear panel to the sea water pump inlet fitting.
- c. Connect the vessel's fuel lines using Coast Guard approved rubber fuel hoses to the fuel manifold inside the sound shield.
The outer fitting is 5/16" 37T JIC fuel suction, and the inner fitting is 1/4" 37T JIC fuel return.
- d. Connect the DC control harness to the engine harness plug. Pass the harness and plug through the hole at the mid-section of the right side of the rear panel.
- e. Connect the battery leads to the generator set passing the two leads through the second hole above the bottom left side on the rear panel.
- f. Connect the AC output leads from the generator to the vessel's power distribution panel. Pass the two leads through the middle hole on the right side of the rear panel.





FOR APPLICATIONS USING A SIPHON BREAK:

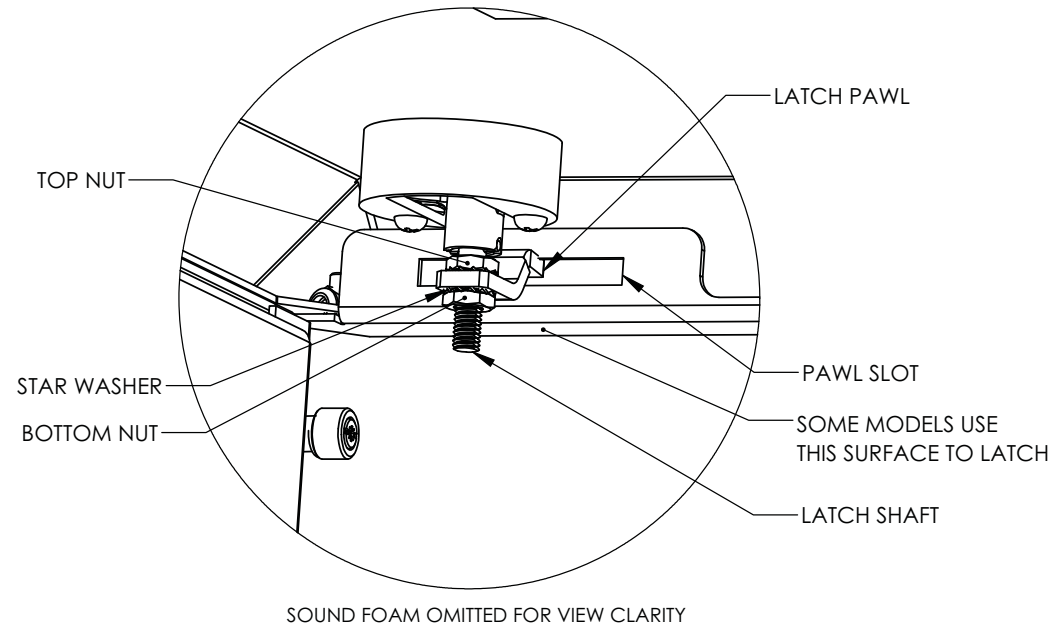
Note the pre-installed penetration point in the upper left corner of the non-service side panel. Reference the plumbing diagram in the mounting and exhaust sections of the IM1000 installation manual.

Remove the white plastic hole plugs by pushing them out from the inside and replace with the two rubber grommets (item 17) provided.

CAUTION: GENERATOR SETS WITH WET EXHAUST THAT ARE INSTALLED NEAR OR BELOW THE VESSEL'S WATER LINE MUST USE A SIPHON BREAK TO PREVENT BACKFLOW OR WATER INTO THE ENGINE. THIS BACKFLOW CAN RUIN AN ENGINE AND POSSIBLY SINK THE VESSEL

- Disconnect the hose from the seawater pump output and from the rubber elbow on the expansion tank. Install two lengths of 3/4" hose. The hoses must be of adequate length to allow mounting of a siphon break, a minimum of 12 inches above the vessel's loaded water line.
- Pass the seawater pump output hose through the top hole in the panel. The hose from the expansion tank must go through the bottom hole in the panel.
- For more information, see the "Exhaust" section of IM1000 Installation Manual.

RING LATCH GRIP ADJUSTMENT INSTRUCTIONS



ALL LATCHES ARE PRE-ADJUSTED FROM FACTORY. IN THE EVENT A LATCH REQUIRES ADJUSTMENT, FOLLOW THESE STEPS:

1. NOTE THE INTERFERENCE, OR REASON WHY THE LATCH PAWL WILL NOT ENGAGE THE PAWL SLOT. IF PAWL HITS SLOT BRACKET OR SHELF IT MUST BE MOVED TO ALLOW PAWL TO ROTATE INSIDE SLOT.
2. LATCH PAWL SHOULD OPERATE WITHIN SLOT FREELY WHEN LATCH HANDLE ROTATES ON REMOVAL.
3. WITH LATCH IN CLOSED POSITION, (LATCH PAWL POINTING TOWARDS SLOT, LOOSEN THE BOTTOM NUT. TURN TOP NUT TO CHANGE POSITION OF PAWL AND THEN RE-TIGHTEN THE BOTTOM NUT. ENSURE THE NUT IS FULLY TIGHT BEFORE OPERATING THE LATCH.
4. AN IDEAL LATCH CONDITION IS WHEN THE PAWL SWINGS INTO POSITION ON CLOSING, PULLS UP AND ENGAGES THE TOP OF THE SLOT WITH INCREASING RESISTANCE. WHEN THE LATCH RING IS FULLY DEPRESSED THERE SHOULD BE FIRM COMPRESSION OF PANEL PERIMETER SEAL.
5. IF YOU CAN LIFT UP A CORNER OF THE TOP PANEL AND SEE A SPACE, THE LATCH IS NOT TIGHT ENOUGH.

M773LW3 GEM SERIES SOUND ENCLOSURE PACKING LIST

ITEM	DESCRIPTION	NLI P/N	QTY	NOTES	PACKED
SOUND SHIELD PANELS:					
1	JUNCTION BRIDGE COVER ASSEMBLY	06-78632	1		<input type="checkbox"/>
2	REAR PANEL ASSEMBLY	06-78602	1		<input type="checkbox"/>
5	REAR BOTTOM VALENCE ASSEMBLY	06-78608	1		<input type="checkbox"/>
6	BOTTOM SIDE VALENCE ASSEMBLY	06-78008	2		<input type="checkbox"/>
8	FRONT BOTTOM VALENCE ASSEMBLY	06-78613	1		<input type="checkbox"/>
9	NON-SERVICE SIDE PANEL ASSEMBLY	06-78606	1		<input type="checkbox"/>
10	FRONT PANEL ASSEMBLY	06-78601	1		<input type="checkbox"/>
11	SERVICE SIDE PANEL ASSEMBLY, AFT	06-78604	1		<input type="checkbox"/>
12	SEAL BAR ASSEMBLY	06-78614	1		<input type="checkbox"/>
13	TOP PANEL ASSEMBLY	06-78605	1		<input type="checkbox"/>
14	FORWARD SERVICE SIDE PANEL ASSEMBLY	06-78603	1		<input type="checkbox"/>
HARDWARE BOX:					
3	1/4-20 X 3/4" HEX HEAD CAP SCREW, S/S	12-30111	3	LOOSE	<input type="checkbox"/>
4	1/4" EXTERNAL STAR WASHER, S/S	15-09103	3	LOOSE	<input type="checkbox"/>
7	NYLON BUMPER/RIVET	11-467	12	LOOSE	<input type="checkbox"/>
15	GROMMET 1-1/8" ID x 1-7/8" OD	00-70146	2	LOOSE	<input type="checkbox"/>
16	M8 FLAT WASHER, S/S	15-11000	4	LOOSE	<input type="checkbox"/>
17	M8 LOCK WASHER, S/S	15-00705	4	LOOSE	<input type="checkbox"/>
18	M8 HEX HEAD CAP SCREW	12-00776	4	LOOSE	<input type="checkbox"/>
19	SOUND FOAM SNORKEL RECEIVER	55-78676	1	LOOSE	<input type="checkbox"/>
20	WIRE HARNESS	22-72026	1	LOOSE	<input type="checkbox"/>

Packed By: _____ **Date:** _____