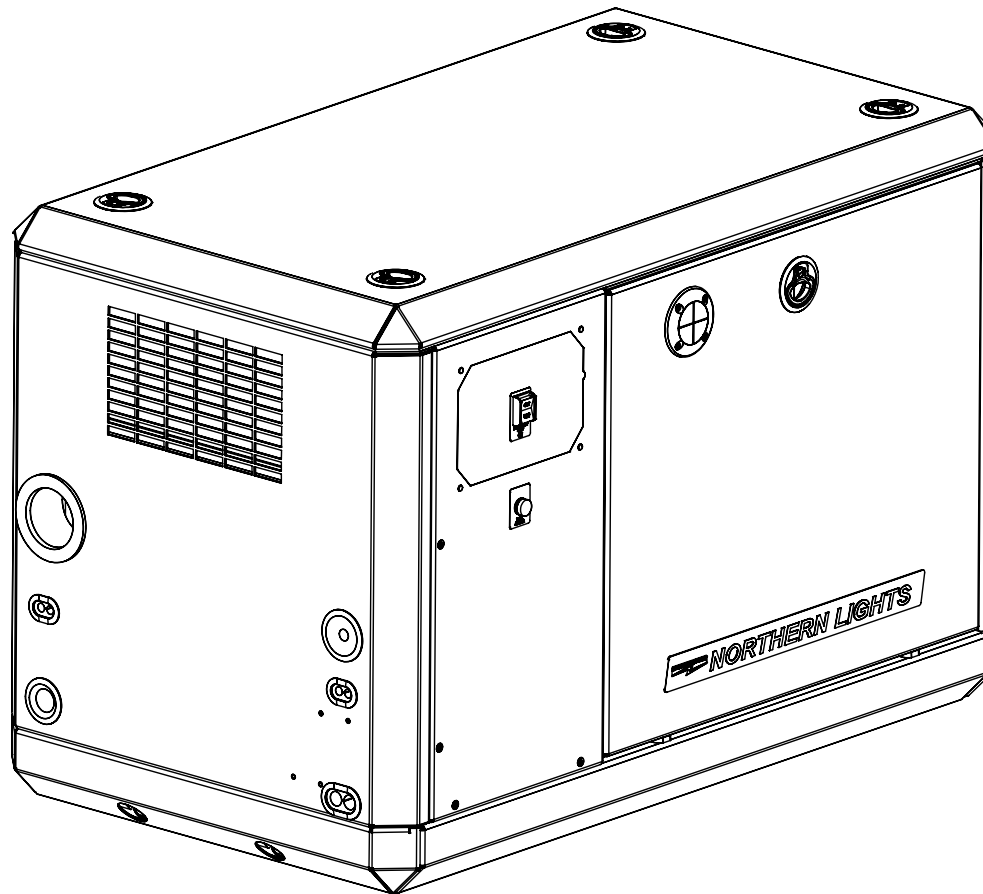




M843NW3

GEM Series Sound Enclosure

Assembly Instructions



Corporate Headquarters

4420 14th Avenue NW

Seattle, WA 98107

Tel: (206) 789-3880

Fax: (206) 782-5455

Alaska Branch Office

1200 West International

Airport Road

Anchorage, AK 99519

Tel: (907) 562-2222

Fax: (907) 563-1921

Southeastern U.S.A.

1419 W Newport Center Dr

Deerfield Beach, FL 33442

Tel: (954) 421-1717

Fax: (954) 421-1712

East Coast Branch

15 Aegean Dr.

Suite 4

Methuen MA 01844

Tel: (978) 475-7400

Fax: (978) 475-7745

Gulf Branch

19 Veterans Memorial Blvd.

Kenner, LA 70062

Tel: (504) 360-2180

Toll Free: (800) 843-6140

Northern Lights

4420 14th Avenue NW

Seattle, WA 98107

Tel: (206) 789-3880

Fax: (206) 782-5455

Copyright ©2020 Northern Lights, Inc.
All rights reserved. Northern Lights™, and
the Northern Lights logo are trademarks of
Northern Lights, Inc.

Printed in U.S.A.
LIT NO.: L815 6/20



M843NW3 GEM Sound Enclosure

ITEM #	DESCRIPTION	ADE P/N	QTY	NOTES
1.	Junction box bridge cover assembly	06-73111	1	
2.	Rear panel assembly	06-73102	1	Includes 06-73108
3.	M8 flat washer, S/S	15-11000	4	Loose, bagged
4.	M8 lock washer, S/S	15-00705	4	Loose, bagged
5.	M8 x 20 18-8, S/S hex head capscrew	12-00776	4	Loose, bagged
6.	1/4" NPT brass pipe nipple	21-00201	2	Loose, bagged
7.	1/4" NPT brass pipe cap	21-72241	1	Loose, bagged
8.	Sound foam, snorkel receiver seal	55-73174	1	Loose, bagged
9.	Bottom side valence assembly	06-73104	2	
10.	Bottom front valence assembly	06-73108	1	
11.	Non-service side panel assembly	06-73107	1	
12.	Service side panel aft assembly	06-73106	1	
13.	Front panel assembly	06-73101	1	
14.	Seal bar assembly	06-73100	1	
15.	Top panel assembly	00-73103	1	
16.	Service side panel, fwd assembly	00-73105	1	
17.	Grommet 1-1/8" ID x 1-7/8" OD	00-70146	2	Loose, bagged
18.	Kit, harness addition	22-72026	1	Contents bagged

SPECIFICATIONS

Enclosure:

Length (OA)	38.8 in (986 mm)
Width	22.6 in (574 mm)
Height	25.8 in (655 mm)
Assembled weight (shield only)	53 lbs (24 kg)
Assembled weight (with generator set)	797 lbs (355 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.

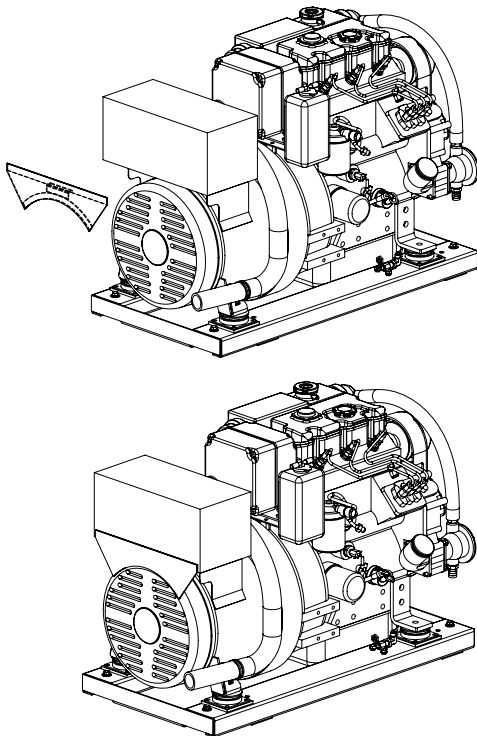
Note: The Generator set features a single point lifting eye. However, the generator may still possess original factory lifting points, which need to be loosened and rotated down, until they are below the highest point of the engine. Be sure to retighten those bolts before moving on.

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.

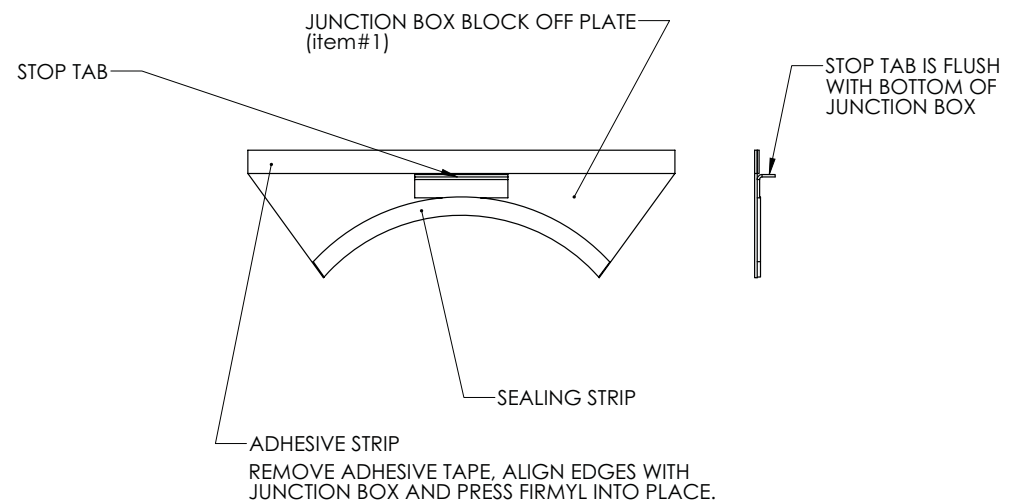
Note that the generator set is designed for single side service. When viewed from the rear, the right hand side is the service side and should be exposed for easy maintenance access.

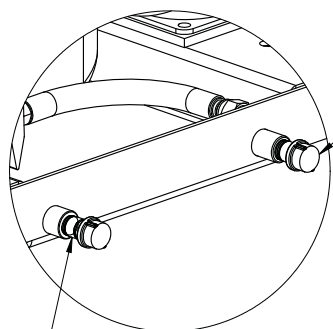
Install the generator set in the vessel as near to a level attitude as possible. Ensure that the enclosure's left hand side and rear are at the recommended distances (6 inch recommended, 4 inch minimum.) from the vessel's bulkheads.

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



PRIOR TO SOUND ENCLOSURE ASSEMBLY, INSTALL THE JUNCTION BOX BLOCK OFF PLATE (item#1) AS SHOWN IN FOLLOWING ILLUSTRATIONS.

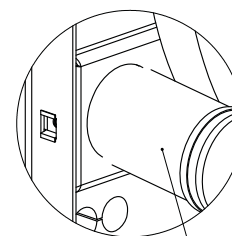




DETAIL A

STEP 1.
INSTALL PIPE NIPPLES (item#6) TO FRONT OF BASE FRAME.
USE THREAD SEAL TAPE OR EQUIVALENT.

STEP 2.
INSTALL PIPE CAP (item#7).



DETAIL D

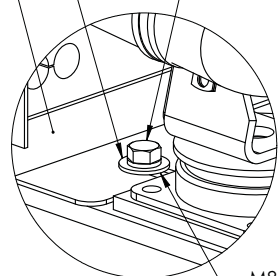
STEP 5.
INSERT ENGINE AIR INTAKE SNORKEL
HOSE INTO SNORKEL RECIEVER IN REAR
PANEL, UNTIL IT HITS THE STOP.

STEP 3.
INSTALL REAR PANEL/LOWER REAR VALENCE ASSEMBLY (item#2)
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 CAPSCREW (items 3,4,5).

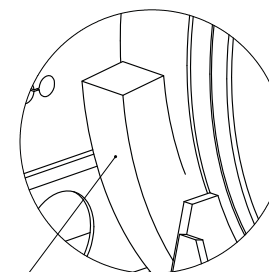
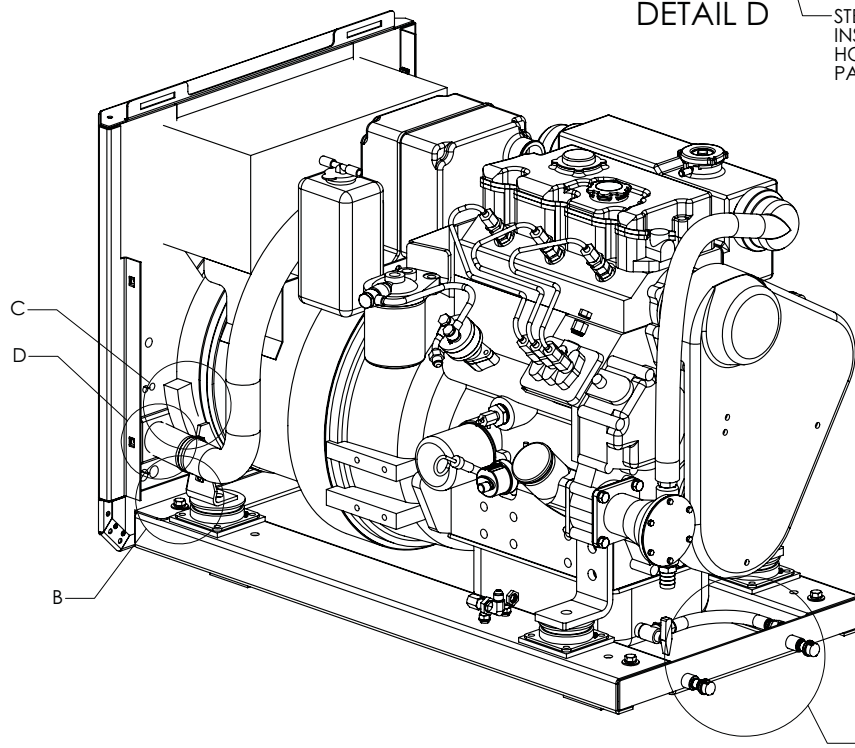
M8 FLATWASHER (item#3).

M8 HEX HEAD CAPSCREW (item#5).

M8 LOCK WASHER (item#4).

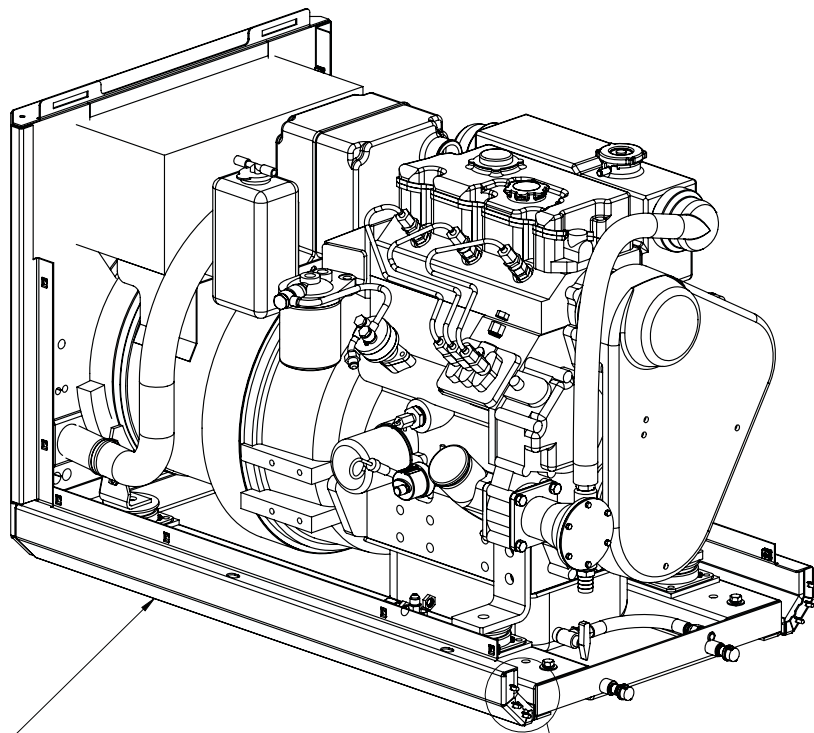


DETAIL B

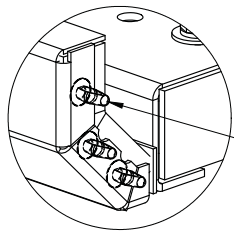


DETAIL C

STEP 4.
INSTALL RECIEVER SEAL (item#8) TO REAR PANEL
AS SHOWN. ENSURE FIT IS SNUG TO GENERATOR
BARREL.



STEP 1.
INSTALL SIDE LOWER VALENCE PANELS
(item#9) ONE EACH SIDE. SEE DETAIL A.

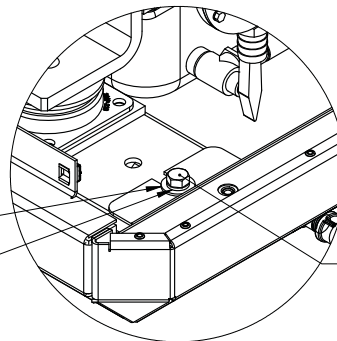


DETAIL A

NOTE PRE-INSTALLED PINS.
GUIDE THESE INTO CORRESPONDING HOLES
IN EACH FRONT/REAR LOWER VALENCE, PUSHING
FIRMLY TO SNAP INTO PLACE. DISPLACED PINS MAY
BE PUSHED BACK INTO POSITION BY USING A LONG
TOOL SUCH AS SCREW DRIVER OR PRY BAR FROM
THE INSIDE. PUSH/MOVE SOUND FOAM OUT OF THE
WAY FOR IMPROVED ACCESS TO PINS.

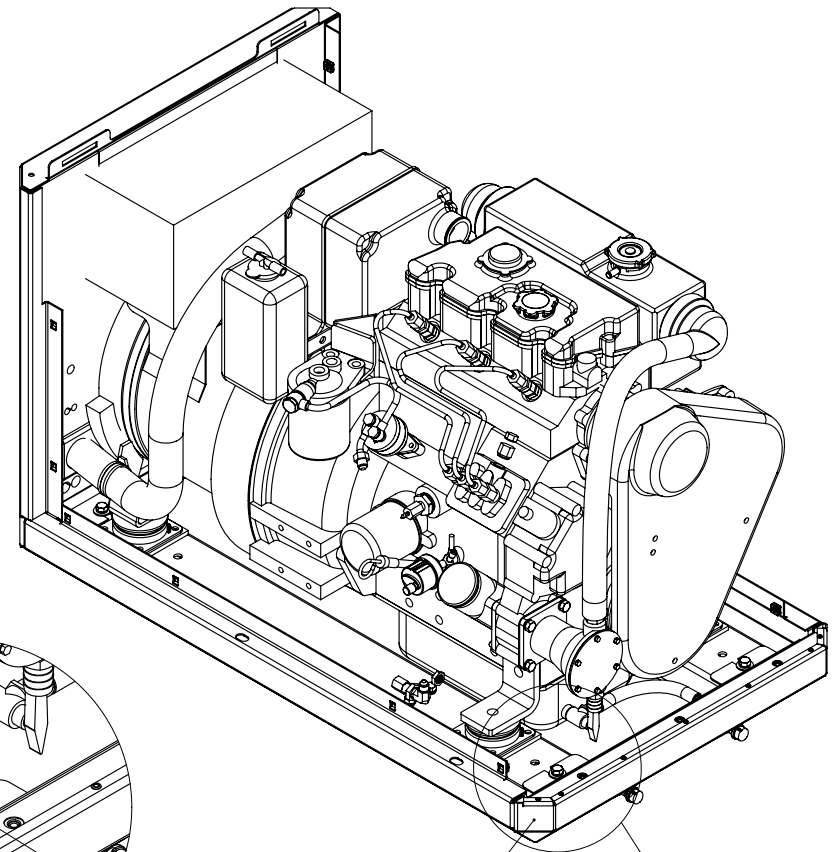
M8 FLAT WASHER (item#3)

M8 LOCK WASHER (item#4)

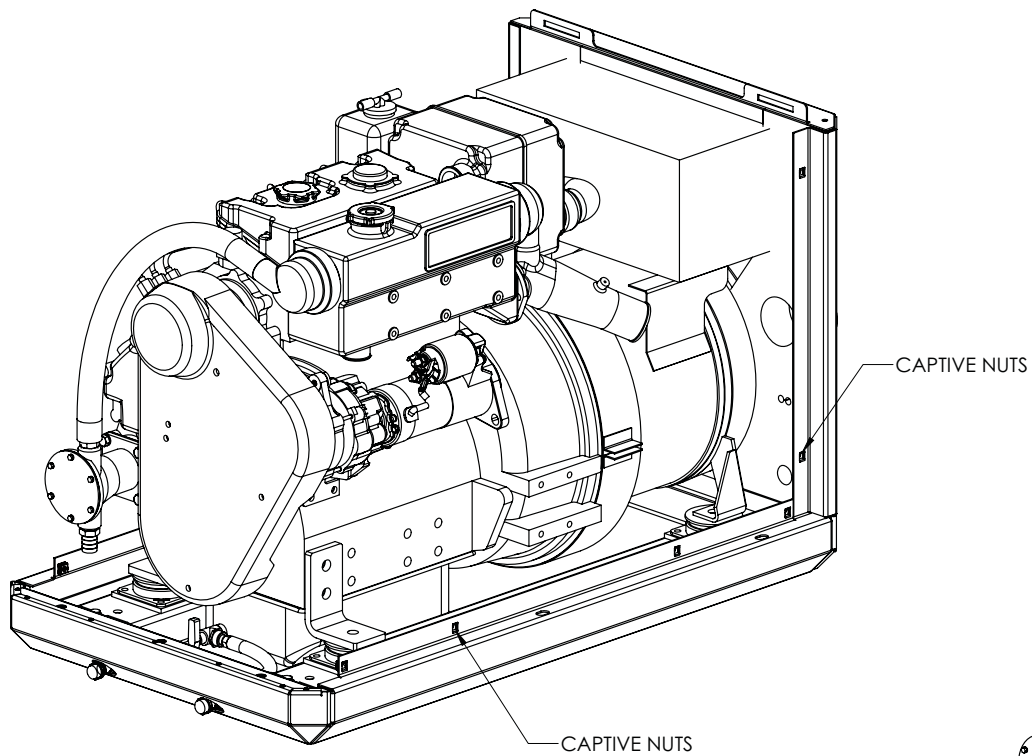


DETAIL B

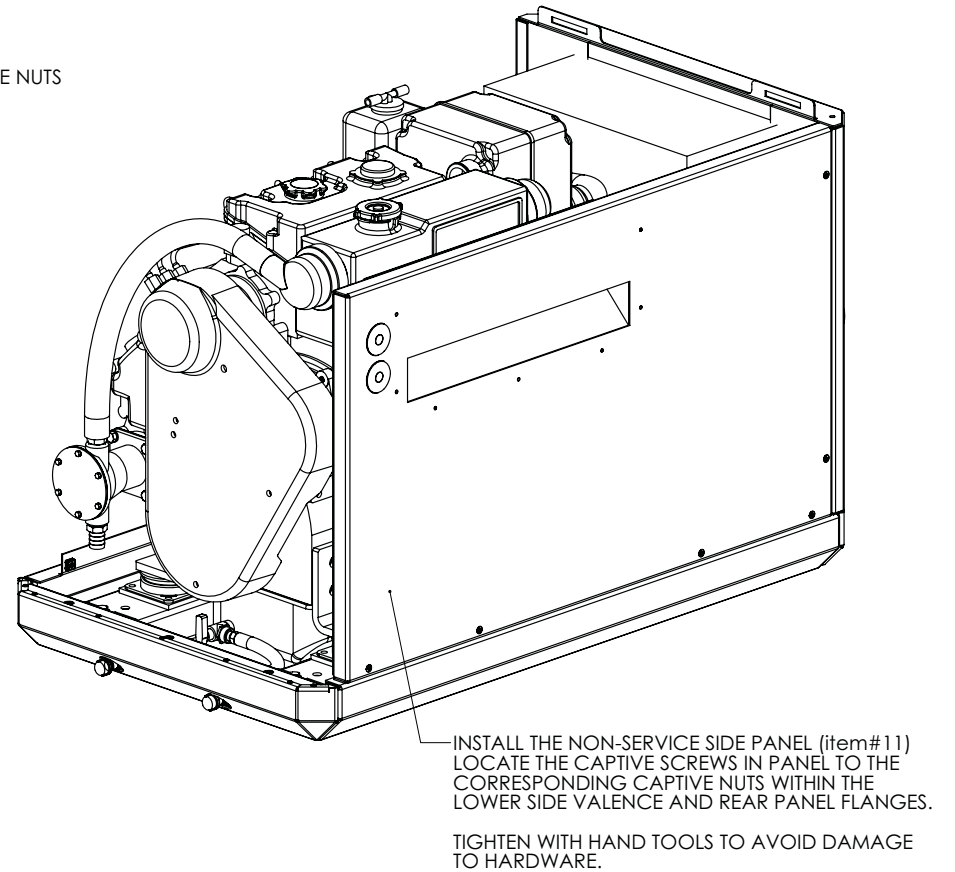
M8 HEX HEAD CAPSCREW
(item#5)



STEP 2.
INSTALL FRONT LOWER VALENCE (item#10)
TO THE FRONT OF THE BASE FRAME. ALIGN
TO PINS ON BOTH BOTTOM SIDE VALENCE
SEE DETAIL A.
LOCATE THE MOUNTING TABS TO THE
TAPPED HOLES ON THE TOP OF THE BASE FRAME.
SECURE WITH M8 FLAT WASHER, LOCK WASHER
AND HEX HEAD CAPSCREW. (items 3,4,5).
SEE DETAIL B.
TIGHTEN BOLTS TO SECURE.



VIEW: NON-SERVICE SIDE

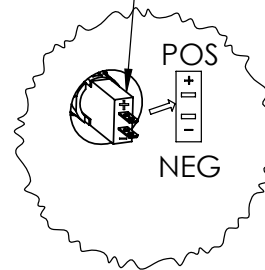
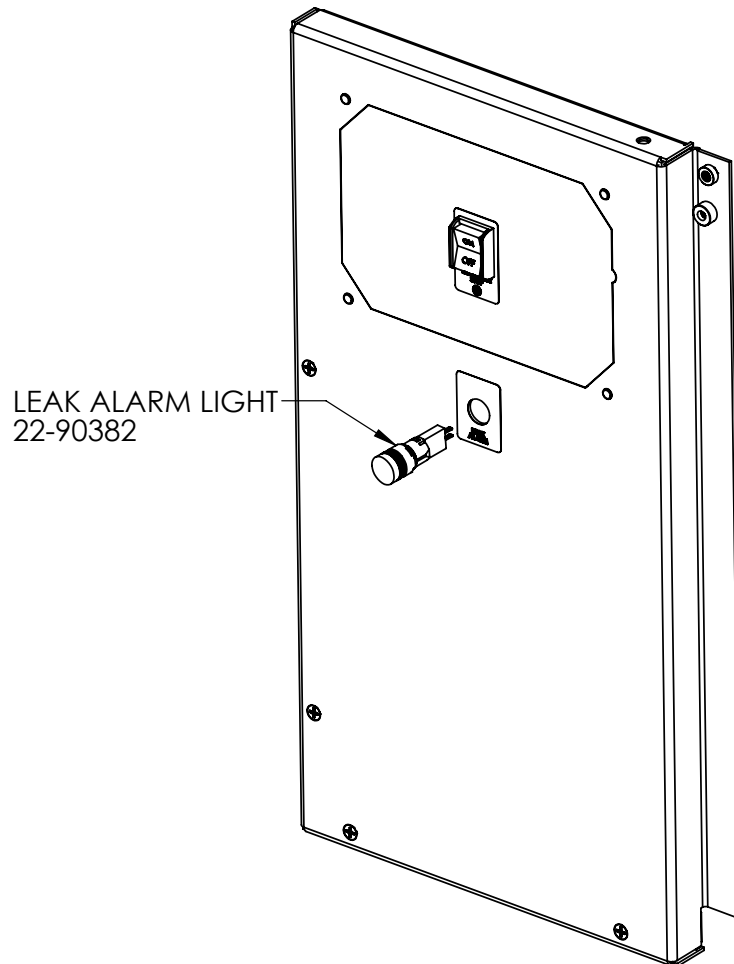


! CUSTOMER MUST INSTALL THE LEAK ALARM LIGHT BEFORE INSTALLING THIS PANEL TO THE ENCLOSURE ASSEMBLY !
ITEM IS PROVIDED LOOSE IN BAG WITH ELECTRICAL CONNECTION HARNESS.

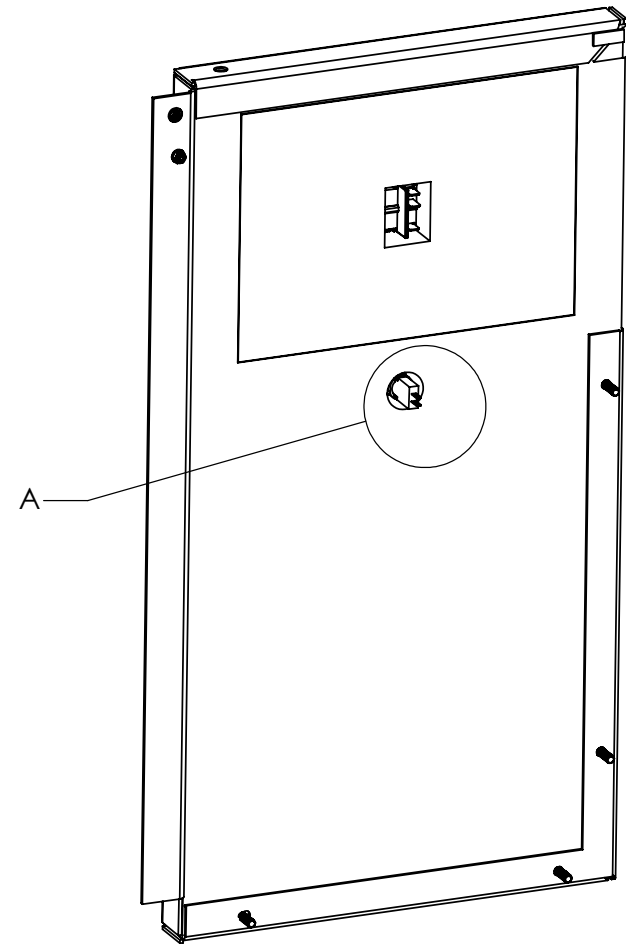
NOTE ORIENTATION: +(POSITIVE POLARITY) MUST BE ON TOP.

UNSCREW RETAINER NUT, INSERT LIGHT THRU FRONT OF PANEL AND THREAD ON RETAINER NUT FROM THE SOUND FOAM SIDE UNTIL FIRMLY HAND TIGHT.

NOTE: LIGHT COMPONENT MAY VARY IN APPEARANCE. POLARITY OBSERVATION STILL APPLIES.

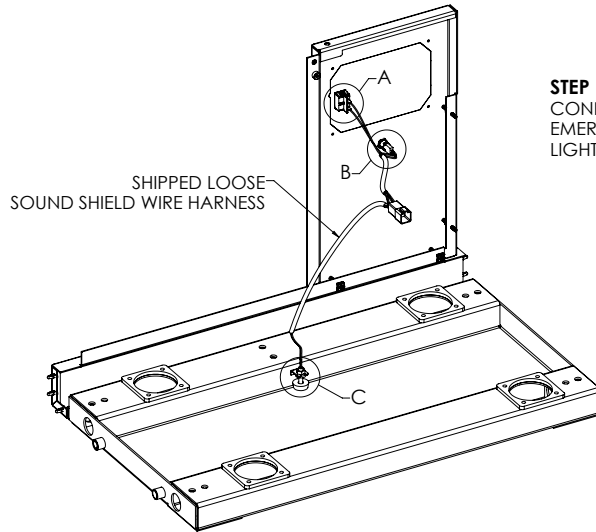


DETAIL A



REFER TO THE WIRE HARNESS INSTALLATION INSTRUCTIONS ON PAGE 7 BEFORE INSTALLING THIS PANEL TO THE SHIELD ASSEMBLY

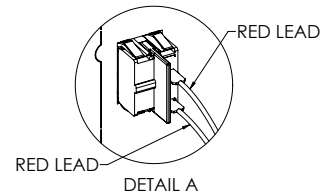
SOUND SHIELD WIRE HARNESS INSTALLATION



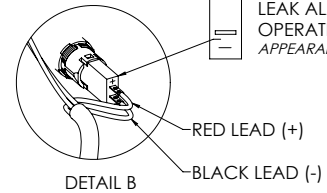
STEP 1

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

PRE-INSTALLED EMERGENCY STOP SWITCH



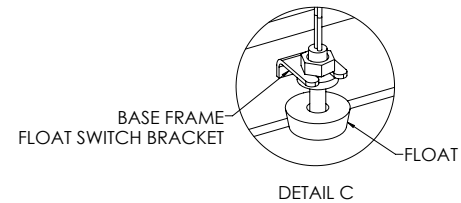
SHIPPED LOOSE LEAK ALARM LIGHT



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

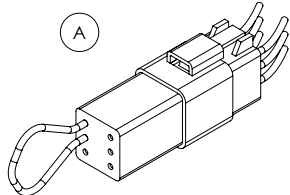
STEP 2

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.

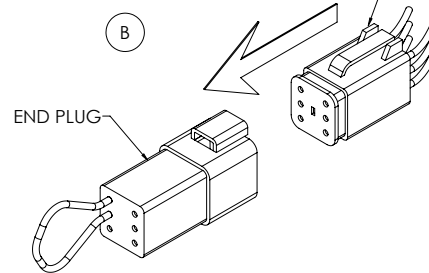


STEP 3

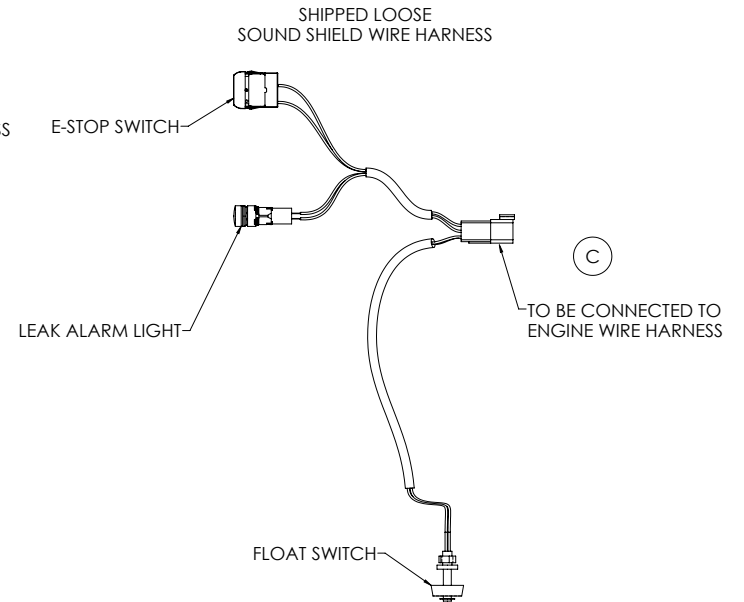
- LOCATE AND IDENTIFY THE ENGINE WIRE HARNESS.
- REMOVE THE ENGINE WIRE HARNESS END PLUG.
- CONNECT SOUND SHIELD WIRE HARNESS TO THE ENGINE WIRE HARNESS.

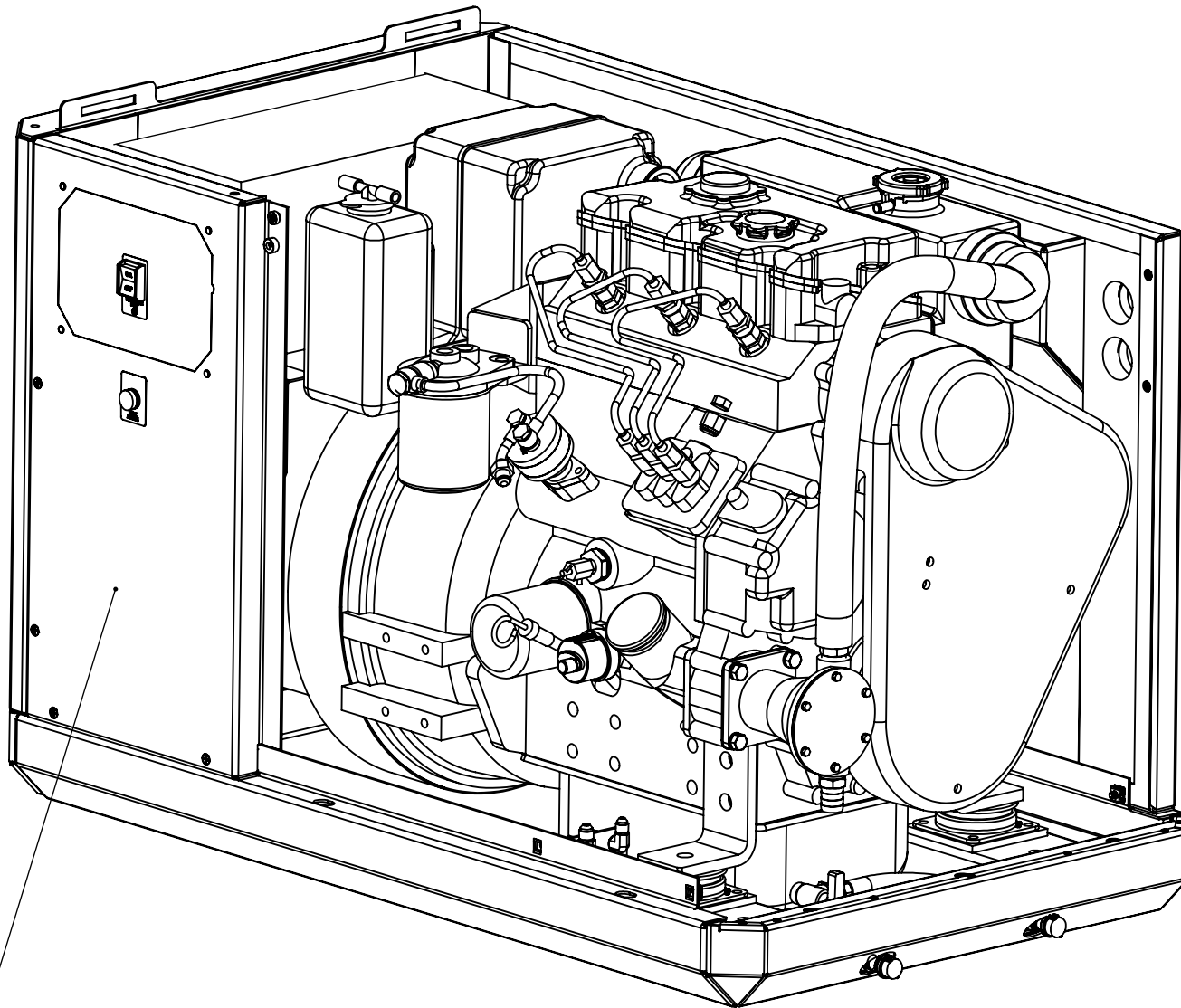


STANDARD ENGINE HARNESS CONNECTOR WITH PRE-INSTALLED END PLUG

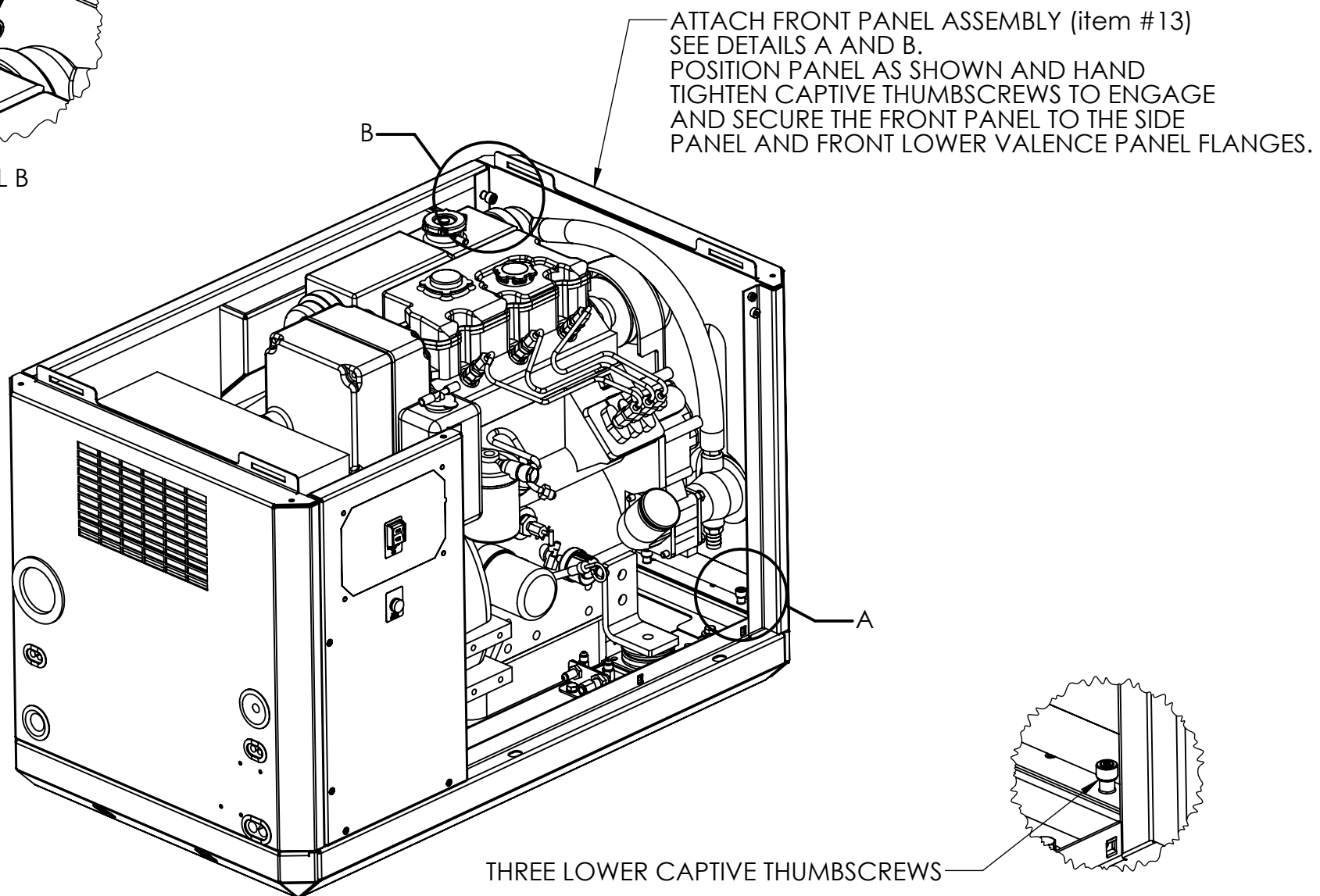
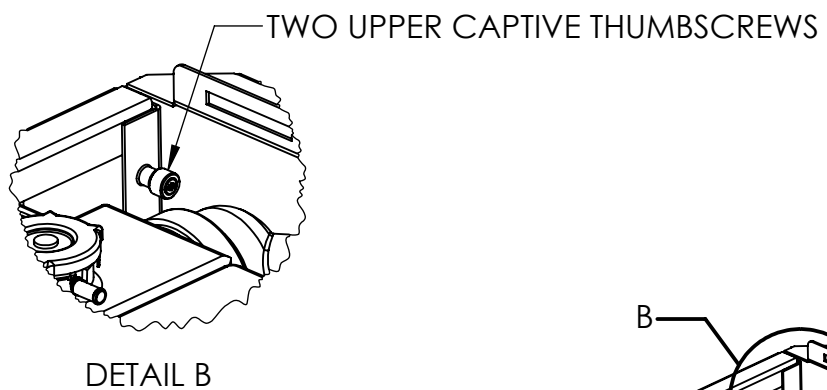


ENGINE HARNESS CONNECTOR WITH THE END PLUG REMOVED

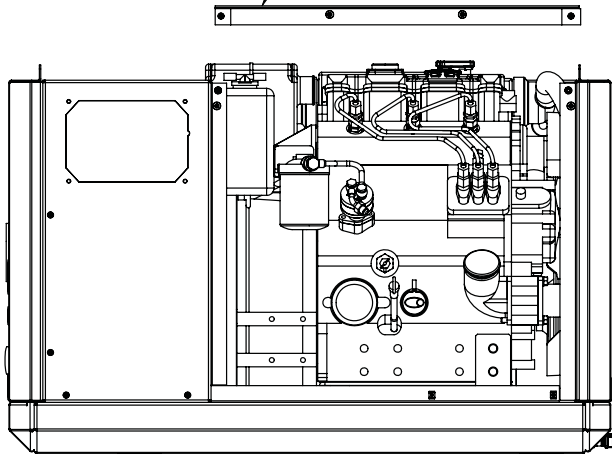




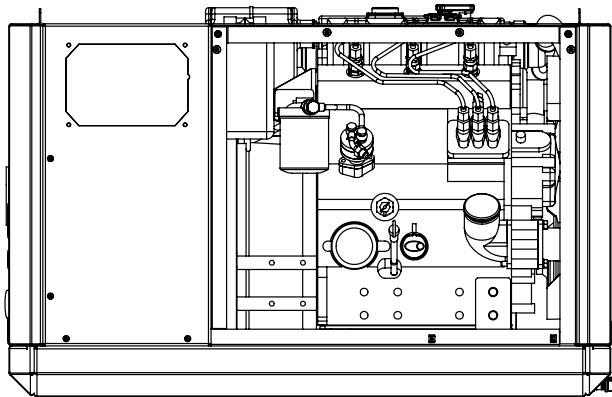
FOLLOWING THE COMPLETE CONNECTION OF THE SHIELD WIRE HARNESS ASSEMBLY, YOU MAY NOW INSTALL THE SERVICE SIDE AFT PANEL ASSEMBLY (item #12). THE PANEL SCREWS INTO CORRESPONDING CAPTIVE NUTS WITHIN THE LOWER SIDE VALENCE AND REAR PANEL FLANGES. TIGHTEN USING HAND TOOLS ONLY.



SEAL BAR ASSEMBLY (item#14).

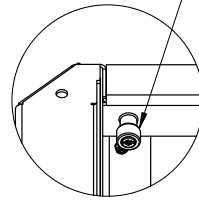


POSITION THE SEAL BAR ASSEMBLY



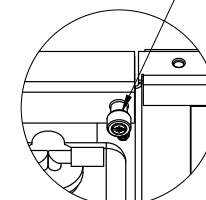
SEAL BAR INSTALLED

CAPTIVE THUMBSCREW
FORWARD POSITION.



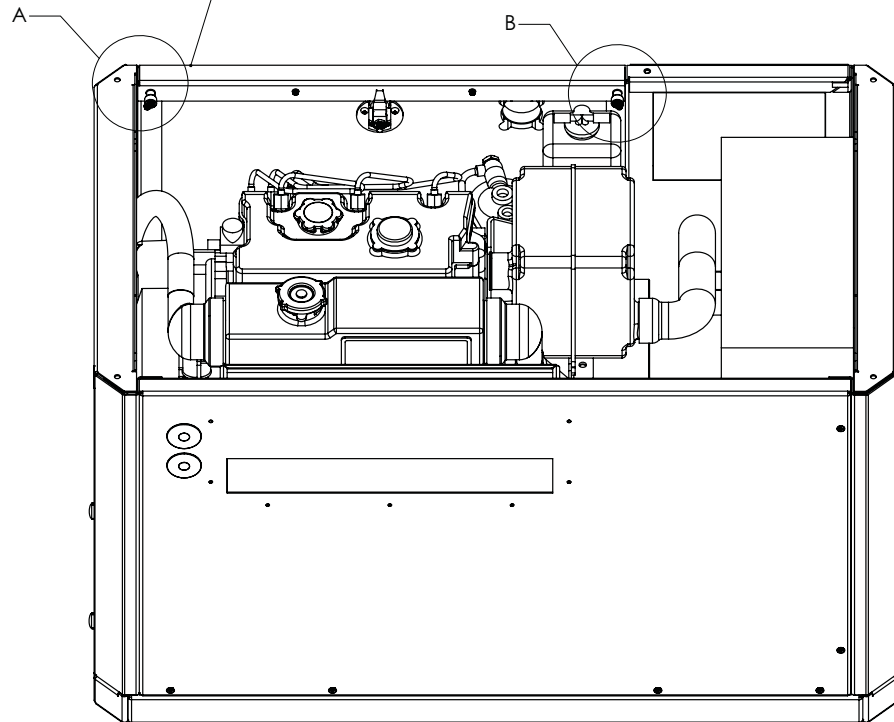
DETAIL A

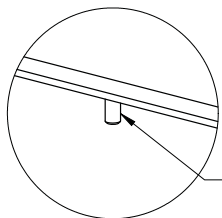
CAPTIVE THUMBSCREW
AFT POSITION.



DETAIL B

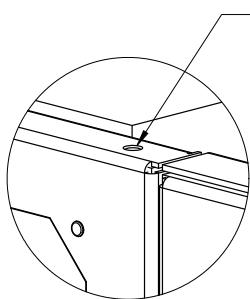
INSTALL SEAL BAR ASSEMBLY TO PRESSED IN NUT POINTS AT FRONT PANEL
AND SERVICE SIDE AFT PANEL FLANGES. HALF TIGHTEN THUMBSCREWS
FROM THE INTERIOR SIDE OF THE SHIELD.





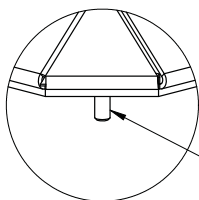
SIDE LOCATING PIN,
SERVICE SIDE ONLY

DETAIL A



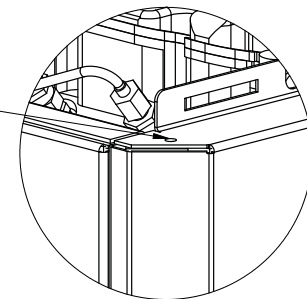
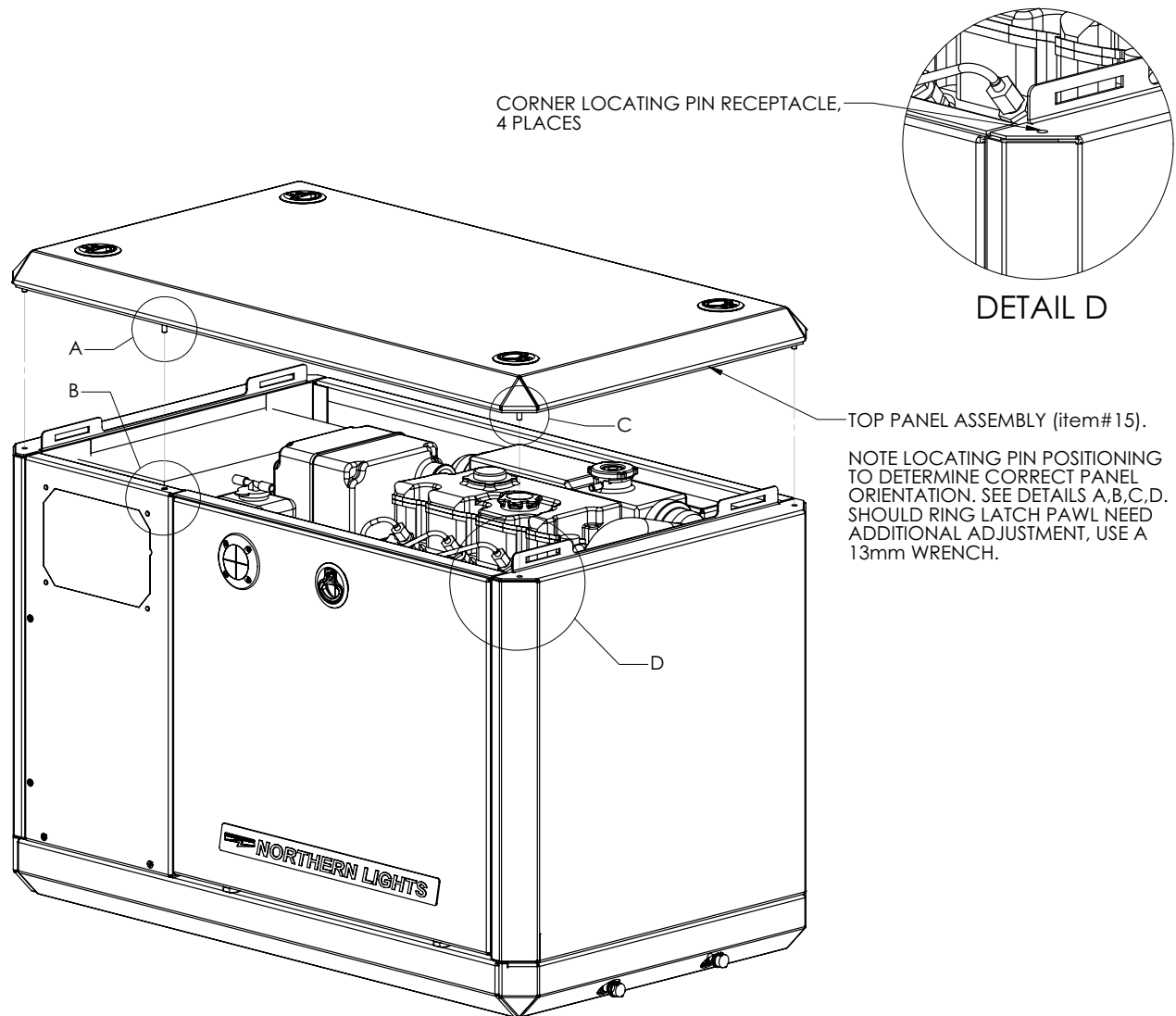
SERVICE SIDE LOCATING
PIN RECEPTACLE.

DETAIL B

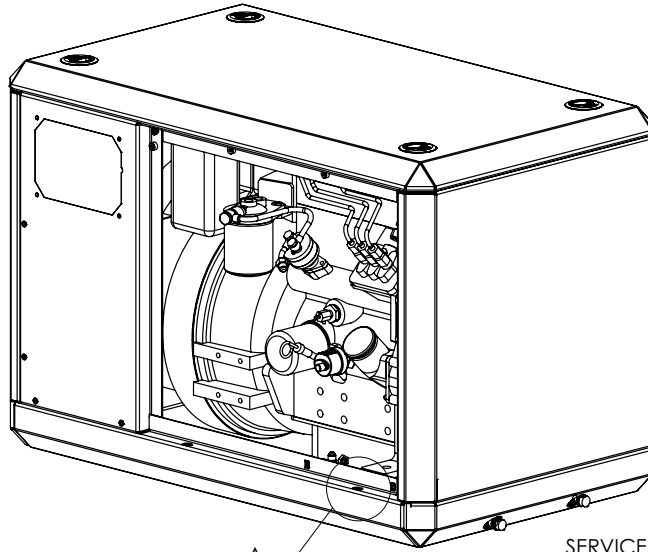


CORNER LOCATING PINS, 4 PLACES.

DETAIL C

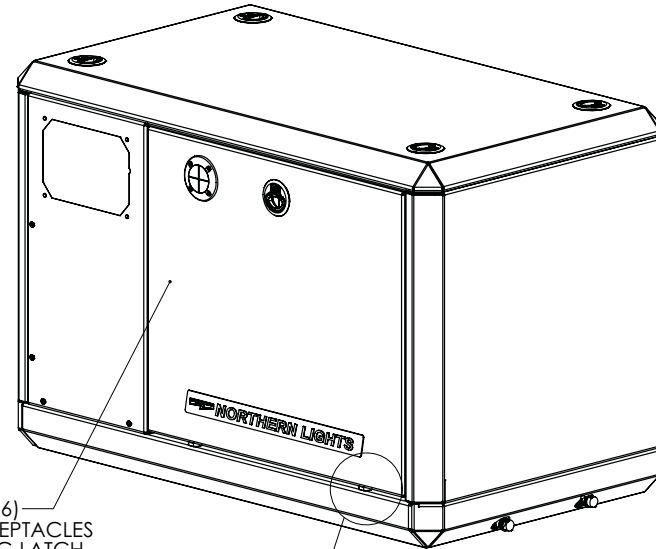


DETAIL D

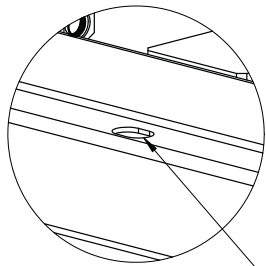


A

SERVICE SIDE PANEL ASSEMBLY (item#16)
 INSTALL PANEL INTO LOCATOR PIN RECEPTACLES
 (SEE DETAIL A,B) AND SECURE WITH RING LATCH.
 PANEL LATCH IS PRE-ADJUSTED AT FACTORY.
 IF ADDITIONAL PAWL ADJUSTMENT IS NEEDED,
 USE A 13mm WRENCH.



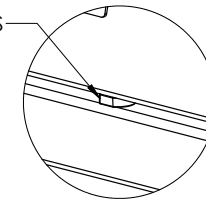
B



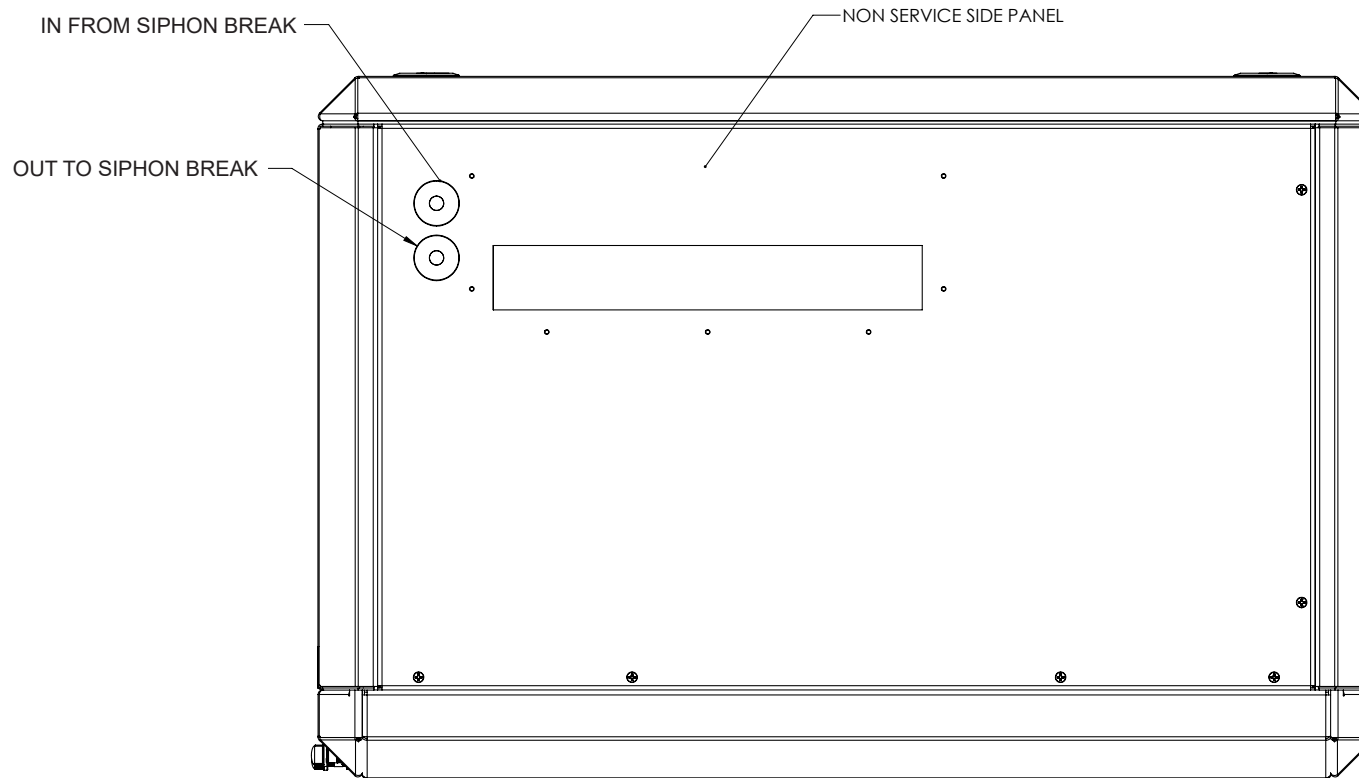
LOCATOR PIN RECEPTACLE

DETAIL A

LOCATOR PIN (ENGAGED) ON SERVICE SIDE PANEL ASSEMBLY, 2 PLACES



DETAIL B



FOR APPLICATIONS USING A SIPHON BREAK:

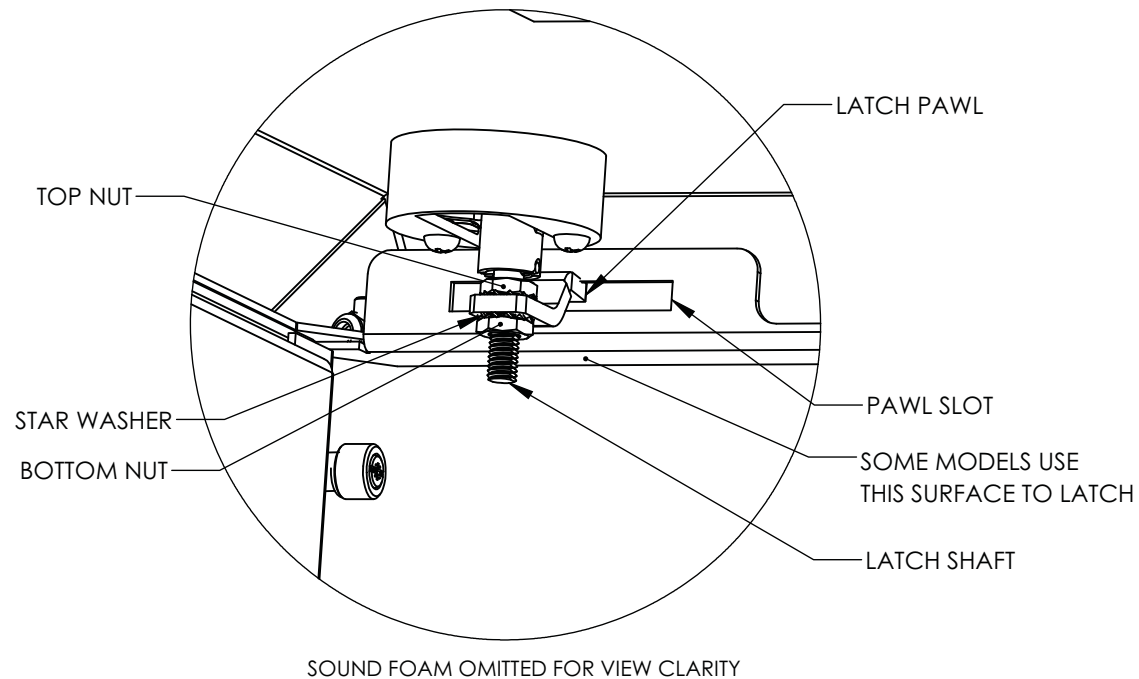
Note the pre-installed penetration point in the upper left corner of the non-service side panel. Reference the plumbing diagram in the mounting and exhaust sections of the IM1000 installation manual.

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



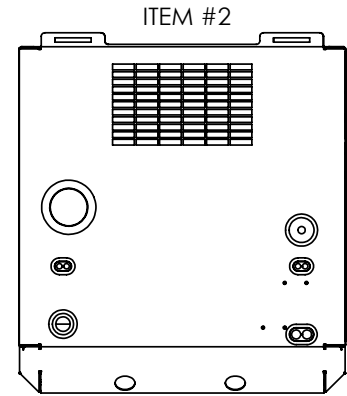
ALL LATCHES ARE PRE-ADJUSTED FROM FACTORY. IN THE EVENT A LATCH REQUIRES ADJUSTMENT, FOLLOW THESE STEPS:

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.

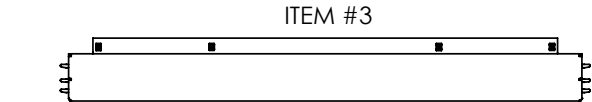
PACKING LIST



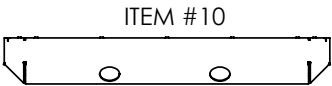
☐ JUNCTION BOX COVER ASSY
06-78110 QTY: 1



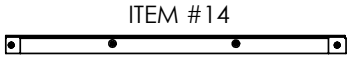
☐ REAR PANEL ASSEMBLY
06-73102 + 06-73108 QTY: 1



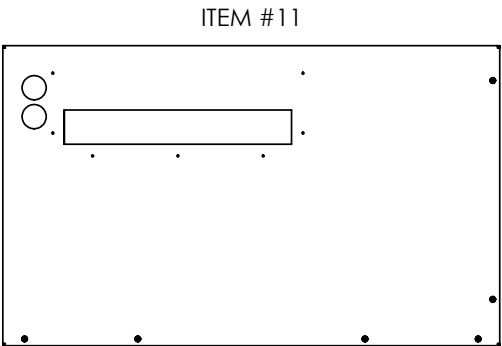
☐ LOWER SIDE VALENCE ASSEMBLY 06-73104 QTY: 2



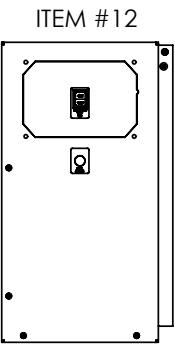
☐ FRONT BOTTOM VALENCE ASSY 06-73108 QTY: 1



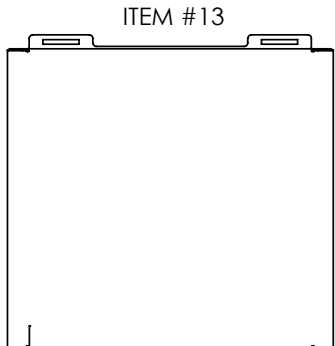
☐ SEAL BAR ASSEMBLY 06-73110 QTY: 1



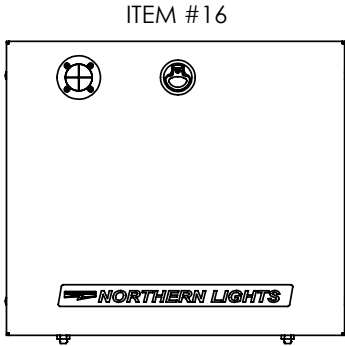
☐ NON-SERVICE SIDE ASSY 06-73107 QTY: 1



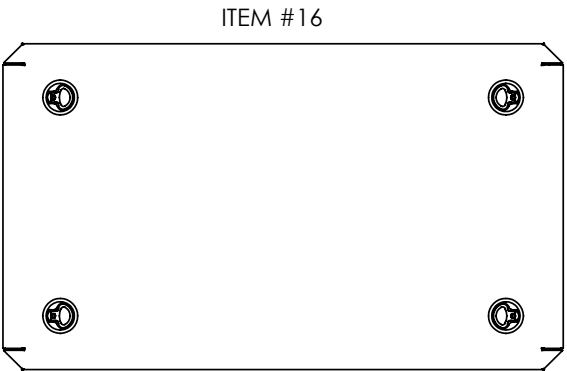
☐ SERVICE SIDE PANEL AFT
06-73106 QTY: 1



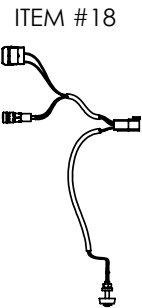
☐ FRONT PANEL ASSEMBLY
06-73101 QTY: 1



☐ SERVICE SIDE PANEL ASSEMBLY
06-73105 QTY: 1



☐ TOP PANEL ASSEMBLY 06-73103 QTY: 1



☐ KIT, WIRE HARNESS
ADDITION, 22-72026
QTY:1

CONTENTS OF ACCESSORY BAG:

☐ ITEM #5



M8 CAPSCREW
12-00776 QTY: 4

☐ ITEM #4



M8 LOCKWASHER
15-00705 QTY: 4

☐ ITEM #7



1/4" NPT CAP
21-72241 QTY: 2

☐ ITEM #8



SNORKEL SEAL
55-73174 QTY: 1

☐ ITEM #3

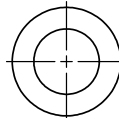


M8 FLAT WASHER
15-11000 QTY:4

☐ ITEM #6



1/4" NPT NIPPLE
21-00201 QTY: 2



☐ ITEM #17
GROMMET
00-70146 QTY: 2

Packed By : _____

Date : _____