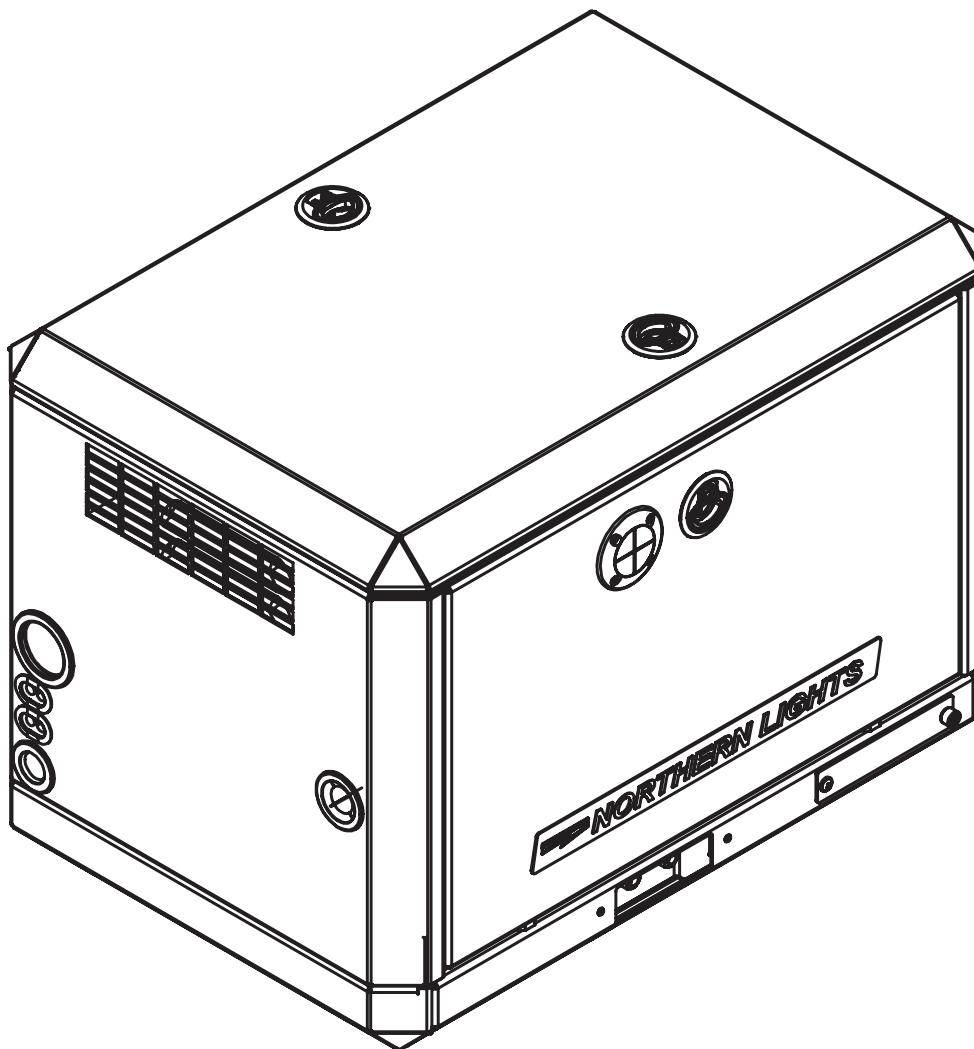




M673LD3 / M673L3

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

M673L3/LD3 GEM SERIES SOUND ENCLOSURE

| ITEM | DESCRIPTION | NLI P/N | QTY | NOTES |
|------|------------------------------------------|----------|-----|-------|
| 1 | JUNCTION BOX BRIDGE COVER ASSEMBLY | 06-78029 | 1 | |
| 2 | REAR PANEL ASSEMBLY | 06-78003 | 1 | |
| 3 | 1/4-20 x 3/4" HEX HEAD CAPSCREW, S/S | 12-30111 | 3 | |
| 4 | 1/4" EXTERNAL STAR WASHER, S/S | 15-09103 | 3 | |
| 5 | REAR BOTTOM VALENCE ASSEMBLY | 06-78018 | 1 | |
| 6 | BOTTOM NON-SERVICE SIDE VALENCE ASSEMBLY | 06-78008 | 1 | |
| 7 | BOTTOM SERVICE SIDE VALENCE ASSEMBLY | 06-78030 | 1 | |
| 8 | NYLON BUMPER/RIVET | 11-467 | 12 | |
| 9 | FRONT BOTTOM VALENCE ASSEMBLY | 06-78015 | 1 | |
| 10 | NON-SERVICE SIDE PANEL ASSEMBLY | 06-78012 | 1 | |
| 11 | FRONT PANEL ASSEMBLY | 06-78002 | 1 | |
| 12 | SEAL BAR ASSEMBLY | 06-78020 | 1 | |
| 13 | TOP PANEL ASSEMBLY | 06-78006 | 1 | |
| 14 | SERVICE SIDE PANEL ASSEMBLY | 06-78010 | 1 | |
| 15 | GROMMET 1-1/8" ID x 1-7/8" OD | 00-70083 | 2 | |
| 16 | M8 x 12 18-8, S/S BUTTON HEAD SCREW | 12-70013 | 2 | |
| 17 | M8 x 20 18-8, S/S HEX HEAD CAPSCREW | 12-00776 | 2 | |
| 18 | M8 FLATWASHER, S/S | 15-11000 | 2 | |
| 19 | M8 LOCKWASHER, S/S | 15-00705 | 2 | |

Specifications:

Enclosure (Installed on Generator Base):

Length (OA).....28.5 in (724 mm)

Width.....19.6 in (498 mm)

Height.....21.0 in (533 mm)

Assembled Weight:

34 lbs (15.4 kG) shield only

405 lbs (184 kG) with generator set

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 will need to be loosened and rotated down, until they are below the highest point on the engine. Be sure to retighten those bolts before moving on.

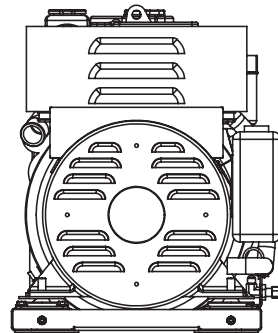
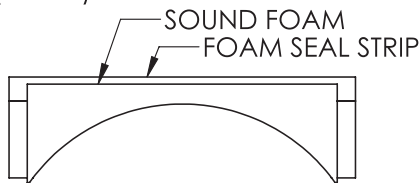
Select a mounting location in accordance with the guidelines in the IM1000 Installation Manual (supplied with the generator set). The generator set must typically be mounted on a rigid, flat surface above a strong structure, such as the vessel's stringers, to minimize vibration transference to the hull.

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.

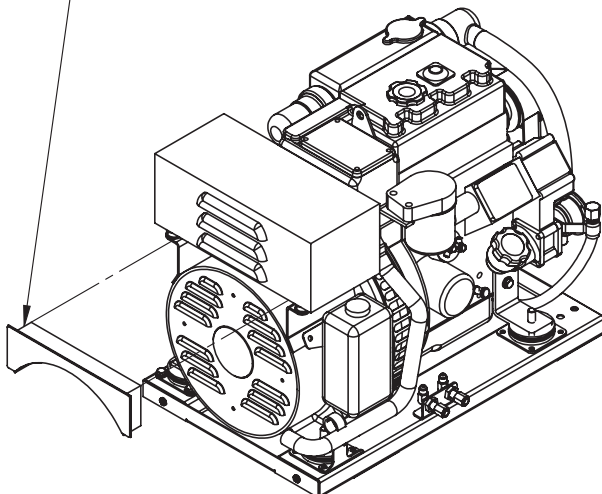
A

JUNCTION BOX BRIDGE COVER
(item 1)

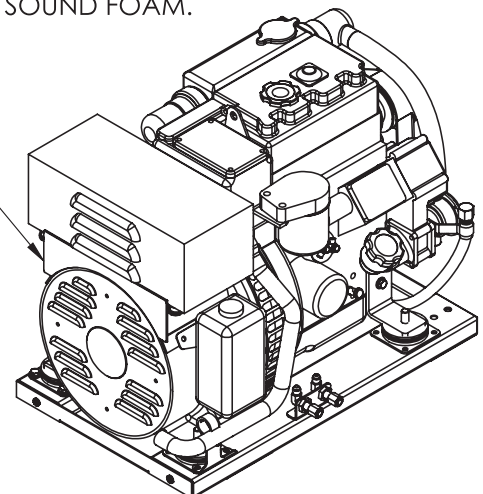


①

SOUND FOAM TO FIT SNUGLY IN
BETWEEN JUNCTION BOX BRACKETS
AND UNDER JUNCTION BOX.

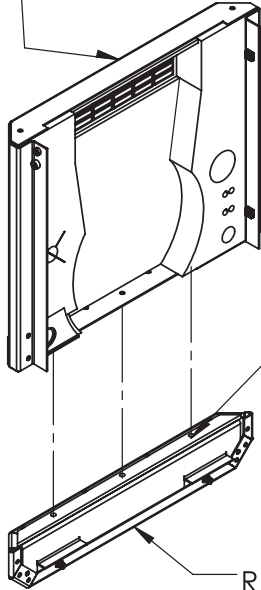


INSTALL BRIDGE COVER SO
IT IS PRESSED FIRMLY AGAINST
JUNCTION BOX AND HELD IN
PLACE BY SOUND FOAM.



REAR PANEL
(item 2)

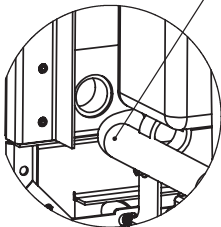
B



②

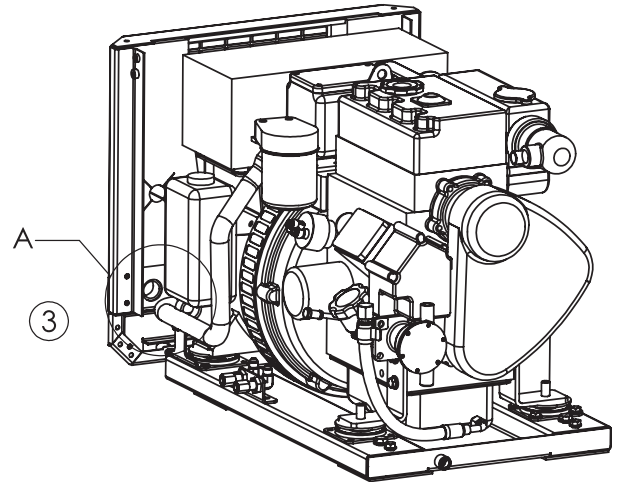
MOUNT REAR PANEL TO
REAR LOWER VALENCE
WITH 1/4-20" HEX HEAD
CAP SCREW (item 3) QTY: 3
1/4" EXTERNAL STAR WASHER
(item 4) QTY: 3

REAR LOWER VALENCE
(item 5)

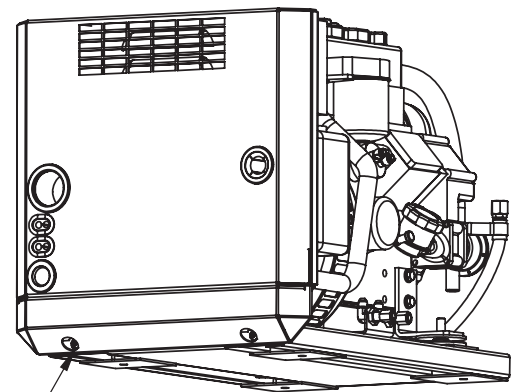


DETAIL A

VERIFY THAT SNORKLE HOSE
ALIGNS WITH SNORKLE PORT.
FEED HOSE UNTIL THE BEND IS
THROUGH THE SNORKLE PORT.



③



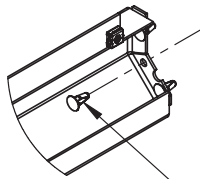
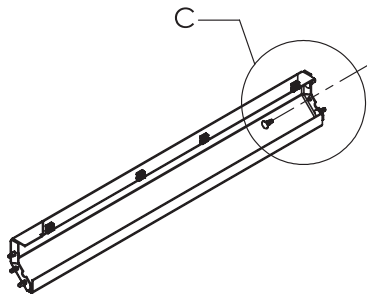
④

WITH REAR PANEL IN PLACE, MOUNT
REAR LOWER VALENCE TO BASE FRAME
WITH M8 x 12 (item 6). QTY: 2, TIGHTEN
WITH HAND TOOLS ONLY. USE 5mm HEX
WRENCH.

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.)

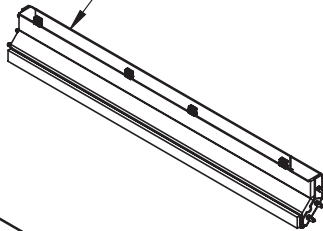
When making the intake air snorkel hose connection, It is important to ensure that the hose is not kinked or bent in such a way to restrict the engine's intake air flow. This arrangement is designed to allow the hose to follow it's natural path when properly installed into the rear panel. Some adjustment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

C

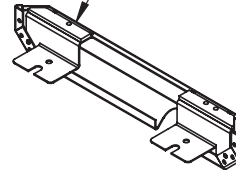


DETAIL C
NYLON RIVET

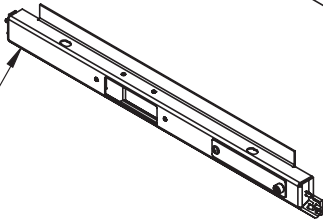
BOTTOM NON-SERVICE
SIDE VALENCE
(item 6)



FRONT LOWER VALENCE
(item 9)



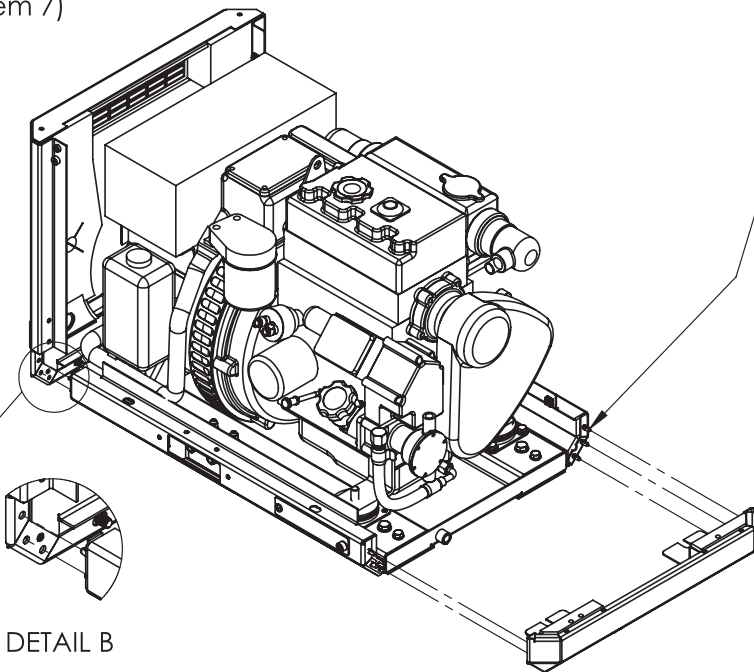
BOTTOM SERVICE
SIDE VALENCE
(item 7)



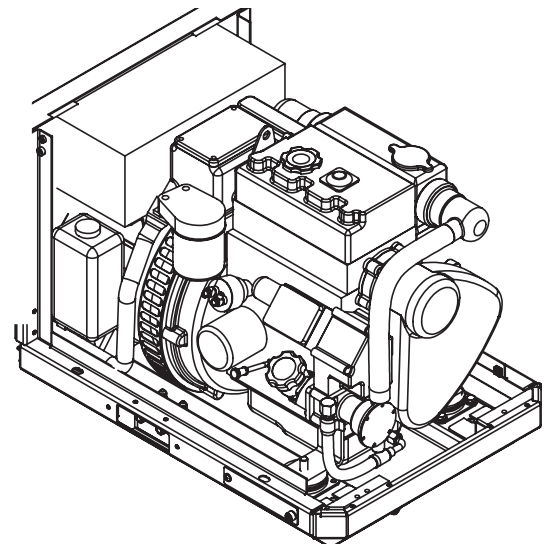
ALIGN PINS IN BOTH LOWER SIDE VALENCES (ITEMS #6 & 7) TO CORRESPONDING HOLES IN FRONT LOWER VALENCE (ITEM #9) AND PUSH TOGETHER. SECURE WITH M8 CAPSCREW, LOCKWASHER AND FLATWASHER (ITEMS #17, 18 & 19) TO THE TOP OF THE BASE FRAME. IF NYLON RIVETS DISPLACE, USE A LONG SCREWDRIVER WITH WIDE FLAT BLADE AGAINST RIVET HEAD AND PUSH BACK INTO POSITION.

5

B

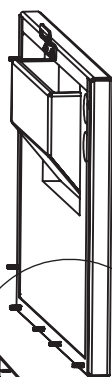
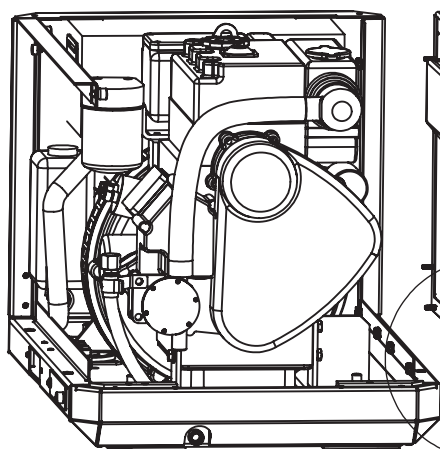
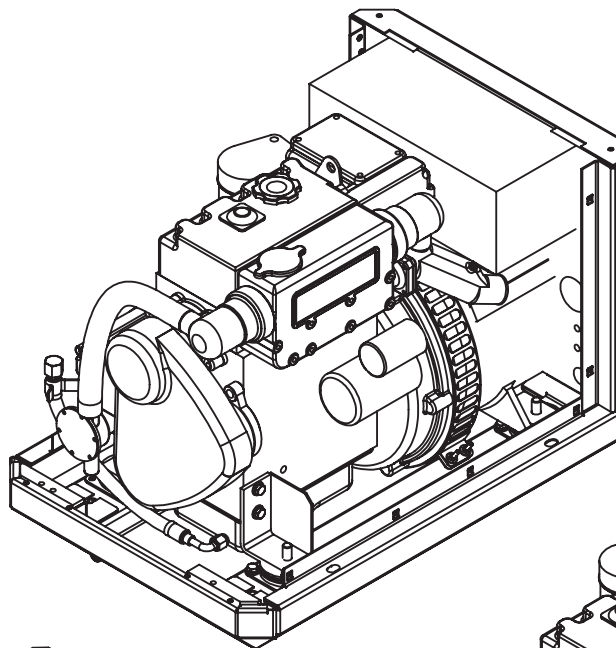
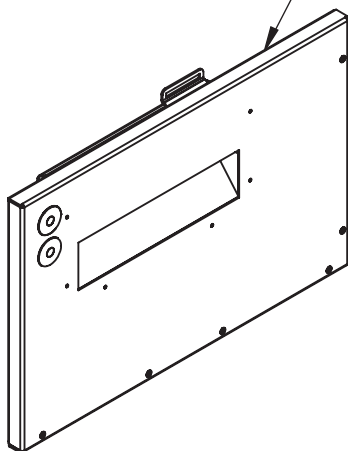


DETAIL B

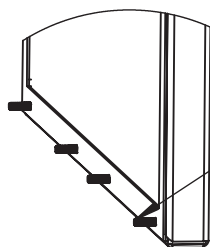
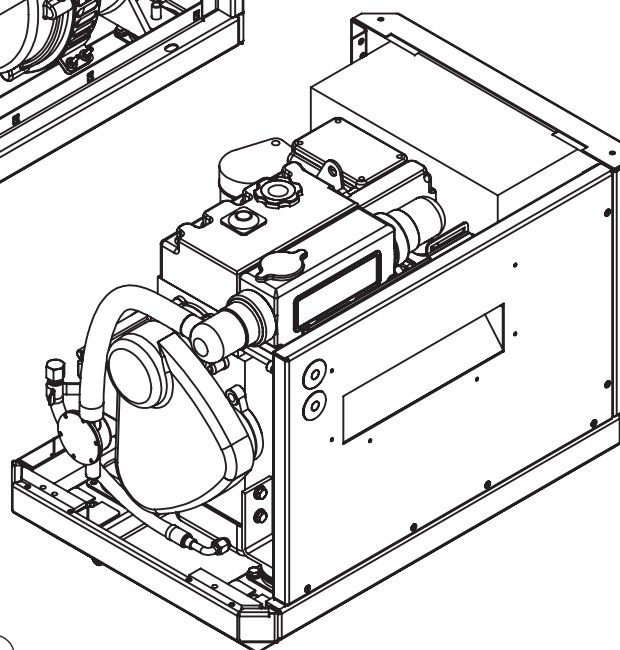


D

NON-SERVICE SIDE PANEL
(item 10)



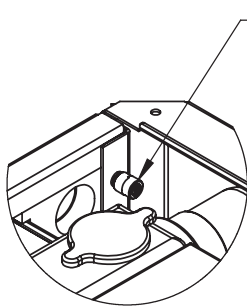
7



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 SCALE 1 : 5

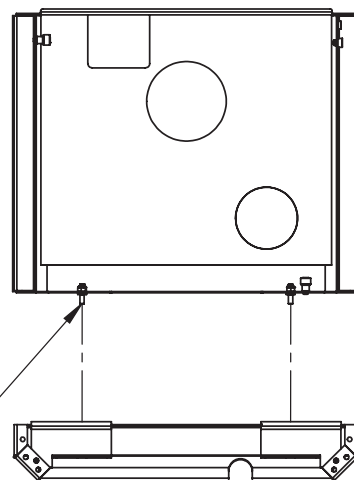
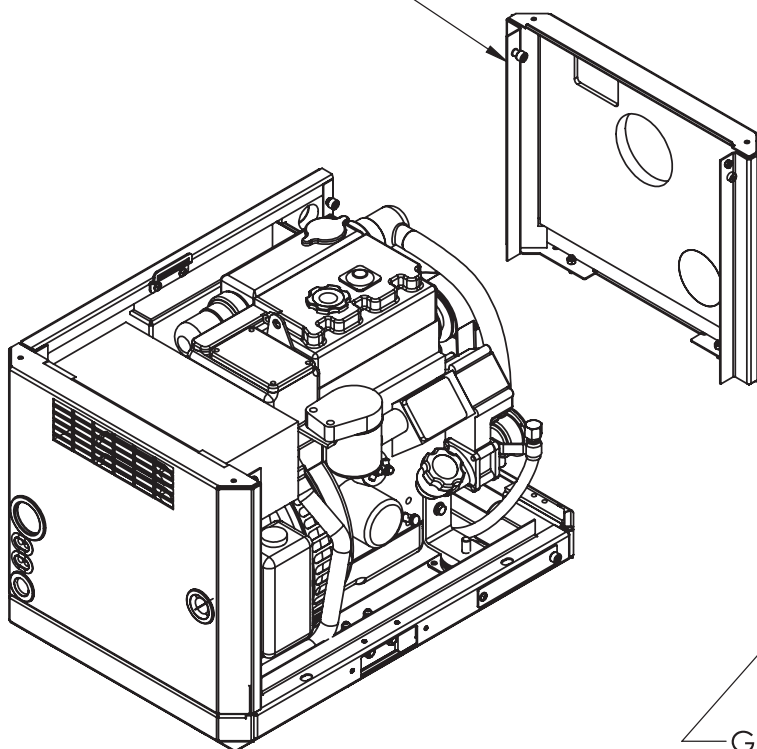
E



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

DETAIL E

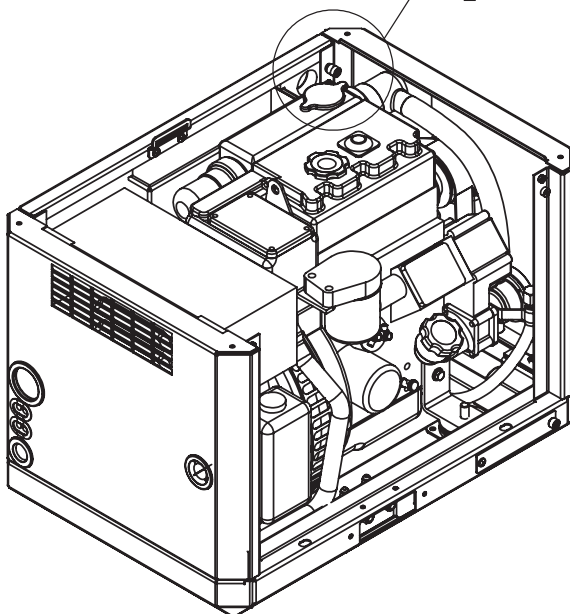
FRONT PANEL
(item 11)



GUIDE LOCATING PINS ON FRONT PANEL INTO MTG HOLES IN FRONT LOWER VALENTINE

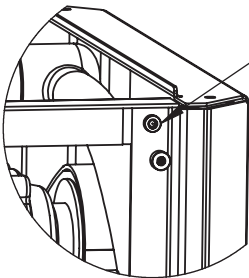
8

E



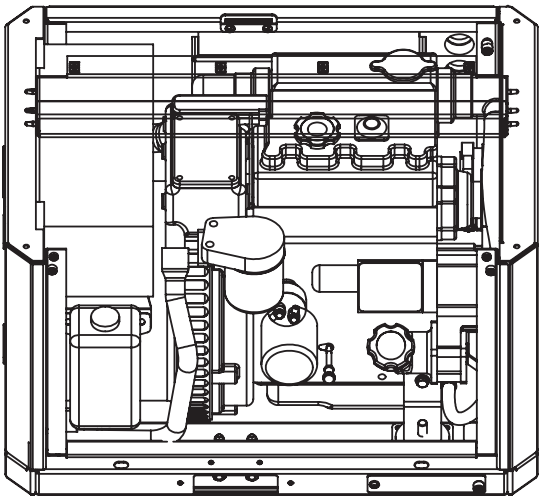
F

SEAL BAR
(item 12)

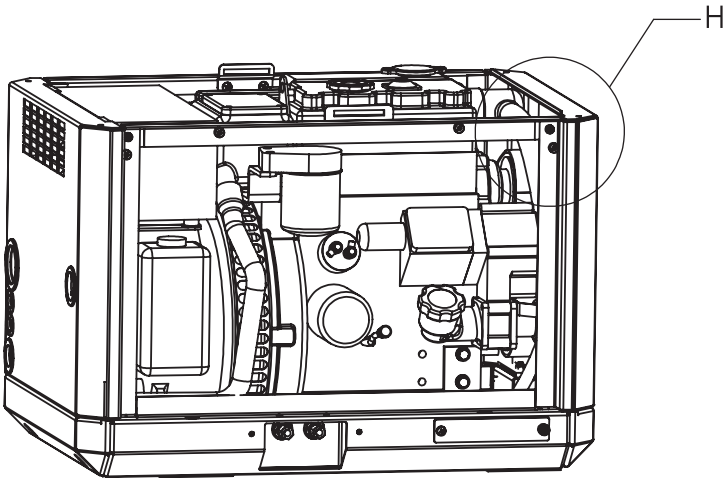
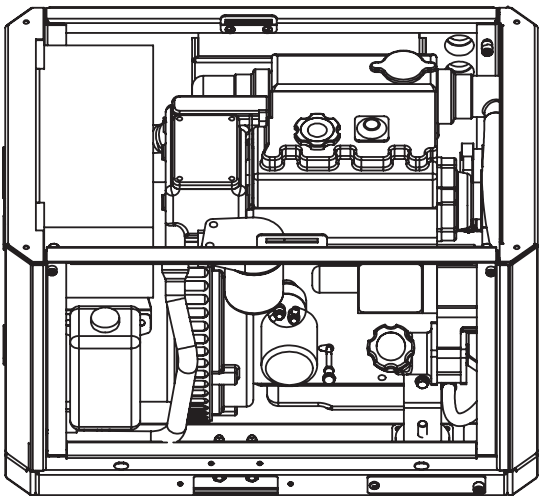


-ALIGN SEAL BAR SO THAT CAPTIVE
THUMB SCREWS ENGAGE WITH
PRESS NUTS LOCATED IN FRONT
AND REAR PANELS
-HAND TIGHTEN ONLY

9

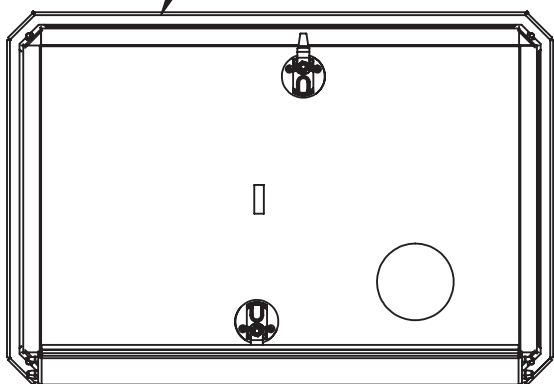


DETAIL H SCALE 1 : 5

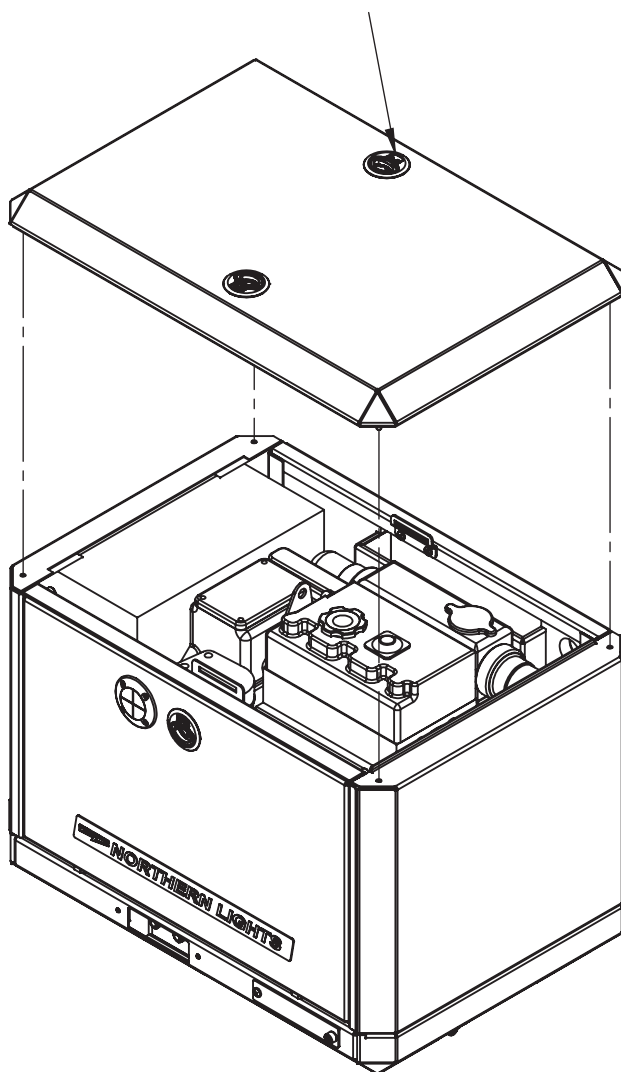


G

TOP PANEL
(item 13)



OPEN LATCHES AND TURN LEVER 90°
BEFORE MOUNTING TO SOUND SHIELD ⑩

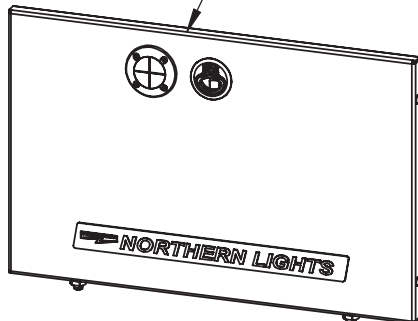


⑪

- LOWER TOP PANEL ONTO SOUND SHIELD.
- ENSURE THAT ALL FOUR (4) LOCATING PINS ENGAGE WITH MATING HOLES.
- TURN LEVERS BACK TO THEIR STARTING POSITION.
- MAKE SURE THERE IS A TIGHT SEAL BETWEEN TOP PANEL AND ENCLOSURE AND TWIST LATCH TO CLOSE.

H

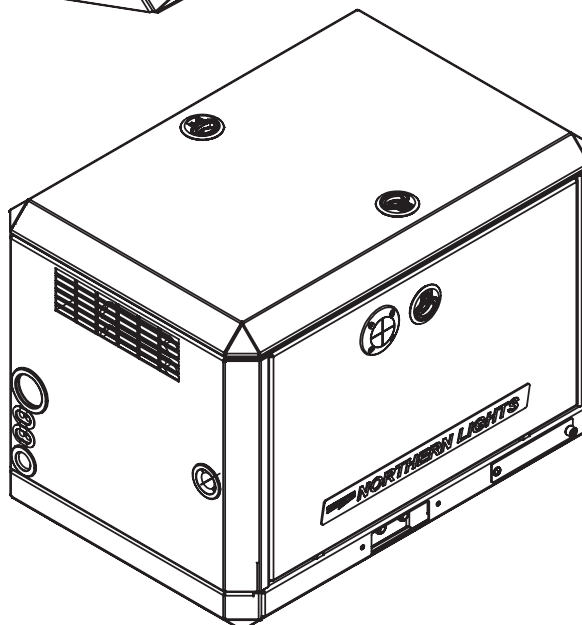
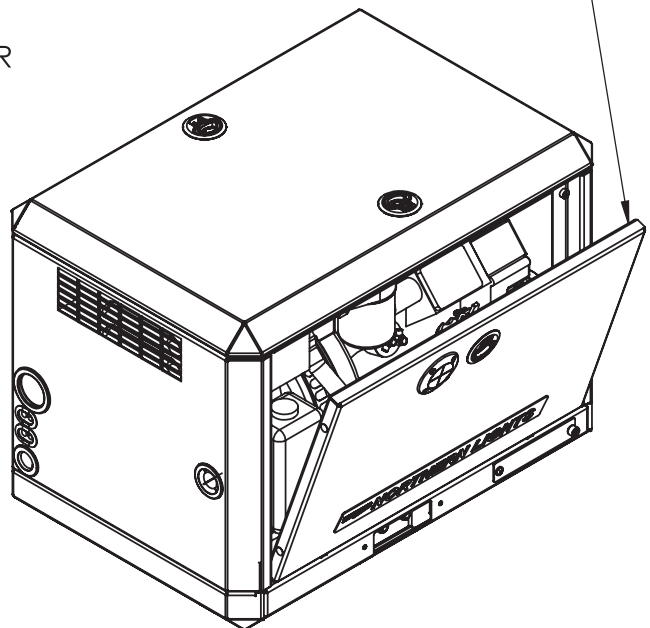
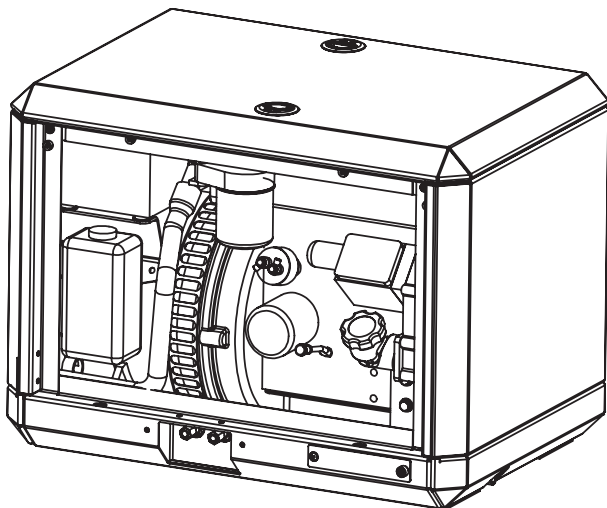
SERVICE SIDE PANEL
(item 14)



NYLON RETAINER

12

- 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.



I

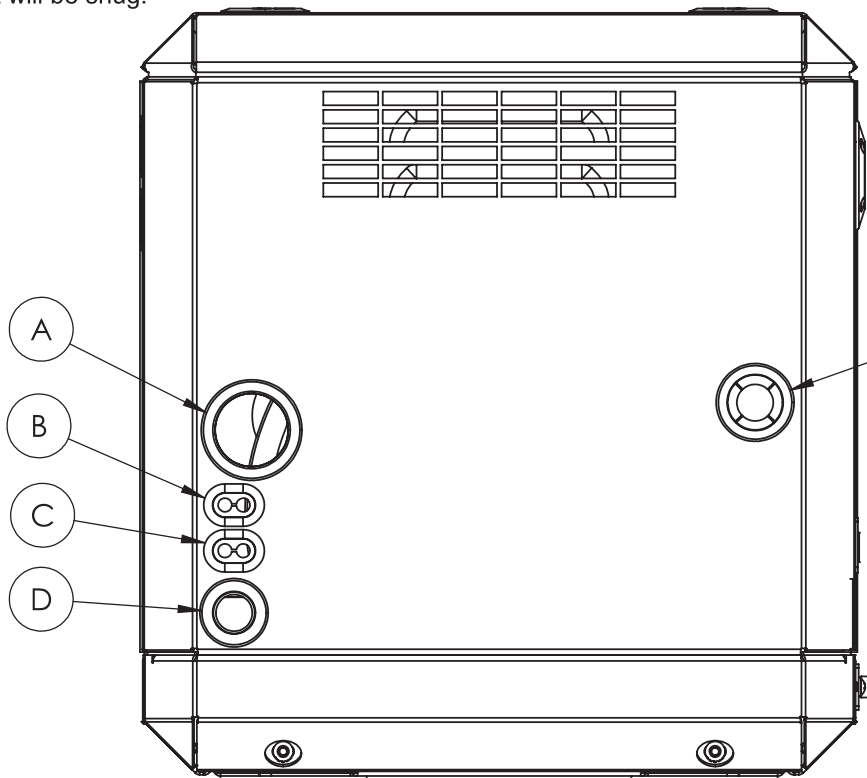
Install connections for exhaust, AC power leads, DC Control panel leads, battery and water through holes in the rear panel as shown and as described below:

- Connect the genset 1-1/2" exhaust outlet to the exhaust system of the vessel.
- Connect the AC output leads from the generator to the vessel's power distribution panel. Pass the two leads through the second to top hole on the left side of the rear panel.
- 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.
- 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.
- 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.
- Connect the vessel's fuel lines using Coast Guard approved rubber fuel hoses to the fuel manifold located on the bottom service side of the sound shield. The forward fitting is 5/16" 37T JIC fuel suction, and the aft fitting is 5/16" 37T JIC fuel return.

Note: This unit features new, non-displaceable penetration grommeting for the AC, DC, and battery cables. Fit will be snug.



F



IF YOU HAVE CHOSEN TO INSTALL A SIPHON BREAK:

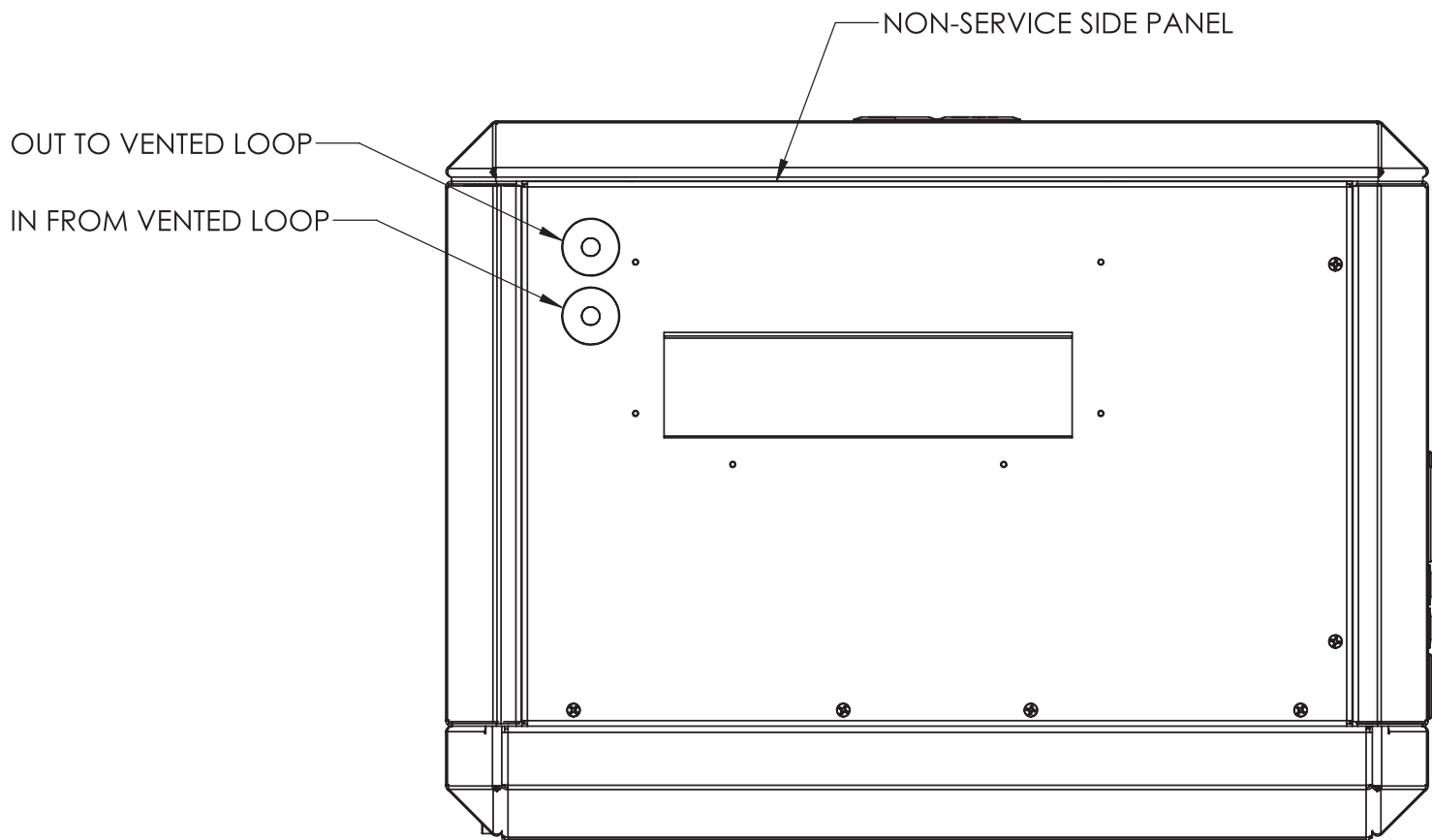
Note the pre-installed penetration point in the upper left corner of the non-service side panel. Reference the plumbing diagram in the mounting and exhaust sections of the IM1000 installation manual.

Remove the white plastic hole plugs by pushing them out from the inside and replace with the two rubber grommets (item15) 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.

- a. 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.
- b. 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.
- c. For more information, see the "Exhaust" section of the IM1000 Installation Manual included with the generator set.

Start the generator set and run under load to check for leaks of fuel, water, or exhaust gas.



M673L3/LD3 GEM SERIES SOUND ENCLOSURE PACKING LIST

SOUND SHIELD PANELS:

| | | | | | |
|----|------------------------------------------|----------|---|-----------|--------------------------|
| 1 | JUNCTION BOX BRIDGE COVER ASSEMBLY | 06-78029 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 11 | FRONT PANEL ASSEMBLY | 06-78002 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 9 | FRONT BOTTOM VALENCE ASSEMBLY | 06-78015 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 6 | BOTTOM NON-SERVICE SIDE VALENCE ASSEMBLY | 06-78008 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 10 | NON-SERVICE SIDE PANEL ASSEMBLY | 06-78012 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 2 | REAR PANEL ASSEMBLY | 06-78003 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 5 | REAR BOTTOM VALENCE ASSEMBLY | 06-78018 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 12 | SEAL BAR ASSEMBLY | 06-78020 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 13 | TOP PANEL ASSEMBLY | 06-78006 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 14 | SERVICE SIDE PANEL ASSEMBLY | 06-78010 | 1 | ASSEMBLED | <input type="checkbox"/> |
| 7 | BOTTOM SERVICE SIDE VALENCE ASSEMBLY | 06-78030 | 1 | ASSEMBLED | <input type="checkbox"/> |

HARDWARE BOX

(CONSISTS OF THE FOLLOWING PARTS)

| | | | | | |
|----|--------------------------------------|----------|----|-------|--------------------------|
| 3 | 1/4-20 x 3/4" HEX HEAD CAPSCREW, S/S | 12-30111 | 3 | LOOSE | <input type="checkbox"/> |
| 4 | 1/4" EXTERNAL STAR WASHER, S/S | 15-09103 | 3 | LOOSE | <input type="checkbox"/> |
| 8 | NYLON BUMPER/RIVET | 11-467 | 12 | LOOSE | <input type="checkbox"/> |
| 15 | GROMMET 1-1/8" ID x 1-7/8" OD | 00-70083 | 2 | LOOSE | <input type="checkbox"/> |
| 16 | M8 x 12 18-8 S/S BUTTON HEAD SCREW | 12-70013 | 2 | LOOSE | <input type="checkbox"/> |
| 17 | M8 x 20 18-8, S/S HEX HEAD CAPSCREW | 12-00776 | 2 | LOOSE | <input type="checkbox"/> |
| 18 | M8 FLATWASHER, S/S | 15-11000 | 2 | LOOSE | <input type="checkbox"/> |
| 19 | M8 LOCKWASHER, S/S | 15-00705 | 2 | LOOSE | <input type="checkbox"/> |

Packed By: _____ **Date:** _____