1.0 INSTALLATION OF THIS REFRIGERATION UNIT MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.

2.0 SAFETY:
2.1 PERSONAL PROTECTIVE EQUIPMENT (PPE): BEFORE INSTALLING THIS REFRIGERATION UNIT, ALWAYS USE APPROPRIATE TOOLS THAT ARE IN GOOD WORKING CONDITION AND WEAR PERSONAL PROTECTIVE EQUIPMENT CONCLUDING BUT NOT LIMITED TO THE ITEMS SHOWN BELOW.

2.2 RISKS: BE AWARE OF YOUR ENVIRONMENT AND SURROUNDINGS. FOLLOW ALL LOCK-OUT / TAG-OUT PROCEDURES ON ALL EQUIPMENT INVOLVED. CENTER OF GRAVITY AND UNIT WEIGHTS ARE PROVIDED ON THE FOLLOWING PAGES.

3.0 BATTERY: IN ORDER TO AVOID POTENTIAL ELECTRICAL CHARGING SYSTEM PROBLEMS, IT IS CARRIER TRANSICOLD'S RECOMMENDATION THAT EACH SUPRA TRUCK REFRIGERATION UNIT BE INSTALLED WITH ITS OWN INDIVIDUAL BATTERY AND IF NECESSARY, WITH ITS OWN BATTERY BOX. THE REFRIGERATION UNIT'S ELECTRICAL SHOULD REMAIN SEPARATE FROM THE TRUCK'S ELECTRICAL SYSTEM, AND BATTERIES BATTERY BOX ASSEMBLIES ARE AVAILABLE THROUGH THE PURCHASED PARTS GROUP (PPG).

3.2 THESE UNITS ARE DESIGNED FOR 12 VOLT DC BATTERIES, NEGATIVE GROUND ONLY. RECOMMENDED BATTERY TO BE A GROUP 31 BATTERY AS FOLLOWS:
A. VENT LOCATION: SIDE VENT.
B. AMPERAGE RATING: MINIMUM 700 COLD CRANKING AMPS @ 0°F [-18°C] & MINIMUM 545 COLD CRANKING AMPS @ -20°F [-29°C]

3.3 BEFORE PERFORMING ANY WELDING ON THE CHASSIS, DISCONNECT THE BATTERY CABLE FROM THE UNIT AND THE VEHICLE AS WELL. DISCONNECT ALL OTHER ELECTRICAL CONNECTIONS SUCH AS THE ELECTRONIC SYSTEM (MICROPROCESSOR).

INSTALLATION:
4.0 THE TRUCK BODY STRUCTURE MUST BE EVALUATED BY THE BODY MANUFACTURER TO DETERMINE ITS ABILITY TO WITHSTAND THE IMPOSED LOADS OVER ITS SERVICE LIFE. THESE GUIDELINES DO NOT CONVEY ENDORSEMENT OR WARRANTY BY CARRIER TRANSICOLD FOR THE STRUCTURAL INTEGRITY OF THE TRUCK BODY.

5.0 ROUTE ALL FUEL LINES AND ELECTRICAL CABLE / HARNESS IN THE FOLLOWING MANNERS:
- LOW VOLTAGE HARNESS MAY BE PASSED THROUGH METAL OR PLASTIC CONDUIT OR IN SUCH A MANNER AS TO PROTECT WIRING FROM DAMAGE.
- THRU FREE SPACE CLAMPED IN SUCH A MANNER AS TO PREVENT PHYSICAL DAMAGE.
- AVOID ALL SHARP EDGES THAT COULD CAUSE DAMAGE TO WIRING.
- LOW VOLTAGE HARNESS SHOULD BE PROTECTED FROM DAMAGING MECHANICAL MOVEMENT AND DAMAGE.

WARNING
READ ALL INSTRUCTIONS PRIOR TO INSTALLATION

SEE SEPARATE PARTS LIST
SEE "TRUCK BODY PREPARATION" VIEW AS FOLLOWS:

FOR SUPRA 5 SERIES, SEE SHT. 3
FOR SUPRA 6 OR 7 SERIES, SEE SHT. 4
FOR SUPRA 8 SERIES, SEE SHT. 5
FOR SUPRA 9 SERIES, SEE SHT. 6

NOTE: AREA OF MAIN GASKET SEAL SHOULD BE SMOOTH, FLAT AND IN SINGLE MOUNTING PLANE TO ALLOW PROPER INSTALLATION

UNIT TO BE POSITIONED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CARGO SPACE. SEE SHEET 8

A1 PRELIMINARY RELEASE. 10 SEPT 15 MGC 71N0232P15
A INITIAL RELEASE 25 SEPT 15 MGC 71N0232P15

IMPERIAL INCH FORMAT:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES WITH METRIC CONVERSIONS IN [MILLIMETERS]

98-03352 INSTALLATION INSTRUCTION
SUPERSEDES:                        PART CLASSIFICATION: US            EAR99
DRAWING CLASSIFICATION: US EAR99

TRUCK BODY PREPARATION
FOR SUPRA 5 SERIES, SEE SHT. 3
FOR SUPRA 6 OR 7 SERIES, SEE SHT. 4
FOR SUPRA 8 SERIES, SEE SHT. 5
FOR SUPRA 9 SERIES, SEE SHT. 6

UNIT TO BE POSITIONED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CARGO SPACE. SEE SHEET 8

TRUCK BODY PREPARATION

SEE "TRUCK BODY PREPARATION" VIEW AS FOLLOWS:

FOR SUPRA 5 SERIES, SEE SHT. 3
FOR SUPRA 6 OR 7 SERIES, SEE SHT. 4
FOR SUPRA 8 SERIES, SEE SHT. 5
FOR SUPRA 9 SERIES, SEE SHT. 6

NOTE: AREA OF MAIN GASKET SEAL SHOULD BE SMOOTH, FLAT AND IN SINGLE MOUNTING PLANE TO ALLOW PROPER INSTALLATION

UNIT TO BE POSITIONED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CARGO SPACE. SEE SHEET 8
### UNIT DIMENSIONAL DATA - 5 SERIES

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<td>(TDB)</td>
<td>837 lbs [380 Kg]</td>
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<tr>
<td>SUPRA 5 SERIES w/ STANDBY</td>
<td>(TDS)</td>
<td>875 lbs [397 Kg]</td>
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</table>

- **NOTES:**
  1.0 All dimensions shown are inches. With metric conversions in [millimeters].
  2.0 A= Exhaust Pipe

### Installation Instruction

- View A-A (Rear View of Unit)
- Top of Evaporator is higher than the unit mounting holes.

### Truck Body Preparation

(Front/Outside) View of Truck Body from Sht. 2

**NOTES:**
- 1.0 All dimensions shown are inches, with metric conversions in [millimeters].
- 2.0 A= Exhaust Pipe

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**CG**

- CG CG ASEE

**NOTE 2.0**

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**A1 PRELIMINARY RELEASE. 10 SEPT 15 MGC 71N0232P15**

**A REV'D INITIAL RELEASE; UPDATED UNIT WEIGHTS 25 SEPT 15 MGC 71N0232P15**

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**MODEL DESCRIPTION WEIGHT**

- **SUPRA 5 SERIES**
  - w/o STANDBY (TDB) 837 lbs [380 Kg]
  - w/ STANDBY (TDS) 875 lbs [397 Kg]

---

**UNIT DIMENSIONAL DATA - 5 SERIES**

**WEIGHT INCLUDES WATER, OIL, REFRIGERANT, ETC.**

---

**TRUCK BODY PREPARATION**

(Front/Outside) View of Truck Body from Sht. 2

**NOTES:**
- 1.0 All dimensions shown are inches. With metric conversions in [millimeters].
- 2.0 A= Exhaust Pipe

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**MODEL DESCRIPTION WEIGHT**

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**UNIT DIMENSIONAL DATA - 5 SERIES**

**WEIGHT INCLUDES WATER, OIL, REFRIGERANT, ETC.**

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**TRUCK BODY PREPARATION**

(Front/Outside) View of Truck Body from Sht. 2

**NOTES:**
- 1.0 All dimensions shown are inches. With metric conversions in [millimeters].
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**UNIT DIMENSIONAL DATA - 5 SERIES**

**WEIGHT INCLUDES WATER, OIL, REFRIGERANT, ETC.**

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**TRUCK BODY PREPARATION**

(Front/Outside) View of Truck Body from Sht. 2

**NOTES:**
- 1.0 All dimensions shown are inches. With metric conversions in [millimeters].
- 2.0 A= Exhaust Pipe
UNIT LIFTING HOLE / SLOT SIZES AND BODY PREPARATION

1.0 Working from the inside of the truck body, apply sealant around each mounting hole. Install the 4 TEE bolts (ITEM 45) into 4 mounting holes using self-tapping screws (ITEM 26) to secure the TEE bolts. Make certain all of the above items are secured to the internal structural members of the body.

2.0 Working from the outside of the truck body, apply sealant around each TEE bolt. Make certain the threads of each TEE bolt (ITEM 45) are clean and free of sealant. Failure to keep threads clean will affect unit mounting torque values.

3.0 Adjust (cut) each TEE bolt (ITEM 45) to 1.75 inches from outer wall of the truck body.

UNIT INSTALLATION INSTRUCTION

1.0 Work from the inside of the truck body, apply sealant around each mounting hole. Install the 4 TEE bolts (ITEM 45) into 4 mounting holes using self-tapping screws (ITEM 26) to secure the TEE bolts. Make certain all of the above items are secured to the internal structural members of the body.

2.0 Work from the outside of the truck body, apply sealant around each TEE bolt. Make certain the threads of each TEE bolt (ITEM 45) are clean and free of sealant. Failure to keep threads clean will affect unit mounting torque values.

3.0 Adjust (cut) each TEE bolt (ITEM 45) to 1.75 inches from outer wall of the truck body.

USE THE LIFTING SLOTS LOCATED TOWARDS THE REAR OF UNIT FOR SUPRA 960 MODELS

DO NOT USE LIFTING SLOTS LOCATED TOWARDS FRONT OF UNIT. ONLY USE FOR LIFTING A 950 MULTI-TEMP UNIT.

WHEN REMOVING UNIT FROM PALLET, LIFT UNIT FROM UNDERNEATH. DO NOT

6, 7, 8 & 9 SERIES

5 SERIES

6, 7 & 8 SERIES

9 SERIES

5 SERIES

6, 7, 8 & 9 SERIES

APPLY SEALANT SEE 1.0

APPLY SEALANT SEE 2.0

INSIDE TRUCK BODY

OUTSIDE TRUCK BODY

4.0 Prepare the unit for installation:

4.1 To avoid damage to the unit doors, and to gain better access for mounting the unit, remove the doors as shown.

4.2 Secure_opposite side slots to the unit using the lifting holes / slots shown. Make certain the appropriate hole or slot is being used for each of the different unit models.

5 SERIES

6, 7, 8 & 9 SERIES

4.0 Prepare the unit for installation:

4.1 To avoid damage to the unit doors, and to gain better access for mounting the unit, remove the doors as shown.

4.2 Secure_opposite side slots to the unit using the lifting holes / slots shown. Make certain the appropriate hole or slot is being used for each of the different unit models.
1. **INSTALL UNIT**

   - For fuel line routing, see sheets 14 & 15.

2. **INSTALL UNIT MOUNTING HARDWARE**

   - Torque to 60 FT-LBS [81 Nm]

3. **INSTALL MUFFLER PIPE EXTENSION**

   - Do not allow the exhaust pipe to touch the truck body.

---

**BODY PREPARATION AND UNIT INSTALLATION**

---

**INSTALLATION INSTRUCTIONS**

- No. 323002
- Date 9/15/2017
- Rev 9/15/2017
- Sheet 8 of Imperial Inch Format:

  - Dimensions are in inches with metric conversions in millimeters.

---

**SUPERSEDES:**

- **PART CLASSIFICATION:** US
- **EAR99**

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**DRAWING CLASSIFICATION:**

- US EAR99

---

**FOR FUEL LINE ROUTING SEE SHEETS 14 & 15.**

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**FOR CAB BODY MOVEMENT AND TILT CAB SWING RADIUS CLEARANCE 50 2065.**

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**C MOV'D CAB COMMAND INFO. TO SHT.8A (NEW SHT.); RE-ARRANGED VIEWS 3 FEB 2017 MGC 71N0206P17**

---

**DO NOT ALLOW THE EXHAUST PIPE TO TOUCH THE TRUCK BODY.**

NOTE: THE CAB COMMAND IS NOT WATERPROOF, AND SHOULD BE IN A MOISTURE FREE ENVIRONMENT.

2.0 ROUTE THE GREY CAB COMMAND CABLE FROM THE CONTROL BOX TO THE INSIDE OF THE CAB.

3.0 ANGLED ROUTING THE CONNECTION INTO THE TRUCK BODY MAKE CERTAIN NOT TO DAMAGE THE CONNECTOR OR CABLE. MOST TRUCKS WILL ALREADY HAVE A PASS-THRU LOCATION WITH A GROMMET THAT THE CABLE CAN BE FITTED THROUGH. REFERENCES 5.0 ON SHEET 1 FOR CABLE ROUTING.

4.0 REMOVE THE FRONT COVER OF THE CAB COMMAND BY PULLING OUTWARD ON THE TWO LOWER TABS. ROTATE THE COVER UP TO REMOVE. RETAIN THE COVER FOR LATTER RE-ASSEMBLY.

5.0 INSERT ONE KEY IN SLOTS LOCATED ON EACH SIDE OF THE ASSEMBLY TO UNLOCK THE CAB COMMAND MODULE FROM THE "DIN" MOUNTING BRACKET.

6.0 USE EVEN PRESSURE TO REMOVE MODULE FROM THE BRACKET.

7.0 THIS STEP IS ONLY REQUIRED FOR MOUNTING THE MODULE IN A "DIN" LOCATION. IF USING INSTALLATION BRACKET, STEP 5 IS ON SHEET 11. MAKE SURE THE LOCKING TABS ON BOTH SIDES OF THE "DIN" MOUNTING BRACKET ARE BENT INWARD 10 TO 15 DEGREES.

---

**Diagram Notes:**
- Lower Tab Location
- Front Cover Sheet
- Locking Tab
"DIN" MOUNT

8.0 INSERT THE "DIN" MOUNTING BRACKET INTO THE DASH OPENING.

DO NOT BEND THIS TAB

9.0 MAKE SURE THE BRACKET IS FLUSH WITH THE DASH OPENING, AND SECURE THE BRACKET INTO PLACE BY BENDING AS MANY OF THE TABS AS POSSIBLE. DO NOT BEND THE CAB COMMAND LOCKING TABS ON THE RIGHT OR LEFT SIDE.

OPTIONAL MOUNTING

13.0 WHEN CHOOSING AN ALTERNATE MOUNTING LOCATION, MAKE SURE THE CABLE IS ROUTED IN A MANNER THAT PROTECTS THE CABLE FROM DAMAGE. MAKE CERTAIN THE CAB COMMAND WILL BE IN AN ACCESSIBLE LOCATION AND THE LOCATION DOES NOT ALLOW THE UNIT TO BE ACCIDENTALLY TURNED OFF.

14.0 INSTALL MOUNTING BRACKET "A" WITH SELF TAPPING SCREWS (ITEM 26) OR WITH SELF SUPPLIED LOOSE HARDWARE. MAKE CERTAIN THE HARDWARE WILL NOT CHIP, CUT THROUGH OR NICK ANY WIRING.

15.0 REMOVE THE "DIN" MOUNTING BRACKET FROM THE CAB COMMAND MODULE. REFER TO STEPS 4.0 THRU 6.0 ON SHEET 9.

16.0 ASSEMBLE MOUNTING BRACKET "B" TO THE BACK SIDE OF THE MODULE AS SHOWN. MAKE CERTAIN THE TWO CLIPS ON EACH END OF THE MODULE ARE ENGAGED INTO THE BRACKET.

17.0 PLUG THE CAB COMMAND CABLE INTO THE BACK OF THE MODULE, AND MAKE THE FINAL ASSEMBLY AS SHOWN. RE-INSTALL CAB COMMAND FACE PLATE. PLACE THE DECAL (ITEM 95) IN A LOCATION NEAR THE CAB COMMAND.

10.0 ROUTE THE CABLE UNDERNEATH THE DASH AND THROUGH THE "DIN" OPENING.

11.0 PLUG THE CAB COMMAND CABLE INTO THE BACK OF THE CAB COMMAND AND INSERT THE CAB COMMAND INTO THE "DIN" BRACKET. MAKE CERTAIN THE CAB COMMAND LOCKS INTO PLACE. STORE THE REMOVAL KEYS IN A SECURE LOCATION IN CASE FUTURE REMOVAL IS NECESSARY.

12.0 RE-INSTALL CAB COMMAND FACE PLATE. PLACE THE DECAL (ITEM 95) IN A LOCATION NEAR THE CAB COMMAND.
FUEL LINES, BATTERY & CURBSIDE DRAIN TUBE

1. Secure the drain tube with wire ties (item 66).

2. Install item 26, self-tapping screws into frame members of body. See note 1.0.

NOTE:
1.0 Self-tapping screws (item 26) must be installed into a structural frame member of the refrigeration body. If a structural member is not located underneath the outer truck skin, use supplied rivet (item 43).

2.0 If using rivets (item 43), locate the desired position of the clamp(s) and drill hole(s) using a 3/16" diameter drill bit.

- See sheets 14 & 15 for fuel line routings
- See sheet 17 for battery connections

EVAPORATOR DRAIN TUBE (IT. 66):
- Secure with a downward slope & secure drain tube as shown. Cut to length as required.

FOR CLAMP LOCATIONS THAT DO NOT FALL OVER A FRAME MEMBER OF THE BODY, REFER TO NOTES 1.0 AND 2.0.

NOTE:
1.0 Self-tapping screws (item 26) must be installed into a structural frame member of the refrigeration body. If a structural member is not located underneath the outer truck skin, use supplied rivet (item 43).

2.0 If using rivets (item 43), locate the desired position of the clamp(s) and drill hole(s) using a 3/16" diameter drill bit.
CAUTION

MAKE CERTAIN THERE WILL BE NO DAMAGE TO ITEMS SUCH AS HARNESSES, ETC. THAT MAY BE LOCATED INSIDE THE REFRIGERATION BODY WHILE INSTALLING THE MOUNTING SCREWS.

FOR ALTERNATE STANDBY PLUG MOUNTING (AS SHOWN), SEE SHEET 13.

POSITION CAR COMMAND CABLE AND STANDBY CABLE USING THE CLIP (ITEM 60). TIGHTEN TY-WRAP & TRIM EXCESS TY-WRAP.

FOR CLAMP LOCATIONS THAT DO NOT FALL OVER FRAME MEMBER OF THE BODY, REFER TO NOTES 1.0 AND 2.0.

STANDBY PLUG & ROADSIDE DRAIN TUBE

STANDBY PLUG - FRAME MOUNTED

INSTALLATION INSTRUCTION

NOTE:

1. SELF TAPPING SCREWS (ITEM 26) MUST BE INSTALLED INTO A STRUCTURAL FRAME MEMBER OF THE REFRIGERATION BODY. IF A STRUCTURAL MEMBER IS NOT LOCATED UNDERNEATH THE OUTER SKIN, USE SUPPLIED RIVET (ITEM 43).

2. IF USING RIVETS, LOCATE THE DESIRED POSITION OF THE CLAMP(S) AND DRILL HOLE(S) USING A 3/16" DIAMETER DRILL BIT.

3. FOR UNITS WITH STANDBY, TY-WRAPS (ITEM 62) MAY BE USED TO SECURE DRAIN HOSE AND CAB COMMAND CABLE TO THE STANDBY CABLE. SEE SHEET 9.


MAKE CERTAIN THERE WILL BE NO DAMAGE TO ITEMS SUCH AS HARNESSES, ETC.

TRUCK CHASSIS (REF)

TRUCK BODY (REF)

STANDBY PLUG & ROADSIDE DRAIN TUBE

APPROXIMATE STANDBY CABLE LENGTH

STANDBY PLUG - FRAME MOUNTED

INSTALLATION INSTRUCTION
INSTRUCTIONS FOR SHORTENING OF STANDBY CABLE IF REQUIRED.

For alternate standby plug mounting locations, where excessive amounts of cable exist, the following procedures should be followed if shortening of the cable is required. Follow all local and national wiring codes and ordinances.

1.0 Make certain the unit has no electrical power attached (AC or DC), and the unit is disabled. Apply lock out / tag out procedure.

2.0 Determine the desired mounting location of the standby plug box. Verify that the position will not interfere with the truck door opening, and the shore power can be connected to the plug once the unit is mounted. The position should be in a safe, accessible and secure location. Make certain at least two of the mounting screws used to secure the standby plug to the truck are assembled into a structural frame member of the refrigeration body.

3.0 Loosen the harness compression nut, and remove the 4 adapter plate screws (see diagram below).

4.0 Push the plug assembly (PSR) out of the housing and disconnect the four wires from the receptacle.

5.0 Cut the cable to the desired length. Prepare the wire ends for re-assembly (see "Detail of PSR"). Crimp the appropriately sized crimping onto each of the four wires. Take caution there are no loose or stray wire strands:
- When trimming the outer jacket, do not cut through into the wires
- When stripping each wire, do not cut through or nick individual strands of wire
- Do not use pre-insulated terminals

6.0 Reassemble the cable to the power receptacle by following the diagram shown in "Detail of PSR". Torque power receptacle wire connections to 35 in-lbs [1.1 Nm].

7.0 Reassemble the adapter plate to the standby box with 4 screws which were removed earlier. Torque plate mounting screws to 20 inch-lbs [2.3 Nm].

8.0 Hand tighten the harness compression nut then tighten an additional 1/4 turn using a wrench to ensure a liquid tight seal.

9.0 Mount the completed assembly in the desired location. Reference sheet 12.

---

**DETAIL OF PSR**

- **PSR "X"**
  - Black wire
- **PSR "Y"**
  - White wire
- **PSR "Z"**
  - Red wire
- **PSR "GRD"**
  - Green wire

**STANDBY MOUNTING PLATE**

- Torque each wire connection

**STANDBY POWER CORD SHORTENING & STANDBY RECEPTACLE PLATE DIMENSIONS**

- 230V
- 460V

---

**SUPERSEDES:**

**PART CLASSIFICATION:** US EAR99

**DRAWING CLASSIFICATION:** US EAR99

**INSTALLATION INSTRUCTION**

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**IMPERIAL INCH FORMAT:**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES WITH METRIC CONVERSIONS IN MILLIMETERS.
1. FUEL PICK-UP TUBE INSTALLATION
   A. DETERMINE THE DESIRED LOCATION FOR THE PICK-UP TUBES ON THE FUEL TANK. MAKE CERTAIN THAT THE LOCATION AHERES TO THE FOLLOWING:
      - LOCATION WILL ALLOW FOR THE FUEL LINE CONNECTIONS
      - LOCATION DOES NOT INTERFERE WITH ANY OTHER CONNECTION(S), APPARATUS, INTERNAL Baffle, FUEL LEVEL FLOAT OR OBSTRUCTION
   B. REFER TO THE HOLE PATTERN VIEW AND LAYOUT THE HOLES IN THE LOCATION DETERMINED FROM STEP A. THEN CENTER PUNCH THE THREE HOLE CENTERS.

   **CAUTION:** TAKE PRECAUTIONS TO MINIMIZE OR ELIMINATE METAL CHIPS AND SHavings FROM FALLING INTO THE FUEL TANK, SUCH AS USE OF A MAGNET AND/OR GREase.

   C. USING A 1/2" DRILL BIT, DRILL THE TWO OUTSIDE 1/2" HOLES FIRST.
   D. USING A 1-1/4" HOLE SAW, DRILL THE REMAINING HOLE IN THE CENTER.

   **HOLE PATTERN**

   **WARNING**: THE LARGE BACK-UP WASHER SO IT FALLS THROUGH THE SLOT FORMED BY THE TWO 1/2" HOLES.

   E. MEASURE THE DEPTH OF THE FUEL TANK. MODIFY THE LENGTH OF THE TUBES SO THEY ARE APPROXIMATELY 1.00" [25.4 mm] ABOVE THE BOTTOM OF THE TANK.
   F. SLIDE ALL MOUNTING HARDWARE OVER THE CURVED PORTION OF THE TUBES AS FAR FORWARD AS POSSIBLE. INSERT THE TUBES INTO THE TANK OPENING, AND DIT THE LARGE BACK-UP WASHER SO IT FALLS THROUGH THE SLOT FORMED BY THE TWO 1/2" HOLES.
   G. WITH THE BACK-UP WASHER FULLY IN THE TANK, LIFT THE TUBE ASSEMBLY UP UNTIL IT STOPS. SLIDE ALL REMAINING HARDWARE DOWN TOWARDS THE THREADED BUSHING.

   **TANK VIEW**

   **CAUTION**: CLEAN ALL METAL PARTICLES, GREASE, OIL, AND RESidue FROM THE AREA TO PROVIDE A CLEAN SEALING SURFACE. DO NOT APPLY ANY ADHesives OR SEALANTS.

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   **TANK VIEW**

   **CAUTION**: CLEAN ALL METAL PARTICLES, GREASE, OIL, AND RESidue FROM THE AREA TO PROVIDE A CLEAN SEALING SURFACE. DO NOT APPLY ANY ADHesives OR SEALANTS.

   E. MEASURE THE DEPTH OF THE FUEL TANK. MODIFY THE LENGTH OF THE TUBES SO THEY ARE APPROXIMATELY 1.00" [25.4 mm] ABOVE THE BOTTOM OF THE TANK.
   F. SLIDE ALL MOUNTING HARDWARE OVER THE CURVED PORTION OF THE TUBES AS FAR FORWARD AS POSSIBLE. INSERT THE TUBES INTO THE TANK OPENING, AND DIT THE LARGE BACK-UP WASHER SO IT FALLS THROUGH THE SLOT FORMED BY THE TWO 1/2" HOLES.
   G. WITH THE BACK-UP WASHER FULLY IN THE TANK, LIFT THE TUBE ASSEMBLY UP UNTIL IT STOPS. SLIDE ALL REMAINING HARDWARE DOWN TOWARDS THE THREADED BUSHING.

   **TANK VIEW**

   **CAUTION**: CLEAN ALL METAL PARTICLES, GREASE, OIL, AND RESidue FROM THE AREA TO PROVIDE A CLEAN SEALING SURFACE. DO NOT APPLY ANY ADHesives OR SEALANTS.
1. Determine the desired location for the fuel pump by using the following criteria:
   - Fuel pump to be mounted vertically and as close as possible to the fuel tank.
   - Fuel pump not to be installed more than 30 inches (762 mm) above fuel lines in the fuel tank.
   - Allow clearance for removal of filter element as noted in diagram below.

2. An optional fuel pump mounting bracket is included. The bracket can be mounted vertically or horizontally as needed using loose hardware. Make certain to mount the fuel pump vertically.

3. Mount the fuel pump and make the fuel pump harness connection. Verify the wire orientations and correct if necessary.

4. Position the fuel pump harness above the fuel lines and secure the harness with items 26 & 28.

5. Route and secure the fuel lines with items 26, 28 & 29.

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**Fuel Pump Mounting Options**

- Without Bracket (Vertical)
- With Bracket (Vertical)
- With Bracket (Horizontal)

**Fuel Pump Mounting Bracket (Optional)**

**Fuel Line Routing/Electrical Connections**

- Support the fuel pump connector with T1 wraps.
- Fuel pump wires (positive).
- White or blue wire (positive).
- Black wire (ground).
- Black or brown wire (ground).

**Fuel Pump Connections**

- Fuel return line to fuel tank.
- Fuel supply line (refer) to engine (cut to length).
- Fuel pump harness - loop the excess harness & support with Ty-wraps (item 20) as required.

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**Notes:**
- Two elbows & one straight fitting are provided for different applications. Only two fittings are required.
- Support the fuel pump with Ty-wraps (item 20) as required.
- See SHT.14 for fuel pick-up tube installation & proper pick-up tube length.
- Black wire or brown wire (ground).
- White or blue wire (positive).
- Red wire (positive).
- Black or brown wire (ground).

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**installation instruction**

- See SHT.14 for fuel pick-up tube installation & proper pick-up tube length.
- Fuel pump to be mounted vertically and as close as possible to the fuel tank.
- Fuel return line to fuel tank.
- Fuel supply line (refer) to engine (cut to length).
- Fuel pump harness - loop the excess harness & support with Ty-wraps (item 20) as required.
**Installation Instructions**

**Bottom Panel Mounting**

**Step 1:**
- Locate the hardware supplied with the bottom panel. Use bolts and the large nylon washers to secure the only door. Do not overtighten hardware.

**Step 2:**
- Install the bottom panel by using the clips located on the backside to secure the panel to the unit. Use bolts and the small nylon washers to secure the bottom panel.

**Important:**
- Make certain there is no chafing of electrical and fuel lines against edges or surfaces.

**Top Panel (Optional) Mounting**

**Important:**
- Make certain there is no chafing of electrical lines against edges or surfaces.
INSTRUCTIONS FOR BATTERY CABLE TERMINALS & MICRO POSITIVE FUSE

1. Make certain the unit has no electrical power attached (AC or DC), and the unit is disabled. Apply Lock Out / Tag Out Procedure.

2. Refer to Sheet 1 for battery and battery box information.

3. Cut the cables to the desired length.
   - When stripping each wire, do not cut through or nick individual strands of wire.
   - Take caution there are no loose or stray wire strands when crimping jigs.

4. Battery cables: Strip each battery cable 1/2". Install terminal and crimp.

5. Micro Positive (MP+) cable: Strip wire 1/4". Slip the heat shrink (item 17) onto the wire. Install wire to butt splice of item 19. Crimp wire. Install heat shrink item 17 over the center of the splice.

6. Install the positive battery cable on the battery first with the micro positive on top. Then install the negative battery cable.

7. Coat terminals with grease or similar material to prevent corrosion.

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BATTERY CABLE & MP+ CABLE TERMINATION

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MICRO POSITIVE (MP+) CABLE

POSITIVE BATTERY CABLE (RED)

NEGATIVE BATTERY CABLE (BLACK)

MAKE CONNECTIONS TO SEPARATE UNIT BATTERY (SEE NOTE 3.0, SHEET 1)

MODEL  :  
SERIAL NO  : 
DATE IN SERVICE  : 

MICRO POSITIVE (MP+) CABLE

FILL IN THE INFORMATION REQUIRED ON THE DECAL AND PLACE INSIDE DOOR JAM.