

INSTALLATION INSTRUCTIONS

Original Issue Date: **9/95**

Model: **150 kW**

150 (Oversized Alternator)/180 kW (Detroit Diesel Powered)

Market: **Industrial**

Subject: **Sound Shield Enclosure Kits PA-327163, 327163, PA-327164, 327164, PA-324845-SD, 324845-SD, PA-324846-SD, 324846-SD**

Sound shield enclosure provides sound dampening of an operating generator set and applies to the following sound shield enclosure kits.

Model	Kits
150 kW	PA-324845-SD, 324845-SD, PA-327163, 327163,
150 OS/180 kW	PA-324846-SD, 324846-SD, PA-327164, 327164,

The sound shield enclosure is preassembled at the factory and some final assembly is required at the time of installation. For sound shield enclosure dimensions see Figure 1, Figure 2, and Figure 3.

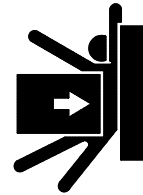


⚠ WARNING
Accidental starting.
Can cause severe injury or death.

Disconnect battery cables before working on generator set (disconnect negative lead first and reconnect it last).

Disabling generator set. Accidental starting can cause severe injury or death. Turn generator set master switch to OFF position, disconnect power to battery charger, and remove battery cables (remove negative lead first and reconnect it last) to disable generator set before working on the generator set or connected equipment. The generator set can be started by an automatic transfer switch or remote start/stop switch unless these precautions are followed.

⚠ WARNING

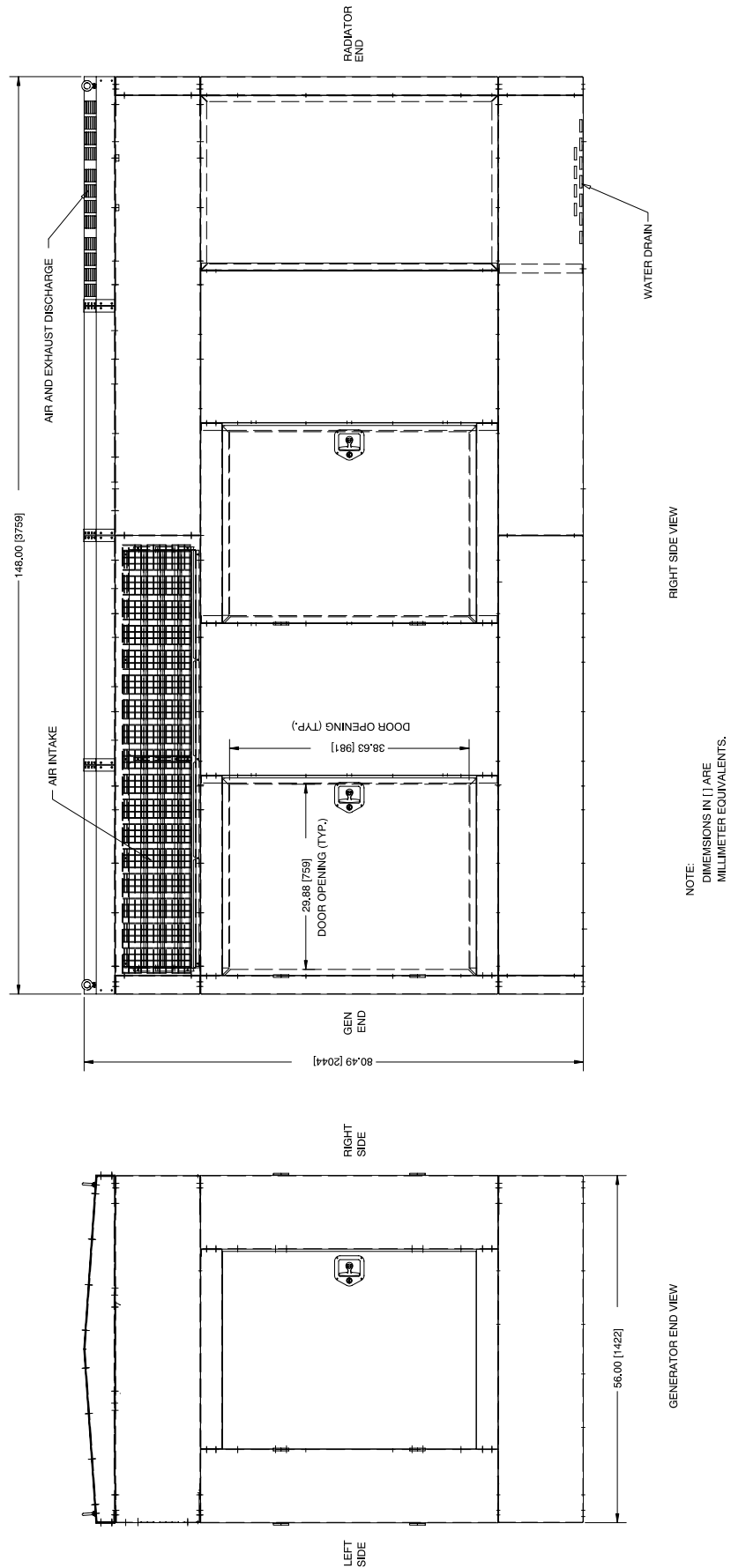


Unbalanced weight.
Improper lift can cause severe injury or death and/or equipment damage.

Do not use lifting eyes.
 Lift generator set using lifting bars inserted through skid lifting holes.

Installation

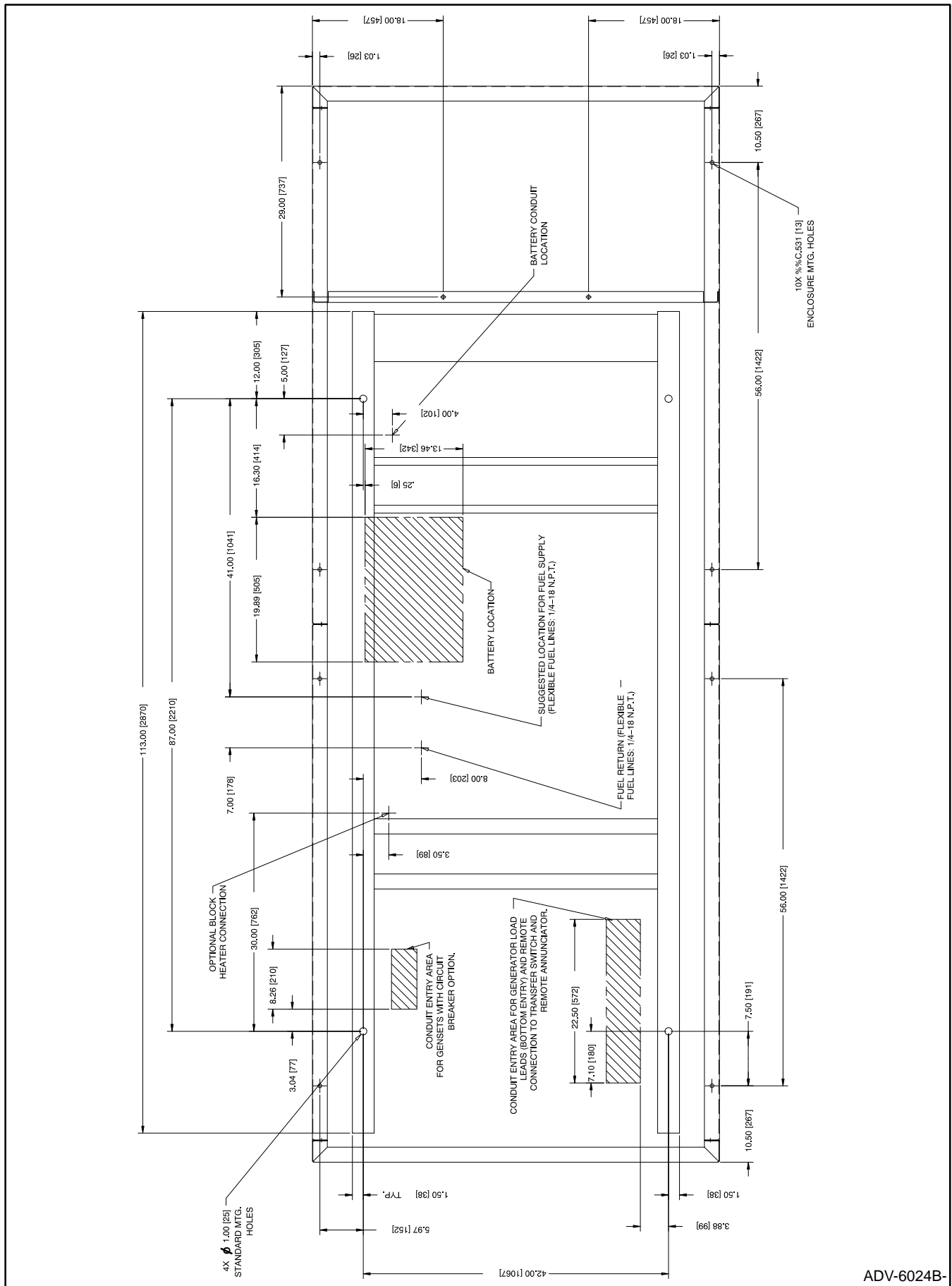
1. Move generator set master switch to the OFF position. Disconnect the generator set engine starting battery, negative (–) lead first.
2. Mark sound shield enclosure access doors so they can be reinstalled in their original locations. Doors and openings are factory aligned for fit and appearance.
3. Remove sound shield enclosure access doors.
4. Remove screws attaching the sound shield enclosure to the shipping pallet.
5. Remove drill screws attaching radiator duct flange to radiator shroud, if installed. See Figure 4. Do not remove bolts attaching radiator duct flange to the sound shield enclosure.



ADV-6023A-

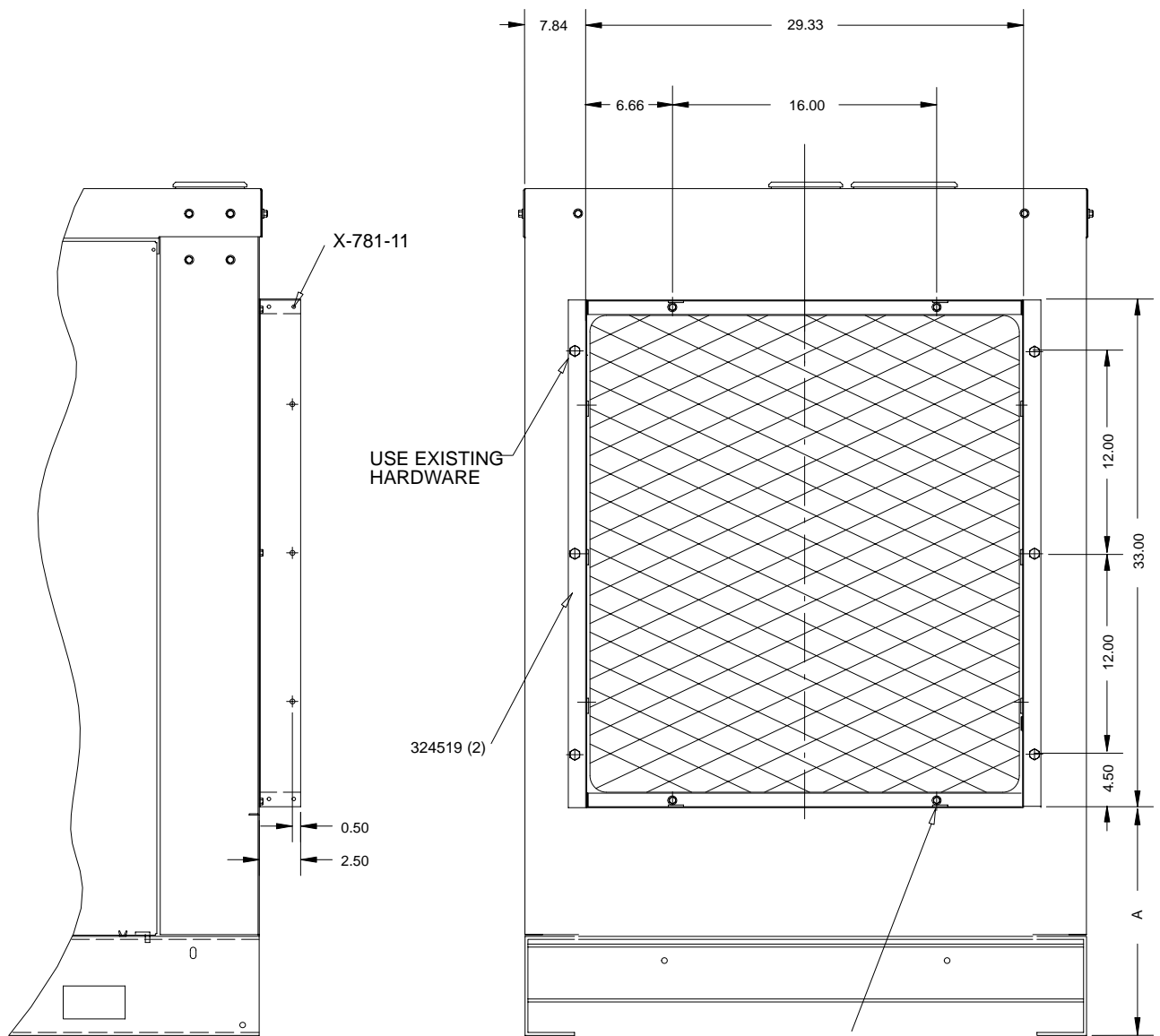
Figure 1. 150-180 kW Sound Shield Enclosure Dimension Drawing





ADV-6024B-

Figure 3. 150 kW (oversized alternator) and 180 kW Sound Shield Dimension Drawing



AR-324000-A

Figure 4. Radiator Duct Flange Mounting

6. Remove any shipped-loose components, packing material, and literature from inside the sound shield enclosure. If exhaust piping is preassembled, be sure that exhaust system is disconnected at generator set exhaust manifold.
7. Check weight of sound shield enclosure and choose lifting equipment capable of handling the weight. Use applicable sound shield enclosure spec sheet for weights. Place sound shield enclosure on a solid flat surface until installed over generator set.

Hoist the sound shield enclosure, including the silencer, at each eye bolt on top of the enclosure. Lift slowly to prevent damage to generator set and/or sound shield enclosure. The unit may require balancing to achieve vertical removal because the silencer is mounted to the sound shield enclosure. Use load levelers as necessary to balance the load. If exhaust system is preassembled, use care that loose exhaust does not damage engine and/or sound shield enclosure.
8. Consult applicable generator set spec sheet for generator set weight. Lift generator set and place it on the mounting base using lifting equipment capable of handling the weight. Mount generator set to mounting base. Remove lifting equipment from generator set.
9. Raise sound shield enclosure and place it over generator set. Observe each corner for adequate clearance while carefully lowering sound shield enclosure. Check that exhaust system is correctly aligned if unit has preassembled exhaust piping. Remove hoist equipment from sound shield enclosure.
10. Align radiator duct flange to radiator shroud. Attach radiator duct flange to radiator shroud using four drill screws (X-794-1). Predrill mounting holes if an impact wrench is not available. See Figure 4.

11. Secure sound shield enclosure to mounting base. See Figure 2 or Figure 3 for hole locations.

NOTE

The exhaust system may be partially preassembled on some units.

12. Starting at exhaust muffler install exhaust pipes (336340, 336339, 336338, and 327200). At each connection install exhaust clamps (289372). Use clamp supplied with engine at exhaust manifold outlet. Do not yet tighten exhaust clamps. See Figure 5 or Figure 6.

With each section installed and exhaust pipe centered in hole of sound shield enclosure, final tighten all exhaust clamps.
13. Install fiberglass exhaust wrap (19000 09400) over exhaust piping starting at exhaust manifold. Overlap exhaust wrap about 1/3 to 1/2 of the material width. Use hose clamp (X-426-5) to secure the beginning of the exhaust wrap. The end of exhaust wrap must stop at or beyond point where exhaust pipe goes through the hole in the sound shield enclosure. Secure the end of exhaust wrap with second hose clamp (X-426-5).
14. Finalize generator set installation. Install battery rack and cables. Connect fuel supply and return line to generator set. Make all AC connections and replace junction box panels. Connect all remote electrical wiring (remote emergency stop, remote annunciator, etc.).
15. Install all sound shield enclosure access doors in their original locations. If required, readjust doors for fit and appearance. Check that all hardware has been tightened. With generator set master switch in the OFF position, reconnect engine starting battery, negative (–) lead last.

Figure 5. Sound Shield Assembly Drawing for Kits PA-327163, 327163, PA-327164, 327164

Parts List				
KITS: PA-324845-SD, 324845-SD, PA-327163, 327163,			Unique Parts	
Qty.	Description	Common Parts	PA-324845-SD 324845-SD	PA-327163 327163
8	Washer, plain	X-25-38		
10	Spacer	X-400-193		
2	Clamp, hose 4.875/3.62	X-426-5		
2	Tie, cable	X-468-7		
18	Nut, retainer	X-6204-5		
3	Decal			X-6276-8
1	Decal		X-6301-2	
2	Decal		X-6301-4	
2	Decal		X-6302-2	
8	Rivet, pop 1/8 in. (3 mm) aluminum/steel	X-781-11		
28	Rivet, pop 1/8 in. (3 mm) stainless	X-781-13		
222	Rivet, pop 1/8 in. (3 mm) aluminum/stainless	X-781-15		
4	Screw, drill hex.	X-794-1		
34	Foam, seal tape (ft.)	19000 08100		
21	Insulation, fiberglass (ft.)	19000 09400		
53	Foam, PVC seal tape (ft.)	19010 08118		
1	Pipe, exhaust	222717		
4	Bracket, battery charger		324820	327190
1	Strap		324840	336343
1	Support, foam wedge		324839	336342
2	Strap, foam wedge		324838	336337
4	Tag, instruction	222887		
18	Washer, fiber	222889		
8	Washer, fiber	222890		
4	Bolt, eye	222891		
6	Louver, air intake		324803	336258
2	Baffle		324831	327193
1	Channel, air intake		324829	336323
2	Support, screen		324802	336257
1	Channel, air intake		324830	336324
2	Louver, air intake		324836	336331
2	Mount, controller	241769		
1	Cap, rain	253990		
1	Muffler, exhaust	327183		
5	Support, roof		324841	336345
2	Panel, roof		324826	336317
1	Panel, end roof		324827	336319
1	Panel, end roof		324828	336320
4	Support, corner		324818	327188
12	Support, door		324819	327189
5	Door		324843	327195
4	Support, side door		324822	327192
2	Panel, side		324761	276896
1	Door, front		324817	327187
4	Channel, solid		324821	327191
1	Channel, drain		324834	327197
4	Channel, end		324824	336315
12	Gusset, corner		324767	276902
2	Support, screen		324823	336321
2	Support, baffle		324833	336327
3	Strip, roof panel		324825	336316
1	Channel, drain		324835	327198
1	Support, muffler		324832	336326
2	Stiffener, muffler support		324774	276914

Parts List (continued)				
KITS: PA-324845-SD, 324845-SD, PA-32763, 327163,			Unique Parts	
Qty.	Description	Common Parts	PA-324845 324845	PA-327163 327163
10	Brace, door		324842	327194
2	Screen	336322		
5	Latch, key locking	276918		
2	Clamp, muffler	336391		
1	Pipe, exhaust	336338		
1	Support, exhaust	327199		
1	Pipe, exhaust	336339		
1	Pipe, exhaust	336340		
5	Clamp, exhaust pipe	289372		
40	Screw, flat head machine	295098		
10	Hinge, split	297601		
2	Frame, air duct	324518		
2	Frame, air duct	324519		
1	Seal, top		324814	327174
1	Seal bottom		324813	327173
2	Seal, side		324837	336334
1	Pipe, flex exhaust	327200		
1	Kit, acoustic foam	327202		

Parts List				
KITS: PA-324846-SD, 324846-SD PA-32764, 327164,			Unique Parts	Unique Parts
Qty.	Description	Common Parts	PA-327164 327164	PA-324846-SD 324846-SD
8	Washer, plain	X-25-38		
10	Spacer	X-400-193		
2	Clamp, hose	X-426-5		
2	Tie, cable	X-468-7		
18	Nut, retainer	X-6204-5		
3	Decal		X-6276-8	
1	Decal			X-6301-2
2	Decal			X-6301-4
2	Decal			X-6302-2
8	Rivet, pop 1/8 in. (3 mm) aluminum/steel	X-781-11		
88	Rivet, pop 1/8 in. (3 mm) stainless	X-781-13		
162	Rivet, pop 1/8 in. (3 mm) aluminum/stainless	X-781-15		
4	Screw, drill hex.	X-794-1		
34	Foam, seal tape (ft.)	19000 08100		
21	Insulation, fiberglass (ft.)	19000 09400		
53	Foam, PVC seal tape (ft.)	19010 08118		
4	Bracket, battery charger		327190	324820
1	Strap		336343	324840
1	Support, foam wedge		336342	324839
2	Strap, foam wedge		336337	324838
4	Tag, instruction	222887		
18	Washer, fiber	222889		
8	Washer, fiber	222890		
4	Bolt, eye	222891		
6	Louver, air intake		336258	324803
2	Baffle		327193	324831
1	Channel, air intake		336323	324829
2	Support, screen		336257	324802
1	Channel, air intake		336324	324830
2	Louver, air intake		336331	324836
2	Mount, controller	241769		
1	Cap, rain	253990		
1	Muffler, exhaust	327183		
5	Support, roof		336345	324841
2	Panel, roof		336317	324826
1	Panel, end roof		336319	324827
1	Panel, end roof		336320	324828
4	Support, corner		327188	324818
12	Support, door		327189	324819
5	Door		327195	324843
4	Support, side door		327192	324822
2	Panel, side		276896	324761
1	Door, front		327187	324817
4	Channel, solid		327191	324821
1	Channel, drain		327197	324834
4	Channel, end		336315	324824
12	Gusset, corner		276902	324767
2	Support, screen		336321	324823
2	Support, baffle		336327	324833
3	Strip, roof panel		336316	324825
1	Channel, drain		327198	324835
1	Support, muffler		336326	324832
2	Stiffener, muffler support		276914	324774
10	Brace, door		327194	324842

Parts List (continued)				
KITS: PA-324846-SD, 324846-SD, PA-32764, 327164			Unique Parts	Unique Parts
Qty.	Description	Common Parts	PA-324846-SD 324846-SD	PA-327164 327164
2	Screen	336322		
5	Latch, key locking	276918		
2	Clamp, muffler	336391		
1	Pipe, exhaust	336338		
1	Support, exhaust	327199		
1	Pipe, exhaust	336339		
1	Pipe, exhaust	336340		
5	Clamp, exhaust pipe	289372		
40	Screw, flat head machine	295098		
10	Hinge, split	297601		
2	Frame, air duct	324518		
2	Frame, air duct	324519		
1	Seal, top		327184	324816
1	Seal bottom		327196	324815
2	Seal, side		336334	324837
1	Pipe, flex exhaust	327201		
1	Kit, acoustic foam	327202		