The following instructions are intended to assist the user in the installation of the Single Side Access Kit for DA/DAC Series Generators. It is recommended the following procedure be performed by a Multiquip Authorized Service Center (ASC) or by a Multiquip Field Service Manager. Generator or engine failures caused by improper field installation are not covered under the Multiquip Limited Warranty. Please read all assembly instructions before installing the kit.

REQUIRED TOOLS
- 10mm, 14mm sockets
- 3/8" Ratchet W/Extension
- Funnel
- Electric Drill W/Extension
- High Temperature Sealant
- 1/2" Drill Bit
- Straight-Edge Ruler

PARTS
Verify that all parts are accounted for. See Figure 1 and Table 1.

Table 1. Single Side Access/Service Kit

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>QTY.</th>
<th>Remarks</th>
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<tr>
<td>1</td>
<td>13505</td>
<td>Kit, Single Side Access/Service</td>
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<td>Includes items 2-15</td>
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<td>2</td>
<td>148002003</td>
<td>Filter, Adapter</td>
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<tr>
<td>3</td>
<td>149002000</td>
<td>Filter Head</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>149149001</td>
<td>Bracket</td>
<td>1</td>
<td></td>
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<tr>
<td>5</td>
<td>14052</td>
<td>Fitting, 3/4 MPT x 5/8 MORB Straight</td>
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<td>6</td>
<td>32379</td>
<td>Screw, HHFS 3/8-16 x 1.0&quot; ZN</td>
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<td>10133</td>
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<td>10136</td>
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<td>Screw, HHC 5/16-18 x 1/2&quot;</td>
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<td>0161 C</td>
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<td>Filter, Spin-On</td>
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<td>Hose Assy, 5/8&quot;IDx35.5&quot;</td>
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</tr>
</tbody>
</table>

NOTE: HOSE COLORS SHOWN HERE FOR CLARITY. SUPPLIED HOSES ARE GRAY COLORED.

Figure 1. Single Side Access/Service Kit

WORK SAFELY!
Only a qualified service technician with proper training should perform this installation. Follow all shop safety rules when performing this installation.
PREPARATION

1. Make sure generator is turned off and engine is cool.
2. Place the generator in an area free of dirt and debris. Make sure it is on secure level ground. If trailer mounted, place chock blocks underneath each wheel to prevent the generator from rolling.
3. Open the right side cabinet panel to gain access to the engine fuel supply and battery location.

BATTERY CABLE DISCONNECTION

1. Disconnect the negative cable (BLACK) from the negative terminal on the battery. See Figure 2.

Figure 2. Battery Cable Disconnection

FRONT PANEL SCREW REMOVAL

1. Using a 10mm socket, remove the front panel screws (6) as shown in Figure 3.

Figure 3. Front Panel Hardware Removal

2. DO NOT set the front panel aside. Orientate the front panel with the weather-stripping side visible/facing you.

MOUNTING BRACKET INSTALLATION

1. Locate the mounting bracket (P/N 149149001) in the kit.
2. Using a straight-edge ruler, position the mounting bracket (Figure 4) 1" from panel top (below weather stripping) and 8.5" from the panel side towards the center.

Figure 4. Positioning Mounting Bracket
3. Once positioned, mark the mounting bracket screw locations as shown in Figure 5.
4. Using a 1/2" drill bit (Figure 5), drill out three holes per the marked mounting bracket screw locations.

**NOTICE**
Depending on drill and drill bit quality, pre-drilling the mounting bracket screw locations with a smaller drill bit may be necessary.

5. Using a 14mm socket, secure the mounting bracket to the front panel (Figure 5) using three HHFS 3/8-16 x 1" screws, 3/8-16 nyloc nuts, and 3/8 flat washers.

**OIL FILTER AND FILTER HEAD INSTALLATION**

1. Locate the spin-on oil filter (P/N HH15032430) and filter head (P/N 149002000) in the kit.
2. Apply a thin, clean film of oil on the oil filter oil seal to prevent leaks and screw the oil filter into the filter head (see Figure 6).

**NOTICE**
**DO NOT** overtighten the oil filter in the filter head. Overtightening the oil filter may cause pinching or breaking of the oil seal.

3. Using a 10mm socket, secure the filter head to the mounting bracket (Figure 6) using two HHC 5/16-18 x 1/2" screws and 5/16 lock washers.

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**Figure 5. Securing Mounting Bracket To Panel**

**Figure 6. Mounting Oil Filter and Filter Head**
ADAPTER FILTER TO ENGINE INSTALLATION

1. Locate the adapter filter (P/N 148002003) in the kit and apply a thin, clean film of oil to the oil seal.

   **NOTICE**
   An oil filter or strap wrench may be required to remove the oil filter if the engine unit is new. Original factory paint may act like an adhesive or sealant making it difficult to remove the oil filter.

2. Using your hands, turn the engine oil filter counterclockwise and remove and discard as shown in Figure 7.

   **Figure 7. Engine Oil Filter Removal**

   **NOTICE**
   Make sure you have an oil pan readily available as the engine oil filter will drip upon removal.

3. Install the adapter filter and oil seal onto engine oil filter mount as shown in Figure 8.

   **Figure 8. Engine Mounted Adapter Filter**

HOSE CONNECTIONS AND INSTALLATION

1. Locate the two 3/4” MPT x 5/8” MORB straight fittings (P/N 14052) and 5/8”ID x 35.5” hoses (P/N 14051) in the kit.

2. Apply a high temperature sealant to the straight hose ends and connect to the filterhead as shown in Figure 9.

3. Apply a high temperature sealant to the fittings (Figure 9) and connect the fittings and 90° hose ends together.

   **NOTICE**
   High temperature sealant is **NOT PROVIDED** in the kit. Multiquip recommends using a high temperature sealant equal to or stronger than Permatex 59214 high temperature thread sealant.

4. When connecting the adapter filter and filter head make sure to note the "IN" and "OUT" markings. The hose connections are as follows:
   - Adapter Filter OUT ➔ Filter Head IN
   - Adapter Filter IN ➔ Filter Head OUT

   **Figure 9. Filter Connections**

   **CAUTION**
   INCORRECT hose routing between the IN and OUT ports of the adapter filter and filter head may lead to oil loss and low oil pressure conditions resulting in engine damage.
HOSE BRACKET INSTALLATION

1. Using a 10mm socket, remove the two voltage regulator mounting screws, lock washers, and flat washers as shown in Figure 10.

2. Align the mounting holes (Figure 11) of the voltage regulator with the hose bracket mounting holes. Install the hose bracket behind the voltage regulator.

3. Using a 10mm socket and same mounting hardware, install the voltage regulator-hose bracket combination (Figure 11) to the voltage regulator's original mounting location.

4. Make sure that all mounting hardware, filter, adapter, and hose connection are tight and secure.

5. Use the provided tie wraps (4) to route, hold, and raise the hoses (Figure 12) high enough for oil to flow back into the engine.

Figure 10. Voltage Regulator Removal

Figure 11. Voltage Regulator-Hose Bracket

POST-INSTALLATION TESTING

1. Check and fill the oil level (as needed).

2. Reconnect the negative cable (BLACK) to the negative terminal on the battery.

3. Using a 10mm socket, reinstall the front panel.

4. Make sure the work area and generator are free of any loose hardware or debris.

5. Start and run the engine for a minimum of ten minutes. Stop the engine and check for any leaks.

**NOTICE**

You may need replace up to 1/2 quart of engine oil after testing. Oil levels drop with new hoses and oil filters.
HERE’S HOW TO GET HELP
PLEASE HAVE THE MODEL AND SERIAL NUMBER ON-HAND WHEN CALLING

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310-537-3700

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310-537-3700

**Fax: 310-537-4259**

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310-537-3700

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**UNITED STATES**

**Service Department**
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310-537-3700

**Technical Assistance**
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