DA/DAC Series Generators Single Side Access/Service Modifications

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 Motor Oil
- 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.

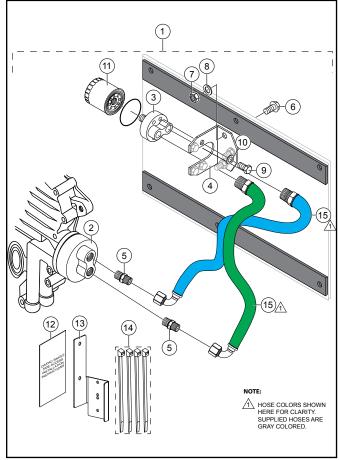




Table 1. Single Side Access/Service Kit					
ltem No.	Part No.	Description	QTY.	Remarks	
1	13505	Kit, Single Side Access/Service	1	Includes items 2-15	
2	148002003	Filter, Adapter	1		
3	149002000	Filter Head	1		
4	149149001	Bracket	1		
5	14052	Fitting, 3/4 MPT x 5/8 MORB Straight	2		
6	32379	Screw, HHFS 3/8-16 x 1.0" ZN	3		
7	10133	Nut, Nyloc 3/8-16	3		
8	10136	Washer, Flat SAE 3/8	3		
9	0400 B	Screw, HHC 5/16-18 x 1/2"	4		
10	0161 C	Washer, Lock 5/16 MED	4		
11	HH15032430	Filter, Spin-On	1		
12	14252	Instructions, Kit, Single Side Access/Service	1		
13	12467	Bracket, Hose	1		
14	1662	Tie Wrap, 11.02"L, Black	4		
15	14051	Hose Assy, 5/8"IDx35.5"	2		

## 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.

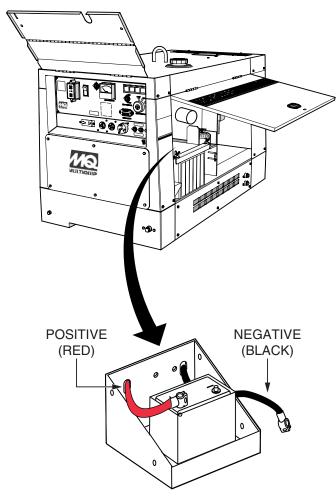
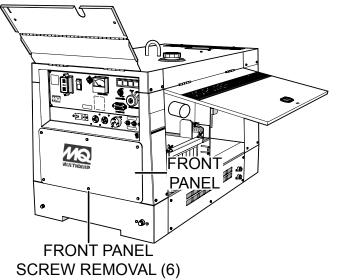


Figure 2. Battery Cable Disconnection

#### FRONT PANEL SCREW REMOVAL

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.
- 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.

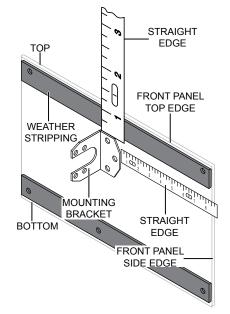


Figure 4. Positioning Mounting Bracket

- 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.

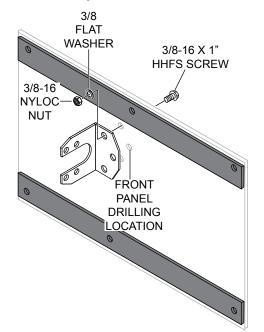


Figure 5. Securing Mounting Bracket To Panel

## **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.

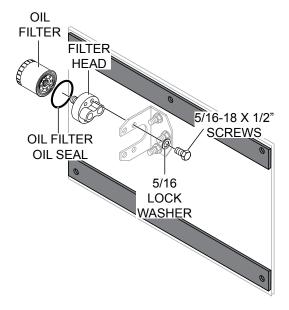


Figure 6. Mounting Oil Fiter and Filter Head

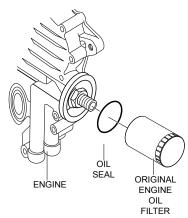
## ADAPTER FILTER TO ENGINE INSTALLATION

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.

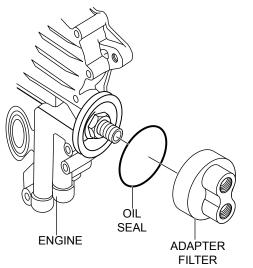


#### Figure 7. Engine Oil Filter Removal

#### 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.





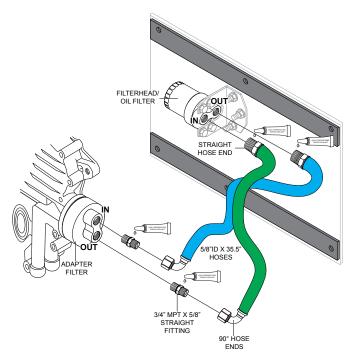
## HOSE CONNECTIONS AND INSTALLATION

- 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.

- 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**



#### **Figure 9. Filter Connections**

## 

**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.

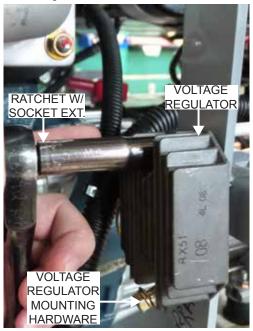


Figure 10. Voltage Regulator Removal

- 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.
- 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.

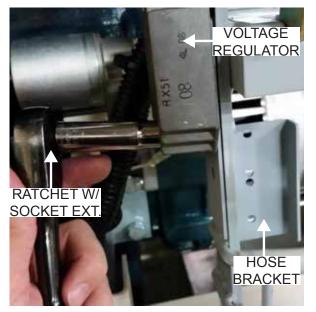


Figure 11. Voltage Regulator-Hose Bracket

- 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.

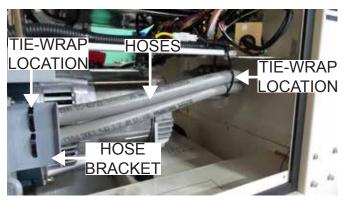


Figure 12. Tie Wrap Installation

## **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.

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# **HERE'S HOW TO GET HELP**

PLEASE HAVE THE MODEL AND SERIAL NUMBER ON-HAND WHEN CALLING

UNITED STATES					
Multiquip Corporate Office		MQ Parts Department	MQ Parts Department		
18910 Wilmington Ave. Carson, CA 90746 Contact: mq@multiquip.com	Tel. (800) 421-1244 Fax (310) 537-3927	••••	Fax: 800-672-7877 Fax: 310-637-3284		
Service Department		Warranty Department			
800-421-1244 310-537-3700	Fax: 310-537-4259	800-421-1244 310-537-3700	Fax: 310-943-2249		
Technical Assistance					
800-478-1244	Fax: 310-943-2238				
CANADA		UNITED KINGDOM			
Multiquip		Multiquip (UK) Limited Head Office			
4110 Industriel Boul. Laval, Quebec, Canada H7L 6 Contact: jmartin@multiquip.co		Unit 2, Northpoint Industrial Es Globe Lane, Dukinfield, Cheshire SK16 4 Contact: sales@multiquip.co	Fax: 0161 339 3226		

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