Technical Bulletin



| SERVICE BULLETIN assification: Reference: Date: | | | | | |
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| Classification: | Reference: | Date: | | | |
| EL13-030 | NTB13-082 | August 23, 2013 | | | |

DC FAST CHARGER MAINTENANCE

SERVICE INFORMATION

The DC Fast Charger requires periodic air filter maintenance.

If the air filters are not serviced and become restricted, the DC Fast Charger will set DTC 0x051E Thermostat Error (Charger malfunction) and suspend operation until the restriction is cleared and the power to the DC Fast Charger is cycled.

The DC Fast Charger has five air filters that need to be serviced based on the surrounding environmental conditions where the charger has been installed. The necessary service intervals can be determined initially with frequent periodic monitoring, since every installation site will be different and may result in different servicing needs. Seasonal issues such as pollen, leaves, or random debris may also affect air filter performance. Of the five filters, three can be serviced by a qualified LEAF® technician. Those air filters are the FAN 2 air filters (rear base external air filter and fine particulate air filter), and the FANS 7, 8, 9 air filter (bottom of the heat sink inlet filter). **The remaining two air filters must be serviced by a licensed electrician**.

The air filters should all be inspected 30 days after the unit is first put into service, to determine the levels of individual restriction.

- Any air filters found to be heavily restricted during the initial 30 day inspection should be serviced at a monthly or bi-monthly interval.
- If none of the air filters are heavily restricted, they should be serviced and then rechecked at 90 day intervals (some air filters may require less maintenance than others).

The Internal air filter may only need annual replacement unless the site is extremely dusty. It is the only air filter that requires the removal of the external charger casing. **This should only be performed by a licensed electrician**. For warranty and maintenance service contact AeroVironment, Inc. 1610 S Magnolia Ave, Monrovia, CA 91016. 1-888-833-2148.

The fine particulate air filter will require the most frequent service. Depending upon environmental conditions, it may become restricted in anywhere from a few weeks to a year.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply, DO NOT assume that it does. See your Nissan dealer to determine if this applies.

PARTS INFORMATION

| DESCRIPTION | PART# | QUANTITY |
|---|-------------|----------|
| FLTR-COOLING FAN, TR1 (FAN 2 fine particulate air filter) | N2729-DP00A | 1* |
| FLTR-COVER COOLING FAN, TR1 (FAN 2 rear base external air filter) | N2728-DP00A | 1* |
| COVER-PERFORATED METAL (FANS 7, 8, 9 air filter) | N26D0-DP30A | 1* |

^{*}Replace as needed.

TABLE A

| PART NUMBER | CLEANING & PERIODIC INSPECTION: | | | REPLACEMENT INTERVAL: | |
|-----------------|---------------------------------|--|-------------------------------|-----------------------|-----------------------|
| | SERVICE MANUAL | ACTUAL | CLEANING METHOD | SERVICE MANUAL | ACTUAL |
| N2729- DP00A | Once a year | Depends on condition of charger's site | Soap and water | 3 years later | As needed |
| N2728- DP00A | Once a year | Depends on condition of charger's site | Compressed air | 3 years later | 3 years |
| N26D0- DP30A | No comment | Depends on condition of charger's site | Soft brush (nylon bristle) | No comment | No need to replace |

AIR FILTER SERVICING

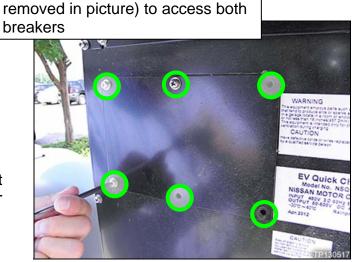
Turn OFF DC Fast Charger's Power FIRST

Warning:

Turn OFF the DC Fast Charger's power FIRST.

NOTE: Power can be turned OFF at an external breaker box if available.

 If an external breaker box disconnect is not available, the DC Fast Charger can be turned OFF from its two circuit breakers (Figures 1 and 2).



Remove six screws (some already

Figure 1

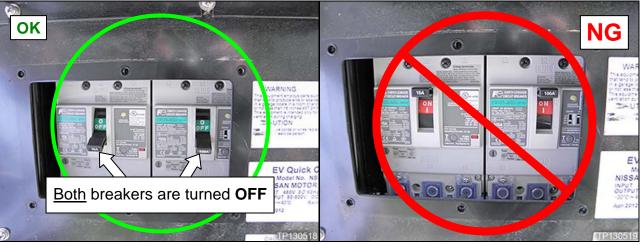


Figure 2 Figure 3

Either the external power to the DC Fast Charger <u>must</u> be turned OFF, or BOTH of the unit's circuit breakers <u>must</u> be set to the OFF position (Figure 2).

When the power is turned OFF, the internal cooling fans will stop operating.

Inspection and Cleaning - FAN 2 Air Filters

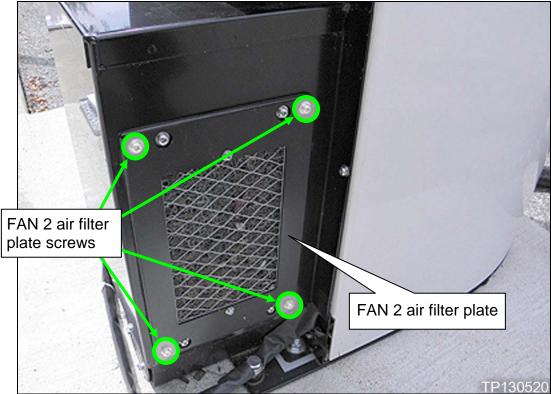


Figure 4

Figure 4 shows the location of the FAN 2 air inlet (two air filters in this location).

- 1. Remove the four screws, and then remove the FAN 2 air filter plate with rear base external air filter (see Figure 4).
 - Leave the air filter mounted in the FAN 2 air filter plate, and then clean it by blowing compressed air in reverse direction of normal air flow.



Figure 5

Figure 6 shows the air filter plate removed and the FAN 2 fine particulate air filter exposed.

NOTE: This is a good time to remove and wipe out any dirt and debris between the air filters.



Figure 6

2. Remove the clip (Figure 7).

CAUTION: This clip is not made of spring steel and can easily be deformed.

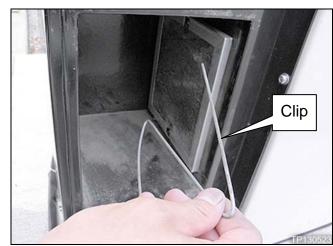


Figure 7

- 3. Gently remove the FAN 2 fine particulate air filter.
- 4. Check this air filter for any holes that may allow debris to pass through into the Level 3 Fast Charger.
 - If any holes are present, the FAN 2 fine particulate air filter <u>must</u> be replaced.



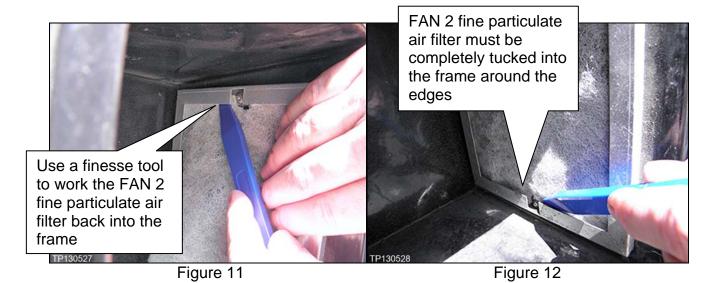
Figure 8

Cleaning – FAN 2 Fine Particulate Air Filter (continued)



Figure 9 Figure 10

- 5. To Clean the FAN 2 fine particulate air filter:
 - a. Lay the FAN 2 fine particulate air filter flat in a sink and gently wet with a mixture of warm water and mild dishwashing soap.
 - b. While the air filter remains flat, gently work soapy water mixture into the air filter to loosen dirt/debris.
 - c. Turn the FAN 2 fine particulate air filter over and continue to gently work in the soapy water mixture to further loosen any remaining dirt/debris.
 - d. Rinse the soap from the FAN 2 fine particulate air filter.
 - e. Lay flat the freshly cleaned FAN 2 fine particulate air filter on a paper towel, place a second paper towel on top of the air filter, and then press dry.



- 6. Reinstall the FAN 2 fine particulate air filter into the DC Fast Charger with a finesse tool.
- 7. Reinstall FAN 2 air filter plate.

Inspection and Cleaning - FANS 7, 8, 9 Air Filter

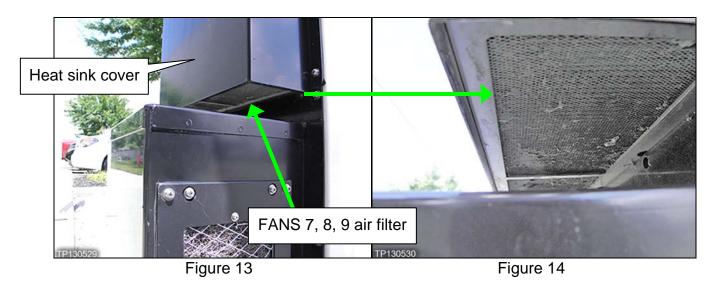


Figure 14 shows debris on the air filter before being serviced.

1. With a **nylon bristle** brush, gently remove any dirt and debris from the bottom of FANS 7, 8, 9 air filter (Figure 15).

CAUTION: The FANS 7, 8, 9 air filter is made from a fine metal mesh and may be damaged if a wire brush is used.

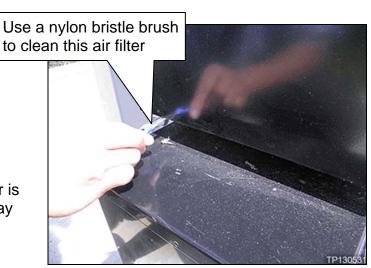


Figure 15

- 2. Remove loosened debris with compressed air.
- 3. After the air filters have been serviced and the DC Fast Charger has been reassembled, turn the power ON (reinstall the access panel and screws if applicable).



Figure 16