

**Conditions for Diesel Particulate Filter (DPF) Swapping for
Verified Diesel Emission Control Strategies (DECS)
Manufactured by ESW Technologies (ESWT)**

July 16, 2012

ESWT may authorize owners of its verified DECS to swap the DPF component of the DECS in accordance with the requirements described herein and in the *Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines* ("Procedure," Title 13, California Code of Regulations, Sections 2700-2711). Component swapping means the movement of designated parts between different vehicles/applications which utilize same DECS. Swapping of the DPF component of the verified DECS listed in Table 1 below is allowed under the corresponding Executive Order series or conditional verification letters.

Table 1. Verified ESWT DECS Approved for DPF Swapping

DECS	Executive Order Series / Conditional Verification Letter
ThermaCat TM (off-road)	DE-09-010
ThermaCat TM (on-road)	DE-09-015
ThermaCat TM e (on-road)	DE-12-005

DPF swapping is subject to the following terms and conditions:

- The owner of the DECS must receive written authorization from ESWT allowing the practice of DPF swapping.
- A DPF may only be swapped between DECS that share the same DECS family name.
- Swapping only applies to the DPF component of the DECS.
- The recipient vehicle must be fitted with the same DECS.
- The donor vehicle or engine whose DPF has been removed must remain in compliance with the terms and conditions of the applicable Executive Order and have all DECS components present and functional.
- ESWT must provide written instructions for assessing if the swapped DPF still meets its verified emissions reductions.

- ESWT must provide detailed written instructions in the owner's manual and installation manual to the authorized end-user regarding how to swap and install the ThermaCat™ DPFs. ESWT may not include any prohibitions or limitations to the required warranty (Sections 2706(i) & 2707), nor can the instructions direct the owner of the DECS to conduct any activity which violates the terms of the governing Executive Order series or any other applicable regulation.
 - Within ten days of a written request by the Air Resources Board (ARB), ESWT must provide an exact copy of these instructions in their entirety.
- ESWT must provide written instructions for assessing if the ThermaCat™ system still meets its verified emissions reductions and instructions for device movement to prevent installation on an inappropriate vehicle.
- The swapped DPF must be installed by the procedure described in the DECS installation manual or other manual designated for swapping procedures.
- ESWT must honor the original product warranty and warranty period.
- DPFs cannot be swapped among DECS in different verification categories (e.g., a DPF of a DECS that is only verified for off-road vehicles cannot be used into a DECS that is on an on-road vehicle).
- If the installer of the swapped DPF is not the same as the installer who did the original installation of the DECS, the new installer must assume the installation warranty responsibilities defined in Section 2707 for the remainder of the original warranty period or until another installer swaps the component or re-designates the system. If the original installation warranty has expired or has less than one year remaining, the installer must issue a new warranty to guard against potential installation defects. The new installation warranty must meet the requirements of Section 2707 except that the minimum period is reduced to one year from the date of installation. Any transfer of a DECS or component by an installer that does not offer this installation warranty is not considered a valid installation.
- ESWT must maintain accurate records of the vehicles and systems subject to the swapping policy. This must include: vehicle identification number, ThermaCat™ system serial number per the engine label, and DPF serial number for every swapped ThermaCat™ system within a common ownership fleet. ESWT must be able to track DPF movement throughout the fleet.
- ESWT must provide these records within 30 days of the written request by ARB.
- Swapping occurs within the same common ownership fleet as defined in Section 2701 of the verification procedure.

- The end user and installer must verify that the new recipient vehicle meets the terms of the original verification.
- The donor vehicle/engine whose component has been moved must remain in compliance with the terms and conditions of the applicable Executive Order and have all DECS components present and functional.
- No party shall advertise, sell, lease, or offer for sale or lease a used verified ThermaCat™ system.

**Conditions for Re-Designation of
Verified DECS
Manufactured by ESWT**

July XX, 2012

ESWT may authorize owners of its verified DECS to re-designate their DECS in accordance with the requirements described herein and in the Procedure. re-designation means the movement of a used, verified DECS from an appropriate engine/application (donor) to another engine/application (recipient), within the same common ownership fleet, that meets the terms and conditions of DECS Executive Order or conditional verification letter. Re-designation of a verified DECS listed in Table 2 below is allowed under the corresponding Executive Order series or conditional verification letter.

Table 2. Verified ESWT DECS Approved for System Re-designation

DECS	Executive Order Series / Conditional Verification Letter
ThermaCat™ (off-road)	DE-09-010
ThermaCat™ (on-road)	DE-09-015
ThermaCat™e (on-road)	DE-12-005

Re-designation is subject to the following terms and conditions:

- The owner of DECS must receive written authorization from ESWT allowing the re-designation to occur.
- The system must not be more than ten years old, based on the date of manufacture listed on the system label. Re-designation of devices of unknown age is prohibited.
- Re-designation occurs within the same common ownership fleet as defined in Section 2701 of the verification procedure.
- The owner and installer must verify that the new recipient vehicle meets the terms of the governing Executive Order or conditional verification letter.
- A DECS installed on a vehicle that is repowered may remain installed provided:
 - The replacement engine meets all the terms and conditions of the governing Executive Order or conditional verification letter,
 - DECS is not more than ten years old (based on the date of manufacture), and
 - The appropriate DECS engine label is affixed to the replacement engine in a visible location.

- ESWT must provide detailed written instructions in the owner's manual and installation manual to the authorized end-user regarding how to re-designate and install the ThermaCat™ system. ESWT may not include any prohibitions or limitations to the required warranty (Section 2706(i) & 2707), nor can the instructions direct the owner of DECS to conduct any activity which violates the terms of the governing Executive Order series or any other applicable regulation.
 - Within ten days of a written request by ARB, ESWT must provide an exact copy of these instructions in their entirety.
- ESWT must provide written instructions for assessing if DECS still meets its verified emissions reductions, and instructions for device movement to prevent installation on an inappropriate vehicle.
- Re-designation applies to the entire system, not component parts.
- The re-designated DECS must belong to a verified configuration covered under the governing Executive Order or conditional verification letter.
- DECS cannot be re-designated across verification categories (e.g. – a DECS that is only verified for off-road vehicles cannot be re-designated to an on-road vehicle).
- If the installer of the re-designated DECS is not the same as the installer who did the original installation, the new installer must assume the installation warranty responsibilities defined in Section 2707 for the remainder of the original warranty period or until another installer re-designates the system. If the original installation warranty has expired or has less than one year remaining, the installer must issue a new warranty to guard against potential installation defects. The new installation warranty must meet the requirements of Section 2707 except that the minimum period is reduced to one year from the date of installation. Any transfer of a DECS by an installer that does not offer this installation warranty is not considered a valid installation.
- ESWT must maintain accurate records of DECS, donor vehicles, and recipient vehicles that are involved in re-designations. The records must include owner contact information, vehicle identification or engine serial numbers, DECS serial number, and DECS operating hours or mileage. ESWT must be able to track all re-designation events throughout the fleet and provide re-designation records to ARB within 30 days of receiving a written request from ARB.
- No party shall advertise, sell, lease, or offer for sale or lease a used, verified DECS.
- Any party that removes a verified DECS from an engine/application must remove the verified DECS engine label. If the engine label cannot be removed whole, it must be destroyed.

- Any party that re-designates a DECS to another engine/application which was never previously retrofit with the same DECS must obtain and properly install an appropriate DECS engine label.
- Any party that removes a verified DECS from an engine/application must ensure that the engine/application returns to its original factory configuration.
- An assessment must be performed by the installer to ensure that the DECS is still able to achieve its verified emissions reduction levels.
- DECS can only be installed on a vehicle that conforms to all the terms and conditions of either the conditional verification letter or the most current Executive Order in the associated series listed in Table 2 above.
- DECS can only be re-designated by an ESWT-authorized installer.
- The installation of the re-designated DECS must be performed according to the procedures listed in DECS installation manual.