

RETROFIT EMISSIONS ENGINE EXHAUST GAS TEMPERATURE ASSESSMENT (DATA LOGGING)



Data logging procedures and guidelines may vary depending on regulatory agencies or purchasing authorities in your area. If in any case where the data logging requirements outlined in this document and the program conflict, the regulatory requirements will take precedence.

Passive filter-based emission control devices are designed to capture diesel soot and catalytically convert it into carbon dioxide and water vapor. The catalyst coatings are activated by the engine exhaust gas temperatures created during the normal operating duty-cycle of the vehicle. Data logging is required to ensure the duty-cycle is sufficient to generate adequate temperatures for reliable device operation.

Data logging is the final step during the application assessment process. The data logger is temporarily installed on the vehicle to collect at least 24 hours of real-world operating data. A Donaldson certified emissions dealer will install the data logging unit on the exhaust system. After the vehicle operates for several days, they retrieve the device and send the data to Donaldson for review and analysis. The certified dealer will then contact you with the results and recommendation of the appropriate emissions device for your application.

Which Vehicles to Data Log

The vehicles within a fleet being considered for retrofit must be divided into subgroups of similar vehicle/engines. Each subgroup must have the following in common:

- · Vehicles must have the same application and duty cycle; e.g., bus, trucks, refuse trucks, dump trucks
- Engines must be the same make and model, and have the same:
 - engine family
 - particulate matter (PM) standard
 - rated horsepower within ± 50 horsepower
 - description for engine NO, control system (one of the following)
 - a. None of the engines have any type of Exhaust Gas Recirculation (EGR)
 - b. All engines have external EGR
 - c. All engines have internal EGR



durable plastic case

1/8" NPT Half Coupling and

1/8" NPT Compression Fitting included

Other Items Needed for Data Logging Software and PC interface cable. Must be ordered separately (Item X007948).

Data Logging Guidelines

- At least 5 vehicles/egines or 10% within each subgroup must be data-logged, whichever is larger. All vehicles/engines within a subgroup of five or fewer must be data-logged.
- The exhaust gas temperature data recorded must be for a duration of at least 24 operating hours.
- The vehicles chosen to represent a subgroup for data logging should be those considered to have the coldest operating duty-cycle with regard to exhaust temperature.
- 100% of on-road diesel engines with certified NO_x levels of 3.0 grams per brake horse power per hour (g/bhp-hr) or less must be data logged for consideration of applying a Donaldson filterbased retrofit emission control device (e.g. LXF).

- New and upgraded
- Flexible sample interval allows for 1 second to 12 hour data collection rate
- 500,000+ data point memory
- Holds up to 30 days of data (at a 5 second interval)
- Meets new California data logging requirements



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