



**No.: 04 TS - 61**  
December 9, 2004

TO: All Distributors, Dealers and Their Branches -  
U.S., Canada and Mexico

ATTN.: General Manager, Service Manager

FROM: Technical Service

SUBJECT: **MBE 4000 – PLD Parameter Settings**

In the event of a PLD replacement or while troubleshooting, check the PLD parameters list first, before starting any repair procedure to eliminate unnecessary work.

The following tables, grouped by software and application, provide all possible combinations for PLD settings applied to the MBE 4000.

Table 1: MBE 4000 (non-EGR) - PLD Software 56 – **Diagnostic tool: MBE Reprogramming Station** – List of parameters for:

- **Freightliner Trucks**, Non-Turbo Brake, One-stage engine brake or two-stage engine brake.

Table 2: MBE 4000 (non-EGR) - PLD Software 56 – **Diagnostic tool: MBE Reprogramming Station** – List of parameters for:

- **Sterling and Western Star Trucks**, Non-Turbo Brake, Two-stage engine brake.
- **All Truck models**, Turbo Brake.

Table 3: MBE 4000 (non-EGR) - PLD Software 56 – **Diagnostic tool: minidiag2** – List of parameters for:

- **Freightliner Trucks**, Non-Turbo Brake, One-stage engine brake or two-stage engine brake.
- **Sterling and Western Star Trucks**, Non-Turbo Brake, two-stage engine brake.
- **All Truck models**, Turbo Brake.

Table 4: MBE 4000 (EGR) – DDEC-ECU/PLD Software 60 – **Diagnostic tool: MBE Reprogramming Station** – List of parameters for:

- **All Truck models**, Non-Turbo Brake.
- **All Truck models**, Turbo Brake.

Table 5: MBE 4000 (EGR) - DDEC-ECU/PLD Software 60 – **Diagnostic tool: minidiag2** –  
List of parameters for:

- **All Truck models**, Non-Turbo Brake.
- **All Truck models**, Turbo Brake.

Please contact the DDC Customer Support Center at 313-592-5800 if you have any questions.

**Table 1 - PLD Configuration - MBE4000 (Non-EGR) - Software 56**  
**MBE Reprogramming Station list of parameters**

Parameter Data		Freightliner Non-Turbo Brake
Parameter Group	Parameter	One-Stage Engine Brake Two-Stage Engine Brake
001 Engine identification	1 engine number	460.XXX-00-XXXXXX
	2 manual / automatic transmission	Check transmission installed on the truck (see transmission type table)
	3 starter type (control over PLD or externally)	1: starter directly activated via terminal 50 (KB)
	5 boost-pressure sensor characteristic line	1: characteristic line 2 (4 bar sensor)
	1 engine control via CAN	1: switched on (default)
002 CAN configuration	2 CAN one wire capability	1: active (default)
	1 proportional valve 1 (PV1)	3 = exhaust flap enabled
	2 proportional valve 2 (PV2)	0 = no function (def.)
	3 proportional valve 3 (PV3)	1 = fan step 1
	4 proportional valve 4 (PV4)	1 = fan step 2
	5 proportional valve 5 (PV5)	0 = no function (def.)
003 Proportional valves	6 proportional valve 6 (PV6)	0 = no function (def.)
	1 fan type	4: Horton; Freightl. /1-stage
	2 switch on threshold on coolant temp. speed 1	96
	3 switch on threshold on intake air temp. speed 1	75
	4 switch on threshold on coolant temp. speed 2	96
	5 switch on threshold on intake air temp. speed 2	75
004 Fan	6 diff. threshold fan 1	0
	7 switch on thresh. intake air temp. speed 1/eng. brake	75
	8 switch on thresh. intake air temp. speed 2/eng. brake	75
	9 diff. threshold intake air temp / engine brake	0
	1 oil temperature sensor	1 = oil temperature sensor enabled
	2 oil level measurement	0: no function (default)
	3 select oil pan type	0
	4 oil pressure sensor type	0 = active absolute pressure sensor
	5 oil pressure switch or sensor	0: oil pressure sensor blocked (default)
006 Oil	2 scale factor engine start	1
	3 torque temp. compensation	1: torque temp. compensation (default)
	1 oil temperature sensor	1 = oil temperature sensor enabled
008 Other factors	2 oil level measurement	0: no function (default)
	3 select oil pan type	0
	4 oil pressure sensor type	0 = active absolute pressure sensor
	5 oil pressure switch or sensor	0: oil pressure sensor blocked (default)
	2 scale factor engine start	1
3 torque temp. compensation	1: torque temp. compensation (default)	

**Table 2 - PLD Configuration - MBE4000 (Non-EGR) - Software 56**  
**MBE Reprogramming Station list of parameters**

Parameter Data		Sterling and Western Star Non-Turbo Brake	Turbo Brake
Parameter Group	Parameter	Two-Stage Engine Brake	
001 Engine identification	1 engine number	460.XXX-00-XXXXXX	
	2 manual / automatic transmission	Check transmission installed on the truck (see transmission type table)	
	3 starter type (control over PLD or externally)	1: starter directly activated via terminal 50 (KB)	1: starter directly activated via terminal 50 (KB)
	5 boost-pressure sensor characteristic line	1: characteristic line 2 (4 bar sensor)	1: characteristic line 2 (4 bar sensor)
	1 engine control via CAN	1: switched on (default)	1: switched on (default)
002 CAN configuration	2 CAN one wire capability	1: active (default)	1: active (default)
	1 proportional valve 1 (PV1)	3 = exhaust flap enabled	1 = boost control
	2 proportional valve 2 (PV2)	3 = decompression valve (constant throttle)	3 = decompression valve (constant throttle)
	3 proportional valve 3 (PV3)	1 = fan step 1	1 = fan step 1
	4 proportional valve 4 (PV4)	1 = fan step 2	1 = fan step 2
	5 proportional valve 5 (PV5)	0 = no function (def.)	0 = no function (def.)
003 Proportional valves	6 proportional valve 6 (PV6)	0 = no function (def.)	3 = exhaust flap enable
	1 fan type	4: Horton; Freightl. /1-stage	4: Horton; Freightl. /1-stage
	2 switch on threshold on coolant temp. speed 1	96	96
	3 switch on threshold on intake air temp. speed 1	75	75
	4 switch on threshold on coolant temp. speed 2	96	96
	5 switch on threshold on intake air temp. speed 2	75	75
004 Fan	6 diff. threshold fan 1	0	0
	7 switch on thresh. intake air temp. speed 1/eng. brake	75	75
	8 switch on thresh. intake air temp. speed 2/eng. brake	75	75
	9 diff. threshold intake air temp / engine brake	0	0
	1 oil temperature sensor	1 = oil temperature sensor enabled	1 = oil temperature sensor enabled
	2 oil level measurement	0: no function (default)	0: no function (default)
	3 select oil pan type	0	0
	4 oil pressure sensor type	0 = active absolute pressure sensor	0 = active absolute pressure sensor
	5 oil pressure switch or sensor	0: oil pressure sensor blocked (default)	0: oil pressure sensor blocked (default)
006 Oil	2 scale factor engine start	1	1
	3 torque temp. compensation	1: torque temp. compensation (default)	1: torque temp. compensation (default)
	008 Other factors		

**Table 3 - PLD Configuration - MBE4000 (Non-EGR) - Software 56**  
 minidiag2 list of parameters

Parameter Data		Freightliner		Sterling and Western Star		Turbo Brake	
Parameter Group	Parameter	Non-Turbo Brake		Non-Turbo Brake			
		One-Stage Engine Brake	Two-Stage Engine Brake	One-Stage Engine Brake	Two-Stage Engine Brake		
460.XXX-00-XXXXXX							
Check transmission installed on the truck (see transmission type table)							
001 Engine identification	1 engine number	1	1	1	1	1	1
	2 manual / automatic transmission	1	1	1	1	1	1
	3 starter type (control over PLD or externally)	1	1	1	1	1	1
	5 boost-pressure sensor characteristic line	1	1	1	1	1	1
002 CAN configuration	1 engine control via CAN	1	1	1	1	1	1
	2 CAN one wire capability	1	1	1	1	1	1
003 Proportional valves	1 proportional valve 1 (PV1)	3	3	3	3	3	3
	2 proportional valve 2 (PV2)	0	3	3	3	3	3
	3 proportional valve 3 (PV3)	1	1	1	1	1	1
	4 proportional valve 4 (PV4)	1	1	1	1	1	1
	5 proportional valve 5 (PV5)	0	0	0	0	0	0
	6 proportional valve 6 (PV6)	0	0	0	0	0	3
004 Fan	1 fan type	4	4	4	4	4	4
	2 switch on threshold on coolant temp. speed 1	96	96	96	96	96	96
	3 switch on threshold on intake air temp. speed 1 (note 1)	75	75	75	75	75	75
	4 switch on threshold on coolant temp. speed 2	96	96	96	96	96	96
	5 switch on threshold on intake air temp. speed 2 (note 1)	75	75	75	75	75	75
	6 diff. threshold fan 1	0	0	0	0	0	0
	7 switch on thresh. intake air temp. speed 1/eng. brake	75	75	75	75	75	75
	8 switch on thresh. intake air temp. speed 2/eng. brake	75	75	75	75	75	75
	9 diff. threshold intake air temp / engine brake	0	0	0	0	0	0
006 Oil	1 oil temperature sensor	1	1	1	1	1	1
	2 oil level measurement	0	0	0	0	0	0
	3 select oil pan type	0	0	0	0	0	0
	4 oil pressure sensor type	0	0	0	0	0	0
	5 oil pressure switch or sensor	0	0	0	0	0	0
008 Other factors	2 scale factor engine start	1	1	1	1	1	1
	3 torque temp. compensation	1	1	1	1	1	1

**Table 4 - PLD Configuration - MBE4000 (EGR) - Software 60**  
**MBE Reprogramming Station list of parameters**

Parameter Data		Non-Turbo Brake (Two-Stage Engine Brake - Low/High)	Turbo Brake (Three-Stage Engine Brake - Low/Med/High)
Parameter Group	Parameter		
001 Engine identification	2 manual / automatic transmission	Check transmission installed on the truck (see transmission type table)	
	3 starter type (control over PLD or externally)	1: starter directly activated via terminal 50 (KB)	
	5 boost-pressure sensor characteristic line	1: characteristic line 2 (4 bar sensor)	
	6 charge air temperature sensor after compressor	0: no sensor installed	
	1 engine control via CAN	1: switched on (default)	
	2 CAN one wire capability	1: active (default)	
002 CAN configuration	1 proportional valve 1 (PV1)	0 = no function (def.)	
	2 proportional valve 2 (PV2)	1 = EGR valve	
	3 proportional valve 3 (PV3)	1 = fan step 1	
	4 proportional valve 4 (PV4)	1 = fan step 2	
	5 proportional valve 5 (PV5)	3 = engine brake (CTV) installed	
	6 proportional valve 6 (PV6)	3 = turbo brake sleeve or exhaust flap	
004 Fan	1 fan type	96	96
	2 switch on threshold on coolant temp. speed 1	65	65
	3 switch on threshold on intake air temp. speed 1	96	96
	4 switch on threshold on coolant temp. speed 2	65	65
	5 switch on threshold on intake air temp. speed 2	0	0
	6 diff. threshold fan 1	65	65
	7 switch on thresh. intake air temp. speed 1/eng. brake	65	65
	8 switch on thresh. intake air temp. speed 2/eng. brake	65	65
	9 diff. threshold intake air temp / engine brake	0	0
006 Oil	1 oil temperature sensor	1 = oil temperature sensor enabled	1 = oil temperature sensor enabled
	2 oil level measurement	0: no function (default)	0: no function (default)
	3 select oil pan type	0	0
008 Other factors	4 oil pressure sensor type	0 = active absolute pressure sensor	0 = active absolute pressure sensor
	5 oil pressure switch or sensor	0: oil pressure sensor blocked (default)	0: oil pressure sensor blocked (default)
	2 scale factor engine start	1	1
	3 torque temp. compensation	1: torque temp. compensation (default)	1: torque temp. compensation (default)

**Table 5 - PLD Configuration - MBE4000 (EGR) - Software 60**  
 minidiag2 list of parameters

Parameter Data		Non-Turbo Brake (Two-Stage Engine Brake - Low/High)	Turbo Brake (Three-Stage Engine Brake - Low/Med/High)
Parameter Group	Parameter	Check transmission installed on the truck (see transmission type table)	
001 Engine identification	2 manual / automatic transmission	1	1
	3 starter type (control over PLD or externally)	1	1
	5 boost-pressure sensor characteristic line	0	0
	6 charge air temperature sensor after compressor	1	1
	1 engine control via CAN	1	1
	2 CAN one wire capability	0	0
002 CAN configuration	1 proportional valve 1 (PV1)	1	1
	2 proportional valve 2 (PV2)	1	1
	3 proportional valve 3 (PV3)	1	1
	4 proportional valve 4 (PV4)	3	3
	5 proportional valve 5 (PV5)	3	3
	6 proportional valve 6 (PV6)	4	4
004 Fan	1 fan type	96	96
	2 switch on threshold on coolant temp. speed 1	65	65
	3 switch on threshold on intake air temp. speed 1 (note 1)	96	96
	4 switch on threshold on coolant temp. speed 2	65	65
	5 switch on threshold on intake air temp. speed 2 (note 1)	0	0
	6 diff. threshold fan 1	65	65
	7 switch on thresh. intake air temp. speed 1/eng. brake	65	65
	8 switch on thresh. intake air temp. speed 2/eng. brake	0	0
	9 diff. threshold intake air temp / engine brake	1	1
006 Oil	1 oil temperature sensor	0	0
	2 oil level measurement	0	0
	3 select oil pan type	0	0
	4 oil pressure sensor type	0	0
	5 oil pressure switch or sensor	0	0
008 Other factors	2 scale factor engine start	1	1
	3 torque temp. compensation	1	1