


Title:	Water Pressure Governor Replacement			
Number:	PB_567	Release Date:	7/5/2022	
Revision Number:	1	Revision Date:	7/22/2022	
Chassis Type:	Pierce Custom Chassis			
Component Description:	PUC PMA300/PMA500			
Warranty:	Not Applicable			
Parts:	(1) 3705309 Gov Sys, Pressure, Pierce, LCD W-Eng Stat, Watr Lvl, PMA500 (1) 64-1724-H001 Wire Harn, Pump Pnl, PMA500 PGOV Adapter, Midship Pump			
Tools:	Not Applicable			

Purpose/Background:

To improve customer experiences by eliminating most needs for an engineering review, this service bulletin clarifies the upgrade procedure from PMA300 to PMA500 governors. Two options are given. The first option applies *only* to vehicles that do not have a PUC pump and are upgrading from a PMA300 to a PMA500 governor. The second option can be used for any kind vehicle that is upgrading from the PMA300 to the PMA500 governor.

NOTE: While the second option applies to any vehicle, it is more time and labor intensive. Dealers may wish to install a replacement harness (option 1) rather than repinning the connectors (option 2).

Description/Procedure:Option 1

For vehicles that do not have a PUC pump and are upgrading from a PMA300 to a PMA500 governor:

1. Determine vehicle program PMA500 engine type.
2. Verify software is version 1.16 or higher
3. Disconnect PSI governor adapter harness.
4. Remove PSI governor (PMA300).
5. Remove PSI governor adapter harness from vehicle.
6. Install new PSI governor adapter harness.
7. Install new PSI governor (PMA500).
8. If vehicle does not have a Cummins engine, perform steps 9 through 12.
9. Turn ignition on.
10. Enter password for water governor access (requires OEM access level 2; not for end users).
11. Change configuration per Appendix 1.
12. Verify correct operation.

Option 2

For vehicles any vehicle upgrading to the PMA500 governor:

1. Determine vehicle program PMA500 engine type.
2. Verify software is version 1.16 or higher
3. Disconnect PSI governor adapter harness.
4. Remove PSI governor (PMA300).
5. Repin harness and connectors (Deutsch DRC16-40s) to PMA500 Deutsch-style connectors using Appendix 2.
6. Turn ignition on.
7. Enter password for PSI water governor access.
8. Change configuration per Appendix 1.
9. Verify correct operation.

SERVICE BULLETIN #

If any additional support is needed, please open a technical support incident on Pierceparts.com.

Appendix 1:

Engine Code	Name	Engine \ECM used with
1.A	Cummins V.CNTL	ICS8.3 (2010)
		CM2250 (2010)
		ISL9 (2010)
		CM570 (2010)
		ISM07 (2010)
		CM876 (2007)
		ISB07 (2007)
		ISC07 (2007)
		ISL07 (2007)
		CM2150D (2007)
1.C	Cummins CAN	TSC1 Control in P.T.O. mode
1.D (default configuration)	Cummins NDOT-CAN	ISM07 (2007)
		CM876 (2007)
		ISB07 (2007)
		ISC07 (2007)
		ISL07 (2007)
		CM2150D (2007)
		CM2350 (2010)
		ICS8.3 (2010)
		CM2250 (2010)
		ISL9 (2010)
CM570 (2010)		
2.C	DDEC	J1939 CAN Control: DDEC V and VI ECM
30.A	PACCAR PMI	2021 - TSC1 J1939 CAN Control SA=57 P32 Pierce interface module and MX13 engine (MX13 engines: optional SA=36)

Appendix 2:

QTY	Item Number	Short Item No	Description	Description 2
1	64-6620-0008	1225678	Connector, Deutsch Plug, Dt Ser	DT06-12 SA -P012 GRY
1	64-6620-0009	1225679	Connector, Deutsch Plug, Dt Ser	DT06-12 SB -P012 BLK
1	64-6620-0014	1284711	Connector, Deutsch Plug, Dt Ser	DT06-08 SA -P012
2	64-6624-0007	1223144	Lock, Secondary, Deutsch Dt Ser	W12S-P012
1	64-6624-0010	1284913	Lock, Secondary, Deutsch Dt Ser	W8S-P012
	64-0377	930288	Plug, Cavity, Deutsch 16-12	114017 DEUTSCH

Term	Current PMA300 DRC16-40s connector	Ckt #
1	Power 12/24 VDC	4320
2	Ground	4365
3	Engine J1939 CAN Shield	CAN S
4	Engine J1939 CAN (H)	CAN H GRN
5	Engine J1939 CAN (L)	CAN L GRN
6	Spare	-
7	Spare	-
8	Discharge Pressure Sensor -5V	4202
9	Discharge Pressure Sensor -GND	4201
10	Discharge Pressure Sensor -Signal input	4203
11	Interlock I-Pump (Throttle Ready Battery input)	1490
12	Pump Clutch Engaged (Pump in Gear)	2159
13	Hi Idle (Battery input)	-
14	Spare	-
15	Spare	-
16	Pump Transmission Temperature sensor (1-Wire)	-
17	Fuel Level Sensor (Analog voltage)	-
18	Pump Transmission Temperature sensor +5V	4256
19	Pump Transmission Temperature sensor GND	4257
20	Pump Transmission Temperature sensor Signal	4258
21	Spare	-

Term	New PMA500 DT06-12SA-CE06 Gray 64-6620-0008	Ckt #
1	Power 12/24 VDC	4320
2	Ground	4365
3	Interlock I-Pump (Throttle Ready Battery input)	1490
4	Engine J1939 CAN (H)	CANH GRN
5	Engine J1939 CAN (L)	CANL GRN
6	Discharge Pressure Sensor -5V	4202
7	Discharge Pressure Sensor -GND	4201
8	Discharge Pressure Sensor -Signal input	4203
9	Intake Pressure Sensor Ref New N/R	4593
10	Intake Pressure Sensor GND New N/R	4592
11	Intake Pressure Sensor SIG New N/R	4594
12	Engine J1939 CAN Shield	CANS GRN

Term	New PMA500 DT06-12SB-CE06 Black 64-6620-0009	Ckt #
1	Remote throttle ECM +5V	4355
2	Remote throttle ECM GND	4370
3	Remote throttle ECM Control signal (Voltage only)	4360
4		-
5	FRC CAN (L)	CANL GREEN
6	FRC CAN (H)	CANH YEL

SERVICE BULLETIN #

22	Engine Fault Eliminated	-
23	Cab mini water level gauge output signal	4099
24	Buzzer output (Low active)	4188
25	Valve control output (Low active) Auto refill valve.	-
26	Transmission temperature sender. (1- wire)	-
27	RPM Input (Pulse signal) Eliminated	-
28	FRC CAN (Shield)	-
29	FRC CAN (H)	CAN H YEL
30	FRC CAN (L)	CAN L YEL
31	Remote throttle ECM +5V	4355
32	Remote throttle ECM GND	4370
33	Remote throttle ECM Control signal (Voltage only)	4360
34	Remote throttle Enable (IVS)	-
35	Foot Pedal Input Eliminated	-
36	Oil Pressure sender. (1-Wire) Eliminated	-
37	Coolant temperature sender (1-Wire)	-
38	Water level sensor +5V	4205
39	Water level sensor GND	4204
40	Water level sensor Signal	4206

7	FRC CAN (Shield) New N/R	CANS YEL
8		-
9	Water Level Gauge Valve Control Signal New N/R	4306
10	Buzzer output (Low active)	4188
11	Pump Clutch Engaged (Pump in Gear)	2159
12	Fuel Level Sensor (Analog voltage) N/R	-

Term	New PMA500 DT06-08SA-CE06 Gray 64-6620-0014	Ckt #
1	Water level sensor +5V	4205
2	Water level sensor GND	4204
3	Water level sensor Signal	4206
4	Cab mini water level gauge output signal	4099
5	Pump Transmission Temperature sensor +5V	4256
6	Pump Transmission Temperature sensor GND	4257
7	Pump Transmission Temperature sensor Signal	4258
8		-
	Seal plugs required in all unused cavities.	