

15 Pin - VC 4

13	10	7	4	1
14	11	8	5	2
15	12	9	6	3

18 Pin - VC 3

16	13	10	7	4	1
17	14	11	8	5	2
18	15	12	9	6	3

12 Pin - VC 2

10	7	4	1
11	8	5	2
12	9	6	3

21 Pin - VC 1

19	16	13	10	7	4	1
20	17	14	11	8	5	2
21	18	15	12	9	6	3

(VCU2 Only)

<u>Governor</u>	
<u>Throttle</u>	
<u>Williams Foot Pedal</u>	
21-11 A	Signal
21-14 B	Ground *
21-9 C	Supply
21-12 D	IVS 2 (NC)
21-13 E	IVS 1 (NO)
18-3 F	IVS Ground
<u>Variable Speed Gov</u>	
21-14	Throttle Ground *
18-18	Throttle Signal
18-17	Throttle Supply
* Common Ground	

All Switches
Normally Open
unless noted

<u>Instrument Panel</u>	
<u>Lamps</u>	
21-8	Air Filter Rest.
21-7	Wait to Start (Grid Htr)
21-6	Check Engine
21-5	Engine Protection
21-4	Oil Level Incorrect
12-3	Low Oil Pressure
<u>Switches</u>	
18-15	Fan Override
18-13	Shut Down Override
18-10	Rem. PTO (High Idle)
18-9	Engine Brake High
18-8	Engine Brake Low
18-7	Throttle Select (VSG)

<u>Power Wiring</u>	
21-3	Ground -
21-2	Ignition + 12V
21-1	Power + 12V

<u>Cruise Control</u>	
21-15	Service Brake (NC)
18-6	Cruise Enable
18-5	Cruise Res/Accel
18-4	Cruise Set/Coast
18-2	Clutch (NC)
15-4	VSS -
15-3	VSS +

<u>Diagnostic Connector</u>		
-	A	Ground
-	B	+12/24 V
21-19	C	J1939 +
21-21	D	J1939 -
21-20	E	J1939 Shield
21-17	F	J1587 +
21-18	G	J1587 -
-	H	- plug -
-	J	- plug -

<u>Inputs and Outputs</u>	
<u>Inputs</u>	
21-16	Park Brake
18-16	Throttle Inhibit
18-14	AC Status (NC)
18-12	Dual Road Sp Limit
15-8	Air Filter Sensor
15-7	Coolant Level Sensor
15-2	Two Speed Axle
15-1	Neutral Start
<u>Outputs</u>	
18-1	Veh. Power Shutdown
15-12	Starter Lockout *
15-10	Grid Heater
15-5	Gear Out 1 - Allison (Modulation AT / MT)
12-6	Tachometer
* Not Available with OI	

<u>Optimized Idle</u>	
15-12	Alarm
15-11	Active Lamp
12-9	Park Brake
12-8	Hood Switch
12-4	Thermostat
12-1	Engine Start

<u>Misc. Pins</u>	
15-15	MB CAN Low
15-13	MB CAN High
12-10	Varied Inputs *
12-5	Varied Outputs *
12-2	K Line
* Programmable Options	

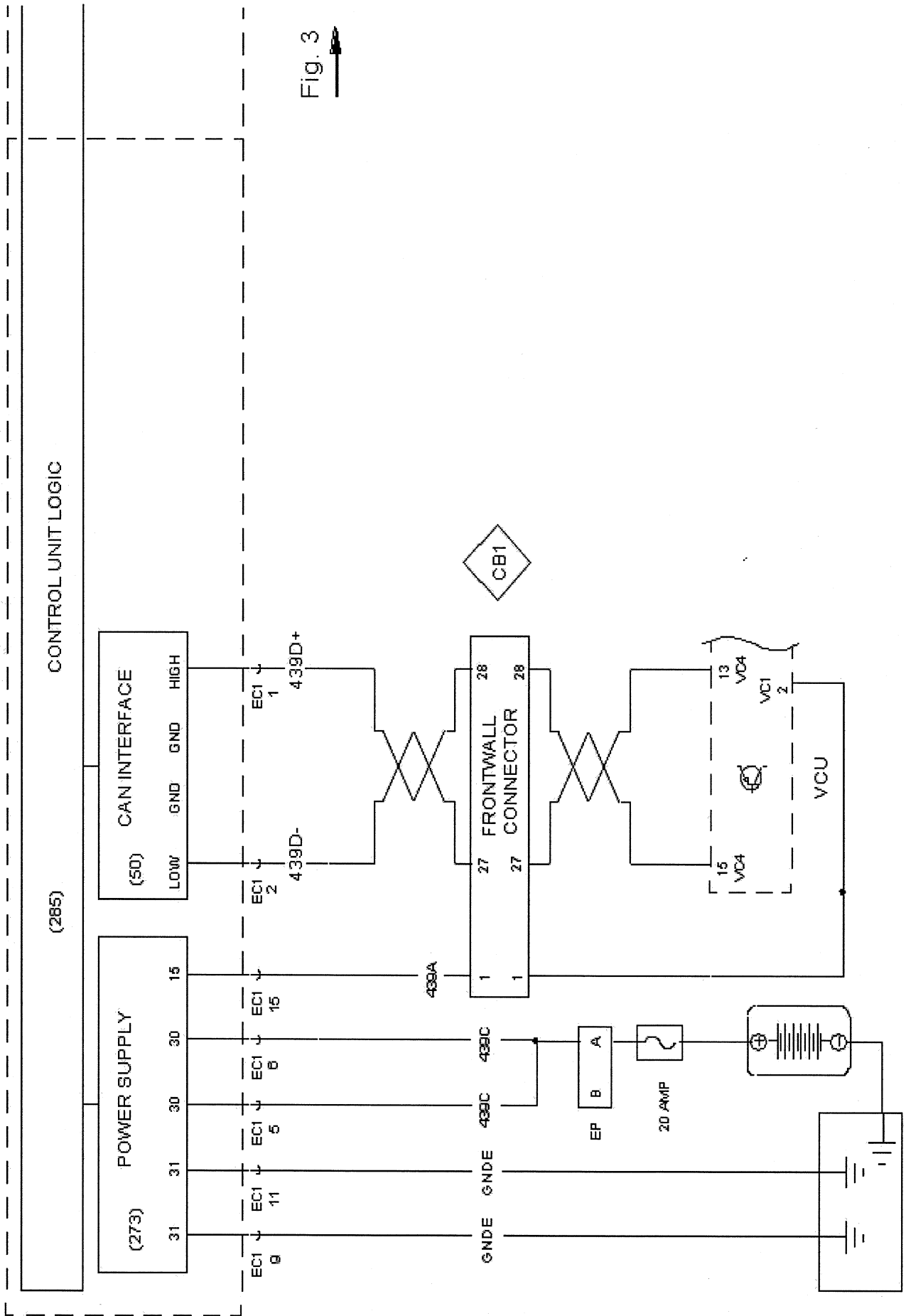
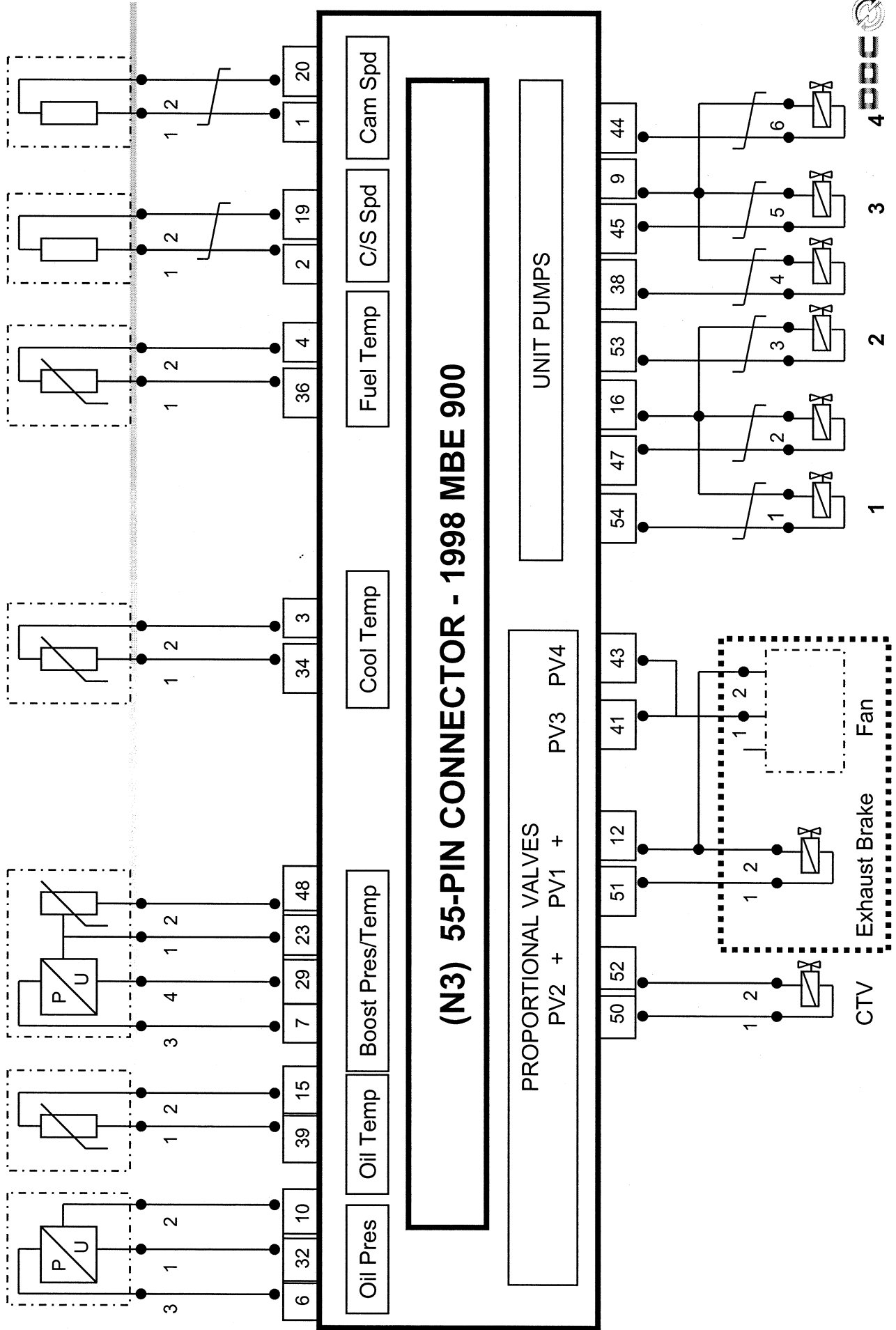
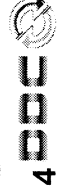
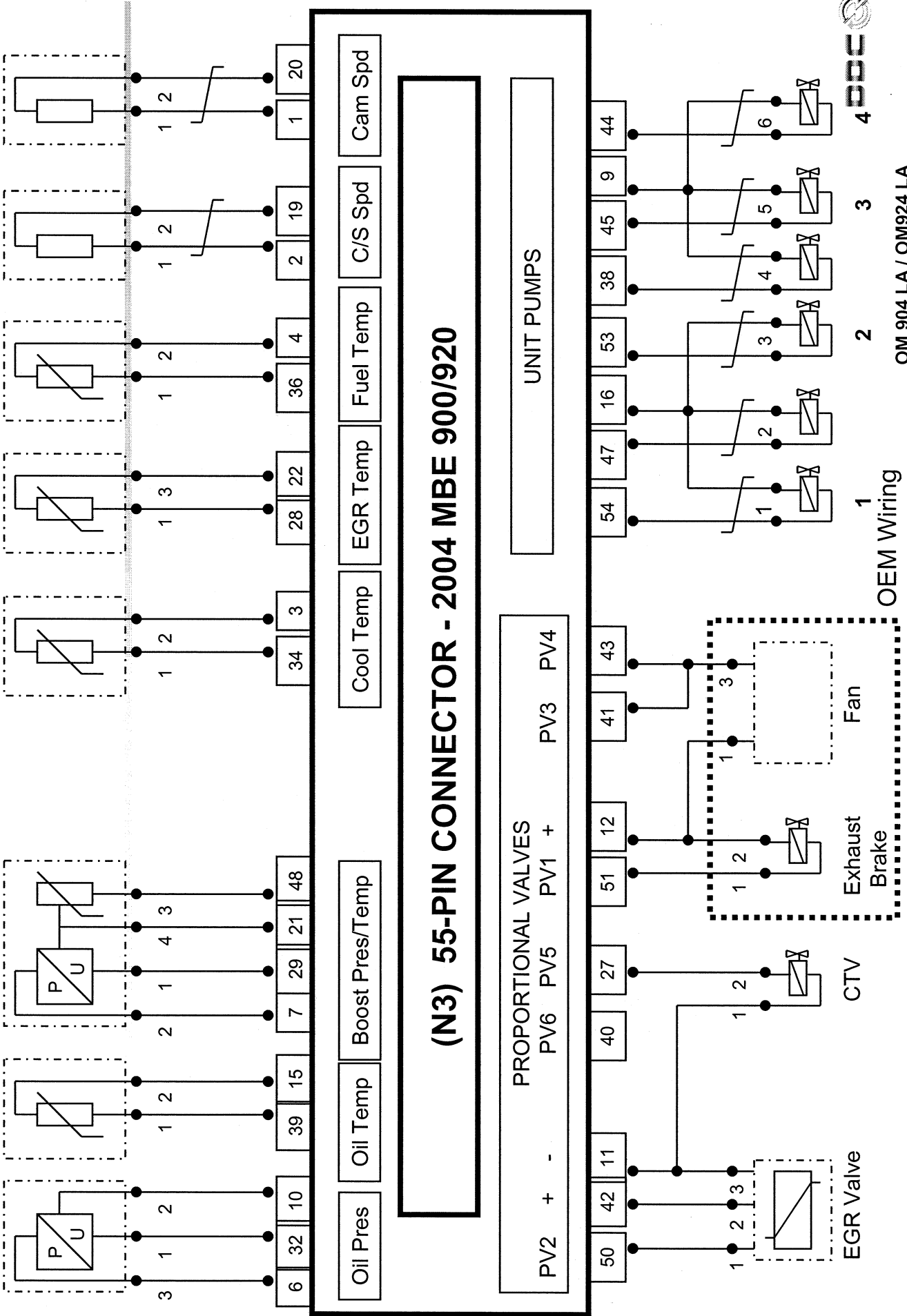


Fig. 3

Student Hand Out



Student Hand Out



OM 904 LA / OM924 LA