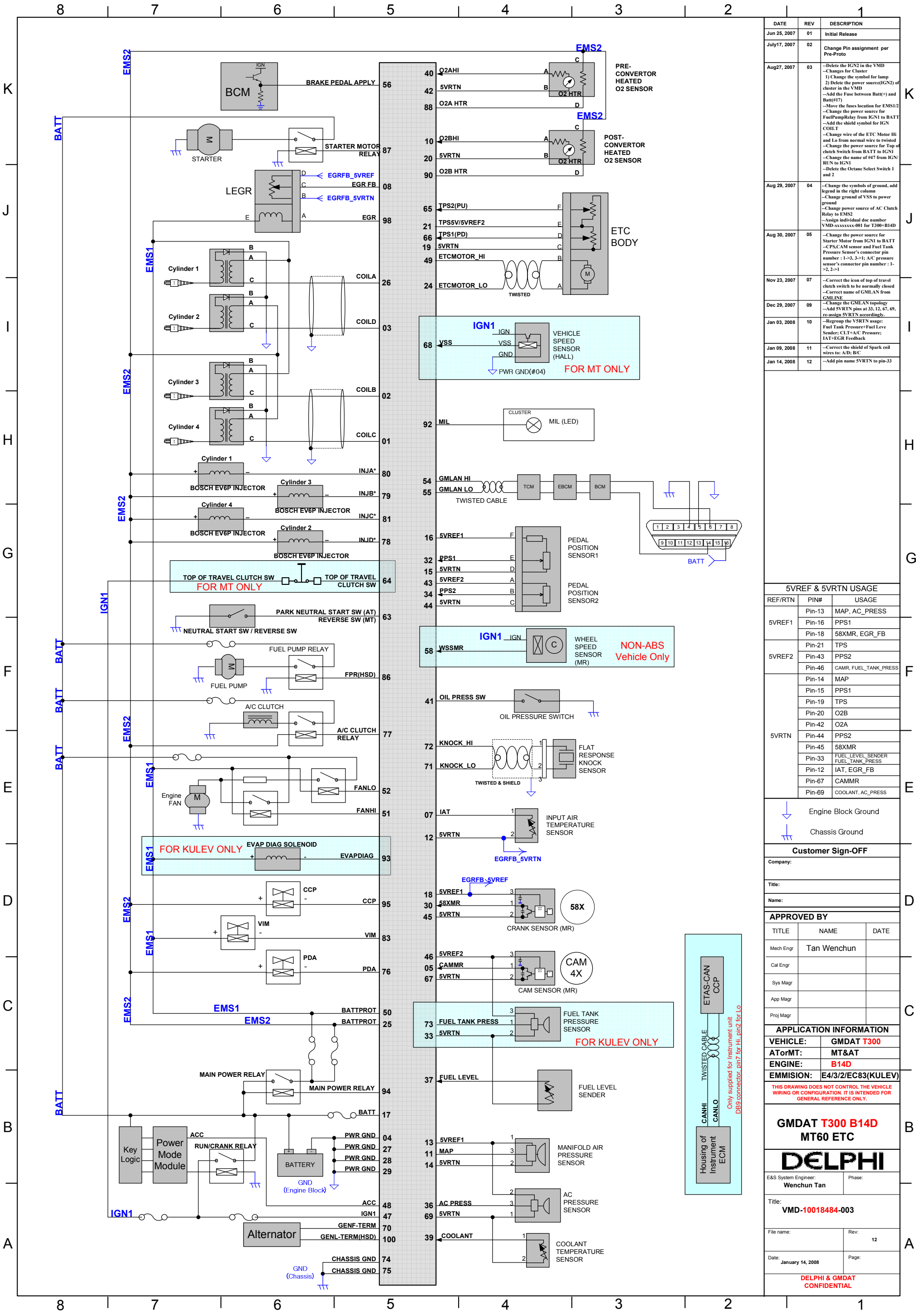


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K	J	I	H	G	F	E	D	C	B	A	<table><tr><th>DATE</th><th>REV</th><th>DESCRIPTION</th></tr><tr><td>Jun 25, 2007</td><td>01</td><td>Initial Release</td></tr><tr><td colspan="3" rowspan="10"></td></tr><tr></tr><tr></tr><tr></tr><tr></tr><tr></tr><tr></tr><tr></tr><tr></tr><tr><td colspan="3"> ↓ Engine Block Ground ⏏ Chassis Ground </td></tr><tr><td colspan="3">Customer Sign-OFF</td></tr><tr><td colspan="3">Company:</td></tr><tr><td colspan="3">Title:</td></tr><tr><td colspan="3">Name:</td></tr><tr><td colspan="3">APPROVED BY</td></tr><tr><td>TITLE</td><td>NAME</td><td>DATE</td></tr><tr><td>Mech Engr</td><td>Tan Wenchun</td><td></td></tr><tr><td>Cal Engr</td><td></td><td></td></tr><tr><td>Sys Magr</td><td></td><td></td></tr><tr><td>App Magr</td><td></td><td></td></tr><tr><td>Proj Magr</td><td></td><td></td></tr><tr><td colspan="3"></td></tr><tr><td colspan="3">THIS DRAWING DOES NOT CONTROL THE VEHICLE WIRING OR CONFIGURATION. IT IS INTENDED FOR GENERAL REFERENCE ONLY.</td></tr><tr><td colspan="3">DELPHI</td></tr><tr><td colspan="2">E&S System Engineer: Wenchun Tan</td><td>Phase:</td></tr><tr><td colspan="3">Title:</td></tr><tr><td colspan="2">File name:</td><td>Rev:</td></tr><tr><td colspan="2">Date:</td><td>Page:</td></tr><tr><td colspan="3"></td></tr></table>	DATE	REV	DESCRIPTION	Jun 25, 2007	01	Initial Release				↓ Engine Block Ground ⏏ Chassis Ground			Customer Sign-OFF			Company:			Title:			Name:			APPROVED BY			TITLE	NAME	DATE	Mech Engr	Tan Wenchun		Cal Engr			Sys Magr			App Magr			Proj Magr						THIS DRAWING DOES NOT CONTROL THE VEHICLE WIRING OR CONFIGURATION. IT IS INTENDED FOR GENERAL REFERENCE ONLY.			DELPHI			E&S System Engineer: Wenchun Tan		Phase:	Title:			File name:		Rev:	Date:		Page:			
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Vehicle Mechanization Drawing Package																																																																																
VMD-10018484-003																																																																																



DATE	REV	DESCRIPTION
Jun 25, 2007	01	Initial Release
July17, 2007	02	Change Pin assignment per Pre-Proto
Aug27, 2007	03	-Delete the IGN2 in the VMD -Change for Cluster 1) Change the symbol for lamp 2) Delete the power source(IGN2) of cluster in the VMD -Add the Fuse between Batt(+) and Batt(#17) -Move the fuses location for EMS1/2 -Change the power source for FuelPumpRelay from IGN1 to BATT -Add the shield symbol for IGN COIL -Change wire of the ETC Motor Hi and Lo from normal wire to twisted -Change the power source for Top of clutch Switch from BATT to IGN1 -Change the name of #47 from IGN1 RUN to IGN1 -Delete the Octane Select Switch 1 and 2
Aug 29, 2007	04	-Change the symbols of ground, add legend in the right column -Change ground of VSS to power ground -Change power source of AC Clutch Relay to EMS2 -Assign individual doc number VMD-xxxxxx-001 for T300-B14D
Aug 30, 2007	05	-Change the power source for Starter Motor from IGN1 to BATT -CPS,CAM sensor and Fuel Tank Pressure Sensor's connector pin number : 1->3, 3->1; A/C pressure sensor's connector pin number : 1->2, 2->1
Nov 23, 2007	07	-Correct the icon of top of travel clutch switch to be normally closed -Correct name of GMLAN from GMLINE
Dec 29, 2007	09	-Change the GMLAN topology -Add 5VVRTN pins at 33, 12, 67, re-assign 5VVRTN accordingly.
Jan 03, 2008	10	-Regroup the 5VVRTN usage: Fuel Tank Pressure, Fuel Level Sender, CLT+AC Pressure, IAT+EGR Feedback
Jan 09, 2008	11	-Correct the shield of Spark coil wires to: A/D; B/C
Jan 14, 2008	12	-Add pin name 5VVRTN to pin-33

5VREF & 5VVRTN USAGE		
REF/RTN	PIN#	USAGE
5VREF1	Pin-13	MAP, AC_PRESS
	Pin-16	PPS1
5VREF2	Pin-18	58XMR, EGR_FB
	Pin-21	TPS
5VVRTN	Pin-43	PPS2
	Pin-46	CAMR, FUEL_TANK_PRESS
5VVRTN	Pin-14	MAP
	Pin-15	PPS1
	Pin-19	TPS
	Pin-20	O2B
	Pin-42	O2A
	Pin-44	PPS2
	Pin-45	58XMR
	Pin-33	FUEL_LEVEL_SENDER, FUEL_TANK_PRESS
	Pin-12	IAT, EGR_FB
	Pin-67	CAMMR
	Pin-69	COOLANT, AC_PRESS

Engine Block Ground

Chassis Ground

Customer Sign-OFF		
Company:		
Title:		
Name:		

APPROVED BY		
TITLE	NAME	DATE
Mech Engr	Tan Wenchun	
Cal Engr		
Sys Magr		
App Magr		
Proj Magr		

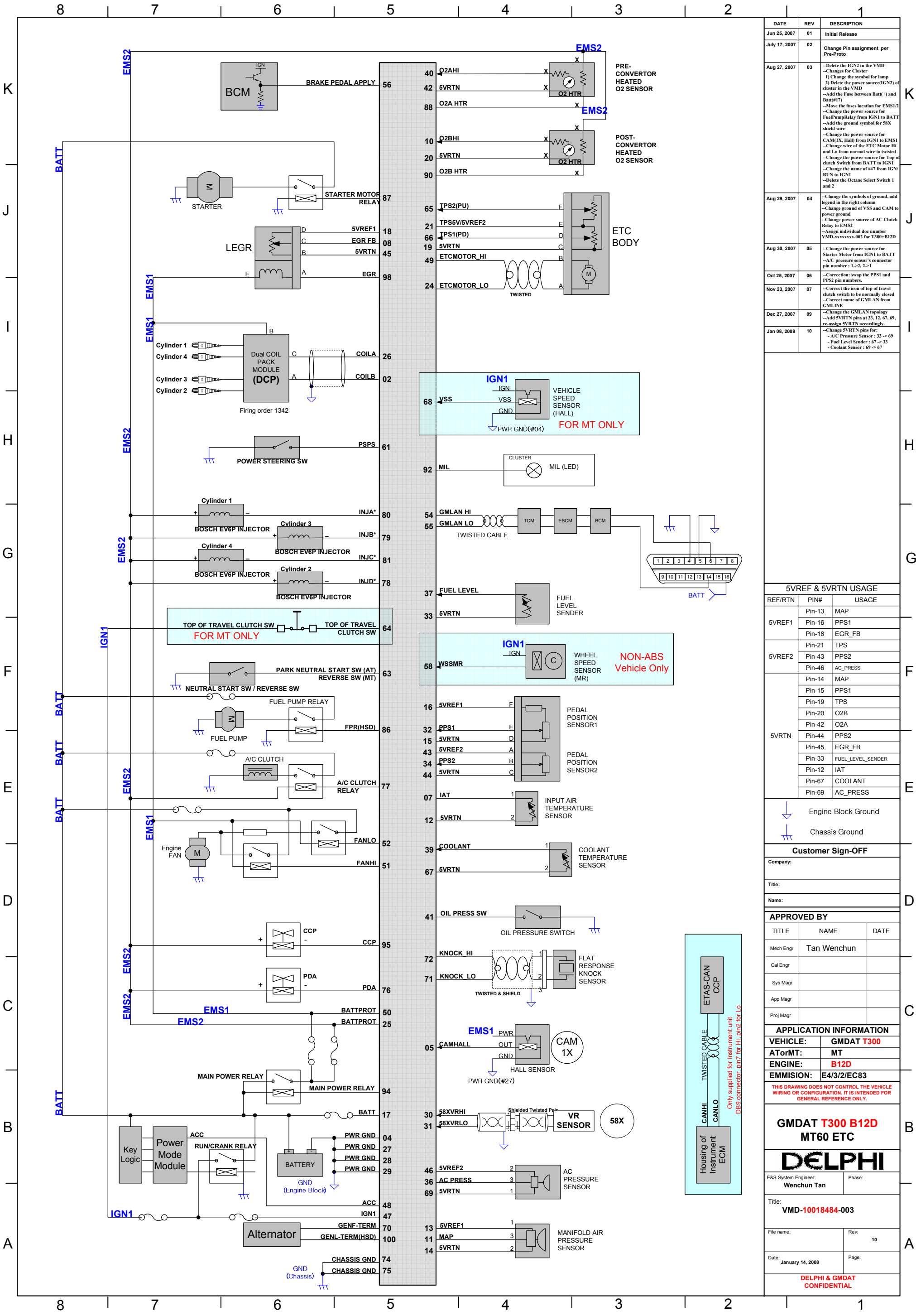
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VEHICLE:	GMDAT T300
ATorMT:	MT&AT
ENGINE:	B14D
EMMISSION:	E4/3/2/EC83(KULEV)

THIS DRAWING DOES NOT CONTROL THE VEHICLE WIRING OR CONFIGURATION. IT IS INTENDED FOR GENERAL REFERENCE ONLY.

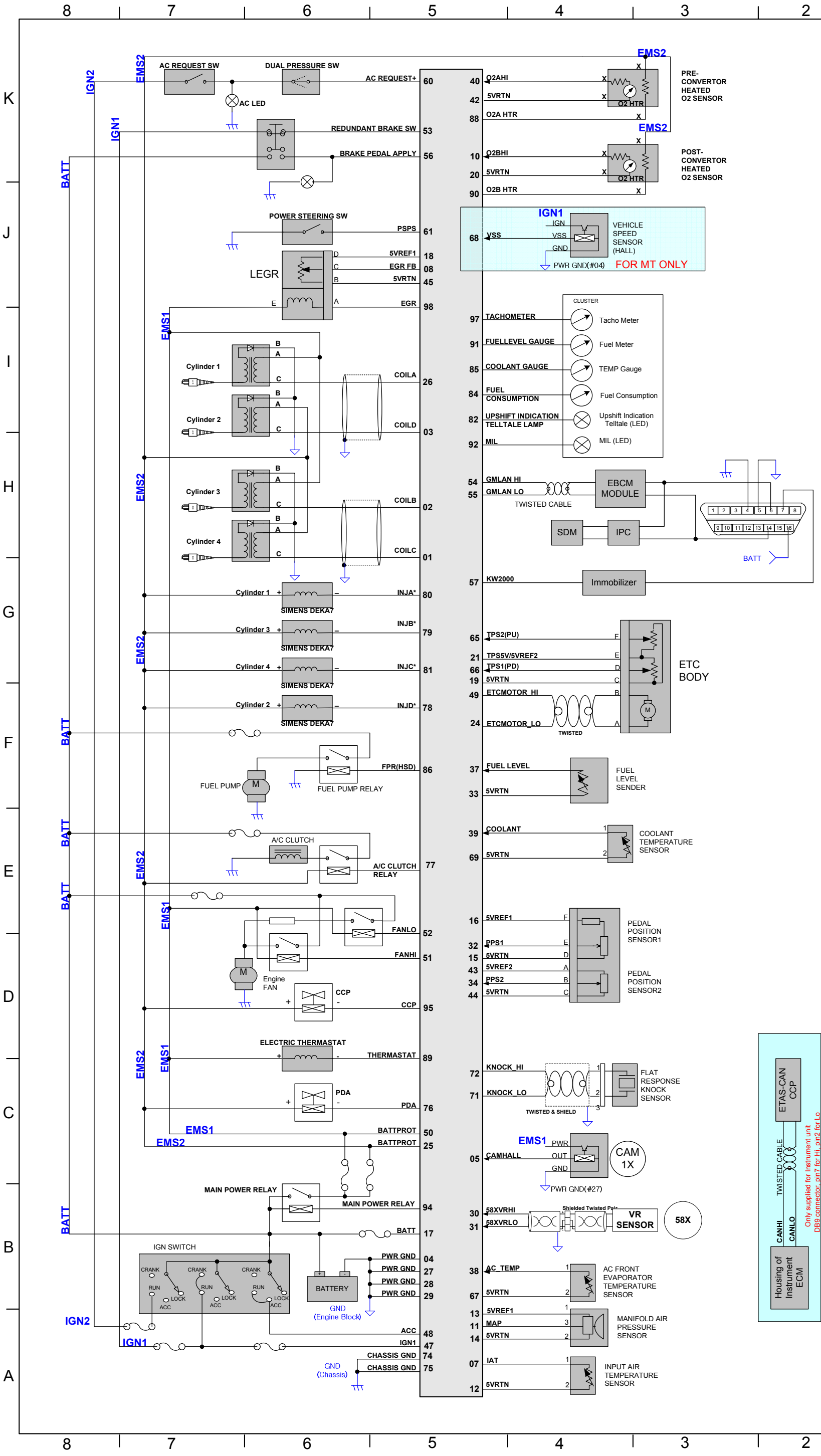
GMDAT T300 B14D MT60 ETC	
DELPHI	
E&S System Engineer: Wenchun Tan	Phase:
Title: VMD-10018484-003	
File name:	Rev: 12
Date: January 14, 2008	Page:

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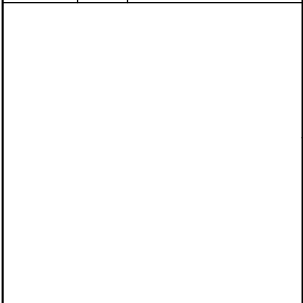
K	J	I	H	G	F	E	D	C	B	A	87654321											1		
											Pin NOPin DescriptionSignal TypeApplicationCurrent Limit for Diagnostic(A)Max Current RatingMax Voltage Drop(mV)Wire GaugeWire TypeTerminal PlatingRemark											DATE	REV	DESCRIPTION
																						Jun 25, 2007	01	Initial Release
																						Aug 27, 2007	02	--Change name of #47 to IGN1 --Cancel Octane select inputs at #62, #67 --ETC HI and Lo #49, #24 change to twisted
																						Nov 23, 2007	07	--Delete # 57 KW2000 --Change the name of # 63 from "Neutral start switch" to " Neutral start switch/Reverse switch"
																						Dec 27, 2007	09	--Add 5VRTN pins at 33, 12, 67, 69 as VSR1N6, 9,10, 11 respectively



[illegible]



DATE	REV	DESCRIPTION
Jun 25, 2007	01	Initial Release
July13, 2007	02	Change TMAP to MAP + IAT per customer's request
July17, 2007	03	Change Pin assignment per Pre-Proto
Aug 27, 2007	04	Change the Key box symbol for IGN/IGN2 Delete oil pressure Switch(#41) Change for Cluster: 1) Delete oil pressure low lamp(#23) 2) Delete Low Fuel Warning Lamp(#82) 3) Add Upshift indication telltale Lamp(#82) 4) Name change from Trip Computer to Fuel Consumption and move from Trip 5) Change the symbol for gauge/lamp 6) Delete the power source(IGN2) of cluster in the VMD Add the Fuse between Batt(+) and Batt(#17) Move the fuse location for EMS1/2 Change the power source for FuelPumpRelay from IGN1 to BATT Add the shield symbol for IGN COILT Change the power source of A/C Request S/W from IGN1 to IGN2 Add the ground symbol for 58X shield wire Change the power source for CAM(1X, Hall) from IGN1 to EMS1 Change wire of the ETC Motor HI and Lo from normal wire to twisted Change the power source for A/C Clutch Relay from IGN1 to IGN2 Change the name of #47 from IGN/ RUN to IGN1
Aug 29, 2007	05	Change the symbols of ground, add legend in the right column Change ground of VSS and CAM to power ground Change power source of A/C Clutch Relay to EMS2 Assign individual doc number VMD-xxxxxx-003 for M300 Delete Octane select switches at pin 62 & 67.
Oct 25, 2007	06	
Nov 23, 2007	07	Correct name of GMLAN from GMLINE Add the A/C LED and A/C dual pressure switch in A/C request input circuit
Dec 27, 2007	09	Change the GMLAN topology Add 5VVRTN pins at 33, 12, 67, 69, re-assign 5VVRTN accordingly.
Jan 08, 2008	10	Change 5VVRTN pins for: Fuel Level Sender : 67 -> 33 EVA temp : 33 -> 67 Change 5VREF pin of: EGRB 46 -> 18
Jan 09, 2008	11	Correct the shield of Spark coil wires to: A/B; B/C



5VREF & 5VVRTN USAGE		
REF/RTN	PIN#	USAGE
5VREF1	Pin-13	MAP
	Pin-16	PPS1
	Pin-18	EGR_FB
5VREF2	Pin-21	TPS
	Pin-43	PPS2
	Pin-46	
5VVRTN	Pin-14	MAP
	Pin-15	PPS1
	Pin-19	TPS
	Pin-20	O2B
	Pin-42	O2A
	Pin-44	PPS2
	Pin-45	EGR_FB
	Pin-33	FUEL_LEVEL_SENDER
	Pin-12	IAT
	Pin-67	AC_TEMP
	Pin-69	COOLANT

Engine Block Ground
Chassis Ground

Customer Sign-OFF

Company: _____

Title: _____

Name: _____

APPROVED BY		
TITLE	NAME	DATE
Mech Engr	Tan Wenchun	
Cal Engr		
Sys Magr		
App Magr		
Proj Magr		

APPLICATION INFORMATION	
VEHICLE:	GMDAT M300
ATorMT:	MT
ENGINE:	B12D/B10D
EMMISSION:	E5

THIS DRAWING DOES NOT CONTROL THE VEHICLE WIRING OR CONFIGURATION. IT IS INTENDED FOR GENERAL REFERENCE ONLY.

GMDAT M300
B12D/B10D
MT60 ETC

DELPHI

E&S System Engineer: **Wenchun Tan** Phase: _____

Title: **VMD-10018484-003**

File name: _____ Rev: 11

Date: January 14, 2008 Page: _____

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	8	7	6	5	4	3	2	1			
K	Pin NO	Pin Description	Signal Type	Application	Current Limit for Diagnostic(A)	Max Current Rating	Max Voltage Drop(mV)	Wire Gauge	Wire Type	Terminal Plating	Remark
	1	Ignition coil C(Cyl #4)	Output	M300	16.5 A	10.5 A	300	Shield		Gold	
	2	Ignition coil B(Cyl #3)	Output	M300	16.5 A	10.5 A	300	Shield			
	3	Ignition coil D(Cyl #2)	Output	M300	16.5 A	10.5 A	300	Shield			
	4	POWER GND	Power/Gnd	M300	-	9.5 A	300				
	5	Camshaft position sensor HALL	Input	M300	-	10 mA	15				
	6	N/A	N/A	N/A	N/A	N/A	N/A				
	7	Input Air Temperature Sensor	Input	M300	-	2 mA	15				
	8	LEGR feedback input	Input	M300	-	10 mA	15				
	9	N/A	N/A	N/A	N/A	N/A	N/A				
J	10	O2 Sensor –B (Rear)	Input	M300	-	1 mA	15				
	11	MAP Sensor Input	Input	M300	-	2 mA	15				
	12	V5RTN 9	Power/Gnd	M300	0.2 A	0.2 A	15				
	13	V5REF 1-1	Power/Gnd	M300	0.2 A	0.1 A	15				
	14	V5RTN 1	Power/Gnd	M300	0.2 A	0.2 A	15				
	15	V5RTN 2	Power/Gnd	M300	0.2 A	0.2 A	15				
	16	V5REF 1-2	Power/Gnd	M300	0.2 A	0.1 A	15				
	17	BATTERY	Power/Gnd	M300	-	0.36 A	300				
	18	V5REF 1-3	Power/Gnd	M300	0.2 A	0.1 A	15				
	19	V5RTN 3	Power/Gnd	M300	0.2 A	0.2 A	15				
I	20	V5RTN 4	Power/Gnd	M300	0.2 A	0.2 A	15				
	21	V5REF2-1	Power/Gnd	M300	0.2 A	0.1 A	15				
	22	N/A	N/A	N/A	N/A	N/A	N/A				
	23	N/A	N/A	N/A	N/A	N/A	N/A				
	24	ETC Motor CLOSE (-)	Output	M300	12 A	9 A	300	Twisted			
	25	BATTPROT	Power/Gnd	M300	-	9 A	300				
	26	Ignition coil A (cyl #1)	Output	M300	16.5 A	10.5 A	300	Shield			
	27	POWER GND	Power/Gnd	M300	-	9.5 A	300				
	28	POWER GND	Power/Gnd	M300	-	9.5 A	300				
	29	POWER GND	Power/Gnd	M300	-	9.5 A	300				
H	30	Crank Position Sensor (VR) - HI	Input	M300	-	10 mA	15	Twisted&Shield			
	31	Crank Position Sensor (VR) - LO	Input	M300	-	10 mA	15	Twisted&Shield			
	32	Pedal Position Sensor #1 Input	Input	M300	-	1 mA	15				
	33	V5RTN 8	Power/Gnd	M300	0.2 A	0.2 A	15				
	34	Pedal Position Sensor #2 Input	Input	M300	-	1 mA	15				
	35	N/A	N/A	N/A	N/A	N/A	N/A				
	36	N/A	N/A	N/A	N/A	N/A	N/A				
	37	Fuel tank level sender	Input	M300	-	20 mA	15				
	38	AC Temp	Input	M300	-	2 mA	15				
	39	Engine Coolant Temperature Sensor	Input	M300	-	2 mA	15				
G	40	O2 Sensor –A (Front)	Input	M300	-	1 mA	15				
	41	N/A	N/A	N/A	N/A	N/A	N/A				
	42	V5RTN 5	Power/Gnd	M300	0.2 A	0.2 A	15				
	43	V5REF2-2	Power/Gnd	M300	0.2 A	0.1 A	15				
	44	V5RTN 6	Power/Gnd	M300	0.2 A	0.2 A	15				
	45	V5RTN 7	Power/Gnd	M300	0.2 A	0.2 A	15				
	46	N/A	N/A	N/A	N/A	N/A	N/A				
	47	IGN1	Power/Gnd	M300	-	42 mA	300				
	48	Accessory / Wakeup	Power/Gnd	M300	-	10 mA	300				
	49	ETC Motor OPEN (+)	Output	M300	12 A	9 A	300	Twisted			
F	50	BATTPROT	Power/Gnd	M300	-	9 A	300				
	51	FAN relay control #2 out	Output	M300	1~1.5 A	0.3 A	300				
	52	FAN relay control #1 out	Output	M300	1~1.5 A	0.3 A	300				
	53	Redundant Brake Switch	Input	M300	-	14 mA	15				
	54	GMLAN HI - Vehicle	Communication	M300	-	50 mA	15	Twisted			
	55	GMLAN LO - Vehicle	Communication	M300	-	50 mA	15	Twisted			
	56	Brake Pedal Apply (BPA) Switch	Input	M300	-	14 mA	15				
	57	KW2000	Communication	M300	-	50 mA	15				
	58	N/A	N/A	N/A	N/A	N/A	N/A				
	59	N/A	N/A	N/A	N/A	N/A	N/A				
E	60	AC Request Switch	Input	M300	-	14 mA	15				
	61	Power Steering Switch	Input	M300	-	14mA	15				
	62	N/A	N/A	N/A	N/A	N/A	N/A				
	63	N/A	N/A	N/A	N/A	N/A	N/A				
	64	N/A	N/A	N/A	N/A	N/A	N/A				
	65	Throttle Position Sensor #2 Input	Input	M300	-	1 mA	15				
	66	Throttle Position Sensor #1 Input	Input	M300	-	1 mA	15				
	67	V5RTN 10	Power/Gnd	M300	0.2 A	0.2 A	15				
	68	Vehicle Speed Sensor (Hall)	Input	M300	-	30 mA	15				
	69	V5RTN 11	Power/Gnd	M300	0.2 A	0.2 A	15				
D	70	N/A	N/A	N/A	N/A	N/A	N/A				
	71	Knock sensor LO	Input	M300	-	10 mA	15	Twisted&Shield			
	72	Knock sensor HI	Input	M300	-	10 mA	15	Twisted&Shield			
	73	N/A	N/A	N/A	N/A	N/A	N/A				
	74	Chassis ground	Power/Gnd	M300	-	1.5 A	15				
	75	Chassis ground	Power/Gnd	M300	-	1.5 A	15				
	76	Port De-Activate Output	Output	M300	0.6-0.9 A	0.4 A	300				
	77	A/C Clutch relay	Output	M300	0.33-0.4 A	0.3 A	300				
	78	Injector Cylinder D (Cyl #2)	Output	M300	2.5-3.0 A	1.5 A	300				
	79	Injector Cylinder B (Cyl #3)	Output	M300	2.5-3.0 A	1.5 A	300				
C	80	Injector Cylinder A (Cyl #1)	Output	M300	2.5-3.0 A	1.5 A	300				
	81	Injector Cylinder C (Cyl #4)	Output	M300	2.5-3.0 A	1.5 A	300				
	82	Upshift Indication Telltale Lamp	Output	M300	1-1.5 A	20 mA	300				
	83	N/A	N/A	N/A	N/A	N/A	N/A				
	84	Fuel Consumption	Output	M300	0.6~0.9 A	10 mA	300				
	85	Coolant Gauge	Output	M300	1-1.5 A	20 mA	300				
	86	Fuel pump control out (HSD)	Output	M300	0.5-0.6 A	0.3 A	300				
	87	N/A	N/A	N/A	N/A	N/A	N/A				
	88	O2 heater –A (Front)	Output	M300	22-35 A	5 A	300				
	89	Thermostat Out	Output	M300	1-1.5 A	20 mA	300				
B	90	O2 heater –B (Rear)	Output	M300	22-35 A	2.2 A	300				
	91	Fuel Gauge	Output	M300	1-1.5 A	20 mA	300				
	92	MIL lamp out	Output	M300	1-1.5 A	20 mA	300				
	93	N/A	N/A	N/A	N/A	N/A	N/A				
	94	Main Power relay Out	Output	M300	1-1.5 A	0.3 A	300				
	95	Canister purge solenoid valve	Output	M300	2.5-3.0 A	2.1 A	300				
	96	N/A	N/A	N/A	N/A	N/A	N/A				
	97	Tachometer Out	Output	M300	1-1.5 A	20 mA	300				
	98	LEGR (with Re-circulation)	Output	M300	8-9 A	1 A	300				
	99	N/A	N/A	N/A	N/A	N/A	N/A				
100	N/A	N/A	N/A	N/A	N/A	N/A					
A	PIN 1 PIN 25 PIN 26 PIN 50 PIN 51 PIN 75 PIN 76 PIN 100 100-pins Product Connector J101										
	8	7	6	5	4	3	2	1			

DATE	REV	DESCRIPTION																																		
Jun 25, 2007	01	Initial Release																																		
Aug 27, 2007	02	--Cancel oil pressure switch #41 #23 --Reassign #82 for Upshift indication telltale lamp --Change name of #84 to Fuel Consumption --Change name of #47 to IGN1 --ETC HI and Lo #48, #24 change to twisted																																		
Oct 25, 2007	03	--Delete Octane select switches from pin 62 and 67																																		
Nov 28, 2007	08	--Delete Start Motor Relay at #87.																																		
Dec 27, 2007	09	--Add SVRTN pins at 33, 12, 67, 69 as V5RTN8, 9,10, 11 respectively																																		
Jan 14, 2008	12	--Free pin-46																																		
Engine Block Ground Chassis Ground Customer Sign-OFF Company: Title: Name: APPROVED BY <table><tr><td>TITLE</td><td>NAME</td><td>DATE</td></tr><tr><td>Mech Engr</td><td>Tan Wenchun</td><td></td></tr><tr><td>Cal Engr</td><td></td><td></td></tr><tr><td>Sys Magr</td><td></td><td></td></tr><tr><td>App Magr</td><td></td><td></td></tr><tr><td>Proj Magr</td><td></td><td></td></tr></table> APPLICATION INFORMATION <table><tr><td>VEHICLE:</td><td>GMDAT M300</td></tr><tr><td>ATorMT:</td><td>MT</td></tr><tr><td>ENGINE:</td><td>B12D/B10D</td></tr><tr><td>EMMISSION:</td><td>E5</td></tr></table> THIS DRAWING DOES NOT CONTROL THE VEHICLE WIRING OR CONFIGURATION. IT IS INTENDED FOR GENERAL REFERENCE ONLY. GMDAT M300 B12D/B10D MT60 ETC DELPHI <table><tr><td>E&S System Engineer: Wenchun Tan</td><td>Phase:</td></tr><tr><td>Title:</td><td></td></tr><tr><td>File name:</td><td>Rev:</td></tr><tr><td>Date:</td><td>Page:</td></tr></table>			TITLE	NAME	DATE	Mech Engr	Tan Wenchun		Cal Engr			Sys Magr			App Magr			Proj Magr			VEHICLE:	GMDAT M300	ATorMT:	MT	ENGINE:	B12D/B10D	EMMISSION:	E5	E&S System Engineer: Wenchun Tan	Phase:	Title:		File name:	Rev:	Date:	Page:
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