

[< Previous](#) [Next >](#)

2012 - Mazda6 - Engine

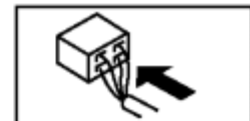
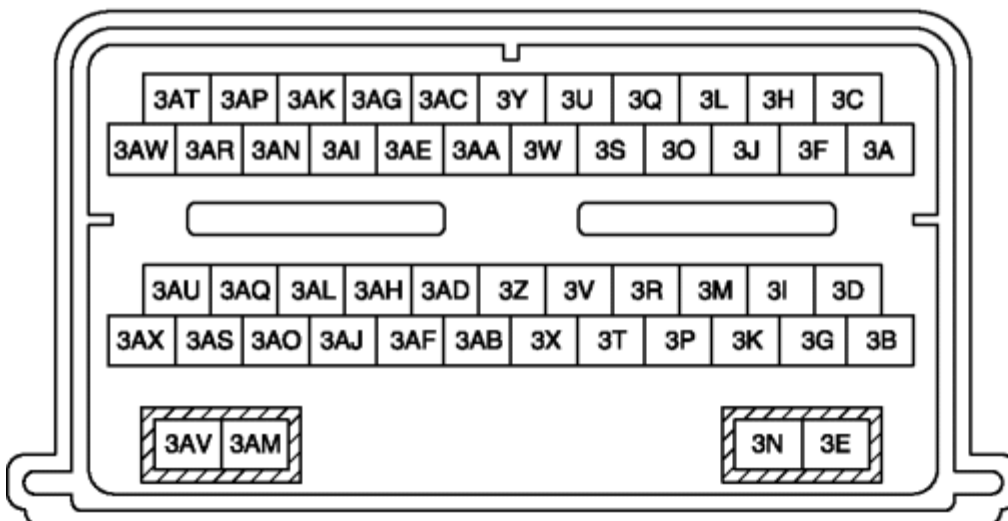
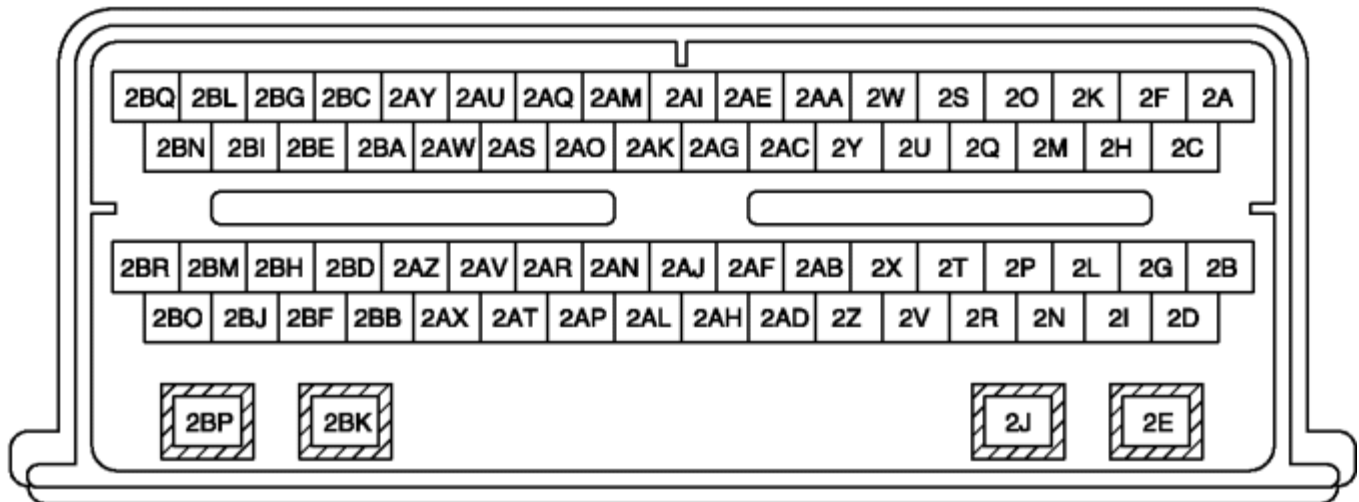
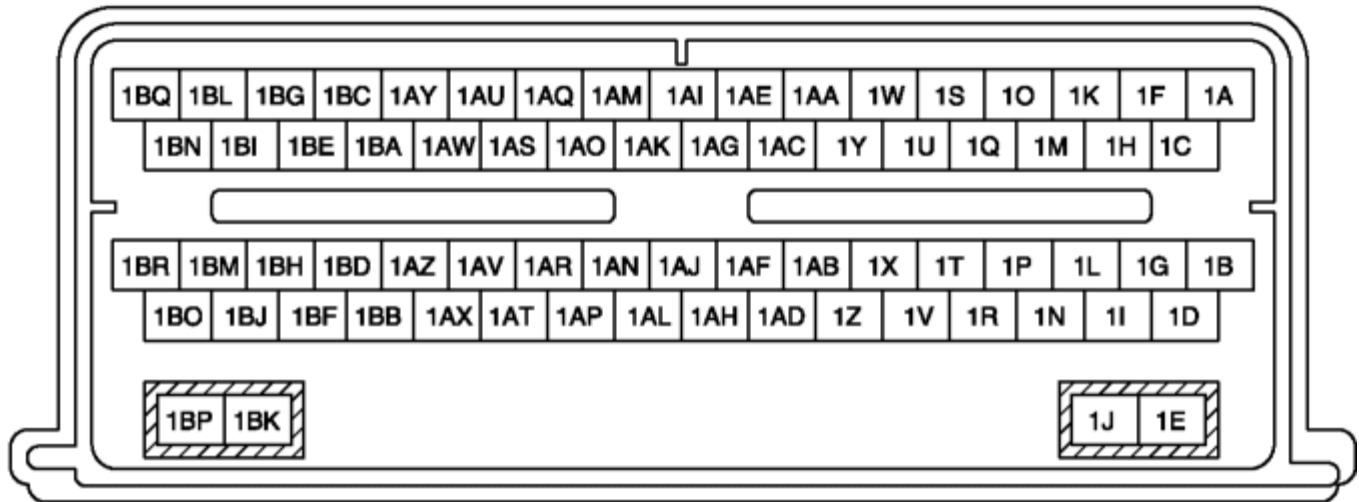
PCM INSPECTION [MZI 3.7 V6]

CAUTION:

- The PCM terminal voltage can vary with the conditions when measuring and changes due to aged deterioration on the vehicle, causing false diagnosis. Therefore determine comprehensively where the malfunction occurs among the input systems, output systems, and the PCM.

Typical Diagnostic Reference Values

PCM WIRING HARNESS-SIDE CONNECTOR



Measured/ PID Values

Sensors/ Inputs					Units Measured/ PI D
	KOEO	Hot Idle	48 KM/ H (30 MPH)	89 KM/ H (55 MPH)	
APP1	4.1	4.2	3.9	3.7	DCV
APP2	1.6	1.7	1.9	2.1	DCV
FPM	OFF	ON	ON	ON	ON/OFF
MAF	0	0.62	1.06	1.44	DCV
IAT	1.89/114.8 (K)	2.13/104 (K)	3.32/59 (K)	3.37/57.2 (K)	DCV/DEG F
FTP	2.55/-0.01	2.53/-0.02	2.49/-0.03	2.28/-0.08	DCV/PSI
BOO	OFF	ON (E)	OFF	OFF	ON/OFF
BPA	OFF	ON (E)	OFF	OFF	ON/OFF
ACP_PRESS	1.46/47.99	1.48/51.98	1.42/41.99	1.42/41.99	DCV/PSI
PSP	LOW	HIGH (I)	LOW	LOW	HIGH/LOW
O2S12	(L)	(D)	(D)	(D)	DCV
O2S22	(L)	(D)	(D)	(D)	DCV
HTRCM12	582	582	582	582	mA
HTRCM22	613	613	613	613	mA
GENMON	0	50.78	31.25	31.25	%
O2S11	(L)	switching (C)	switching (C)	switching (C)	DCV/RICH-LEAN
O2S21	0	switching (C)	switching (C)	switching (C)	DCV/RICH-LEAN
CHT	0.61/192.2	0.64/190.4	0.71/181.4	0.69/183.2	DCV/DEG F
KNOCK 1	26590	27310	32090	40910	N/A

TP2	1.25/25.1	0.85/16.8	0.82/16	1.26/25.1	DCV/%
TP1	4.1/16.9	4.4/12.2	4.3/12.9	4.2/14.9	DCV/%
HTRCM11	1.43	1.43	1.43	1.43	AMPS
HTRCM11	1.49	1.49	1.49	1.49	AMPS
ACCS	OFF	ON (A)	OFF	OFF	ON/OFF
BARO	14.24/155.8	14.24/155.8	14.24/155.8	14.24/155.8	PSI/HZ
B+	VBAT	VBAT	VBAT	VBAT	DCV
APP	0	0	19.5	24.5	%
CPP/PNP	NEUTRAL	NEUTRAL	DRIVE	DRIVE	NEUTRAL/DRIVE
DECHOKE	YES	NO	NO	NO	YES/NO
ETC_ACT	7.25	1.87	5.68	7.81	DEG
ETC_DSD	7.62	1.94	5.66	7.81	DEG
FLI	13.58 (H)	13.59 (H)	23.15 (H)	28 (H)	%
LOAD	49 (L)	17	21	29	%
MISFIRE	NO	NO	NO	NO	YES/NO
O2BANK1	VARIES	VARIES	VARIES	VARIES	RICH/LEAN
O2BANK2	VARIES	VARIES	VARIES	VARIES	RICH/LEAN
RPM	0	640	1146	1675	RPM
VSS	0	0	30	55	MPH

Actuators/ Outputs	Measured/ PID Values				Units Measured/ PID
	KOEO	Hot Idle	48 KM/ H (30 MPH)	89 KM/ H (55MPH)	

EVMV	0/OFF	155/VARYING	553/VARYING	905/VARYING	mA/OFFVARYING
EVAPCV	0/OFF	0/OFF	0/OFF	0/OFF	%/ON-OFF
FP	OFF	ON	ON	ON	ON/OFF
WAC/ACCR	OFF	OFF	OFF	OFF	ON/OFF
PCVHC	0	0	0	0	%
SPKDUR_6	0	2.31	1.53	1.56	ms
SPKDUR_5	0	2.12	1.62	1.34	ms
SPKDUR_4	0	2.31	1.87	1.59	ms
GENCMD	3.79	0 (Q)	0 (Q)	0 (Q)	%
SPKDUR_3	0	2.12	1.75	1.5	ms
SPKDUR_2	0	2.5	1.75	1.5	ms
SPKDUR_1	0	2.31	1.78	1.9	ms
HTR12	OFF	ON	ON	ON	ON/OFF
HTR22	OFF	ON	ON	ON	ON/OFF
VCTADV	0	0.5	0.5	-40.44	DEG
VCTADV2	0	0.06	0.12	-40	DEG
HTR11	ON (O)	ON	ON	ON	ON/OFF
HTR21	ON (O)	ON	ON	ON	ON/OFF
EGR_EVAL	YES	YES	YES	YES	YES/NO
EVAP020C	NO	NO	NO	NO	YES/NO
EVAP020D	ALLOW	ALLOW	ALLOW	ALLOW	ALLOW/DISALLOW
EVAP020R	NOT	NOT READY	NOT READY	NOT READY	READY/NOT READY

	READY				
EVAPSOAK	NO	YES	YES	YES	YES/NO
EVAP_EVAL	NO	NO	NO	NO	YES/NO
FANDC	7.5	7.5	7.5	7.5	%
FANVAR	0	29	29	0	%
FUELSYS	OPEN LOOP	CLOSED LOOP	CLOSED LOOP	CLOSED LOOP	OPEN/CLOSED LOOP
LONGFT1	(L)	(-)20-(+)20	(-)20-(+)20	(-)20-(+)20	%
LONGFT2	(L)	(-)20-(+)20	(-)20-(+)20	(-)20-(+)20	%
MIL	OFF	OFF	OFF	OFF	ON/OFF
SHRTFT1	(L)	(-)10-(+)10	(-)10-(+)10	(-)10-(+)10	%
SHRTFT2	(L)	(-)10-(+)10	(-)10-(+)10	(-)10-(+)10	%
SPARKADV	31.25	25.5	47.5	42.5	DEG
STRT_RLY	ENABLED	DISABLED	DISABLED	DISABLED	ENABLED/DISABLED
VCTADVERR	0	-0.31	-1.56	0.43	DEG
VCTADVERR2	0	-0.31	-2.06	0.12	DEG
VCTDC	0	0	0	80	%
VCTDC2	0	0	0	80	%

Other	Measured/ P I D Values				Units Measured/ P I D
	KOE	Hot Idle	48 KM/ H (30 MPH)	89 KM/ H (55 MPH)	
VPWR	VBAT	VBAT	VBAT	VBAT	DCV

[< Previous](#) [Next >](#)

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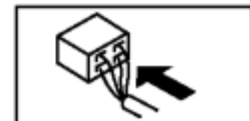
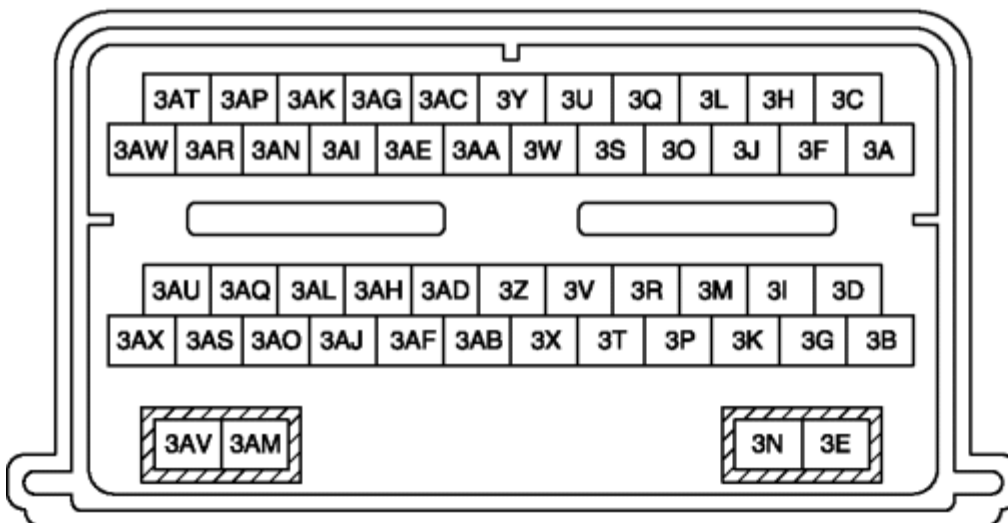
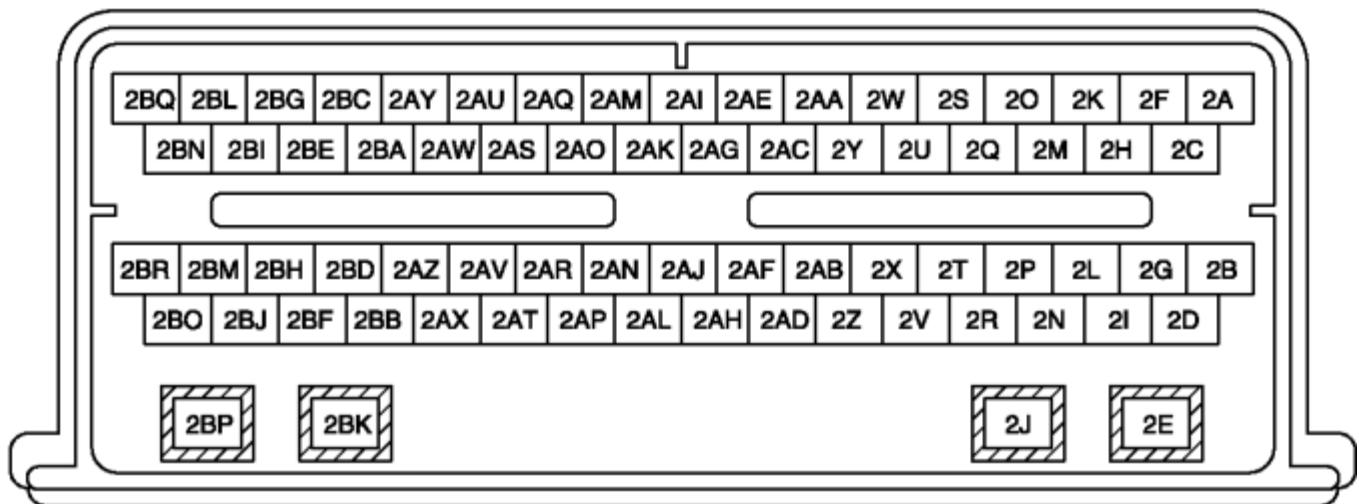
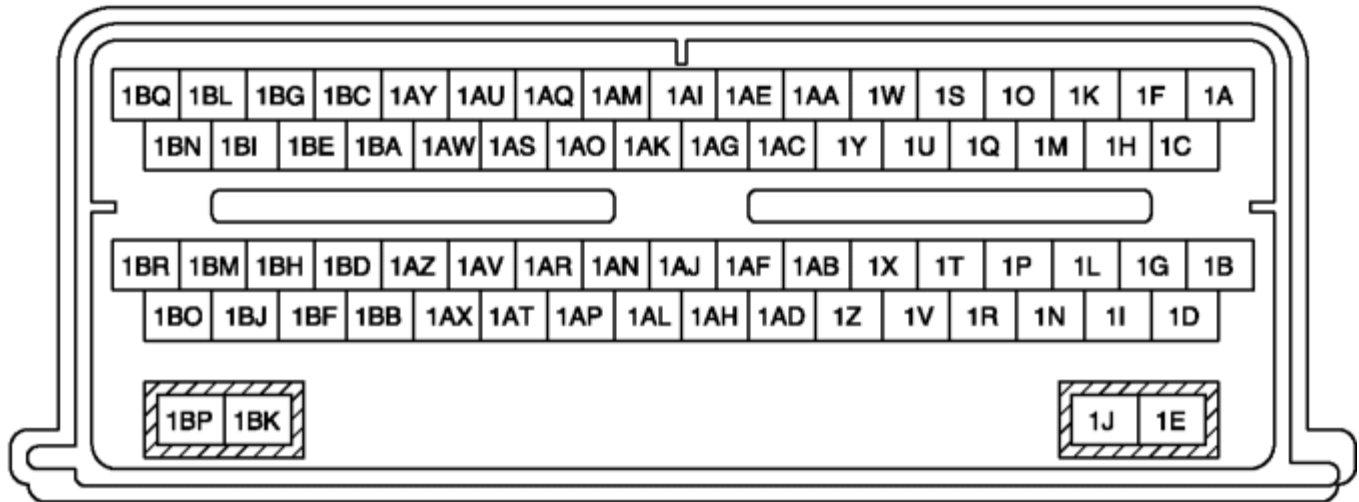
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EVAPCV	0/OFF	0/OFF	0/OFF	0/OFF	%/ON-OFF
FP	OFF	ON	ON	ON	ON/OFF
WAC/ACCR	OFF	OFF	OFF	OFF	ON/OFF
PCVHC	0	0	0	0	%
SPKDUR_6	0	2.31	1.53	1.56	ms
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EVAP_EVAL	NO	NO	NO	NO	YES/NO
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LONGFT2	(L)	(-)20-(+)20	(-)20-(+)20	(-)20-(+)20	%
MIL	OFF	OFF	OFF	OFF	ON/OFF
SHRTFT1	(L)	(-)10-(+)10	(-)10-(+)10	(-)10-(+)10	%
SHRTFT2	(L)	(-)10-(+)10	(-)10-(+)10	(-)10-(+)10	%
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