

[A.] Customer & Vehicle Information

Year/Make/Model:	Ticket #:
VIN:	Mileage:
Name:	Date:
Complaint / symptom:	

[B.] Preliminary Checks / Misfire First

[1.] MIL illuminates KOEO? ☐ Yes ☐ No
 [2.] MIL illuminated with engine running? ☐ Yes ☐ No
 DTCs:
 Misfire: ☐ Present ☐ No Misfire ☐ Random/Multiple Cylinders affected:
 [3.] Engine overheating? ☐ Yes ☐ No
 YES → use [1043.1] Overheating Diagnostic Worksheet. NO → continue.
 [4.] Transmission shifts correctly? ☐ Yes ☐ No
 NO → use [1044.1] Transmission Diagnostic Worksheet. YES → continue.

[C.] Fuel Pressure & Fuel Trims

Condition	Fuel PSI	STFT B1	LTFT B1	STFT B2	LTFT B2	MAF g/s
KOEO		—	—	—	—	—
Idle		%	%	%	%	
2,500 RPM		%	%	%	%	

Fuel control: ☐ Open Loop ☐ Closed Loop Total trim B1: % B2: %

[D.] Vacuum & Airflow

Cranking	Idle	Stabilized Idle	Part Throttle	Throttle Snap - Minimum
inHg	inHg	inHg	inHg	inHg

Gauge: ☐ Steady ☐ Fluctuating ☐ Regular drop ☐ Intermittent drop ☐ Sustained low ☐ Other
 Intake: ☐ Restriction present ☐ Leak suspected ☐ Verified with smoke test Location:

[E.] Ignition / Spark

Spark: ☐ Present ☐ No Spark Quality: ☐ Strong/consistent ☐ Weak/intermittent Issue cylinders:

Cylinder	1	2	3	4	5	6	7	8
Plug Gap								

Measured timing: deg BTDC/ATDC Commanded: deg Follows command: ☐ Yes ☐ No

[F.] Exhaust Backpressure

Condition	Bank 1	Bank 2	Restriction Indicated
Idle	PSI	PSI	☐ Yes ☐ No
Higher RPM	PSI	PSI	☐ Yes ☐ No

[G.] Cylinder Contribution / Drop Test

Cylinder	1	2	3	4	5	6	7	8
RPM Drop								

Maximum variance / weak cylinder(s):

[H.] Parts Swap Diagnosis

Bad cylinder: Known-good cylinder:
 [1.] Swap coil/wire → fault followed? ☐ Yes ☐ No [2.] Swap spark plug → fault followed? ☐ Yes ☐ No
 [3.] Swap injector → fault followed? ☐ Yes ☐ No If fault remains, continue with [1042.1] Compression and [1036.3] Leak-Down.
 PCM injector/coil trigger present on suspect cylinder: ☐ Yes ☐ No Wiring/connector integrity: ☐ Good ☐ Abnormal