



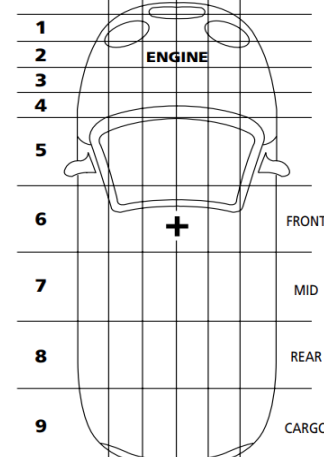


## "WRITE-UP" JOB AID - SPECIFIC SYMPTOM IDENTIFICATION

INSTRUCTIONS: Check below sense affected and location of concern on the generic vehicle illustration (darken the vehicle area). Plus circle appropriate responses to the right.

	<b>SEE</b> YES <input type="checkbox"/>		<b>FEEL</b> YES <input type="checkbox"/>
	<b>HEAR</b> YES <input type="checkbox"/>		<b>SMELL</b> YES <input type="checkbox"/>

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						
7						
8						
9						

\* NOTE: Shaded backgrounds indicate caution areas. Selection of two or more caution areas "flag" difficult repairs. In general, shaded areas are the more difficult to verify and repair, and require all applicable columns to be completed.

VEHICLE SYMPTOM AREA	HOW OFTEN?	VEHICLE OPERATING MODE	VEHICLE SPEED (KM)	AMBIENT CONDITION	WHEN VEHICLE IS:
Front of Vehicle	Always	Start Up	1 -15	Below 20- C	Turning Left
Engine Compartment	Daily (AM? PM?)	Idle	16-29	-20 to -5	Turning Right
Dash	Conditional	Gear Selection	30-49	-5 to 0	Over Bumps
Steering Wheel	Weekly	Acceleration - light	50-64	1 to 10	Up Hills
Accelerator Pedal	Monthly	Acceleration - moderate	65-79	11 to 20	Down Hills
Brake Pedal	Intermittent	Acceleration - heavy	80-94	21 to 30	Upshifting
Clutch Pedal	Unknown	Steady Speed	95-109	Above 30	Downshifting
Shift lever / Knob		Deceleration	110+	Sunny	Parked
Seat	<b>VEHICLE CONDITIONS</b>	Coast down	<b>ROAD SURFACE</b>	Dry	In Traffic
Rear of Vehicle	Accessories On	Braking Soft	Smooth paved	Windy	<b>ENGINE TEMP.</b>
Top of Vehicle	Windows Open	Braking Moderate	Rough paved	Wet / humid	Cold
Floor Pan	In 4x4	While in Reverse	Bumpy	Rain	Normal
Under Vehicle	Hauling		Wet	Snow	Hot
	Towing			Ice	

## Description of Noises:

<b>BACKFIRE</b> – Similar to a gunshot sound coming from the engine or tailpipe.	<b>CLANGING</b> – A heavy sound of metal to metal, with reverberation (like a gong).	<b>HISSING</b> – The sound of air or steam escaping from somewhere.	<b>RUMBLING</b> – A low, continuous sound, like far away thunder.
<b>BANGING</b> – Brief, loud and sharp sounds almost like a gun firing. (A backfire is an example of a "bang".)	<b>CLICKING</b> – Light, high-frequency tapping (like the sound of a pen top being clicked, or a keyboard.)	<b>HOWLING</b> – A strong wind noise even if the windows are completely rolled up.	<b>SCRAPING</b> – Usually a high-pitched, metallic noise that speeds up as the vehicle speeds up.
<b>BOOM</b> - Low resonant sound like a drum roll or distant thunder.	<b>CLUNKING</b> – Any heavy thump or bump sound without reverberation that can often sound a little muted.	<b>HUM</b> - Continuous sound, although the pitch may vary.	<b>SQUEAKING</b> - High pitched, like rubbing a clean window
<b>BUZZING</b> – A constant, low pitched sound (like a bee) usually associated with vibrations. This sound can often be felt through the steering wheel or floor.	<b>FLAPPING</b> – Any repetitious noise that sounds like a flag in a strong wind.	<b>KNOCK</b> - a heavy, loud, repeating sounds - like someone's fist on a door.	<b>SQUEALING</b> – High-pitched and long lasting.
<b>CHATTER</b> - rapidly repeating metallic sound, like teeth chattering.	<b>GRINDING</b> – An abrasive sound, for instance metal-on-metal or a grinding wheel.	<b>PINGING</b> – A higher pitch than a knock. Can sound like someone dropping marbles into an empty can.	<b>TAPPING</b> – A heavier noise than a click but similar, like tapping on a board with a hammer.
<b>CHIRPING</b> – Repetitive bird-like sounds.	<b>GROANING</b> - a continuous low pitched sound, may change tone depending on speed of the car.	<b>POPPING</b> – Sharp, explosive sounds can be described as popping and usually aren't as loud as banging.	<b>WHINING</b> – a drawn out higher-pitched noise that usually changes with engine speed.
<b>CHUCKLE</b> - A rapid noise, similar to a stick against the spokes of a bicycle.	<b>GROWL</b> - a low guttural sound, like an angry dog.	<b>RATTLING</b> – The sound of pebbles shaking around in an empty can can be described as rattling.	<b>WHIRING</b> - A high pitched, buzzing sound- like an electric drill or motor.
	<b>HESITATION</b> – A brief loss of power upon acceleration.	<b>ROARING</b> – the sound a jet makes when it accelerates to take off. A deep & prolonged sound.	<b>WHISTLING</b> – Shrill, loud, high-pitched noise.