

ROAD RAGE V8

GTi Edition

A Game of Automotive Mayhem

By Chris Johnston

November 2001

Additional Material:

Jason - "Phased Movement"

Glenn Jupp - "Alternate Manoeuvres"

Alan Smithee - "Ultralight Hand Weapons"

Zug - "Boarding"

Edited by Glenn Jupp

November 2007

Table of Contents

INTRODUCTION.....	3
GAME SETUP.....	4
PART 1 - VEHICLE DESIGN SEQUENCE.....	5
STOCK BODY TYPES.....	5
OPTIONS.....	5
VEHICLE OPTIONS TABLE.....	11
VEHICLE WEAPONRY TABLE.....	12
<i>Vehicle Weaponry Attributes.....</i>	<i>12</i>
THE VEHICLE RECORD SHEET.....	14
CHARACTER DESIGN.....	14
PART 2 - PLAYING THE GAME.....	16
TURN SEQUENCE.....	16
PHASE 1 SPEED SELECTION.....	16
PHASE 2 MOVEMENT.....	16
<i>Tailing.....</i>	<i>16</i>
<i>Manoeuvres.....</i>	<i>16</i>
PHASE 3 SPEED PUSH (OPTIONAL).....	19
PHASE 4 FIRING.....	19
<i>Using Hand Weapons from within a vehicle.....</i>	<i>20</i>
<i>Weapon ranges.....</i>	<i>20</i>
<i>Arcs of fire.....</i>	<i>20</i>
<i>Ranged Fire resolution.....</i>	<i>20</i>
<i>Dropped weapons.....</i>	<i>21</i>
PHASE 5 FIRE, SMOKE & FLAMING OIL.....	22
VEHICLE DAMAGE.....	23
CRASHING AND RAMMING.....	25
RAM TYPES.....	25
RAMMING DAMAGE.....	25
<i>Modifiers.....</i>	<i>25</i>
<i>Whiplash Damage.....</i>	<i>26</i>
<i>Final Speed after Rams.....</i>	<i>26</i>
<i>Leftover Movement After A Shunt.....</i>	<i>26</i>
SIDESWIPES.....	27
COLLISIONS WITH FIXED OBJECTS.....	27
OPTIONAL RULES.....	28
OFF-ROAD DRIVING.....	28
BIKES.....	29
<i>Control Loss.....</i>	<i>29</i>
<i>Ramming.....</i>	<i>29</i>
<i>Whiplash Damage & saving throws.....</i>	<i>29</i>
<i>Firing.....</i>	<i>29</i>
<i>Mines.....</i>	<i>29</i>
PEDESTRIANS.....	30
BOARDING A MOVING VEHICLE.....	30
HAND GRENADES.....	32
PHASED MOVEMENT.....	32
ALTERNATE MANOEUVRES.....	33
QUICK REFERENCE - DRIVING.....	34
QUICK REFERENCE - COMBAT.....	35
APPENDIX I - SOLITAIRE HIGHWAY DUEL STRATEGIES.....	36
VEHICLE RECORD SHEETS.....	39

Introduction

Road Rage is the result of my own dissatisfaction with the other autocombat games available. While I've played and enjoyed Car Wars, Dark Future and Battlecars many times, none of them have quite hit the mark for me. Car Wars hyper-detailed approach doesn't necessarily give a good simulation, Dark Future limits you to two vehicle types (three if you count bikes) and while Battlecars is a great beer & pretzels game, again you're stuck with fixed vehicle designs.

But most of all, all these games are based on vehicles armed with guns, rockets and minelayers. There aren't any games out there that are designed to cover the whole spectrum of automotive mayhem, including races, chases, post-apocalyptic banditry and destruction derbies. Hence Road Rage.

Road Rage grew out of an earlier game, which combined the Car Wars vehicle design sequence with the Battlecars gridded movement. The resulting hybrid, known under the working title of BattleAutoDeathCarDuelWars, was quick for new players to pick up, but allowed the flexibility of the Car Wars vehicle design sequence.

Then more recently I came across the "Hot Rods & Gun Bunnies" supplement for the "Big Eyes Small Mouth" roleplaying game. It had a great vehicle design sequence based on buying Major & Minor options for vehicles to improve their performance, but very little in the way of actual game mechanics for how to use the resulting vehicles. This idea of Major & Minor options became the core of Road Rage.

The resulting rules steal shamelessly from many other rulesets. The vehicle damage rules are based on Ground Zero Games' "Full Thrust" spaceship combat game, but the idea of using them in an autocombat game came from Owen Cooper's "Axles & Alloys" game. The manoeuvre rules are inspired by Battlecars & Dark Future (two very similar systems in a lot of respects), and several vehicle options were inspired by components from Car Wars (Some may be sad to note I've not used the Armoured Beer Refridgerator)

The resulting game will, I hope, give an enjoyable game that can be picked up by new players fairly quickly, and allow you to reproduce all sorts of vehicular mayhem. The current version, V8, has been playtested mainly in the "armed vehicles" setting, but earlier versions have been used to run all sorts of races and chases. While I've tried to give a reasonable simulation of vehicle behavior, the emphasis is mainly on keeping the rules as simple and streamlined as possible.

The game is designed to be used with Hot Wheels or Matchbox vehicles, and as originally written used a 50mm square grid. If you wish to use the smaller Micromachines I would suggest replacing the 50mm increments in the rules with 30mm increments.

Game Setup

To play Road Rage, you will need...

A tape measure marked in centimetres (50mm=5cm)

A selection of Hot Wheels cars

6 sided dice (ideally at least 5 per player)

Paper & Pencils (for vehicle records)

If using dropped weapons, you will also need a selection of 50mm square counters to represent oil slicks, mines, spikes & flaming oil, plus some cotton wool for smokescreens.

The rules are written for “HO” sized vehicles (typically 50-70mm long) commonly referred to as “Matchbox” cars. If you wish to use different sized vehicles such as “Micromachines” or the larger “Dinky” scale (1/48 to 1/32) then simply scale all movement and ranges accordingly (I would suggest halving for “Micromachines” and doubling for “Dinkys”).

Scenery for Road Rage can be anything from a gladiatorial arena to city streets to a more traditional wargames terrain for off-road gaming. This really depends on the scenario you wish to play. A simple road can be produced by printing off straight road sections on a PC printer. If playing an Off-Road game, decide in advance what scenery is Off-Road, Rough, Punishing or Impassable terrain.

The game organiser should decide the nature of the game, what the objectives are and whether weapons are allowed. He or she should then either design the vehicles involved, or allocate a budget of Major and Minor options for each player/side to design their own vehicles. Options listed as “Mundane” are available for free. The number and type of options allowed depends on the sort of game required. Suggestions are

Race game	All vehicles to be of one type, 3 Minor options each, no weapons
Cops & Robbers chase	3-4 Minor options, hand weapons only
Lo-Tech autoduel	3 Minor options per car, 1-2 Major options per side/player, hand weapons, vehicular crossbow or MGs only
Spy-chase	Spy-car - 5-6 Minor, 2 Major options, All weapon options Chase cars, 3-4 Minor options, no inbuilt weapons, hand weapons only.
Hi-Tech autoduel or Arena combat	5-6 Minor, 2 Major, All weapon options.

Part 1 - Vehicle Design Sequence

1. Select stock body
2. Select a number of Major, Minor or Free options
3. Calculate final Max speed, Acc, Dec, Hit Points etc.

Stock Body Types									
Vehicle	Speed	Acc	Dec	HC	Size	People	Cargo	Hit Points	Skill
Light Bike	100	40	20	4	0	1	50kg	18	Driving (bike)
Heavy Bike	120	40	20	3	1	2	100kg	27	Driving (bike)
Compact	80	20	20	3	1	4	100kg	36	Driving (car)
Mid Sized	100	20	20	2	2	5	200kg	45	Driving (car)
Truck/Van	80	20	20	1	3	3	1 tonne	54	Driving (van)
Bus/Hvy Truck	70	10	20	0	4	2	10 tonnes	63	Driving (big rig)

Options

All Options are defined as Major, Minor or Mundane. In addition, items described as Destroyable have an entry on the vehicle's damage chart, and must be checked for during Critical Damage checks.

Airfoils

The car is fitted with airdams (at the front) or spoilers (at the rear) which increases the downforce on the car, improving handling. May not be fitted to Bikes. +1 HC, minor option, destroyable.

Antilock Brakes

An advanced engineering system which prevents wheels from locking up when braking suddenly. +10 Dec, minor option, destroyable.

Armour - Light

Light Armour represents slight reinforcing of the vehicle in vulnerable places, such as pinning a flack jacket to a car door, or covering the windscreen with a wire mesh. This is also the only form of armour that can be fitted to Bikes. Save damage on 6, minor option.

Armour - Medium

Medium Armour represents some significant attempts at armouring, either by building the bodyshell out of blast-resistant materials or slapping serious sheets of metal to the existing frame. May not be fitted to Bikes. Save damage on 5,6, two minor options.

Armour - Heavy

Heavy Armour represents fully armoured vehicles, either military type APCs or custom-built "indestructible" car bodies. May not be fitted to Bikes. Save damage on 4,5,6, major option.

Automatic Transmission

This is a gearbox modification, which automatically shifts to the correct gear depending on current speed and acceleration. This means the driver does not have to worry about the clutch or gearstick during normal driving, and may concentrate on other actions, such as shooting hand weapons. Negates penalty for shooting hand weapons while driving, at the cost of -10 Acc, mundane item.

Big Bumper

A large, reinforced bumper designed to minimise damage when colliding with obstacles or vehicles to the front. Halve collision damage to front, minor option, destroyable.

Big Cowling

Bikes only. The bike has a large aerodynamic cowling at the front. This both increases the bike's top speed, and offers protection to the rider from shots to the front. +10mph top speed, rider counts as Partially Exposed to shots from the front, minor option, destroyable.

Big Engine

This is an engine that is significantly larger than normal for the given body size, e.g. a 1.6L in a compact, a V8 or V12 in a mid-sized. +20mph top speed, minor option.

Brake Chute

A parachute mounted at the rear of the vehicle, designed to give rapid emergency deceleration. The vehicle must be travelling at least 60mph for the chute to deploy properly. 1-shot 60mph deceleration, minor option, destroyable.

Cargo Area

Any vehicle may replace passenger seating with cargo space at the rate of 250kg per passenger. This may be doubled if the cargo space is designated as a "flatbed" and exposed to the open air. May not be fitted to Bikes. Mundane option.

Convertible Top

When the top is down, this allows occupants to fire out of the vehicle in a 360 degree radius. However, the occupants count as "exposed" for the purposes of

incoming fire. May not be fitted to Bikes. Mundane option.

Computerised Engine Management

An electronic system which constantly monitors and tunes the engine as it is running, in order to maximise performance. +10 Acceleration, minor option, destroyable.

Computer Assisted Suspension

An electronic system which monitors and adjusts the suspension in order to give a smoother, more stable ride. +1 HC minor option, destroyable.

Engine Rebuild

Also known as “blueprinting”. The engine has been taken apart and re-assembled to within the most exacting tolerances, and certain production items replaced with high performance alternatives. +20mph top speed, minor option.

Extra Gears

Most vehicles are assumed to have four or five forward gears. This modification gives the vehicle one or two extra forward gears. The vehicle's top speed isn't increased, but because the gears' power bands are closer together, the overall acceleration is increased. +10 Acc, minor option.

Fine Tuned

The vehicle has been tweaked and tuned until the engine runs at its absolute optimum. This might simply be a matter of adjusting things like timings or spark gaps, or it might be higher quality components like plugs or leads being used. +10 Acc, minor option.

Fire Extinguisher

A gas-type fire extinguisher mounted under the hood. Activating it counts as a driver or passenger's firing action for the turn. When activated it shoots a blast of firesuppressant gas into the engine compartment, out of vents in the hood and front body, and up and over the bodywork of the car. It has a 4,5,6 chance of putting out any fires in the engine compartment or on the bodywork of the vehicle. It cannot put out fires inside the vehicle. 5-shot, puts out fire on 4,5,6, minor option, destroyable.

Four Wheel Drive

Motive power is through all four wheels of the vehicle (or all six, or all eight etc) which gives even traction all round. This improves handling in poor surface conditions or off-road. May not be fitted to Bikes. +2HC on ice, oil, wet roads or offroad, minor option.

Fuel Injection

An advanced system which replaces the carburettor, giving a significant boost to performance. It is not possible to fit a Fuel Injection system and a Multicarb into the same vehicle. +20mph top speed, +10 Acc, two minor options.

Hidden Cargo Space

Up to half the cargo space in the vehicle is in hidden compartments. Handy in the event of “Imperial Entanglements”. Minor option, destroyable.

Improved Brakes

More powerful brakes, allowing a shorter stopping distance. +10 Dec, minor option.

Improved Shocks

The vehicle's suspension is tweaked to improve handling. +1HC, minor option.

Lights & Sirens

Police lights, sirens and a handy little searchlight. Minor option, destroyable.

Multicarb

A multi-barrelled carburettor designed to give superior performance over the standard single barrelled carb. It is not possible to fit a Multicarb and a Fuel Injection system into the same vehicle. +20mph top speed, minor option.

Nitrous Oxide

A system which injects Nitrous Oxide gas into the combustion chamber. This gives a brief but enormous boost to speed. For a single turn per use, the vehicle's acceleration is increased by 30. This acceleration can be used to boost a vehicle's speed to over its normal Top Speed (i.e. a vehicle using Nitrous may reach Top Speed +30mph) but on the following turn it must reduce speed down to the Top Speed (may exceed normal Dec to do this). 3-shot +30mph acceleration, minor option, destroyable

Off Road Suspension

Heavy duty suspension with a higher than usual ground clearance. Allows vehicle to pass Rough Terrain without penalty and to pass through Punishing Terrain. Minor option.

Progressive Gears

Instead of a traditional clutch & gearstick, or a fully automatic gearbox, this has a very simple gear changing control mounted on the steering wheel, either as a pair of buttons or a small lever. Pressing one button, or moving the lever one way, shifts the vehicle up a gear, pressing the other or moving the lever the other way, shifts the vehicle down a gear. The clutch is automatic. This makes it much easier to change gears while focussing on other things, such as shooting hand weapons. The effect is to give the advantages of an Automatic Transmission, without the acceleration penalty. Negates penalty for shooting hand weapons while driving, minor option.

Ram

A device mounted to the front of the vehicle designed to increase the amount of damage done in a forward ram attack. This can take the form of spikes, blades or a reinforced plate. This also reduces the damage taken by the vehicle when

ramming, as per a Big Bumper. Doubles Base Ram Damage, halves damage taken, major option.

Really Big Engine

This is an engine that is two or more sizes “too big” for the vehicle's body size. Examples would be a V8 in a compact, or a mid-sized with a Formula One racer engine. +40mph top speed, 2 minor options.

Roll Cage

A tubular steel framework designed to enclose the vehicle's passenger compartment and maintain its shape. While it's designed primarily to protect occupants in the event of the car rolling onto its roof, it also offers significant protection against side impacts. Halves damage caused by side impacts, minor option.

Safety Harnesses

Protects occupants from the effects of collisions. Not fitted to bikes, for the simple reason that a rider's best chance of survival in a crash is to separate from the bike to avoid being crushed. Saves occupant damage caused by collisions on 4,5,6, minor option, destroyable.

Slick Tires

Racing style tyres, with no noticeable tread pattern. Great for improving traction in dry conditions on the racetrack, lousy if it's wet, on a real road or off-road. +2HC on “clean” dry asphalt, -1HC on typical roads, -2HC off-road or on wet asphalt. Minor option.

Sports model

Compacts or Mid-Sized only. The car is a “sports” car with only room for two, a driver and a single passenger. +30mph, minor option.

Streamlined

The body of the vehicle is designed to reduce drag caused by air resistance. +20mph top speed, minor option.

Stripped

Excess weight has been removed from the vehicle in order to improve performance. The vehicle is still street legal, though just barely. +10mph top speed, +10 Acc, minor option.

Stripped to the Bones

Everything, absolutely everything not involved in making the car go forward very fast has been removed or lightened, to the point where the vehicle is no longer street legal (lacking things like headlights, indicators etc). +20mph top speed, +20 Acc, two minor options.

Sun Roof

Allows one occupant to stand and fire hand weapons from the sun roof in a 360

degree arc. Firer doing so counts as “exposed” for the purposes of incoming fire. May not be fitted to Bikes. Minor option.

Supercharger

A supercharger uses a belt and pulley mechanism linked to an engine’s crankshaft to force extra air and fuel into the engine’s combustion chambers, greatly increasing engine power. It is not possible to fit a Supercharger and a Turbocharger into the same vehicle. +20mph top speed, +10 Acc, two minor options.

Turbocharger

This device uses the engine’s exhaust stream to drive an air compressor (“fan”) which increases the engine’s power output. It is not possible to fit a Supercharger and a Turbocharger into the same vehicle. +20mph top speed, minor option.

Very Streamlined

The shape of the vehicle is designed to reduce drag caused by air resistance to an absolute minimum. +40mph top speed, two minor options.

Vehicle Options Table			
Option	Cost	Dest	Effect
Airfoils	m	Y	+1 HC
Antilock Brakes	m	Y	+10 Dec
Armour - Heavy	M	N	Save damage on 4,5,6
Armour - Medium	mm	N	Save damage on 5,6
Armour - Light	m	N	Save damage on 6
Automatic Transmission	-	N	Negates driver shooting penalty, at the cost of -10 Acc
Big Bumper	m	Y	Halve collision damage to front
Big Cowling	m	Y	+10mph top speed, protects rider
Big Engine	m	N	+20mph top speed
Brake Chute	m	Y	1-shot 60mph deceleration
Cargo Area	-	N	Replace passenger with 250kg cargo per passenger
Cargo Flatbed	-	N	Replace passenger with 500kg cargo per passenger
Convertible Top	-	N	Allows all occupants 360 degree arc
Computerised Engine Management	m	Y	+10 Acc
Computer Assisted Suspension	m	Y	+1 HC
Engine Rebuild	m	N	+20mph top speed
Extra Gears	m	N	+10 Acc
Fine Tuned	m	N	+10 Acc
Fire Extinguisher	m	Y	5-shot, puts out fire on 4,5,6
Four Wheel Drive	m	N	+2HC on ice, oil, wet roads or off-road
Fuel Injection	mm	N	+20mph top speed +10mph Acc
Hidden Cargo Space	m	Y	
Improved Brakes	m	N	+10 Dec
Improved Shocks	m	N	+1 HC
Lights & Sirens	m	Y	
Multicarb	m	N	+20mph top speed
Nitrous Oxide	m	Y	3-shot +30mph acceleration
Off Road Suspension	m	N	Negate off-road hazard penalty and off-road damage.
Progressive Gears	m	N	Negate penalty for shooting hand weapons while driving.
Ram	M	N	Doubles Base Ram Damage
Really Big Engine	mm	N	+40mph top speed
Roll Cage	m	N	Halves damage caused by side impacts
Safety Harnesses	m	N	Save whiplash damage on 4,5,6
Slick Tires	-	N	+2HC on "clean" dry asphalt, -1HC on typical roads, -2HC off-road or on wet asphalt.
Sports Model	m	N	+20mph top speed, 2 seats only.
Streamlined	m	N	+20mph top speed
Stripped	m	N	+10mph top speed +10 Acc
Stripped to the Bones	mm	N	+20mph top speed +20 Acc
Sun Roof	m	N	Allows 1 occupant 360 degree arc of fire
Supercharger	mm	N	+20mph top speed +10 Acc
Turbocharger	m	N	+20mph
Very Streamlined	mm	N	+40mph top speed

Vehicle Weaponry Table			
Weapon	Cost	Damage	
Ultralight Hand Weapons	-	1D-1	Short Range
Hand Weapons	m	1D	Accurate
Anti-vehicular crossbow	m	1D	Critical, Slow
Machine gun	M	2D	Autofire
Autocannon	M	3D	Autofire, Limited Shots (6)
AGL	M	3D	Blast, Limited Shots (6)
Rocket Launcher	M	6D	Blast, Inaccurate, Limited Shots (1), Long Range
Rocket Pod	MM	6D	Blast, Inaccurate, Limited Shots (6), Long Range, Ripple fire.
Flamethrower	M	4D	Incendiary, Limited Shots (6), Short Range
Laser	M	3D	Accurate
Heavy Laser	M	6D	Accurate, Slow
Anti-tank gun	MM	8D	Blast, Limited Shots (6), Long Range, Slow
Smokescreen	m		Dropped, Limited Shots (6)
Oil dropper	m		Dropped, Limited Shots (6)
Spike dropper	m		Dropped, Limited Shots (6)
Mine dropper	M	6D	Blast, Dropped, Limited Shots (6)
Flaming Oil dropper	mm		Dropped, Incendiary, Limited Shots (6)
Advanced targeting	m		+1 to hit (must be bought per weapon)
Computer targeting	mm		+2 to hit (must be bought per weapon)
Pintle mount	m		
Door mount	m		
Turret - limited traverse	mm		
Turret - 360 traverse	M		

Vehicle Weaponry Attributes

Accurate - The weapon gets a +1 bonus to hit

Autofire - The weapon may spread its fire across multiple targets, spreading its damage dice as evenly as possible across multiple 50mm zones. The area affected by autofire must be adjacent squares, or in a straight line. Dice separately for each target in the affected zone. E.G. Firing an Autocannon at two targets 50mm apart. The fire is effectively split across three zones, two containing targets with one empty zone between them. The Autocannon has four

damage dice, so each targetted zone gets one each, and the firing player allocates the fourth to the first target. The player then rolls to hit each target seperately, and if hit, the first target takes two dice of damage, the second one dice.

Blast - The weapon has an explosive warhead. Any vehicle hit by a Blast weapon must make a control check with a speed difference equal to half the weapon's damage dice.

Critical - The Vehicular Crossbow is the only Critical weapon in the game. On a successful hit which penetrates the vehicle's armour, the target vehicle must make a Critical Damage check (see page 23) for all components, with them destroyed on a 6. This represents the fact that although the crossbow bolt doesn't do as much overall damage as other weapons, it's highly likely to hit something vital as its six foot long hardened steel shaft slams into the car's innards.

Door Mount - The weapon is mounted either on the doorframe (Size 1 or 2 vehicles) pointing sideways, or on a mounting facing out of a large door pointing either sideways or to the rear, with the gunner standing or seated behind it (Size 3+ vehicles) The latter requires a large cargo door either in the side or rear of the vehicle. The gunner sits fully enclosed in the vehicle. Vehicles of Size 1 or 2 may only carry Hand Weapons or Machineguns mounted in this way, Size 3+ vehicles may mount any weapon in a door mount, or may mount two Hand Weapons or Machineguns in a single door mount for no extra cost. It is not possible to use a Door Mount while driving.

Dropped - The weapon has a range of 1, and the weapon counter may only be placed in the square adjacently behind the firing vehicle.

Inaccurate - The weapon gets a -1 penalty to hit.

Incendiary - The weapon causes a fire on the target vehicle.

Limited Shots - Can only be fired one or six times, depending.

Long Range - The weapon has a maximum range of 1500mm (30 squares).

Pintle Mount - The weapon is mounted on the roof of the vehicle, and must be accessible either via a Sun-Roof, Convertible Top or by a gunner standing on a pickup flatbed. The weapon must be defined as facing either forwards or backwards, and has a 180 degree arc in that direction. A gunner using a Pintle Mount always counts as Partially Exposed. It is not possible to use a Pintle Mount while driving.

Ripple Fire - The weapon can fire all its shots in a single turn if desired. Each subsequent shot after the first is at a -1 penalty. In addition, the shots may be spread across a continuous area in a similar manner to Autofire, allocating one or more rockets per adjacent square or zone, but still taking the -1 penalty for each shot after the first.

Short Range - The weapon has a maximum range of 250mm (5 squares).

Slow - The weapon requires reloading after every shot. This may be automatic, as per the Heavy Laser, which uses its Capacitor to build up a charge for the next shot, or manual, in the case of the Vehicular Crossbow or Tank Gun (which require a loader to use a firing action to reload). Either way the vehicle may fire only once every other turn.

Any weapon that does not specify a range of long, short or dropped is considered to be Medium Range, with a maximum reach of 500mm (10 squares).

The Vehicle Record Sheet

For each vehicle in the game, you will need to make up a Vehicle Record Sheet as follows

Name	<i>POLICE SPECIAL</i>	Chassis	<i>MID-SIZED</i>
Top Speed	Acceleration	Deceleration	HC
<i>120</i>	<i>30</i>	<i>20</i>	<i>3</i>
Size	Seats	Cargo	Armour
<i>2</i>	<i>5</i>	<i>200KG</i>	<i>LIGHT (6)</i>
OOOOO/OOOOO/OOOOO Critical Damage on 6 OOOOO/OOOOO/OOOOO Critical Damage on 5,6 OOOOO/OOOOO/OOOOO Crippled – Critical 4,5,6			NB The number of Os should equal the vehicle's hit points.
CRITICALS: Engine (First, Second), Fuel, Brakes, Driver, Passenger, <i>AUTOCANNON, TURRET (360), SPIKE DROPPER</i>			
OTHER OPTIONS: <i>IMPROVED SHOCKS, SAFETY HARNESSSES, FUEL INJECTION</i>			

A selection of blank record sheets is included at the back of the rulebook. Fill in the vehicle stats, and blank off any excess damage boxes over the vehicle's hit point total. Write any destroyable options in the “Criticals” box, and any non-destroyable options in the “Other Options” box

Character Design

Characters start with three skill points to be divided between a number of skills, and five hit points.

Driving (vehicle type) – Used to modify control rolls while driving a particular type of vehicle. Types include Bikes, Cars, Vans and Big Rigs

Small Arms - Used to modify to-hit rolls while firing handheld weapons apart from the Rocket Launcher

Heavy Weapons – Used to modify to-hit rolls while firing MGs mounted on Pintle or Door mounts, or using a handheld Rocket Launcher.

A new character must allocate the three starting skill point between whatever

skills required, but no more than two points to any one skill to start with. A dedicated driver might allocate two points to Driving (car) and one to Driving (van), a typical cop might have Driving (car)-1 and Small Arms-2 etc. If playing a campaign or league, a surviving driver may improve these skills over time.

Bikers or drivers in a Race game may get a crash helmet for free - saves against personal damage on a roll of 6. As an optional rule, characters may spend Minor Options to buy protective gear for themselves rather than the vehicle. A Minor Option will buy the following...

Body Armour – Saves against damage from ranged weapons on a roll of 5,6.

Bike Racing Leathers - Protect Bikers from damage when falling off - save 4,5,6

When characters make damage saving rolls, they do so against each damage point, not per damage dice as vehicles do.

Part 2 - Playing The Game

Turn sequence

1. All drivers select a speed for their vehicles
2. In order of speed, highest to lowest, move
3. Speed push (optional)
4. Firing phase
5. Fire, smoke and Flaming Oil phase. Roll a die for each smoke or flaming oil marker – 1-3 remains, 4-6 removed, Vehicles on fire roll D6-1 for damage, fire goes out on roll of 1.

Phase 1 Speed selection

Speed should be based on the speed of the previous turn (0 if stationary). The vehicle may increase its speed by its acceleration, or decrease its speed by its deceleration. No vehicle may exceed its top speed (which is the chassis top speed, plus any modifiers from selected Options), except when using Nitrous Oxide.

To shift into reverse gear, the vehicle must come to a complete stop. The car may then accelerate in reverse, up to a maximum speed of 20mph.

Phase 2 Movement

For each 10mph of speed, the vehicle will move 50mm. (or one square) All vehicles must start their move with a 50mm (or one square) move in the direction that they were facing at the end of the previous Turn, even if this means hitting an obstruction. If not using squares, measure all movement distances from one of the front wheels of the vehicle. When turning, pivot the vehicle on the rear wheel on the side of the turn.

Tailing

At the start of the turn, if a vehicle... (a) is in another vehicle's rear 45degree arc, AND (b) has that other vehicle in its 45 degree forward arc, AND (c) is within its current movement speed of the other vehicle, then that vehicle may claim that it is Tailing the other vehicle.

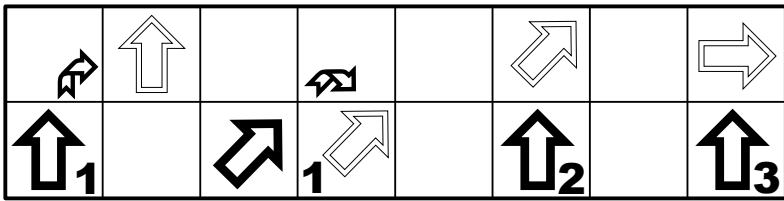
A Tailing vehicle does not move in its normal movement sequence based on speed. Instead it moves immediately after the Tailed vehicle, whether this means earlier or later than normal.

Manoeuvres

After each 50mm of movement, a vehicle may attempt a manoeuvre. Note that in the case of the Drift, the car is always considered to have moved forward, then to

the side, and will collide with anything directly in front of it.

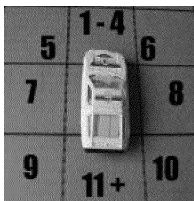
Manoeuvre	Safe speed	Effect
(1) Drift	70mph	Vehicle moves sideways 1 sq Minimum speed 30mph, may only Drift 1sq (50mm) for every 2sq (100mm) of forward movement
(2) 45 degree turn	50mph	Vehicle turns 45 degrees to right or left
(3) 90 degree turn	20mph	Vehicle turns 90 degrees to right or left
Bootlegger	Special	Special
Donuts	0mph	Spins stationary vehicle to any facing
Emergency Stop	Special	Brings vehicle to a halt.



Speed difference = (Current speed – Safe speed)/10

Chance of success on 2D6 = (4+ Drivers Skill + Vehicle HC) – (SD + No of Manoeuvres attempted so far that turn)

If the driver fails the control roll, the car skids 50mm (one square) for every 2 full points that the roll failed by. Failing by one point results in no skid movement, but the vehicle must still check for final facing as below. Each 50mm skidded counts towards the vehicle’s final movement, if the vehicle skids further than the its top speed would allow, then the skid must be carried over to the following turn. At the end of the skid, roll 1D6, subtract the driver's Drive skill and add the Speed Difference. The result is the vehicle’s final facing after the skid.



If the vehicle ends up facing in the original direction of travel (1-4) then it must continue its move normally. If the vehicle ends up facing 5 or 6, may complete the rest of its move, but any remaining movement is halved, and the vehicle’s current speed is also halved. If the vehicle ends up facing in any other direction, it comes to a halt, and next turn starts with a speed of 0mph.

If the driver rolls 12 for the control roll, (a critical failure) the vehicle goes into a fatal roll. Roll 1D6

1,2,3 it flips onto its back and skids forwards for the rest of its move on its roof. The vehicle is crippled, all occupants take whiplash damage equal to the amount of damage required to cripple the vehicle. After completing its move the vehicle/wreck reduces its speed to 0.

4,5 it flips over and flies through the air at 45 degrees to either the left (4) or right (5). Complete the skid as above.

6 the Vehicle becomes a Flaming Bouncing Fireball of Death. The vehicle spins to 90 degrees to the direction of travel. For every 10mph of speed the vehicle has left at the time of the skid, the vehicle will roll 50mm (1 square) in the direction of travel and roll one side. For example with 30mph left, the vehicle will roll onto its side on the first 50mm of movement, onto its roof on the second 50mm, and onto its other side with the third and final 50mm of rolling that turn. For every 50mm of rolling, take 1 dice of damage per 20mph of speed. For example, a vehicle travelling at 60mph that goes into a roll, take 3 dice of damage per 50mm of rolling.

At the end of a turn of rolling, reduce the vehicle's current speed by 30mph. If the speed is now 0 or less, the vehicle comes to a halt lying on whichever side it finished the turn on. If the speed is still greater than 0, the vehicle must spend its entire next turn rolling as well. Repeat until the vehicle comes to a halt.

If the vehicle comes to a halt on its wheels, and somehow hasn't been crippled, destroyed or blown up, and the driver has somehow survived the glorious pinwheel of destruction, the vehicle and driver must remain stationary for one turn before carrying out any further action.

Bootlegger turn

This is a special manoeuvre, in that it takes up three points of movement. In the Bootlegger turn, a vehicle travelling at high speed throws itself into a deliberate sideways skid, spinning around to point in the opposite direction to the one it was originally travelling in. To do a Bootlegger, a vehicle must be travelling at least 30mph. If a vehicle initiates a Bootlegger with less than 30mph movement left in the turn, then the manoeuvre must be carried forward to the next turn, and the vehicle may not attempt to decelerate, accelerate or carry out any other manoeuvre until the Bootlegger is completed.

The first step of the Bootlegger is to throw the vehicle into a 90 degree turn. Roll for control loss as normal. If the vehicle skids, then calculate the skid as normal. If the driver keeps control, then the vehicle is turned 90 degrees to the direction of travel. The vehicle then moves 50mm (1 square) in the original direction of travel, and then attempts another 90 degree. If the vehicle fails its control roll, then calculate the results of the skid normally. If successful, the vehicle will still

skid a distance of half the remaining movement in the turn in original direction of travel. At the end of the manoeuvre, the vehicle will stop with a speed of 0mph, and be facing in the opposite direction to the one it started in.

Donuts

A vehicle at speed 0mph may declare that it is turning “donuts”. This is a manoeuvre that spins the vehicle round in a very short turning circle, allowing it to finish its movement facing in any direction. No control roll is required when turning donuts.

Emergency Stop

An Emergency Stop may only be declared at the very start of the vehicle's movement. The vehicle moves half its movement directly forward - this represents the vehicle's minimum stopping distance. The driver must then roll for control loss with a speed difference equal to half the vehicle's speed at the start of the Emergency Stop. At the end of any skid movement that is required, the vehicle comes to a complete stop.

Phase 3 Speed Push (optional)

Once every vehicle has completed its initial movement, drivers may attempt to push for extra speed. This is an optional rule, and is most suitable for games that are meant to simulate either racing or car chases. Speed Pushes are carried out in the same order as movement i.e. highest speed first

A driver who wishes to attempt a speed push announces how much extra speed he or she is pushing for. The driver must then make a control roll with a speed difference of $3x(\text{extra speed}/10)$. Thus pushing for an extra 20mph of movement is a SD 6 skid check.

If successful, the vehicle gets to move the additional distance forward only. The vehicle may not attempt any manoeuvres as part of the extra “push” movement. If the vehicle rams or crashes as a result of the extra movement, calculate as normal.

Note that extra movement gained by a speed push does not add to the vehicle's current speed. Instead it is extra ground that has been made up by skilful driving.

Phase 4 Firing

All firing is considered simultaneous. By default, all shots are considered to be aimed at the vehicle unless specified otherwise. If using hand weapons, the firing player may elect to aim at a tire or a vehicle occupant instead. The firer must declare whether he is aiming at the vehicle, the tires or an occupant, and whether he is leaning out of the vehicle (either a window or sunroof) before any firing is resolved.

Using Hand Weapons from within a vehicle

When you're inside a vehicle, you get some degree of protection from the vehicle's body. However the downside of this is that it's equally difficult for you to fire out, as the vehicle's body can interfere with your own line of fire. It is possible to negate this penalty, at the cost of losing the protection, by leaning out of the vehicle. At the start of the firing phase, anyone wishing to shoot must announce whether or not they are leaning out of the vehicle. Anyone who does not declare this at this time, is considered to be within the vehicle compartment as normal.

Weapon ranges

Short ranged weapons have a range of 250mm (5 squares)

Normal weapons have a range of 500mm (10 squares)

Long ranged weapons have a range of 1500mm (30 squares)

Arcs of fire

Hand Weapons

The driver of a vehicle may fire directly ahead, or up to 90 degrees to the drivers side.

The front passenger of a vehicle may fire in a 180 degree arc from directly ahead to directly behind.

Rear passengers of a vehicle may fire directly behind, or up to 90 degrees to the side that they are on.

Passengers standing up in a sunroof may fire in a 360 degree arc around the vehicle.

Occupants in a convertible may fire in a 360 degree arc, except for the driver who is limited to the 180 degree forward arc.

Mounted Weapons

Door mounts fire into a 90 degree arc measured from the adjacent side or rear square.

Pintle mounts fire into a 180 degree arc, either forward or rear.

Fixed mount – Directly ahead, and 1 square (50mm) either side of directly ahead (in effect a 3 square (150mm) wide fire corridor)

Turrets are either 180 degree mounts, in which case they must be specified as either Forward or Rear facing, or 360 degree mounts.

Ranged Fire resolution

Chance of hit on 2D6 = 4 + Firer skill + target size

Roll of 2 is a Critical Hit, roll a die. 1-3 double rolled damage, 4,5 triple rolled damage, 6 quadruple rolled damage. If the chance of a hit falls to less than 2, a roll of 2 hits but does not do a Critical Hit.

<u>Target Options</u> -1 if target is moving 30-50mph -2 if target is moving 60-80mph -3 if target is moving 90+mph	<u>Firer options</u> -1 if firer enclosed in vehicle firing hand weapon -2 if firer is also driving
<u>Targeting vehicle occupants</u> -1 if target “Partially exposed” -2 if target enclosed in vehicle	<u>Weapon options</u> +1 Weapon is Accurate -1 Weapon is Inaccurate
<u>Called Shots</u> -3 targeting a Vital Spot -3 targeting a Tire	<u>Range (optional)</u> +2 if target is Point Blank (50mm or less) +1 if target is at Short Range -2 if target is at Long Range

Definitions

“Vehicle occupant” – Anyone in or on a vehicle. Vehicle occupants are Size 0 targets. Do not add the vehicle Size to the chance to hit.

“Partially exposed” – An occupant who is leaning out of a window or sunroof, or an occupant of a vehicle with the “Convertible Top” option, or a pedestrian firing over cover.

“Enclosed in vehicle” – An occupant in a normal vehicle passenger compartment, or a pedestrian in full cover not firing.

“Vital Spot” – A shot that targets a Vital spot does an automatic Critical Hit (see above) if it hits. A Critical Hit is not the same thing as Critical Damage (see page 23).

“Tire” – Also a Size 0 target. Do not add the vehicle Size to the chance to hit. A successful hit blows the tire. Target must make a control roll with a SD of (current speed – 30mph). Also top speed is reduced by 25% for a 4 wheeled vehicle, 10% for a multi-wheeled Big Rig, Heavy Truck or Bus. When all tires have been blown, top speed is reduced to 20mph.

When a vehicle with armour is hit, take a number of six sided dice equal to the damage dice of the hitting weapon and roll to see if the armour saves. Light saves on 6, Medium on 5,6 and Heavy on 4,5,6. Then roll any remaining dice to determine the number of damage points applied to the vehicle's Damage Track.

When a vehicle occupant is hit, roll to save once using the vehicle's armour unless the occupant is partially or totally exposed. If the armour does not stop the shot, the target takes D6 hit points of damage.

Dropped weapons

Oil Slick – When a vehicle moves onto an oil slick, test for a skid using a Speed Difference of 6, or the vehicle's speed/10 whichever is higher.

Spike Droppers – When a vehicle moves over spikes, roll 1D6 for each tire, on a 6 the tire is blown. If more than one tire blows, test for control loss separately.

Smoke Screen – Obscures visibility, Firing through a smokescreen is at –8 penalty. Also when a vehicle moves into a smokescreen, test for a skid using a Speed Difference of 3.

Mine Dropper – When a vehicle moves over a mine, Roll 1D6. On a 4,5,6 the vehicle has passed close enough to the mine to trigger it. Also roll for tire damage as for spikes above.

Flaming Oil Dropper – Combines the effects of Oil and Spikes as detailed above.

Phase 5 Fire, Smoke & Flaming Oil

Roll a die for each smoke or flaming oil marker – 1-3 remains, 4-6 removed.

For each vehicle fire, roll 1D6, 1 = fire goes out, 4,5 vehicle takes 1 point of damage, 6 vehicle takes 1 dice of damage.

Vehicle Damage

Each vehicle has a number of hit points. On the vehicle record sheet, this is divided into three rows of damage boxes, E.G.

OOOOO/OOOOO/OO Critical Damage on 6
OOOOO/OOOOO/OO Critical Damage on 5,6
OOOOO/OOOOO/OO Crippled 4,5,6

When a vehicle takes damage, whether from collisions or from weapons fire, that damage is expressed in a number of six-sided dice to be rolled. The total value rolled on the dice is the number of damage points to be taken. Damage Points are marked off on the vehicle record sheet from left to right, starting with the top row.

When a complete row of damage boxes have been filled in, the vehicle must check for Critical Damage. Each vehicle record sheet will have a list of all the components that can be damaged.

E.G. Engine (First, Second), CEM, Brakes, Fuel, Driver, Passenger, Laser1, Laser2.
--

When a row of damage boxes has been completely filled in, roll D6 for each component. If it's the first Critical Damage check, the component is hit on a roll of 6, if it's the second, it is hit on 5,6. The effect of a hit on a component is as follows.

Engine - The first time the engine is hit, the vehicle's Top Speed and Acceleration are reduced to half normal (round up). The second time the engine is hit, it packs up completely. Acceleration is reduced to 0mph, and the vehicle must decelerate by at least 20mph per turn until it coasts to a halt.

Fuel - The fuel tank is hit and explodes. The explosion does 4 dice per vehicle size of damage to anything within 50mm (in the same square) including the car itself, anything within 100mm (adjacent squares) takes 2 dice of damage, anything within 150mm (within 2 squares) takes 1 dice of damage.

Brakes - The vehicle's Deceleration drops to 0, and the vehicle may no-longer perform an Emergency Stop manoeuvre

Driver, Passenger etc. - The occupant takes 1 dice of damage. This damage may not be saved by safety belts but may be saved by personal armour.

Other components - The component is destroyed, and may not be used for the rest of the game. Any advantages given by the component (e.g. speed or manoeuvre bonuses) are lost.

When the last row of damage boxes is filled in, the vehicle is crippled. Roll for Critical Damage, with components taking a hit on 4,5,6. In addition, make a Control Loss roll with a Safe Speed of 0mph. If the vehicle doesn't crash, it must decelerate by 50mph per turn and may only move straight forward until it comes to a halt.

If a crippled vehicle takes further damage, keep track of “negative” hit points. When it has taken damage enough to fill in a row of damage boxes, roll for Critical Damage for any surviving components, taking hits on 4,5,6.

Crashing And Ramming

A crash occurs when a vehicle would move into contact with an obstruction. A ram occurs when a vehicle moves into contact with another vehicle, either deliberately or as the result of a skid. (NB if using a square grid, “move into contact with” means “move into the same square as”.) Resolve the effects of a ram or crash immediately during the Movement phase.

Ram types

Any ram that impacts on the front of the target vehicle is classed as a Head-On Ram

Any ram that impacts on the rear of the target vehicle is classed as a Shunt Ram

Any ram that impacts on the side of the target vehicle is classed as a Side-On Ram

If the vehicle is hitting exactly on the corner of the vehicle, the ramming player may choose whether to hit the side or the front/rear.

Ramming Damage

The damage caused by a ram depends on three things (1) the size of the vehicles concerned (2) the relative speed of the two vehicles (3) the type of ram.

Base damage : 2xVehicle Size (4xVehicle Size if equipped with a Ram)

Speed Damage : +1 Damage Dice for every 10mph over 30 (i.e. 40mph=+1, 50mph =+2 etc)

Head-On	Add both vehicle speeds together for Ramming Speed. Both vehicles take Base Damage + Speed Damage
Shunt	Subtract target speed from rammer speed for Ramming Speed (min 0) Rammer takes half damage dice Target takes full damage dice
Side-on	Ramming speed is that of the ramming vehicle Rammer takes half damage dice Target takes full damage dice

Modifiers

If vehicle is equipped with a Ram or Big Bumpers (Front) and rams or is rammed at the front, half total damage dice taken.

If vehicle is equipped with Big Bumpers (Rear) and rams or is rammed at the rear, half total damage dice taken.

If vehicle is equipped with Rollcage and is rammed on the side, then half total damage dice taken.

E.G. A Size 3 van ploughs into the side of a Size 2 car at 50mph.
The van does $6 (2 \times \text{size}) + 2 (50\text{mph ramming speed}) = 8$ damage dice to the car
The van takes $4 (2 \times \text{car size}) + 2 (50\text{mph ramming speed}) \text{ Halved (rammer)} = 3$ damage dice from the impact.

Both vehicles must then check for Control Loss using the Ramming Speed as the Speed Difference. Any resulting skids are taken in the direction of the other vehicle's movement (i.e. the rammer will skid in the direction the target is moving, the target will skid in the direction the rammer is moving.)

Whiplash Damage

Vehicle occupants take a number of damage points equal to half the number of damage dice from the ram in Whiplash damage. Occupants that are securely strapped in get a saving throw against each point of damage separately.

Occupants wearing normal seatbelts save on a roll of 6
Occupants wearing safety harnesses save on a roll of 4,5,6.

Final Speed after Rams

Calculate the final speed after a ram as follows

Head-On : Both vehicles' speeds reduced to 0.

Shunt : Both vehicle's speeds reduced to the average of their original speeds.

Side-On : Rammer is reduced to 0mph, Target is reduced to half speed.

Leftover Movement After A Shunt

If a vehicle Shunts another one, and has unused movement remaining, what happens depends on whether the rammed vehicle has moved already for this turn.

If the rammed vehicle has already moved, the ramming vehicle loses its unused movement, although its speed remains unchanged.

If the rammed vehicle hasn't moved this turn, then the ramming vehicle's remaining movement is frozen until the rammed vehicle moves, in a manner identical to Tailing.

E.G. Max, doing 80mph moves two units and shunts Toecutter, doing 40mph. As a result of the ram, both vehicle speeds are set to 60mph (average of the two speeds.) Max now has 40mph of movement left unused. This is frozen until Toecutter gets his move, moving 6 units forward, at which point Max gets to use the rest of his movement.

Sideswipes

A vehicle currently alongside another vehicle heading in the same direction may make a sideswipe attack. This consists of a Drift manoeuvre (see above) into the other vehicle. The attacker must make the control roll for the Drift as normal (if necessary). If successful, the driver of the attacking vehicle selects a difficulty modifier for the sideswipe based on how aggressively he is attacking. Both cars take Base Ram Damage, then both drivers must then make control rolls using the opposing vehicle's Size rating + the selected difficulty modifier as the Speed Difference. If either vehicle fails, it skids a minimum of 50mm away from the other vehicle (more if indicated by the control roll). If both succeed, the larger vehicle wins and the other is shunted 50mm to the side as above. Roll for final facing for any failed control rolls. If the sideswiping vehicle has any movement left after the sideswipe it may complete its move.

Collisions with fixed objects

Calculate the damage as a head-on ram exactly as above, using the following Size value for the target

- Size 0 : Traffic Cones, empty cardboard boxes
- Size 1 : Trashcans, rickety plywood lemonade stands
- Size 2 : Portable road barriers, wooden crates
- Size 3 : Road signs, traffic lights, bollards, interior walls.
- Size 4 : Lamposts, trees, brick walls
- Size 5 : Brick buildings

If the crashing vehicle does more than Size x 3 damage points to the obstacle, it smashes through it, losing Size x 10mph in speed. For Buildings, assume that there's an internal Size 3 wall for every 50mm of building.

A collision with a pedestrian is a special case, depending on the vehicle doing the colliding. See page 30 for the gory details.

Optional Rules

Off-Road Driving

All off-road terrain is classified as a combination of the following types.

Off-Road	All manoeuvre safe speeds are halved.
Rough	Any vehicle without Off Road Suspension takes 1 point of damage per 10mph of speed over 30mph for each turn or part of turn spent on Rough terrain.
Punishing	Impassable to any vehicle without Off Road Suspension. Any vehicle with Off Road Suspension takes 1 point of damage per 10mph of speed over 30mph for each turn or part of turn spent on Punishing terrain.
Impassable	Treat as collision with Size 5 object
Slippery	Any vehicle without 4WD suffers half acceleration (round down) and half top-speed. All vehicles suffer -4 HC

E.G. A muddy field might be Slippery Off Road, a car park strewn with rubble might simply be Rough, while a wood might be Punishing Off Road terrain

Every time a vehicle crosses a terrain contour, there is a chance of it “catching some air” and leaving the ground. If using stepped slope terrain, crossing a single contour within 50mm counts as a moderate slope, crossing two counts as a sharp slope. If using sculpted terrain, before the game try to judge which slopes are moderate and which are sharp - since all sculpted terrain is pretty much unique you'll have to use your best judgement.

From a moderate slope, the vehicle will take off if travelling at more than 60mph. It will fly for half its speed (round up, carried over into next Turn if necessary.), will lose 10mph of speed while airborne and landing counts as a manoeuvre with a Safe Speed of 50mph.

From a sharp slope, the vehicle will take off if travelling at more than 30mph. It will fly for its full speed (round up, carried over into next Turn if necessary, will lose 20mph of speed while airborne and landing counts as a manoeuvre with a Safe Speed of 10mph.

While airborne a vehicle may not manoeuvre, accelerate or decelerate. In the 50mm immediately after take-off and before landing, it is not flying high enough to avoid other vehicles, in other airborne squares it soars over other vehicles.

If the point at which the vehicle should land is at a level lower than the original take off point, the vehicle flies for another 50mm, dropping down the extra level. If it doesn't touch down at this point, then the vehicle flies for another 50mm, dropping down yet another level. If it still hasn't landed on solid ground, then the

vehicle stops flying and starts falling vertically. It hits the ground directly below, taking ram damage as if for a head-on ram with a Size 5 object, and must make a Control Roll with a Safe Speed of 20mph.

Bikes

Except where noted below, all bikes follow the same rules as for cars.

Control Loss

Whenever a bike suffers control loss, roll 1D6. If the roll is less than or equal to the number of squares skidded, the rider falls off the bike, and takes an additional 1D6 damage per 20mph of speed. Both bike and rider continue to skid for the vehicle's full speed (carried over into the following turn if necessary) and stop, with the rider being 50mm away from the bike in a random direction. The rider must take at least one turn stationary before remounting the bike, which takes another turn, at which point the bike may accelerate and restart moving.

Ramming

When a bike is involved in any ram other than a sideswipe with a larger vehicle, the driver automatically falls off, as above.

Whiplash Damage & saving throws.

Bike riders do not suffer whiplash damage as normal car occupants do. Instead they are more likely to take damage from Falling Off the bike. If they do, they get a saving throw based on the protective gear they are wearing. Minimal gear (a crash helmet) will give a saving throw of 6, full racing leathers a saving throw of 4,5,6.

Firing

Bikers do not suffer the penalty for firing hand weapons while driving. Riders on bikes with Big Cowlings count as Partially Exposed to shots coming from the front, otherwise bikers do not get any protection from their vehicles.

In addition, roll a D6 for any shot aimed at the bike, on a roll of 6 it hits the Rider instead. If the weapon is a Blast, Incendiary or Autofire weapon, the Rider is hit on a roll of 5,6. Apply full damage to the rider (normally fatal).

Mines

If moving over a Mines counter, a bike will only trigger the mine on a roll of 6.

Pedestrians

People moving on foot in a Road Rage game have a low life expectancy. Pedestrians have 5 hit points, and may move 100mm (2 squares) per turn in any direction, and always move after all vehicles have moved.

When moving in buildings it takes 50mm of movement to move from one floor to the next.

For Ranged Weapon Fire purposes, Pedestrians count as Size 0.

If two Pedestrians come into contact, they may fight in melee. Each rolls D6 and adds any remaining hit points. The highest total wins, and the winner does 1D6 hit points damage to the loser.

For a motorcycle-pedestrian collision, treat it as a head-on ram with the pedestrian as a Size 1 object. When a vehicle other than a bike hits a Pedestrian, the Pedestrian takes 1D6 damage per 10mph of vehicle speed, while the vehicle takes 1D6 damage (armour saves).

In either case, the only armour that offers any protection to the pedestrian is a crash helmet.

A vehicle occupant who attempts to jump out of a moving vehicle takes 1D6 per 20mph of vehicle speed. Halve this damage if the vehicle is on soft ground.

Boarding a moving vehicle

It's a common scene in the movies.. a large truck is barrelling down the road and a car pulls up alongside. Some brave fool climbs out the window of the car and leaps onto the truck. Here's how to do it in Road Rage.

The driver of the vehicle makes a Drift maneuver that would normally result in a sideswipe to the target vehicle. If successful, one of the passengers may attempt to jump onto the vehicle. The chance to do this to roll 2d6 and get below 4 + the amount the driver his Drift roll succeeded by.

Example: Wez (Driving(Car):1) is driving his Doom Buggy (HC=3) at 90mph next to the tractor trailer, so his fellow gang member, Meathook, can jump on. Wez needs lower than a 6 to perform a successful drift, and succeeds with a 3. Meathook can now attempt to jump on the car. Since Wez succeeded by 3 Meathook needs 7 or lower to succeed, and he rolls a 6. Meathook hops from the Doom Buggy onto the truck's hood, only to find himself staring down the barrel of the truck driver's shotgun...:)

Any failure means the attempt has failed (Driver didn't get close enough, the jumper couldn't get his balance). A critical failure (12) means the jumper falls off and takes damages as if he jumped out of the car (1d6 per 20mph)

A lone motorcyclist may attempt this, but rolls at -3. If successful, the bike is wrecked.

Once aboard, our boarder can only move the equivalent of 50mm (one square) along the vehicle, so in an initiative sequence that goes from the highest speed to the lowest, they're always going to be going last.

For attacking the vehicle once you've jumped on board, most melee weapons are classed as Ultralight Hand Weapons as you can pick up a length of chain or iron bar pretty much anywhere. Heavier, more deadly weapons such as chainsaws are classed as regular Hand Weapons.

To break through into the interior of the vehicle depends on the armour level of the vehicle - do 5 points of damage for an unarmoured vehicle, plus 5 points per level of armour (Light=10, Medium = 15, Heavy = 20). Armour saves per die of damage as normal.

(The above is based on my assumption that most vehicles in a "Road Warrior" type game would only have Light or no armour, Medium or Heavy would be reserved for genuine AFVs or state of the art autoduel machines. Getting into one of these is verrrrry difficult, but then try smashing your way into a M1 Abrams with a baseball bat sometime. If you want to make it easier to break into the heavier armoured vehicles, then simply don't apply the armour save to melee attacks - it's your game, play it how you want.)

Now that the guy is *on* the car, how do we get him *off* the car? We need to take into account that a driver can try to shake off the invader, and a fatal roll to someone hanging off of a car should be just that: fatal.

During its move, the vehicle our boarder is clinging to makes its manoeuvres as normal (making control rolls if necessary). Then when it comes to the boarder's turn, roll 1D6. The boarder must roll more than the number of manoeuvres that the vehicle did in order to hang on. A roll of 6 always succeeds. If the boarder succeeds, he or she may take their normal movement action. If the roll fails, the boarder is thrown off the vehicle 100mm either to the left or right (D6 roll, 1-3 left, 4-6 right) and takes damage as normal for falling off a vehicle (1D6 per 20mph)

For a slightly less damaging way of exiting the vehicle, use the same procedure as for boarding, with a vehicle pulling alongside and making a Drift, the success margin of which indicates the difficulty of the leap.

"Also, what happens when the car rolls, or has a collision?"

If the car rolls, then either the boarder is flung off and takes regular jumping-out-of-car damage, or clings on and when the vehicle rolls onto its roof - splat. Either way our luckless boarder is smeared over a good length of the freeway. (I'd just do the 1D6 per 20mph damage as default). If the vehicle comes to a sudden halt,

either through a collision, or through losing control with a roll of 7+ on the final facing table, the boarder needs a roll of 6 to hang on (generous I know). Failure means the boarder is thrown 100mm in the original direction of movement - 1D6 per 20mph damage as usual. In addition, in the case of a collision, our poor boarder would take whiplash damage just like any other vehicle passenger.

(You could apply similar rules to similar situations - anyone standing on a pickup flatbed using a pintle mount for example, allowing the gunner a save if they have the Safety Harness option.)

Hand Grenades

Grenade, minor option, 3D damage, Blast, Short Ranged, Limited Shots (1)

There are two main ways a grenade can spoil your day in a car. First off if someone drops one into the passenger compartment, everyone inside is going to get pretty much shredded, unless they can pick it up and throw it out in time.

Combine the Vital Spot and the Enclosed in Vehicle modifiers to give you a -5 penalty to-hit to get the grenade through a window. For a convertible knock off the Enclosed modifier for a net -3.

Each occupant in the vehicle that hasn't already fired can attempt to grab the grenade and throw it out before it goes off, needing a 6 on D6. If not, then everyone takes the full 3D damage - which will pretty much splatter everyone (but hey, it's an explosive going off in a confined space, what do you expect?)

The other way is if the grenade goes off underneath the vehicle. Aiming for that is a Vital Spot attack, giving double damage, and has the same effect as going over a mine (added tire damage & control roll)

Having a grenade go off near to a car wouldn't do that much damage, so a regular grenade attack would just do the normal 3D damage. The exception would be attacking against bikes or pedestrians. Roll to hit normally against anyone in a 2x2sq area (or within a 50mm radius if not using a grid). Anyone hit takes 1D damage to the rider/passenger/pedestrian and 1D to the bike.

Phased Movement

Each vehicle moves only the first 50mm (or 1 square) of its total movement, highest speed going first. Everybody keeps moving like this, with each vehicle dropping out of the sequence as its total movement for the turn is completed.

Alternatively, start with the fastest vehicle and count down by tens. Vehicles only start moving on the phase that matches their speed and later, so for example with three vehicles moving 100, 60 and 30mph. the fastest car moves on the 100,90,80 and 70 phases, the two fastest cars each move on the 60, 50 and 40 phases, and all three cars move on the 30,20 and 10 phases. Thus if all three were racing for a single lane bridge 4 squares away, the fastest car is going to get

there first.

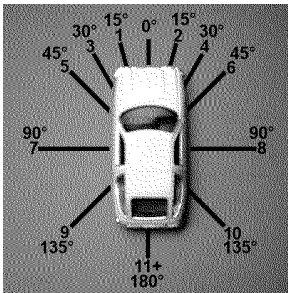
Weapons fire remains in a separate phase at the end of all movement. When using Phased Movement the rules for Tailing should be waived.

Alternate Manoeuvres

If playing without a gridded map, then a wider variety of manoeuvring options can be used. Turns are divided into multiples of 15 degrees, and two varieties of drifts are allowed, as follows

Manoeuvre	Safe Speed	Effect
Drift	70mph	Vehicle moves sideways 12.5mm Minimum speed 30mph
Steep Drift	40mph	Vehicle moves sideways 25mm Minimum speed 30mph
15 degree turn	70mph	Vehicle turns 1 to 15 degrees to right or left
30 degree turn	60mph	Vehicle turns 16 to 30 degrees to right or left
45 degree turn	50mph	Vehicle turns 31 to 45 degrees to right or left
60 degree turn	40mph	Vehicle turns 46 to 60 degrees to right or left
75 degree turn	30mph	Vehicle turns 61 to 75 degrees to right or left
90 degree turn	20mph	Vehicle turns 76 to 90 degrees to right or left

Note that the only limit on performing drifts is the minimum speed. Other manoeuvres (bootlegger, donuts, emergency stop) are handled as per the original rules.



When finding the final facing after a loss of control, results of 1-4 now result in facing as shown. A vehicle ending with facing 1 or 2 continues its move normally. A vehicle with a facing of 3 or 4 subtracts 10mph from both current speed and remaining movement before continuing. Other skid results are as per original rules.

Under these alternate rules the field of fire of a weapon on a fixed mount should be restricted to a straight line, without the usual 50mm leeway. The finer control over the manoeuvring of the vehicles will allow players to adjust their approach when lining up for a shot.

Quick Reference - Driving

Manoeuvre	Safe speed	Effect
(1) Drift	70mph	Vehicle moves sideways 1 sq. Minimum speed 30mph, may only Drift 1sq (50mm) for every 2sq (100mm) of forward movement
(2) 45 degree turn	50mph	Vehicle turns 45 degrees to right or left
(3) 90 degree turn	20mph	Vehicle turns 90 degrees to right or left
Bootlegger	Special	Special
Donuts	0mph	Spins stationary vehicle to any facing
Emergency Stop	Special	Brings vehicle to a halt.

Speed difference = (Current speed – Safe speed)/10

Chance of success on 2D6 = (4+ Drivers Skill + Vehicle HC) – (SD + No of Manoeuvres attempted so far that turn)

Rams

Base damage : 2xVehicle Size (4xVehicle Size if equipped with a Ram)

Speed Damage : +1 Damage Dice for every 10mph over 30 (i.e. 40mph=+1, 50mph =+2 etc)

Head-On	Add both vehicle speeds together for Ramming Speed. Both vehicles take Base Damage + Speed Damage
Shunt	Subtract target speed from rammer speed for Ramming Speed (min 0) Rammer takes half damage dice Target takes full damage dice
Side-on	Ramming speed is that of the ramming vehicle Rammer takes half damage dice Target takes full damage dice

Quick Reference - Combat

Vehicle Weaponry Table			
Weapon	Cost	Damage	
Ultralight Hand Weapons	-	1D-1	Short Range
Hand Weapons	m	1D	Accurate
Anti-vehicular crossbow	m	1D	Critical, Slow
Machine gun	M	2D	Autofire
Autocannon	M	3D	Autofire, Limited Shots (6)
AGL	M	3D	Blast, Limited Shots (6)
Rocket Launcher	M	6D	Blast, Inaccurate, Limited Shots (1), Long Range
Rocket Pod	MM	6D	Blast, Inaccurate, Limited Shots (6), Long Range, Ripple fire.
Flamethrower	M	4D	Incendiary, Limited Shots (6), Short Range
Laser	M	3D	Accurate
Heavy Laser	M	6D	Accurate, Slow
Anti-tank gun	MM	8D	Blast, Limited Shots (6), Long Range, Slow
Smokescreen	m		Dropped, Limited Shots (6)
Oil dropper	m		Dropped, Limited Shots (6)
Spike dropper	m		Dropped, Limited Shots (6)
Mine dropper	M	6D	Blast, Dropped, Limited Shots (6)
Flaming Oil dropper	mm		Dropped, Incendiary, Limited Shots (6)

Chance of hit on 2D6 = 4 + Firer skill + target size

Roll of 2 is a critical hit, roll a dice 1-3 double rolled damage, 4,5 triple rolled damage, 6 quadruple rolled damage. If the chance of a hit falls to less than 2, a roll of 2 hits but does not do critical damage.

<u>Target Options</u> -1 if target is moving 30-50mph -2 if target is moving 60-80mph -3 if target is moving 90+mph	<u>Firer options</u> -1 if firer enclosed in vehicle firing hand weapon -2 if firer is also driving
<u>Targeting vehicle occupants</u> -1 if target "Partially exposed" -2 if target enclosed in vehicle	<u>Weapon options</u> +1 Weapon is Accurate -1 Weapon is Inaccurate
<u>Called Shots</u> -3 targeting a Vital Spot -3 targeting a Tire	<u>Range (optional)</u> +2 if target is Point Blank (50mm or less) +1 if target is at Short Range -2 if target is at Long Range

Appendix I - Solitaire Highway Duel Strategies

Nothing can replace the ingenuity of a good human opponent. However for those occasions when you don't have an opponent handy, but really feel the need to head out on the highway and fire all of your guns at once, this mechanism can generate strategies for non-player roadwarriors to follow. Having generated the strategy, the solo player can manoeuvre the non-player vehicles in accordance with that strategy, which is liable to change as the game progresses. These rules are really only intended for road duels, however they could be adapted for arena combat with some modification.

At the start of each combat, each vehicle must generate a strategy based on its position relative to the opponent, and the aggression level of the driver.

Offensive vehicles typically start behind their enemy and are attackers. Defensive vehicles typically start ahead of their enemy and are defenders. In cases where both sides start head on, roll 1D6. 1-3 means both sides start Offensive, 4-6 means one side starts Offensive, the other Defensive (dice). Driver Aggression is Low, Medium or High. This can be set by the scenario, or by a random die roll (1=Low, 2-5=Medium, 6=High)

So at any given stage, a driver & vehicle will have a position, Aggression and Strategy. All three of these states can change through the game.

When to check for state change.

1. Position - whenever a vehicle's position relative to all enemies is changed, then its position flips from one state to the other. For example, if an Offensive vehicle overtakes all opponents it now becomes Defensive and the next strategy it generates will be based on that position.
2. Aggression - Every time the vehicle takes a critical hit, or every time a driver sees an allied vehicle destroyed, roll D6. 1-4 no change, 5 decrease aggression, 6 increase aggression. (NOTE: what constitutes a critical hit varies with the rules used. It could be a hit that penetrates armour, destroys a tyre or other component, wounds an occupant, triggers a threshold/critical damage check etc. Or if the game system in use has a "critical hit on die roll of X" rule, use that.)
3. Strategy - every turn roll D6, on a 6 the vehicle must roll a new strategy based on its current Position and Aggression and the roll of a D6 according to the following table.

Aggression	Low						Medium						High					
Car Position\Die Roll	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Offensive	G	G	H	H	I	I	G	H	H	I	J	K	H	H	I	J	K	L
Defensive	A	A	B	B	C	C	B	C	C	D	D	E	C	C	D	E	E	F

Strategies

- A) Speed run - accelerate to max speed, get away from enemy
- B) Speed run - accelerate to max speed, get away from enemy but slow down to safe speed for curves
- C) Defensive combat - manoeuvre in front of enemy and drop passives, while maintaining distances
- D) Tussle, allow enemy to pull level, force manoeuvres (sideswipes, reverse shunts etc)
- E) Dogfight, get enemy in guns maintaining general direction of travel
- F) Dogfight, get enemy in guns reversing general direction of travel if necessary
- G) Ranged sniping, mid weapon ranges or further
- H) Close weapon fire, as close as possible.
- I) Shunt from rear
- J) Pull alongside and sideswipe.
- K) Pull ahead and drop passives
- L) Pull ahead, U-turn and Joust. (head on gun passes & rams)

Example

Max (player) is chasing the Toecutter. (NPC). The Toecutter's aggression rating is Medium, and as he's in front his position is Defensive. At the start of the combat, he rolls 1D6 and gets a 3. Looking up on the table, that gives him Strategy C, Defensive Combat. His strategy will be to try to remain in front, dropping passive weapons in front of Max. At the start of every turn of combat he rolls a D6, but doesn't get a 6, so his strategy doesn't change. After a couple of rounds combat, his car takes a critical hit, destroying his armoured beer refrigerator. Toecutter rolls a D6 and gets a 6. Being a red blooded Australian bloke, he's outraged at the destruction of his tinnies and his aggression rating goes up to High.

A couple more turns of this pass, but Toecutter sticks with his current strategy as he doesn't roll a 6 for the "change strategy" roll every turn. On turn 6 however this comes up a 6, and so he rolls for a new strategy, getting a 4. Now his strategy has changed, and he starts trying to get behind Max to bring his forward guns to bear. As soon as Max passes him, Toecutter's position changes from Defensive to Offensive, but again he sticks with the current strategy until the "change strategy" die comes up a 6. He rolls a 4, which cross referencing the High Aggression rating with the Offensive position gives a "pull alongside and sideswipe".

Max's Interceptor has much better handling than the Toecutter's jalopy, and our hero (controlled by a live player, remember) piles on the speed. The Toecutter, in accordance with the generated strategy, accelerates to try to match him, but unfortunately exceeds the safe speed on the aptly named Dead Man's Curve a little further down the road, and spins off the road in a spectacular and quite terminal fashion.

Some interpretation will be required to adapt the above Strategies to any particular rules set and vehicle design. For example, if a vehicle only has forward firing weapons, then strategy E would require it to drop behind the opposing vehicle. If it has rear or side facing weapons, or if the occupants are using hand weapons, it only has to manoeuvre to a position where it can bring those weapons to bear on the enemy. However Solitaire gamers aren't particularly noted for being rules lawyers, and with a little common sense these rules should allow you to enjoy an interesting solitaire road duel with unpredictable opponents.

Vehicle Record Sheets

Name		Chassis	
Top Speed	Acceleration	Deceleration	HC
Size	Seats	Cargo	Armour
00000/00000/00000/00000/00000 Critical Damage on 6 00000/00000/00000/00000/00000 Critical Damage on 5,6 00000/00000/00000/00000/00000 Crippled – Critical 4,5,6			
CRITICALS: Engine (First, Second), Fuel, Brakes, Driver, Passenger,			
OTHER OPTIONS:			

Name		Chassis	
Top Speed	Acceleration	Deceleration	HC
Size	Seats	Cargo	Armour
00000/00000/00000/00000/00000 Critical Damage on 6 00000/00000/00000/00000/00000 Critical Damage on 5,6 00000/00000/00000/00000/00000 Crippled – Critical 4,5,6			
CRITICALS: Engine (First, Second), Fuel, Brakes, Driver, Passenger,			
OTHER OPTIONS:			

Name		Chassis	
Top Speed	Acceleration	Deceleration	HC
Size	Seats	Cargo	Armour
OOOOO/OOOOO/OOOOO/OOOOO/OOOOO Critical Damage on 6 OOOOO/OOOOO/OOOOO/OOOOO/OOOOO Critical Damage on 5,6 OOOOO/OOOOO/OOOOO/OOOOO/OOOOO Crippled – Critical 4,5,6			
CRITICALS: Engine (First, Second), Fuel, Brakes, Driver, Passenger,			
OTHER OPTIONS:			

Name		Chassis	
Top Speed	Acceleration	Deceleration	HC
Size	Seats	Cargo	Armour
OOOOO/OOOOO/OOOOO/OOOOO/OOOOO Critical Damage on 6 OOOOO/OOOOO/OOOOO/OOOOO/OOOOO Critical Damage on 5,6 OOOOO/OOOOO/OOOOO/OOOOO/OOOOO Crippled – Critical 4,5,6			
CRITICALS: Engine (First, Second), Fuel, Brakes, Driver, Passenger,			
OTHER OPTIONS:			