



AUSTRALIAN AUTO-SPORT ALLIANCE

Combinations of Automobiles in Races

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(AASA)

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Combinations of automobiles in a circuit race

Topic:	Consideration to be given when establishing combinations of automobiles in Circuit Races
Target Group:	This advice is provided to Organisers of Circuit Races held under AASA Sanction.
Provided by:	Technical Adviser, AASA
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Circuit racing, due to its very nature, carries with it the real risk of collisions between automobiles. Whilst it is clearly not in the interests of any competitor to have their competition automobile involved in a collision with another competitor, such things can and do happen. With every collision comes the risk of injury or death, not only to the competitors directly involved, but also to other competitors, trackside marshals, and spectators. As the sanctioning body responsible, it is important to the AASA that this risk is properly managed. Every risk has two components; being Hazard/Consequence and Likelihood. The AASA, in partnership with its sanctioned Organisers, must therefore ensure that:

- the likelihood of a collision occurring between competition automobiles is kept as low as possible; and
- the hazards presented by any such a collision are minimised

In broad terms there are two factors influencing the likelihood of a collision occurring; one being associated with the competitors involved, and the other those factors outside of the control of the competitors.

It is not the intention of the present document to deal with matters pertaining to the competitors. These factors revolve around the skills and abilities of the competitors, as well as their attitudes and behaviour. These factors can be monitored and to an extent controlled by Race Control in conjunction with appropriate competitor licensing.

The present document deals specifically with those aspects of risk associated with the combination of different automobiles into a single Race session.

Competition automobiles vary hugely across broad areas, being:

- their construction – series or individual construction, monocoque, space frame, composite tubs etc.
- competition philosophy – club racers or professional entertainment, open wheel, short or long track
- risk profile – open or closed cockpit, roll protection, harnesses, open wheel
- performance – straight line and cornering speed, acceleration, aerodynamics



The AASA assigns competition automobiles into broad Categories, with each Category being for automobiles of similar, but certainly not identical, construction, philosophy, and risk profile. Within each Category are a variety of Groups, each of which is defined by a specific set of Technical Regulations.

Category F:	Formula automobiles being purpose built, single seat, open wheel and designed to test the competitor's driving skills
Category G:	GT automobiles being high performance (circa 220kW/tonne), open or closed cockpit with two seats or more and with a racing weight of 1200kg or more.
Category S:	Sports cars, being generally open cockpit, two seat automobiles of moderate power (circa 120kW/tonne) with a racing weight of less than 1200kg.
Category T:	Touring Cars, being automobiles generally derived from series production, 4 seat passenger automobiles.
Category K:	Karts and similar, being lightweight automobiles with a racing weight of less than 200kg, and where the competitor is not restrained in the vehicle.
Category H:	Heavy automobiles, including trucks, having a racing weight of over 2500kg.
Category C:	Commercial automobiles, being automobiles generally derived from series production, goods carrying or multi-passenger automobiles and with a racing weight of less than 2500kg
Category B:	Buggies, being rear engine open wheel, purpose-built space frame automobiles with the occupant(s) being fully enclosed within the general structure
Category M:	Miniature Race Cars, being small front engine space frame single seat automobiles with the driver being fully enclosed within the general structure and a racing weight of less than 750kg
Category O:	Other, being automobiles that do not fit into any of the above categories.

It is desirable to arrange circuit racing activities in such a manner that only automobiles in the same Category are on the track at the same time. This ensures that the performance levels and risk profile are consistent and minimises the overall risk to those involved. The AASA recognises that it not always practical to achieve this objective. There are commercial and time management constraints imposed on event organisers that often require that automobiles of different categories need to be combined into single race events to ensure viable grid numbers. The following matrix has been developed to assist event organisers in selecting those categories that may be combined.

FREE:	may be combined without restriction
C120:	may be combined but a 120% cutoff* applies
C110:	may be combined but a 110% cutoff applies
AASA:	may be combined only with written approval of AASA
NCP:	may never be combined



COMBINATION OF CATEGORIES IN CIRCUIT RACING										
	F	G	S	T	K	H	C	B	M	O
F	C120	NCP	AASA	NCP	NCP	NCP	NCP	AASA	NCP	AASA
G		Free	C120	C120	NCP	NCP	C120	NCP	NCP	AASA
S			Free	AASA	NCP	NCP	AASA	NCP	AASA	AASA
T				Free	NCP	NCP	C120	NCP	NCP	AASA
K					C120	NCP	NCP	NCP	NCP	AASA
H						Free	AASA	NCP	NCP	AASA
C							Free	NCP	NCP	AASA
B								AASA	AASA	AASA
M									Free	AASA
O										AASA

*120% cutoff means that all automobiles in the combined field must set a qualifying time within 120% of the fastest qualifier. Stewards may permit competitors who fail to achieve this time the opportunity to compete should they be presented with evidence that the competitor could have achieved the required time save for exceptional circumstances.

Other Events

It should be noted that this memorandum is intended to apply only to circuit races. It can be used as a guide in non-race events, such as Speed and Regularity Events, but these events are generally of lower risk. Other measures, such as reduced grid density, the use of high visibility markings, and the grouping of cars with similar times may be sufficient to ameliorate the risks of running vehicles of different sizes and configurations.

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