MotorSport	Number:
New Zealand	Implementation Date:
Live life faster	Issue Date:

18 April 2019

Page 1 of 8

Immediate

36003

Manual Amendments

These amendments have been authorised to the text of MotorSport Manual Edition 36. It is recommended that in addition to retaining a copy of this amendment that all parties modify the actual text in their Manual according to the following:

Amendments to Schedule a in Manual 36:

- 1. Amend Sch. A Article 5.2 Exhaust System as below.
- 2. Amend Sch. A Article 5.4 Electrical System as below
- **3.** Amend Sch. A Article 5.5 (5) Batteries as below.
- 4. Amend Sch. A Article 5.6 (1) Lighting Systems as below.
- 5. Amend Sch. A Article 5.13 Aerodynamic Devices as below.
- 6. Amend Sch. A Article 4.2 Protective Clothing as below.
- 7. Amend Sch. A Article 4.2 Frontal Head Restraints (FHR) as below.

1. Item One:

- A 5.2 (1) General Requirements: All vehicles shall be fitted with an efficient and effective silencer exhaust system that:
 - (a) Includes a silencer Ensures noise emissions do not exceed 95dBA (refer Part One Article 3.8), and
 - (...)
 - (e) Turbo wastegate pipes shall be plumbed back in to the exhaust system, and
 - (f) Does not protrude more than 150mm beyond the bodywork.

Reason:

To clarify the requirements for exhausts.

2. Item Two:

A 5.4 (1) General Requirements: Any vehicle incorporating an electrical system which may run at a voltage in excess of 60V, excluding ignition systems, shall display a warning sign as per Diagram 5.4. adjacent to the vehicle competition number



Diagram 5.4 High Voltage external Marking

(2) Ignition Switch / Circuit Breaker (Kill Switch): (...)

Reason:

Safety. First step in identifying cars that may have potential to cause injury or death due to high energy electrical systems. More will follow on EV and Hybrid cars.

3. Item Three:

Schedule A - 5.5 (5)

Where Lithium-Ion (Li-Ion) batteries are used as the main vehicle battery the following shall apply:

- (a) The vehicle shall carry an external marking as detailed in Diagram 5.5 positioned adjacent to the competition number, and
- (b) The battery must carry appropriate disposal markings.

Note: Care must be exercised to ensure that no rapid charging or discharging of the battery can occur that could instigate exothermic reaction within the battery.



Diagram 5.5 - Li-Ion Marking

Recommendation: Where the battery is installed in the cockpit, the use of a 'sealed' [type] battery is highly recommended.

Reason:

Introduction of identification method for vehicles using Lithium-Ion batteries.

4. Item Four:

Schedule A - 5.5 (1)

(1) Brake lights: shall be fitted to all vehicles except Single Seaters and Sports Racing Cars and shall be: (...)

Reason:

It appears all sports racing cars currently have brake lights. Internationally these cars are manufactured under FIA regulation with brake lights. Some competitors have been seen to disconnect their brake lights to try to gain competitive advantage.

5. Item Five:

Schedule A - 5.13 (2)

(a) Front:

Height (min): Bottom of wheel rims.

- Height (max): Top of wheel rims,
- Width (max): width of bodywork,
- Length: No more than 200mm forward of the original bodywork.

(b) Rear:

Height (min): Bottom of wheel rims,

- Height (max): 840mm above the ground,
- Width (max): width of bodywork,
- Length: No more than 400mm rearward of the original bodywork.

Reason:

Factory built Sports Racing cars are being imported that have front and rear aero that don't comply with the ground clearance requirements currently stated.

6. Item Six:

Schedule A – 4.3

(1) **Types of Protective Clothing:** Protective clothing is categorised as follows and shall include but is not limited to the following types as per chart (1):

	Chart (1) - Protective Clothing Types / Standards						
	Overall	Underwear	Socks	Shoes	Gloves	Balaclava	
	One-piece garment worn as an outermost layer, designed with close fitting front, cuffs and ankles entirely covering the wearer except for head, hands and feet	Garments designed to be worn between the overall and wearer's body entirely covering the wearer except for head, hands and feet	One-piece close fitting garment covering at least to mid- calf	Garment that covers the whole foot and ankle	Garment that covers the whole hand and wrist	One-piece close fitting garment that covers the head and neck	
Α	FIA 8856-2000 ⁽¹⁾ FIA 8856-2018 ⁽²⁾	FIA 8856-2000 ⁽¹⁾ FIA 8856-2018 ⁽²⁾	FIA8856- 2000 ⁽¹⁾ FIA 8856- 2018 ⁽²⁾	FIA8856- 2000 ⁽¹⁾ FIA 8856- 2018 ⁽²⁾	FIA8856- 2000 ⁽¹⁾ FIA 8856- 2018 ⁽²⁾	FIA8856- 2000 ⁽¹⁾ FIA 8856- 2018 ⁽²⁾	
в	FIA Norm 1986 ISO 6940 ^[8] Multi-layer SFI 3.2A/5 < ⁽⁴⁾ Multi-layer FR material ⁽³⁾	SFI 3.3 ⁽⁷⁾ ISO 6940 <mark>⁽⁸⁾</mark>	SFI 3.3 ⁽⁷⁾ ISO 6940 <mark>⁽⁸⁾</mark>	SFI 3.3 ⁽⁷⁾ ISO 6940 <mark>⁽⁸⁾</mark>	SFI 3.3 ⁽⁷⁾ ISO 6940 ⁽⁸⁾	SFI 3.3 ⁽⁷⁾ ISO 6940 ⁽⁸⁾	

с	SFI 3.2A/1 < ⁽⁵⁾ ISO 6940 ⁽⁸⁾ Single- layer FR material ⁽³⁾	Cotton ⁽⁶⁾ Wool	Cotton ⁽⁶⁾ Wool	Leather	Leather	-			
D	Cotton ⁽⁶⁾	-	-	-	-	-			
Е	No Req'mt	No Req'mt	No Req'mt	No Req'mt	No Req'mt	No Req'mt			
	 References: (1) All garments certified to FIA8856-2000 Std are detailed in FIA Technical List No.27. Where FIA Std garments are mandated under this schedule all garments must maintain compliance with the standard. (2) FIA 8856-2018 will become mandatory for level A from 31 December 2028 for FIA inscribed classes. (3) (FR) Fire Resistant means garments made from purpose designed fabrics with 'built-in' self-extinguishing properties. The material <u>must</u> be identified on the manufacturers label with common examples being; Nomex, CarbonX, Proban[®], ProTek[®], Pyrovatex[®], Aramid fibres etc. (4) SFI 3.2A/5< means SFI Quality Assurance Specifications 3.2A/5, 3.2A/10, 3.2A/15 and 3.2A/20. The SFI 3.2A Spec label will be found on the left arm or the collar. (5) SFI 3.2A/1 (6) All garments, except socks must have a manufacturer label stating 100% Cotton (No 'Spandex or Synthetics). (7) Garments manufactured to this standard in a 'short sleeved' or 'short pant' version can be accepted (8) Signifies that the material the garment has been made from has been tested to ISO6940. 								
	 Notes: Garments predomini 	antly made of a flan	nmable material su	ich as nylon or sim	ilar synthetics are	not approved for			
	use under any circu	mstance. Technical	Lists	are	accessed	at;			

(2) **Protective Clothing Requirements:** All occupants shall wear clothing made to an approved standard or of an approved material and design as per chart (2):

	Chart (2) - Protective Clothing Requirements						
		Overall	Underwear	Socks	Shoes	Gloves	Balaclava
	Premier Championship	A	А	A	Α	А	Α
щ	Championship	А, В	A, B	А, В	А, В	А, В	A [,] B
RACE	National Race Meeting	А, В	A, B	A, B	A, B	A, B	A, B
	Clubmans Race Meeting	A, B, C	A, B, C	A, B, C	A, B, C	A, B, C	А, В
	Championship	А	А	А	Α	A*	А
RALLY	National Rally	А, В	A, B	A, B	A, B	A*, B*	A, B
RAI	Clubmans Rally (inc Rallysprints)	A, B, C	A, B, C	A, B, C	A, B, C	A*, B*	A, B
	Other	A, B, C	A, B, C	A, B, C	A, B, C	Е	E
ВRТ	Advanced (excl Rallysprints)	A, B, C	(A, B, C) ⁽⁵⁾	A, B, C	A, B, C	Е	E
CLUBSPORT	Basic	A, B, C, D	(A, B, C) ⁽⁶⁾ (7)	А, В, С <mark>⁽⁷⁾</mark>	A, B, C	E	E
СГЛ	Motorkhanas and Car Trials	E	E	E	E	E	E

* The wearing of gloves is optional for co-drivers **Notes:**

- **1.** The specified letters [A,B,C,D,E] correspond to the specific requirements applied to the item of clothing as detailed in Chart (1)
- 2. Requirements for International Status Events shall comply with the current regulations published by the FIA
- **3.** Requirements are as specified unless detailed otherwise within Event Supplementary Regulations or Series Regulations as approved by MotorSport NZ.

4. Requirements for passengers will be the same unless detailed otherwise within Event Supplementary Regulations or Series Regulations as approved by MSNZ

- 5. Condition dirty, damaged, ill-fitting or excessively worn garments may render them unsuitable for use
- 6. Only mandatory where a single layer Overall is worn
- 7. For Autocross and Standing Sprint Single Car events there is no requirement for compliant underwear or socks but any garments worn beneath overalls must be either cotton or wool.

Reason:

Aligning underwear requirements with ClubSport Basic event.

7. Item Seven:

Schedule 4.2 - Frontal Head Restraints (FHR):

(1) Frontal Head Restraint Requirements: All occupants shall wear FHR made to an approved standard as per Chart 1 below:

		01 October 2018	01 October 2019	01 October 2020		
				onwards		
	Championship	Mandatory	Mandatory	Mandatory		
	Sanctioned	Strongly	Strongly	Mandatory		
RACE	Series	Recommended	recommended			
	National	Strongly	Strongly	Mandatory		
		Recommended	recommended	(Refer Note 1)		
	Clubmans	Recommended	Recommended	Recommended		
				(Refer Note 3)		
	Historic	Recommended	Recommended	Mandatory		
				(Refer Note 2)		
	Championship		Mandatory	Mandatory		
RALLY	National	Recommended	Recommended	Recommended		
		(Refer Note 4)	(Refer Note 4)	(Refer Note 4)		
	Clubmans	Recommended	Recommended	Recommended		
	·					
	Rallysprint	Recommended	Recommended	Recommended		
CLUBSPORT				(Refer Note 4)		
	Advanced	Recommended	Recommended	Recommended		
	Basic	Optional	Optional	Optional		
Notes: 1. FHR's are not mandatory for cars without Safety Cages 2. For Schedule K care with a valid Cartificate of Description, where it is impractical to achieve the						

2. For Schedule K cars with a valid Certificate of Description, where it is impractical to achieve the harness mounting requirements the use of a Frontal Head Restraint is not mandatory.

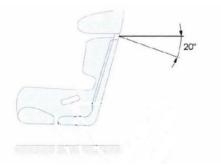
3. The use of FHR's in Clubmans racing is flagged for future introduction.

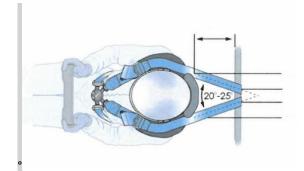
4. The use of FHR's for National Permitted Rallys and Rallysprint is under review and flagged for future introduction.

- (2) Frontal Head Restraint's shall:
 - (a) Comply with an approved standard, being:
 - FIA FIA8858-2002
 - FIA FIA8858-2010
 - SFI SFI Spec 38.1
 - (b) Be a good fit on the wearer, and
 - (c) Be of the correct type/angle for the vehicle being driven, and
 - (d) Be in good condition, free of cracks or signs of damage, and
 - (e) Not be modified, except as specifically permitted by the manufacturer, and
 - (3) Frontal Head Restraints shall only be used in combination with helmets bearing one(1) of the following standard markings:
 - FIA 8860, 8859 & 8858,
 - Snell SA 2015, SA 2010, SAH 2010, SA 2005 & SA 2000,
 - British Standard BS 6658-85 A/FR, and
 - SFI Spec 31.1/2005, Spec 41.1/2005 & Spec 24.1 (Youth)
 - (4) Where FHR's are used the following Safety Harness requirements shall apply:
 - (a) For Saloon cars and Open cars:
 - (i) Safety Harnesses being either 5 Strap, 6 Strap or 4 Strap bearing one of the following standards markings are mandatory:
 - FIA 8853-2016
 - FIA 8853/98
 - SFI 16.1, or SFI 16.5
 - FIA 8854/98

Note: It is strongly recommended that either a 5 strap or 6 strap Safety Harness is used in conjunction with a FHR. A 4 strap Safety Harness is accepted but not recommended.

(ii) Safety Harness shoulder straps shall slope downwards from the shoulder to the anchorage point to create an angle of 0° to 20°. Shoulder strap length should be kept to a minimum (ideally 200mm – 400mm) and should converge to the attachment point.





- (b) For Single-seater cars and Sports Racing cars:
 - (i) Safety Harnesses being 6 Strap bearing one of the following Standards markings are mandatory:
 - FIA 8853-2016
 - FIA 8853/98
 - SFI 16.1, or SFI 16.5

(ii) Safety Harness shoulder straps shall be installed at 0° to the horizontal with angles between 0° to 10° downwards being acceptable.



- (5) Where FHR's are used the following Seat requirements shall apply:
 - (a) For Saloon cars and Sports cars seats shall be
 - A competition seat compliant to FIA 8855-1999 or 8862-2009 or SFI 39.2, SFI 39.1 is recommended, or
 - A 'bucket style' replacement seat with fixed-back (non-adjustable rake), manufactured to a professional standard that incorporates a headrest and cushioned harness apertures is accepted but not recommended

Note: Frontal Head Restraints are designed to work in combination with a range of occupant protection measures. It is strongly recommended that a FIA or SFI compliant seat is used.

(b) For Single-seater cars and Sports racing cars seats shall be

- As homologated in the vehicle, or
- A 'bucket style' seat with fixed-back (non-adjustable rake), manufactured to a professional standard that incorporates a headrest and cushioned harness apertures

Inspection: A Scrutineer may check Frontal Head Restraints at any time during an Event for condition and correct use.

Recommendations:

1. It is strongly recommended that occupants practice rapid evacuations from the car with full race equipment fitted to familiarise themselves, and

2. For occupants of Saloon/GT vehicles Frontal Head Restraints are most effective when used in combination with head restraint seats and driver nets.

3. When using any Frontal Head Restraint, the mounting of the safety harness is critical. Shoulder straps should be 200mm to 400mm long

Notes:

1. Compliant Frontal Head Restraints are recognised by the applicable standards label.

2. FIA Technical Lists may be accessed at www.fia.com, SFI Foundation Spec 38.1 Compliant Device Manufacturers may be accessed at www.sfifoundation.com

3. An information guide for the use of HANS[®] and Hybrid devices is published by the FIA, a copy of which may be accessed at <u>www.fia.com</u>

Reasons:

Updating FHR regulations for competition.