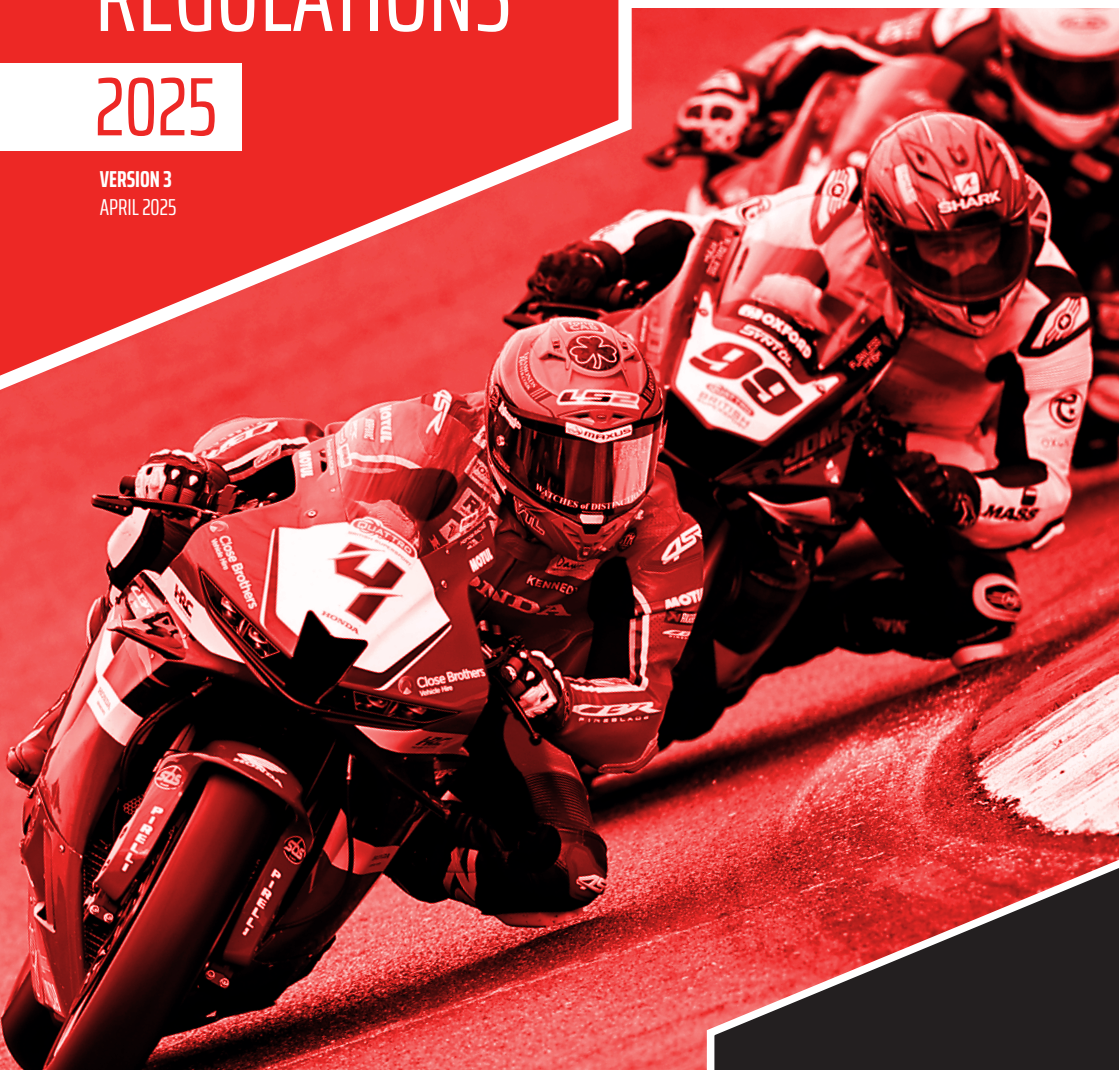


SPORTING AND TECHNICAL REGULATIONS

2025

VERSION 3
APRIL 2025



[TO BE READ IN CONJUNCTION WITH THE
2025 MCRCB YEARBOOK]

PLEASE NOTE: The Promoter/Organiser reserves the right to issue
amendments to this document from time to time.

MSVR
MOTORSPORT VISION RACING

E1.6 MCRCB SUPERSPORT NEXT GENERATION AND MCRCB SUPERSPORT CUP TECHNICAL SPECIFICATIONS

The following rules are intended to give freedom to modify or replace some parts in the interest of safety, research and development and improved competition between various motorcycle concepts.

EVERYTHING THAT IS NOT AUTHORISED AND PRESCRIBED IN THIS RULE IS STRICTLY FORBIDDEN

If a change to a part or system is not specifically allowed in any of the following articles, then it is forbidden.

MCRCB Supersport motorcycles require the relevant FIM or MCRCB homologation (see Homologation procedure) **and must be on the MCRCB list of Authorised Motorcycles**. All machines must be normally aspirated. All motorcycles must comply in every respect with all the requirements for road racing as specified in these Technical Regulations.

Once a motorcycle has obtained the homologation, it may be used for racing in the corresponding class for a maximum period as stated in the FIM Homologation list or until such time that the homologated motorcycle is disqualified by new rules or changes in the technical specifications of the corresponding class.

The appearance from the front, rear and the profile of Supersport motorcycles must (except when otherwise stated) conform in principle to the homologated shape (as originally produced by the manufacturer). The appearance of the exhaust system is excluded from this rule.

1.6.1 Motorcycle specifications

All parts and systems not specifically mentioned in the following articles must remain as originally produced by the manufacturer for the homologated motorcycle.

1.6.2 Engine configurations and displacement capacities

MCRCB Supersport motorcycles require the relevant FIM or MCRCB homologation (see Homologation procedure) **and must be on the MCRCB list of Authorised Motorcycles**.

The displacement capacity bore and stroke must remain at the homologated size. Modifying the bore and stroke to reach class limits is not allowed. Machines outside of these classifications will be considered upon application by the MCRCB.

~~They~~ **All machines** must be equipped with a Ride by Wire throttle system (OEM or as part of a compulsory kit). If approved these machines will be known as Supersport Next Generation Machines. Manufacturers may resubmit currently homologated machines as Supersport Next Generation.

2025: All machines must meet requirements of the Supersport Next Generation regulations.

1.6.3 Balancing various motorcycle concepts

In order to equalize the performance of motorcycles used in the MCRCB British Supersport Championship, a system of performance enhancements or restrictions may be applied according to their respective racing performances – including but not limited to:

- Authorised Parts
- Torque limited map with Rev Limit
- Minimum Weight
- Air restrictor
- Modifications

The decision to apply a balancing system to a motorcycle will be taken by MCRCB at any time deemed necessary to ensure fair competition.

The Authorised parts (and modifications) supersede all the following regulations (Supersport) and will be documented in the MCRCB Authorised Parts List.

The specification of MCRCB Supersport Next Generation machines will be agreed between the machine manufacturer and the Promoter, represented by their appointed Technical Director. The specification will be published in the MCRCB Authorised Parts List and will supersede all of the following regulations. The specification will be fixed for the entire season.

Balancing level will be continued between seasons.

1.6.3.1 Balancing Calculation

- 1) The following may include but not be limited to the following signals:
 - a. Lap time relative to all other competitors
 - b. Speed traps
 - c. Number of riders per brand
 - d. Anticipated individual rider performance
 - i. Per track
 - ii. Considering preceding rounds
 - e. Race results
 - f. Laps led
 - g. Overall race time
 - h. Change in balance following any rpm limiter changes
 - i. Bias towards recent results reflecting current performance
 - j. Any concession part updates being applied
- 2) The balancing factors may be updated (according to 1.6.3) at the end of every 3rd event provided at least 3 events remain in the season. The balance will be weighted to the data collected during the previous 6 events.
- 3) The primary method of balancing will be torque limited maps updated in increments of $\pm x\%$
- 4) The balancing factors may also be updated at the end of the season.

- 5) MCRCB reserves the right to update the-balance at their discretion in the case of an imbalance.

1.6.3.2 Rev Limit

See MCRCB Authorised Parts List. The Rev Limit is an embedded part of the controlled Manufacturer Map and is conjunction with other restrictions.

1.6.3.3 Minimum weight

Brand	Motorcycle Weight		Combined Minimum Motorcycle and Rider Weight*
	Hard Minimum	Soft Maximum	
Ducati Panigale V2	161 kg	173 kg	244 kg
Honda CBR600RR	161 kg	173 kg	239 kg
Kawasaki ZX-6R	161 kg	173 kg	239 kg
Kawasaki ZX-636R	161 kg	173 kg	239 kg
MV Agusta F3 800	161 kg	173 kg	239 kg
Suzuki GSX-R750	165 kg	177 kg	243 kg
Triumph ST765RS	161 kg	173 kg	239 kg
Yamaha YZF-R6	161 kg	173 kg	239 kg
Yamaha YZF-R9*	168 kg	180 kg	246 kg

* provisional

- Combined weight is the weight of the rider (in full racing equipment) and motorcycle, as used on track.
- If the bike has achieved or exceeded the 'Soft Maximum Weight' then the combined minimum weight does not need to be reached. The bike alone may never at any time be below the 'Hard Minimum Weight'. This limits the maximum amount of ballast that can be added to the machines.**
- At any time of the event, the weight of the whole machine (including the tank and its contents) plus the rider must not be less than the minimum weight. At any time during the event, the weight of the whole motorcycle (including the tank and its contents) must not be less than the minimum weight.
- There is no tolerance on the minimum weight of the motorcycle or rider.
- During the final technical inspection at the end of the race, the selected motorcycles will be weighed in the condition they finished the race, and the established weight limit must be met in this condition. Nothing may be added to the motorcycle. This includes all fluids.
- During the practice and qualifying sessions, riders may be asked to submit their motorcycle to a weight control. In all cases the rider must comply with this request.

- g. The use of ballast is allowed to stay over the minimum weight limit and may be required due to the handicap system. The use of ballast and weight handicap must be declared to the Technical Director at the preliminary checks.

1.6.4 Numbers and number plates

For the front number the background colours and figures (numbers) are:

Class	Front Number Plate	Number
Supersport NG	White	Blue
Supersport Cup	Yellow	Black

The sizes for each front digit is:

Minimum height:	140 mm
Minimum width:	80 mm
Minimum stroke:	25 mm
Min space between numbers	10 mm

The sizes for each side digit is:

Minimum height:	120 mm
Minimum width:	60 mm
Minimum stroke:	20 mm
Minimum space between numbers	10 mm

- The font that may be used is free.
- Only single or double digit numbers will be allowed.
- Numbers must be clearly visible to public and officials on both sides of the track.
- Numbers must be fitted:
 - Once on the front, in the centre of the fairing. If the design of the fairing makes this impossible then the number must be aligned to the side of the machine that has the timing/data centre. The number must be centred on the background with no advertising within 25mm in all directions.
 - Once on each side on the lower rear portion of the lower fairing with a white number on a black background.
 - Any change to this position must be pre-approved a minimum of 2 weeks before the first race by the Technical Director.
- A single outline is permitted and the outline must be of a contrasting colour and the maximum width of the outline is 3mm. The background colour must be clearly visible around all edges of the number (including outline). Reflective or mirror type numbers are not permitted.
- Numbers cannot overlap.
- No machine may enter the circuit if it does not meet the above regulations. If the rider does enter the circuit then no lap times will be recorded and Race Direction will at their discretion black flag the rider.

- h. The English form for the number must be used. That is single vertical line for the "one" and a sloping line without a horizontal line for the "seven" (see technical diagrams).
- i. In case of a dispute concerning the legibility of numbers, the decision of the Technical Director will be final.
- j. The organisers will not be responsible or give dispensation to any competitor who is delayed or misses their practice session or race due to numbers not complying with the regulations. Nor will the timekeepers be responsible for not recording times. In addition a competitor may be fined or excluded by the Race Direction for non-compliance.

1.6.5 Fuel

See Fuel regulations article for fuel specifications – Only the official MCRCB control fuel may be used. See D-Championship Conditions and any Bulletins issued by MSVR.

1.6.6 Tyres

- a. The maximum number of dry tyres, available to each rider during the event will be 5 front tyres and 6 rear tyres.
- b. Only the Race Direction, following consultation with the Technical Director and the official tyre supplier may alter the allocation during an event.
- c. Every dry tyre used during the event must be marked with an adhesive sticker with a number allocated by the Technical Director. The front sticker will have white numbers and the rear stickers will have black numbers.
- d. No tyre change is permitted during a dry race in a Red Flag interruption (including a dry race interrupted with less than 3 laps of its duration completed by the leader), other than when the race status is changed to "Wet" and/or authorisation to change tyres is announced by race control – see C 1.10.
- e. In the event of a exceptional tyre change authorised by the Chief Technical Official in the case of a proven tyre failure, the rider must start the re-start from the back of the grid or the pit lane exit.
- f. Wet and Intermediate tyres will not need to be marked with a tyre sticker. They will not be considered in the total number of tyres available for use, however normal supplier allocation limits still apply.
- g. The tyres used to ride to the grid during the sighting lap of normal start procedures do not need to be marked with a tyre sticker. Tyre stickers **MUST** be fitted to race tyres before the 5 minute board.
- h. The tyre stickers will be collected by the teams in a sealed envelope after which the teams will be responsible for their use.
- i. The stickers must be applied to the right hand sidewall of the tyre. Officials will check that all the motorcycles entering the track are fitted with tyres carrying the sticker with the exception of the cases mentioned above.
- j. The use of motorcycles without the official stickers will be immediately reported to the Race Direction whom will take appropriate action.
- k. At the discretion of the rider, intermediate or wet weather tyre (if allocated) may be used. Wet-weather tyres must be a fully moulded tyre. The use of

hand cut tyres is not allowed. Wet-weather tyres must be marked “Not for Highway Use” or “NHS”.

- l. Any modification or treatment (cutting, grooving) is forbidden.
- m. At the beginning of the event, the Official Supplier may be requested by the Technical Director to deliver to him four (4) samples of each type of tyre to be used at the event.
- n. The allocation of individual tyres will be made on a random basis, with no involvement of any representative from the tyre supplier, teams or riders. Those tyres will be individually identified and may not be exchanged between riders, including between team mates, and may not be exchanged by the tyre supplier after the allocation, except with the permission of the Race Direction.
- o. In exceptional cases, should the sticker be damaged or applied in the wrong way, an extra stickers may be provided at the sole discretion of the Technical Director. However, the damaged sticker must be returned to the Technical Director and/or the tyre it was applied to, must be absolutely intact.

Tyre Limitations:

- p. Minimum tyre pressure:

Minimum Tyre Pressure	
Period	Pressure
At all times	1.65bar
No tolerance	

- q. At the 3 minute board the pressure will be checked on the grid for a minimum of three riders using the official tyre suppliers approved tyre gauge. If the tyre is below the minimum limit according to the official tyre suppliers approved gauge then the machine will be removed from the grid to the pitlane to have the pressure corrected and the rider will start the warm up lap from the pitlane (and the race from the back of the grid).
- r. Riders may be stopped in the pitlane at any time by the Technical Director or his appointed staff to check the tyre pressure.

For Supersport Next Generation: No modifications may be made to the engine (all of 1.6.7 and 1.6.8) unless noted in the text or in the MCRCB Authorised Parts List, where the list will take precedence over the following.

1.6.7 Engine

The allocated number of engines is calculated by the number of events and rounded to the nearest whole number (minimum of 3 engines):

Engine Limit	
Capacity	Rounds/Engine
400-600cc	No Limit
601-799cc	No Limit
800cc and over	No Limit

Engines may be chosen and impounded for Dyno testing (during events, between events or after the season) at an approved balancing facility and for comparison to the reference engine (see homologation). Apart from MCRCB staff, only one team representative may attend the test.

2026: The engine kit will have a price limit for the complete engine kit required for the initial build and for the refresh kit:

Engine Kit Price Limit		
Brand	Kit	Refresh
<i>Ducati Panigale V2</i>		
<i>Honda CBR600RR</i>		
<i>Kawasaki ZX-6R</i>	NA	NA
<i>Kawasaki ZX-636R</i>		
<i>MV Agusta F3 800</i>		
<i>Suzuki GSX-R750</i>	NA	
<i>Triumph ST765RS</i>		
<i>Yamaha YZF-R6</i>	NA	NA
<i>Yamaha YZF-R9</i>		

1.6.7.1 Fuel injection system

- The original homologated fuel injection system must be used without any modification.

1.6.7.2 Cylinder head and Valvetrain

Cylinder head and the Valvetrain must be the originally fitted and homologated parts. The following modifications are allowed:

- The throttle body intake insulators **may be modified to match their inner surface to the cylinder head and throttle body.**
- The exhaust air bleed system must be blocked and the external fittings on the cam cover(s) may be replaced by plates.

1.6.7.4 Cam sprockets or cam gears

- Camshafts timing is free IF the originally fitted pulleys/gears allow it. Bolt holes may be elongated into slots for this purpose. If the gear is**

fixed then it may be replaced ONLY if listed in the MCRCB Authorised Parts List

1.6.7.5 Crankcase / Gearbox housing

- a. Crankcases must be the originally fitted and homologated parts with only the following modification allowed.
- b. One thread may be altered or created to allow for oil pressure/temperature measurement. The sensor must be positioned so it cannot sustain impact in the case of a crash. **The sensor cannot be mounted directly into the crankcases but must be on a flexible braided hose to reduce vibration and temperature reaching the sensor. The original oil pressure switch may be used as originally installed.**

1.6.7.5.1 Lateral covers and protection

- a. Lateral (side) covers may be altered, modified or replaced. If altered or modified, the cover must have at least the same resistance to impact as the original one. If replaced, the cover must be made in material of same or higher specific weight and the total weight of the cover must not be less than the original one.
- b. Titanium bolts may be used to fasten lateral covers.
- c. All lateral covers/engine cases containing oil and which could be in contact with the ground during a crash, must be protected by a second cover made from metal, such as aluminium alloy, stainless steel or steel or titanium, composite covers are not permitted.
- d. The secondary cover must cover a minimum of 1/3 of the original cover. It must have no sharp edges to damage the track surface.
- e. Plates or crash bars from aluminium or steel also are permitted in addition to these covers. All these devices must be designed to be resistant against sudden shocks, abrasions and crash damage.
- f. Covers from the MCRCB Authorised Parts List will be permitted without regard of the material or dimensions.
- g. These covers must be fixed properly and securely with a minimum of three (3) with case cover screws that also mount the original covers/engine cases to the crankcases.
- h. Oil containing engine covers cannot be secured with aluminium bolts.
- i. The Technical Director has the right to refuse any cover not satisfying this safety purpose.

1.6.7.6 Transmission / Gearbox

- a. Must be the originally fitted and homologated parts (including but not limited to shafts, selector mechanism, gears and primary gears) with the following exceptions:
2025: Replacement first gear no longer allowed.
- b. Undercutting and re-shimming are allowed
- c. The positive neutral selector mechanism may be removed.
- d. Shift star/indexer, spring, roller and detent may be replaced or modified but must function as originally designed.
- e. Polishing, surface treatment, and heat treatment of all gearbox components is allowed.

- f. Countershaft sprocket, rear wheel sprocket, chain pitch and size may be changed.
- g. The front sprocket cover may be modified or eliminated.
- h. Chain guard as long as it is not incorporated in the rear fender may be removed.
- i. A support may be added to the gearbox shift shaft to reduce flex, this may be a separate part or integrated into a cover.

1.6.7.7 Clutch

- a. Clutch system (wet or dry type) and the method of operation (by cable or hydraulic) must remain as homologated.
- b. Friction and drive discs may be changed.
- c. Clutch springs may be changed.
- d. The clutch basket (outer) must be the originally fitted and homologated part but may be reinforced.
- e. The original clutch inner assembly may be modified or replaced by an aftermarket clutch, also including back torque limiting capabilities (slipper type).
- f. No power source (i.e. hydraulic or electric) can be used for gear selection, if not installed in the homologated model for road use. Human power is excluded from the ban.

1.6.7.8 Oil pumps, and oil lines

- a. Must be the originally fitted and homologated parts with no modification allowed.
- b. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of braided reinforced construction with swaged or threaded connectors.
- c. **All oil related fittings must be lockwired.**

1.6.7.9 Cooling System

- a. The only liquid engine coolants permitted will be water.
- ~~b. The water pump must remain as homologated with no modifications allowed.~~
- c. The radiator may be changed with an aftermarket radiator or an additional radiator added that fits in the standard location and does not require any modifications to the main frame or to the fairings' outer appearance.
- d. Modifications to the homologated oil-cooler are allowed only **if** they do not require any modifications to the main frame or to the fairings' outer appearance. A heat exchanger (oil/water) may be replaced with an oil-cooler.
- e. Protective meshes may be added in front of the oil and/or water radiator(s).
- f. The cooling system hoses and catch tanks may be changed. The reservoir/overflow/expansion bottle must be fitted. It can have a small vent hole.
- g. Radiator fan and wiring may be changed, modified or removed. Thermal switches, unused temperature sensors and thermostat may be removed.
- h. Radiator Cap is free.

- i. The oil cooler must not be mounted on or above the rear mudguard.

1.6.7.10 Airbox

- a. The airbox must be the originally fitted and homologated part with no modification allowed.
- b. The air filter element may be ~~removed or~~ replaced **but must be fitted in the original location.**
- c. The airbox drains must be sealed.
- a. All motorcycles must have a closed breather system. All oil breather lines must be connected, may pass through an oil catch tank and must exclusively discharge in the airbox. Only the original breather vents may be used.
- d. No heat protection may be attached to the airbox.

1.6.7.11 Fuel supply

- a. Fuel pump and fuel pressure regulator must be the originally fitted and homologated parts with no modification allowed.
- b. The fuel pressure must be as homologated.
- c. Fuel lines from the fuel tank to the injectors (fuel hoses, delivery pipe assembly, joints, clamps, fuel canister) may be replaced and must be located in such a way that they are protected from crash damage.
- d. Fuel level sensors may be removed or fixed in position.
- e. Quick connectors or dry break connectors may be used.
- f. Fuel vent lines may be replaced.
- g. Fuel filters may be added.

1.6.7.12 Exhaust system

- a. Exhaust pipes, silencers and exhaust mounts may be altered or replaced from those fitted on the homologated motorcycle. Catalytic converters must be removed.
- b. The number of final exhaust silencer(s) must remain as homologated. The silencer(s) must be on the same side(s) as on the homologated model.
- c. For safety reasons, the exposed edge(s) of the exhaust pipe(s) outlet(s) must be rounded to avoid any sharp edges.
- d. Wrapping of exhaust systems is not allowed except in the area of the rider's foot or an area in contact with the fairing for protection from heat.
- e. The noise limit for Supersport will be 107 dB/A (with a 3 dB/A tolerance after the race only).
- f. Supersport Next Generation machines **may** have limitations on the exhaust specification defined at the time of the balance test and specified in the MCRCB Authorised Parts List. If an exhaust system manufacturer wishes to authorise a system that does not match the Manufacturers defined specification (or point b) then they may pay to have the (Phase 2) balancing test performed with their system. Once approved the system and its map ID will be added the MCRCB Authorised Parts List.

1.6.8 Electrics and electronics

1.6.8.1 Electrics and Electronics:

- a. The ECU and Dashboard must be the Supersport control units as documented in the MCRCB Authorised Parts List. The sole official supplier of the Control Electronic System is Solo Engineering.
www.soloengineering.com, sales@soloengineering.com Those parts are the WSS600_A (MKE7) ECU and DAS-SOLOWSS3-D1 (ADU5) and the units must feature the Soloengineering's official Labelling.
- b. The firmware and manufacturer (engine) map must be declared Authorised by the championship and published [here](#) on the online system.
- c. No other external modules may be fitted except:
 1. Part of a quickshifter where the module may only provide a signal to the control ECU.
 2. Championship mandated devices (e.g. 2 way RF system).
 3. Datalogger.
 4. Additional external lambda driver module
- d. 2 CAN connections must be made available for Championship devices. They must be located in the rear of the seat unit of the motorcycle. It must be connected to the ECU CAN bus and the TPMS system (if fitted) must be connected to the same bus. 12v power should be available switched by the main switch (not switched by the ignition switch). The devices may be championship mandated or nominated by the Technical Director.
Connector spec: JST 04R-JWPF-VSLE-S
 1. Ground
 2. CAN Lo
 3. CAN Hi
 4. 12v Main Switch
- e. The rain light must be powered **and switched exclusively** by the ECU (as detailed in the harness schematics).
- f. The ECU may be freely located but must be fitted securely, in a damped mounting without vibration.
- g. During an event the Technical Director has the right to ask a team to substitute their ECU. The change has to be done before Sunday warm up.
- h. During an event the Technical Director or his appointed deputy has the right to read and save the teams calibration file (amp), it will not be shared except for conformity checks with control electronics system partners, but may be used in Dyno tests.
- i. The following sensors must be connected directly to the ECU only and must be the original OEM sensors unless stated. **No other sensors may be fitted:**
 1. Throttle position Sensor(s)
 2. Map sensor, Map Sync (pressure sensor on the intake port used to synchronize the engine during the start)
 3. Airbox Pressure
 4. Engine pick-ups (Cam, crank)
 5. Twist grip position (Gas)
 6. Front Speed (add only if not available OEM)*
 7. Rear Speed (add only if not available OEM)*

8. Gearbox output shaft speed (if on OEM machine)
9. Gear position
10. Air pressure
11. Water temperature
12. Air temperature
13. Tip-Over Switch (No lean angle – except from ECU) (all ECU's feature crash detection by IMU).

The following can be added (and not OEM sensors)

14. Gear shift load cell / switch (may only provide a signal to the control ECU)
15. Bosch Lambda Sensor (per cylinder allowed using MKL)
16. Fork position
17. Shock position
18. Front brake pressure
19. Rear brake pressure
20. Fuel pressure (not temperature)
21. Oil pressure
22. Oil temperature
23. Switches (Left and right)

* The OEM phonic/speed sensor rings must be used (ZX636 for ZX6)

- j. The data logger must be from the MCRCB Authorised Parts List (Data Logger List). The characteristics of Authorised data logging systems must be the following:

1. Maximum retail price of the unit (hardware + software, excluding sensors and wiring harness) cannot exceed €3.000 Euro (VAT excluded) unit. The 'unit' may consist of multiple parts, input module, recording module etc.
2. The Data Logger unit must be available for sale to the public.
3. The data logger may ONLY be connected to the CAN bus and to those Parts Listed in section 1.6.8.2.k.
4. **The logged data must be available to the Technical Director (uploaded to secure fileshare or via flash drive). The logger must log any channels/signals requested by the series.**
5. **The ECU may log data exclusively for the Championship. It will be used for BOP and diagnostics purposes.**

- k. Only the following may be connected directly to the logging system.
 - a. GPS Unit (Lap timing and track position)
 - b. Rear tyre temperature (Infra-Red)(External)(Maximum 3)
 - c. Rear TPMS Monitor (Temperature and Pressure, must be CAN)**
 - d. Front TPMS Monitor (Temperature and Pressure, must be CAN)**
 - e. Any exceptions noted in MCRCB Authorised Parts List.

** Must be from the MCRCB Authorised Parts List

- l. Telemetry is not allowed.

- m. No remote or wireless connection to the motorcycle for any data exchange or setting is allowed whilst the engine is running or the motorcycle is moving.
- n. All shift lights must be only 'White'.
- o. For Supersport Next Generation: If handlebar switches are replaced from those supplied in the kit then they must meet the specification documented on www.soloengineering.com. Their basic layout, switch function, position and colour must follow those supplied in the kit.
- p. Plug caps and coils must remain as homologated.
- q. Electric cables, harness, connectors, battery and switches are free but the harness must comply with the wiring schematic that is available from www.soloengineering.com.
- r. Spark plugs and wires may be replaced.

1.6.8.2 Generator, alternator, electric starter

- a. The generator (ACG) must be the originally fitted and homologated part with no modification allowed.
- b. The stator must be fitted in its original position and without offsetting.
- c. The electric starter must operate normally and always be able to start the engine during the event.
- d. During parc fermé the starter must crank the engine at a suitable speed for starting for a minimum of 2 seconds without the use a boost battery. No boost battery may be connected to the machine after the end of the session.

1.6.9 Main frame and pre-assembled spare frame

During the entire duration of the event, each rider can only use one (1) complete motorcycle, as presented for Technical Control, with the frame clearly identified with a seal. In case the frame needs to be replaced, the rider or the team must make a request to the Technical Director to use the spare frame.

The pre-assembled spare frame must be presented to the Technical Director to receive the permission to rebuild the motorcycle. The pre-assembly of the frame shall be strictly limited to:

- Main frame
- Bearings (steering pipe, swing-arm, etc)
- Swing-arm
- Rear suspension linkage and shock absorber
- Upper and lower triple clamps
- Wiring harness

The spare frame will not be allowed in the pit box before the rider or the team has received authorisation from the Technical Director.

The rebuilt motorcycle must be inspected before its use by the technical stewards for safety checks and a new seal will be placed on the motorcycle frame.

No complete spare machine may be at the track. If found penalties will be applied. For the remainder of the event the machine will be impounded and no part of that machine may be used for spare parts.

EXPLANATION OF THE PROCEDURES

Only one (1) complete motorcycle may be presented for the preliminary technical checks and it will be the only motorcycle allowed on the track and in the pit box during the practices, qualifying, warm up and race.

The frame of this motorcycle will be officially sealed by the Technical Director or by his appointed staff. The seal will bear a serial number, which will be recorded. Any attempt made to remove the seal will damage it irreparably.

At any time during the event the technical stewards, under the direction of the Technical Director, may check the seal and verify that it conforms to the motorcycle and rider it was assigned to. For cross reference, every frame must have a unique number punched on it, preferably on the steering-head.

If the motorcycle is damaged in a crash or in any other incident, it is allowed to use the pre-assembled spare frame to rebuild the motorcycle.

The spare frame may be pre-assembled with the following items: main frame assembly, swing-arm, rear suspension linkage, shock-absorber, steering head bearings, upper and lower triple clamps and wiring harness.

When a team decides that a crashed or damaged motorcycle requires a change of frame, it must inform the Technical Director. Only once authorized may the pre-assembled spare frame be brought into the pit box.

Parts may be transferred from the damaged motorcycle for the assembly of the replacement motorcycle.

Once the assembly of the replacement motorcycle is completed, the machine must undergo technical and safety checks and it will be officially sealed. The seal on the damaged motorcycle will be destroyed by the technical staff and the chassis of this motorcycle must not be used for the remainder of the event. The new serial number will be recorded by the Technical Director.

The replacement motorcycle may be used on the track only after the end of the practice and qualifying sessions or race in which the damage occurred. The damaged motorcycle must be removed from the pit box as soon as possible and put in storage outside the pit box.

After the pre-assembled spare part frame has been used, should it become necessary to replace the frame again because of a further crash or damage, the assembly work must be done using a bare frame with no components attached. The before work can start.

Any actions contrary to these procedures will result in a penalty as described in the Sporting Regulations

1.6.9.1 Frame body and sub-frames

- a. The frame must be the originally fitted and homologated part with no modification allowed.
- b. Holes may be drilled on the frame only to fix approved components (i.e. fairing brackets, steering damper mount, sensors).
- c. The sides of the frame-body may be covered by a protective part made of a composite material. These protectors must fit the form of the frame.
- d. Crash protectors may be fitted to the frame using existing points (max. length: 50 mm), or pressed into the ends of the wheel axles (max. length: 30mm).
- e. Nothing else may be added or removed from the frame body.
- f. All motorcycles must display a unique identification number punched on the frame body.
- g. Engine mounting brackets or plates must remain as originally produced by the manufacturer for the homologated motorcycle.
- h. Front sub frame / fairing mount may be changed or altered, **the material is free.**
- i. Rear sub frame may be changed or altered. **The material must be metal, no composites are allowed.**
- j. Additional seat brackets may be added, non-stressed protruding brackets may be removed if they do not affect the safety of the construction or assembly. Bolt-on accessories to the rear sub-frame may be removed.
- k. The paint scheme is not restricted but polishing the frame body or sub-frame is not allowed.

Steering Stem Position:

- l. Steering angle changes are permitted by fitting inserts onto the bearing seats of the original steering head, but no part of the insert may protrude axially more than 1.5 mm outside the original steering head. The bearing position may be moved a maximum 4mm forward and aft in the plane of the original bearing.
- m. These parts must be on the MCRCB Authorised Parts List and freely available with a price limit of €180 / pair.

Swingarm Pivot Position:

- n. If the original chassis includes adjustable/replaceable inserts for the swingarm pivot position then they may be replaced. The swingarm pivot position may be moved radially by a maximum of 3mm.
- o. If the original chassis does not include adjustable/replaceable inserts then the swingarm pivot (axle) may be replaced to allow offset bushes in both the frame and to support the swingarm pivot bearings. The pivot axis may be moved a maximum of 3mm radially from the homologated position.
- p. **A modification may be made to the frame to locate or lock the pivot axle ONLY with prior written approval of the Technical Director following application including drawings and full details of the modification.**

- q. These parts (as complete kits) must be on the MCRCB Authorised Parts List and freely available with a price limit of €600 / set.

1.6.9.2 Suspension - General

- a. Participants in the Supersport class must only use units from the MCRCB Authorised Parts List.

The retail price limits (excluding taxes) are:

- a. Fork: For the fork kit, including all parts such as but not limited to cartridge, springs (1 set), adjusters, fork caps, blanking inserts, seals, bushes but excepting oil and fitting the price limit is **€2450** excluding tax
- b. Shock Absorber/RCU: For the complete shock absorber / RCU including but not limited to spring (1 of), pre-load adjuster and length/ride height adjuster the price limit is €2000 excluding tax
- b. The Authorised products from the suspension manufacturers must be available to all participants at least one month before the first round of the World Superbike season, and remain available all season. The products must be available within 6 weeks of a confirmed order.
- c. Setting parts and tuning parts must be provided by the suspension manufacturers to all customers/ teams/ participants using the manufacturer's products. These parts can be used by all participants during the season. These parts shall be available for immediate delivery to all teams/customers.
- d. Teams may not modify any part of the forks or shock absorber; all setting parts must be supplied by the Suspension manufacturer and available to all teams/riders.
- e. The suspension manufacturers are allowed to offer service contracts when the team is using the Authorised suspension products. The suspension manufacturers cannot demand a service contract for a customer or participant in order to obtain a suspension product.
- f. No aftermarket or prototype electronically-controlled suspensions may be used. If electronically controlled suspension is originally fitted to the machine it must be replaced by conventional parts.
- g. Electronically controlled steering damper cannot be used if not installed in the homologated model for road use. If an electronics model is fitted to the homologated machine then it can be used - however, it must be completely standard (any mechanical or electronic part must remain as homologated).

1.6.9.3 Front forks

- a. Forks must be the originally fitted and homologated parts with the following modifications allowed:
- b. Original internal parts of the homologated forks may be modified or changed.
- c. Only aftermarket damper kits or valves from the MCRCB Authorised Parts List may be installed (1.6.9.2.a)
- d. Fork springs may be modified or replaced.
- e. Fork caps may be modified or replaced to allow external adjustment. They may extend the clamping area of the fork leg a maximum of 18mm above the standard fork tube. The fork 'drop' must never be set allowing the fork to be

submerged in the top yoke/clamp. The full clamping area of the top yoke/clamp must be used.

- f. The fork stroke will be a maximum of 125mm to the bump stop plus a maximum of 5mm bump stop stroke.
- g. The fork kit manufacturer will be wholly responsible for ensuring the safe operation of the fork.
- h. Dust seals may be modified, changed or removed if the fork is totally oil-sealed.
- i. The original surface finish of the fork tubes (stanchions, fork pipes) may be changed. Additional surface treatments are allowed.
- j. The front fender mounts integrated in the fork lower may be modified or removed and replaced.
- k. Fittings for suspension stroke sensors (potentiometers) may be attached.
- l. The axle bore in the fork lower cannot be modified. The front axle nut/sleeve may be added or modified and/or made captive.
- m. The triple clamp assembly (Upper clamp, lower clamp and stem) may be replaced. The parts may be manufactured by the team but must be listed on the MCRCB Authorised Parts List at least 2 weeks before their first use during official sessions and be freely available for other teams to purchase (and supplied within 4 weeks of a paid order). The registration of the parts must include dimensioned drawings and photographs to allow easy identification. Failure to meet these requirement will result in the points earned using the parts being removed. The price limit for the complete assembly is €1250.
- n. A steering damper may be added or replaced with an aftermarket damper.
- o. The steering damper cannot act as a steering lock limiting device.

1.6.9.4 Rear fork (swing-arm)

- a. The rear fork (Swingarm) must be the originally fitted and homologated part with no modification allowed.
- b. ~~Rear fork pivot bolt must be the originally fitted and homologated part with no modification allowed.~~
- c. Rear axle chain adjuster may be modified or changed. The wheel axle nut may be replaced and/or made captive.
- d. Rear axle chain adjuster slot may be enlarged to allow the brake calliper mounting to become captive.
- e. A solid protective cover (shark fin) shall be fixed to the swing-arm, and must always cover the opening between the lower chain run, swingarm and the rear wheel sprocket, irrespective of the position of the rear wheel. Brackets/mounts for rear wheel stand bobbins may be added to the rear fork by welding or bolts. No fork style stand brackets are allowed, the stand must use forks and the swingarm use bobbins.
- f. An anchorage system or point(s) to keep the original rear brake calliper in place may be added to the rear swing-arm.
- g. Wheel support rails/guides may be added to permit quick wheel changes.
- h. The sides of the swing-arm may be protected by a thin vinyl cover only, no composite or structural covers are allowed.

1.6.9.5 Rear suspension unit

- a. Rear suspension unit (shock absorber) may be replaced with a unit from the MCRCB Authorised Parts List (see 1.6.9.2.b).
- b. The original attachment points to the frame and rear fork (or linkage) must be as homologated.
- c. The rear suspension linkage assembly (all parts including bearings) may be replaced.
 - a. The approved unit must be the rear suspension linkage assembly (but may exclude bearing ONLY if they match the original OEM parts).
 - b. The parts may be manufactured by the team or external supplier but must be listed on the MCRCB Authorised Parts List at least 2 weeks before their first use during official sessions and be freely available for other teams to purchase (and supplied within 4 weeks of a paid order).
 - c. The registration of the parts must include dimensioned drawings and photographs to allow easy identification.
 - d. Failure to meet these requirements will result in the points earned using the parts being removed.
 - e. The price limit for the complete assembly is €600.
- d. Removable top shock mounts must remain as homologated. A nut may be made captive on the top shock mount and shim spacers may be fitted behind it.

1.6.9.6 Wheels

- a. Wheels must be the originally fitted and homologated parts with no modification allowed.
- b. The wheels may be overpainted but the original finish cannot be removed.
- c. A non-slip coating / treatment may be applied to the bead area of the rim.
- d. If the original design included a cushion drive for the rear wheel, it must be the originally fitted and homologated parts with no modification allowed.
- e. Wheel axles may be modified or replaced but must be of the same material as the originally homologated part. ~~The shank section of the axle must remain the same diameter as the originally homologated axle but the threaded area may be reduced in diameter.~~
- f. Wheel spacers can be modified or replaced.
- g. Bearing spacers are free.
- h. Wheel balance weights may be discarded, changed or added to.
- i. Angled aluminium or steel inflation valves are compulsory.
- j. The only allowed rim sizes are:

Wheels Size	
Front	3.5"
Rear	5.5"

In the case the machine is not fitted with the aforementioned sizes, a single alternative wheel will be agreed between the manufacture and the Technical Director. The inertia must be within 10% of the originally fitted wheel. The inertia must be within the range of homologated wheels in the other machines.

1.6.9.7 Brakes

- a. Front and rear brake discs may be replaced with aftermarket brake discs that must fit the original calliper and mounting. The maximum outside diameter is 320mm. However, the offset, wheel mounting and the ventilation system must remain the same as on the homologated motorcycle. Internally ventilated discs are not allowed if not present on the homologated motorcycle.
- b. The maximum thickness of the brake disc is 6mm.
- c. Only Steel (max. carbon content 2.1 wt%) is allowed for replacement brake discs.
- d. Front brake callipers as well as all the mounting points and mounting hardware (mount, carrier, hanger) must be the originally fitted and homologated parts with no modification allowed. (see Art. 1.6.9.3). Spacers may be fitted between the caliper and fork lower to fit larger diameter discs. Bolts must have correct length shanks.
- e. Rear brake callipers must be the originally fitted and homologated parts with no modification allowed. The mounting points must remain as homologated
- f. **The rear brake caliper carrier/hanger may be replaced and the position of the Caliper moved. An underslung position of the caliper is allowed.** ~~but the mounting hardware~~ The mount, carrier, hanger, may have the axle bore sleeved to capture the brake calliper assembly to the swingarm to permit quick wheel changes.
- g. In order to reduce the transfer of heat to the hydraulic fluid it is permitted to add metallic shims, heatsink or spacers to the calipers, between the pads and the calipers, these may be positively retained by clipping to the brake pad or to the brake caliper piston. They must be metallic (including titanium) and must be from the MCRCB authorised parts list.
- h. and/or to replace light alloy pistons with steel pistons made by the same manufacturer of the caliper. If the caliper manufacturer makes available a replacement piston - specific to the caliper and on the MCRCB authorised parts list it may replace the original pistons.
- i. The front brake master cylinder can be the originally fitted and homologated part with no modification allowed or may be replaced with a unit from the MCRCB Authorised Parts List. The retail price limit for the front master cylinder (including lever) is €350

The brake lever design is free.

- j. The rear brake master cylinder ~~must~~ can be the originally fitted and homologated parts with no modification allowed or may be replaced with a unit from the MCRCB Authorised Parts List. The retail price limits are:

- a. Thumb brake (including lever and mounts) €450
- b. Hand brake €450
- c. Foot operated master cylinder **€300**

The use of thumb or hand brakes is allowed in addition to or instead of the foot operated system. An adaptor may be fitted to the reservoir input of the OEM master cylinder to facilitate this.

- k. Front and rear hydraulic brake lines may be changed. The brake fluid reservoir may be replaced and/or repositioned. Quick connectors may be used but only between the master cylinder and the brake hose split. The split of the front brake lines for both front brake callipers must be made above the lower edge of the fork bridge (lower triple clamp). Brake line hose fittings (including banjo bolts) can only be Steel or Titanium.
- l. Front and rear brake pads may be changed. Brake pad locking pins may be modified for quick change type.
- m. Additional air ducts are not allowed.
- n. The ABS System must be removed.
- o. Motorcycles must be equipped with brake lever protection, intended to protect the handlebar brake lever from being accidentally activated in case of collision with another motorcycle. Composite guards are not permitted. Guards from the MCRCB Authorised Parts List will be permitted without regard to the material. The Technical Director has the right to refuse any guard not satisfying this safety purpose.

1.6.9.8 Handlebars and hand controls

- a. Handlebars may be replaced.
- b. Handlebars and hand controls may be **replaced and** relocated.
- c. Throttle controls must be self-closing when not held by the hand.
- d. **Only the OEM Ride By Wire 'Grip' (Gas) sensor unit may be used or an optional unit from an OEM supplier (motorcycle specific) from the Authorised Parts List – Supersport Next Generation Permitted Modifications**
- e. Clutch **assembly** and brake lever may be replaced with an after-market model. An adjuster to the brake lever is allowed.
- f. Switches may be changed but the electric starter switch and engine stop switch must be located on the handlebars.
- g. Motorcycles must be equipped with a functional ignition kill switch or button mounted on the right hand handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. The button or switch must be red.

1.6.9.9 Foot rest and foot controls

- a. Foot rests, hangers/brackets and hardware may be replaced and relocated but the hangers/brackets must be mounted to their original frame mounting points.

- b. Foot controls; gear shift (and rear brake, if kept) must remain operated manually by foot.
- c. Foot rests may be rigidly mounted or a folding type which must incorporate a device to return them to the normal position.
- d. The end of the foot rest must have at least an 8 mm solid spherical radius.
- e. Non folding footrests must have an end (plug) which is permanently fixed, made of aluminium, plastic, Teflon® or an equivalent type material (minimum radius 8mm). The plug surface must be designed to reach the widest possible area. The Technical Director has the right to refuse any plug not satisfying this safety purpose.

1.6.9.10 Fuel tank

- a. Fuel tank must be the originally fitted and homologated parts with no modification allowed unless stated otherwise in the MCRCB Authorised Parts List.
- b. All fuel tanks must be completely filled with fire retardant material (open-celled mesh, i.e. "Explosafe®").
- c. Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250 cc made of a suitable material.
- d. Fuel caps may be changed. Fuel caps when closed, must be leak proof. Additionally, they must be securely locked to prevent accidental opening at any time.
- e. If the tank has a filler 'neck' (tube) inside the tank that restricts its complete filling, then the neck may be removed or have vent holes drilled through it.
- f. A rider spacer/pad may be fitted to the rear of the tank with non-permanent adhesive. It may be constructed of foam padding or composite material.
- g. The tank may not have a cover fitted over it unless the homologated machine also features a full cover.
- h. The sides of the fuel tank may be protected with a cover made of a composite material. These covers must fit the shape of the fuel tank.
- i. Fuel tank may have heat reflective sheet attached to its bottom surface.

1.6.9.11 Fairing / Bodywork

- a. Fairing, mudguards and body work must conform in principle to the homologated shape as originally produced by the manufacturer. The use of carbon fibre or Kevlar® materials is not allowed in fairing, fuel tank cover, seat, seat base and associated bodywork construction. Specific reinforcements in Kevlar® or carbon are allowed locally around holes and stressed areas. Headlights must be included even when considered external.
- b. For all bodywork paint and decal design is free.
- c. The fairing has a tolerance of +/-10mm from the original homologated road fairing, respecting the design and features of the homologated fairing and any articles below. The overall width of the frontal area may be +10mm maximum. The decision of the Technical Director is final.
- d. For Supersport Next Generation - The fairing has a tolerance of +/-8mm from the original homologated road fairing, respecting the design and features of

the homologated fairing and any articles below. The overall width of the frontal area may be +5mm maximum. The decision of the Technical Director is final.

- e. Wind screen may be replaced.
- f. Fairing brackets may be altered or replaced.
- g. The ram-air intake must maintain the originally homologated shape and dimensions.
- h. The original air ducts running between the fairing and the airbox may be replaced by exact cosmetic replicas of the original parts. If the part serves another function (ie dashboard mounting) then the airflow passage must retain the homologated internal shape and the part must be listed in the MCRCB Authorised Parts List. Material is free.
Particle grilles or "wire-meshes" originally installed in the openings for the air ducts may be removed. Flap valves systems may be removed or fixed in position. Air ducts cannot be added if they are not present on the original machine.
- i. The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (min. 5 litres). The lower edge of openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.
- j. The lower fairing must not have a drain hole.
- k. Minimal changes are allowed in the fairing to allow clearance for protective engine covers.
- l. Motorcycles may be equipped with a radiator shroud to improve the air stream towards the radiator but the appearance of the front, the rear and the profile of the motorcycle must not be changed.
- m. Front mudguard must conform in principle to the homologated shape originally produced by the manufacturer. Front mudguards may be replaced and the use of carbon fibre or Kevlar® composites are allowed.
- n. Front mudguard may be spaced upward for increased tyre clearance.
- o. Rear hugger type mudguards fixed on the swing-arm may be replaced with a cosmetic duplicates of the original part. The use of carbon fibre or Kevlar® composites are allowed.
- p. The chain guard may be removed as long as it is not incorporated in the rear hugger. If the chain guard is incorporated in the hugger then the chain guard section may be removed or modified to accommodate larger diameter rear sprockets.
- q. The chain guard may be removed as long as it is not incorporated in the rear fender.
- r. The existing rear mudguard under the seat may be removed.
- s. Supersport Next Generation, in the event that the proposed machine is not fitted with a fairing, then a fairing from the manufacturers range may be used by agreement with MSVR and the Technical Director. A bellypan according to 1.6.9.11.j is compulsory.

1.6.9.12 Seat

- a. Seat, seat base and associated bodywork may be replaced. The appearance from front, rear and profile must conform in principle to the homologated shape.
- b. The top portion of the rear body work around the seat may be modified to a solo seat.
- c. Same materials as fairing must be used (article 1.6.9.11.a)
- d. All exposed edges must be rounded.

1.6.9.13 Fasteners

- a. Standard fasteners may be replaced with fasteners of any material and design.
- b. Aluminium fasteners may only be used in non-structural locations.
- c. Titanium fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing, internal engine bolts must remain of standard homologated materials or materials of higher specific weight.
- d. Special steel fasteners may be used in structural locations, but the strength and design must be equal to or exceed the strength of the standard fastener it is replacing.
- e. Fasteners may be drilled for safety wire, but intentional weight-saving modifications are not allowed.
- f. Thread repair using inserts of different material such as helicoils and timeserts.
- g. Fairing/bodywork fasteners may be changed to the quick disconnect type.

1.6.9.14 Rear Safety Light

All motorcycles must have a functioning red light mounted at the rear of the machine, this light must be switched on any time the motorcycle is on the track or being ridden in the pit lane and the session is declared WET. All lights must comply with the following:

- a. Lighting direction must be parallel to the machine centre line (motorcycle running direction), and be clearly visible from the rear at least 15 degrees to both left and right sides of the machine centre line.
- b. The rear light must be mounted near the end of the seat/rear bodywork and approximately on the machine centre line, in a position approved by the Technical Director. In case of dispute over the mounting position or visibility, the decision of the Technical Director will be final.
- c. Power output/luminosity equivalent to approximately: 10 – 15 (incandescent), 0.6 – 1.8 W (LED).
- d. The output must be continuous - no flashing safety light whilst on track, flashing is allowed in the pit lane when pit limiter is active.
- e. Safety light power should be supplied by the control ECU.
- f. The Technical Director has the right to refuse any light system not satisfying this safety purpose.
- g. Also see 1.6.8

1.6.10 The following items MAY BE altered or replaced from those fitted to the homologated motorcycle

- a. Any type of lubrication, brake or suspension fluid.
- b. Bearings (ball, roller, taper, plain, etc.) of any type or brand may be used.
- c. Gaskets and gasket materials (excepting cylinder head and base gaskets which must remain original unless noted detailed in the MCRCB Authorised parts list).

1.6.11 The following items MAY BE removed

- a. Emission control items (anti-pollution) in or around the airbox and engine (O2 sensors, air injection devices).
- b. Speedometer and related wheel spacers.
- c. Bolt on accessories on a rear sub frame.

1.6.12 The following items MUST BE removed

- a. Headlamp, rear lamp and turn signal indicators (when not incorporated in the fairing). Openings must be covered by suitable materials.
- b. Rear-view mirrors.
- c. Horn.
- d. License plate bracket.
- e. Tool box.
- f. Helmet hooks and luggage carrier hooks
- g. Passenger foot rests.
- h. Passenger grab rails.
- i. Safety bars, centre and side stands must be removed (fixed brackets must remain).
- j. Catalytic converters
- k. Rear mudguards affixed to the seat unit