

NOVEMBER 2024

RALLY X TECHNICAL REGULATIONS

FC1 2025



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The rules and regulations governing vehicle configuration, preparation, maintenance and competition for the FC1 vehicle class are divided into two groups, primary documents and secondary documents.

1.1

The primary documents consist of the following regulations and documents:

- RallyX FC1 Technical Regulations
- FirstCorner FC1-X Homologation Document
- FirstCorner FC1-X Technical Book
- FirstCorner FC1-X Parts Catalog
- FirstCorner FC1-X Technical Bulletins

1.2

The secondary documents consist of the following regulations and documents:

- FIA Appendices, Standards, Specifications, Regulations and Technical Lists

1.3

The current version of all RallyX documents will be the version as of the date of inquiry. The current version of FirstCorner Documents will be the version posted on the FC1-X Information Site as of the date of inquiry. The current version of FIA information will be the version posted on their websites as of the date of inquiry.

1.4

Resolution of conflicts between posted primary and secondary documents will be resolved as follows:

1.4.1

The information presented in the most recently dated version of primary documents will take precedence over all secondary documents.

1.4.2

Within the primary documents, the most recently dated document will take precedence over all earlier dated primary documents.

1.4.3

The information presented in the most recently dated version of secondary documents will take precedence over all earlier dated secondary documents. The exception is if a specific dated version of a secondary document is specified in a primary document.

1.4.4

The information presented in the most recently dated version of FirstCorner documents will take precedence over FIA documents.

2. GENERAL PRINCIPLES AND REQUIREMENTS

2.1

These Technical Regulations will come into effect on January 1 2025 and apply to the FC1 vehicle class.

2.2

The FC1 class of the RallyX Series is open to the single make FC1-X vehicle designed, manufactured and supplied exclusively by FirstCorner.

2.3

Approved vehicles competing in this class are eligible for the FC1 Driver and Team Championships.

2.4

The technical requirements set forth in this document are issued and controlled by RallyX and govern the configuration and use of the FC1-X vehicle in the RallyX Series.

2.5

All vehicles must be in full conformance with the most recently published RallyX Technical, Sporting and Commercial Regulations and RallyX Bulletins.

2.6

All vehicles must also be in full conformance with the most recently published Vehicle Homologation Document.

2.7

All vehicles must be in full conformance with the most recently published FC1-X Technical Book (Maintenance and Setup Manual), FC1-X Spare Parts Manual and FC1-X Technical Bulletins all as posted on the FirstCorner FC1-X Information Site.

2.8

All devices, features, functions, modifications and/or activities which are not explicitly allowed by these regulations and subsequent amendments and/or bulletins are forbidden. An authorized device, feature, function, modification and/or activity may not include an unauthorized one.

2.9

Any new device, feature, function, system, technology procedure or activity not specifically permitted or covered by these regulations is open for review. It is the responsibility of the Competitor to bring any item that is not covered by the regulations to the attention of RallyX for review and approval prior to use.

2.10

Vehicles must comply with these requirements in their entirety at all times during an Event.

2.11

The vehicle, its components and systems shall demonstrate their compliance with these regulations by means of physical inspection of software, hardware or materials.

2.12

It is the responsibility of the competitors to present and maintain their vehicle in safe running order according to these regulations and generally accepted engineering, service and maintenance principles and practices. Service and maintenance must be carried out in accordance with any specific requirements set forth in the FirstCorner documents.

2.13

The Stewards of the meeting may exclude a vehicle that they deem is dangerous due to either build practices, maintenance practices or damage incurred during the course of an Event. For the avoidance of doubt, this includes both hardware and software.

3. SCRUTINEERING PROCEDURES**3.1 General Scrutineering Procedures****3.1.1**

Scrutineering will take place on the dates and during the time periods indicated in the Supplementary Regulations for the Event.

3.1.2

In special circumstances, alternate arrangements for scrutineering may be made only with the advance consent of both the Chief Scrutineer and the Race Director.

3.1.3

In general, pre-event scrutineering will cover all Competitions comprising an Event.

3.1.4

Incidents occurring during a Competition may necessitate reinspection of the vehicle before it is allowed to continue in the Competition and/or Event.

3.1.5

Scrutineering inspections will take place in the team paddock. The order in which the vehicle inspections are conducted will be random.

3.1.6

The vehicle may be on the ground or on jack stands during the inspection. The electrical system must be capable of being energized and the drive system engaged. Teams must have the full set of each driver's safety gear out and ready for inspection when Scrutineering opens.

3.1.7

Pre-event Scrutineering will, as a minimum, address those items on the current season's RallyX Scrutineering Form. The Forms will be provided and distributed by Scrutineering. Additional items associated with both vehicle safety and technical rules compliance may be checked at the discretion of the Chief Scrutineer.

3.1.8

The Scrutineering weigh scales will generally be open for teams to check vehicle weight at their own discretion. Official operations during competition will take precedence over team requests to check vehicle weight. The Scrutineering weigh scale readings are considered the official weight for rules compliance determination.

3.2

Presenting the vehicle for scrutineering will be deemed an implicit representation by the competitor that the vehicle fully complies with all regulations.

3.3

A vehicle will not be cleared for competition until the vehicle preparation is completed, all noted deficiencies have been corrected and the Chief Scrutineer is satisfied the vehicle is fit for competition. The team paddock will generally be revisited to conduct any required re-inspections.

3.4

The Race Officials must at any time and place be granted free and unrestricted access by the competitor to inspect and/or measure any vehicle registered for the Event.

3.5

The Chief Scrutineer may require that the competitors carry out necessary dismantling. Failure to do so can result in the Clerk of the Course arranging for such a dismantling and charge the costs to the competitor. Competitors will not be allowed to participate in the Championship until the costs have been covered.

3.6

During the season, RallyX reserves the right to undertake detailed analyses of all mechanical, electrical and electronic equipment used by the competitors and all other related material, to ensure that these do not contain any elements in breach of or capable of being used to breach the Regulations. Competitors should, on demand, provide all electronic equipment, source codes, programs, machine codes and any other equipment deemed necessary to ensure a complete inspection and analysis to the Chief Scrutineer for scrutiny by an analyst appointed by RallyX. The costs of such an analysis shall be borne entirely by the Competitor. Other than in the case of a breach of regulations, all details of the analysis will remain confidential to RallyX and the Competitor. Failure to allow or facilitate the inspection of such electronic equipment may be deemed a violation of the Regulations, which can lead to disqualification from the Championship by the Stewards.

4. DRIVER, VEHICLE & PADDOCK SAFETY EQUIPMENT

4.1.1 General Information

4.1.2

All driver, vehicle and paddock safety equipment must be available for inspection during scrutineering. It must be in good condition, fully functional, installed per the manufacturer's instructions and must bear proper certification, date and/or inspection labels valid through the duration of the Event.

4.1.3

Driver and vehicle safety equipment without a clearly defined expiration date established by its certifying agency (either explicitly stated or calculated based on date of manufacture) will be considered valid for use until December 31 of the calendar year ten (10) years after the date of manufacture marked on the item.

4.1.4

Manufacturer installation instructions for all safety related equipment should be retained for review at Events in the event installation related questions arise during scrutineering. The manufacturer's installation instructions will govern decisions on suitability. Absent the manufacturer's installation instructions, the judgment of Scrutineering will govern decisions on suitability.

4.1.5

Following an incident, the organizers and/or the sanctioning body reserve the right to confiscate any safety equipment for further inspection. If damage is found that affects the operation of the equipment, the equipment may be marked for identification to prevent it from being used in further competition.

4.2 Helmets

All drivers shall use a helmet. The helmet, straps and face shields/visors shall be in good undamaged condition.

FHR anchors shall be properly installed, in good condition and match the FHR they will be used with.

Helmets meeting the following specifications may be used:

FIA 8860-2010 (Ref. FIA Technical List No. 33; items from this list must be labeled with the date of manufacture)

FIA 8860-2018 (Ref. FIA Technical List No. 69)

FIA 8860-2018-ABP (Ref. FIA Technical List No. 69)

4.3 Frontal Head Restraint (FHR)

All drivers shall use a frontal head restraint.

The restraint and straps/tethers shall have current labeling and be in good condition with no cuts, abrasions or twists. The straps/tethers to the helmet shall match the FHR and the anchors on the helmet.

Frontal head restraints meeting the following specifications may be used: FIA 8858-2002 (Ref. FIA Technical List No. 29)

FIA 8858-2010 (Ref. FIA Technical List No. 29)

4.4 Driver Suit

Drivers shall use a suit that must be in good condition with no holes, tears or malfunctioning closures.

The driver suit must be labelled in accordance with the RallyX brand requirements and Commercial Regulations.

It is necessary to present a certificate from the suit manufacturer for any suit customized using printing or transfers.

Driver suits meeting the following specification are to be used.

FIA 8856-2018 (Ref. FIA Technical List No. 74)

Driver Apparel

Drivers must wear approved fire-resistant apparel in good condition with no holes or tears including:

- Head sock/Balaclava
- Long sleeve undershirt
- Long underpants
- Socks
- Shoes
- Gloves

Driver apparel meeting the following specification are to be used: FIA 8856-2018 (Ref. FIA Technical List No. 74)

4.5 Safety Seats

All vehicles must be equipped with an FIA-approved driver's seat with an intact FIA label current through the end of the Event.

The use of seat floor and seat back brackets homologated with the seat is compulsory.

It is recommended that competitors discuss with their seat supplier the best match of seat, seat supports, seat cushioning and impact absorbing seat inserts to best provide enhanced vertical impact protection. The surfaces of any cushioning or impact absorbing cladding materials added to the homologated seat must be non-flammable (e.g., flammability test in accordance with ISO standard 3795 with a speed of combustion less than or equal to 75 mm/min).

Seats other than the seat originally delivered with the FC1-X vehicle may be used. Prior to use, the FIA Homologation documentation for the seat and associated floor and back brackets must be submitted to RallyX and FirstCorner for approval. Once approved, the seat and brackets will be added to the Vehicle Homologation Document.

Seats meeting the following specification are to be used: FIA 8862-2009 (Ref. FIA Technical List No. 40)

4.5 Safety Harness

All the vehicles must be equipped with an FIA approved safety harness that shall be properly used by Drivers during all on track sessions.

Safety Harnesses must have a minimum of six (6) anchorage points conforming to the specifications of FIA Appendix J Article 253-6.

The two shoulder straps must have separate anchorage points.

All elements of the harness must be from a matching set, in good condition with no cuts, abrasions, twists or bent elements.

Webbing must not be in direct contact with any metal edges (e.g., seat support brackets, protruding fasteners, etc.).

All snap latches shall be secured with pins or safety wire if a hole is present from the manufacturer.

Safety harnesses meeting the following specification are to be used: FIA 8853-2016 (Ref. FIA Technical List No. 57)

4.7 Driver Restraint Racing Nets

Driver Restraint Racing Nets are required on the exterior side of the Driver. The net must be installed in accordance with FIA requirements. (Ref “Racing Nets Installation Specification for Touring and Grand Touring Cars – 04-12-2019 v8”). Driver Restraint Racing Nets meeting the following specification are to be used: FIA 8863-2013 (Ref FIA Technical List No. 48).

4.8 Steering Wheel

The steering wheel must be removable from the steering column through a quick release mechanism. This mechanism must consist of a flange concentric to the steering wheel axis, colored yellow and installed on the steering column behind the steering wheel. The release must be operated by pulling the flange along the steering wheel axis.

4.9 Roll/Safety Cage

The vehicle roll/safety cage must remain as built, without modification or addition and as set forth in the latest Vehicle Homologation Document.

Dented, kinked, bent and/or damaged safety cage members shall be replaced and/or repaired only with the cage manufacturer’s approval.

4.10 Roll/Safety Cage Padding

Impact absorbing padding must be applied to the roll/safety cage. Those areas identified in Appendix J- Article 253.8.3 must be padded. Additionally, all safety cage tubes situated within a perimeter of 50 cm (19.7 inches) around the driver’s helmet, this measurement being taken with the driver sitting in the driver’s seat with their harness fastened, must be padded.

Roll/safety cage padding meeting the following specification is to be used: FIA 8857-2001 Type A (Ref FIA Technical List No. 23)

4.11 Fire Extinguisher System

All vehicles must be equipped with an approved fire extinguisher system meeting the installation and operation requirements of FIA Appendix J Article 253.7.2.

The extinguishing system must be able to be activated by emergency personnel from outside the vehicle and by the driver when seated normally with their safety belts fastened. For safety reasons, this must be possible at all times during an Event from the beginning of Practice through the Parc Fermé period expiry or when the vehicle is returned to the team. Exceptions can only be issued by the responsible Chief Scrutineer. The inspection/filling date label must show a date no more than two years before the end of the Event. The date label should be located where it is readily visible during scrutineering.

A pressurized system must indicate it is fully charged.

The self-check function and/or the continuity of electrical operating/activating systems will be checked during scrutineering. Teams are asked to have a test lamp available for checking the continuity of the on-board fire extinguisher system switches.

Extinguisher systems meeting the following specification must be used: FIA 8865-2015 (Ref FIA Technical List No. 52)

The extinguishing agent and system must be rated for use on electrically powered vehicles. Recommended extinguishing agents are Novec 1230 or FX G-TEC FE36. BCF and NAF extinguishing agents are prohibited.

4.12 Safety/Emergency Switches and Markings

4.12.1

Vehicles must be fitted with two master electrical disconnect switches/pulls. One on the interior of the vehicle accessible to the driver when seated and belted and one on the exterior of the vehicle accessible to emergency personnel.

The master electrical disconnect switches/pulls must be marked with a red lightning bolt in a blue triangle. The external switch marking must be at least 10 cm high. The internal switch marking shall be as large as practical up to 10 cm high.

4.12.2

Vehicles must be fitted with two emergency extinguisher activation switches/pulls. One on the interior of the vehicle accessible to the driver when seated and belted and one on the exterior of the vehicle accessible to emergency personnel. The exterior switch must be operable from a distance with a hook.

The emergency extinguisher activation switches/pulls must also activate the master electrical disconnect/circuit breaker.

The emergency extinguisher activation switches/pulls must be marked with a letter "E" inside a white circle with red edge. The external switch marking must be at least 10 cm in diameter. The internal switch/pull marking shall be as large as practical up to 10 cm in diameter.

4.12.3

Protective covers for electrical equipment with Class B voltage levels (≥ 60 VDC or 24 VAC rms) must be marked on or near the cover with a triangular "High Voltage" warning label. The background shall be yellow with a black border and arrow. The label shall at least 10 cm high but may be reduced to fit small components.

4.13 Electrical System and Drive Status Warning Lights

The vehicle shall be fitted with lights indicating the status of the vehicle's Rechargeable Electrical Storage System (RESS) and the electric drive system.

4.13.1

The vehicle shall be fitted with a white "Ready to Move" light at the front and at the rear of the vehicle illuminating parallel to the center line of the vehicle. The light will indicate that the vehicle is powered with the drive disengaged (flashing light) or powered and in gear ready to move if the throttle pedal is activated (continuously illuminated light). Whilst charging with the control system powered, the ready- to-move light must flash "on" for less than 0.25 seconds and "off" for 1 second. It must flash "on" for 0.5 seconds and "off" for 0.5 seconds if, when the system has been requested to energize, the bus voltage has not exceeded 50 V.

4.13.2

The vehicle shall be fitted with front, left side and right side RESS status lights as follows:
Green Light – The RESS is functioning properly and is safe.
Red Light – A RESS fault condition is present and should be considered unsafe.
Blue Light – The vehicle has experienced a major impact.

4.13.3

All indicators must have a viewing angle of at least 120° and a luminous flux of at least 8 lumens.

4.14 Horn

To ensure spectator safety in an open paddock, vehicles shall be equipped with a horn capable of producing a sound level of at least 97 dBA at 7 meters in front of the vehicle.

4.15 Towing Attachments

The vehicle shall be fitted with clearly identifiable front and rear towing points. The towing fittings must remain as built, without modification or addition, and as set forth in the latest Vehicle Homologation Document.

4.16 Paddock Protective Ground Cover

Each Competitor is required to ensure that a plastic sheet (minimum dimensions 4m x 5m [13ft x 16ft]) is spread on the ground in the paddock location reserved for their team for each vehicle where work is to be done on their vehicle to prevent any pollution in case of an accidental spill, leak, etc.

4.17 Spill Kit

A five (5) gallon nominal capacity automotive spill kit shall be available within each vehicle's paddock stall in the event of an accidental spill. The kit shall be replenished prior to the next Event if used.

4.18 Paddock Fire Extinguisher

Each Competitor is responsible for ensuring that a Lithium Battery fire compatible extinguisher of at least 6 Liters capacity is available within each vehicle's paddock stall. Additionally, each Competitor is responsible for ensuring that a CO2 extinguisher of at least 5kg (10 Pounds) capacity is available within each vehicle's paddock stall.

4.19 Electrical Emergency Safety Equipment

The following emergency equipment is required to be available in the paddock for each team and/or vehicle as noted:

Class 0 Gloves – 1 Pair per vehicle Leather Gloves – 1 Pair per vehicle

Full Face Respirator Mask – 1 Per vehicle

Race Shield – 1 Per Vehicle

Rescue Hook - 1 Per Vehicle

HV (1000V) Insulation Blanket – 1 Per Vehicle HV (1000V) Blanket Clips – 4 Per Vehicle

HV (1000V) Floor Mat – 1 Per Vehicle

Trauma First Aid Kit – 1 Per Two Vehicle Team

6 WHEELS AND TIRES

6.1

RallyX will designate an official tire supplier and an official tire support crew for each Event in the Supplementary Regulations for that Event.

6.2

The approved wheels and tires for each Event (e.g., slick, treaded, ice/stud, etc.) will be identified in the Supplementary Regulations for that Event.

6.3

General Tire Rules

6.3.1

Wheels must be used in the exact configuration supplied by FirstCorner for each Event without unapproved modification or alteration.

6.3.2

The tires must be used in the exact configuration delivered by the official tire supplier for the Event for all track conditions.

6.3.3

Tires may not be modified or treated in any manner by either physical or chemical means. This includes such actions as molded tread pattern modification by tire cutting, stud modification by grinding or filing, etc.

6.3.4

The use of tire pre-heating or heat-retaining devices is prohibited. Heating that might occur from natural exposure to the sun is acceptable.

6.3.5

Tires may only be filled with ambient air, dried ambient air or nitrogen.

6.3.6

The registered tires, and only the registered tires, may be used by the vehicle they are registered to for all portions of a Competition from the start of the first Session of the Competition (Free Practice or Warm-up) through to the conclusion of the Finals. The linkage between registered tires and the driver and vehicle they are registered to carries over to Competitions and Events requiring the use of previously registered tires as detailed in the NX Sporting Regulations.

6.3.7

Tires used during test days, jump practices and media rides must be approved tires, but they do not need to be registered tires.

6.3.8

All tire mounting must be performed by the RallyX designated tire support crew.

6.3.9

Wheels presented for tire mounting must be cleaned. Tires will not be mounted on wheels that are bent

6.3.10

Standard mounting procedure includes using tire mounting lubricant.

6.3.11

The maximum pressure used at Events to seat the tire to the wheel is 100 psi (6.9 bar). Any wheel that will not allow the tire to be properly seated at or below this pressure will be rejected.

6.3.12

The RallyX designated tire supplier will provide Event/track specific guidance to all teams on recommended Minimum Cold Inflation Pressures, Target Hot Pressures, Camber, etc. based on track configuration, track surface conditions and operational experience during the course of each Event. To the extent possible this information, including any mandatory minimum inflation pressure, will be listed in the Supplementary Regulations for each Event.

6.4 Tire Allocation and Registration**6.4.1**

Event specific tire allocations and tire registration requirements will be set forth in the Supplementary Regulations for each Event.

6.4.2

Vehicle specific RallyX Tire Registration Forms will be provided and distributed to Teams by Scrutineering at each Event.

6.4.3 The Tire Registration Form contains the following items:

- Team Wheel Marking – Teams may optionally enter information here if they use an internal wheel/tire identification system.
- Outer Tire Marking – Enter the complete number adjacent to the bar code label on the tire.
- Inner Tire Marking – The inner and outer tire numbers should be identical. Contact the Chief Scrutineer if they are not before submitting the Form.
- RallyX Assigned Wheel Marking – Contact the Chief Scrutineer if the inner and/or outer labels are either missing or do not match. Alternate marking will be applied to the wheel/tire assembly by Scrutineering.
- Team Signature – The team must sign the Form to indicate it is the official team submittal. Teams are advised to retain an image of the submitted Form.
- Vehicle Chassis Number – Identifies the vehicle the tires will be associated with.

6.4.4

All registered tires must be present in the team paddock area, but they do not need to be mounted on rims at the time of registration.

6.4.5

Tire registration forms must be returned to Scrutineering no less than one (1) hour before the scheduled start of Free Practice or Warm-up for the vehicle class for each Competition of the Event.

6.4.6

Scrutineering will scan in the bar codes of the tires listed on the tire registration form in the team paddock before the start of Competition.

6.4.7

Teams must schedule their arrival in Pre-Grid to allow sufficient time for the manual recording tire registration numbers by Scrutineering in the event of scanner problems.

6.4.8

Replacement of registered tires will not be authorized for any on-track incidents during any portion of the Event, including but not limited to contact with curbs, contact with debris on the track, contact with other vehicles, etc.

6.4.9

Replacement of a registered tire during competition may be permitted if the tire failure experienced is jointly determined by the RallyX designated tire supplier Technical Representatives and the Chief Scrutineer to be the result of a manufacturing defect.

6.4.10

Tires may be checked for compliance with these regulations by Scrutineering at any time and location during the course of the Event. Registered tires must remain in an area of the team's paddock that is visible and readily accessible to Scrutineering at any time during an Event.

7. ON-BOARD CAMERAS AND RECORDING SYSTEMS

7.1 Judicial Cameras

7.1.1

Each Championship vehicle must be fitted with a camera meeting the Judicial Camera requirements of the current Season's RallyX Sporting Regulations. The camera must be installed in strict compliance with the relevant instructions and must record at all times during the Event when the vehicle is running outside its paddock stall. Entrants are responsible for obtaining this system, and for the correct installation and functioning thereof. Any cost arising in connection with this system is the Competitor's responsibility. Recorded footage must be made available to the Stewards on request. Failure to supply this footage may result in a penalty being applied by the Stewards. Systems included on FIA Technical List No. 60 may be used for this purpose.

7.1.2

Required judicial camera systems that are from FIA Technical List No. 60 may incorporate a GPS antenna.

7.1.3

The judicial camera system must be completely independent of the vehicle control system and cannot be connected in any way (wired or wireless) with any system of the vehicle. Furthermore, its electrical harnesses must not be included in the vehicle's main wiring loom. The harness should be a different color to make it easier to identify. The only permitted connection to vehicle systems is an independent cable to the battery.

7.2 Additional Team Cameras

7.2.1

Within the constraints of the current season's Sporting and Commercial Regulations, Teams may install Team cameras on vehicles while participating in Events.

7.3 Mounting Requirements for All Cameras

7.3.1

Any exterior mounted Team camera must not extend beyond the perimeter of the vehicle when viewed from above.

7.3.2

Any helmet camera must be fitted and used behind a visor in a full-face helmet. The camera must be intended for this purpose and be installed and used per the manufacturer's instructions.

7.3.3

Any camera (including its mounts) in the Driver's half of the cockpit is forbidden between the vertical transverse plane through the rearmost point of the dashboard and the vertical transverse plane of the rearmost point of the Driver's seat.

7.3.4

Any interior camera installation shall not adversely impact Driver outward visibility, Driver egress or extrication in case of an emergency or the performance of any required Driver or vehicle safety equipment as determined by Scrutineering.

7.3.5

Any camera used on a vehicle must be mounted securely to the vehicle and have a secondary method of attachment in the event the primary attachment fails (e.g., a tether). Mountings must only be done by screwing, metal screw clamp, express clamp, metal inserts (Forbidden: Suction devices, etc.).

7.3.6

All camera mountings must be able to withstand a minimum deceleration of 25 g.

7.3.7

The organizers will prevent a vehicle entering the track and ask for the camera to be removed if they suspect a camera is not mounted securely.

7.3.8

Any team having multiple occurrences of a camera falling from a vehicle during an Event is subject to a penalty at the discretion of the organizers.

7.3.9

All cameras must be installed and available for inspection before the completion of scrutineering on the vehicle.

8. VOICE & DATA COMMUNICATIONS AND CAPTURE**8.1**

Voice radio communications between the driver and their team is allowed.

8.1.1

Distorting or encoding radio transmissions in any way is prohibited.

8.2

Data telemetry to and/or from the vehicle is not allowed. Vehicle data may only be recovered when the vehicle is in its paddock space.

8.3

When requested, teams will provide RallyX Officials with access to the Control System Computers, Instrument Displays, Team Data Loggers and any other onboard electronics installed on the vehicle and data files captured on those devices during the course of Competitions over the duration of the Season. To aid in this process Teams must provide the following:

8.3.1

Connection cables and software capable of interfacing with, extracting data from and displaying data from any and all onboard electronics in common engineering units and formats.

8.3.2

Descriptions of overall onboard electronics and control system software logic, data logger software and logic and identification of data captured and its formats.

8.3.3

Data files will not be collected by the RallyX Officials, but Teams will be asked to provide documentation of findings (e.g., screen prints, plots or tables of selected data, etc.).

8.4

All vehicles must be fitted with one timing transponder supplied by the officially appointed timekeepers. This transponder must be fitted in strict accordance with the timekeepers' instructions.

9. VEHICLE EXTERIOR

9.1

The vehicle must be marked in accordance with the RallyX Series Style Guide as set forth in the RallyX Commercial Regulations for the current Season. No vehicle will be allowed to practice or race in an Event or appear in a media promotional event without being marked correctly.

9.1.1

Series supplied stickers may not under any circumstances be modified. If attaching them requires cutting the stickers so that they fit within the vehicle's openings, this should be done without distorting the Championship's identity, logo or the sponsor's logo.

9.1.2

The placement of all markings is subject to approval by RallyX.

9.1.3

RallyX Officials have the right, at their own discretion, to uphold the exact placement and style of all required markings.

9.1.4

Sponsor labeling shall be sized, styled and placed in accordance with the current Season's Series Style guide as set forth in the RallyX Commercial Regulations for the current Season.

9.1.5

Driver's Name shall be sized, styled and placed in accordance with the current Season's Series Style guide as set forth in the RallyX Commercial Regulations for the current Season.

9.2 Vehicle Numbers**9.2.1**

Vehicle numbers will be assigned in accordance with the current Season's RallyX Sporting Regulations.

9.2.2

Vehicle numbers shall be sized, styled and placed in accordance with the current Season's Series Style guide as set forth in the RallyX Commercial Regulations for the current Season.

9.3

Vehicles must be in full compliance with all requirements of the current Season's Series Style Guide to clear scrutineering.

10 RACE WEIGHT AND RIDE HEIGHT**10.1**

All measurements must be made while the vehicle is stationary on a flat horizontal surface (to the extent permitted by the venue conditions). All weights and measurements taken by Scrutineering on-site during an Event are deemed the official value for regulation compliance determination. Weights and measurements may be checked by Scrutineering at any time during the course of an Event.

10.2

The minimum permissible race weight of the FC1-X (with the original or an Alternate Bodywork Kit) is 1680 kg.

10.2.1

The minimum race weight includes the complete vehicle, any fluids carried by the vehicle, the Driver and the driver personal safety gear, all as they exist at the time of measurement.

10.2.2

Ballast as set forth in the Vehicle Homologation Document may be used to satisfy the minimum race weight requirement.

10.2.3

The minimum race weight requirement must be met both as the vehicle enters and as the vehicle exits the track for every on-track Session during a Competition.

10.2.4

If a vehicle cannot be driven onto the weigh scales when requested, Scrutineering may require the replacement of specific parts of the vehicle. As part of any replacement, it must be demonstrated that the new part does not weigh any more than the original part.

10.2.5

Any service performed as part of permitted servicing under red flag conditions must not materially increase or decrease the weight of the vehicle. When permitted, washer fluid may be added during servicing under red flag conditions. Red flag servicing procedures are detailed in the RallyX Sporting Regulations.

10.3

The minimum permissible race ride height is 197 mm adjacent to each wheel of the vehicle using the FirstCorner specified fixture.

10.3.1

Race ride height is measured from the center of each of the four (4) pin jack tubes to the ground plane.

10.3.2

The minimum ride height is checked with the weight of the complete vehicle, any fluids carried by the vehicle, the Driver and the driver personal safety gear, as they exist at the time of the measurement.

10.3.3

The minimum ride height requirement must be met both as the vehicle enters and as the vehicle exits the track for every on-track Session during a Competition.

10.3.4

If a vehicle fails to meet the minimum permissible race ride height requirement at each measurement point, one or more of the following actions may be permitted by Scrutineering prior to remeasuring the vehicle.

10.3.4.1

Tires may be inflated to the minimum regulated inflation pressure for the Competition if they are found to be below that pressure level under Scrutineering supervision.

10.3.4.2

If the vehicle was found to weigh a minimum of 25 kg more than the minimum race weight, the vehicle may be cleaned under Scrutineering supervision. Both race weight and minimum ride height will be rechecked following any permitted cleaning.

10.3.5

If it is determined that certain components that have a direct impact on vehicle ride height are damaged, Scrutineering may permit the replacement of those parts. It must be demonstrated that the new parts are configured in terms of design and set-up equal to the original part.

10.4

All height measurements will be taken normal to and from the reference plane and must meet the values contained in the Vehicle Homologation Document.

11. VEHICLE CONSTRUCTION**11.1**

Vehicle construction must be in full conformance with the FC1-X Vehicle Homologation Document.

11.2

The vehicle and its components must not be modified in any way and must be used as delivered by the exclusive supplier unless specifically permitted herein. The setup and configuration may be changed only by using the range of mechanical settings and alternate components as detailed in the Vehicle Homologation Document and the documents listed in Article 2 of these Regulations. Any modification not explicitly permitted by these documents is prohibited.

11.3

Teams must utilize ONLY the most recent homologated Motec M150 controller firmware version identified for the Event for the duration of the Event. Release, installation and/or verification of the current homologated M150 firmware version for each vehicle will be done by FirstCorner before the first Free Practice of the Event.

11.4

Fasteners: All safety critical and structural fasteners on the vehicle must be purchased from FirstCorner and be used as directed in the FirstCorner documents listed above. Fasteners for non-safety critical and non-structural areas of the vehicle are free, however they must use a similar diameter (i.e., M6 to M6), have full thread engagement and be of similar material type and grade. The changing of the type of fastener used to attach Bodywork is permitted. These replacements must be commercially available for purchase and be of similar size and strength to the original Bodywork fasteners.

12. BODYWORK

12.1

The vehicle must utilize either the original FC1-X Bodywork or an approved Alternate Bodywork Kit.

12.1.1

If a team elects to use the original FC1-X Bodywork, all panels and parts must remain as originally designed and supplied plus any approved and/or mandated updates/modifications.

12.1.2

If a team elects to use an Alternate Bodywork Kit it must conform to all design requirements and be approved by the RallyX Series and FirstCorner. All panels and parts must remain as originally designed, approved and supplied plus any approved and/or mandated updates/modifications for the specific kit.

12.2 Alternate Bodywork Kits

12.2.1

A Competitor, Team or Vehicle Manufacturer must first submit a proposal for an Alternate Bodywork Kit to the RallyX Series for acceptance. The proposal must identify if the Bodywork Kit is to represent a Road Vehicle or a Concept Vehicle. The proposal must also identify the brand, make and model intended to be associated with the Bodywork Kit as used in competition.

12.2.2

The Alternate Bodywork Kit design must be carried out in full accordance with the requirements set forth in the FirstCorner Rulebook to Design FC1-X Body Kit for Series Racing.

12.2.3

A final approval will be issued jointly by the RallyX Series and FirstCorner before the Alternate Bodywork kit is released for production and added to the list of approved Alternate Bodywork Kits.

12.2.4

The list of approved Alternate Bodywork Kits is included as Appendix A of this document.

12.3

Bodywork Repairs: Repairs are permitted on damaged Bodywork. Repairs must use similar material, thickness and layout type to the original part. The mass of the repaired part must be between 100% and 125% of the of the original part. The reference mass for individual parts may be posted in the Vehicle Homologation Form. If a posted weight is not available, a new part from FirstCorner inventory will be weighed as the reference mass. The geometry of the repaired part shall be maintained and visual appearance shall be kept to Original Equipment (OE) standard. The repaired part must keep the same fit, form and function of the original piece.

12.4 Temporary Repairs

The temporary repair of Bodywork is permitted to secure parts that have incurred damage during competition. Temporary repairs shall attempt to preserve the original fit, form and function of the part as closely as possible. Vehicles are expected to present at the start of an Event with structurally sound parts clear of temporary repair materials. Bodywork panel joins may not be taped for aerodynamic purposes.

13. COCKPIT

13.1

The cockpit must be designed so as to allow the driver wearing their complete driving equipment, being seated in a normal position with the seat belts fastened and the steering wheel in place to get out in 7 sec. maximum on driver's side and in 9 seconds maximum (passenger's side).

13.2

With the driver seated in his normal driving position in the vehicle which he is entered to race, wearing a cervical collar appropriate to his size and with the seat harness tightened, a member of the medical service must demonstrate that the helmet which the driver will wear in the race can be removed from his head without bending the neck or spinal column.

14 ELECTRICAL EQUIPMENT AND SAFETY PROVISIONS

14.1

Brake lines, electrical cables and electrical equipment must be protected against any risk of damage (stones, corrosion, mechanical failure, etc.) when fitted outside the vehicle, and against any risk of fire and electrical shock when fitted inside the bodywork.

14.2

All cabling, wiring, connectors, grounding and bonding must be maintained and serviced using only approved parts and methods so as to ensure the integrity and proper functioning of the on-board fault detection and protection systems and to protect against electrical shock hazards.

14.3

The isolation surveillance system used to monitor the status of the isolation barrier between the voltage class B system and the chassis must be fully operational throughout all Events.

14.4

It is not permitted to have live terminals protected only by a removable connector cap.

14.5

All electrically live parts must be protected against accidental contact. Insulating material not having sufficient mechanical resistance, i.e., paint coating, enamel, oxides, fiber coatings (impregnated or not) or insulating tapes, are not allowed. Each electrical cable must be rated for the respective circuit current and must be insulated adequately. All electrical cables must be protected from overcurrent faults according to the capacity of the individual conductors. Every part of the electrical equipment, including wires and cables, must have a minimum insulation resistance between all live components and the bodywork.

14.6

Fuses and circuit breakers (but never the motor circuit breaker) count as overcurrent trips. Extra fast electronic circuit fuses and fast fuses are appropriate.

15 ELECTRIC MOTORS, GENERATORS, ASSOCIATED DRIVERS AND CONTROLLERS

15.1

The installed Electric Motors, Generators and associated drivers and controllers must remain as detailed in the FirstCorner documentation.

16 RECHARGEABLE ENERGY STORAGE SYSTEM (RESS)

16.1

The installed RESS must remain as detailed in the FirstCorner documentation.

16.2

The Battery Temperature Control Unit (Chiller) must be used unmodified and as supplied to Teams.

16.3

The Battery Charge Unit must be used unmodified and as supplied to Teams.

16.4

Available charging power must remain as supplied by the Venue. Additional generators, power boosters or energy storage devices shall not be used to ensure that all teams are operating with the same vehicle charging rates.

17 TRANSMISSION SYSTEMS

17.1

Torque vectoring control systems are not permitted. The torque distribution achieved by the normal operation of the rear drive disconnect and the mechanical limited slip differentials are considered to be outside the scope of a torque vectoring system.

17.2

The transmission, differentials and front/rear drive disconnect must remain as detailed in the FirstCorner documentation. Listed optional parts may be used interchangeably

18 SUSPENSION AND STEERING SYSTEMS

18.1

The FC1-X suspension system is a standard sprung suspension. The suspension system must be so arranged that its response results only from changes in load applied to the wheels. The suspension design is independent double wishbones, coil spring over a linear damper, with adjustable anti-roll bars. No electrical or hydraulic connections are allowed to the damper body and/or auxiliary units.

18.2

All structural suspension members must be made of steel or aluminum alloys and be supplied by FirstCorner. Coil springs must be made of steel and be supplied by FirstCorner.

18.3

The front and rear suspension system must remain as detailed in FirstCorner documentation. Listed optional parts may be used interchangeably.

18.4

With the steering wheel fixed, the position of each wheel center and the orientation of its rotation axis must be completely and uniquely defined by a function of its principally vertical suspension travel, save only for the effects of reasonable compliance which does not intentionally provide further degrees of freedom. Any powered device which is capable of altering the configuration or affecting the performance of any part of the suspension system is forbidden. No adjustment may be made to the suspension system while the vehicle is in motion.

18.6

The complete steering system and associated controller must remain as detailed in the FirstCorner documentation.

19. BRAKE SYSTEMS

19.1

The wheel brake system consists of two separate circuits operated by the same pedal. Driver adjustment of the front/rear hydraulic brake bias is permitted while the vehicle is in motion.

19.2

Brake calipers are specific to the FC1-X and must remain as detailed in the FirstCorner documentation.

19.3

Brake discs and pads are specific to the FC1-X and must remain as detailed in the FirstCorner documentation. Listed optional parts may be used interchangeably.

APPENDIX A –

APPROVED ALTERNATE BODYWORK KIT LIST

KIT NUMBER	APPROVAL DATE [MM/DD/YYYY]	VEHICLE BRAND	VEHICLE MAKE	VEHICLE MODEL	NOTES
1					
2					
3					
4					
5					
6					