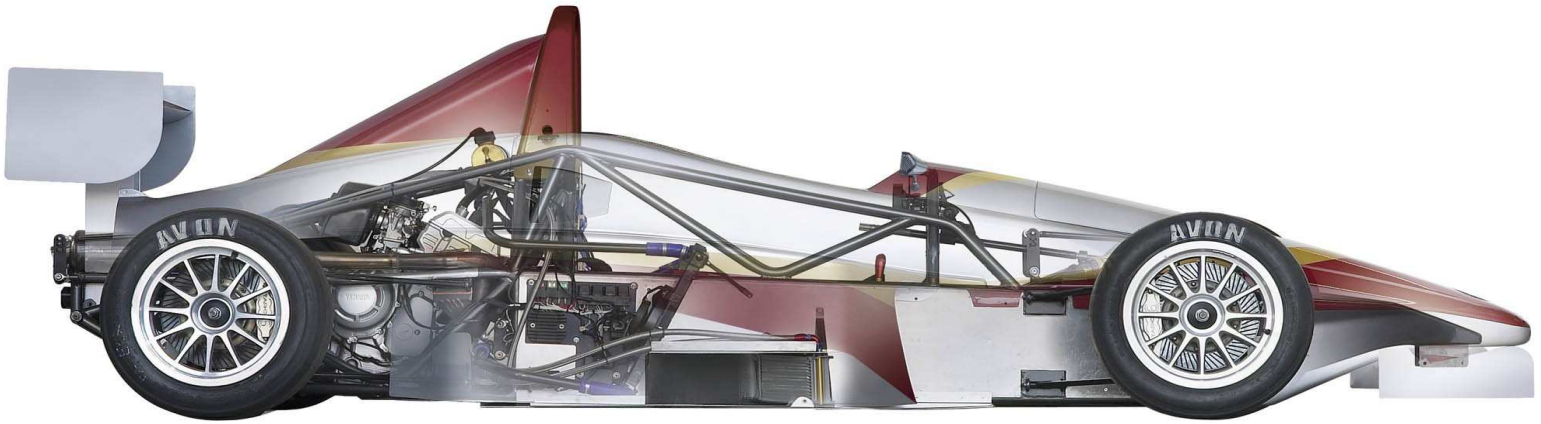
Gloria B 4-10 Y



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Congratulations for choosing Gloria B 4-10 Y! This model is all technical content requested by a car competition at a cost of purchase and maintenance affordable. This manual is directed both to those who have just started their adventure in the world of competitions, both to those who for a long time know the tricks of the trade. We have written this book in order to obtain a satisfied customer always competent and that translates into a competitive score. We recall also that a vehicle periodically checked in order ensures the maximum of its performance. Team development Gloria s.r.l. Hopes that B 4-10Y is the ideal companion for your moments of fun on the track. Team

INDEX MANUAL

This handbook contains at least one error. You could wait to see what is necessary to read the entire volume. But we know already. In fact, if there are errors, there are. And if there are, there is one that says: "This book contains at least one error." So we know that this book is a mistake, even if we do not yet know what is. For the avoidance of any doubt, the error is not to read it.

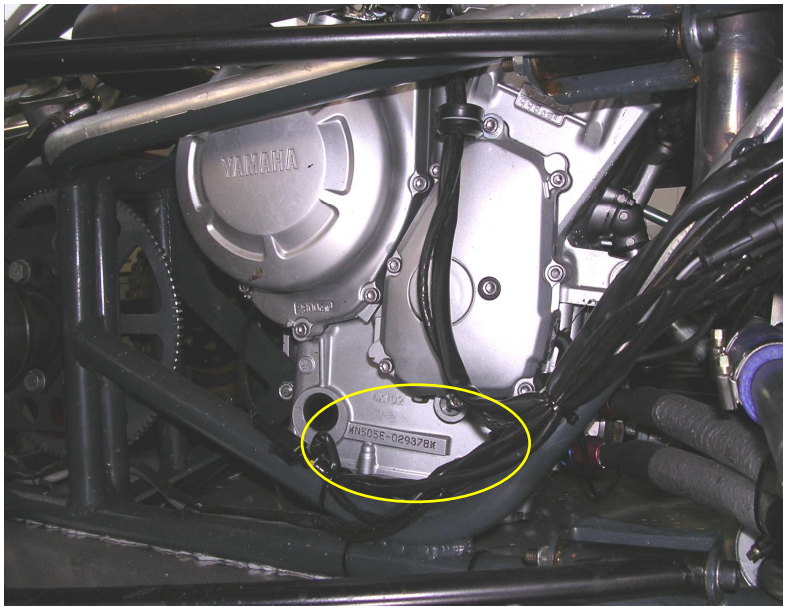
General information

Index

- Number of chassis and engine
- Ext. Dimensions and weight
- Dimensions scheme
- bodywork
- engine
- Power curve – Torque engine
- Base Set Up
- Typology and quantity of liquids
- General information of maintenance

Chassis nr. And engine ones

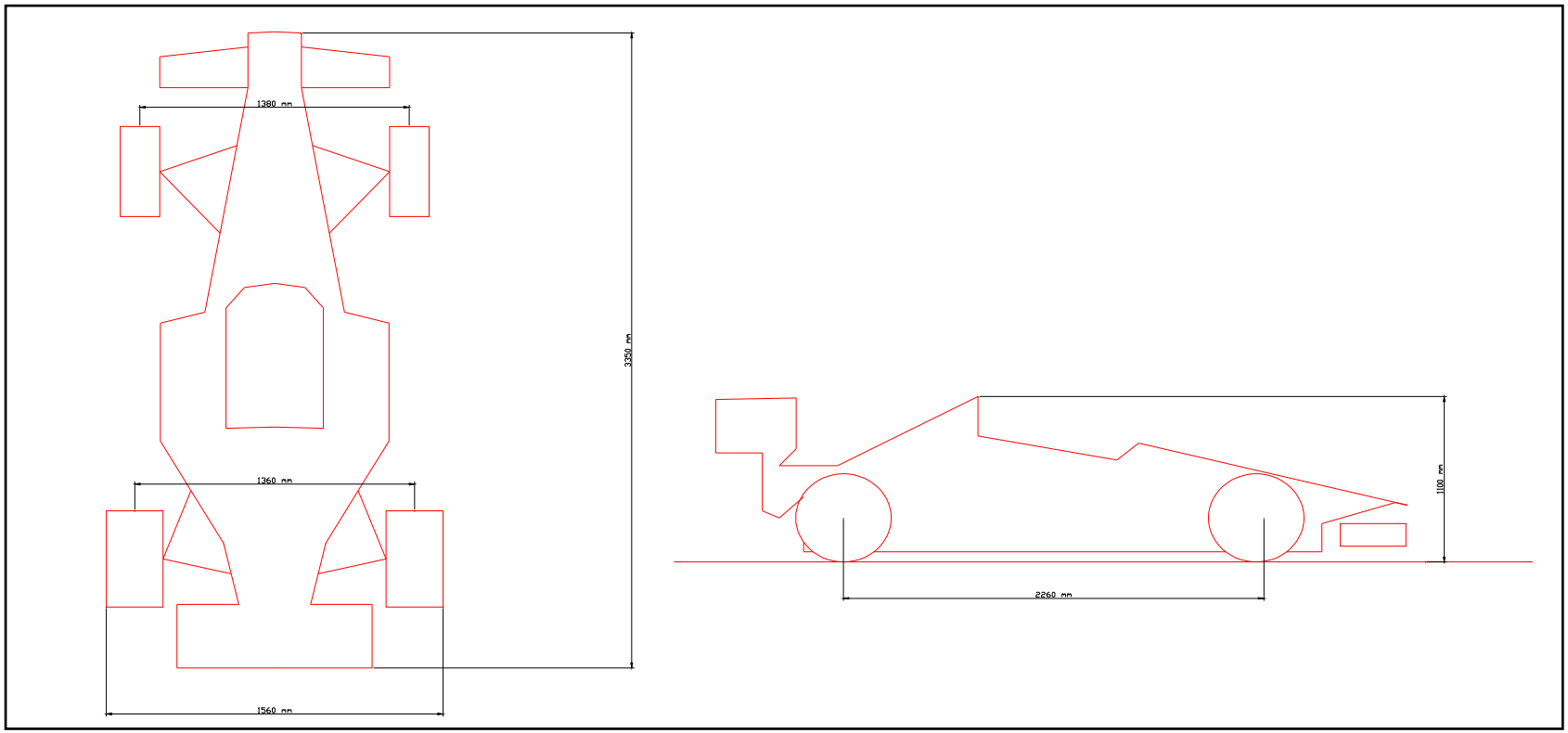
The number of chassis is the official identification of your car. Serve for technical inspections during the races and will be communicated to Gloria Inc. In the case of requests for information. Located roll bar on the left side of the car. The label indicates the year of production and the number of the frame.
The number of motor uniquely identifies the drive installed on your B 4-10 Y. Located on the basement / cup of the right side of the car next inspection of the engine oil



Dimensions and weights

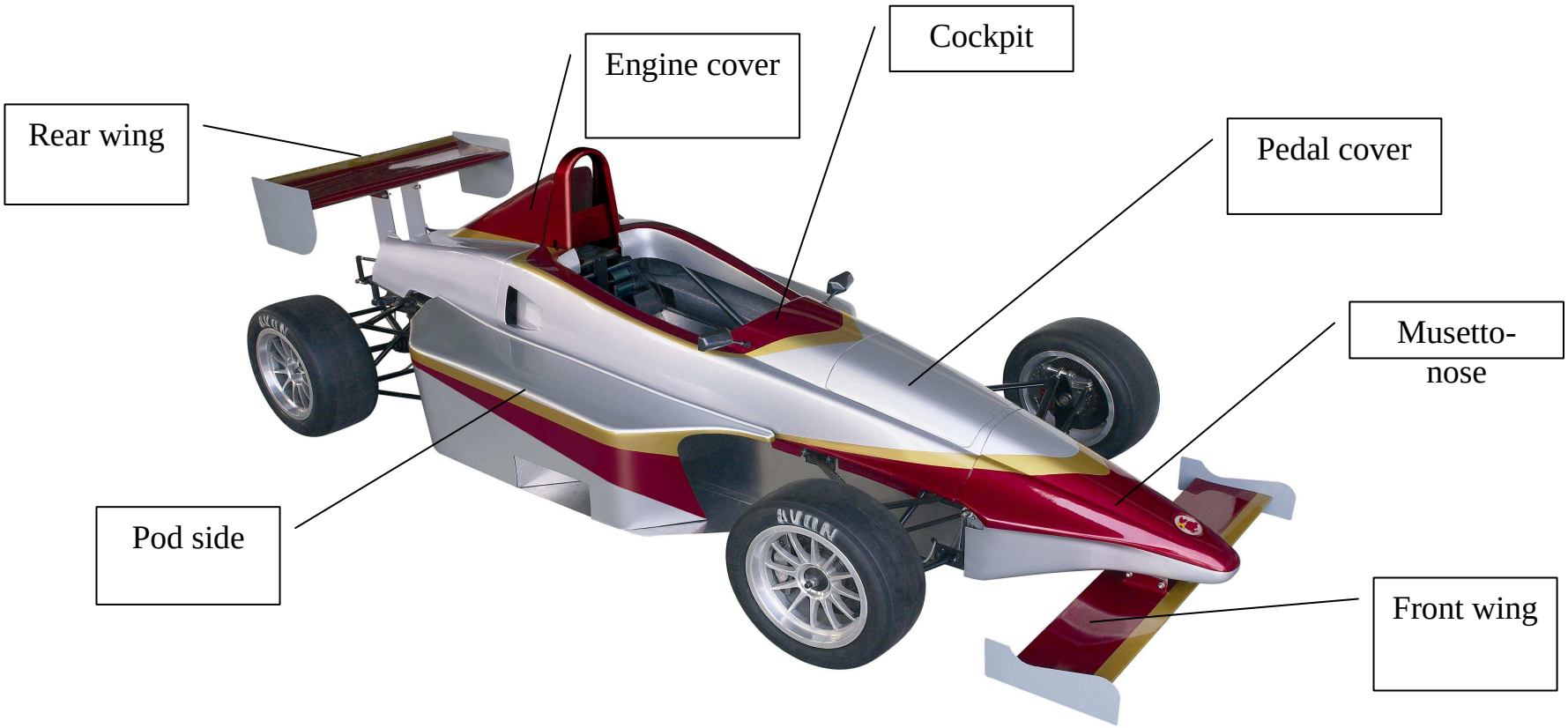
- Total lenght: 3350 mm
- Larger total: 1560 mm
- weight: 2260 mm
- Carreggiata ant/post: 1380 mm/1360 mm
- Height at roll-bar: 1100 mm around
- Weight with liquids , without fuel: 390 Kg
- Weight with driver (70 kg): 460 Kg (42% front, 58% rear)

Scheme dimensions



In this book right and left are defined as if we were sitting at the driving seat. The shifter, for example, is right.
"Front" and "back" refers to the direction of travel. Musetto is "front" for the passenger compartment.

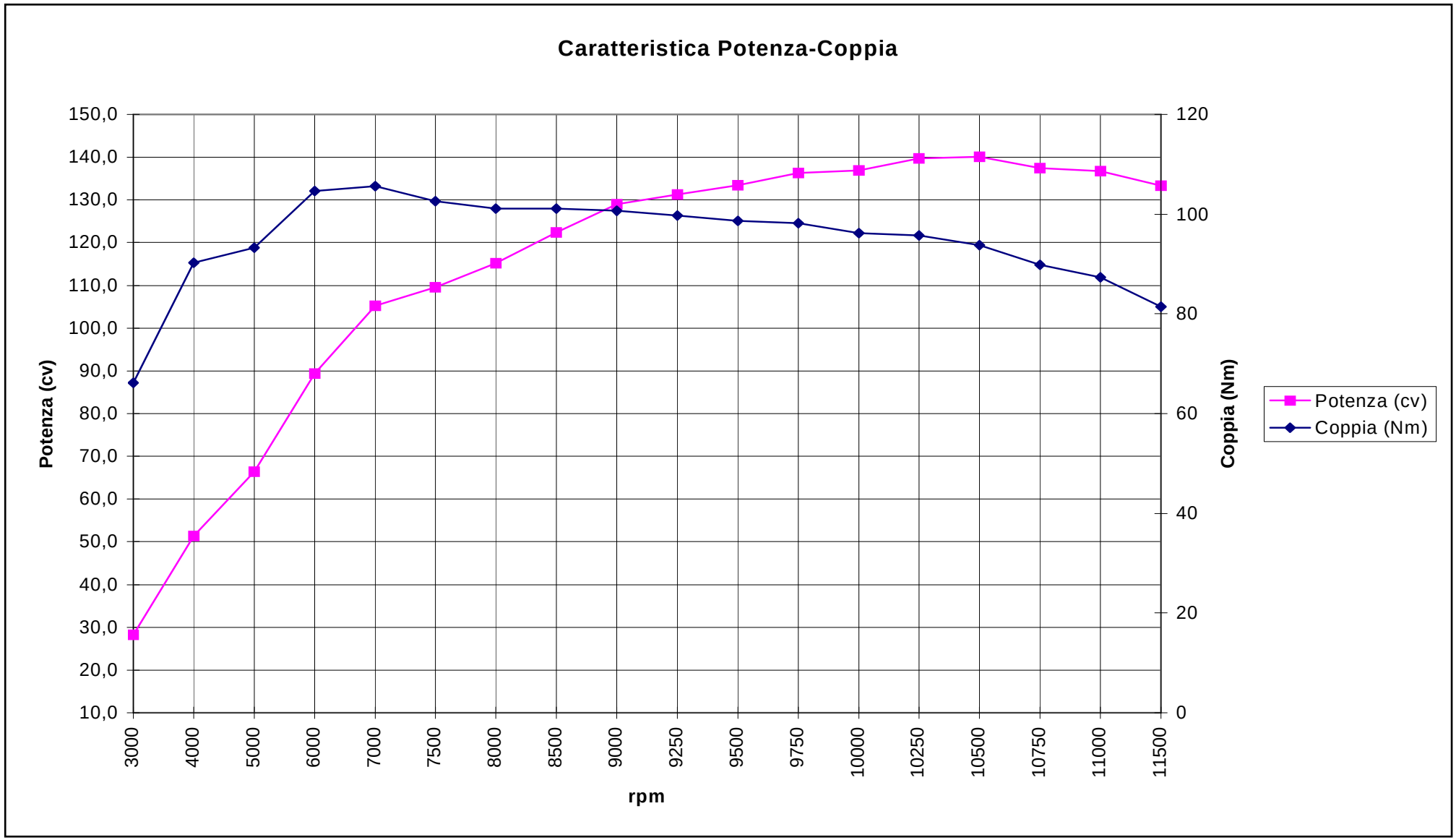
BODYWORK


Rear wing
Engine cover
Cockpit
Pedal cover
Musetto-
nose
Pod side
Front wing

Engine

The engine mounted on the B 4-10 Gloria Y is the Yamaha FSZ1000 (N).

WARNING: engines installed on cars are identical and distributed by Yamaha. All engines are tested at the bench before being installed on the vehicle to ensure substantive equality in the performance of engines.


Caratteristica Potenza-Coppia
Potenza (cv)
Coppia (Nm)
rpm
150,0
140,0
130,0
120,0
110,0
100,0
90,0
80,0
70,0
60,0
50,0
40,0
30,0
20,0
10,0
120
100
80
60
40
20
0
3000
4000
5000
6000
7000
7500
8000
8500
9000
9250
9500
9750
10000
10250
10500
10750
11000
11500
Potenza (cv)
Coppia (Nm)

SET UPS BASE

WARNING: The data reported are purely an example. For specific structures, with particular types of rubbers, contact the manufacturer / distributor of pneumatic or Gloria srl...

		Radials	Conventionals
Camber	Front	-2°	-0,3°
	Rear	-2,5°	-0,7°
Toe	Front	0,5 mm (OUT)	0,5 mm (OUT)
	Rear	0 mm	0 mm
Height from ground		Depend of championship	
Caster	Front	0°	0°
	Rear	Not possible change	
springs	Front	50 N	50 N
	Rear	70 N	70 N
Schock absorbers	Front	Posizion A	Posizion A
	Rear	Posizion A	Posizion A
Tire pressure	Front	1,1 bar	0,9 bar
	Rear	1,2 bar	1 bar
wings	Front	0°	0°
	Rear	0°	0°

Tipology & liquids qty

	Tipo	Quantità
engine	Look at. sections “check periodical and changes, information of engine oil	5,5 liters included radiators
colling	Distilled water and antifreeze specific Silkolene	5,3 liters total (of which 1 antefreeze)
Freni	DOT 5.1	0,5 liters around
Carburante	Unleaded 98/100 octane	24-26 liters

General info for maintenance

- -Before removing the pieces clean from any residual dirt, dust or foreign bodies.
  -Each component has its need for cleaning, use only products suitable.
  -Keep all parties away from sources of heat, dust and dirt.
  -Use only genuine Gloria s.r.l.
- -Use only the types of oils and fats recommended by Gloria Inc. For all operations lubrication.

Peridical check and spares

Index

- bodywork
- Chassis/suspensions/brakes
- Engine/gearbox/clutch
- electric

BODYWORK

Check to be done periodically are the following:

- Fixment of mirros and wings
- Fixment of bodywork.

Mirros and wings

The front wing is set at the main body of the car body through two links:

Musotto-support

Support-wing (earlier used for fixing the rear for the regulation)

The link between wing and Musetto is to be checked before and after each session as may be damaged as a result of shock or off the track.

If there are cracks immediately stop the car and provide a replacement part route.

The rear wing is secured to the main body of the car body through two links:

Mount-frame

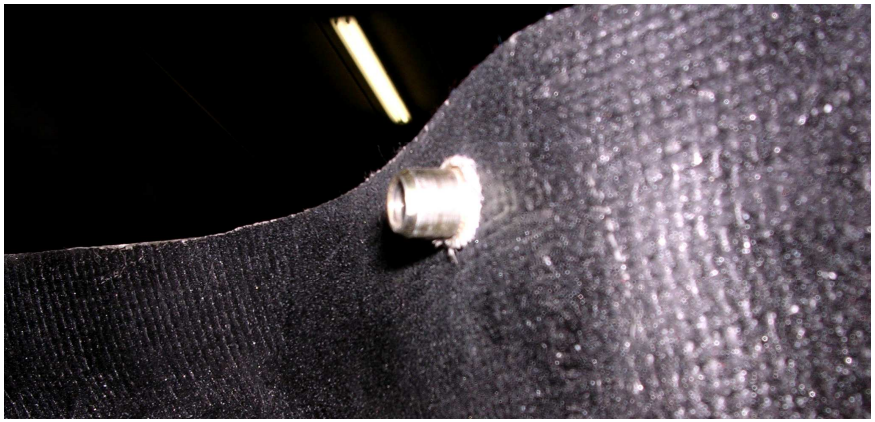
Mount-wing (the screws earlier used for fixing the rear for the regulation)

Always carefully these connections.

Periodically, we recommend that you check the fastening of mirrors is adjustable. Check the onset of cracks at the holes. In the case of broken proceed as recommended in the next slide.

BODYWORK (2004)

All body parts are set to head with brugole Keystone 6x1 mm. Do not tighten the screws too much damage inserts. In the case of breaking of the insert we have to remove the broken part, apply one (or more) layers of fiberglass in the area damaged, leaving harden the composite and then drilled with a touch of 9 mm diameter. Then insert the new insert with pliers suitable.



Chassis / suspensions/brakes

Perdiodical check are the following:

- Fitment of spherical rod end,
- Delrin bushes,
- Abrasion of the car chassis and bodywork.

Fixing of spherical rod end to the lower upright

After the couple tight set (45 Nm for the nut that is grafted on upright, and 20 Nm for the nut which stops the terminal spherical”rod end”) and blocked with Loctite 242 pins below the uprights must use wire bonding.
This feature prevents slippage of the nut that interfere with the circle.
Instead of wire to use copiglia as shown in the figure.

Coulping Delrin bushings

Each 2000 km (or less in the case of frequent use in wet conditions) is recommended to dismantle all Delrin bushings to ensure proper functioning.
Dry carefully parties (blowing with compressed air) and lubricate (with a thin layer of fat hydrophobic).
In particular, we recommend that you check:

- Bushings to fixment supension wishbones
- Bushings Rocker
- Bushigs pedal kit
- Bushings steering column

Abrasions chassis and bodywork

Some points of the frame and body are subject to abrasion and contacts with agents that could ruin the paint. As the frame ferrous material could create risk areas rust.
The parties to be monitored more closely so:

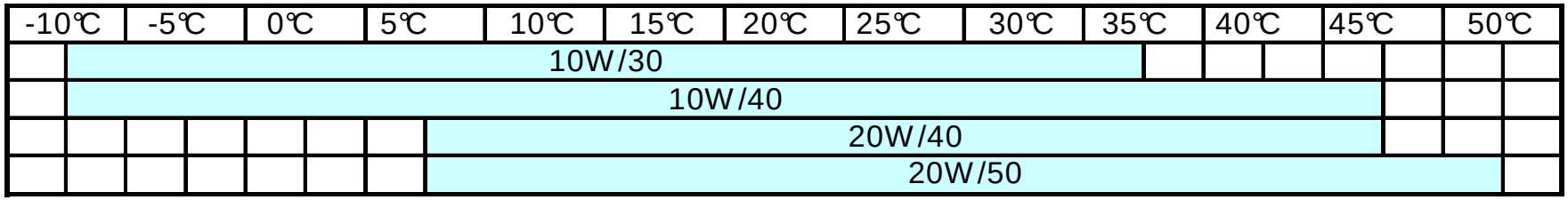
1. suspensions wishbones and shafts (from stones meet at track),
2. fitment of front nose to chassis,
3. fitment of engine cover to rear wing,
4. fitment of engine cover to cockpit,
5. fitment side pod to bottom.

ENGINE/GEARBOX/CLUTCH/TRANSMISSION

- Engine oil
- Colling sistem
- Air filter
- clutch
- Trasmission chain
- brakes

Engine oil

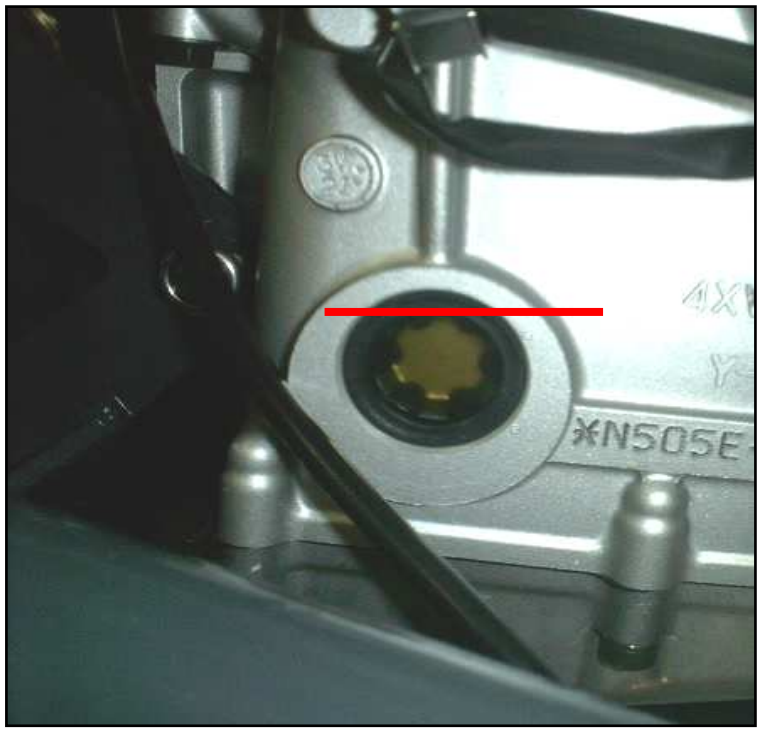
WARNING: motor oil lubricates also change and friction. To avoid slipping clutch types wrong not to use oil or additives. Do not use engine oils CD with a degree or higher. Do not use engine oils like "Energy conserving". We recommend the use of engine oil SAE20W40SE or SAE10W30SE. Below is the table of oils..



Level oil

Check level at hot engine. (MINIMUM TEMEPERATURE 80°C).

Correct level must to be ¾ of the window runing engine at 3000 rpm.



Chnge filter oil

The oil filter change is a very important to maintain engine performance and avoid breakage or seizure.
It must be done every 500 km and after the engine had some problems.

-Remove the cartridge filter with the appropriate tool (PUT code).
-Apply a thin layer of oil on the seal cartridge new oil and make sure it is in place when you comeback.
-Screw hand.
-Before using the car to run the engine idling to detect any loss.

Procedure changing oil

Before you change the engine oil to run the engine for a few minutes and let it heat. Turn off the engine and proceed with the exchange hot motor oil (this allows drainage of the whole oil).

Always discharge of the radiator with the following procedure).

-Disconnect the connectors of pressure sensors and temperature oil (and if necessary clean of dirt and residues),

-Unscrew the big nut terminating the ciabatta for pipelines to and from the oil radiator,
-Pull off the ciabatta,
-Unscrew the connector tube ergal oil with special keys ergal,
-Empty pipelines and oil radiator,
-Rinse everything with solvent and blow any deposits with compressed air,
-Put all paying attention to the seals,
-Close to 35 Nm of the dadone ciabatta..

sparks

The sparks provided originally by Gloria s.r.l. Yamaha is the original.
Their acronym is U27ESRN Denso (equivalent NGK: CR9E).
A condition to maintain the same degree heat, the use of sparks from other manufacturers.

Periodically check the air gap between the electrodes. The nominal value is 0,7-0,8 mm. If it is lower, change the sparks.
Use candles same for the four cylinders.
If the electrodes are clean dirty paper with a brush or abrasive lightweight metal.

CAUTION: Before you extract from the sparks tested, after removing the ignition pipettes, blow away dirt with a jet of compressed air.

Regarding the ignition coils:
Check carefully any steps near hot components or live edge
If necessary to use tape fabric-finish to avoid mechanical abrasion
Keeping clean the contacts of ignition coils (placed on the roll bar behind the pilot).

The ignition coils are divided as follows (watching the car from behind):
Coil left cylinders 2-3,
Coil right cylinders 1-4.

Change sparks if they are falls, ruined or damaged somewhere.

Cooling sistems

Before every sessions please dublle check:

- Radiators,
- Tube water in,
- Tube water out,
- Tube oil in ,
- Tube oil out,
- Connection water to pump IN,
- Connection water to pump OUT.

LEVERL WATER LIQUID

The engine cooling system consists of a pump and two radiators series.
The system requires 4.5 liters of which 0.5 litres of antifreeze.

The antifreeze must be of high quality (ethylene-glycol) and containing specific preparations for aluminium engines. There are no openings inspection or indicators. You need to open the cap and look directly into the tank positioned behind the roll bar.
Check the water level motor cold. The level is correct ¾ tank.

After changing any engine or the cooling system, make sure that it was properly executed a purge.

CAUTION: Open the cap and check the level only motor cold!

Procedure heating ening

The engine mounted on the B 4-10 Gloria Y needs to follow a careful process heating.

We should not sink the accelerator until the red light on the multifunction display is turned on and it is advisable to leave it to a minimum speed for a few minutes to locate the first session of any leakage.

Operation Spy is as follows:

T oil less than 80 ° C spy ON,

T oil between 80 ° C and 130 ° C LED OFF (functioning properly)

T oil above 130 ° C spy ON (overheating).

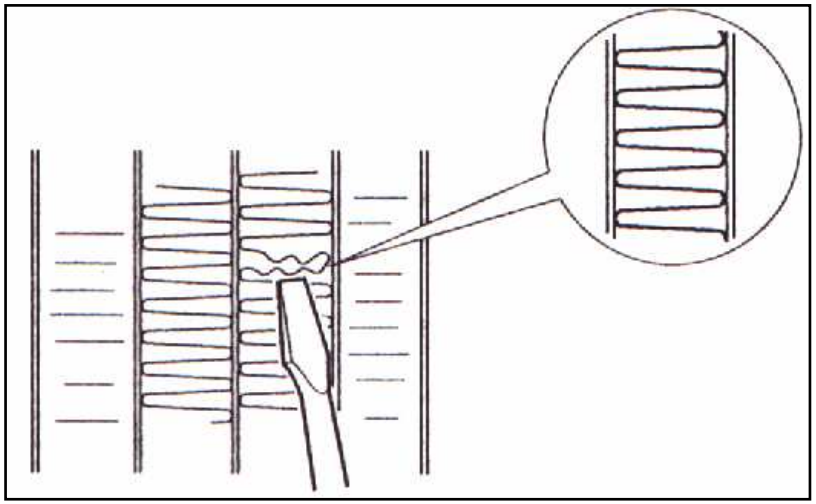
It can happen that when using the temperature is not the optimum range. In the case proceed as follows:

T functioning too low: decrease (with adhesive tape applied to the grid) the surface of fresh air input to left radiator,

T functioning too high: remove the nastrature eventually made earlier, operate the fan or the session. If the problem persists check for the presence of air bubbles in the cooling circuit.

Radiators

•Although installed a grid to avoid debris that can damage the honeycomb, it is good to check often the integrity of the walls of steel. With the help of a small screwdriver straighten sides folded as shown in the diagram to the side.



Check if there are obstructions in cells, in the case blow compressed air from the back toward the front of the car.

Procedure change of water liquid

Periodically (but at least once a year) it is necessary to change the coolant of the vehicle. A plant not at peak performance is likely to overheat the engine with negative consequences on the performance and durability.
Do this only motor cold
Download the central nut fluid from the engine and the right sleeve,
When the circuit is filled sure to open sleeves upper left and right to release air from radiators and pipes (to avoid the presence of air bubbles in the circuit).

During operation check the temperature of the two radiators. If they are very different is necessary to operate a new purge of the liquid because there are air bubbles inside.

Filter air

The air filter is a key component of the engine. Do not make cleaning operations in the vicinity of the car without air filter installed as unfiltered air quickly and can irreparably damage the engine.
Remove the air filter only for periodic cleaning operations. MAI not use the car without air filter.
When you install the air filter make sure it is well-positioned in its home since its perimeter also acts as a seal. The filter mounted on your car is a panel dry.
It is not necessary to use (as well as unproductive) oil filters for air.
We recommend cleaning by compressed air against the direction intake (not to further clog the filter).

CAUTION: Use only genuine.

Clutch cable

The sheath of the cable has a clutch internal Teflon slider for a better clutch cable. If this sheath is too close to heat sources is possible that the Teflon can dissolve within pasting the clutch cable to lock.
Recommend shoehorning a thermal sleeve (600 mm) (Goodridge) on the cable sheath friction in the area of waste and keep it away from heat sources.

To avoid unexpected breaks, we recommend replacing the clutch cable every 500 km.

Procedure clutch check

The clutch mounted on the B 4-10 Y differs from the original Yamaha for the presence of copper washers 6 at the bottom of the premises of the screws tightening. Periodically check the thickness of the clutch pack.

Thickness nominal ≥ 43.6 mm

The first element to the engine that often must be 3.5 mm. All others are 3 mm thick.
Unscrew the screws clutch basket with a procedure to "X".

WARNING: on the plate spingidisco and clutch disc are two bolinature. In mounting pay attention to mount at one another.

Chain transmission-installing and maintenance

Before installing the chain is advisable to lubricate it with oil chains that will not damage the O-ring rubber. Bring the axle exactly perpendicular to the direction of travel through the tie rods adjustment.

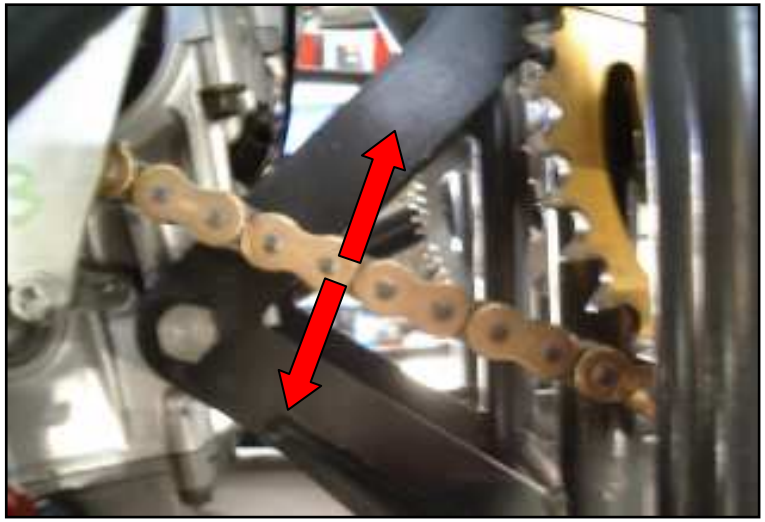
The pinion must be close to 85 Nm. Pay attention to the disposal of several screws that are closed on additional carterino because their length is different and not interchangeable.

The nut that tightens the pinion must be screwed with the flat part to the outside of the car.

Caution: a chain stretched too overloaded the engine and other structural parts of the transmission. A chain too lasca instead can skip damaging parts it comes into contact. Check often tension in the chain and stick to the specifications.

Verify that the game with chain fit the relationship is approximately 10-15 mm per side on the top of the chain (red arrows).

To verify the correct tension, turn the axle until you find the point of maximum tension



+/- 10-15 mm

Chain trasmission - lubrification

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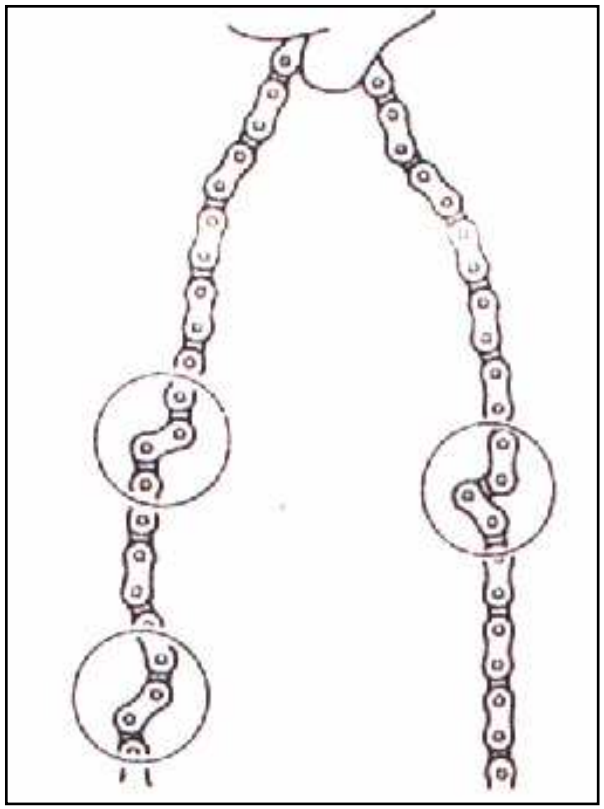


Trasmission consumption

Check periodically spocket and Pinin .

If consumpiotn over ¼ of thickness of teeth (measure a) need to be changed.

Refer to pictures behind.

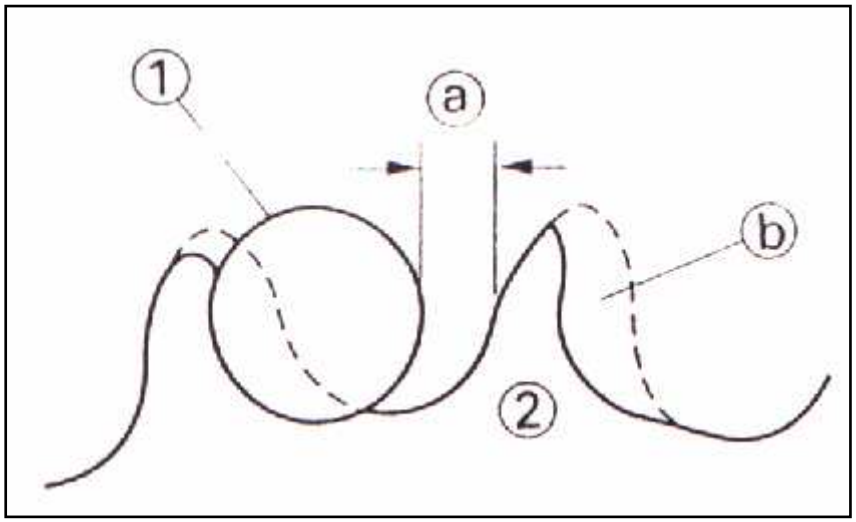
1) chain,

2) Pinion or sporcket

b) Optimum e

Line wen Consumption too high.

All must to be changed together asd new pinion could not work well with used sprocket or viceversa



BRAKES

The purge brake is a key to the safety of the pilot.
Make purge in the following cases:
-Pedal spongy plant or not performing (braking elusive, boiling phenomena, etc.)
-Every weekend contests
-After long-use of the car,
-Every 150 km at the most.

-Use only oil brakes type DOT 5.1.

Discs & pads

Minimum tickness of discs is of è 7 mm.

The maximum deflection planing is 0.1 mm.
If you use had vitrified should proceed to a correction back to the original condition.

It is advisable to replace the brake pads when the friction material is often less than 3 mm.
Simultaneously the replacement of brake discs is also recommended to replace the pads.

Pads (1)

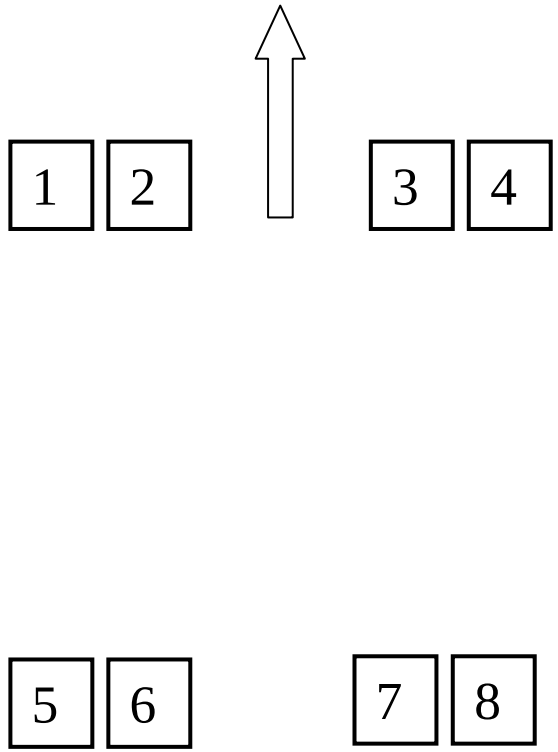
Instructions for running it new pads (to be stricktly followed):

- Makes 25-30 brakes of 4 seconds around, using 50% of power pressure useed in race conditions. Can be brake also for minimaze the running time,
- Back in the pits and make a thorough inspection of the level of the running surface of the pads (especially on wheels support). If the entire surface of the pill has worked without showing signs of vitrification of friction material pad are ready for use in the race.During running is necessary to grove temeprature in a gradual way to optimize the effect and lifetime of discs and pads .

Pads (2)

Always check if the tablets are consumed in the same way.

If dismantled and reused name them in order to ensure the same order of assembly.
An example might be shown to the side.



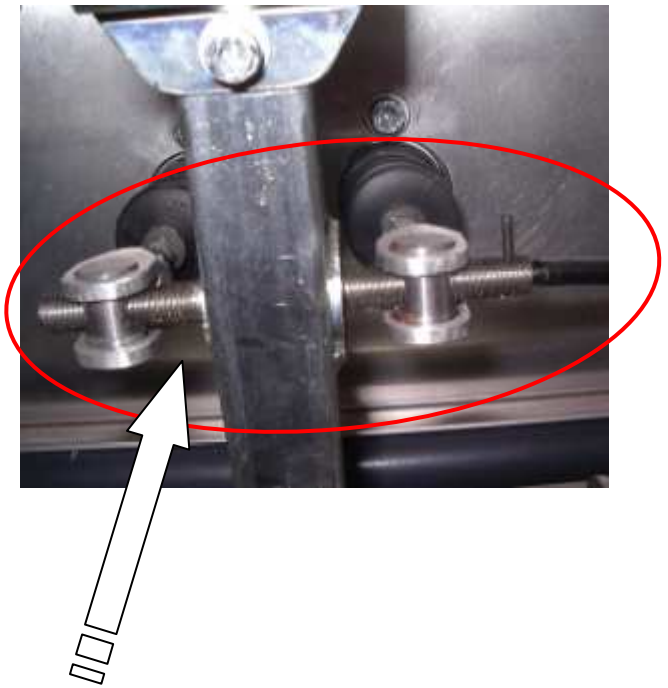
Level Oil brake

To check the oil level Musetto disassemble the vehicle.

The level of brakes is at the junction tank.
This with new brake pads (brought to the package) and the purging done.

Regulation of brake balance

The braking arm by setting screw.
Being placed in a dirty place is generally recommended periodically to disassemble the total and make a thorough cleaning (the vine circled in red and highlighted by the arrow).
Clean the area of the thread with solvent to remove all traces of dirt. Clean also puntalini pumps.
Grease with grease and reassemble the Teflon with care.
Proceed in the same way for the spring command (flexible), which leaves from green manettino place in the cockpit and reach the threaded bar.
Also check bearing swivel that allows the operation of the adjustment.
Before you reassemble the spring, ingrassarla carefully with grease to Teflon



Other on brakes

WARNING: The brakes rarely need to be dismantled. But if it is necessary to follow these simple rules:
-Not ever disassemble components of the braking unless needed
-If any of the components be dismantled, it is necessary to clear the system, fill it with new brake fluid and make a purge
-When the brake caliper is disassembled ALWAYS change of piston seals.
-Do not use solvents or MAI liquids other than fluid in the brake system,
-Use only new brake fluid to clean the components,
-The liquid can damage brakes sides painted or plastic,
-Avoid contact with the brake fluid with skin.

Scheme, timing for brake maintenance	
Seals pistons	Every 2 years or at any rebuild
Tube brakes	Every 2 years

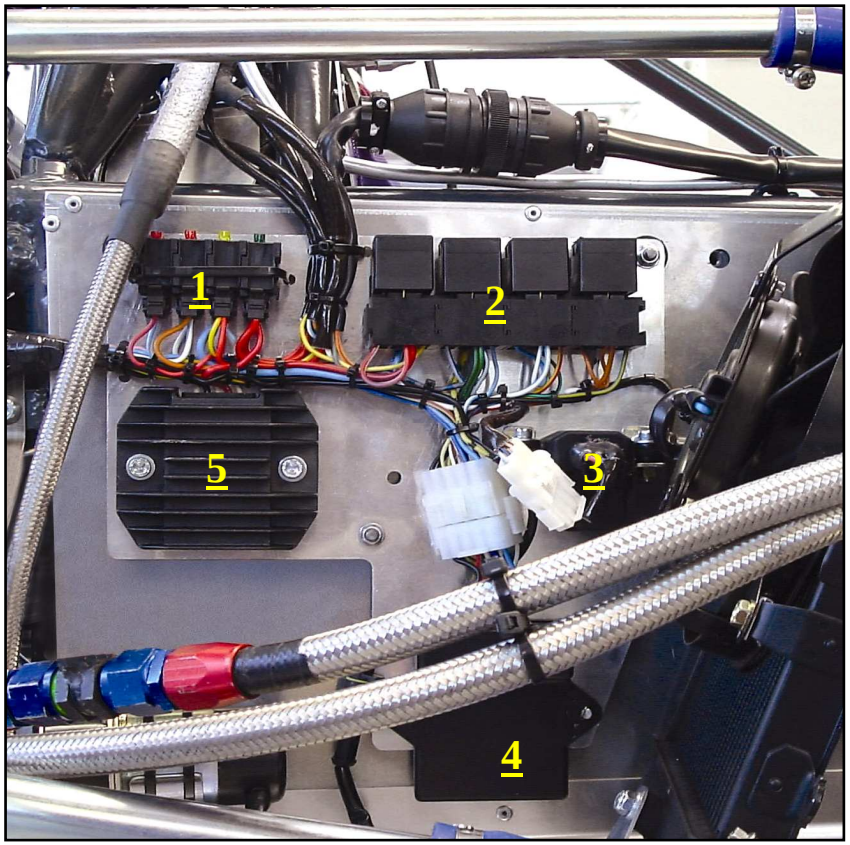
Electric scheme

Annex 002 illustrates the general schematic of the car.

Placing particular emphasis on the maintenance of the electricity system of the car because a malfunction could lead to the principles of fire.
You must check the following components:
Battery
-Contacts under board
-Contact ignition engine control unit
-Contact candles
-Relays start
-Operation reversing
-Contact wheel phonic
-Contact petrol pump
-Contact radiator fan
Rain Lamp

Electric scheme

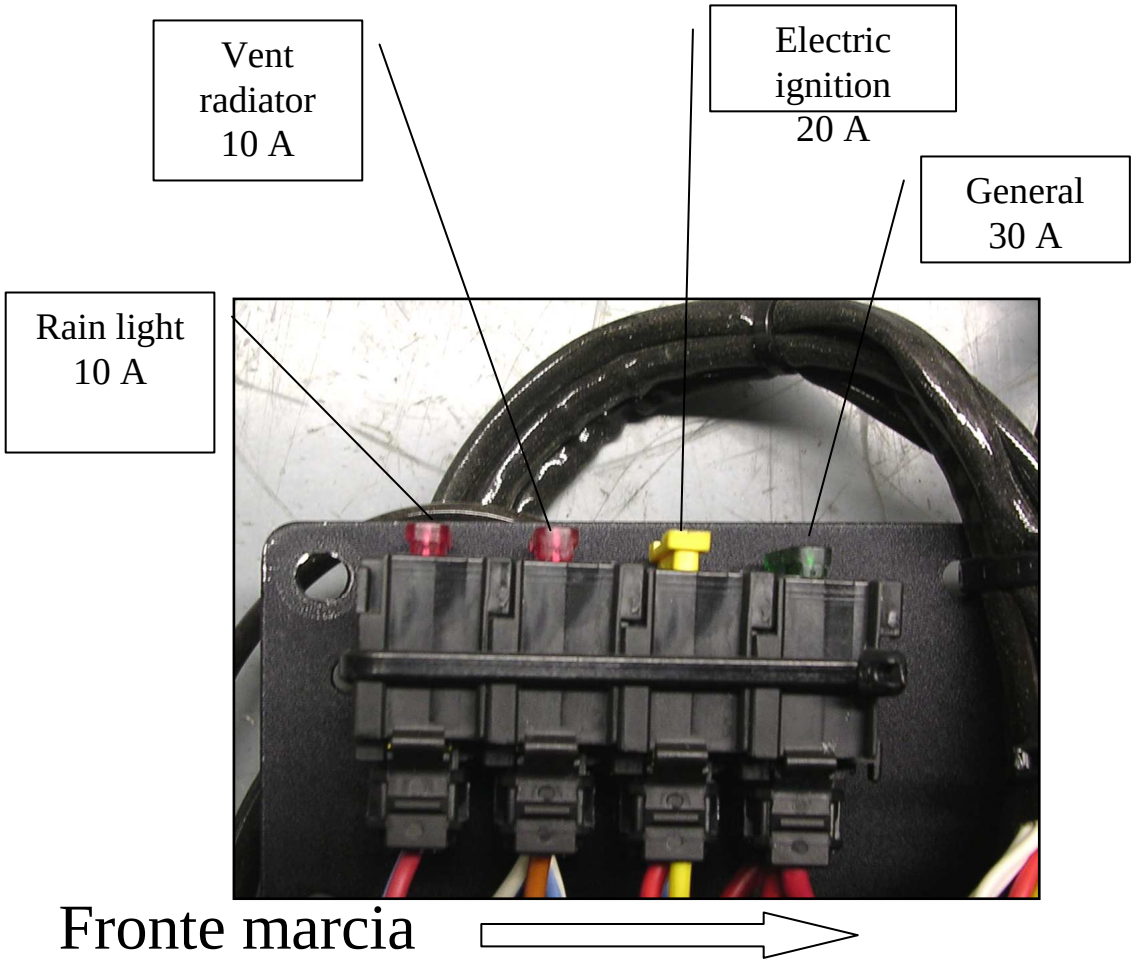
1. Fuses,
2. Relays,
3. Inertial switch,
4. Engine ecu,
5. Stabilizer.



electric - fuses

To ensure the operation be assayed with a continuity tester for electronics.

WARNING: never use fuses with amperage different from the original. Using fuses inappropriate or wrong amperage can lead to malfunction of the system, serious damage to the electrical system, the principles of fire.

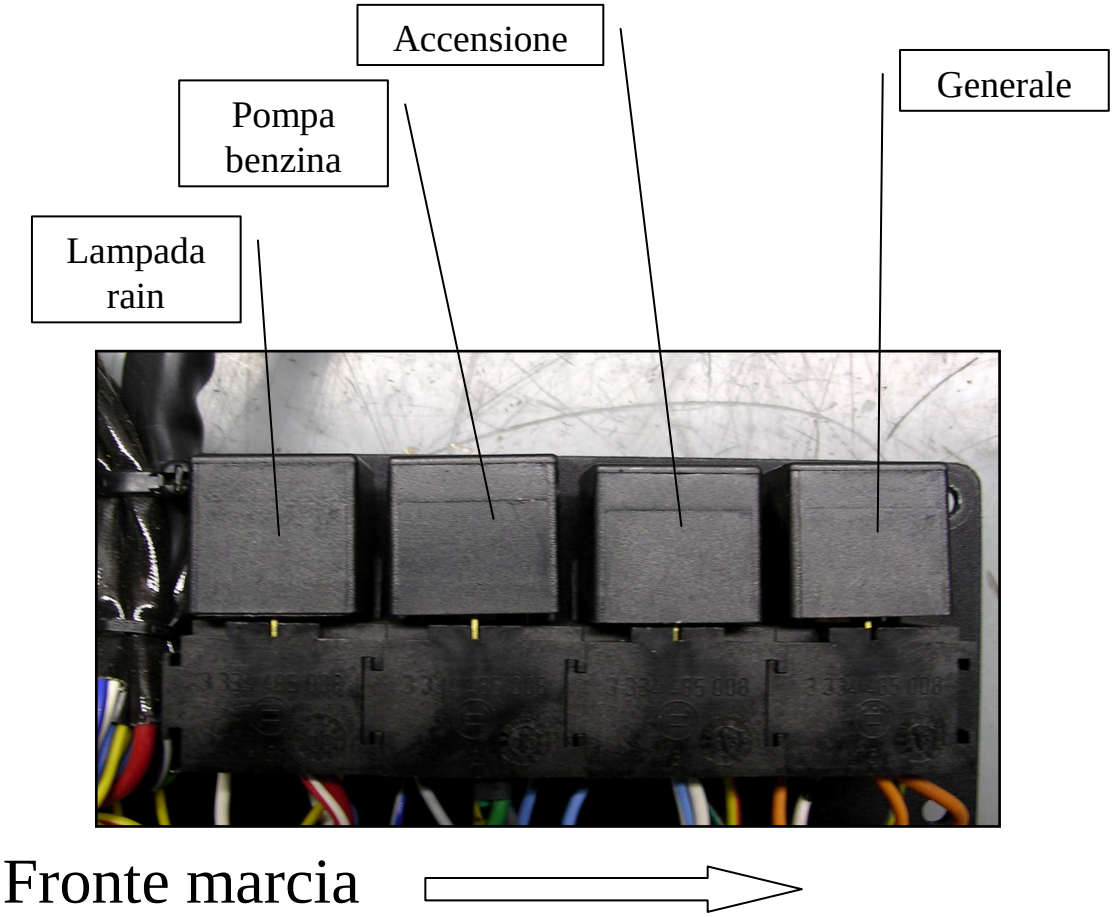


electric - relays

To ensure the operation be assayed with a continuity tester for electronics.

WARNING: never use relays with amperage different from the original. Using relays inappropriate or wrong amperage can lead to malfunction of the system, serious damage to the electrical system, the principles of fire.

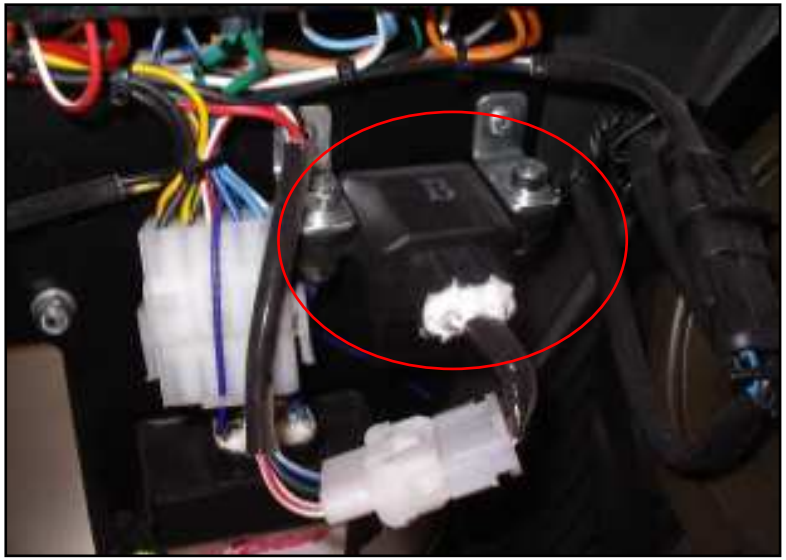
From the left side of the car is installed relay goodwill



electric – inertial switch

The inertial switch is a passive safety device.
When the car is upside down following an accident this device cuts the power to pump fuel greatly reducing the risk of fire.

You do not need to replace it as a result of an accident in fact, once the car is put back with the wheels on the ground, the device can be reset and start over.



electric – Engine ECU

The controller acts on engine ignition.

The engine control unit regulates only the ignition advance. It piombata and can not in any way be changed by the Team. Make sure it is well fixed to the plate on the left side of the car. Before shoehorning connector white, carefully blow by compressed air to remove any residual contacts. Calzare connectors of the controller because it may force them without causing damages contacts leading to internal power losses and sudden dips in performance.

WARNING: deposits of dirt may hinder the passage of current and cause a malfunction of the engine.

Battery

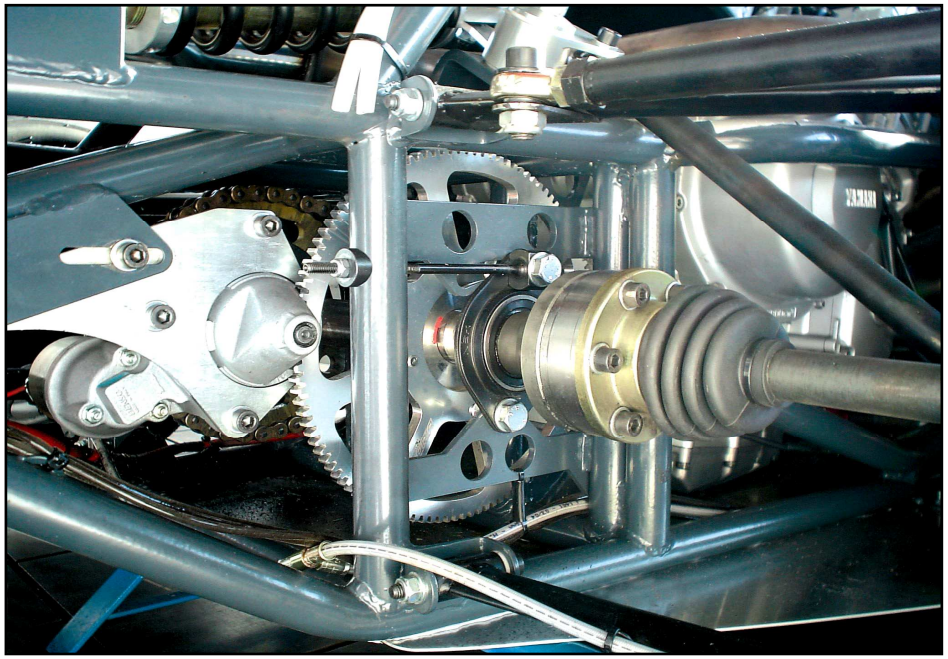
The battery is positioned on the left side belly, contacts must be very tight and well insulated.
Periodically check the mounting and make sure that the connection to ground (negative terminal) is well fixed to the frame,
Periodically clean the jack of additional battery located under the battery car
After each session, of transporting the car, disconnect the negative (black) and isolate carefully with tape,
To prevent the oxidation of contacts cover the battery terminals with dielectric grease,
Connect always the first positive terminal and the negative terminal,
The open circuit voltage of the battery should be slightly above 12V. The charging voltage must be at 14 V to 5000 rpm (the tester attack on drums to perform this control).

Reverse gear

It regulates through two tie rods that allow scrolling of the longitudinal electric motor. For its regulation should use tool specifically Glory

For the operation it is recommended to keep the engine at least 3000 rpm in order to facilitate the work the alternator.

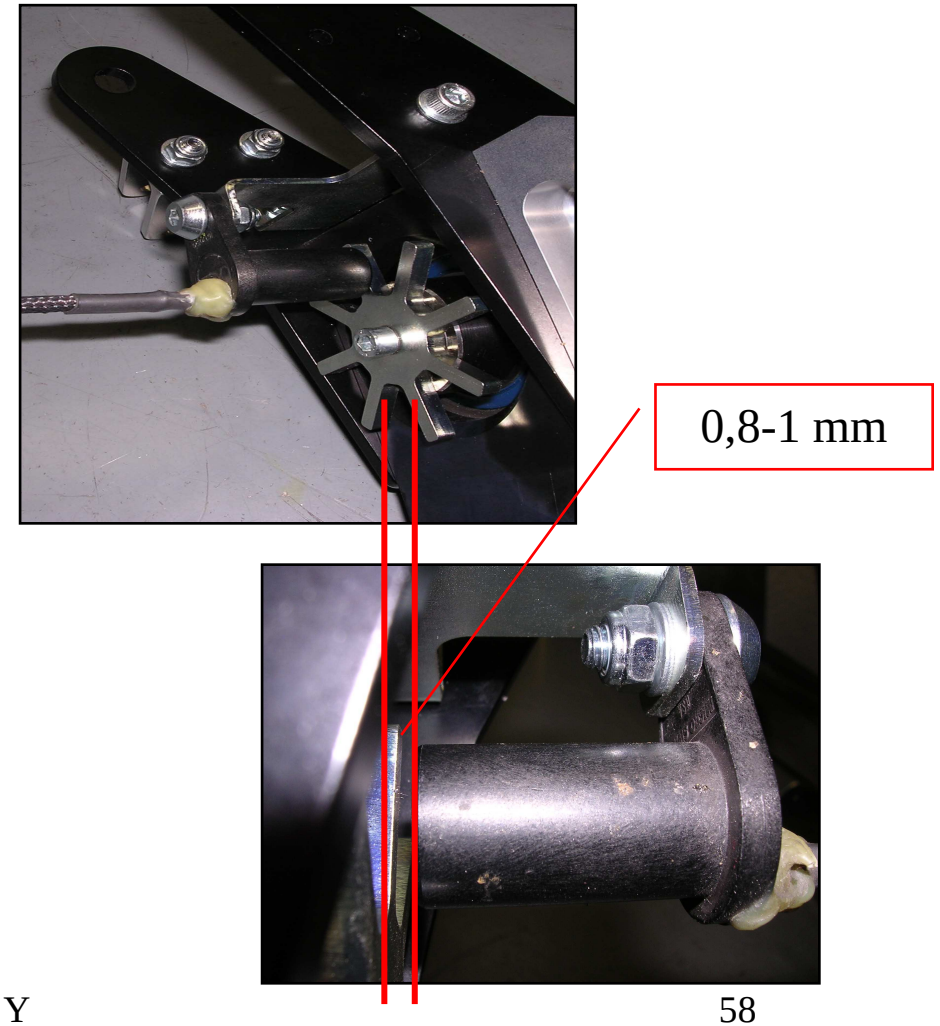
The reversing only works when the exchange is located N (neutral).



Fonic wheel

- The wheel is installed on phonic amount of the right front wheel, is used to detect the speed of the car.
  -Although type magnetic it is good to provide a periodic cleaning by compressed air.
  -After each use, check the distance between the wheel and sensor phonic:

  correct value: 0,8 – 1 mm



Fuel pump

The fuel pump is located right behind the radiator and under the electrical system.

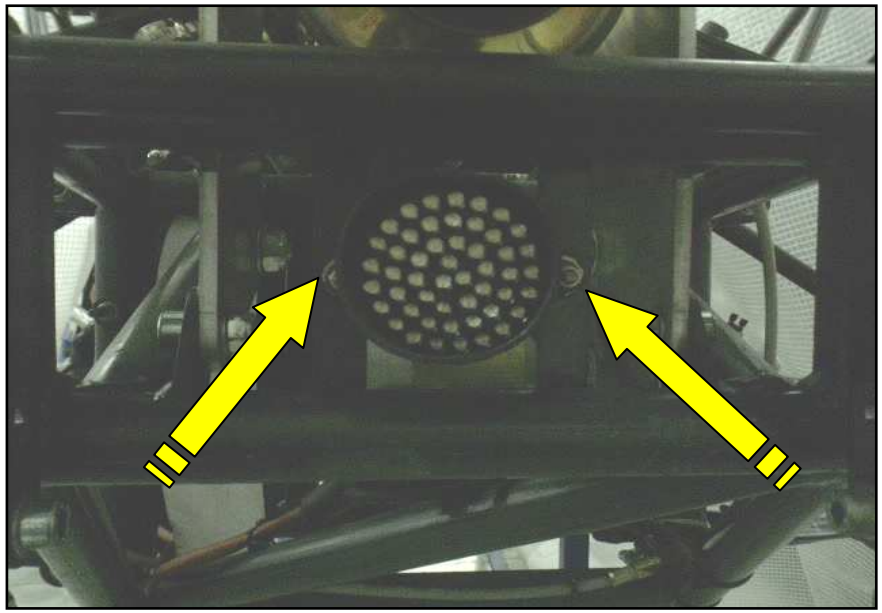
-Keep the tube sent gasoline is in direct contact with the cooling tubes. Check every race the state of wear.
-Check carefully any steps near hot components or live edge
If you need to use the tape fabric-finish to avoid mechanical abrasion

Radiator Vent

-Remove any deposits by the blades,
-Check that the blades turn freely without touching the radiator. If touched away by inserting shims between the castle of blades and radiator (inwards car) and washers between the fins castle and radiator supports (car outwards)
-Check if the wire leading power is spelato. If replace or cover with tape.

Rain Light

-Check before every race its operation,
-Check cleaning diode LED, If necessary to use tape fabric-finish to avoid mechanical abrasion of the cable outlet,
-Check the tightening of the screws indicated by the yellow arrows.



Dashboard

-In the multifunction display AIM arrive power cables is that signal.
-Make sure the connection to ground is well fixed to the frame,
-The signals coming through the dashboard bundle ended with the connector brown: Check the tightening of screws and cleaning.
-Where values appear "strange" (or in the presence of intermittent signals) connectors with clean air and revive contacts through spray designed for cleaning electrical / electronic equipment.

Fuel tank

-Periodically check the absence of losses,
-Check carefully tightening of the ties that forge metal pipes petrol.
-Never that the petrol pipes pass near or accuminati hot objects.
-To facilitate inspection operations keep clean the window control technical data placed on top of the tank to the left of the car under the roll bar.

NB: Please note that the tank installed in the B 4-10 Y comply with the rules FIA FT3, so you must change every 5 years.

Extinguisher

The extinguisher Kit is an important component for safety. Check each session all pipes and connectors.

For transporting graft plug security to block accidental operations of the component. Remember to remove it when the car is used.

Check the charging indicator of the cylinder. The hand must be in the part of the green.
Provide to cover if it is outside these values.

Regulations

Index

- wheels
- Suspensions: camber, caster, toe, height of the car, ecc ecc
- Chassis : pedalkit, steering, brakes, ecc ecc
- Cockpit;
- Engine
- Transmission: Gear ratio, regulation of the clutch
- Bodywork: wings, mirros

Wheels

The B 4-10 Y wheels are developped and build on exlusive design.

Is VOID the use of any other type of wheels, that can compromise the safety of the car.

	Dimensions (diameter x with)	Weight (kg)	ET (mm)	Material
front	13x6	4,3	7	AlSi7Mg
rear	13x8	5,3	11,6	AlSi7Mg

Sospensions

The regulation on the front side are for the following parts

- camber,
- caster,
- toe,
- Height of the car,
- Shock-absorbers.

On the rear ones are:

- camber,
- toe,
- Height of the car,
- Schock-absorber.

.

Carefully note:
regulations regaridng set up (Camber, Toe, height) can be easyly done with the help of SET UP WHEELS (on Gloria catalogue)

Gloria SET UP WHEELS
(instructions: annex 005)

BASE VALUE ppf the suspensions

The following table summarizes the basic values of suspensions of Glory B 4-10 Y.
It will be recalled that, for statistical reasons, the cars are slightly different from each other. It should not therefore surprising the difference between the values placed here and measurements made with different cars from what we use as the master.
The values of the arms on the ground are reported to rubber not loaded.

	King pin (degrees)	Arms to ground trasversal (mm)	Longitudinal (mm)	
			Caster 0°	Caster 3,6°
front	9,77	58,35	0	7,59
rear	9,77	63,89	0	-

Values of the suspensions

The automobile suspensions consist of rigid connections rotating around a point in space. For this reason, the values of camber and toe vary with the excursion.

For complete information, as annex 003 are given developments suspension of your B 4-10 Y.

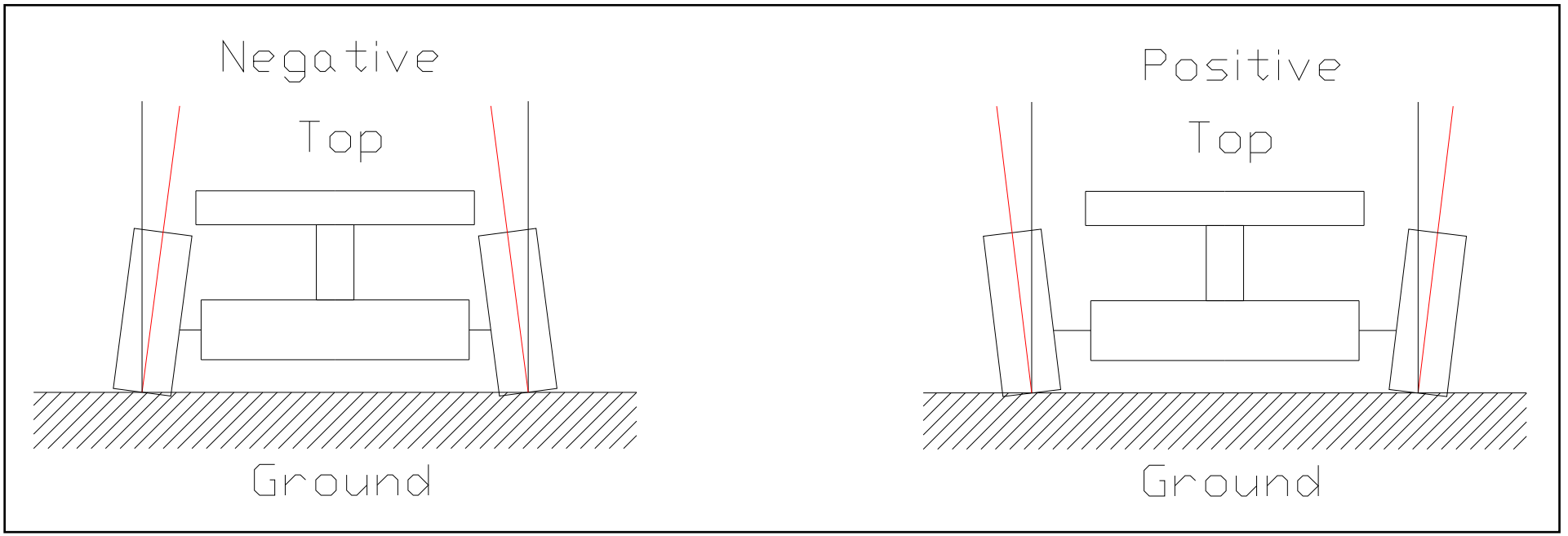
For a truly comprehensive optimization of assets should be taken into account this data.

Camber (1)

The camber is the inclination of the wheel with respect to vertical.
Assume the positive value if the wheel is tilted towards the outside of the car.
An excessively high value (less than-N degrees) produces a rapid wear of the inside of the rubber. By contrast value too low does not allow a good job of rubber-distance curve.

WARNING: The camber must be configured in a different way if we mount a conventional rubber or rubber radial. In the second case, you can increase the value of much camber.
For information about, refer to "trim sheet basis" in the "General Information".
For more information, contact Gloria srl.

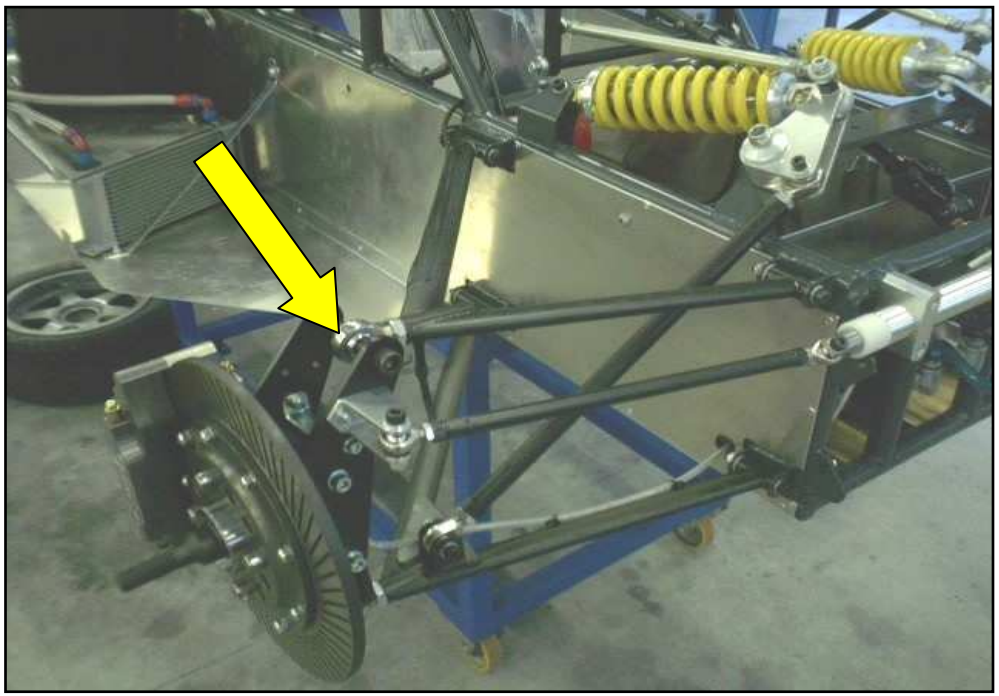
Camber (2)



NB: in the middle of the red wheel, the black vertical to the ground through the point grounding of tyre.

Camber (3)

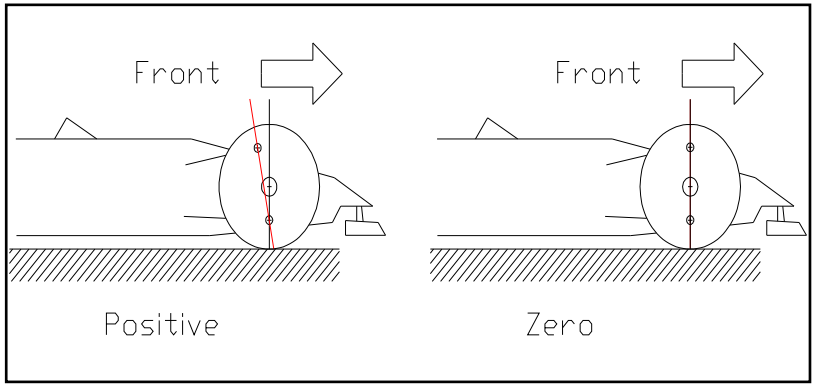
-The camber is adjusted on a continuous unscrewing the terminal spherical upper handwheel.
-More is screwed (clockwise) terminal will result in a more value negative camber.
-Refer to Annex 004 correspondence between the number of laps to the terminal and change camber angles of the wheel



Caster (1)

The caster (or longitudinal impact) is the inclination of the steering compared to the vertical, watching the car side.
Assume positive when the wheel is driven, or lower terminal is in front of the terminal in view of the rear side.
An excessively high value produces a more rapid and substantial return steering outgoing curve.
If it opts for a low value is favored manoeuvrability, a rather high value makes it more stable speed in the car.

The caster determines the longitudinal arm on the ground

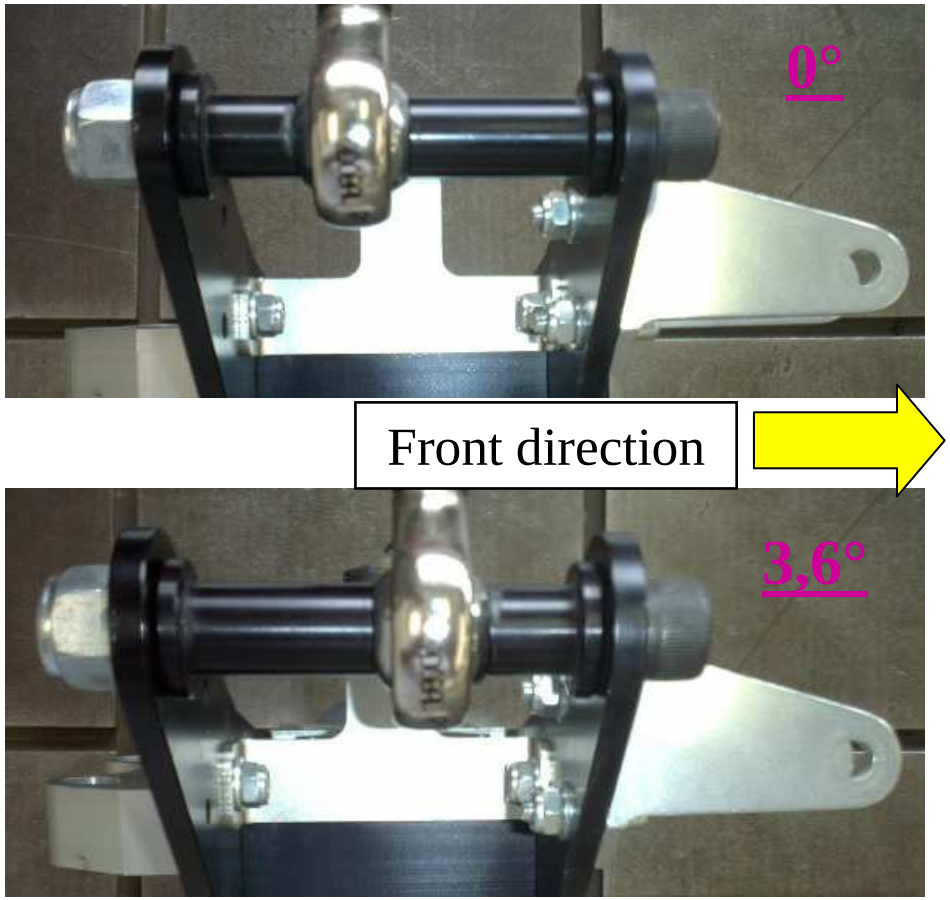


NB: red steering axis, the black vertical to the ground through the point grounding of tyre.

Caster (2)

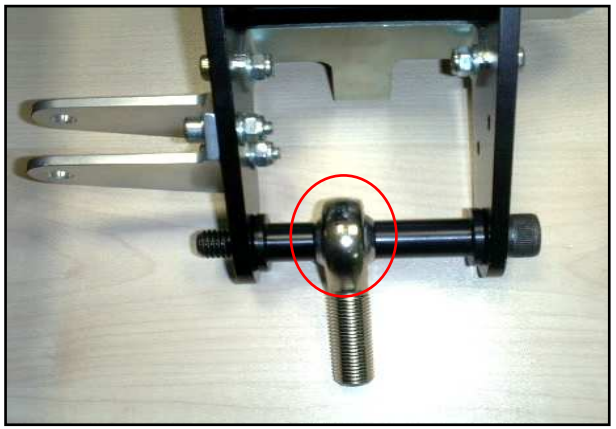
The caster will rule reversing the position of the mounting bushings.

Caster”0” °
Bush long to the front of car
Caster”3.6” °
Bush to the short front car

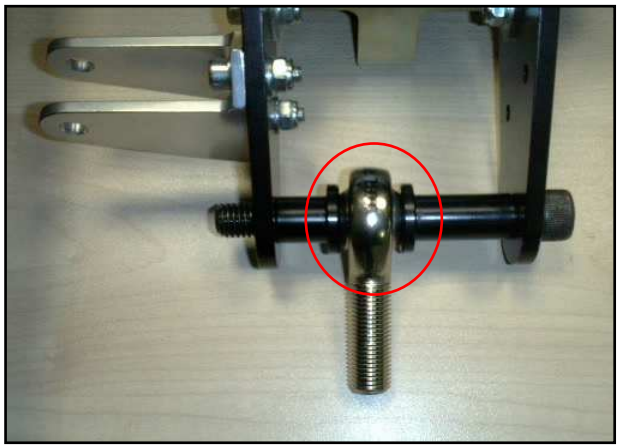


Caster (3)

Warning: mount always beat the bushes on the side of the upright.
In the photo behind is highlighted mounting correct and incorrect assembly.

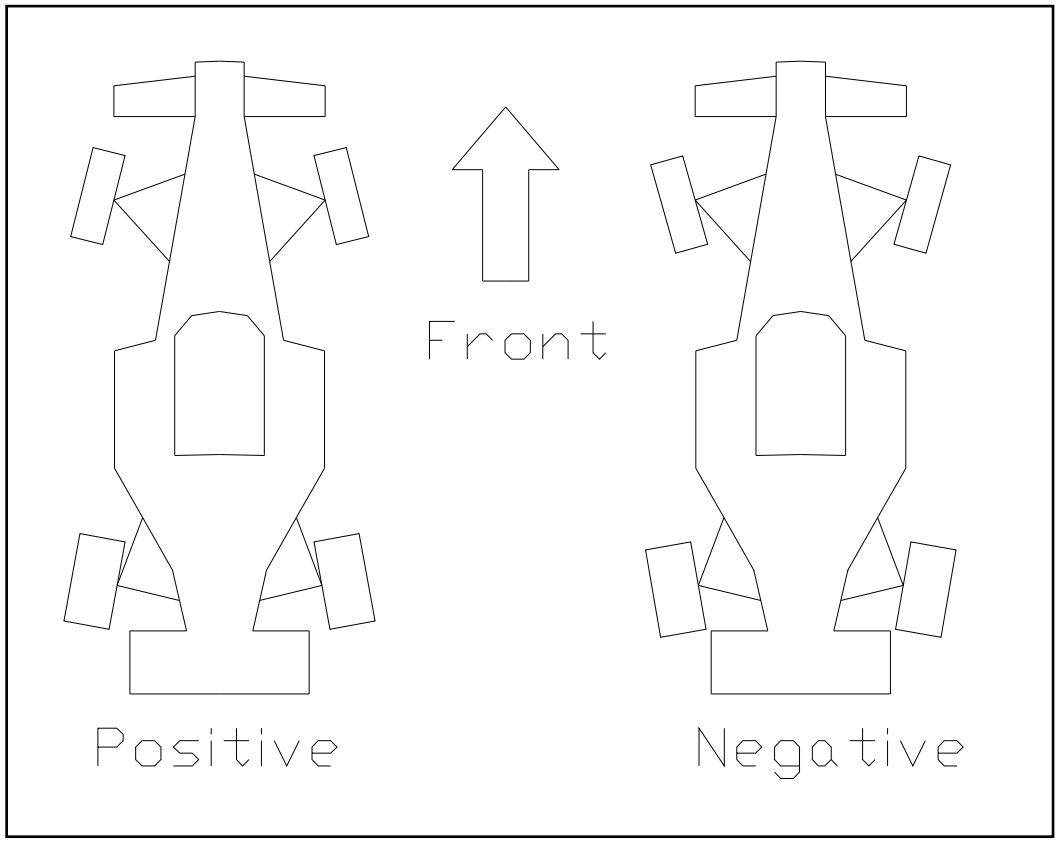


OK!



NO!

Toe

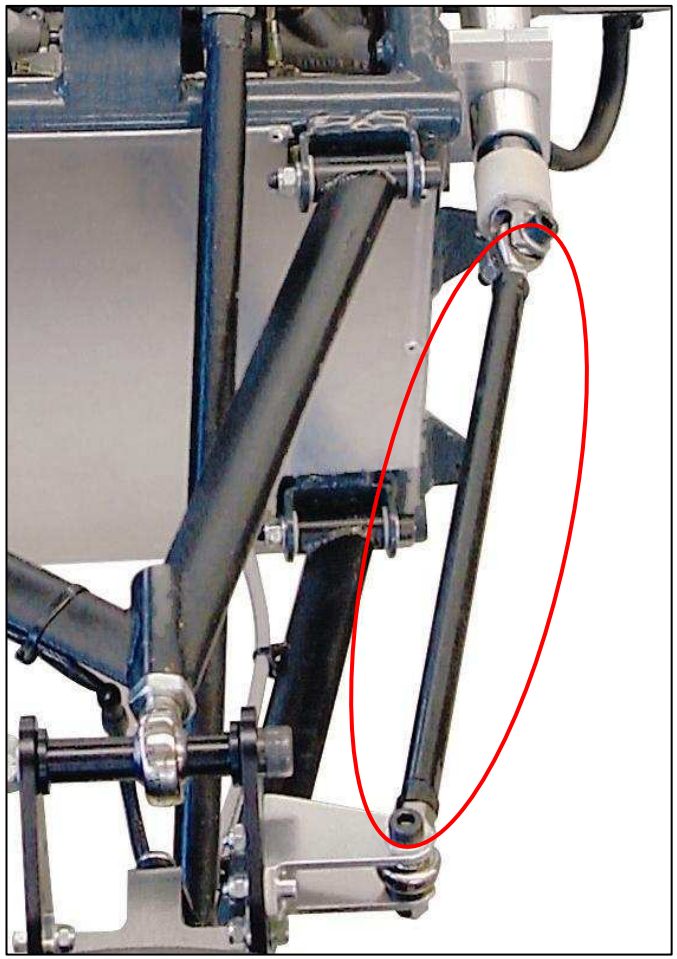


Values shown in mm.

Assume positive when the distance is less front and more behind.

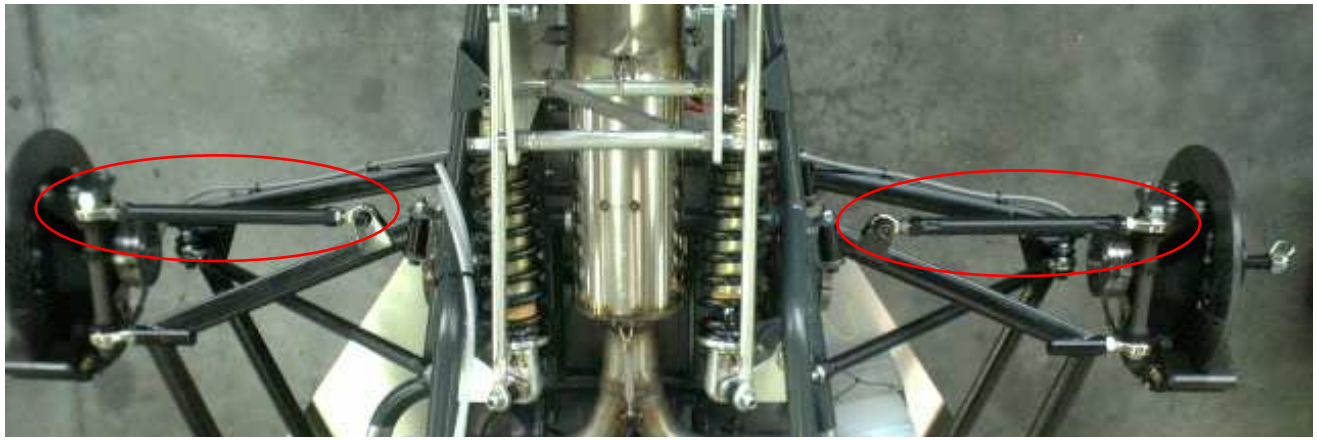
Front Toe (2)

-The convergence front rule acting on the length of the arms Steering
-More increases the length of arm, open wheel (convergence worst)
-In order to adjust unscrew the nuts terminals, adjust the length and reseal.



Rear Toe (3)

The convergence back rule acting on the length of the arms of false steering
More increases the length of arm, the wheel ends (more positive convergence)
In order to adjust unscrew the nuts terminals, adjust the length and reseal



Height from ground (1)

It should set the height from the ground depending on the type of road which crosses.

We recommend heights from the ground reduced in the case of asphalt smooth and regular.
In the case of asphalt circuits with very irregular and marked the height should be increased to reduce the risk of collision with chassis ground and increase the fund drive avoiding race.

Hieght form the ground (2)

-The height from ground rule is continuously through a double spherical terminal on the push-rod of the shock.
-Generally for the setting from the ground indicates a value in "sides" of the strut suspension. A complete rotation (360 °) corresponds to a rotation of 6 sides (being strut with controdado welded to 6 sides) and an extension / shortening of the strut of 3 mm.

-The relationship between ant and leverage post is different. In the following table the values you must use:

	Rotation of one surface is …(mm) of variation	Rotation of one surface is …(mm) of ehight form the ground
front	0,5	0,92
rear	0,5	1,05

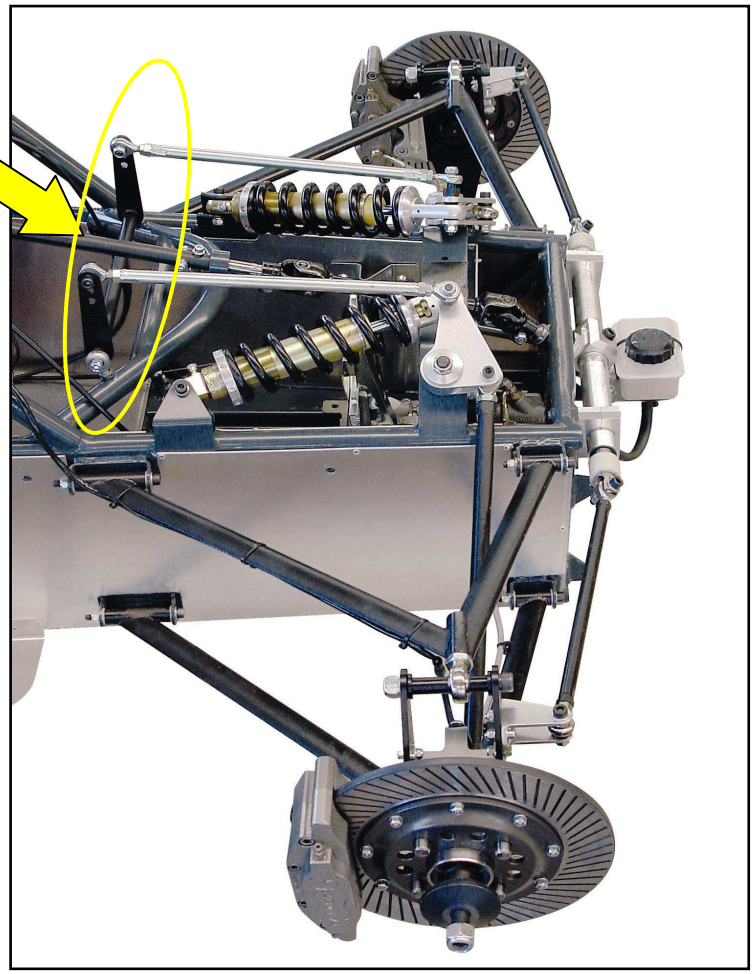
The variation in height from the ground by the rotation full strut applies to the front and 5.52 mm for the rear 6.3 mm.

Antiroll bar (1)

-The anti-roll bar limits the roll (transverse inclination) of the vehicle in relation to the ground-distance curve.
-It is a rigid link between the two wheels of the axle through aluminium rods. The bar is constructed from steel 25CrMo4.

-A value excessive anti causes increased stiffness of the suspension on the ground. A value too high at anti sottosterzo causes.

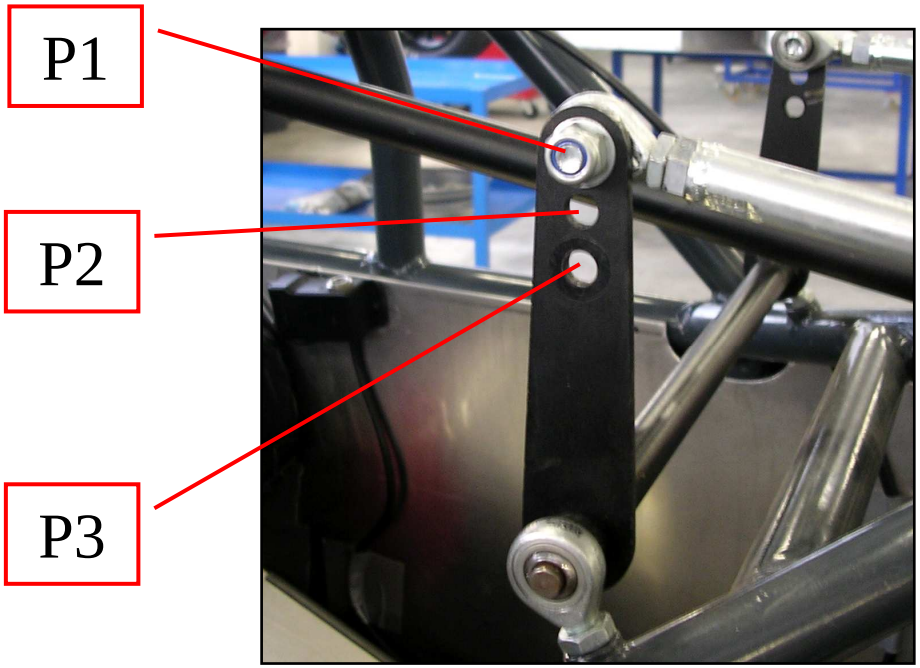
-A value too high at the rear causes sovrasterzo, especially in output in acceleration curve



Antiroll bar (2)

The spherical terminal (rod ends) that connects the bar suspensions may take three locations: P1, P2, P3. The more we are away from the center of rotation is obtained more cedevole a bar. Conversely avvicinandoci the center of rotation bar will be more rigid.

005 Attached you will find the strength to the trend of change of the wheel.



Shock-asborbers

The shock absorbers are installed on Gloria type gas monotubo high pressure with a regulation 4 rotary positions that affect that is on the compression stroke. The shock loads of nitrogen with a pressure range is from 18 to 20 bar. The reference red equals calibration softer (position A), turning the knob clockwise to the next position will result in a hardening of calibration (position B), until the C position, then continuing to return to position A.

On the following page is the chart-frequency load.
If interested in figures, contact Gloria srl.

Springs

There are 3 different suspension springs with different elastic constant. Cambiandole is to take account of the variation in height chassis from the ground because of the difference in pre-up.

	Costante elastica	Diameter
	50 N/mm	9 mm
	70 N/mm	10 mm
	90 N/mm	10,5 mm

Chassis

Here shown the mostr important component with regualtion:

- Pedalkit,
- steering,
- brakes.

PedalKit (1)

- There are 3 discrete settings of their depth
  To facilitate operations disassemble the Musetto and cover pedal, Adjust the pedal with the brake pedal tilted toward the pilot of about 5 degrees.

  You can also choose the thickness pedals depending on their tastes or needs in three different configurations

- There is a lso possibility of having 3 different sole thickness-

  - Standard (spare code B4 07 120)
  - +10 mm (spare code B4 07 130)
  - +20 mm (spare code B4 07 130)

PedalKit (2)– regulation of pedal return

To prevent the pedals move backwards causing unnatural and uncomfortable position of the foot can also adjust the degrees of the pedal can return to the cockpit.

We must act on adjusting the basis of special pedal passenger side.

Pedalkit (3) – regulation of the end run of pedals

To avoid stress the clutch and accelerator cables should accurately calibrate the bottom of the pedal stroke.
It must unscrew the nut for a certain self-stretch and then screw on the end plate of the desired distance. Whether friction that the accelerator is necessary to proceed hand in hand with the regulation of the cable side engine

Steering (1)

The steering wheel adjusts both vertically and in depth. Do this with particular qualms because this is a component for safety

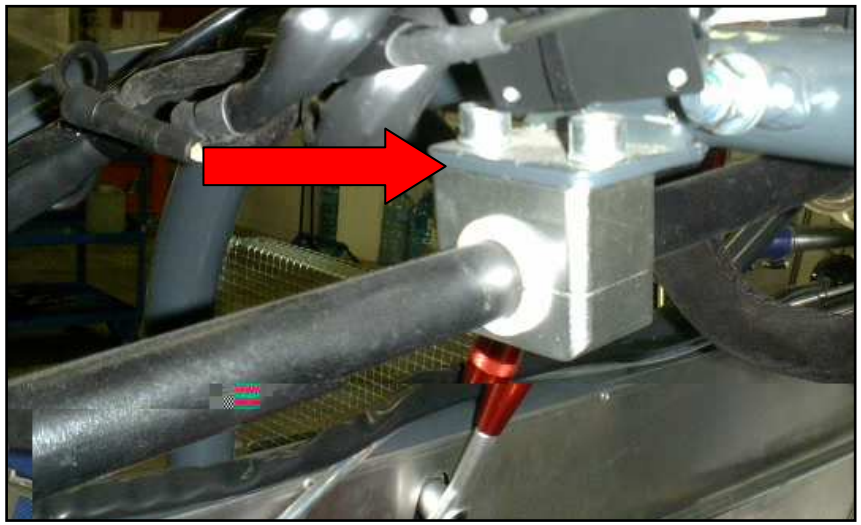
As a regulatory impact on you to handle at the same time. If you have any questions please contact Gloria srl.

Vertical regulation of the steering (2)

To adjust the steering wheel vertically is necessary to sit the rider dressed as a guide in the race and gradually enter thicknesses between spenjalnim and chassis.
Gloria s.r.l. Produce a required thickness to be used and insert where indicated by the red arrow in the picture on the side.
The change has this report:

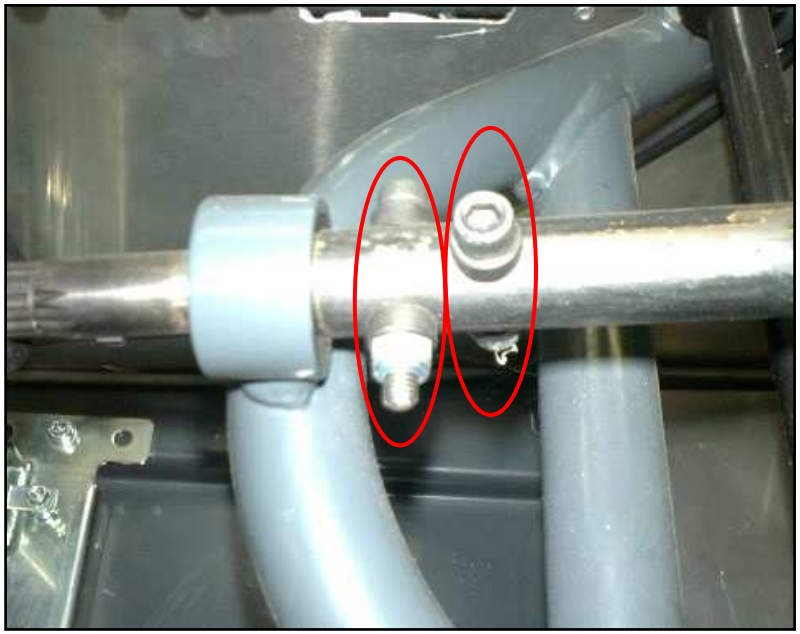
1 mm thickness = 1.6 mm lower wheel

If you need these details are invited to contact Gloria srl.



Longitudinal regulation of the steering (3)

To adjust the steering wheel longitudinally is necessary:
1-Far sit the pilot dressed as lead in the race,
2-Unscrew the brugole "X" these first few mm round of the joints (red circle in the photo)
3-Moving forward and rewind through the seat tube as desired,
Cut a 4-by measuring tool (?????),
5-Forare at points indicated dall'attrezzo (?????),
6-Replace brugole only with the supplied car.



Fronte direction

Brakes (1)

The braking system is a very important part of the car because it is one of the main components to the active safety.
A proper adjustment is also essential to get the maximum out of the car.

The basic concept is that the weight of the braking car to the front door. You must then minimize the pressure of the rear to avoid jamming that lead to almost inevitable spinning

Brakes (2)

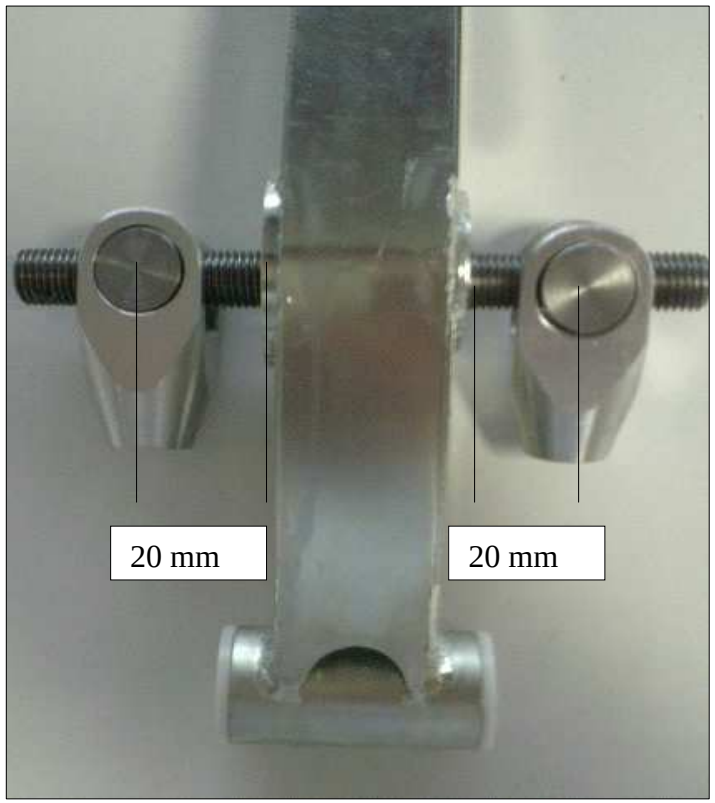
You change the distribution of braking directly from acting on manettino green to the right of the cockpit.

Turning clockwise brings braking to the front, turning counterclockwise in moves towards the rear

brakes (3)

The Tilton knob acts on the distance from the center of the pedal pushing puntalini two pumps brake.
The distribution base is 20 mm-20 mm.

We recall that the two brake pumps are not the same then with the same division on the right and left not get the same pressure on the conduits.



Brakes (4)

Following our scheme conversion in millimeters of the movement pressure of hte brake balancer.

Every complete turn (360 gradi) of the knob , correspond to 1 millimeters of ripartition.

	front	rear
20 mm / 20 mm	10 bar	6 bar
14 mm / 26 mm	10 bar	4 bar
26 mm / 14 mm	10 bar	10 bar

Engine

On the engine can be done the following modify:

- Carburetor e position sensor,
- Jets and pins,
- clutch,
- Accelerator,
- Transmission,

Engine – Carburetor position sensor

Before you assemble the carburetor clean all parties with a specific product.
Always use new seals.

To check the operation of the carburetor potentiometer use a tester for electronics. Turning slowly the butterfly the tester must indicate the range between 0.4 and 5.4 KOhm to 20 ° C.

If a range is different, you must change the potentiometer.

Engine – jets & pins

Gloria s.r.l. put on orginal fitment jets of 0,155 mm of diameter.

Can be asked different jets of different diameter as following Gloria codes:
- 140: B4 12 140,
- 145: B4 12 145,
- 150: B4 12 150,
- 155: B4 12 155,
- 160: B4 12 160,
- 165: B4 12 165.

The pin can be adjusted in five different positions. Once the pins are located on the third notch (central notch). For put lower air fuel ratio the firm moves upward, downward weight.

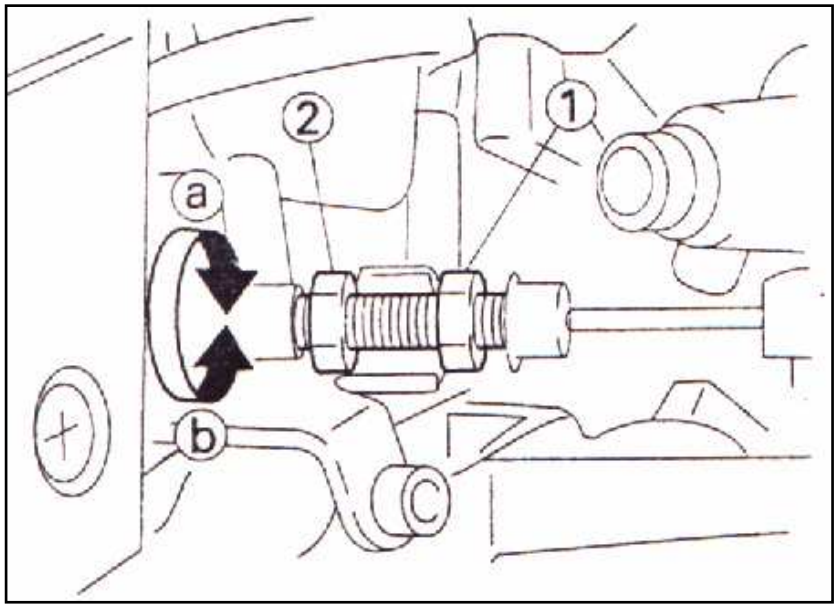
NB: the cylinder internal pins are different from those outside.

Clutch regulation

Use only genuine Gloria (as non-standard), lubricate the cable with fat grafite and install following the steps below.
- put the cable clutch into the hole rate and close the safety catch,
- Insert the cable sheath without friction and tight it.
- Insert the cable into the hole and pedal prepared in close clamp.

The free space that should have the lever are as follows:
Clutch cable-side engine: 3 mm,
free space pedal: 10 mm (measured at the end of the pedal).

The free space changes with the pedal register within the frame, the game leverage one hand clutch setting register on the spot above the base on the engine.
In order to adjust side engine proceed as follows:
- Unscrew the nut.
Turn-nut Registry CCW to decrease the free space clockwise to increase.
- Tighten the nut.
In order to adjust pedals side:
- Screw (direction) 4 nut to increase the free space, nut.

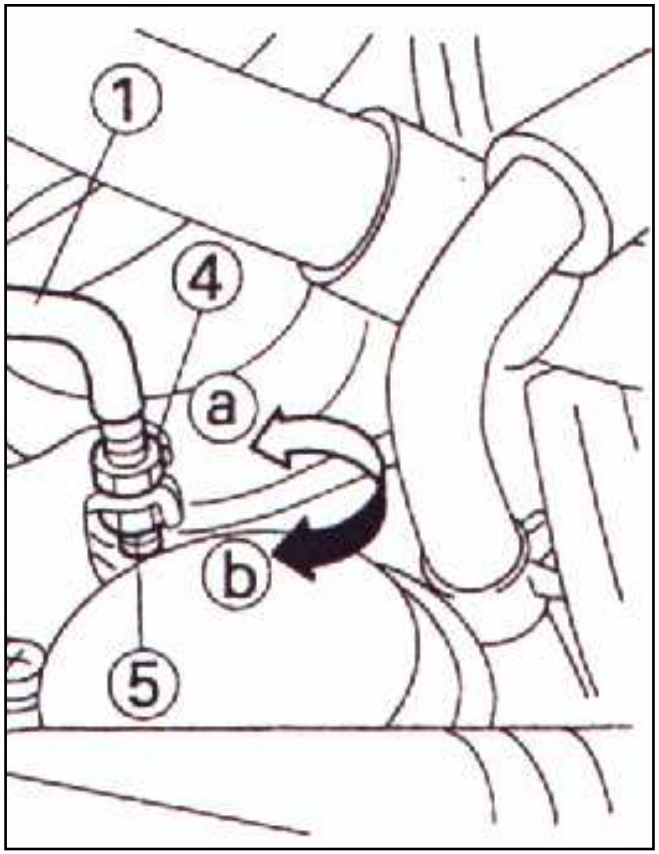


Accelerator regulation

Use only genuine Gloria (as non-standard). Grease with grease grafitato periodically.

The games that should have the lever are as follows:
free soace -side engine accelerator cable: 2 mm to pedal down completely,
free space -pedal: 2 mm (measured at the end of the pedal).

The free space changes with the pedal register within the frame, the free space of the accelerator hand motor rule on the register above battery carburettors.
In order to adjust side engine proceed as follows:
- Screw (direction) 4 nut to increase the free space, unscrew (b direction) to decrease,
- Tighten the nuto.
In order to adjust pedals side:
- Screw (direction) 4 nut to increase the free space, unscrew-(b direction) to decrease,
Tighten the nut.



Transmission (1)

To change the relationship of exchange we act on the final report by the replacement of pinion and crown.

The pinions are available: 13, 14, 15 teeth.
The crowns are available: 40, 41, 42 teeth.

Transmission (2)

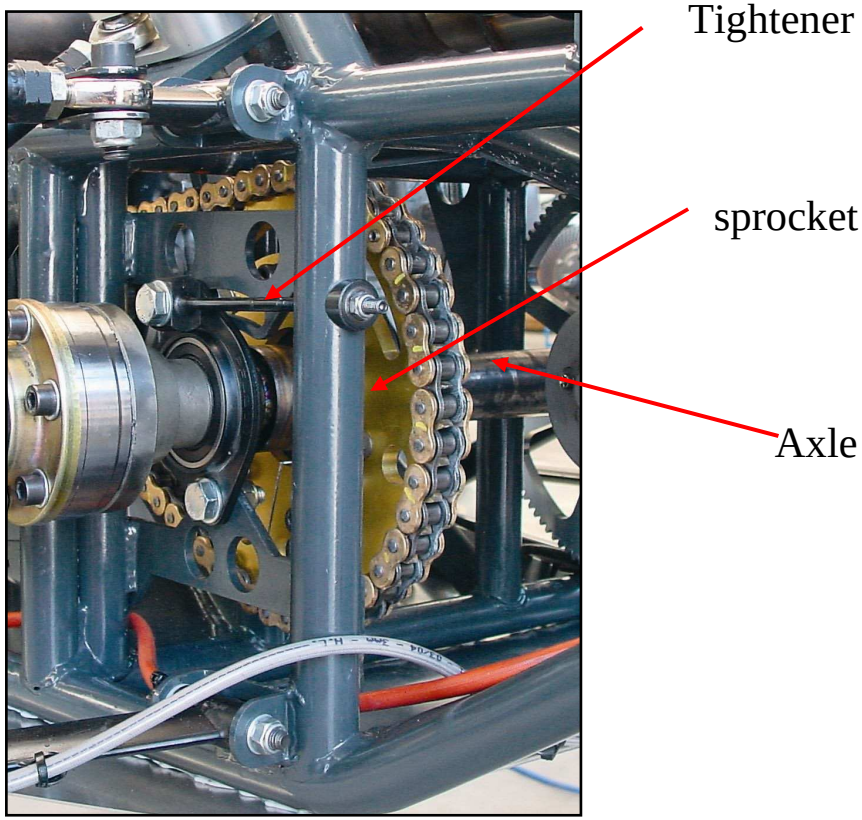
Changing of the sprocket:

- Remove the chain tension by moving the rear axle to the front through two tensioning the sides of the frame,

Detach the crown-od,

- Replace the new crown and retrace the path the reverse.

NB: semi-store crowns always together



Transmission (3)

Changing Engine pinion :

-Remove the cover additional carter chain,

-Unscrew and remove the pinion from the exchange,

-Remove the chain tension by moving the rear axle to the front through two tensioning the sides of the frame,

-Slide the new pinion and retrace the path the reverse.

Transmission (4)

In Annex 005 are reported graphics speeds achievable with a final report.

After each change of ratio is necessary retension chain.
Refer to the table on hand for the necessary lengths with different ratios.

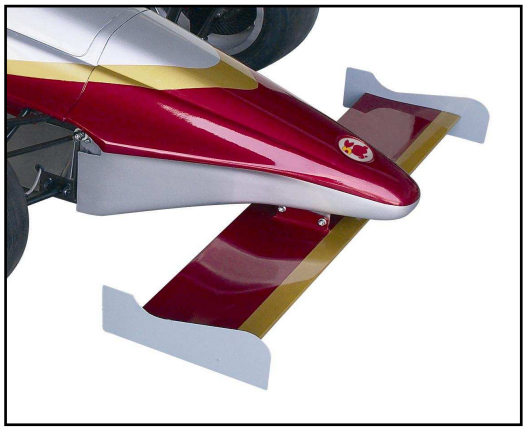
NB: the number of meshes means counting the gold plates.

Using a special tool gouging to close the chain.

Ratio		N° of parts of the chain
13	40	30
	41	30
	42	30
14	40	30
	41	30
	42	31
15	40	30
	41	30
	42	31

Bodywork – Wings

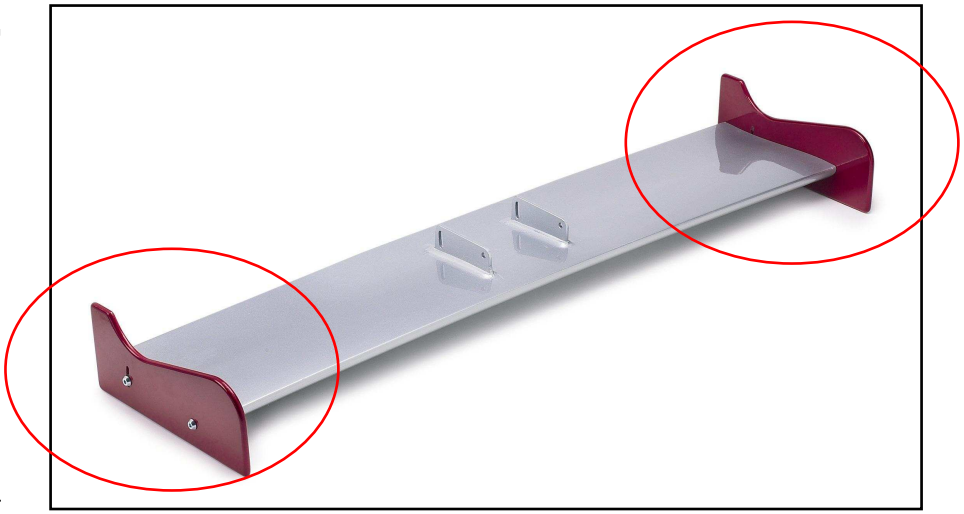
-The front wing rule unscrewing the screws rear support,
-More-wing is tilted upward more aerodynamic load is achieved at the expense of speed
WARNING: This is one of the most requested in shock. Check carefully locked.
The wing can tilts from 0 ° to 9 ° continuously.



- the rear wing setting as the front wing,
-More-wing is tilted upward more aerodynamic load is achieved at the expense of speed
The wing can tilts from 0 ° to 12 ° on a continual basis.

Side wings

The sides of the front and rear wings are placed flap of regulating the air flow.
Regolate always so that they are perpendicular to the ground.
Their adjustment does not alter the aerodynamic load.

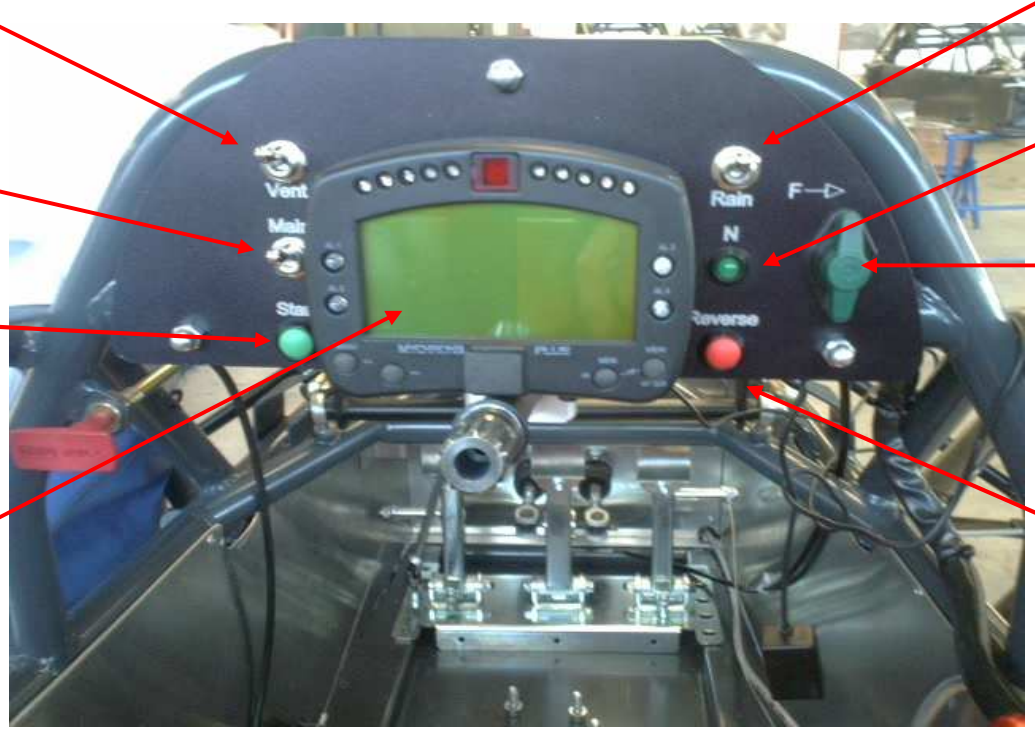


WARNING: This is one of the most requested in shock. check closely locked.

In the given example, the front wing.

Cockpit

Shown the various light and signals



Rain light switch

Vent switch – on - off

Neutral indicator light

General switch

Brake balancer

Engine switch starter

Display multifuntion

Reverse electric gear switch

WARNING: In this section we present only the main screen of the display board. For more detailed information, please consult the manual dashboard attachment with this book of Use and Maintenance…OR GO TO http://www.aim-sportline.it/pagine/download/sezione_firmware.htm

Display multifuntion

1)Engine rpm (0-12000 rpm) (i led higher ignite sequentially to signal approaching the maximum speed allowed)
2)speed car (km/h)
3) water temperature leaving the engine (rated 60-110 ° C)
4)Temperature oil output by the engine (rated 80-130 ° C)
5 Pressure oil output by the engine (rated 3-8 bar)
6)Battery voltage (about 12.5 V)
7)timelap
8)gear-indicator

The alarms are as follows:
AL1: water temperature (under 60 and over 110 ° C)
AL2: oil temperature (below 80 and above 130 ° C)
AL3: Pressure oil (under 3 and over 8 bar).

WARNING: If you switch to an alarm immediately stop and check the car carefully.