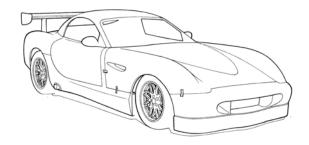


PANOZ ESPERANTE GTS

Specifications for GT2

The purpose of this document is to provide detailed specifications that are in addition to the Panoz GTS GT2 Specifications in the General Competition Rules (GCR). If there are any conflicts between the GCR specifications and the specifications in this document, the GCR specifications are controlling.



Definition

One design, fixed specification, purpose built GT road racing vehicle. Cars are packaged and sold by Panoz Auto Development Company. All replacement parts are supplied through Panoz Auto Development via Panoz Dealer Body and shall be official Panoz GTS parts except where noted.

Safety Requirements

Car will be delivered from the manufacturer with approved safety equipment unless optioned to be delivered without driver's seat and safety harness. The seat may be replaced by any other that conforms to the GCR Section 9.3.41. Seats brackets must be mounted to the original seat bracket mounting holes. The safety harness may be replaced by any other that conforms to GCR Section 9.3.19.

Maintenance and Repairs

It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official Panoz GTS parts.

Seals

As of 9/1/10, seals are no longer required and scrutineers will not accept them as proof of compliance with these rules or the GCR.

Panoz Assembly Book

Each entrant is required to have in his possession at every race a Panoz assembly book to aid scrutineers in identifying parts and correct configurations for each car.

Chassis

No modifications are permitted except as noted in these rules.

Aluminum parts may be polished, anodized, coated or painted.

Engine Mount Brackets (L&R) may be gusseted to increase strength.

Surface finishes such as plating or coating may be applied for corrosion protection.

Any piece that is a closed assembly (e.g., upper control arm) shall have a 0.125 inch diameter hole drilled in a non-critical location to allow flushing of any entrapped plating fluids. Post plating bakeout of 4 hours at a temperature of 375 degrees F is recommended to prevent hydrogen embrittlement. Any chassis part may be plated except for suspension springs, and front and rear sway bars.

Wheelbase: 107.6 inches

Track: 64.0 inches front, 67.8 inches rear



Bodywork

No modifications are permitted except as noted in these rules.

- a. Bodywork crash-damage may be repaired, but exterior dimensions, shapes, thickness, and profiles shall remain unaltered. The addition of material to increase rigidity and/or the weight is prohibited.
- b. Body opening modifications are forbidden except that the front fender scallop, flat area, may be trimmed; the radius of the indention must remain.
- c. The car may be painted any colors except primer.
- d. Ballast plates may be manufactured or purchased providing:
 - 1. They are mounted on the passenger side floor, utilizing the existing seat mount threaded holes.
 - 2. They shall be fastened securely with four 3/8"x 18 bolts, nuts, and lock washers.
- e. All cars may use a standard safety glass windshield, as delivered with the car, mounted in the stock location and at the stock angle. In addition to any other method of retention, the windshield shall be secured using the factory installed tabs/clips. Windshields of alternate material (i.e., Lexan MR-5/MR-7) are permitted. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Alternate material windshields must have in addition, three (3) inner (two if 10mm or thicker material) supports to prevent the windshield from collapsing inward. These supports must be 0.75" by 0.125" minimum straps of aluminum. Spacing between these inner supports must be eight (8) inches minimum.

Suspension

No modifications are permitted. Adjustments are permitted within the limits of the suspension components.

Shock Absorbers and Springs

Springs: No modifications permitted. Only the Eibach springs listed below are permitted. They must be stamped indicating OE part number which includes the spring rate.

Spring Location	Rate	OE Part Number
Front	600	1000.250.0600
Front	500	100.250.0500
Rear	350	1000.250.0350

Shock absorbers: Penske 7500 series shock absorbers must be used, but internal parts (e.g., valving) may be changed.

Brakes

In accordance with GCR 9.1.2.F.4.j.

Steering

No modification of the steering system or components is permitted.

The steering wheel is unrestricted except "butterfly" steering wheels are not permitted. The steering wheel center web, flange, and rim shall be of a one-piece construction..

Wheels

Only the listed wheels are permitted. No modification or machining is permitted. All wheel bearings shall be run with grease (not oil), no special coating of the bearings is permitted, and the bearing grease seal shall



be intact (unmodified). Only the Panoz OEM wheel spacer, part number GTR8-5405 is permitted. Only one wheel spacer per wheel is permitted.

BBS RGR Aluminum forged 18 x 9.5 inch front and rear BBS RK Aluminum 18" x 10" front and rear BBS RSGT Aluminum 18" x 11" Rear Only CCW aluminum 3 piece 18" x 10" front and rear CCW aluminum 3 piece 18" x 11" Rear Only Panoz/BBS RX Aluminum 17 x 9 inch front and rear

Engine

The engine is based on the Ford 351W with 2 bolt main.

It is not permitted to lighten, balance, or modify in shape, by any mechanical or chemical means, the standard, optional, or alternate components of the engine.

Permitted engine maintenance includes the replacement, but not modification of external engine and engine systems parts. No machining is permitted except as specified.

All hoses, wiring harness routing and attachment must be per Panoz assembly instructions

Accusump oil accumulators are permitted with separate wiring.

The following specifications must be maintained. There have been several component updates over time. The latest version component is listed first.

Block: M-6010-C58 Sportsman block with the 9.500" deck height. Any Ford 351w Sportsman block with 9.500" deck height permitted.

Bore size: 4.020" – 4.060" Cylinders may be sleeved to repair bore size.

Stroke: 3.500"

Crank: Ford 351W or SCAT 351W. Minimum bob weight: 1920 grams. To achieve balance, .150" may be removed from counterweights.

Main bearing size: 3.000". Standard through .030" undersize bearings permitted.

Rod journal bearings: 2.311". Standard through .030" undersize bearings permitted.

Main and rod bearings may not be coated.

Rods: Eagle SIR 5956FB or stock Ford. The Eagle rod is bushed and free floating. Length: 5.956" (There are no engines with H-beam rods.)

Pistons: SRP flat top with 2 valve reliefs

Compression height: 1.774" Diameter: 4.020" – 4.060" Minimum weight: 520 grams



Older engines may have an SRP dish piston with a 14cc dish. All other specifications are the same. Pistons may not be coated.

Piston pins: JE straight wall pins. Minimum weight: 115 grams.

Piston rings thickness: 0.625", 0.625", 0.1875"

Camshaft: Ford M-6250-Z303

Duration: at .050", Intake/Exhaust 228°/228°

Lobe lift: Intake/Exhaust .345"/.345"

Lobe centers: 107 Intake/Exhaust 107°/117°

Lifters: Ford M-6500-R302 hydraulic roller, .874" diameter.

Rockers: Ford M-6564-B351 1.6 ratio bolt down rockers.

Pushrods are free.

Timing set: Ford Racing M-6268-A302 9 position, double row roller, cast iron sprocket, steel timing gear.

Cylinder heads: Edelbrock RPM 60399 or Ford Rracing turbo swirl M-6049-X302.

Combustion chamber: minimum 56cc

Ports: porting, polishing, matching, etc. except as factory supplied is not permitted. Maximum port

dimensions: Intake - 2.100" x 1.250", Exhaust - 1.400" x 1.350"

Edelbrock heads have hand blending in ports and at gasket mating areas from the factory Head gaskets: Fel-Pro 1021 gaskets on newer blocks. Fel-Pro 1011-2 on early blocks.

Valves: stainless steel

Intake/exhaust 2.020"/1.600"

Stem diameter: .341"

Length: 5.078"

Valve retainers: steel

Valve springs: steel, single outer with damper. Outside diameter: 1.470

Intake manifold: Ford Racing M-9424-V351 or Edelbrock Victor Junior. No porting or gasket matching permitted. Intake runner volume: maximum 175 cc.

Headers: Hedman Husler, part number GTS3-3602 or Ford Motorsport part number M-9430-SSC

Crankshaft damper: Ford Racing M-6316-C351 28 oz., unbalanced.

Valve covers: Ford Racing tall.

Front cover and water pump are standard, with 2 V-belts. March under drive V-belt pulleys are used.

Oil pump: M63 Melling pump or equivalent.



Oil pan: Canton 15-694.

Pickup tube: Canton 15-695.

Windage tray: Canton 20-932.

Dry sump systems not permitted.

Flywheel and clutch:

Quartermaster Extreme-V drive 8.5" flywheel part number 512300 and Quartermaster single disc clutch package part number 185309051; or

Quartermaster Extreme-V drive 8.5" flywheel part number 512300 and Quartermaster twin disc clutch part number 882109005; or

Pressure plate: Ram # C1924, Clutch disc: Ram # 309M, Flywheel: Ford part number M-6375-1302

No modifications permitted to any component.

Fel-Pro teflon rear seal used on all engines with aluminum flywheel.

Spark plugs: Motorcraft # AGSF-32C or equivalent

Spark plug wires: Only Ford Racing # M-12259-C301

Oil filter: Motorcraft # FL-1HP or equivalent

Air cleaner: Only K&N # 60-1280 or #66-3040 X-Stream

Air cleaner element: Only K&N # E-1650

Induction System

Holley 4 barrel, 750 cfm Double Pump, P/N 0-4779, including ProForm Throttle Body P/N 67100C (Panoz P/N GTS903358); part number not on casting, but must have ProForm logo on casting (see image below). Quickfuel 750 cfm.

Modification and blue printing to American Sedan specifications is permitted. No additional modifications permitted. All inducted air shall pass through the throttle venturis.

Any jets and power valves are permitted.

4 hole phenolic carburetor spacer is permitted, not to exceed 1" thick. Only two gaskets permitted.

Fresh Air Intake Air Cleaner Housing Panoz part number GTS9-3348 is required.







Transmission and Differential

Tremec 5 speed manual transmission: TCET-4617 or TCET-1377

Gear Ratios	4617	1377
1 st	2.87:1	3.27:1
2 nd	1.89:1	1.98:1
3 rd	1.28:1	1.34:1
4 th	1.00:1	1.00:1
5 th	0.82:1	0.82:1

Ford 9 inch differential with True-Trac. Final drive ratio: 3.50:1 or 3.89:1

Permitted transmission and drive train work includes replacement, but not modification, of axles, axle bearings, U-joints, drive shaft, clutch disc, pressure plate, flywheel, throw-out or pilot bearing. No machining is permitted.

Fuel System

Any fuel pumps are permitted. Fuel line size is free. No other modifications are permitted.

Electrical System

Wiring harnesses, routing and attachments must be as per Panoz assembly instructions, except for coil relocation. No modifications are permitted.

Weight

The car shall weigh 2880 lbs. minimum, including the driver.

Accessory Items

- a. Passenger seat. An additional seat and harness may be installed on the passenger side, utilizing the OEM mounting positions. The seat must be suitable for racing and must conform to GCR Section 9.4.4.E.
- b. All gauges may be replaced with those of alternate manufacture. Replacement gauges shall fit in the existing dash and attach to the required harness.



- c. Rod ends may be replaced with rod ends having specifications equal to or greater than the OEM supplied rod ends. Replacement rod ends shall be capable of being installed with no modifications to any original components.
- d. The exhaust system may be thermal-coated and/or wrapped.
- e. Spark plug wires may be fire shielded.
- f. It is permitted to insulate engine compartment fluid hoses using heat sleeve or wrap.
- g. Spark plug wire looms are permitted.
- h. Adjustable power steering assist control valve. This valve maintains the integrity of the power steering pump. Its only purpose is to change the amount of power assist felt by the driver, through the steering wheel.