2018 AKRA Road Racing Tech Manual

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DISCLAIMER

It is the purpose of AKRA to create FAIR, FUN and SAFE racing programs on a worldwide basis within the Karting industry.

Use of these Rules and Regulations require Tracks, Clubs, Promoters or Series be sanctioned by the AKRA. Any other use is strictly prohibited without the express written consent of the AKRA.

ANYTHING, WHICH IS NOT EXPRESSLY ALLOWED, IS FORBIDDEN!
AKRA reserves the Right to Refuse any and all entries, memberships and/or corporate participation at any or all sanctioned or series events.

The rules and / or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events; all participants are deemed to have complied with these rules.

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These Rules are in conjunction with and published with the permission of TAG Racing International / Tag USA.

Living Document

This is a "living document", and as such is subject to revisions and changes as deemed necessary to continue the integrity of the AKRA Road Racing program. Updates can be found on the AKRA, the Dart Kart Club, and the Michigan Kart Club web sites.

www.akrasprint.com
www.dartkartclub.com
www.nhka.net
www.michkartclub.com
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AKRA Road Racing

Sprint Road Race

Junior Sprint Final 1 & Final 2

Competition Age: 12 – 16

Engines: Yamaha KT 100, KPV 100, Animal, Pro Gas, LO 206.

Weight: Yamaha-RLV SSX Exhaust 300lbs., RLV SBX 320lbs., KPV 100 325lbs., Briggs Animal 300lbs., Pro Gas 300lbs., LO 206 270lbs.

Pipe: Yamaha -RLV SSX Can, or RLV SBX Exhaust. When using the RLV SBX Exhaust, use the RLV 26S Header, with a 7/8 RLV restrictor, with a minimum 11.0" flex length as measured from piston face to end of flex. Axle or Engine clutch. KPV 100 - KPV 2 pipe and header and engine clutch only. Briggs Animal-Stock 6.5hp (See Animal Junior Rules) and dry engine clutch only. Pro Gas and LO 206 engine clutch only.

Fuel: Yamaha and KPV-Race Gas, Animal Gas or Alcohol, Pro Gas and LO 206 Pump Gas.

Yamaha Sportsman Sprint Final 1 & Final 2

Competition Age: 15 and up

Engines: Yamaha KT 100

Weight: SBX 360lbs., SSX 340lbs.

Pipe: RLV SBX Muffler, RLV 26S Header, Flex length minimum 11.0"as measured from piston face to end of flex. SSX Can Muffler.

Fuel: Race Gas

Yamaha Sprint Final 1 & Final 2

Competition Age: 15 and up

Engines: Yamaha KT 100

Weight: 360lbs.

Pipe: Fixed Pipe. Yamaha Sportsman setup legal at 340lbs for SBX can and 320lbs for SSX can.

Fuel: Race Gas

Piston Port Sprint Final 1 & Final 2

Competition Age: 15 and up

Engines: Any mass produced 100cc Air Cooled Piston Port Engine

Weight: Yamaha 360lbs., Comer P51 395lbs., all other Piston Port engines 380 lbs.

Pipe: Fixed pipe. Yamaha Sportsman setup legal at 340lbs for SBX can and 320lbs for SSX can.

Fuel: Race Gas

Piston Port SSX Can Sprint Final 1 & Final 2

Competition Age: 15 and up

Engines: Yamaha KT 100, ARC Comer, PRD RK 100

Weight: Sprint Bodywork 360lbs., CIK Bodywork 350lbs.

Pipe: RLV SSX Can muffler

Fuel: Race Gas

Junior Novice Sprint Final 1 & Final 2

Competition Age: 8 - 12
Yamaha Sportsman KT 100S, 245lbs., Walbro-WA55B carburetor and manifold, RLV-SSX Can Muffler.
Komet Sportsman KPV 100, 245lbs., Walbro-WA55B carburetor, KPV 1 pipe and header.
Briggs Animal Sportsman – Stock Animal with .505 Gold restrictor, 245lbs.
LO206 Sportsman, LO 206 with carb lock and .490 restrictor-green slide, 245lbs.
TaG Cadet – CIK Bodywork, Gazelle 60cc 245lbs., Mini Swift 60cc 245lbs., RoK 60cc 245lbs.
4 Cycle International, Clone – ARC/.550 Blue Restrictor, Pull Starter, 225lbs.
Fuel: Race Gas or Pump Gas

Open Sprint Final 1 & Final 2

Competition Age: 15 and up
Engines: Any non-gearbox 2 cycle up to 135cc, 80cc Gearbox engines, 4 cycle engines.
Weight: Yamaha, ARC Comer, PRD RK 100 340lbs., All other Piston Ports 350lbs., 100cc Controlled Stock 365lbs., IAME KA100 365lbs., all other non-gearbox up to 150cc 380lbs., 80cc Gearbox 375lbs., Open Modified Animals-Clones-Honda-Flatheads up to 300cc 340lbs., Stock Animal 300lbs., Limited Modified Animal 340lbs., Pro Gas 300 lbs., Clone/LO206 300lbs., Honda GSX200 350lbs., Open Modified Honda, Briggs, Tech Star, Blockzilla from 301cc-450cc 380lbs.
Pipe: Fixed pipe.
Fuel: 2 cycles - Race Gas, 4 cycles – Methanol or Pump Gas.

KPV Komet Senior

Competition Age: 15 and up
Engines: KPV, K71, HPV
Weight: With #3 pipe 340lbs. with flex set at 12.0" – 12.5".
With #2 or #4 pipe 360 lbs. with flex set at 10.0" – 10.5".
Pipe: #2, #3, #4
Fuel: Race Gas
Other: K&N Filter allowed, open tire, 5.0" wheels only, 450 front only, 710 rear only, CIK bodywork, Sit-up sprint style seat, engine clutch only. Minimum overall rear tire width 45.0".

TaG Senior Sprint Final 1 and Final 2

Competition Age: 15 and up
Engines and Weight: Parilla Leopard 360lbs., PRD Fireball 350lbs., Rotax Max FR 125 380lbs., Rotax Max FR 125 EVO 400lbs., Vortex TT 405lbs., Motori Seven 415lbs., X30 370lbs., X 125-MX 360lbs., TM 125 360lbs., Sonik TX 390lbs., Sonik VX 380lbs., Ported Parilla Leopard 380lbs., Easykart 350lbs.
Pipe: Fixed pipe
Fuel: Race Gas

TaG Senior Heavy Sprint Final 1 & Final 2

Competition Age: 15 and up
Engines and Weight: Parilla Leopard 390lbs., PRD Fireball 380lbs., Rotax Max FR 125 410lbs., Rotax Max FR 125 EVO 430lbs., Vortex TT 425lbs., Motori Seven 435lbs., X30 400lbs., X 125-MX 390lbs., TM 125 390lbs., Sonik TX 445lbs., Sonik VX 410lbs., Ported Parilla Leopard 410lbs., Easykart 380lbs.
Pipe: Fixed pipe
Fuel: Race Gas

TaG Masters Sprint Final 1 & Final 2

Competition Age: 35 and up

Engines and Weight: Parilla Leopard 390lbs., PRD Fireball 380lbs., Rotax Max FR 125 410lbs., Rotax Max FR 125 EVO 430lbs., Vortex TT 425lbs., Motori Seven 435lbs., X30 400lbs., X 125-MX 390lbs., TM 125 390lbs., Sonik TX 445lbs., Sonik VX 410lbs., Ported Parilla Leopard 410lbs., Easykart 380lbs.

Pipe: Fixed pipe

Fuel: Race Gas

Stock Honda Final 1 & Final 2

Competition Age: 16 and up (Beginning for 2019 race series age will be 18)

Engines: Honda CR 125 (1999 or 2001 Cylinder)

Weight: 390lbs.

Pipe: Fixed pipe, (RLV 6800, RCE T3, RLV R4 (Single or Two Piece), SKUSA SK-1)

Fuel: Race Gas

125 Shifter Final 1 & Final 2

Competition Age: 16 and up (Beginning for 2019 race series age will be 18)

Engines: Mass produced 125cc Shifter Motor.

Weight: Stock Honda CIK Bodywork 375lbs., 2013 Homologated Modified Motor CIK Bodywork 385lbs., Full Bodywork 420lbs. 2016 Motors Homologated 405lbs.

Pipe: Fixed pipe (Stock Honda must run pipe legal for Stock Honda class)

Fuel: Open Fuel

G 125 Sprint Shifter Final 1 & Final 2

Competition Age: 35 and up

Engines: 125cc Honda and 125cc ICC CIA/FIA engines (ICC engines stock 30mm Dellorto carb only)

Weight: 420lbs. CIK bodywork only. 2016 Motors Homologated 440lbs.

Pipe: Fixed pipe, (RLV 6800, RCE T3, RLV R4 (Single or Two Piece), SKUSA SK-1)

Fuel: Open Fuel

Other: Open Tire

TaG Junior Sprint Final 1 & Final 2

Competition Age: 12 - 15

Engines and Weight: Parilla Leopard 320lbs., PRD Fireball 320lbs., Rotax Max FR 125 320lbs., X30 330lbs., X 125-MX 320lbs., TM 125 320lbs. Restricted intake manifold with a 15mm intake opening.

Pipe: Stock exhaust.

Fuel: Race Gas

4-Cycle Junior Sprint Final 1 & Final 2

Competition Age: 12 - 16

Engines: Briggs and Stratton Animal, Pro Gas, LO206, or Clone. Animal and Pro Gas with .575 black restrictor, LO206 with .570 restrictor and yellow slide, Clone with .550 Red restrictor. Dry engine clutch only.

Weight: Animal 305lbs., Pro Gas 290lbs., LO206 300lbs., Clone 280lbs.

Pipe: Fixed pipe

Fuel: Animal and LO206 – Methanol, Pro Gas and Clone – Pump Gas

4-Cycle Sprint 350 Final 1 & Final 2

Competition Age: 15 and older

Engines: Briggs and Stratton Animal. Pro Gas legal under Pro Gas rules, LO 206 legal under LO 206. Dry engine clutch only.

Weight: Animal 350lbs., Pro Gas 335lbs., LO206 320lbs.

Pipe: Fixed pipe

Fuel: Methanol or Gas

4-Cycle Sprint 370 Final 1 & Final 2

Competition Age: 15 and older

Engines: Briggs and Stratton Animal. Pro Gas legal under Pro Gas rules, LO 206 legal under LO 206. Dry engine clutch only.

Weight: Animal 370lbs., Pro Gas 355lbs., LO206 340lbs.

Pipe: Fixed pipe

Fuel: Methanol or Gas

4-Cycle Sprint 400 Final 1 & Final 2

Competition Age: 15 and older

Engines: Briggs and Stratton Animal. Pro Gas legal under Pro Gas rules, LO 206 legal under LO 206. Dry engine clutch only.

Weight: Animal 400lbs., Pro Gas 385lbs., LO206 370lbs.

Pipe: Fixed pipe

Fuel: Methanol or Gas

Clone/LO 206 Sprint Final 1 & Final 2

Competition Age: 15 and older

Engines: Stock 6.5hp Clone Engine, Stock Briggs and Stratton LO 206. Dry engine clutch only.

Weight: 370lbs.

Pipe: Fixed pipe

Fuel: Pump Gas

World Formula Lite Final 1 & Final 2

Competition Age: 15 and up

Engines: Briggs and Stratton World Formula (Must be Sealed) Go to www.nhka.net for complete rules.

Weight: 360lbs.

Pipe: Fixed pipe

Fuel: Pump Gas

World Formula Heavy Final 1 & Final 2

Competition Age: 15 and up

Engines: Briggs and Stratton World Formula (Must be Sealed) Go to www.nhka.net for complete rules.

Weight: 390lbs.

Pipe: Fixed pipe

Fuel: Pump Gas

Limited Modified

See Open Sprint located in the 2-cycle section

Open 4 Cycle

See Open Sprint located in the 2-cycle section

Laydown Enduro Class Structure

Junior Enduro Final 1 & Final 2

Competition Age: 12 - 16

Engines: Yamaha KT 100, KPV 100, Animal, Pro Gas, LO 206

Weight: Yamaha-RLV SSX Exhaust 340lbs., RLV SBX 360lbs., KPV 365lbs., Briggs Animal 340lbs., Pro Gas 340lbs., LO 206 310lbs.

Pipe: Yamaha -RLV SSX, RLV SBX Muffler, RLV 26S Header, Flex length minimum 11.0"as measured from piston face to end of flex. Addition of a 7/8 restrictor required. KPV 2 pipe and header, engine clutch only. Briggs Animal-Stock 6.5hp (See Animal Junior Rules)

Fuel: Yamaha and KPV-Race Gas, Animal Gas or Alcohol, Pro Gas and LO 206 pump gas.

Yamaha Sportsman Medium Final 1 & Final 2

Competition Age: 15 and up

Engines: Yamaha

Weight: SBX Muffler 385lbs., SSX Muffler 365lbs.

Pipe: SSX Muffler, or, RLV SBX Muffler, RLV 26S Header, Flex length minimum 11.0"as measured from piston face to end of flex.

Fuel: Race Gas

Yamaha Sportsman Heavy Final 1 & Final 2

Competition Age: 15 and up

Engines: Yamaha

Weight: SBX Muffler 410lbs., SSX Muffler 390lbs.

Pipe: SSX Muffler, or, RLV SBX Muffler, RLV 26S Header, Flex length minimum 11.0"as measured from piston face to end of flex.

Fuel: Race Gas

Yamaha Pipe Final 1 & Final 2

Competition Age: 15 and up

Engines: Yamaha

Weight: 400lbs.

Pipe: Fixed pipe

Fuel: Race Gas

100cc Limited Enduro Final 1 & Final 2

Competition Age: 15 and up

Engines: Any Piston Port Motor, Controlled Motors (Atlas, Dap T72, T80, T80A, T80R, T91, Hewland, Komet K11, K55, K78, K88, Parilla SS21, TT25, TT65, TT75, LMR, TKM FF99, RS98, S89, RL66. All motors are stock.

Weight: Controlled 410lbs., Piston Port 360lbs.

Pipe: Controlled - Fixed pipe, Piston Port either fixed of slippy pipe.

Fuel: Race Gas

Controlled Final 1 & Final 2

Competition Age: 16 and up

Engines: 100cc ICA Reed, 100cc Controlled, 100cc Piston Port

Weight: ICA Reed & Controlled 390lbs., IAME KA100 390lbs., Piston Port 340 lbs.

Pipe: ICA Reed, Controlled, and IAME KA 100 – Fixed or Slippy pipe (If running a slippy pipe it must be locked into a fixed position so it can not be adjusted while the kart is in motion). Piston Port Fixed or Slippy pipe. All engines must run 1.75" header. ICA Reed, Controlled, and IAME KA100 minimum flex length 8.0"

Fuel: Race Gas

Formula 100 Final 1 & Final 2

Competition Age: 16 and up

Engines: Any 100cc Reed, Rotary, or Piston Port. Any 135cc Controlled Stock.

Weight: 100cc Open 410lbs., Stock Appearing Piston Port 310lbs., 100cc Stock Appearing Reed or Rotary Valve 390lbs., 100cc Controlled Stock 2000 390lbs., 100cc Controlled Stock prior 2000 340lbs., 135 Controlled Stock 370lbs., IAME KA100 370lbs.

Pipe: Open Pipe

Fuel: Open Fuel

Formula 125 Final 1 & Final 2

Competition Age: 18 and up

Engines: 125 Gearbox, 125 Non-Gearbox, B Limited, 100cc Open, 135cc Open.

Weight: Gearbox 420lbs., Non-Gearbox 380lbs., X30 380lbs.

Pipe: Gearbox - Fixed pipe. Non-Gearbox Open Pipe.

Fuel: Open Fuel

TaG Enduro Final 1 & Final 2

Competition Age: 16 and up

Engines: Any 100cc or 125cc TaG Engine. Water or Air Cooled.

Weight: 100cc 380lbs., 125cc 410lbs.

Pipe: Any approved TaG pipe.

Fuel: Open Fuel

Unlimited Final 1 & Final 2

Competition Age: 18 and up

Engines: Single Cylinder two cycle with maximum of 250cc, Single Cylinder Four Cycle with maximum of 450cc, Twin Engine maximum 150cc each cylinder. Gas Gas motor must run Super Kart.

Weight: 250 CC - 460lbs., 450 CC – 460lbs., 125 Gearbox or twin 135 cc engines - 420lbs., Up to 150cc Single Engine 380lbs., Two 100cc engines 465lbs., Two 150cc engines 490lbs.

Pipe: Fixed pipe

Fuel: Open Fuel

Super Kart 250 Final 1 & Final 2

Competition Age: 18 and up

Engines: Twin cylinder with a maximum of 250cc. Single Cylinder two cycle with maximum of 250cc. Single Cylinder Four Cycle with maximum of 450cc. Twin Engine maximum 150cc each cylinder.

Weight: 250cc Twin Cylinder – 490lbs., 250cc Single Cylinder - 460lbs., 450 CC – 460lbs., 125 Gearbox or twin 135 cc engines - 420lbs., Up to 150cc Single Engine 380lbs., Two 100cc engines 465lbs., Two 150cc engines 490lbs.

Pipe: Fixed pipe

Fuel: Open Fuel

Vintage Piston Port/USA Final 1 & Final 2

Competition Age: 15 and up

Engines: Any American made, fan style kart engine (100cc and 125CC McCulloch, 135cc West Bend), Or Non-Fan - Yamaha KT 100, ARC, Dap T-50, TKM BT 82, PCR PP-100, PRD (Stock Only), Horstman and SMC are the only wet axle clutches allowed, all other dry clutches allowed

Weight: No minimum weight

Pipe: Any pipe.

Fuel: Race Gas

Vintage Unlimited Final 1 & Final 2

Competition Age: 15 and up.

Engines: Any single 100cc – 150cc. (Open Modifications, Any Carburetor allowed).

Weight: No minimum weight

Pipe: Any pipe, Any clutch.

Fuel: Open Fuel

Vintage Twin Engine Final 1 & Final 2

Competition Age: 18 and up.

Engines: Two engines, pre 1985 models, open modifications, and carburetor, maximum combined displacement of 280cc. Horstman and SMC wet axle clutched allowed, and dry clutch allowed.

Weight: No minimum weight

Pipe: Any pipe.

Fuel: Open Fuel

Local Option classes (Others may be added)

*Classes with multiple engines may have weights adjusted during the year.

Additional classes may be added by the host club.

General Rules & Regulations

The following rules are as stated "General". There may be additional rules and regulations for each track and event. It is your responsibility to be familiar with the rules for each event that you participate in. These rules should be available in registration. If you do not understand a rule please ask a race official.

A. Spirit and Intent

Even if you are new to karting you may have heard the term "spirit and intent". It is the concise description of how karting is run, pure, simple and undeniable. It is the law governing the sport of karting for the last 50 years. It means that you may be judged based on your perceived spirit and apparent intent for your conduct at any time at the track. Indeed, you should judge yourself using the same criteria. The law of spirit and intent comes into effect when race officials encounter karting situations or circumstances not specifically addressed in this rulebook. At this point, officials must make decisions based not only on fact, but also on whether the infraction was a clear case of attempting to controvert the spirit of the event. It is many times the hardest decision for an official to make. Nobody likes to invoke the spirit and intent rule.

We urge you avoid causing a spirit and intent ruling by being fully aware of all the regulations that apply to you and your kart. It is impossible to write a rule for every aspect of karting. Before attempting modifications to your kart that are not specifically addressed in the rulebook talk to the technical inspector and clarify the requirements. You should "intend" to compete successfully, but if your "intent" is winning by circumventing the rules, then you should reconsider your involvement in this sport.

B. Driver Eligibility & Requirements

1. You must be entered in a class in order to practice in all AKRA sanctioned events.
2. You must be an AKRA member, in good standing, in order to receive year-end awards. The highest qualifying AKRA member will be crowned class champion.
3. The kart is the official entry in the race. Once a lap has been made in a race with the entered kart, the kart cannot be changed without the permission of the race director.
    a. Relief Drivers must meet all class rule requirements and be approved by race officials. The driver of record must make one lap or the kart must remain in the pits until the lead kart has made one lap. A separate fee of $10.00 must be paid prior to the race by the relief driver.
4. Minimum driver age is listed in all class structures. However, if during the racing season, the driver has a birthday that would make them old enough to move to an "older" class, they will have the option to move up at any time during the racing season, with the exception of the Novice class. If a driver chooses to move up to a senior class, he may not move back to a junior class. All drivers must produce a current state photo I.D. card or certified birth certificate upon request. A minor's release is required for all persons under the age of 18.

C. Protest Procedure

All protests must be submitted in writing and acknowledged by an official in registration or post-race tech within 30 minutes of completion of the race that is being protested or, in the case of a scoring protest, within 30 minutes after official results have been posted. Protests will not be accepted after 30-minute period has expired. A protest can only be submitted by an entrant from the same class that is being protested, and can only be signed by one entrant. Once the official has accepted a protest, additional protests for the same infraction will not be accepted. Official protest forms will be made available in registration and post tech. Any national race disqualification or suspension can be appealed in writing to the AKRA advisory committee.

D. Points - Scoring – Year End Awards

1. To receive points, the driver must be properly entered in the class, grid, weigh, and pass post-race tech.
2. Entrants will be required to place a scoring transponder on their kart in a location that is recommended for proper signal strength. It is the driver's responsibility to securely fasten the scoring transponder in a proper location prior to entering the track.
3. To receive year-end awards in each class the entrant must be a current AKRA member in good standing.
4. In the event of a tie in the year end point total, the tie will be broken by the highest finishing position of the last race either or both drivers competed in.
5. Disqualification: In the event that a driver is disqualified from an event for unsportsmanlike conduct on or off the racetrack he may NOT use that race as a drop race. If a driver is disqualified for mechanical failure on the track, improper driving, post-race engine, oil or fuel tech or at the scales in post tech he may use that as a drop race. However, if repeatedly disqualified for any reason the driver may be subject to penalty of not being able to use a race as a drop race. Competitors disqualified will receive zero (0) points for that race.
6. Bonus points will be awarded to competitors that meet the following criteria: Enter the same class on the same day at both MKC events and earn 5 bonus points. Enter the same class on the same day at both DKC events and earn 5 bonus points. Enter all 12 races in the same class and earn 5 bonus points. Earn 7 bonus points each day for the final race at Pittsburgh. The maximum number of bonus points is 40. Example: MKC Saturday 5 points, MKC Sunday 5 points, DKC Saturday 5 points, DKC Sunday 5 points, Bonus for all 12 races 5 points, Bonus for Pittsburgh 14 points.. The bonus points will be added to the yearend total.
7. In the event of a rainout all entrants will receive 100 points plus the number of entries. If the race is run under wet conditions and a competitor chooses not to race they will be awards the next finishing position after the competitors that raced. You must weigh and pass tech to receive points unless this is waived by the race director. Example: 10 competitors in the class and 3 choose to race in the rain and 7 choose not to. The 7 that choose not to will receive 4th place points.
8. Final results will count your best 8 of 12 finishes. You must run a minimum of 7 races to qualify for yearend awards.

9. The following point method will be used for calculating season points:

Position	Points
1	100 + number of entries
2	88 + number of entries
3	78 + number of entries
4	70 + number of entries
5	64 + number of entries
6	61 + number of entries
7	58 + number of entries
8	55 + number of entries
9	52 + number of entries
10	49 + number of entries
11	47 + number of entries
12	45 + number of entries
13	43 + number of entries
14	41 + number of entries
15	39 + number of entries
16	38 + number of entries
17	37 + number of entries
18	36 + number of entries
19	35 + number of entries
20	34 + number of entries
21	33 + number of entries
22	32 + number of entries
23	31 + number of entries
24	30 + number of entries
25	29 + number of entries

All remaining positions will receive 20 points + number of entries.

E. Miscellaneous Rules

1. The pit lane will be a yellow flag condition and a safe speed will be maintained. No passing will be allowed entering the pit lane. Passing and/or unsafe driving in the pit lane will result in disqualification.
2. Data acquisition is legal in all classes.
3. Radio communication is legal in all classes. It may not be used for the purposes of intentional blocking.
4. Approved exhaust silencers or mufflers are mandatory in all classes.
5. Drivers are responsible for their pit crewmembers. Unacceptable behavior may subject the driver to disqualification from an event. Verbal and/or physical abuse or threats directed at any individual at any event will subject the offender to immediate ejection from the event and/or a 1-year suspension.
6. All individuals entering the event site must sign and execute all insurance related documents as prescribed for that event.
7. Pre-Race driver's meetings are mandatory. If you are unable to attend the drivers meeting, you are required to check in with the race director.

8. Vendor fee of $100.00 per event will apply to anyone selling product or service at any and all series events with the exception of series or class sponsors.
9. AKRA reserves the right to refuse any and all entries at any event(s).
10. Helmet tethers are legal but cannot be in any way attached to the kart. Can only be attached to the driver.
11. It is the host club and race director's decision on rain racing. The host club may not allow racing on a wet track. If the race is declared a rain race and the race is started, then competitors choosing not to compete in the rain race will receive points based on the last competitor that gridded for the race.
12. Full and Temporary memberships available either online at AKRA or available at the track.
13. Go Pro type cameras must be mounted securely to the kart. No helmet mounting allowed.

Flags

Checkered Flag

The race is finished. Slow to a moderate pace for exiting the track. Proceed slowly to the post tech area.

Black Flag

Racing is not a contact sport, although it is understood some inadvertent contact will occur, intentional and avoidable bumping, nerfing, pushing, etc., will be grounds for disqualification. You may be warned only once with a rolled black flag; second warnings will result in a waved black flag.

Rolled & pointed: A warning about driver conduct

Waved Black Flag:
You must exit the track immediately you have been disqualified for a driving infraction. If a participant ignores the black flag along with his/her number being displayed by the flagman, that person will be disqualified for that day.

Meatball Flag (Black with a red ball): Will be thrown for technical or mechanical problems, requiring the driver to stop for consultation. The flag will also be used for a pushing stop & go.

Red Flag

The race has been temporarily halted. Slow to a safe stop, drivers shall proceed safely to the starting grid under direction of the corner workers and flagman. Please be aware drivers are to follow track specific procedures as given by the race director prior to the race start.
If the red flag occurs prior to the halfway point in a race it will be restarted. Restarts will be in the same order as the original grid. Scoring will continue from the last fully completed lap. If the red flag occurs at or after the halfway point it will be a completed race and the results will be the last completed and scored green flag lap.

Any kart or driver flipping over (turning over) causing a red flag will not be allowed to restart. Any driver leaving the racetrack, due to an accident, by ambulance will not be allowed to restart. Any driver causing a red flag may be subject to not restarting or disqualification, as determined by the race director. Any kart involved in an accident whose driver is transported to a health care facility is subject to post tech. If driver does not return from the health care facility prior to the end of post tech, scales will be waived.

Green Flag

The racetrack is clear for racing.

Black and Checked Flag

The race is completed and is subject to an official protest by the race director.

Yellow Flag

There is a need for caution. There is something in the track ahead and you and before the next flag stand. You should proceed with caution. If the flag is waving, there is a problem in that section of the track. No passing will be allowed in that section when a waving yellow flag is displayed.

Yellow with Red Strip Flag

There is a need for caution. There is some debris, fluid or oil on the track ahead and you should proceed with caution.

NOTE: Flags can vary from track to track. If there is a variation from the above, it will be brought up at the drivers meeting.

Section 1 - Foreword and Introduction

The following document and those that support it are authored with one intent – the clarification and consolidation of the technical performance rules that govern kart racing. As such, the primary issues dealt with in this manual are those metrics from which a direct performance gain may be achieved by violation. Kart standards are also addressed in this manual though no implication of safety is made or warranted if the rules specified herein are adhered to. Personal conduct is not directly addressed in this manual as it is expected that the competitor, builder, inspector and administrator will conduct themselves in a manner conducive to orderly and proper results.

The sport of karting has always been governed by the rule of spirit and intent. No effort is made here to change that. No pretense is made that the documentation herein will cover every situation that can be encountered in technical inspection. The ultimate responsibility for chassis and engine legality lies with the competitor. Should the competitor encounter a situation that is not specifically addressed in this manual it is his responsibility to get clearance from the technical inspector *prior* to using the kart in a race. Should the technical inspector encounter a situation in post–race technical inspection that is not specifically addressed in this manual it is his responsibility to make a determination of legality based first on whether or not the modification represents a definable performance gain and ultimately on the spirit and intent of the competitor/builder. If, in the opinion of the technical inspector, the spirit or intent of the modification was clearly that of circumventing the rules to provide performance gain then he has the right to disqualify the competitor based solely on these criteria. When confronted with this scenario the inspector must weigh the decision carefully and use discretion, insight and integrity.

In all cases, where series specific rules contradict the rules specified herein the series specific rules shall have precedence. There is no expressed or implied warranty given here in regards to safety if the rules herein are adhered to and the authors and authorizers of this document are to be held harmless in any litigation or actions as a result of accident.

Section 2 - Metrology

Wherein this manual deals specifically with dimensional conformity to specifications some discussion regarding measurement and gaging is necessary. Field metrology is limited and handicapped by a number of factors including, but not limited to, available measuring instruments and environmental conditions. The inspector must give some consideration to measurement uncertainty especially when approaching a dimension's limits of acceptability. Especially when a dimension as measured exceeds its tolerance limits the inspector must ensure that the best and most accurate available method of measurement is being employed prior to a disqualification decision being made. *The inspector may take whatever steps he deems necessary to ensure proper results, including impound and inspection at another location. Method of measurement in all cases is at the sole discretion of the inspector.* The preferred method will be designated later in this manual under generic technical procedures. Standard industrial metrology techniques shall be used as a guideline for methods used in the field. All dimensions given in this manual will either be toleranced or designated as maximum or minimum. Limits of size are absolute and are not to be rounded to the nearest whole integer to facilitate acceptability; i.e. a .500 diameter max hole that actually measures .5001 is to be found out of tolerance and not rounded to .500. The exception to the limits of size rule is when measuring "nominal" sized tubing or bar stock. This material comes from the manufacturer with rather generous tolerances and this must be considered when inspecting same. If "nominal" is noted on the element in question, a tolerance of +/-1/32 inch is generally acceptable with consideration to spirit and intent.

Many of the inside (width of slot, diameter, etc.) dimensions found in this manual are listed as maximum. Wherever possible, a gage of maximum size shall be employed to measure these dimensions. For example, a .500 max diameter should be measured with a .500 gage pin. If the gage enters the feature in question it shall be found out of tolerance. For designated inside minimum dimensions a gage of minimum size shall be employed. For example, a .625 minimum diameter should be measured with a .625 gage pin. The gage must pass through the entire area in question with light, torsional, finger pressure. Perceptible drag on engagement is not reason for disqualification as long as full feature engagement may be achieved. All gages and measuring instruments must be calibrated to standards with a direct line of traceability to the National Institute of Standards and Technology a minimum of once per year. Visual checks of gaging should be performed periodically to ensure that damage has not occurred. Whenever possible, all inspections should be performed with components and gages at ambient temperature.

Section 3 - Pre-Tech Requirements

A. Personal Safety Equipment

1. Head Gear
    a. Full-face helmets designed for competitive motorsports use, that comply with Snell Foundation specifications SA or M 2015 (expires 12/2025), SA/K or M 2010 (expires 12/2020), CMS 2007 Youth (expires 12/2019), CMR 2007 Youth (expires 12/2019), CMS 2016 (expires 12/2026), CMR 2017 (expires 12/2026), SFI 24.1/2010 (expires 12/2020), SFI 31.1/2010 (expires 12/2020), SFI 41.1/2010 (expires 12/2020), SFI 24.1/2013 (expires 12/2023), SFI 31.1/2013 (expires 12/2023), SFI 41.1/2013 (expires 12/2023), BSI A-type and A/FR types are legal for 10 years after date of manufacture.. Helmet must be available at pre-tech inspection. Helmets must be secured with a strap. Failure to do so will result in disqualification. A full visor, integral with the helmet, is mandatory.
2. Neck Brace
    a. Collar-type, unaltered neck brace designed for motorsports use are mandatory in all sit up classes. Loss of neck brace during an event will cause a black flag with an orange circle "meatball flag" to be given to the driver losing the neck brace. He must immediately proceed to the pits, and may replace the missing neck brace and then return to the race or practice session.

3. Driver Apparel
    a. Drivers are required to wear either full abrasion proof driver's suits, jackets made of leather, vinyl, abrasion resistant nylon, or equivalent, and full length pants. Gloves, socks, and shoes are mandatory.
    b. If driver's hair extends appreciably below the helmet it is mandatory that the driver wear a head sock or balaclava to prevent the driver's hair from extending below the helmet.
    c. Loose clothing, bandanas, scarves, hoods, loose belts, etc. are not allowed.
    d. All personal safety equipment is subject to, and shall be available for, pre-tech inspection.

B. Kart Requirements

1. General
    a. The kart must be neat in appearance, in good repair, and show quality workmanship.
    b. The kart must meet the requirements set forth in the AKRA Tech manual for its particular class.
    c. Rear view mirrors are allowed as long as they are mounted to the kart. No hand mounted mirrors allowed.
    d. European style clevis snap pins shall be safety wired.

2. Ballast
    a. All weights added to the kart will be painted white and must be securely fastened to the kart with a minimum 5/16-inch diameter bolt. Any single weight weighing in excess of seven pounds shall utilize a minimum of two 5/16-inch minimum diameter bolts.
    b. All bolts used to fasten weights to the kart must be cotter keyed, safety wired, or double nutted.

3. Steering Components
    a. All steering component bolts, and nuts, must be cotter keyed and/or safety wired. Specialized bolts on European chassis must use factory clips.
    b. All steering component bolts, must be a minimum Grade 5 rating.
    c. All rod ends must have universal type swivel joints and jam nuts.
    d. Fasteners used on any component that will enable adjustment of camber, caster, etc. must be cotter keyed and/or safety wired.
    e. Steering Shafts
        1. Solid steering shafts shall be a minimum .625-inch diameter, made of cold rolled steel, and one-piece design. Welding the steering wheel or hub to the shaft is not allowed. Shaft extensions, and cutting and welding the shaft to alter its length are not allowed. The steering wheel must be secured to the shaft with a nut or cap screw in the axial position.
        2. Hollow steering shafts shall be a minimum .700-inch diameter, with a minimum wall thickness of .070 inch, made of steel tubing, and one-piece design. Welding the steering wheel or hub to the shaft is not allowed. Shaft extensions, and cutting and welding the shaft to alter its length are not allowed. The steering wheel hub must be secured using a 5/16-inch minimum diameter bolt through the axis of the shaft.
        3. Tiller, vertical shaft steering systems are not allowed.

f. Steering Wheels
    1. Steering wheels may be circular, with a ten-inch minimum diameter, and a minimum of three spokes.
    2. Steering wheels may be of the butterfly type, with a ten-inch minimum diameter, and four spokes, and a minimum grip length of five inches on each side.

4. Wheels and Tires
    a. Pneumatic tires designed specifically for racing only.
        1. Minimum 9.0-inch diameter. Maximum 12.5-inch diameter.
        2. Maximum width, mounted on wheel 10.375 inches
    b. Wheel balancing weights shall not exceed ¼ ounce each.
        1. It is recommended that additional tape be placed over stick on type weights.
    c. G-Rings or lateral supported wheels are not permitted.

5. Wheel Hubs and Axles
    a. Wheel hubs and axles shall be constructed of metallic materials.
    b. Rear axles shall be one-piece design, driving both wheels.
        1. Either solid or hollow axles are allowed
        2. .984-inch minimum diameter. 2.00-inch maximum diameter.
        3. Axles over 1.375-inch diameter shall be constructed of ferrous material.
        4. Snap rings or similar fasteners are required at both ends of the rear axle for American axles from 1" to 1 3/8" in diameter.
        5. Axle stiffeners are allowed as long as they are secured by cotter key, circlip, or through bolted.
        6. Axle may not protrude beyond the outside of rim and tire.
        7. Any device that allows the rear wheels to rotate at different speeds is not allowed.
    c. Front axles
        1. Front axle nuts must be secured with safety wire, cotter keys or circlips.
        2. Ground ball or roller type bearings only, and must be adjusted so there is not excessive play. Split race type bearings are not allowed.
        3. The spindle axle may not protrude beyond the outside of rim and tire.

6. Brakes
    a. Karts must, at minimum, have a braking system capable of braking both rear wheels equally and adequately.
    b. All Karts must have a tether attached from each available master cylinder to the brake pedal in addition to the brake rod. Tether must be a minimum of 1/16" or .0625" and adequately clamped to act as a backup if the linkage fails. Must be adjusted to function as intended.
    c. All laydown enduro clutch classes and all Gearbox classes unless otherwise noted require the use of a dual braking system. A dual braking system consists of two front, and one rear or Dual rear calipers. This shall consist of two independent and separate systems, operated by separate master cylinders.
        1. One system must be fully functional if either system fails.
    d. All brake system fasteners, including pedals, clevis pins, and master cylinder roll pins, must be safety wired or cotter keyed. If safety wiring or cotter keying is infeasible, as in the case of some brake pad fasteners an appropriate thread locking compound shall be use to prevent loss of the fasteners.
        1. All-metal locking type nuts to secure the brake disk or drum to the hub are allowed in lieu of safety wire or cotter pinning.
        2. If the pedal is mounted to the front bumper, the bumper must be welded to the frame, or through bolted or pinned, and the through bolts or pins shall be safety wired or cotter keyed.
        3. Hydraulic brake fittings shall be tight and leak free. Hydraulic brake lines shall be routed in a fashion, so as to not wear through, or be pulled loose.
        4. Master cylinder actuating rod must be .250-inch diameter minimum or equal quality cable with positive stops on both ends.
        5. Minimum disc measurements are 7.0" diameter X .125" thick.
    e. No carbon fiber components allowed.

7. Driveline Components
    a. Clutches are mandatory in all classes except those designated as direct drive. Oil Bath or dry styles allowed.
        1. Oil bath clutches are allowed as long as they are sealed to prevent leakage.
        2. If outboard clutch mounting is used, a third bearing support or guard to contain the clutch in the event the crankshaft breaks is mandatory. Clutches mounted inboard are not required to have a support or guard.
        3. Transmissions or other devices that allow the change of gear ratios while the kart is in motion are not allowed, except in shifter classes. Torque converters are not allowed.
    b. Chain and Belt Guards
        1. All karts shall be equipped with a chain or belt guard. Outboard drive systems will be allowed only if the chain or belt, and sprocket are completely enclosed from the front, top, rear, and sides.
        2. Any sprocket not used for driving the kart must be fitted with a device to prevent exposure from any angle, or be completely encircled with a chain.
        3 Chain oilers up to 8-ounce capacity are allowed. Competitors using chain oilers shall use a drip pan while on the grid. If a chain oiler is the highest point on the kart it must be protected with a roll bar, not to exceed 26 inches high from the ground.

8. Fuel Systems
    a. No pressurized fuel delivery systems allowed. No fuel injection systems allowed.
    b. Fuel capacity: Laydown enduro – no capacity limit. All others – 9-liter maximum capacity. Fuel tanks must be constructed of puncture resistant material, and have a secure leak proof closure. Limited Modified 4 cycles may run two separate tanks.
    c. Fuel lines must be safety wired, clamped or zip tie wrapped at all connection points.
    d. Fuel tanks must be securely bolted to the primary structure, frame, or floor pan.
    e. Fuel tanks on sprint karts must be located between the frame rails, and beneath the steering shaft. If a secondary sump tank is used it must be mounted in front of the motor.
    f. The length of fuel line shall be only of adequate length to supply fuel to the carburetor. Extensive fuel line length is not allowed.
    g. If other than metallic side tanks are used on an enduro kart, the use of double rail nerf bars per the AKRA tech manual is mandatory.
    h. If a fuel tank is the highest point on the kart it must be protected with a roll bar, not to exceed 26 inches high from the ground.
    i. If "pump-around" or "recirculating" type fuel delivery and evacuation systems are used, a positive, free vent to atmosphere must be employed on the fuel tank to prevent tank pressurization.

9. Cooling systems
    a. Coolant may not contain any Glycol based material.
    b. Water wetter or other surfactants may be added.
    c. Must be mounted to right or the left of the driver.
    e. After market water pumps are allowed, but must be driven by the rear axle. Internal engine pumps legal.

Section 4 - Kart types and construction

There are four different types of racing karts described herein. A general description of a kart chassis is a welded, tubular steel spaceframe. Side nerf bars, front and rear bumpers are required, except as noted. Aerodynamic bodywork covering the chassis is permitted but not required in any type except as noted. While overall construction of each is similar there are significant dimensional differences and as such will be detailed separately below.

A. Sprint Enduro Chassis Specifications

1. Main frame members shall be constructed of cold rolled, electric weld, round, steel tubing or other material of equal or greater strength, of one-inch minimum nominal outside diameter and .083-inch minimum wall thickness. Main frame rail members shall be no higher than a horizontal line extending from the centerline of the front wheel to the centerline of the rear wheel. No oval tubing allowed.
2. Wheelbase: 43.0 inches maximum, 40.0 inches minimum. Wheelbase is measured from true axle centerlines, each side.
3. Track width: 28.0 inches minimum. Track width may be measured from the outside edge of one tire to the inside edge of the opposite tire when both tires are of identical width.
4. Overall width: 50.0 inches maximum for all classes except four cycle classes. 46.0 inches maximum for all four-cycle classes. Overall width is measured at any cross section of the kart, perpendicular to the longitudinal centerline axis.
5. Overall length: 74.0 inches maximum. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline axis.
6. Overall height: 26.0 inches maximum. Overall height is measured such that all elements of the kart must pass under a bar set parallel to ground level, 26.0 inches above ground level.

7. Dry kart weight: 85 pounds minimum in race ready trim without fuel.
8. Front bumper: If CIK-style nose cone is not used all components shall be constructed of round, steel tubing of .750-inch nominal diameter minimum. The upper hoop of the bumper must be supported by a minimum of two vertical uprights. These uprights must be within .50 inch of vertical when measured 3.0 inches down from the top of the top hoop. The uppermost tangent point of the top hoop must be 7.75 inches minimum from ground level. Otherwise, front bumper must conform to CIK specifications.
9. Rear bumper: If CIK style bumper is not used all components shall be constructed of round, steel tubing of .750-inch nominal diameter minimum. The uppermost tangent point of the top hoop shall be 7.5 inches maximum from ground level and above the lowermost tangent point of the rear axle minimum. Minimum width shall be no less than the lateral distance between the main chassis frame rails as measured at the rear of the kart. Maximum width shall be no wider than the rear overall width of tires. Continuous loop type bumpers with vertical or angled supports are allowed. The lower bar of this type must be below the rear axle, the upper bar no higher than the top of the rear tires. Bar must be in place from frame rail to frame rail. If CIK plastic bumper is used it may extend beyond the rear tires.
10. Nerf bars: If CIK-style side pods are not utilized nerf bars must be double rail type. All components shall be constructed round, steel tubing of .750-inch nominal diameter minimum. Overall height from uppermost to lowermost tubing tangent points shall be 6.0 inches minimum. Vertical uprights are mandatory at the leading and trailing ends of the nerf bar, creating a closed, rectangular construction. The leading and trailing vertical uprights must be positioned such that the smallest gap created between the front and rear tires respectively measures 3.0 inches maximum. If CIK-style side pods are utilized nerf bars must conform to CIK specifications.
11. Seat: Must be of conventional, unaltered, bucket type, molded construction, designed to keep the driver's posterior in place without undue movement. The seat shall be mounted between the main frame rails. The lowermost point of the seat must be positioned no lower than the lowermost point of the adjacent frame rails and no higher than the uppermost point of the adjacent frame rails. Height of the uppermost point of the seat backrest is 12.0 inches minimum from ground level. The rearmost point on the seat may not extend beyond the back of the rear axle. Steering uprights shall be positioned in such a manner as to prevent the driver's posterior from being positioned forward of the bucket portion of the seat. Seat Rules for CIK body work classes: Sit-up sprint style seat only, 13" minimum height cannot pass the rear axle, CIK style seats are defined as Sprint style bucket seats un-altered. Headrests are permitted. They must be attached to the seat and cannot extend past the rear of the bumper. TaG classes are not permitted to run headrests.
12. The use of any type of suspension components is strictly prohibited.

B. Laydown Enduro Chassis Specifications

1. Main frame members shall be constructed of cold rolled, electric weld, round, steel tubing or other material of equal or greater strength, of 1.0-inch nominal minimum and 1.40-inch nominal maximum outside diameter. For nominal outside diameter tubing of 1.0 to 1.125 inch the tubing wall thickness shall be .078 inch minimum. For nominal outside diameter tubing of greater than 1.125 inch the tubing wall thickness shall be .060 inch minimum. Oval tube frames must receive prior approval from tech director.
2. Wheelbase: 50.0 inches maximum, 40.0 inches minimum. Wheelbase is measured from true axle centerlines, each side.
3. Track width: 30.0 inches minimum. Track width may be measured from the outside edge of one tire to the inside edge of the opposite tire, when both tires are of identical width.
4. Overall width: 50.0 inches maximum for all classes. Overall width is measured at any cross section of the kart, perpendicular to the longitudinal centerline axis. Air filters may extend beyond the 50.0-inch maximum.
5. Overall length: 97.0 inches maximum for single engine karts; 110.0 inches for dual engine karts and shifter karts. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline axis.
6. Overall height: 26.0 inches maximum. Overall height is measured such that all elements of the kart must pass under a bar set parallel to ground level, 26.0 inches above ground level.
7. Dry kart weight: 85 pounds minimum for single engine karts; 105 pounds for dual engine karts in race ready trim without fuel.
8. The use of any type of suspension components is strictly prohibited.
9. Vintage Karts Only – No bodywork allowed. Floor pan cannot extend beyond the chassis frame rails or the factory floor tabs. Horstman is the only legal wet axle clutch.
10. Rear bumper: All components shall be constructed of round, steel tubing of .750-inch nominal diameter minimum. The uppermost tangent point of the top hoop shall be 7.5 inches maximum from ground level and above the lowermost tangent point of the rear axle minimum. Minimum width shall be no less than the lateral distance between the main chassis frame rails as measured at the rear of the kart. Maximum width shall be no wider than the rear overall width of tires. Continuous loop type bumpers with vertical or angled supports are allowed. The lower bar of this type must be below the rear axle, the upper bar no higher than the top of the rear tires. Bar must be in place from frame rail to frame rail.

C. Sprint Shifter Chassis Specifications

1. Main frame members shall be constructed of cold rolled, electric weld, round, steel tubing or other material of equal or greater strength, of one-inch minimum nominal outside diameter and .078-inch minimum wall thickness and 1.400-inch maximum nominal diameter. Tubing of 1.125 inch nominal and greater may have a wall thickness of .060-inch minimum. Main frame rail members shall be no higher than a horizontal line extending from the centerline of the front wheel to the centerline of the rear wheel. No oval tubing allowed.
2. Wheelbase: 43.0 inches maximum, 40.0 inches minimum. Wheelbase is measured from true axle centerlines, each side.

3. Track width: 28.0 inches minimum. Track width may be measured from the outside edge of one tire to the inside edge of the opposite tire when both tires are of identical width.
4. Overall width: 55.125 inches maximum. Overall width is measured at any cross section of the kart, perpendicular to the longitudinal centerline axis.
5. Overall length: 84.0 inches maximum. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline axis.
6. Overall height: 26.0 inches maximum. Overall height is measured such that all elements of the kart must pass under a bar set parallel to ground level, 26.0 inches above ground level.
7. Dry kart weight: 85 pounds minimum in race ready trim without fuel.
8. Front bumper: If nose cone is not used all components shall be constructed of round, steel tubing of .750-inch nominal diameter minimum. The upper hoop of the bumper must be supported by a minimum of two vertical uprights. These uprights must be within .50 inch of vertical when measured 3.0 inches down from the top of the top hoop. The uppermost tangent point of the top hoop must be 7.75 inches minimum from ground level. Otherwise, front bumper must conform to CIK specifications.
9. Rear bumper: If CIK style bumper is not used all components shall be constructed of round, steel tubing of .750-inch nominal diameter minimum. The uppermost tangent point of the top hoop shall be 7.5 inches maximum from ground level and above the lowermost tangent point of the rear axle minimum. Minimum width shall be no less than the lateral distance between the main chassis frame rails as measured at the rear of the kart. Maximum width shall be no wider than the rear overall width of tires. Continuous loop type bumpers with vertical or angled supports are allowed. The lower bar of this type must be below the rear axle, the upper bar no higher than the top of the rear tires. Bar must be in place from frame rail to frame rail. If CIK plastic bumper is used it may extend beyond the rear tires.
10. Nerf bars: If CIK-style side pods are not utilized nerf bars must be double rail type. All components shall be constructed round, steel tubing of .750-inch nominal diameter minimum. Overall height from uppermost to lowermost tubing tangent points shall be 6.0 inches minimum. Vertical uprights are mandatory at the leading and trailing ends of the nerf bar, creating a closed, rectangular construction. The leading and trailing vertical uprights must be positioned such that the smallest gap created between the front and rear tires respectively measures 3.0 inches maximum. If CIK-style side pods are utilized nerf bars must conform to CIK specifications.
11. Seat: Must be of conventional, bucket type, molded construction, designed to keep the driver's posterior in place without undue movement. Sprint-type, sit-up seats only. Laydown-type, sprint-enduro or oval-track seats are prohibited. Minimum seat back height 13.0 inches, measured at the center of the seat back rest. The seat shall be mounted between the main frame rails. The lowermost point of the seat must be positioned no lower than the lowermost point of the adjacent frame rails and no higher than the uppermost point of the adjacent frame rails. The seat shall be positioned in such a manner that no part of the driver's head may extend aft of the vertical plane determined by the trailing edge of the rear tires, when seated normally. Headrests are not permitted. Seat Rules for CIK body work classes: Sit-up sprint style seat only, 13" minimum height cannot pass rear axle CIK style seats are defined as Sprint style bucket seats un-altered. Homemade, modified, non-production and Stallion road race seats are **NOT** Legal. Any attempts to circumvent this rule will be covered by the "Spirit and Intent rule"
12. The use of any type of suspension components is strictly prohibited.

D. Super Kart Chassis Specifications

1. Main frame members shall be constructed of cold rolled, electric weld, round, steel tubing or other material of equal or greater strength, of 25mm minimum nominal outside diameter and 2mm inch minimum wall thickness.
2. Wheelbase: 50.0 inches maximum, 42.0 inches minimum. Wheelbase is measured from true axle centerlines, each side.
3. Overall width: 55.0 inches maximum, 46.0 inches minimum. Overall width is measured at any cross section of the kart, perpendicular to the longitudinal centerline axis.
4. Overall length: 96.0 inches maximum. Overall length is measured at any cross section of the kart, parallel to the longitudinal centerline axis.
5. Overall height: 30.0 inches maximum, excluding seat headrest. Overall height is measured such that all elements of the kart must pass under a bar set parallel to ground level, 30.0 inches above ground level.
6. Steering system: May be tie rod or rack and pinion system. Top of steering wheel must be at least 19.0 inches above ground level. Minimum steering shaft outside diameter is .625 inch and minimum wall thickness is .078 inch. Tie rod minimum diameter is .500 inch with minimum wall thickness of .118 inch for aluminum and .059 inch for steel. Quick disconnect steering hubs permitted.
7. Rear bumper: If CIK style bumper is not used all components shall be constructed of round, steel tubing of .750-inch nominal diameter minimum. The uppermost tangent point of the top hoop shall be 7.5 inches maximum from ground level and above the lowermost tangent point of the rear axle minimum. Minimum width shall be no less than the lateral distance between the main chassis frame rails as measured at the rear of the kart. Maximum width shall be no wider than the rear overall width of tires. Continuous loop type bumpers with vertical or angled supports are allowed. The lower bar of this type must be below the rear axle, the upper bar no higher than the top of the rear tires. Bar must be in place from frame rail to frame rail. If CIK plastic bumper is used it may extend beyond the rear tires.

E. Enduro Road Racing Bodywork General Requirements (applies to sprint enduro and laydown enduro kart types)

1. All bodywork components must be constructed of high strength plastic, fiberglass, aluminum, metallic or advanced composites. If metallic materials are used there may be no sharp edges or corners.
2. No component of the bodywork may be adjusted or controlled in any way while the kart is in motion.

3. Skirting devices must be constructed of a flexible, non-metallic material.
4. The sides of the tires may not be covered in any way by the nose cone or side panels. It must be possible to remove the wheel straight through the opening in the bodywork with the tire inflated.
5. Nose cones: The nosecone may cover the driver's foot area, but not to extend further than 3.0 inches rear of the pedals in relaxed position. This measurement shall be made directly over each of the two pedals.
6. Steering fairings: Chord length 14.0 inches maximum. Chord width 14.0 inches maximum. Clearance to steering wheel 3.0 inches minimum. Clearance to any other bodywork or fuel tank 6.0 inches minimum. Clearance from steering wheel to any other bodywork 6.0 inches minimum.
7. Belly pans: Full width belly pans with or without integral wheel wells allowed for all classes. Belly pans can be bent up to a point no higher than the centerline of the rear axle.

F. Sprint Enduro Specific Bodywork Requirements

1. Height from ground level of all side panels and rear pods: 16.0 inches maximum.
2. No bodywork component may extend aft of the rear bumper.
3. Distance from seat to any bodywork component: 1.0 inch minimum.
4. Lateral distance between bodywork components in area from the mounting point for steering wheel to the point where the seat rises above the side panels: 22.0 inches minimum. If the seat remains below the side panel's 22-inch minimum distance applies from mounting point for steering wheel to rearmost part of seat.
5. The nose cone may be no narrower than to expose one half of a tire width per side.
6. A connecting strip from nose cone or floor to steering fairing is allowed up to 6.0 inches maximum chord width, so as not to cover the driver's feet, or legs. Minimum six-inch clearance from connecting strip or steering fairing to any other bodywork component begins three inches maximum aft of the pedals, extending rearward to the mounting point for the steering wheel.
7. CIK style nose cones and side pods are allowed. CIK bodywork must remain unaltered except for the cutting of a maximum three-inch hole used for access of an external starter. The use of CIK mounting hardware is not mandatory.
8. Tire recess: All or any of the four wheels may be inside the bodywork a maximum of one inch per side, regardless of bodywork configuration. This measurement shall be made square to the outer face of the tire nearest the bodywork component in question, wheels straight.

G. Laydown Enduro Specific Bodywork Requirements

1. Tail sections may extend no further back than 25.0 inches from the back of the rear axle.
2. Helmet fairings may extend no further forward than the rear of the headrest assembly.
3. Lateral distance between bodywork components in area from the mounting point for steering wheel to the point where the seat rises above the side panels: 18.0 inches minimum. If the seat remains below the side panel's 18-inch minimum distance applies from mounting point for steering wheel to rearmost part of seat. Rear bodywork can be no closer than 2.0 inches from the headrest.
4. Tires may be inside the bodywork. Neither the front or rear axle may stick out further than the tires mounted on that axle.

H. Sprint Shifter Specific Bodywork Requirements

1. Bodywork components consisting of a nose cone, steering fairing and side pods, if employed, must be CIK-style or similar, and represent current industry standards in shape and construction. Maximum steering fairing chord width 15.0 inches.
2. Floor pans: Required for all classes. Floor pans must be within the main frame rails and not extend aft of the central lateral frame tube.
3. The outboard panels of the side pods must be nominally perpendicular to the ground and shaped in such a manner as to preclude a "ramping" effect in case of lateral contact.
4. The use of CIK mounting hardware is not mandatory.
5. The width of the nose cone may not exceed the overall width of the front tires, wheels straight.

I. Super Kart Specific Bodywork Requirements

1. Bodywork must consist at minimum of two side pods, a front nose cone and a steering fairing.
2. Must be in general conformance with current industry standards. Six-inch clearance rule is specifically waived for this class. Clearance from steering wheel to any bodywork is 2.0 inches minimum.
3. Nose cone width is 38.0 inches minimum, 50.0 inches maximum. Height from ground level is 10.0 inches minimum.
4. Side pod height is 10.0 inches minimum; width is 8.0 inches minimum; length is 24.0 inches minimum.
5. Rear wing width is 42.0 inches minimum, 49.0 inches maximum. Thickness at the thickest point of the wing is 1.0 inches minimum. Minimum wing area is 250 square inches. Wing end plate must have all corners radiused.
6. Belly pans: Full width belly pans, open construction is allowed.
7. No bodywork or belly pan can extend more than 25.0" from back of rear axle.

Section 5 – Fuels and Lubricants

A. Fuels and fuel testing: It shall be the right of the technical inspector on his own volition or on instruction from the race director to conduct any type of fuel testing deemed necessary at any time the competitor is under race administration direction, i.e. during pre-tech inspection, on the grid or in post-tech inspection.

1. Two cycle fuels
    a. Unless otherwise specified in class structure description, the only acceptable fuel in two cycle classes is gasoline and lubricating oil. None of the following substances may be added to the fuel. This list is inclusive only in that these are known ingredients that have been used in the past. Additionally, all other substances recognized by bonafide race sanctioning bodies or deemed to exceed the Threshold Limit Value for human exposure as listed by the American Conference of Governmental Industrial Hygienists.

       Alcohols (all), Aldehydes, Aminodiphenyl, Benzene (in excess of EPA limits), Benzidine, Beryllium compounds, Bromine compounds, Butadienes, Chlorinated compounds, Chromates, Dioxanes, Ethyl acrylate, Ethylene oxide, Hydrazine compounds, Methylene dianailine, Napthylamine, Nitrogen compounds (nitromethane, nitropropane, etc.), Styrenes, Toluidine, Zylidine.

2. Four Cycle Fuels
    a. Methanol only unless otherwise specified in class structure description.
    b. No additives or oil added to the methanol.

3. Fuel Testing
    a. Two Cycle
        1. Digitron meter: The preferred method of field testing two cycle fuel is with a Digitron meter. The meter shall be set at –45 with the probe fully immersed in a plastic container of clean track obtained race fuel at ambient temperature. If track fuel is not available, then cyclohexane will be used as a substitute. The probe is then fully immersed in the competitor's fuel and allowed to settle. Care must be taken to not touch the probe on any part of the fuel tank while the meter is coming to settle. The final meter reading must be zero or below (negative). The competitor has the right, and the inspector may allow removal of the fuel from the kart's fuel tank into a suitable plastic container for testing. This is done to eliminate the effects of aluminum tanks on the meter and to facilitate cooling to ambient temperature. Artificial cooling of the sample (ice baths, etc.) is not allowed. Final testing shall occur no later than ten minutes after time of sample removal.
        2. Laboratory testing may be performed on a competitor's fuel either on the tech inspector's own volition or on instruction from the race director. Upon request, the competitor shall draw a sample from his tank or container into a suitable, clean container. The tech inspector shall then mark the container in an indelible fashion and provide tamper-proof sealing of the container. The sample shall be forwarded to an accredited testing laboratory for full chemical analysis. Presence of any listed prohibited substances shall be grounds for disqualification. The competitor will also receive a sample sealed just as the one sent to the laboratory to keep in their possession until a final determination is made.
    b. Four Cycle
        1. The preferred method for testing methanol is the water test. The premise is that methanol is completely water-soluble. Equal part methanol and pure, distilled water shall be combined in a clear, transparent container. The mixture shall be shaken and allowed to settle for approximately thirty seconds. After settling, the mixture shall be completely clear. Comparison to a sample of pure, distilled water is an acceptable clarity comparison. Contamination prevention is paramount when using this technique. All sample gathering equipment, test containers and hands that come into contact with the fuel must be absolutely clean. If a contaminated sample is found all tooling and hands must be cleaned prior to testing another sample.
        3. Laboratory testing may be performed on a competitor's fuel either on the tech inspector's own volition or on instruction from the race director. Upon request, the competitor shall draw a sample from his tank or container into a suitable, clean container. The tech inspector shall then mark the container in an indelible fashion and provide tamper-proof sealing of the container. The sample shall be forwarded to an accredited testing laboratory for full chemical analysis. Presence of any listed prohibited substances shall be grounds for disqualification. The competitor will also receive a sample sealed just as the one sent to the laboratory to keep in their possession until a final determination is made.
        4. Crankcase lubricants may contain no oxygen bearing or vapor producing substances. Tech inspector reserves the right to test for these substances by any means deemed necessary.