

# Introduction to Kart Racing: A Beginners Guide

Prepared by OVKA Marketing & Digital Communications Committee on behalf of the OVKA Board of Directors Spring 2025



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<u>NOTE:</u> The information provided in this guidebook is intended only as a general reference for new kart racers. The OVKA Rulebook and the manufacturer technical documents referred to there-in are the <u>ONLY</u> definitive sources for all club procedures & technical regulations. Those documents should be deferred to in any and all cases where specs, rules, procedures, or information may differ from those described in this document.



#### **GETTING STARTED**

Kart racing is one of the most accessible forms of motorsport, with a rich history in the United States and around the world. For some racers, it is the most affordable way to get on track to test their skills against their friends and family. For others, it's the very first step on a ladder that one day leads to faster machines at Indianapolis, Daytona, Monaco, or Le Mans. The Ohio Valley Karting Association has been proud to deliver on these experiences and everything in-between for 60 years, from our home track of G&J Kartway.

#### **FIRST STEPS**

To get a taste of the racing world and determine if karting is right for you, we first recommend visiting one of our race days as a spectator. The OVKA schedule can be found on our website, as well as at the end of this document in **Appendix A**. G&J Kartway is open to public spectators during all OVKA events.

The OVKA holds races in the discipline of Sprint Karting, which is kart racing that takes place on a purpose-built road-course type circuit that is sized specifically for karts. Other types of karting exist for Road Racing (racing karts on race courses built for full-sized cars), for oval track racing on both dirt and pavement, as well as street circuit, and off-road racing.

As a spectator at an OVKA event, take the time to watch individual races at the track to get a sense for how the race day is run. Then take time to walk the pits and paddock area, taking note of the types of karts and how they are prepared. Feel free to ask questions of any available club members, who are always happy to help you learn more about how to take on the challenge of starting out in go-kart racing.

You will find that the OVKA paddock has a welcoming and friendly atmosphere, filled with much more than just lone "weekend warriors" out to hone their driving skills. The Club has many multi-generational families, with children learning how to race at the same track where their parents and grandparents grew up. We strive to provide an environment where new racers can develop their talents and experienced drivers can find fair and challenging competition year after year.

#### WHERE DO YOU FIT IN

Karting is a family sport with options for all ages to get racing on track. Children can begin as young as 5 years-old while some racers continue competing well into their 70's. With interest and participation across such a broad spectrum, a standard set of age divisions has developed, which splits the participants into different classes.

#### **CLASSES AND AGE GROUPS**

In kart racing, the term "Classes" refers to the different divisions available for racers to participate in. Classes are defined both by age group and engine type, so that participants are always competing against rivals with similar equipment and within appropriate age groups. Each age bracket has multiple class options to choose from. On race days, each class will have its own dedicated set of warm-up times and races, where only members of their own class are on track at any time. Classes only compete against themselves and only score points within their own points championship. A full class summary can be found in **Appendix E**.

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# Intro to Kart Racing Guide

Classes can vary in size depending on the popularity of their specific engine package, and as you first begin exploring your options in karting, you will want to find members of your prospective classes when you visit the track and ask them questions regarding their specifics:

- How much does the engine used in this class cost? (new vs used?)
- What kind of maintenance do you have to perform on it each week?
- How many participants on average show up for your class every week?
- How many participants do you expect in the future?

Each Class has a specific age limit, a set of acceptable engine rules and restrictions, and a minimum weight requirement for the combined kart & driver to ensure a fair playing field. Popular Class formats at OVKA are set by the World Karting Association (WKA) and the rules for each are consistent across most karting clubs and tracks around the country, with only small differences in weight requirements or accepted tire brands.

Certain classes may gain or lose popularity over time due to several factors, such as the shifting cost of parts and maintenance, or the consistency of engine performance. The large and varied engine manufacturer market means that there are many more class and engine options available in the karting world than OVKA can offer in a given season. You may see karts available for sale with engine packages that OVKA does not offer a points class for, so it is important to ask the right questions and purchase equipment for a class that will have a healthy participating group of competitors.

The OVKA offers the following popular classes across these standard age divisions:

# 5-8 years old

KID KARTS - These karts generally use smaller chassis appropriately sized for children (~770-900 mm wheelbase, commonly called KID KART chassis). The focus of Kid Kart racing is to develop the driving skills, race craft, and driving awareness senses of these young participants. The most popular engine for several decades has been the Comer C51 or C52 engine, a small (50cc) 2-cycle engine similar to what you'll find on a chainsaw or weed-whacker.

In recent years the 4-cycle Briggs & Stratton 206 engine, equipped with a specific Kid Kart restrictor, has gained popularity in the United States as an alternative option. Briggs 206 Kid Karters may use CADET sized chassis due to the physical size of the engine and the ability to move up to the Sportsman division without needing to purchase a new chassis. The OVKA accepts both the Comer and 206 engines in our Kid Kart divisions. Top speeds for Kid Karts can vary but are generally around 30-35 mph. Both of these class options are considered low maintenance and effective for bringing Kid Kart aged drivers up to speed, and there is widespread availability of used karts and components in the secondhand market.

For 2025, OVKA is also opening up our Kid Kart division to additional Kid Kart formulas in a non-points capacity: The first non-points kid kart option, the Honda GHX50, is a 4-cycle engine that has been used in karting for a number of years, with some availability in the secondhand market. This engine formula uses the KID KART chassis size. The IAME M1 Bambino which will also be accepted in non-points kid karts, is a 60cc 2-cycle engine based on the IAME Swift. This engine, while more expensive, uses the Sportsman chassis size, and allows conversion up into the Mini & Micro Swift classes without needing to buy a new engine.



#### **OVKA Kid Kart Classes:**

Comer Kid Karts
(5-8 years old)
Comer C51 or C52 engine
150 lbs min. weight (kart+driver)

206 Kid Karts
(5-8 years old)
Briggs & Stratton Jr 206
with 0.310" Kid Kart Restrictor Slide
200 lbs min. weight (kart+driver)

Non-Points Kid Karts (5-8 years old) [2 engine options] Honda GXH50 150 lbs min. weight (kart+driver) or;

IAME 60cc M1 Bambino 180 lbs min. weight (kart+driver)

# 7-12 years old

**SPORTSMAN / CADET** – This age division utilizes an intermediate sized kart chassis (~900-1010 mm wheelbase, commonly called CADET or SPORTMAN chassis), sized between a Kid Kart and full Adult sized frames. The classes available in the Sportsman age group at OVKA are the 4-stroke Briggs & Stratton LO206 Sportsman class and the IAME 60cc 2-stroke Mini Swift & Micro Swift classes.

Since its widespread adoption in the 2010's, the Briggs & Stratton LO206 (colloquially called the "Briggs 206" or just "206") has become the most widely used 4-cycle engine in sprint karting due to its affordable entry price, good reliability, and ease of use. Broad restrictions on the ability of racers to modify the internal components of these engines have led to considerable engine parity in the 206 classes, meaning close racing where a good driver can make a big difference.

The same 206 engine, equipped with different swappable power restrictors, can be used in every available age division in kart racing. In the Sportsman class at OVKA, the 0.490" Green restrictor slide is used. This is generally considered to be the most preferable class for introducing new kids at this age to the karting world.

Alternatively, the IAME Mini Swift & Micro Swift classes provide higher-performance options in this age bracket. The IAME-built 60cc 2-stroke engine package starts at a higher price point than the Briggs 206, but with higher price comes greater speed and increased power. The two class options for this engine are Micro Swift (for 7-10 year-olds) and Mini Swift (for 8-12 year-olds). Micro Swift utilizes a 16mm exhaust restrictor to limit engine power, and can act as a useful confidence-building class for many young racers to ease into the significant jump in speed to Mini-Swift, which runs with the standard exhaust header for the engine.



# **OVKA Sportsman Classes:**

Briggs 206 Sportsman (7-12 years old)

Briggs & Stratton 206 with 0.490" Green Restrictor Slide 260 lbs minimum weight (kart+driver)

IAME Micro Swift
(7-10 years old)
IAME Swift 60cc
with 16mm Exhaust Restrictor
225 lbs minimum weight
(kart+driver)

IAME Mini Swift (8-12 years old) IAME Swift 60cc 245 lbs minimum weight (kart+driver)

# 12-15 years old

Juniors - The Junior classes offer increased speeds and are often some of the most well-attended and highly competitive classes at any karting club. At this age, full ADULT-sized chassis (~1045 mm wheelbase) are used in all classes. The two classes available in the Junior age group at OVKA are the 4-stroke Briggs & Stratton LO206 Jr class and the 100cc Jr class for 2-stroke engines.

As with its Sportsman iteration above, the Briggs & Stratton LO206 is used with a restrictor slide. For the 206 Junior class the 0.570" sized "Yellow" restrictor is mandated. Driving technique can be honed and perfected well in this class, where carrying corner speed and executing passes tactfully and cleanly is crucial with these tightly controlled motors. The popularity of the 206 engine has guaranteed well-attended grids for this class at OVKA and nearly every club where it has been offered.

On the 2-cycle side, the IAME KA100 is the primary engine used in the 100cc Junior class. Initially introduced in the United States for the 2017 season, the KA100 quickly supplanted the older 100cc 2-cycle engine classes due to its lower maintenance requirements and higher available power. Equipped with a 22mm exhaust restrictor for Juniors, speeds in this class can reach 55-60 mph. The KA100 has a higher operating cost to buy and maintain than the 206 option, but it comes with a marked performance increase for young drivers looking to build and test their skills at this age.

#### **OVKA Junior Classes:**

Briggs LO206 Junior (12-15 years old)

Briggs & Stratton 206 with 0.570" Yellow Restrictor Slide 320 lbs minimum weight (kart+driver) KA100 Junior (12-15 years old) IAME KA100 with 22mm Jr Restrictor 320 lbs minimum weight (kart+driver)

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# 15 years and older

**Seniors** – Senior classes start at 15 years old and do not have an upper age limit. The chassis used are full-sized adult frames and engines at this level run at their least-restricted level, where speeds for the fastest karts push past 60 mph. The available Senior classes at OVKA are 206 Senior, 100cc Senior, OVKA 420, and the non-points Legacy Yamaha KT100.

The Briggs 206 Senior option is the most affordable way to have fun in a competitive adult karting league. The 206 package has proven itself as a reliable, cost-effective, and low maintenance formula that rewards great driving while providing a broad base for grassroots karting. In 206 Sr the engines run with the standard Adult (Black) slide. The continued runaway popularity of this class across the country will ensure healthy participation at every OVKA race and any other event you attend.

The 100cc Senior class offers the option to run a KA100 engine (without the restrictor used in Juniors), with 25+ hp available from the factory, or the comparable Vortex ROK VLR 2-cycle engine. The ROK VLR package offers a slightly more affordable buy-in price option to the KA100 and can be run competitively in the same class. Introduced in the US in 2018 by long-time kart engine manufacturer Vortex, it has seen success as an alternative to the KA100 at nationals-level events.

In addition, the OVKA 420 class is also available in this age bracket. This class is a Local Option class designed by OVKA and whose regulations are approved by the WKA. This class uses the 420cc Predator 4-cycle engine widely available at hardware stores and allows some modifications for racing (detailed in our rulebook) creating a higher horsepower, high-speed 4-cycle class designed to suit larger-build drivers.

OVKA also offers a non-points class for the legacy Yamaha KA100 engine. Prior to the introduction of the KA100 in the US, the Yamaha KT100 was the de-facto 100cc 2-stroke engine across many series and classes. Thousands of these engines are still available for sale at discount prices on the secondhand market.

## **OVKA Senior Classes:**

Briggs 206 Senior (15 years & Up)

Briggs & Stratton 206 with Adult slide (Black) 360 lbs minimum weight (kart+driver)

OVKA 420 (15 years & Up)

Predator 420cc Engine
w/ allowed mods [see rules]
450 lbs rear brakes only or 460 lbs w/ front brakes
(kart&driver)

100cc Senior (15 years & Up) [2 engine options] IAME KA100 360 lbs minimum weight (kart+driver) or; Vortex ROK VLR 360 lbs minimum weight (kart+driver)

Legacy Yamaha [Non-Points]
(15 years & Up)
Yamaha KT100
with SR-Y, RLV, CK4 pipe, or SSX can
360 lbs minimum weight (kart+driver)



# 30 years and older, or 200lb+ Drivers (w/ permission)

**Masters/Heavy** — Masters classes offer our competitors the same engine performance as seniors, but in a division separate from their younger peers. While on-track competition is still fierce, masters classes can provide an overall more laid-back atmosphere for their participants away from the "intensity" of the teenaged drivers in the Senior field.

Masters also implements increased minimum weight requirements for both classes, which is attractive for drivers of larger build. Senior-aged drivers under 30 years-old who weigh over 200 lbs can also be approved into the masters classes early by the OVKA race director, rather than run at a performance disadvantage in Seniors, where excess weight can be a significant hinderance to performance.

As with all age groups, Briggs 206 continues to be popular in this age bracket, and in 100cc Masters, both KA100 and ROK VLR are again accepted.

# **OVKA Masters / Heavy Classes:**

Briggs 206 Masters
(30 years & Up)
Briggs & Stratton 206
with Adult slide (Black)
390 lbs minimum weight (kart+driver)

100cc Masters (30 years & Up) [2 engine options] IAME KA100 390 lbs minimum weight (kart+driver) or;

ROK VLR 390 lbs minimum weight (kart+driver) *or;* 

# 50 years and older

**Legends** – As karting in America continues to grow and proser, many older drivers who grew up racing are rekindling their love of karting or discovering it for the first time. Legends division classes are a growing trend in many karting series to give 50+ year-old members a dedicated place to compete with their peers.

Briggs 206 Legends
(50 years & Up)
Briggs & Stratton 206
with Adult slide (Black)
390 lbs minimum weight (kart+driver)

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#### 2-CYCLE vs 4-CYCLE ENGINES

Two-cycle and 4-cycle ("2-stroke" & "4-stroke") refer to two different mechanical styles of engines. While 2-cycle engines have fewer moving parts and a higher power-to-weight ratio, they also spin or "rev" much higher than 4-stroke engines, and generally require more mechanical refreshing in the kart racing world.

Developing an understanding of the levels of maintenance in each class will help make your decision on where to race. The 4-cycle engines (like the popular Briggs & Stratton 206) will generally require an oil change (roughly 14 oz) every race weekend to remain competitive and keep the engine running well. Cleaning the air filter and carburetor every few hours of running is also good practice for maintaining the engine. However, this engine is capable of running a full season before a "refresh" of the top end and will go several seasons before needing a major rebuild.

The 2-cycle engines (like the Comer Kid Kart, IAME Mini/Micro Swift, KA100 and VLR) require you to mix oil in with your fuel before filling up to keep your engine lubricated, since 2-cycle engines do not have a traditional oil sump. You will also see gains in power from getting your engine "blueprinted" or rebuilt by a karting engine builder, and common rebuild intervals on the 2-cycle engines are much more frequent (potentially twice in a full season) for the top runners in club level racing. The 2-cycle engines will also need their air filters cleaned regularly, and the carburetors rebuilt every few races to continue running properly. Higher horsepower classes will also wear through tires, chains, and brakes more quickly than lower horsepower classes.

## **READ THE RULES**

Download the OVKA rulebook on our website (*OVKA.com*) and familiarize yourself with what is allowed, and not allowed, when racing with the club. Before purchasing your kart, you'll want to make sure that the chassis, bodywork, tires, and engine all meet the requirements laid out in this season's rules document. You will also want to go through the Pre-Tech Safety Checklist (also copied here in **Appendix B**) to make sure that all proper safety items are either installed on your kart, or are able to be installed, before going to the track. On race day you may suffer disqualification for an overlooked noncompliant component if you are not familiar with the technical regulations.

You will also want to familiarize yourself with the race day procedures, on-track etiquette, and driver conduct expectations that are described in the rules. Unsportsmanlike conduct while driving or in the pit area will **NOT** be tolerated and can result in removal from the track or expulsion from the club.

#### UNDERSTAND YOUR BUDGET

As with any sport or hobby, karting can get expensive very quickly. To find success and avoid any surprises, its useful to take stock of both the one-time costs and running costs for karting before jumping into a full season championship with an engine you're unfamiliar with. The big one-time costs such as the kart and engine will be



at the forefront of your mind, but don't forget that fuel, oil, tires, and even brakes and chains are consumables that will have a long-term running cost, depending on how often you race.

Spare parts, tools, and support equipment for race day should also not be overlooked when planning your spending, as well as the required safety equipment such as your helmet and driving gear.

Used karts are often available within the karting community, and you may see some for sale when you visit the track. Online communities, such as Facebook Marketplace and other Karting Classifieds groups will have a large assortment of used equipment available at any time. Brick and mortar shops, like Comet Kart Sales in Greenfield, Indiana are also very useful for getting "hands on" the equipment you're looking at, before you make a purchase. Online stores, such as Mondokart.com are also great resources for shopping around and comparing prices for parts and supplies. Some kart parts are sold through regular kart shops, while others may require purchase through an official dealer for the kart brand you're buying for.

Some general pricing guidelines for what to expect for karts and engines are shown below:

| "Ready-to-Race" Complete Karts |             |             |  |  |  |
|--------------------------------|-------------|-------------|--|--|--|
| New Used                       |             |             |  |  |  |
| Kid Kart                       | \$2400-3000 | \$1000-1900 |  |  |  |
| 206 Sportsman                  | \$3700-4500 | \$1000-2500 |  |  |  |
| Mini/Micro Swift               | \$4500-6000 | \$2000-3000 |  |  |  |
| 206 Jr/Sr/Masters/OVKA 420     | \$3700-4500 | \$1000-3000 |  |  |  |
| 100cc Jr/Sr/Masters/Legend     | \$5500-7500 | \$1500-5000 |  |  |  |

| Standalone Engines           |            |             |  |  |
|------------------------------|------------|-------------|--|--|
| New Used                     |            |             |  |  |
| Comer C52 Kid Kart           | \$1,050    | \$300-1000  |  |  |
| Briggs & Stratton 206        | \$800      | \$400-600   |  |  |
| IAME Mini/Micro Swift        | \$1,995    | \$1000-1500 |  |  |
| IAME KA100                   | \$2,395    | \$1800-2000 |  |  |
| Vortex ROK VLR               | \$2,200    | \$1500-1800 |  |  |
| OVKA Predator 420            | \$600      | \$1000      |  |  |
|                              |            |             |  |  |
| 206 Engine Rebuild \$200-300 |            | 00-300      |  |  |
| Mini Swift Engine Rebuild    | \$600-1000 |             |  |  |
| KA100/VLR Engine Rebuild     | \$700-1100 |             |  |  |

| "Roller" Chassis (no engine) |             |             |  |  |
|------------------------------|-------------|-------------|--|--|
|                              | New         | Used        |  |  |
| Kid Kart                     | \$3,000     | \$400-1000  |  |  |
| Cadet                        | \$3,500     | \$600-1500  |  |  |
| Adult                        | \$3500-5500 | \$1000-3500 |  |  |

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#### **PURCHASING A KART**

New racers in the world of karting should always consider purchasing used equipment to get started. New equipment may be nice, but it will always take time for a new racer to get to the point where they can make the "best use" of brand new equipment. Developing the "feel" for driving and learning the basics takes practice, and a driver without a frame of reference will need to build confidence and experience before they can tell the difference between and "old" kart and a brand-new chassis.

Since go-karts lack movable suspension, most of the movement the vehicle experiences while traversing bumps and negotiating corners comes from the chassis frame flexing beneath the driver. Over time, a chassis will get "flexed out" as the metal is over-worked and over time and will no longer handle in the corners as well as it was designed to. While a well-seasoned driver will be able to feel the difference between a new chassis and one that's been used for many racing seasons, a new driver has much more to learn and experience before that potential performance deficit becomes a major hinderance.

However, brand new karts come with the benefit of being "untouched," and carry the knowledge that they're perfectly straight and have never been in an accident. You may have to spend extra time building and assembling a new chassis, and ensuring all safety checks are complete, but if you are jumping into karting from another form of racing a new chassis may be more attractive to you.

Pay attention to what brands of kart are popular at the tracks and clubs you're going to be racing at. Chances are that other racers have gravitated toward those specific brands because they work well at the track, or because there are nearby networks of dealers and shops that carry parts for them.

Also pay attention to frame tube sizing when looking at karts. Frames for karts can come in 28mm, 30mm and 32mm tube sizes (and blends of them), with smaller tubes working better for lower weight and horsepower classes and larger tubes for higher horsepower karts. Some manufacturers make chassis intended for 206 or 4-cycle engines specifically, due to their lower horsepower. These may not perform well when used with higher-horsepower 100cc 2-cycle engines.

#### Notes:

You may see kart chassis for sale that are equipped with front brakes (Shifter Kart Chassis). All OVKA classes are rear-brake ONLY, except for OVKA 420 which allows an exception with higher weight.

You may see kart chassis for sale that are LTO (Left Turn Only). These are made specifically for oval racing and will not handle properly on a sprint karting road circuit like G&J Kartway.

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## THE CHASSIS BRANDS

Karting brands and manufacturers can be a bit confusing to remember. Many popular Sprint Karting chassis manufacturers are based in Europe and many manufacturers have a number of "sub-brands" that all come from the same factory and share the same parts. In the same way that General Motors may produce and sell cars under the Chevrolet, Buick, and GMC brand names, which share a pool of common parts under the hood, the OTK Group produces TonyKart, EOS, Kosmic, and Redspeed karts, which are functionally identical except for the color of the paint, and which also share interchangeable parts.

Chassis brands may have different reputations for working better in different environments or weather conditions, or for how easy they are to set up well, or for the relative costs of their replacement parts. Talk to members of the karting community and get their input on your potential options.

A list some of the current major manufacturers is listed here for your reference when looking at used models:

OTK Kart Group (Italy) - TonyKart, EOS, Kosmic Kart, Redspeed, Gillard, Exprit.

BirelART (Italy) - Birel, Ricciardo, Charles Leclerc, Kubica, CompKart, Swiss Hutless, Free Line, Comp Kart

Tinini Group (Italy) - CRG, GP, DR Kart, LH Kart, Evokart, Kali Kart, Maranello, Italcourse

IPK (Italy) - Praga, Formula K, OK1, RS Kart, ItalKart

SodiKart (France) - Sodi, Alpha, Tekneex

Parolin (Italy) - Parolin, Merlin, Vemme, Energy, TopKart, EuroStar, Oberon

Breda (Italy) - Kart Republic, Fernando Alonso Kart, Will Power

Emme Racing SAS (Italy) - Mad Croc, Race Factory, Drago, Magik Kart , AK USA

TBKart (USA)- TBKart, GFC, Trackmagic, Jacques Villeneuve

**Drew Price Engineering** (Australia) - Arrow, Sera, Monaco

Margay (USA)

Haase (Italy)

Comet (USA) Eagle

Factory Kart (USA)

Coyote (USA)

MGM (USA)

GFC (USA)

Magik (USA)

iKart (USA)



#### INSPECTING A USED KART

Always inspect a kart in person before buying. While photos are useful to gather information, getting hands on the kart to check the details is always worth the extra effort. When inspecting a kart for purchase, a few things to pay attention to are:

How old is the chassis? If the model is only a couple of years old, spare parts will be easy to find. If the chassis is a decade or more old, spare components may be hard to come by, even from the manufacturer.

Is the chassis straight? Or has it been in a bad accident and been bent beyond repair? Small tweaks are fixable, large deformations of the main chassis are not.

Always check the bottom of the frame rails. Excessive curb-hopping will grind the bottom of the rails, altering the chassis performance. While some scraping is inevitable, if the tubes feel like a "D" when you put your fingers on them, the chassis may be overly worn.

Check the welds. Cracks in the frame welds will dramatically alter the kart's performance. While these can sometimes be fixed, unaddressed cracks should not be raced on.

Does the kart look well maintained? Cleanliness and attention to detail generally mean that the previous owner took good care of the kart. A kart with excessive oil, dirt, or tape on it may be hiding cracks and scrapes that would otherwise stand out.

Does the owner have extra spare parts to sell you, or are spare parts readily available? Some less popular brands, especially ones produced overseas, can be difficult and overly pricey to maintain if the manufacturer doesn't have a US dealer network.

If it comes with an engine, does it start? Does it idle well? How many hours on it since a rebuild, and who was it by? Is it still legal to run in competition?

Does it have new tires? What brand and how old? Are they useable for practice or racing at the club you want to run? Practicing on older tires to familiarize yourself with the kart and track is fine, but you'll want to race on newer tires to be competitive.

Does it come with a working Data Logger? (Commonly called a "tach", short for tachometer, or by their brand names "MyChron" or "Alfano") A data logger is indispensable in modern kart racing for keeping track of your lap times, engine RPM, and exhaust/head temperatures that are used to tune the kart's performance.

Does the owner have setup sheets or data that they're willing to give you? Can they help put a good starting setup on it for you? Are they willing to come to the track and help you get started? A good baseline setup can help you build confidence on track guickly.

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#### **TOOLS & SUPPLIES**

Once you've purchased a kart, you should familiarize yourself with the common operations for working on it. Carefully re-read the Safety Pre-Tech Sheet (**Appendix B**) and confirm your kart's compliance with each item. Practice removing and installing the engine, changing gear/sprocket ratios, and adjusting the alignment to familiarize yourself with the mechanics, and also figure out where your home toolset may be lacking in specific tools. Go over every nut and bolt on the kart to confirm that everything is properly secured and learn the bolt sizes for every item. Some extra equipment you'll need for operating smoothly at the track may also include things like:

#### Tools -

metric hex wrenches metric sockets & wrenches spark plug socket torque wrench a soft blow hammer basic screwdriver set snips, side cutters, and pliers drill or small electric impact

Air Pressure- small air compressor or 5 gallon air tank as well as karting tire pressure gauge

A Range of gears/sprockets - Ask for help from club members on getting sprockets in the range used at the track (recommendations listed on Page 16), make sure to purchase sprockets and chains that match (#35 chain vs 219 chain).

Fuel jug and funnel – a fuel-rated jug, plus a measuring device if you'll need to mix 2-stroke oils

Kart stand with wheels – Electric automatic stands are available as well as standard fixed ones to put your kart on between sessions to work on it

**Pop-up canopy for shade (or to keep dry)** – as well as proper equipment to tie it down or anchor it to the ground while you're away from the pit

Fire extinguisher and first aid kit — Each club member is required by the rules to keep a small fire extinguisher in their pit or trailer for emergencies

**Spare Parts** – commonly used spare parts are tie-rods, steering column, axles, and chains

**Spare Wheels and Tires** - one set with practice tires mounted, and the other set with race tires mounted.

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# Intro to Kart Racing Guide

**Notebook/Binder** — Take time to print out the club rules, kart manufacturer setup guides and datasheets on components, keep detailed notes on how you change the kart setup as you practice and how it feels to you.

#### SAFETY EQUIPMENT

Some of the most important equipment you will purchase for karting will be the required safety devices. Some of these items have different requirements for children and adults. Aways purchase name brand equipment from reputable sources and check the tags for the required ratings.

**Helmet** – Helmets must have current SNELL or SFI ratings (see table below). Tinted visors are legal for daytime races but clear or amber visors are required for OVKA night races. New karters must place an "X" in tape on the back of their helmets for their first three race weekends to let other drivers know they are new.

| SNELL FOUNDATION       | SPECS.           | SFI SPECS.               |                |  |
|------------------------|------------------|--------------------------|----------------|--|
| SPECIFICATIONS         | VALID<br>THROUGH | SPECIFICATIONS           | VALID<br>UNTIL |  |
| CMR2016                | 2026             | 24.1/2015 (YOUTH HELMET) | 12/31/2026     |  |
| CMS2016                | 2027             | 31.1/2015                | 12/31/2026     |  |
| CMR2016 (YOUTH HELMET) | 2027             | 41.1 2015                | 12/31/2026     |  |
| M2015                  | 2026             | 24.1/2020                | 12/31/2031     |  |
| M2020                  | 2031             | 31.1/2020                | 12/31/2031     |  |
| SA2015                 | 2026             | 41.1 2020                | 12/31/2031     |  |
| SA2020                 | 2031             |                          |                |  |
| K2015                  | 2026             |                          |                |  |
| K2020                  | 2031             |                          |                |  |

Race Suit - Drivers are required to wear either a full-length racing suit or a jacket constructed from an abrasion-resistant material. If wearing a jacket, full-length pants must be worn. Karting racing suits are typically more affordable than those for full-sized cars, as they do not have multi-layer flame-retardant Nomex linings.

**Rib & Chest Protector** – A chest protector and a rib vest are <u>mandatory</u> for drivers in the Kid Kart, Sportsman and Junior classes. The spec requirement is an SFI 20.1 rating which can be found on a tag on the unit. For Seniors and Masters classes, a rib protector is *highly recommended*.

**Gloves** - Either kart racing gloves, or motorcycle road racing gloves.

**Neck protection** - a "neck roll" or "neck collar" is required for all OVKA racers to limit head movement of the driver to prevent hyper-extension. There are several styles to choose from at most karting supply distributors.

**Shoes -** Closed-toed shoes must be worn. Driving shoes are highly recommended, as they provide a thin sole for the driver to feel their pedal-work more clearly.



#### SETTING UP YOUR KART

Take the time to set your new kart up for your own comfort, by adjusting the seat, steering wheel, and pedals to fit your stature so that you do not have to over-extend to reach the throttle or brake and can turn the wheel with natural motion. Go through every bolt and connection on your new kart and double check that they are secured and retained. You will not build confidence as a driver if you have a mechanical incident at your first day on track.

Starting with a good kart setup can go a long way toward helping build confidence in the driver. Your kart manufacturer may have "standard" settings for your kart that act as a good starting point for toe & camber, as well as axle height, stiffness, and torsion bar settings. You can also talk to members of the club for advice on chassis setup for newer drivers, as well as for advice on tire pressures and gear ratios.

G&J Kartway has a number of track configurations that can be used for competition, ranging from the tight and twisty A-configuration, to the fast and sweeping 1C-configuration. Finding the optimum gear ratio (between the clutch driver on the engine and the sprocket on the rear axle) for each track configuration is a key challenge in karting competition. Some broad guidelines for gearing are shown below. Note that new drivers will typically start on a larger ratio, and "remove teeth" from their rear sprocket as they build speed and familiarize themselves with the track. Also note that other clutch drivers are available as well, that can be used to fine-tune your ratios further.

| Class           | Gear Ratio | Clutch Driver | Sprocket Range |
|-----------------|------------|---------------|----------------|
| 4-cycle Classes | 3.6-4.0    | 16            | 59-64          |
| 2-cycle Classes | 7.5-8.5    | 10            | 75-85          |

<sup>\*</sup>non-Kid Kart Classes

#### FAMILIARIZE YOURSELF WITH YOUR KART

Practice starting your kart on a kart stand and bringing it to idle. (*Never start a kart on the ground without someone in the seat to hold the brakes.*) Make sure it idles cleanly, by adjusting the idle screw on the carburetor, and ensure the kill switch or mechanism shuts off the engine as its supposed to.

For younger drivers who may have no experience operating motorized vehicles, you might first find time to familiarize them with their new kart away from the track. Try setting up a small circle of cones in your driveway or in a large, open parking lot. (always follow posted traffic restrictions and NEVER operate a kart on public roads) to give them some seat time navigating around at a slow, walking pace. Many children can be startled by being so close to the engine noise of their new karts and giving them time to ease into the experience in a very controlled environment can work to quell their apprehension.

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## PRACTICE, PRACTICE, PRACTICE

Kart racing at this level is much different than you may have experienced at casual rental-kart tracks. Speeds are much higher and the circuit is much more open than you may realize. It is imperative that you familiarize yourself with your new vehicle and the track itself before simply jumping into a race event, for your safety and the safety of your new club-members and competitors. Begin watching onboard videos from G&J Kartway, and paying attention to the racing line. Many onboard videos can be found on YouTube, by searching "G&J Kartway" and/or the name of the class you're interested in. Pay attention to kart placement on track, and braking and acceleration zones.

Find a time to visit the track when there is not a scheduled event (visit *G&J Kartway.com* for the full track schedule). If you can, plan to meet an existing member or group at the track for help and guidance.

Begin by walking the track configuration that you are about to drive, when no one else is driving on the track. Standard etiquette is to always practice the track configuration of the next upcoming race. A diagram of the available G&J Kartway configurations in in **Appendix C**. Pay attention to where the racing line is (where the darkest areas of rubber are worked into the asphalt) and where black tire marks are built up on the curbs in the corners. These are the places you are going to want to position your kart when you start learning the fastest way around the circuit. Also pay attention to where its clear that other drivers have gone OFF the track, and left skid marks, scrapes, and dirt patches. These are the areas that are common for mistakes.

When you are ready, try taking your first laps with an empty of track, if possible, to give yourself plenty of room and space to make mistakes. Always raise your hand high above your head when entering and exiting the track to give proper notice to other drivers when you are going slowly, and never enter the track without stopping and looking for oncoming karts. If you spin or come to a stop on track for any reason, first raise your hands in the air to alert oncoming drivers, and only exit your kart when you are certain there are no oncoming vehicles.

Focus on building a smooth driving style, without harsh or abrupt inputs to the steering wheel or pedals. Pay attention to placing your kart on the racing line in the corners, where you observed on your track walk, and holding a consistent line on the straights, without weaving. Work in intervals of 5–10 laps at a time to avoid over-tiring yourself quickly. Do not forget to top off your fuel tank, oil your chain, and check your lug nut torques periodically as you run laps.

As you build speed, focus on doing longer runs, and extending the periods of time on-throttle before the corners. Your ultimate goal is to spend almost no time "coasting" into and through corners and instead either be on-throttle accelerating toward them, or then quickly braking for them, and returning back to the throttle as quickly as you can.

Try to build confidence and consistency such that you can run a full race length (8-10 laps) with every lap being within a 1 second window of each other with no major mistakes. Then try narrowing that window further. This will take many sessions, or days, at the track. But building consistency is key to running safely when other karts are on track with you.

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## **BUILDING SPEED**

As you begin to feel more comfortable in the kart, you will find that your mind has more and more time to focus on where you are placing the kart on track, and how that placement affects your speed. Perfecting your driving lines will help you find extra speed and laptime to be competitive.

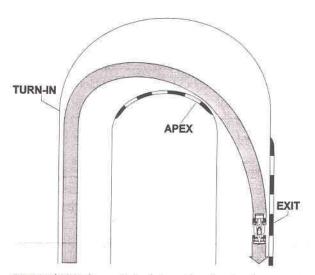
Excerpts from "Speed Secrets – Professional Race Driving Techniques" written by Ross Bentley, MBI Publishing Company, 1998 Ross Bentley:

As a race driver, your goal in each and every corner is really quite simple. Well simple to state here — maybe not so simple to do. You want to

- Spend as little time in the corner as possible, and
- Get maximum speed out of the corner, by accelerating early, to maximize straightaway speed.

Often, to maximize one of the above means sacrificing the other. In other words, to achieve the best-possible lap times, you may have to compromise cornering speed for straightaway speed, or vice versa. It will depend on the specific layout of the track and your car's performance characteristics. The trick is finding the perfect compromise.

The three most important reference points are used to help guide you through the corners. They are, in order: the **turn-in** point, **apex** and **exit** point (see illustration below).



A typical 180-degree hairpin turn showing the three most important reference points: the turn-in, apex, and exit.

**Turn-in** Point is the most important part of the corner, as it determines how you drive the rest of the corner – where and how fast you apex and exit. As the name suggests, this is the part of a track where you do your initial turning of the steering wheel into the corner. The turn-in point is determined somewhat by where you want to apex the corner.

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The apex of a corner is the point, or area, where the inside wheels run closest to the inside of the road. The apex can also be thought of as the area of the turn where you are no longer driving into the corner, but are now driving out. It is sometimes called the 'clipping point' as this is where your inside wheels clip past the inside of the roadway. The location of the apex is determined by where and how you enter the turn, and it will affect how you exit it. The ideal apex for a corner can be either early in the turn, in the middle of it, or late in the turn. Determining whether you had the correct apex is very simple. If you come out of the corner having to turn more to keep from running off the road, then your apex was too early. If you chose too late an apex, the car will not be using all the road on the exit — it will still be too close to the inside of the corner.

In most corners, if you are doing anything with the steering wheel other than unwinding it after the apex of the corner, you are probably on the wrong line. Most likely, you have turned in too early. You shouldn't be turning the steering wheel tighter once past the apex.

When you hit the apex perfectly, the car will naturally want to follow a path out to the **exit** point — the point where your car runs closest to the outside edge of the track. In fact, to exit the corner properly you must use up all the track. Allow the car to come out wide to the edge of the road. This allows the car to balance its weight smoothly and gently and achieve maximum acceleration. It allows you to 'unwind' the car.

"It is better to go into a corner slow and come out fast, rather than vice versa"

The ideal line, with its tighter radius at the beginning of the corner forces you to enter slightly slower, but the gentler, expanding radius through the remainder of the corner allows increasingly more acceleration and therefore higher exit speed. This higher exit speed stays with you all the way down the following straightaway (and even multiplies its effect); more than making up for the lower entrance speed.

## PRIORITIZING CORNERS

Some corners on a race track are more important than others. Fast lap times and winning races, come from knowing where to go fast and where to go (relatively) slow. When learning any track, concentrate on learning the most important corners first.

When you analyze any track, you will find that there are only three types of corners:

- One that leads onto a straightaway
- One that comes at the end of a straightaway, and
- One that connects two other corners

Driving coaches often say that the most important corner, in terms of lap speed, is the one that leads onto a straightaway; the next most important is the one that comes at the end of a straightaway; and the least important is a corner between corners.

The ideal line in a corner that leads onto a straightaway is one with a late apex. This allows you to accelerate very early in the corner. In any turn leading onto a straight it is best to brake early, get the kart well balanced as you turn in, and then accelerate hard onto the straight.

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#### **G&J KARTWAY**

Familiarize yourself with the overall facility layout to help you navigate the flow of events on race day. A facilities map of G&J Kartway can be found in **Appendix D**.

#### RACE DAY SCHEDULE

When you have turned enough practice laps to feel confident in yourself and your kart, its time to join in for a race day. Here is what to expect when you arrive, and how an OVKA event plays out:

**7:00am – Gates Open:** Gates to the track open, visit the entrance building on your way in to sign-in and purchase a Pit Pass Wristband. Find an open pit spot, either in the Free Pit Spots, or your own if you've reserved and paid for one. Begin unpacking and setting up your pit area.

7:30am – Registration & Pre-Tech Opens: Visit the Scoring Tower to Register for your class and rent a Timing & Scoring Transponder (if needed) and purchase fuel (if needed). You will be given Pre-Tech form to complete and return to complete registration. If this is your first race with OVKA, you will need a member of the Tech Team (Tech Director or Race Director) to inspect your kart and sign-off on your tech form that the appropriate safeties are in place. Pick-up your fuel and transponder and prepare your kart for Warm-Up.

9:00am – Class Warm-Ups: Each class will be given two 5-minute warm-up sessions. These go by very quickly, so be sure to have all of your equipment ready and be on the grid early for when your class is called. Give yourself room by starting at the rear of your field. Small classes of similar speed may be combined.

The order of warm-ups will be posted on the board at the head of the grid. Each class will go out for warmup in-turn and then the cycle will repeat for the second session. Be cautious on track during cool mornings and focus on turning solid laps with other karts around you. Try to follow other racers in your class and learn from their racing lines.

Take time to make notes after each session on your kart's setup, how it felt on track, and any changes made. You must turn laps in at least one warm-up session to compete in the races.

11:00am – Drivers Meeting: A Mandatory drivers meeting will take place on the grid before racing starts. Here, the Race Director will go over the rules and procedures for the day and give any notes they may have for the Drivers. Minor drivers MUST have a parent present at the Drivers Meeting. Make sure to pay attention to the instructions given, especially the procedures for entering and exiting the track.

You will then be released to take your kart through painting, where each controlled component will be marked. Anything painted cannot be replaced for the remainder of the event without approval from the Tech Director. Painting may also occur at the conclusion of the first competitive session, as you cross the scales.

11:30am – Races Start: Competitive sessions will now begin. These can take a number of different forms at OVKA, which are explained in the following section.

Note: Times always subject to change due to weather or track condition. For OVKA Night Race events, all times are shifted forward accordingly from Gate Opening time.

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#### **OVKA RACE PROCEDURES**

Each race begins by lining up on the grid in your given position. (New Karters will be required to start at the rear of the field for their first THREE race EVENTS). When the command is given, the class will pull off the grid and proceed to the track, where they will remain lined-up in-order for pace lap(s) on the "pace-oval" at G&J Kartway (see **Appendix C**). Classes will be given the Green Flag if the Head Flagger approves of the lineup and pace, otherwise they will be sent for additional pace laps.

The first racing lap when given the Green Flag at G&J Kartway uses the cut-through from Turn 1 to the back straightaway (See **Appendix C**) to allow adequate space for the field to fall into line. All other racing laps use the designated configuration for the day as shown. After taking the checkered flag, drivers will again use the pace oval at a slow, controlled speed to return to the scale lane for weigh-in

#### **OVKA RACE FORMATS**

**Qualifying Format** [5 min Qualifying Session + Pre-Final Race + Final]: In the qualifying format, the first session after the drivers meeting will be a 5-minute session very similar to warm-up, where all drivers will be allowed to freely run hot laps. The fastest single lap from each driver will be used to set the field for the Pre-Final race. The finishing order of the first race will then set the field for the Final. The finishing order of the final will determine how points are paid out for the day.

Race lengths at G&J Kartway in this format are typically 8-10 lap Heat Races and a 10-12 lap Final.

**Pea-Pick (Winner Take all)** [Two Heat Races + Feature Race]: In this format, there will be three races for each class. The first race will have its starting grid set by a random draw, which will be posted on the board at the head of the grid before racing starts. Arrive at the grid with plenty of time to get ready before your race.

The second race will start with the starting grid for the first race inverted, (with new karters still at the tail-end). The average finishes for the first and second race will then be computed, and the Final race will be set with the best average finisher from the first two races starting first, and progressively down the field from there. The finishing order of the final will determine how points are paid out for the day.

Race lengths at G&J Kartway in this format are typically 8-10 lap Heat Races and a 10-12 lap Final.

**Qualifying + Extended Final [5 min Qualifying Session + Extended Final]:** This format proceeds exactly like the qualifying format above, but with no heat race and a single, longer Feature Race.

Race length at G&J Kartway in this format is typically a 15-20 lap Final.

Champ Race Special Format [2-lap Qualifying Session + Pre-Final + Extended Final]: The OVKA Memorial Champ race is a special 2-day event held each summer. The race format for the Champ Race features standard warm-up sessions on Saturday, followed by a special qualifying session where each driver is given only 2 laps to set a fast time. On Sunday, drivers are offered an optional warm-up session, followed by a Heat race which sets the grid for the Feature. Top finishers in the Feature receive trophies/plaques at this race.

Race lengths at G&J Kartway in this format are typically a 8-10 lap Heat and a 15-20 lap Final.

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#### **OVKA FLAG RULES**

The following rules dictate the function of the various flags used in OVKA competition and are to be obeyed without question when on-track at an OVKA event.

**GREEN**: Displayed at the start of the race or practice session and kept visible as long as the track is clear for racing.

**YELLOW**: Used instead of the green if the track is partially blocked by accident or objects that may have fallen off competing vehicles. It means to slow down, use caution, hold your position, and put your hand high in the air to signal to those behind that you are slowing, no passing is allowed until the track is clear (past caution area), or until the green flag is given. A yellow flag means, that area only, be alert, green flag condition is as soon as the problem or obstruction has been passed, you may proceed to race conditions again.

**RED**: Race Halted. Clear the circuit by pulling off to the side and stopping the engine as soon and as safely as circumstances permit. The track is hazardous and unsafe for racing. Come to a safe and controlled stop on the racecourse with your hand held up in the air to signal your slow pace to competitors behind. Remain in your kart until all vehicles around have stopped. When told by a Race Official, push your kart to the area designated for restart.

- 1) Any competitor who is (or appears to be) injured, necessitating a red flag, shall be required to sit out the balance of the heat/qualifying/pre-final/final for observation and safety.
- 2) If in the opinion of the Officials present, an entrant is considered responsible for causing a red flag, that entrant(s) shall be placed at the back of the field for that heat. The entrant causing the red flag incident may be different from the entrant for whom the red flag was waved. It is at the Race Director's discretion to determine karters involved in the red flag incident.
- 3) Any driver found disobeying the red flag may be immediately disqualified from the race and could be subject to suspension.
- 4) No work is allowed on the karts during a red flag. During the red flag stoppage and at the Race Director's discretion, karts may be sent to the pits to await a re-start later in the race order. In the event this decision is made, the red flag will be lifted, and all karts may be worked on once they have left the racing surface. As with other heat races, karts may not enter the track once the 90-second rule has expired.
- 5) At Race Director's discretion, kart(s) involved in a red flag incident can be required to have the kart, safety apparel and helmet inspected. Following a red flag, the race will be re-started provided the leader has not started the last lap. The finishing order reverts to the previously scored lap if the leader has started the last lap with the karts causing the red flag scored last of the karts running at the time of the incident.

YELLOW AND RED FLAGS WAVED: This indicates a restart of the race for reasons other than a red flag incident and no laps have been scored. This is at the discretion of the Race Director or Head Flagman. The race will be restarted double file with the starting order based on the original grid assignments. BLUE: (Blue with an orange or yellow stripe): This is the warning flag that a competitor is lapping you. The driver being lapped should maintain a driving line that does not impede the progress of the overtaking kart. The lapped driver should

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# TO VALUE AND ALL SHADOWS

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indicate on which side the faster kart should pass and maintain their driving line until the "normal" driving line is clear. This is a courtesy flag and may not always be displayed.

WHITE: One more lap until the race is over. This is a courtesy flag and is not mandatory. Race until the checkered flag is given.

**ROLLED BLACK**: A rolled black flag from a Turn Marshal or Pit Steward indicates a warning is being issued for a driving infraction. A rolled black flag from the Head Flagman indicates a penalty has been assessed. Every attempt will be made to display rolled black flags, but even if not displayed a warning or penalty will still be imposed.

**WAVED BLACK**: This is a consultation flag. If shown, complete the next partial lap at a reduced speed and exit the track at the exit point as soon as possible. A Track Official will relay to you the need for the consultation and the other information; stay by the "scale area" until the information is given.

**BLACK FLAG WITH ORANGE DISK ("MEATBALL")**: Any driver who has received the black flag for a mechanical defect, which he/she is made aware of by track personnel, may proceed to the track exit with extreme care, as long as the problem poses no safety problem to the rest of the competitors on the track. Otherwise, the competitor should pull off the racing surface and wait until the race is over to push back to the scale lane. Receiving the meatball flag will result in the scoring of that driver to stop.

**CHECKERED**: You have finished the race or practice session. Complete one more partial lap at reduced speed before exiting to the pits.

**BLACK and CHECKERED**: Waving Checkered and Black flags together indicate that the race is ending under conditions subject to review and potential action by the race officials. Any decisions affecting the outcome of the race will be communicated by the Race Director, or designee, to the affected entrants and the scoring officials.

#### COURTESY FLAGS:

- ROLLED FLAGS CROSSED: This is a courtesy signal given to show halfway point of the race.
- ROLLED FLAGS HELD PARALLEL: This is a courtesy signal given with 2 laps left until checkered flag is given. (Race until the checkered flag is given.)

#### **OVKA CHAMPIONSHIPS**

OVKA members earn points into their class championships following the format listed in the OVKA rulebook. Each driver is allowed a number of "drop" races, as described in the rulebook, meaning that club members do not necessarily have to make every event to be competitive for a championship, or can at least "drop" their worst points-paying days from their total. Top finishing Club Members in the season-long Championship receive awards at our celebration banquet each winter.

#### POST RACE MAINTENANCE

After a race day, always take the time to go through your kart to check for loose hardware and unseen damage. Clean and lubricate the needed components, and perform the routine maintenance recommended by your engine manufacturer. Keep a notebook of your laptimes, results, and how the kart responded to changes you made on race day. These records will be useful as you attend more races and improve your driving and race-craft and begin looking to find more and more competitive laptimes through optimal kart setup.

## THANK YOU FOR READING

The OVKA Hopes to see you at the track this season and beyond. Please reach out to our board members if you need any help or guidance on your journey into the world of kart racing.

<u>NOTE:</u> The information provided in this guidebook is intended only as a general reference for new kart racers. The OVKA Rulebook and the manufacturer technical documents referred to therein are the <u>ONLY</u> definitive sources for all club procedures & technical regulations. Those documents should be deferred to in any and all cases where specs, rules, procedures, or information may differ from those described in this document.



APPENDIX A: 2025 OVKA Schedule

# Ohio Valley Karting Association 2025 Championship Schedule

| Day      | Date   | Event                        | Schedule        | Location          | Config.       |
|----------|--------|------------------------------|-----------------|-------------------|---------------|
| Saturday | 1-Feb  | OVKA Trade Show & Swap Meet  | Doors: 8:00am   | Roberts Centre, W | ilmington, OH |
| Saturday | 22-Mar | Clean-Up Day                 | Daytime Special | G&J Kartway       |               |
| Saturday | 29-Mar | Driving School / Karting 101 | Daytime Special | G&J Kartway       | 1B            |
| Sunday   | 30-Mar | Charity Race                 | Daytime Special | G&J Kartway       | Random        |
| Sunday   | 13-Apr | Points Race #1               | Day Race        | G&J Kartway       | 1B            |
| Sunday   | 27-Apr | Points Race #2               | Day Race        | G&J Kartway       | 1A            |
| Sunday   | 18-May | Points Race #3               | Day Race        | G&J Kartway       | 2B            |
| Saturday | 31-May | Points Race #4               | Night Race      | G&J Kartway       | С             |
| Saturday | 7-Jun  | Points Race #5               | Night Race      | G&J Kartway       | В             |
| Saturday | 21-Jun | Points Race #6               | Daytime Special | C 9 I Varturay    | ٨             |
| Sunday   | 22-Jun | MEMORIAL CHAMP RACE          | Two-Day Event   | G&J Kartway       | А             |
| Saturday | 12-Jul | Points Race #7               | Night Race      | G&J Kartway       | 1BX           |
| Saturday | 19-Jul | Points Race #8               | Night Race      | G&J Kartway       | 1A            |
| Sunday   | 3-Aug  | Points Race #9               | Day Race        | G&J Kartway       | 1C            |
| Sunday   | 10-Aug | Points Race #10              | Day Race        | G&J Kartway       | 1B            |
| Saturday | 6-Sep  | Weather Date                 | Day Race        | G&J Kartway       | TBA           |
| Sunday   | 7-Sep  | Points Race #11              | Day Race        | G&J Kartway       | 2C            |
| Sunday   | 14-Sep | Points Race #12              | Day Race        | G&J Kartway       | А             |

- -OVKA reserves the right to change race format & track configuration due to weather or track conditions.
- -All standard Race Days will consist of two 5min Warm-Ups, 5min Qualifying, Pre-Final, and Final Races.
- -Daytime Special Schedules will be announced per event online at OVKA.com & on OVKA social media.
- -The Weather Date will revert back to Open Practice if no OVKA Points Event is rescheduled for that day.
- -2025 OVKA Championships will be decided by the best 10 of 12 Points Events. (2 points race drops)

| DAY RACE Tim           | etable   | NIGHT RACE Tim     | 1etable | Session Order          |
|------------------------|----------|--------------------|---------|------------------------|
| Gates Open             | 7:00 am  | Gates Open         | 2:00 pm | Class Warm-Ups Round 1 |
| Sign-In / Pre-Tech     | 7:30 am  | Sign-In / Pre-Tech | 3:00 pm | Class Warm-Ups Round 2 |
| Class Warm-Ups         | 9:00 am  | Class Warm-Ups     | 4:00 pm | Drivers Meeting        |
| Sign-In Closes         | 9:30 am  | Sign-In Closes     | 5:00 pm | 5 min Qualifying       |
| <b>Drivers Meeting</b> | 11:00 am | Drivers Meeting    | 5:30 pm | Pre-Final Race         |
| Racing Starts          | 11:30 am | Racing Starts      | 6:00 pm | Final Race             |



# **APPENDIX B: EXAMPLE PRE-TECH FORM**

| O | /KΔ | Pro | Tech | Form |
|---|-----|-----|------|------|
| • |     | rie |      |      |

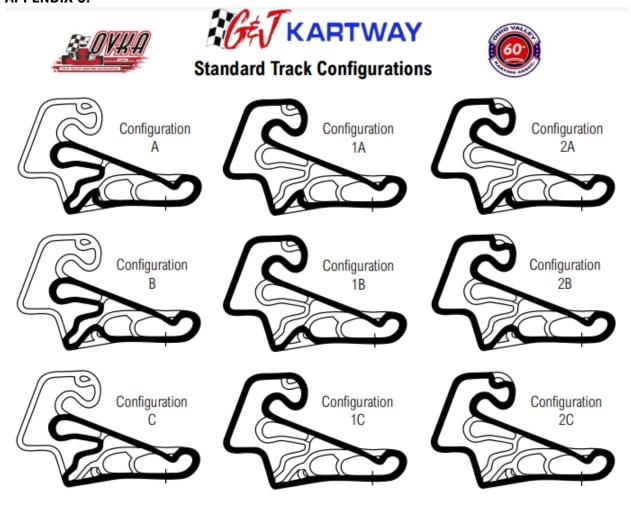
|             | Class   | Kart#  | Chassis Tag #                          | Engine Seal #            |
|-------------|---|--|--|--------------------------|
| Driver Na   | me  |  | Date                                   |                          |
|             |   |  |  |                          |
| OVK         | A 2024 decal on helmet                                |  |  |                          |
| Kart        | number on all four sides                              | of kart  |  |                          |
| Seco        | ndary throttle return spri                            | ng   |  |                          |
| Seco        | ndary safety measure -                                | e-clips, safety wire, doul                           | ble-nut or safety pinned               |                          |
|             | •   | g shaft<br>ub bolts                                  | ette                                   |                          |
| Brak        | e disc boltsmetal lock                                | nuts, e-clips, or safety p                           | inned                                  |                          |
| Chai        | n guard   |  |  |                          |
|             |   | ng 50% rear sprocket lo<br>gine covering clutch look | _                                      |                          |
|             | eights painted white, kar                             |  | ire or safety clipped; weig            | ghts over 7 lbs or       |
|             | _   |  | . Min. 1.25" washers mu                |                          |
|             | rule 403.5.   |  |  | •                        |
| Oil c       | atch can on ALL 4 cycle                               | karts  |  |                          |
|             | sponder mounted at leas                               |  | f kingpin bolt                         |                          |
| It is the c | ompetitor's responsibility                            | to check his/her kart fo                             | r compliance in each of t              | he areas noted above.    |
|             | ature below indicates you<br>d WKA safety rules in co |  | ne above listed safety iter<br>urance. | ms as well as all other  |
|             |   | Signed   | of 18, this must be sign               | ed by parent or guardian |

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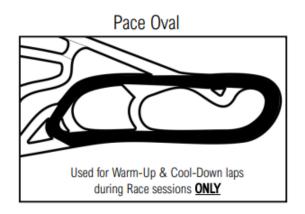


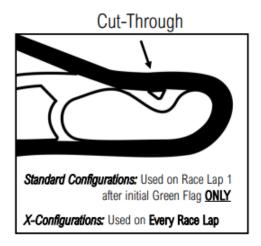


# **APPENDIX C:**



All Standard Configurations run counter-clockwise

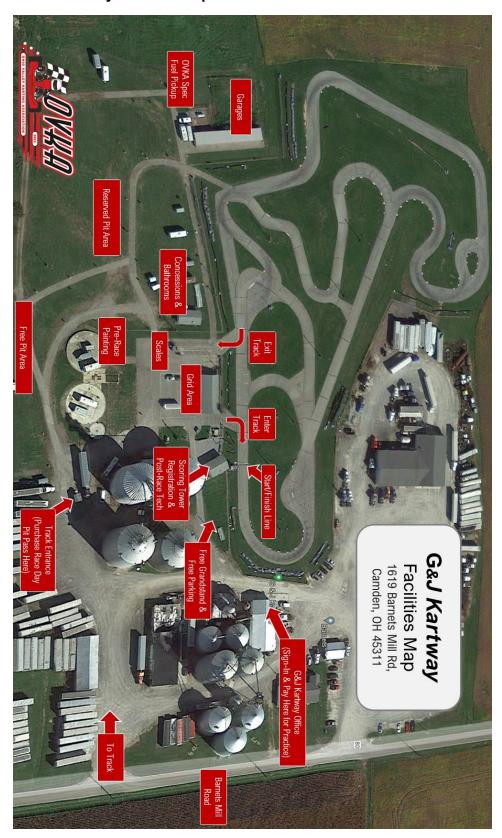




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APPENDIX D: G&J Kartway Facilities Map



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Tires:

Fuel:

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# **APPENDIX E: 2025 OVKA Class List**

Hoosier Tires required for points. No chemical prep or treatment allowed.

Slick Compounds: see listed compounds below per class. Rain Compound: Hoosier WET

SPEC FUEL - OVKA 2-Cycle & 4-Cycle fuels available at G&J Kartway. 2-cycle oils: Redline 2-stroke or Motul Grand Prix 2T (mixed at 7oz/gal)

| Class                       | Age   | Engine(s) & Restrictors  | Weight (lbs)<br>Kart+Driver | Tire Sizes 1                                      | Tire<br>Compound | References & Notes  |
|-----------------------------|-------|--|-----------------------------|---|------------------|---|
| Comer Kid Karts             | 5-8   | Comer C51 or C52   | 150                         | Front & Rear<br>4.50 / 10.0-5                     | R60B             | (1) OVKA – Sec. 400 /<br>Appendix G – Kid Kart Regulations  |
| 206 Kid Karts               | 5-8   | Briggs & Stratton Jr. 206 Engine Sealed<br>w/ carb lock & 0.310"<br>Slide (P/N 555732) | 200                         | Front & Rear<br>4.50 / 10.0-5<br>max circ. 33.25" | R60B             | (1) OVKA – Sec. 400 /<br>Appendix G – Kid Kart Regulations<br>(2) 17 tooth driver : 57 tooth rear sprocket #35 chain  |
| Non-Points<br>Kid Karts     | 5-8   | Honda GXH50<br>IAME 60cc M1 Bambino  | 150**<br>180**              | Front & Rear<br>4.50 / 10.0-5                     | R60B             | (1) GXH50 must run as supplied by Honda<br>(2) OVKA – Sec. 400 /<br>Appendix G – Kid Kart Regulations   |
| 206 Sportsman               | 7-12  | Briggs & Stratton 206 w/ carb lock &<br>0.490" Green Slide (P/N 555740)                | 260                         | Front & Rear<br>4.50 / 10.0-5                     | R60B             | (1) OVKA Sec. 400 / WKA – Sec. 200, 250<br>(2) BRIGGS RACING 2025 - 206 RULE SET  |
| Micro Swift                 | 7-10  | IAME Swift 60cc w/ 16mm<br>Exhaust Header (P/N A-85365)                                | 225                         | Front & Rear<br>4.50 / 10.0-5                     | R60B             | (1) OVKA Sec. 400 / WKA – Sec. 200<br>(2) IAME Swift Fiche & Supplemental Rules<br>https://iameusaeast.com/pages/technical  |
| Mini Swift                  | 8-12  | IAME Swift 60cc  | 245                         | Front & Rear<br>4.50 / 10.0-5                     | R60B             | (1) OVKA Sec. 400 / WKA - Sec. 200<br>(2) IAME Swift Fiche & Supplemental Rules<br>https://iameusaeast.com/pages/technical  |
| 206 Junior                  | 11-15 | Briggs & Stratton 206 w/ carb lock &<br>0.570" Yellow Slide (P/N 555741)               | 320                         | Front 4.50 / 10.0-5<br>Rear 6.0 or 7.10 / 11.0-5  | R60B             | (1) OVKA Sec. 400 / WKA – Sec. 200, 250<br>(2) BRIGGS RACING 2025 - 206 RULE SET  |
| KA100 Junior                | 11-15 | IAME KA100 w/ 22mm<br>Exhaust Header (P/N IAH-02011)                                   | 320                         | Front 4.50 / 10.0-5<br>Rear 7.10 / 11.0-5         | R60B             | (1) OVKA Sec. 400 / WKA - Sec. 200<br>(2) IAME KA100 Fiche & Supplemental Rules<br>https://iameusaeast.com/pages/technical  |
| 206 Senior                  | 15+   | Briggs & Stratton 206 w/ carb lock & Black<br>Slide (P/N 555590)                       | 365                         | Front 4.50 / 10.0-5<br>Rear 6.0 or 7.10 / 11.0-5  | R70              | (1) OVKA Sec. 400 / WKA – Sec. 200, 250<br>(2) BRIGGS RACING 2025 - 206 RULE SET  |
| 100cc Senior                | 15+   | IAME KA100<br>Vortex ROK VLR   | 360                         | Front 4.50 / 10.0-5<br>Rear 7.10 / 11.0-5         | R70              | (1) OVKA Sec. 400 / WKA - Sec. 200 (2) IAME KA100 Fiche & Supplemental Rules https://iameusaeast.com/pages/technical (3) ROK VLR - Supplemental Rules https://rokcupusa.com/rules/rok-cup-engines/vlr |
| OVKA 420                    | 15+   | Predator 420cc Modified  | 450 / 460                   | Front 4.50 / 10.0-5<br>Rear 7.10 / 11.0-5         | R70              | (1) OVKA Sec. 400 /<br>Appendix H – OVKA 420 Regulations<br>(2) Rear Brake Only 450 lbs /<br>Front & Rear Brakes 460 lbs  |
| Non-Points<br>Legacy Yamaha | 15+   | Yamaha KT100 with SR-Y, RLV, CK4 pipe, or SSX can                                      | 360                         | Front 4.50 / 10.0-5<br>Rear 6.0 or 7.10 / 11.0-5  | R70              | (1) OVKA Sec. 400 / WKA - Sec. 200, 554.7, 601  |
| 206 Masters/Heavy           | 30+*  | Briggs & Stratton 206 w/ carb lock & Black<br>Slide (P/N 555590)                       | 390                         | Front 4.50 / 10.0-5<br>Rear 6.0 or 7.10 / 11.0-5  | R70              | (1) OVKA Sec. 400 / WKA – Sec. 200, 250<br>(2) BRIGGS RACING 2025 - 206 RULE SET  |
| 00cc Masters/Heavy          | 30+*  | IAME KA100<br>Vortex ROK VLR   | 390                         | Front 4.50 / 10.0-5<br>Rear 7.10 / 11.0-5         | R70              | (1) OVKA Sec. 400 / WKA – Sec. 200 (2) IAME KA100 Fiche & Supplemental Rules https://iameusaeast.com/pages/technical (3) ROK VLR – Supplemental Rules https://rokcupusa.com/rules/rok-cup-engines/vlr |
| 206 Legends                 | 50+   | Briggs & Stratton 206 w/ carb lock & Black<br>Slide (P/N 555590)                       | 390                         | Front 4.50 / 10.0-5<br>Rear 6.0 or 7.10 / 11.0-5  | R70              | (1) OVKA Sec. 400 / WKA – Sec. 200, 250<br>(2) BRIGGS RACING 2025 - 206 RULE SET  |

Non-Points Exhibition Classes – OVKA will attempt to accommodate karts from any WKA approved class package to run in non-points competition. Karts must run as defined by WKA rules.

Any non-points class that attracts an average of four (4.0) karts or more during the OVKA Championship season may petition the OVKA Board for acceptance as a full-points class in the following season by the November board meeting. OVKA reserves the right to combine these entries with classes of similar performance.

| Classes in shaded area are non-points classes.                                | The following classes will run in combined run groups with split starts |
|---|---|
| * Drivers aged 15+ & weighing 200+ lbs. (without race gear) may enter pending | (scored separetely) unless separated by the Race Director:              |
| approval from Race Director.  | Comer Kid Karts, 206 Kid Karts, & Non-Points Kid Karts                  |
| **Non-Points Kid Kart weights subject to adjustment                           | Micro Swift & Mini Swift  |
| <sup>1</sup> No mixing of rear tire sizes                                     | OVKA 420 & Legacy Yamaha  |



**APPENDIX F: G&J Kartway Driver's Note Map** 

