

An Introduction to Karting At Badger Kart Club

This packet has been put together to take away as much confusion as possible to the beginner karter. It contains basic information to help a new karter get started, covers some basic questions and answers, contacts to help you with other questions you may have, and some material to help with decisions as you start your karting adventure.

Listed below are some of the contents of this packet:

1. Frequently Asked Questions (FAQ)
2. Getting Started at Badger Kart Club
3. Odds and Ends you may need
4. List of local kart shops and websites

The Badger Kart Club staff will always be available to you should you have any questions, comments, or concerns.

You can also get more information on our club website at www.badgerkartclub.com

Frequently Asked Questions

Q: How does a racing kart differ from a fun kart?

A: The biggest difference is that fun karts – or amusement karts – are equipped with speed governors to limit their speed. Fun karts also have extremely hard tires and protective nerf bars, much more so than racing karts. Fun karts generally do not have sophisticated braking systems, racing karts do.

Racing karts are built specifically to be raced. Their engines generally are high strung, purpose-built engines. They usually run on alcohol (most 4-cycles) or a mixture of racing gas and 2-cycle oil (2-cycles). Racing karts compete on soft, purpose-built tires. Also, kart racing organizations require certain safety equipment – abrasion-resistant driving suits, gloves, helmets, etc. – not generally required by fun kart amusement park operators. Racing karts do not run with speed governors, although some classes might have a specific kind of intake or exhaust restrictor to restrict horsepower (most Junior classes fit into this category, as do some Senior classes).

Q: What are the major types of racing karts?

A: Sprint Karts and Enduro Karts.

1.) Sprint karts have two subcategories: (a) 2-cycle sprints and (b) 4-cycle sprints. These subcategories are broken down even further: (i) sprint road racing; (ii) sprint paved oval; and (iii) sprint dirt oval. Most, if not all, sprint racing is done on short tracks (rarely more than one-half mile in length) either road racing or oval, paved or dirt. Both 2-cycle engines and 4-cycle engines are used in all three forms of print racing, although various tracks/clubs/sanctioning bodies might vary as to what they allow.

2.) Enduro karts also have various subcategories: (a) lay down enduros – the more traditional form of enduro karts; and (b) sprint endures – of which their can be 2-cycle and 4-cycle classes. Enduros race only at long sports-car type tracks (such as Daytona, Road America, Mid-Ohio, Laguna Seca, New Hampshire International, Charlotte, Rockingham, Summit Point [WV], etc.). Sprint endures can be tailor made for enduro tracks (generally, they have narrower, stiffer frames) or can be run on sprint

tracks one weekend and enduro tracks the next, usually by changing gearing and retuning.

Within both sprint and enduro racing are many classes according to type of engine, number of engines, combined weight of the driver and kart, type of fuel allowed, etc.

Q: What types of engines are used?

A: In the 2-cycle classes, primarily 100cc engines designed and produced specifically for kart racing. In the 4-cycle classes, it is primarily Briggs & Stratton Animal engines.

There are other types and sizes of engines. For example, in the 2-cycle classes it is not uncommon to have 125cc. Tag. In the 4-cycle classes, some kart clubs allow Honda 4-cycle motors.

There are also shifter classes where the sprints or endures are equipped with 125cc, 80cc or 250cc motorcycle engines with six-speed gearboxes. These engines can be air cooled or water cooled. Shifters can run on either sprint tracks or enduro tracks or both.

Q: How are the engines differentiated?

A: In 4-cycle classes, the classes vary by the amount of modifications allowed to the engines. The most basic class is called Box Stock (which is as it implies, as stock as the engine comes out of the box, or relatively close to it). Other classes of 4-cycle racing are: Limited Modified, Super Stock, etc.

In 2-cycle classes the classes vary by the type of engine(s), size of engine and type of induction system. Most common is the Yamaha KT100 and Komet KPV 100 engine. There are also 100cc controlled engines, which indicates a reed-valve type of induction system and 100cc rotary valve engines, again indicating a different type of induction system. Generally, the piston valve engines are the least powerful and the rotary valve engines the most powerful.

Q: Who establishes the rules for kart racing?**A:** In the United States there are two kart racing governing bodies:The International Kart Federation (IKF)

4650 Arrow Highway, Suite B-4
Montclair, CA 91763
(714) 625-5497
<http://www.ikfkarting.com/>

The World Karting Association (WKA)

P.O. Box 294
Harrisburg, NC 28075
(704) 455-1606
<http://www.worldkarting.com/>

Basically, IKF covers the western half of the United States, WKA covers the eastern half. They all overlap somewhat in the Midwest, although none of the organizations are restricted geographically and, indeed, the IKF sanctions some races in the Northeast. In 1995 there was published information from IKF and WKA about "getting together" for the benefit of all karters. Generally the rules of the organizations are fairly similar.

Some kart clubs, generally the largest, oldest and most successful, sanction their own series of club races. These clubs might or might not cooperate with either of the sanctioning bodies but, again, the club rules generally follow the rules set forth by one or both of the sanctioning bodies. Badger Kart Club publishes their own Competition Rules Book every year, which outlines the class structure and club rules and regulations that are specific to the club. Otherwise Badger Kart Club uses the current WKA rules and regulations manual.

Q: What is involved in joining either organization?**A:** Simply paying annual membership fees. This entitles you to race at sanctioned events and to receive the organization's monthly magazine. You can subscribe separately to either magazine without joining the organization. Costs are relatively inexpensive (approximately \$55/year for WKA at the time of this writing).

There are several independent karting magazines available in the United States:

National Kart News

51535 Bittersweet Road

Granger, IN 46530

(574) 277-0033

<http://www.nkn.com/>

GO RACIN

PO Box 2845

Helendale, CA 92345-2845

(760) 949-7447

<http://www.goracingmagazine.com>

EKarting News

(online magazine / forum)

<http://www.ekartingnews.com>

.Q: Do I have to belong to either organization in order to race?

A: Not to race at most club races, although some clubs might require national membership. In order to race at a "national" race, you will be required to join the sanctioning organization. At most club races, you are not even required to join the club, although this varies from club to club. At Badger Kart Club, you are required to be a club member if you wish to run for points in one of our class championships, but you do not need to become a member to come out and race for fun.

Q: Can I win money by racing karts?

A: Yes, some clubs, and at least one sanctioning organization (WKA), offer some classes that race for pay. These classes generally carry higher entry fees and the payback generally goes back only three to five places. It is generally accepted that kart racing is an amateur sport.

Q: How do I get started in kart racing?

A: The best advice is to visit a race, observe what's going on, talk to karters and get a sense of what kart racing is about. Either of the organizations listed above have directories of kart tracks, kart clubs, national and regional races, and kart shops (parts supplies, etc). Their magazines are also good sources for information about karting if for no other reason than you get names and addresses of kart suppliers. Contact a club in your

area; most clubs have programs for people interested in karting and most clubs with have further printed information.

Kart shops are sometimes listed in the Yellow Pages as are local race tracks.

Q: Do I need a kart racing license?

A: No. Neither organization requires a kart racing license, or even any evidence of driving ability. If you have the kart, any required memberships, meet the minimum age requirements and can pay an entry fee, you can go racing.

Q: Are there karting schools?

A: Yes. Several advertise in the karting magazines offer kart driving schools for sprints, and you can always ask at one of the local Kart shops about driving lessons.

Q: Do karts have transmissions?

A: In the United States, most forms of karting prohibit transmissions and require a centrifugal clutch, either engine-mounted or axle-mounted. There are some classes for what is known as the shifter classes, and these karts utilize 250cc, 125cc or 80cc 2-cycle engines (usually from a motorcycle) coupled to six-speed transmissions. They can be either water cooled or air cooled. In Canada, Europe and South America particularly, direct-drive karts are pretty much the norm.

Q: Are their books available on karting?

A: Yes. There are now several books on kart driving techniques, engine maintenance, etc. You can find them at kart shops and/or websites.

Q: Are their other forms of information available?

A: Yes, there are various "how to" videos available and are advertised in the karting magazines.

Q: Where else can I get information?

A: eKartingNews.com has recently dedicated a section of their website specifically to the introducing people to the world of kart racing. <http://www.ekartingnews.com/NewToKarting/>

Q: What is sprint racing like?

A: Sprint races are usually held every other weekend in most venues although every weekend is not uncommon. Again, the tracks are usually oval (either dirt or paved) or very short road courses (0.25 mile track is typical). These events are usually held on just one day, a Sunday for example. Practice and qualifying (by class) takes up most of the morning and afternoon and the heats and features are held afterwards. Overnight travel is usually not required and entry fees are generally less expensive. Since the heats and features generally are very short (10 laps or so), maintenance on the karts is not as expensive. A sprint race will average around 150 to 225 entries.

Q: What will racing karts cost me?

A: The old adage "Speed costs money, how fast do you want to go?" applies to karting. You can race inexpensively or you can race reasonably or you can spend one heck of a lot of money. However, you can go racing on just about any budget.

A reasonable amount to get started in sprints, for example, would be \$2,500. That would buy you a used kart (either 2-cycle or 4-cycle) and all associated gear (helmet, driving suit, some tools, etc.) and provide for some entry fees. Your annual operating expenses would depend on how often you race.

Another added expense is usually a trailer because while sprint karts can be stuffed into a large car trunk or into a hatchback. Add to your start-up expense a second motor for backup (also a good thing in sprint racing) and an extra set of tires. Entry fees (\$20 - \$40), Generally, pit passes cost in the neighborhood of \$10 - \$20 per day. The pit pass is your accident insurance.

According to a recent survey of WKA drivers, once you've made your initial purchase, a workable budget of \$2,500 - \$3,000 per year should cover about 10 weekends .

Q: What else is required besides the kart?

A: You'll need a quality helmet, rated Snell 2005 or better. A driving suit of abrasion-resistant nylon (or leather jacket or motorcycle leathers) is required at most tracks. Driving gloves, shoes, socks and long pants are required. You'll need a set of tools, although it need not be extensive (a set of sockets both standard and metric, screwdrivers, etc.). A second set of tires mounted on wheels is good insurance (a set of tires is somewhere around \$185; a set of wheels is approximately \$135, A Kart dolly (for pushing the kart to the grid; about \$250). You'll need a starter of some sort (karts do not have onboard starters), around \$250, A fuel jug, a quality tire gauge and miscellaneous other pieces (wheel balancer, etc.).

In the future as you gain experience, you'll want to add a free standing tent for comfort, one or more extra engines, spare parts (like carburetor, spare clutch parts, special gauges such as "pop-off" gauges, etc.), an air compressor, etc. A lot of these parts can be purchased used. Annual kart flea markets are fairly common for most kart clubs and karters "getting out" of the sport are generally motivated to sell. The kart magazines contain a classified ad section where many parts and karts are advertised.

Q: How much of a factor is weight?

A: Since most kart engines are fairly limited in horsepower, especially the stock classes such as some 4-cycles and the Yamaha classes in 2-cycle racing, weight is of paramount importance. It is a simple matter of horsepower-to-weight ratios and you want to compete as advantageously as possible, so there more horsepower and the less weight the greater the advantage you will have.

Most kart classes have minimum weights. You should choose a class(es) in which to compete where you combined weight (driver plus kart) is closest to the minimum weight. Drivers closest to the minimum weight have an advantage that works greatly in their favor, all other things being equal.

Q: How old do you have to be?

A: In some forms of sprint racing you can start at the age of 5.

Q: What fuel do karts use?

A: Basically three kinds: 1) In some 4-cycle classes, it is strictly pump gasoline (can be racing gas). 2) In some other 4-cycle classes it is alcohol

(methanol). 3) In 2-cycle classes the fuel is a mixture of gasoline and 2-cycle engine oil.

To further complicate matters, some organizations require a “pump-around” for all 4-cycle entries. This means you must fill your fuel tank with the required fuel (say methanol) and push your kart to the “pump-around” where your fuel is pumped out and into a common collection tank while new fuel is pumped into your tank from the common collection tank. This insures that all competitors are using the same fuel.

Also, in some 2-cycle organizations, there might be a “spec fuel” rule where a specific brand and octane of gasoline is designated (generally track-supplies gasoline) and it must be mixed with a specific 2-cycle oil in a specific ratio.

Unless there is a spec fuel rule, your engine builder is generally the best source of information about which fuel to run.

Q: How do I learn kart racing if I’ve never raced before?

A: Your best bet is probably to attend a kart race driving school, and learn to drive a kart at racing speed (there aren’t many) advertised in the karting magazines.

Beyond that, as noted above, if you have access to a kart and you can pay the entry fees and pass the minimum requirements for competition, you’re pretty much free to drive in any karting event. We know of no organization where a kart racing license or evidence of racing ability is required in order to compete, although that might change.

Q: What procedure should I follow in order to get involved in kart racing?

A: Here is what is most often recommended: 1) Contact a nearby kart club (available through the sanctioning organizations noted above) and attend one of their events. 2) At the event, interview karters about the pros and cons of their classes, their type of karting, etc. Observe the different classes. Ask a lot of questions. Take a lot of notes. Write everything down. 3) Read all that is available. 4) Ask a lot of questions, take notes.

Getting Started at Badger Kart Club

Step 1 – 2-Cycle or 4-Cycle?

Here is a topic that you can beat with any stick. So pick a stick and keep it handy, you will need it for most of your karting life. I am sure to get many corrections and views from others, but here it goes. In the world of karting there are various engine manufacturers and engine types. Badger Raceway uses 2-cycle and 4-cycle motors for all of their competition classes.

2-Cycle Motors

The 2-cycle motor receives its name from its operation. For every complete rotation of the crankshaft the motor cycles twice, with the power impulse occurring every revolution. What most people notice is the fact that the oil and the fuel has to be mixed with these motors. The 2-cycle motor has many less moving parts than the 4-cycle branding it simpler to maintain and less complicated. The 2-cycle motor operates at a much higher RPM range putting more stress on the engine parts than that of the 4-cycle that operates at a much lower RPM. The 2-cycle is often abused or neglected and seems to be more tolerant in this area than a 4-cycle motor. The biggest issue about 2-cycle motors is the fact that the cost of 2-cycle motors to purchase is over twice of your average 4-cycle motor. Although, the cost of rebuilding and blueprinting seems to be pretty compatible in my opinion. 2-cycle motors tend to stress motor clutch parts due to the higher RPM usage and heat. 2-cycles are typically faster than the 4-cycles we presently use at Badger Raceway. Listed below are the 2-cycles used at Badger Raceway.

- Yamaha KT-100
- KPV-100 Komet
- Comer-50
- 125cc TaG Engines
- Open Motors / shifter karts (Expert Class Only)

4-Cycle Motors

4-cycle motors also get their name from their operation. For every other complete rotation of the crankshaft the power impulse occurs, totaling four cycles. Here most people notice this motor is more like your family car motor. The oil is in the motor and you have a dipstick. The 4-cycle motors has many more moving parts than a 2-cycle. The 4-cycle motor operates at a much lower RPM range making it easier on critical moving parts. Cost is an issue where 4-

cycle motors usually shine – they are half the initial cost of 2-cycle motors. The general maintenance and blueprinting costs seem to be compatible with 2-cycles. Because the 4-cycle motor operates at a lower RPM range, the clutch usage is next to none. Clutches for these applications are inexpensive and long lasting. The 4-cycle's power band is much lower than that of the 2-cycle and offers power down low where the 2-cycle motors don't. Listed below are the 4-cycles used at Badger Raceway.

- Briggs & Stratton Animal Engine
- Open or Modified Briggs (Expert Class Only)

The intent of these descriptions is not to brow beat 2-cycle or 4-cycle motors, but to bring some facts so each person can see which application will fit their individual needs. I myself have run 2-cycle and 4-cycle karts and did my best to bring facts to each category. I hope this gives a clear picture for the beginner.

Step 2 – Picking a Class

Now that you have decided to compete as 2-cycle or 4-cycle, your next decision is which competition class to run. You will need your **Badger Kart Club Competition Rule Book** to help you out. Under "Competition Class Requirements" you will find a breakdown for each class. Look carefully through these class requirements. Each class is broken down into age, engine requirement, weight and other miscellaneous requirements.

Note 1: Kid Karts will be listed under competition requirements. This class does not compete for points in the BKC Championship Points Series, and is considered a learning class for our youngest drivers.

Note 2: When deciding ages for competition class requirements, make sure you look in "General Rules – Age Definitions".

Note 3 Any person competing in a KPV 100 or TAG 125 or Shifter Class will be required to have one (1) year of prior competition racing experience and meet the age requirement prior to the competition year.

Step 4 – Becoming a Badger Kart Club Member

This is the easy part – sign on the line and give Badger your money. A sample, completed Membership Form is included to assist with completing your own.

1. Your starter packet should have a Badger Membership Application, Minor Release (Child Waiver) Form and an EMT Form.

2. Check the appropriate box at the top (New Membership).
3. Fill in the year (for year)
4. Circle type of membership (BKC Membership)
 - a. Individual – Single voting member non family
 - b. Family – Family voting member
5. Fill in the correct amount (BKC Membership)
6. Complete the number of drivers per membership (competition driver fee)
7. Total and complete amount (total membership dues)
8. Complete Member Name
9. Complete Member Address, City, State and Zip
10. Complete Home Phone, Business Phone and Email Address
11. Complete Occupation and Family Member Names
12. Complete Drivers Name and Date of Birth
13. Complete Competition Class, Requested Number, Have You Raced Karts Before (y/n) and Transponder Number. The kart number you request might not be available, check for confirmation.
14. Complete the release of liability
15. Complete the parents' statement of health for minors under the age of 18.
16. If you are the parent of a junior driver (driver under the age of 18), you will need to provide BKC with a copy of the child's birth certificate and complete and sign the Minor Release.

Step 4 – New Or Used

Again, we come to an issue where you have to make another decision. There are many choices when buying a kart. New or used are the common choices when shopping for karting equipment. New being brand spanking new and used can be broken down into new/used, used/used and older/used. You as the buyer are the only person that knows how deep your pockets are. Most people's buying choices are simply made by the amount of money they can afford to spend. Before you go shopping you have to apply the knowledge that we have retained thus far.

1. You now know whether you are racing two-cycle or four-cycle.
2. By now you have decided which competition class to compete in.
3. You now know if you are a junior or senior class.
4. You now know what competition motor you will be using.
5. You now know what tires you will be competing with (at this time you will skip forward to read "Step 5 – Hard Tires or Soft Tires").
6. You now know what style of kart chassis you might need (at this time you will have to skip forward and read "Step 6 – American or European").

Now that you have some basics of what you need we will get into what you are going to see when shopping for karting equipment. I will try to explain new and used equipment and give a breakdown with a short description.

New Equipment

Shiny, new and scratch free. There is nothing like a brand spanking new racing kart. There are tons of kart shops that will be more than happy to sell you a kart deal. New karts range in price from manufacturer to the style of kart and equipment. As long as you know the basics of what type of equipment you need to compete and meet all the class regulations you are ready. Buying new equipment will just be a matter of who you are comfortable with and who you think gives you the best deal. If I were new to karting and looking to purchase a new deal, I would most likely buy from a local shop. The local shops know Badger Kart Club and the rules, regulations and operations of Briggs and Stratton Raceway. The local kart shops also express interest and give Badger Kart Club great support for the program throughout the racing year.

New/Used Equipment

This is a category in my opinion that the following falls under. One season old equipment, equipment bought but not used due to loss of interest, equipment that has been maintained very well. These deals are common and generally good deals. The cost of these deals are usually three quarters or a little more of a brand new deal. The advantages of these deals are that they generally have the more updated equipment with limited usage. More often than not, these deals usually come from experienced karters or are set up by kart shops. One thing to keep in mind, check the prices versus new and decide if the deal is within the range of what you would expect.

Used/Used Equipment

This is probably the most common or the norm of used karting equipment. This category offers karts and equipment that are more than a few years old. The equipment can range from average to very good. The equipment can also vary from updated with the newest of gadgets to the normal with slightly older technology and equipment. Not to say that used equipment or older equipment can never be competitive, that's simply not true. These karting deals are usually priced somewhere around one half or a little more than a brand new kart deal. Again, the equipment in this category usually comes from karters with past experience and probably has even changed hands a time or two.

Older/Used Equipment

This category I want to classify as equipment that is less than normal, older equipment that is beyond its years of competition. Something that is so cheap you just can't believe it's true. These deals are usually really good and make

great starter karts. If you decide that karting isn't for you, these deals are sometimes hard to get rid of. Sometimes they are so good it just doesn't matter. I am sure there have been many deals like this over the years. You might even know of one in a basement corner or in the back shed. That should be your first hint, be careful of the person that is not in karting and has a deal for you.

In order to make your karting dictionary more complete, I will go one step further and explain to you that karts can be bought and sold as complete or roller deals.

Complete Kart (Turn Key, Race Ready)

Complete karts will be sold new or used. Complete kart, turn key and race ready are terms that describe a kart that is ready to race, as many unhidden costs as possible. This kind of deal is probably the most common for new karters because of the lack of knowledge of the mechanics and regulations of the sport. Often a new karter will simply buy a complete kart from some person that competed in the same class that he or she plans on competing in.

Roller Kart (Roller Only – Less Motor, Clutch, Etc.)

Roller karts can also be sold new or used. Roller kart is a term that is used for karts that only roll, the motor and clutch are usually not included in this deal. This allows the seller to keep his own motor; in used deals it is hard to examine the condition of a motor. A lot of racers will keep their own motor insuring the condition. When rollers are bought and sold the contents of the kart like gauges, accessories and other items are negotiated. With roller deals the buyer will have to supply or buy his own motor and clutch, etc.

Approximate dollar value on complete kart deals:

Brand New	\$4,000	to	\$5,600
Used/New	\$2,500	to	\$2,900
Used/Used	\$1,500	to	\$2,000
Old/Used	\$500	to	?????

Approximate dollar value on roller kart deals:

Brand New	\$1,800	to	\$2,600
Used/New	\$1,500	to	\$1,800
Used/Used	\$800	to	\$1,200
Old/Used	\$200	to	?????

The prices I have listed are very approximate figures. I have listed these figures only for the beginner to have something to compare to.

Step 5 – Hard Tires or Soft Tires

Badger Kart Club specifies hard tires for all their 4-cycle competition classes ,and soft tires for all of their 2-cycle competition classes. Bridgestone YDS tires are the spec tire for all 4-cycle classes. The long life of this tire means that you can run a complete race season on one set of tires. Bridgestone YLC tires are the spec tire for all 2-cycle classes. This tire will give racers at Badger the option to compete on a tire that is used at the regional and national level. This tire is alot softer than the YDS tire and may require a few sets of tires to run a complete race season.

Step 6 – American or European

During your adventure of looking to buy a kart, you are going to see and hear all different types, names and designs of chassis manufacturers. You will hear all about American and European chassis. Each manufacturer and model of chassis has its purpose. The rule of thumb in the past has been that the narrower American kart works better on hard compound tires and the European chassis design works better on a soft tire. I think technology is changing the way people have looked at these two chassis in the past. I, myself, believe that if I were to race hard tires only, I would probably to buy an American kart. If I were to race both hard and soft tires or soft only, I would buy an European chassis. There are many races that are successful at Briggs and Stratton Raceway that run either chassis.

Step 7 – Safety Requirements

Briggs and Stratton Raceway takes racer safety very seriously. Badger Kart Club has a minimum standard for driver safety equipment – mandatory Snell 2005 rated helmet, neck collar, driving gloves, rib protection and a driving suit or leather jacket or other suitable substitute. Each kart on race day will be required to pass a pre-tech inspection before competing. Badger Raceway has track workers for safety and emergency trained personnel on site.

Step 8 – Transponders

Briggs and Stratton Raceway has a computer controller timing system, which is an improvement in the efficiency of the race day activities over hand timing and scoring systems. This is a cost that the Club did not want to inflict on their members, but in order to provide a timely race day, they had no other choice. In order to be scored, each racer is required to either purchase a transponder for approximately \$300 or rent one each race for \$10. If you rent a transponder you will be required to provide a deposit for the transponder that will be cashed if you do not return your transponder at the end of the race day. Briggs and Stratton Raceway is not the only club that uses this system – there are many other tracks that do as well.

Step 9 – Pre-Tech Safety Inspection

Briggs and Stratton Raceway has a race day pre-tech inspection that has to be passed in order to compete. This is basically a courtesy inspection to insure driver and kart safety. This inspection will include mandatory safety wear and also insure that the kart and all attached equipment meet all the safety requirements.

Step 10 – Race Day

If you have made it to this point, then Badger Kart Club has succeeded in helping you to become a Badger Kart Club Member and kart racer. I hope I have helped to make your karting adventure a little less complicated. I wish you luck on race day – and more important than anything, one most important thing that we often overlook – Have Fun!

Odds and Ends

Here is a list of items that you may need. This list is combined for two-cycle and four-cycle racers.

TIRE BALANCER	Not completely needed, the spindle trick works well.
BALANCE WEIGHTS	Stick-on weights are cheap and come in strips.
TIRE BREAKER	A must for breaking tires off of rims.
MEASURING CUP	A measuring cup in ounces is needed for mixing oil to fuel ratios for 2-cycles.
CLUTCH TOOL	A holding tool to remove clutches.
CLUTCH PULLER	A tool that removes clutches off of tapered shafts (Yamaha, etc.)
EXACT TOE	An aligning tool for front ends.
FLYWHEEL TOOL	A tool to hold the flywheel for Briggs & Stratton motors.
SIPHON PUMP	A tool that helps to retrieve unused fuel from tanks.
STOPWATCH	Are you fast or slow?
FUNNEL	A tool to help keep you from spilling.
FUEL CONTAINERS	Plastic containers are suggested. Two-cycle races might want to have two – one marked "Mixed" and the other "Un-mixed".
PORTABLE AIR TANK	This is nice as most tracks do not have an air compressor on-site.
DIAL FACE TIRE GAUGE	Accurate readings are a must.
CHAIN BREAKER	219 or 35

Lubricants, Oils and Cleaners

WD-40	Marvel Mystery	Simple Green
Carb Cleaner	Lapping Compound	Chain Lube
Brake Kleen	Engine Oils	2-Cycle Oils
Formula 409	Clutch Oil	Tri-Flow (Lube)
Hand Cleaner	Never Seize	
Brake Fluid (dot-5)	RTV	

Miscellaneous Items

Hand Towels	Nuts & Bolts (assorted fasteners)	Q-Tips
Note Pad	Extension Cord	Drain Jug (for used oil)
Child's Birth Certificate	Cotter Pins	Extra Weight
First Aid Kit	Batteries (9 volts for tachs)	Fire Extinguisher
Ear Plugs	Scotch Brite Pad (green pad)	Spark Plugs
Duct Tape	Muratic Acid	Emory Paper
Safety Wire		Paint Brushes (small for cleaning)
Ty-Wraps		

Tools

Flashlight	Razor Knife	Rivet Gun/Rivets
Wrench Sets (SAE/Metric)	3/8 Torque Wrench (inch pounds)	Compression Gauge
Socket Sets (SAE/Metric)	Allen Wrenches (SAE/Metric)	Steel Rule
Wire Cutters	Files (flat & round)	Tire Tape (Seamstress Tape)
Screwdrivers (assorted)	Hacksaw	Plug Gapper
Drill (battery or electric)	T-Allen Set	Feeler Gauge Set
Drill Bits	Battery Charger	Extractor Set
Hammer	Jumper Cables	Pop Off Gauge
Channel Locks	Micrometer (dial or digital)	Fulcrum Gauge
Adjustable Wrench	Heat Gun (scrape those tires)	Vice Grips
Spark Plug Wrench	Honing Tools	Jig Saw
		Butane Torch
		Snap Ring Pliers

Spare Parts List

Axle	Tach and Temp	Tie Rods
Spindle	Cables	Gears
Rims	Fuel Line	Chain
Valve Stems	Carb Kits	Numbers and Panel
King Pin Bearings	Clutch or Repair Parts	Clutch Disks
	Front and Rear Hub	Gaskets

For the beginner this list will seem very big; however for the serious or experienced karter this list will seem very basic. As you grow as a karter so will your list of must have items that you cannot go without along with a list of spare parts you will learn to keep on hand.

List of local kart shops and websites

Badger Kart Club	http://www.badgerkartclub.com/		Our club website
4 Cycle Central	http://www.4ckclecentral.com /	414-228-8642	Specializing in Briggs & Stratton Engines
AMB Web Site	http://www.amb-us.com/		Makes the transponders Badger uses
AimSports	http://www.aimsports.com/	800-718-9090	Makers of MyChronS
Kartstar Motorsports	http://blake@kartstarmotorsports.com	414 902 3686	Kart Shop/ Driving Lessons
Franklin Motorsports	http://www.franklinkart.com/	262-814-5400	New Berlin WI, online/phone orders Store
Kartlift.com	http://www.kartlift.com/	877-777-8020	One man kart stand
Karts Ltd.	http://www.kartsltd.com/	262-377-1853	Grafton WI, mail-order/online
Pegasus	http://www.pegasusautoracing.com /	800-688-6956	Kart Parts Mail Order/on line
Andrew Chase Racing	http://andrewchaseracing.com	262-207-4088	Kart Shop 2-cycle sprint/road racing
Two Cycle Technology	http://www.twocycletechnology.com/	262-628-2438	Hubertus WI, supplier