

2024 IIRA Autocross Series Rules (changes in red):

1. Drivers and Passengers:

- A. Drivers, participants, and passengers must sign the waiver before participating.
- B. Any Driver or participant under the legal age of 18 must have a signed and notarized parental consent minor waiver form available on the website.
- C. No drugs or alcohol on site. All drivers shall be sober while at the event.
- D. Icecross cars are limited to 1 driver and 1 passenger when on course. passengers must wear a teched helmet, all the teched safety equipment, and have signed the waiver.

2. Event Officials:

- A. Event Master: Makes final call on all event operations
- B. Timing Chief: In charge of all timing equipment/decisions etc

3. Course Design and Safety:

- A. The intent of this section is to give guidance and recommendations for safe and fun Icecross course designs. Safety is the most important consideration in course design. Speed is not the only safety issue on icecross courses, a slower course is not necessarily a safer one. Care must be taken with the location of snow banks, course route, and bumps or other disturbances etc, so that drivers can safely push their cars, but only achieve speeds that are safe and match the safety requirements on Icecross cars.
- B. Target speeds on course should reflect speeds drivers normally drive in their cars on the street. Maximum speeds on course should be in the high 60s (mph) for studded cars, with limited exceptions. The most effective way to do this is to modify the IIRA wheel to wheel and track day track by utilizing some or all of these methods: not using the main straight, adding chicanes or additional corners on other long straights, and aim for flowing, connected corners. As a last resort, cones can be used to create gates, however this adds additional course workers to maintain those cones and call in DNFs, and should be seen as a last resort. This target speed is not intended as a hard speed limit, because courses should be flexible and fun for all cars, this is intended as guidance to keep the course safe for icecross cars.
- C. Provided the snow banks are knocked down for safe entry and exit, snow sections are allowed (even recommended) on course. snow should not be high enough that cars at normal street ride heights and winter tires get stuck. This is intended as a surface friction modifying part of the course, not as a challenge to not get stuck and DNF.
- D. the Icecross launch at the start should not be on the main IIRA track (for example, in the pitlane) as it is where Icecross cars will put the most wear on the ice. Icecross starts should have a corner that limits speeds right after them, in order to limit the advantage of a drag race or launch controlled start.

E. Icecross events should try to have a new and different course each event. This doesn't mean plowing a new course, as the modification of a few key corners, the start and ending, or direction of travel can all be used to create new courses out of existing plowed routes with limited need to plow new areas.

F. IIRA and Icecross officials may pre-run or ride in cars before and during the event to examine safety.

4. Cars:

A. All cars shall be able to pass a basic safety inspection. This includes the following:

- All stock or improved safety restraints are functioning as designed
- Battery is secured to the chassis (preferable if you can shake the chassis with the battery)
- Wheel bearings are good, lug nuts are tight
- Brakes work/Firm pedal
- Car is free of loose items inside
- Car is not leaking fluids, including but not limited to oil, coolant, grease, or tire sealant
- Undamaged Snell 2010+ or ECE 22.05 2015+ rated helmet
- Front and rear tow hooks must be installed if removable, and fast/easy to locate and use if permanent. It is recommended that you install a tow strap and slam it in the truck for quick deployment.

B. Non-Production based cars will need approval by tech to run. Please contact Matt Dryden at 651-353-4573. **Non-Production cars may be placed in an exhibition or unlimited class to maintain competition standards in the production based classing system.**

C. Trucks/SUVs/CUVs will be allowed in the Rubber Tire class. Only significantly lowered trucks/SUVs/CUVs will be allowed to run studded tires, at the discretion of tech, and will then be classed in the appropriate studded tire class. Other than this rule, Trucks/SUVs/CUVs shall follow all rules written for cars, ie every rule written "cars" will also apply to them.

D. No nitrous oxide

E. Convertibles in the rubber tire class are recommended but not required to have roll over protection

F. Convertibles with studded tires are required to have roll over protection. This means at least single diagonal, 4 point, roll bar in cars up to model year 2005. Convertibles model year 2006 and beyond with factory rollover protection allowed.

G. Targa or T-top cars are not considered convertibles and are allowed to run in either class in factory specification.

H. Convertibles and targa or T-top cars with open rooves can be asked by tech to run with the top in the case of extremely deep snow, to prevent snow intrusion into the cockpit in the event of a crash/rollover.

5. Numbers:

A. All cars should be clearly marked with their number for timing/scoring purposes. Numbers shall be large and clear, and if they are not, car may not be scored, and may be DNFed. Numbers shall be visible from both sides (preferably on the doors), and clear at distances of above 100 feet. Numbers are not for artistic/livery purpose, they are for event operations. Keep them clear and we won't have a problem. When in doubt, bigger, and bolder.

B. Tape numbers are acceptable.

6. Classing:

A. Classing will be by car/tires/technology, not based on driver participation/skill. If the car at any point on course uses 4wd, it will be classed in the 4wd/AWD class. Selectable drive train cars can select to only use 2wd, but must stay in 2wd for the entire run to be classed in the 2wd classes. Drivetrain configurations other than stock will be evaluated as run, not as they came from the factory.

B. Classes are as follows:

Wisconsin Studded Tire AWD (WA) – For Wisconsin spec studded cars that drive all 4 wheels

Wisconsin Studded Tire 2WD (WT) – For Wisconsin spec studded cars that drive 2 wheels

Minnesota Spec Studded Tire AWD (MA) – For Minnesota spec studded cars that drive all 4 wheels

Minnesota Spec Studded Tire RWD (MT) – For Minnesota spec studded cars that drive 2 wheels

Rubber Tire AWD (AR) – For winter/all season tired cars that drive all 4 wheels

Rubber Tire RWD (RR) – For winter/all season tired cars that drive the rear wheels

Rubber Tire FWD (FR) – For winter/all season tired cars that drive the front wheels

7. Tires:

A. Studded tires are defined as any tire with non-rubber (typically metal) that contacts the ice.

Rubber tires are defined as any tire with only rubber that contacts the ice.

B. Studdable Ice/Snow DOT street tires are legal, in the Minnesota spec studded class if studded, and in the rubber tire class if not studded. These can be bought at tirerack.com, and they will install the studs for you.

C. "tractionized" winter tires are legal, in the Minnesota spec studded class. These are rubber tires with additional cuts made into them to add grip.

D. Any studded tire legal for IIRA wheel to wheel is legal in the Minnesota spec stud class.

E. Any tires can be inspected for suitability. Tires that are found unsuitable or unsafe will not be allowed to run.

8. Studded tires:

~~The intent of spec studded tires is to prevent a tires arms race that destroys tires, leads to unreliable cars/tires, and ruins the ice surface.~~

Wisconsin Studded Tires:

~~A. Maximum stud dimensions: 5/16-18 threaded bolts (or M8x1.25)., 1.25 inches long (31.75mm). Metal studs of any type smaller than this will still be counted as studs, included screws through the tire.~~

~~Stud Count Per Tire: use the following formula, rounded up to the nearest whole number:~~

$$\text{Tire width as marked} * 0.75 = \text{studs per tire}$$

~~Example: Tire is a 205/50/15~~

~~_____ 205 * 0.75 = 153.75~~

~~So that tire may have a maximum of 154 studs.~~

~~B. CWSCC/FVSCC spec stud tires (which use a slightly different formula) will be legal until the completion of the 2024 season. Competitor can be required to prove legality with their formula/calculator.~~

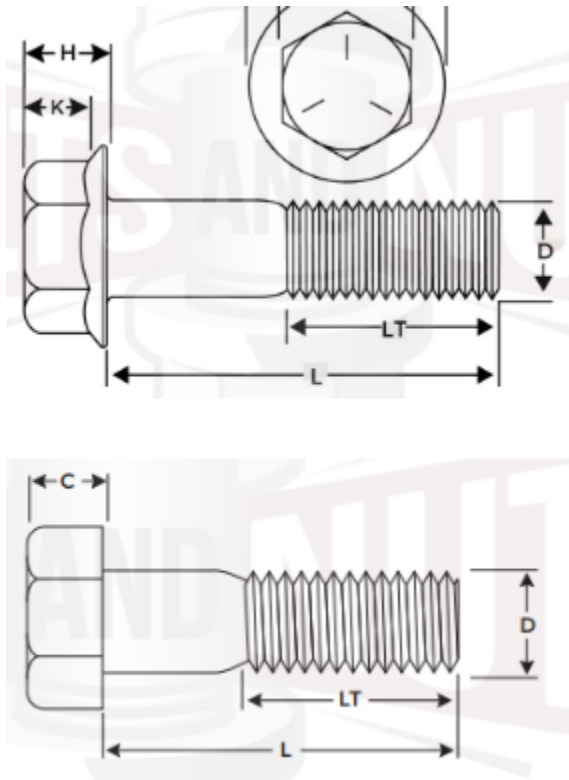
A. Stud length for Wisconsin studs will be determined by what tires you select to make into studded tires.

Minimum Tire tread depth*	Bolt Size (US)	Bolt size (metric)	Bolt length*** (L) (SAE/US)	Bolt Length*** (L) (metric)
Greater than 8/32nds	5/16-18	M8x1.25	1.25"	32mm
Less than 8/32nds**	5/16-18	M8x1.25	1.00"	25.5mm

*Minimum Tire tread depth is defined as the tread depth where on the tire the tread depth is smallest.

**For this calculation, hoosiers or any other slick tires will be regarded as tires with under 8/32nds of tread

***Bolt length refers to the dimension L in the following print:



This is intended to maintain a maximum stud exposure into the ice of ~14mm. Tech and organizers maintain the right to ban tires outside of the targeted envelope, regardless of construction.

C. Bolts may be sharpened.

D. Number of studs per tire will be limited based on the CWSCC calculator/tables. They can be found here: <https://sites.google.com/view/cwsc/home/ice-rallyx/spec-studs?authuser=0> It is on the competitor to prove that their tires are compliant with these tables.

D. also legal in this class is Pirelli WRC studded tires.

These tires are only legal for IIRA: IceCross. They are not legal for wheel to wheel IIRA racing Or IIRA Track Days.

Minnesota Studded Tires:

E. Legal in this class are all street studded tires. These can be bought on Tire Rack and you can have them stud them for you, or stud them yourself with the appropriate DOT studs.

F. Other buyable studded tires legal in this class are Menards Ice racing tires, and Alpha IceCross studded tires.

Homemade tires:

G. Maximum Stud dimensions is 7.00mm of 'exposure' to the ice. Exposure is defined as the total depth the stud can penetrate into the ice, measure from the tread plane/tops, to the peak of the studs. A way to check this would be to put a thin piece of shim on the tread of the tire, and then measure from that, to the peak of the studs, and then measure and add the thickness of the shim you used.

~~H. Stud Count Per Tire: use the following formula, rounded up to the nearest whole number:~~

$$\text{Tire width as marked} * 1.3 = \text{studs per tire}$$

Example: Tire is a 205/50/15

~~$$205 * 1.3 = 266.5$$~~

~~So that tire may have a maximum of 267 studs.~~

H. Stud Count: Stud count is not regulated at this time.

9. Scoring:

A. Shortest single run time on each course will be your score for that course. An event may include a 'reverse course' heat and in such a case, your event score will be the sum of the two course scores. Lower scores beat higher scores, ie fastest time wins.

10. Reruns:

A. Runs that are mistimed due to error, or where you are slowed artificially by a spun car, misplaced cone, or other safety issue will be issued re-runs. Inform timing if you believe this has happened. The Event master will determine if you are issued a re-run.

11. Penalties:

A. If you get stuck on a run, you will be scored as a DNF

B. If you hit a pylon on a run, you will be scored a DNF

C. If you do not run the course as intended, you will be scored a DNF

D. If your car is found noncompliant, all runs taken in this configuration will be DNFed. If there is a problem determining which runs your car was non-compliant, your runs for the whole day will be DNFed. It will be on the competitor in question to prove compliance on runs, if found non-compliant on some runs.

E. Hitting the timing lights will be a minimum fee of \$100.00, if they are broken in any way, you will pay the replacement cost. And your run will be scored a DNF.

12. Car hopping/jumping:

A. If a driver's registered car/tires have a mechanical or tire related issue, the driver may opt to run in another car for the remainder of the event. You must inform the timing chief and EM ASAP if this happens. Once your run group is over, it will be at the event master's discretion to get any runs you might have missed in. It may not be possible. You may not jump between cars because you want to or for competitive reasons.

B. All class changes after registration are subject to the timing chief's discretion.

13.Towing/Recovery (Good Samaritan Rule):

A. IIRA, or anyone helping to recover your car from being stuck, is not liable for any damage done to your car during the recovery and towing processes. This is just another reason have your tow points ready to go and tested. **The priority in the case of a stuck or broken car, is to get the car clear to allow the event to continue.**

14. Awards:

A. The top driver in each class will receive an award.

15. Season Points:

A. Season points will be calculated by driver, in each class. Season points for each event will be calculated with the following formula:

$$\frac{\text{Top score in class}}{\text{Drivers Score}} * 100 = \text{event score}$$

B. Season champions will be computed with the driver with the highest total event scores after drops are removed.

C. Lowest event scores will be dropped. Number of dropped scores will be (rounded up to the next whole number):

$$\# \text{ of events in the season } *.5 - 1$$

D. Tie Breaker will be the highest score dropped. And then the second highest score dropped etc.