

# SECTION III Updated 1-1-2010

## UTV and SR1 Class Rules and Requirements

**Pro UTV Production Class definition:** The Pro UTV production class vehicles are built using production UTV's, manufactured by registered companies that issues Vin #'s. Companies must produce a minimum number of units to be accepted. UTV's must have 2 seats. OEM engines must be used. Maximum engine size is 800cc. **Note;** Artic Cat Prowler 1000cc has been approved to compete. A minimum weight of 2100 lbs is required (this includes driver and navigator).

The Pro Class does have a points championship, a points championship fund, and an individual race purse.

**Pro SR1 Class definition:** The Pro SR1 class vehicles are built using a production UTV frame, A-arm suspension and an engine swap. Full custom built frames are allowed but must be built with the suspension mounting point dimensions that are the same as a current UTV. A maximum engine size 1000cc. No car engines. Must use Hood and Fenders from a UTV. Engines must be fully enclosed in aluminum.

**Sportsman UTV/SR1 class:** The Sportsman class is for any UTV/SR1 team that wants to race but does not care, to race for Championship points or prize money. The Sportsman class has lower entr ee fees. Any other vehicles that are not built to the Pro UTV production class rules or the SR1 class rules, but are classified as a UTV or a SR1 by a UTVRA tech inspector will be allowed race in the Sportsman UTV/SR1 class.

**UTV and SR1 classification must be pre-approved before racing in the first event.**

**Minimum requirements to be classified as a UTV or SR1 are;** Max width outside of tire to outside of tire is 76" Vehicle wheel base must not exceed 8" over stock dimensions. No car engines. Max tire size is 30".

### MEMBERSHIP REQUIREMENTS

Two annual or one day UTVRA memberships are required for each UTV or SR1 race vehicle. Best in the Desert Racing Association requires that all Drivers and Co-drivers must have a Best In The Desert membership participation in any race.

UTVRA annual membership fees as of 4-23-2009 are \$80.00

UTVRA one day membership fees as of 4-23-2009 are \$20.00

### OCCUPANTS:

All UTV and SR1 vehicles must have a driver and a co-driver in the vehicle for the duration of the race.

### DRIVER'S MEETING:

All drivers and passengers must attend a pre-race UTV/SR1 Class driver's meeting. This meeting will be separate than the official BITD driver's meeting. These meeting do not occur at every race.

### RADIO & COMMUNICATIONS:

UTV Racing Association Frequency – 153.560

Best In The Desert Racing Association Frequency – 151.490

*The UTV Racing Association will monitor this frequency throughout the race in order to provide information to UTV/SR1 race teams and the Best in the Desert Racing Association.*

**A VHF type radio will be required to be used in the race vehicle. The Best in the Desert and the UTVRA frequency will be mandatory channels present on each radio. All race vehicle teams will be required to provide any team specific frequency information to the UTVRA.**

All UTV's and SR1's must have the radio frequency, that their team will be using during the race posted inside the vehicle on the dash or roof. The radio frequency is a 6 digit #.

**SUSPENSION:**

All a-arm mounting points must remain the stock design, and remain in the stock location as delivered from the manufacturer, however they may be reinforced for strength.

**OVERALL MEASUREMENT RESTRICTIONS:**

-The maximum width of the Pro UTV class, measured for outside of tire to outside of tire is 74" Pro SR1/ Sportsman Unlimited class is 76".

-The maximum overall wheelbase from spindle to spindle can be increased to 8 inches over stock dimensions.

**SHOCK ABSORBERS:**

There must be at least one and only one shock absorber per wheel in working condition at the start of the race. Shock absorber mounting points may be moved. Sportsman class does allow more than 1 shock per wheel

**BUMP STOPS:**

Suspension bump stops must be of the solid type.

**TORSION SYSTEM:**

Currently the only torsion system that is acceptable is a coil-over shock.

**TIRES:**

Maximum tire size is 30 inches outside diameter. No multiple tires per corner permitted.

**STEERING:**

Power steering is **NOW** permitted. Turning or steering brakes are not permitted.

**BATTERIES:**

Batteries must be securely mounted with **metal attachments**.  
No wet cell batteries are allowed.

**Batteries may be located in the driver's compartment. Batteries located in the drivers compartment must be fully surrounded with aluminum or sheet metal.**

**LIGHTS:** All UTV's and SR1's vehicles must have a minimum of **two taillights, two brake lights, two rearward facing amber lights; one flashing, one non-flashing,** and one **rearward facing blue light, non-flashing.** The amber lights and blue light is an attempt to identify the slower moving UTV and SR1 class of vehicle, so that faster class vehicles will be able to recognize that they are approaching a slower vehicle.

UTV Racing Association has approved several amber and blue lights. The best are made by **Federal Signal** (Target Tech). Please contact the UTVRA for other approved light suppliers. UTV Racing Association approved lights will also be available for purchase at each race.

**BITD rules state that all safety lights must be working at all times, If a light fails to work it must be fixed at the next pit stop, or the vehicle cannot continue.**

**Headlights for the all Vegas to Reno Races:** All race vehicles must be equipped with a minimum of 4 white-beam headlights wired to the vehicles charging system. They must be run in a two circuit minimum configuration with a switch on each circuit. Any extra lighting is acceptable and encouraged.

\*The stock headlights and switch are acceptable as one of two pairs of required headlights.

---NOTE---This blue light should only be used during an official race. Previous incidents report this is illegal on roads and BLM, State, or public lands.

All lights must be in operating condition at time of inspection. Headlights may not be removed. All rearward-facing lights (taillights, brake lights, blue light, and amber lights) must be in operating condition before the vehicle will be permitted to start the race. If during the race any taillight, brake light, blue light if so required or the amber lights are damaged or burned out, the light must be fixed or replaced at the next available pit before proceeding in the race. Any taillight, blue light, or amber lights that are connected to a switch that will allow the vehicle to move in any direction under its own power without the lights being on will cause that vehicle to be disqualified. All rearward-facing lights must be protected against damage in the event of a rollover.

Taillights must be at least 3 inches in diameter, or meet with Best In The Desert Racing Association approval, and must be mounted in such a manner as to be clearly visible from a distance to the rear of the vehicle. Rearward facing amber light and blue light must be at least 40watts but not greater than 55watts. The amber lens must be deep-coated amber in color (no other color is permitted). The blue lens must be medium coated blue in color (no other color is permitted). The amber lights and blue light must be mounted a minimum of 48 inches from the ground and must be clearly visible, with no obstructions (IE: not mounted behind any solid object), from any angle from the rear of the vehicle. The amber lights and blue light must be placed so that an approaching driver's vision is not impaired. The amber lights, blue light, and taillights must be connected to the ignition switch (connecting straight to the battery switch, if vehicle is so equipped, is acceptable) and remain on during the entire race.

**ENGINE LOCATION AND DISPLACEMENT:** All UTV vehicles must use stock engine cases and cylinder head. Maximum engine displacement is 800cc, larger displacement engines may be allowed if produced by the factory. A weight restriction may be required. This displacement requirement only applies to the UTV Pro Spec class. The Sportsman Unlimited is an open Displacement class. Engine displacement and location may be checked by UTV Racing Association at any time. The UTV Racing Association reserves the right to mark engine blocks prior to an event and confiscate engines after the race.

**FLUID COOLERS:**

Oil coolers, transmission coolers and radiators located ahead of the driver and co-driver or in the passenger compartment **must** have a shroud that will prevent liquids from blowing back or leaking onto the driver and/or co-driver in the event of a rupture or leakage. All hoses running through the passenger compartment must be shielded. Steel braided hoses do not constitute a shield.

**UTV FIREWALLS:**

All vehicles must have an all-metal firewall separating the driver's compartment from the danger of fire from fuel supplies. Rear mounted fuel cells require a minimum firewall which must be liquid tight and must extend at least 6 inches above the top of the fuel cell covering from side to side.

Any hole placed in the firewall for structure members, lines, etc. must be kept to a minimum. The hole should not have more than 0.0625-inch gap around the items passing through the firewall. Metallic tape must be used to seal the hole between the firewall and the item passing through the firewall.

Stock UTV engine covers meet the **engine** firewall requirement for the 1900 UTV class. However a fuel container firewall separator is still necessary.

**FUEL FILLER SPLASH GUARD:**

The intent of the splash guard is to keep fuel from being splashed on the driver and passenger when the UTV is being refueled. Splash guards must surround the fuel filling area in such a way that it provides protection from fuel spilling onto the driver and passenger when inserting and removing the fuel filler jug.

**CHASSIS (FRAME), BODY AND ROOF:**

All UTV vehicles **must** utilize the stock chassis (frame) and maintain stock appearance. The stock chassis (frame) is defined as the main lower rails running along the inner sides of the UTV and the front and rear tubes that connect them. Please refer to the drawing for a better description. Any modifications to the stock chassis (frame) must be pre-approved by a UTVRA tech inspector. The stock chassis (frame) may be added to, for durability and strength, but must retain the stock width, length, and configuration. The stock UTV cage may not be used because no bolt on connections to chassis are allowed. All joints must be welded and attached to frame securely.

All body parts must remain on the vehicle (accidental damage excluded) during the entire length of race.

The roof must be covered with sheet metal or aluminum.

**DOORS:**

Must have 'X', 'A' or Ladder design bracing in door area. 'X' or 'A' designs must use a minimum 1.5" outside diameter, .090" wall thickness 4130 chromoly or 1018/1012 CDS/DOM. Ladder design must use a 1.5" diameter, .090" wall thickness for main rails and 1.25" diameter x .090" wall thickness for rungs.

Doors that latch and/or open and close are not allowed.

**SEATING:**

All vehicles must use seats designed specifically for racing applications manufactured by a recognized racing seat manufacturer. Stock seats must be completely removed.

A recognized manufacturer that specializes in seats for racing applications must make all seats. All seats must be securely mounted to frame of vehicle and be properly reinforced in such a manner as to keep seat from moving in relationship to the frame. Adjustable track type seats must be securely mounted as to allow no lateral or vertical movement. Head and neck restraints designed and installed to prevent whiplash are mandatory on all vehicles. Restraints must be a headrest constructed of at least 2-inch thick resilient padding and be approximately 36 square inches in area. All portions of the roll bar or bracing that might come into contact with the vehicle occupant's helmets must be padded.

**TRANSMISSION:**

Every vehicle must use the stock transmission and clutch design. Every vehicle must have a functional reverse gear. The stock rear differential must also be used. **SR1** class does not require reverse although it is recommended.

**FLOORBOARDS:**

Stock UTV floorboards are acceptable. Although adding extra protection made of metal or aluminum is highly recommended.

**ROLLCAGES:**

**Table 2. Minimum Tubing Dimension**

<b>Vehicle Weight</b>	<b>Open Cockpit</b>	<b>Closed Cockpit</b>
Under 2000 lbs.	1.5" x 0.90"	1.5" x .090"
2000 to 2999 lbs.	1.75" x .120"	1.5" x .120"
3000 to 3999 lbs.	2" x .120"	1.75" x .120"
4000 pounds and over	2.25" x .120"	2" x .120"

**Note:** See manufacturer's reference charts for alloy steel tubing equivalent strengths. No aluminum or other nonferrous materials are permitted.

**Material :**

Roll cage construction material may be crew, dom, whr, wer mild carbon steel or 4130 chromoly.

**UTVRA HIGHLY RECOMMENDS THE USE OF 4130 CROMOLY or 1018/1012/ASTM/DOM. All welds must be of high quality and craftsmanship** with good penetration and with no undercutting of parent material. Stress relieve all welded intersections by flame annealing.

### **Roll cage Design**

All roll cages must be designed and constructed with one front vertical hoop, one rear vertical hoop, two interconnecting top bars, two rear down braces, one diagonal brace and all necessary gussets. The two top interconnecting bars must be placed as far to the outside of the top part of the front and rear hoops as possible. Rear down braces and diagonal brace must angle a minimum of 30 degrees from vertical. At the bottom of the diagonal brace there must be a cross member of the same tubing material and dimensions as the hoop. All roll cage components (hoops, braces, gussets, etc.) must have a minimum of 3-inch clearance from the component to the vehicle occupant's helmets when occupants are seated in their normal riding positions. All portions of the roll bar or bracing that might come into contact with the vehicle occupant's helmets must be padded.

Roll cages must be securely mounted to the frame or body. All intersecting points must be gusseted and braced. Cab or body mounted roll cages must be bolted through the body structure and be attached by use of a minimum two 0.1875-inch thick plates (one on each side of body structure). Bolts and nuts must be at least 0.375-inch-diameter s.a.e. Grade 8 or equivalent aircraft quality. Welding of cab or body mounted rollcages to body structure is strictly prohibited. Rollcage terminal ends must be attached to a frame or body member that will support maximum impact and not shear or allow more than 1.5 inches of movement in the cage terminal end.

All vehicles including those with stock steel doors must have at least one side bar on each side of vehicle that will protect occupants from side impact. The side bars must be of the same tubing material and dimensions as the rest of the rollcage. The side bars must be as close to parallel to the ground as possible, be located to provide maximum protection to the occupants, and be securely welded to the front and rear hoops. The location of the sidebars must not cause difficulty in entering or exiting the vehicle.

Gussets constructed of 0.125-inch x 3-inch x 3-inch flat-plate or split, formed and welded corner-tubing, or tubing-gussets made of the same material and thickness as the rollcage may be used. Gussets must be installed at all major intersections, including diagonal and rear down braces, where single weld fractures can affect occupants' safety.

### **Restricted:**

Oxy-acetylene brazing on rollcage is strictly forbidden.

Recommended: 4130 chromoly is highly recommended for all rollcage construction.

### **BUMPERS:**

Must have rear bumper secured to frame using minimum 1.5" outside diameter, .090" wall thickness chromoly.

Ends must be capped and rounded to prevent any sharp edges. Bumpers and nerf bars must be designed

in a way as to reasonably inhibit two vehicles from becoming locked together. A safe front and rear bumper is required on all vehicles.

**No hazardous** front or rear bumpers, nerf bars, frame heads or other protruding objects from vehicles are permitted.

### **IDENTIFICATION NUMBERS, MARKERS, AND STICKERS:**

#### **Required:**

All vehicles in competition must display the official Best In The Desert Racing Association and the UTV Racing Association decal on both sides of the vehicle.

All vehicles in competition must be identified with the correct class vehicle numbers and be displayed in the proper locations as prescribed herein. Best In The Desert Racing Association will assign vehicle numbers.

**NEW FOR 2010** Pro UTV class vehicles will have **black numbers on a white background**. SR1 class vehicles will have **black numbers on a red background**. Sportsman UTV/SR1 class will have **black numbers on a yellow background**. Numbers must be easy to read. No other combination will be permitted.

All vehicles in competition must display the official Best In The Desert Racing Association and UTV Racing Association decal on both sides of the vehicle.

All vehicles in competition must have identification numbers in the following locations and sizes:

-Minimum **10** inches high with 1-inch-wide stroke on each **side** of the vehicle. Number plates are recommended.

-Minimum **6** inches high with 1-inch-wide stroke on the **rear** of the vehicle.

-Minimum **4** inches high located on the **front** of vehicle. The front roof visor or hood is the preferred placement.

#### **Pit-Support Vehicles**

All pit-support vehicles will have minimum 4-inch high white numbers (number of vehicle pitting for) on both sides of vehicle and on the upper passenger-side corner of front windshield and on rear window. Pit support vehicles must have current Best In The Desert Racing pit pass attached to lower portion of the front windshield on the driver or passenger side.

**IMPORTANT:** All rules are tentative and may be changed, altered, or updated as the BITD season progresses in accordance with the 1900 UTV class.

Please contact the class representative Cory Sappington at (602) 769-6164 or e-mail at [UTVRA@hotmail.com](mailto:UTVRA@hotmail.com) with any questions or for more information on these rules.