

Grover



Getting to Know Your Race Car

Basics

- 2009 MINI Cooper Base Model, VPI of 150 points
- Cooper S Gearbox (25 points) with OS Giken Limited Slip Differential (25 points)
- Engine rebuilt with 0.5mm over OE Pistons, head porting and combustion chamber work
- Stock ECU, starts cutting out at 6,250 rpm, fully limited at 6,500 rpm
- OBX exhaust header (25 points), Manifold exhaust
- 15x10 wheels with 245/40/15 tires, fender flares (plastic, 6 square feet, 18 points)
- B-Spec MINI Suspension (adjustable spring perches 40 points, homemade front camber adjustment 5 points)
- Rear wing (10 points)
- F-Class with 298 Points



Under the Hood



- Hood latch under driver's side stripe
- Keep an eye on engine mounts



- Oil dipstick left side of engine
- Oil fill cap



- Coolant reservoir on right side.
- Level about 1/2" above seam

Under the Hood, cont.



- Lithium iron phosphate battery, push to test
- Standard lead acid battery in spares



- Center LED worked by foot switch
- Driving lights with center fog light
- Up/down adjustable



- LED headlamps on stock circuit, left side steering column lever.
- Adjustable left/right, up/down. Aim slightly outward to lead corners

Passenger Side



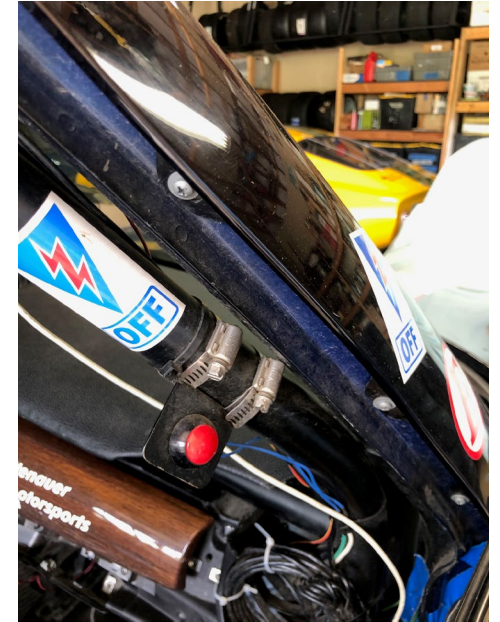
- Longacre drink bottle holder inside passenger door



- Passenger side of car always takes more hits than driver's side
- Easier to be brave on far side
- Front and rear jack points marked

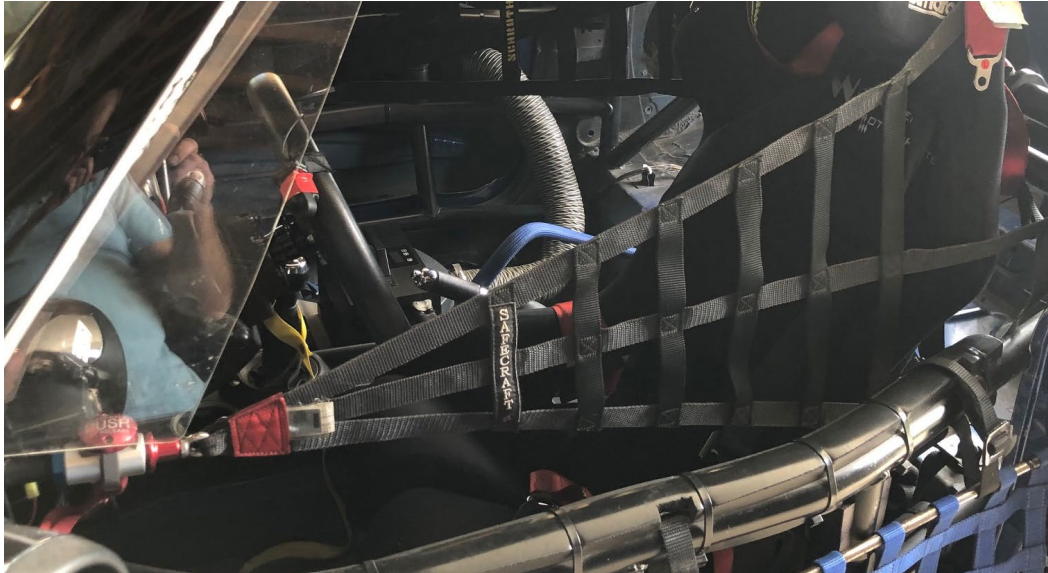


- Do not open passenger side door
- ChillOut System duct work attached to door



- Passenger side kill switch
- If pushed, center console kill switch needs pushed twice to reset

Driver's Left Side Cage Net



- Driver's seat is equipped with left and right cage nets.
- Driver's seat also has two sets of shoulder belts. Red set works for most drivers. Black set is for shorter drivers.



- Take care when moving seat forward that seat doesn't get caught on cage nets.

Driver's Window Net and Door



- Both doors can be opened from the inside by pulling anywhere on the black and orange cord.



- Insert rear upper bar of cage net into bracket first, then latch seat belt style connector.
- Be sure that bottom bar at rear is tucked inside door lip

Driver's Left Controls



- Radio box at lower left
- Roof mounted antenna
- Push to talk button on steering wheel
- Helmet cable on left side upper cage.



- Power side mirrors work
- Fog button is for center lights, should be left in the down/on position
- Fog switch will be illuminated when lights are working



- Left footrest is equipped with an old fashion dimmer switch.
- Dimmer switch is in series with the Fog button. This is used to blink the center lights when passing, to say hello when being passed, and to signal the pit crew in case of loss of coms.

Driver's Displays



- Brake light is always on, sorry.
- Grover is car number 732
- Flagtronics is mounted to the wink mirror
- Pit when low fuel warning gets below 10 miles



- Fuel is measured in "candy corns" remaining.
- You will be asked to report this from time to time.



- Race Capture Displays volts, engine temperature, lap times
- Volts should be $>13.2v$
- Temperature should be $\sim 105C$ or less. Crew chief worries about engine temperature.

Driver's Heads Up



- Flagtronics is mounted to the wink mirror
- AIM Solo 2 mounts above the wink mirror, mainly used for practice.



- Clock mounted above roll cage in center.
- Race Capture phone display for lap times, volts, engine temperature.
- Parabolic side mirror for tall drivers that can't see stock side view mirror because of cage net.

Center Console



- Grover is equipped with an electronic kill switch (small round blue button with red LED center above lighting bolt decal). Center of switch is illuminated when power is on. ChampCar requires power to be off when fueling car. Reset as soon as fueling is complete.
- The Boost switch controls the roof lights. LED is lit when switched on.
- Fire pull activates a 5 pound extinguisher. Routed to the driver's legs and engine compartment.
- Heater and defog work. Left roller controls fan speed, right roller controls temperature. Not all of the fan display LED's work.
- Rear hatch won't open if main power is shut off. If it doesn't work when power is on, push the center "lock" toggle switch up to unlock.

Driver Comfort



- Grover is equipped with a ChillOut System
- Power fed from fuse 39. If fuse blows, can switch lead to pull from fuse 40 by disconnecting the roof lights.
- Controls are from left to right- power, increase temperature setpoint, decrease temperature setpoint.
- Test before leaving pit box. Most likely error is no flow from a pinched tube.
- Route your cool shirt connections out the left side of your driver's suit.
- Spare fill cap in tool box top left drawer or in pit tool box.

Miscellaneous



- Hood latch is just above the left foot bar.
- This can be reached from outside without opening the driver's door or removing the nets.



- Grover has front and rear facing cameras.
- Video files save in 15 minute segments.
- If you have on track excitement and come into the pits, press the camera button at the black flag station to save current video segment. Otherwise, current video segment will be lost when master power is cut.