OVERTHROW

THE TRANSBRAKE BUTTON SOLUTION

Congratulations on purchasing the Overthrow transbrake button! From our team at Cramsey Innovations we thank you for your purchase and hope that our products become an integral part of your racing operation and that you can Overthrow the Competition!!

This switch is approved for use in NHRA competition.

What is Included

1- Overthrow Transbrake Button Assembly

2- M4x20mm Mounting Screws

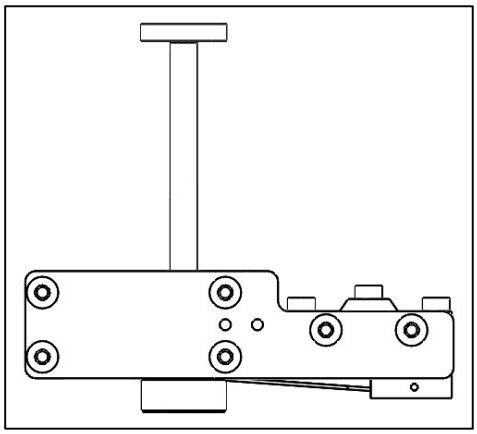
2- 20mm Plastic Shims

3- 10mm Plastic Shims

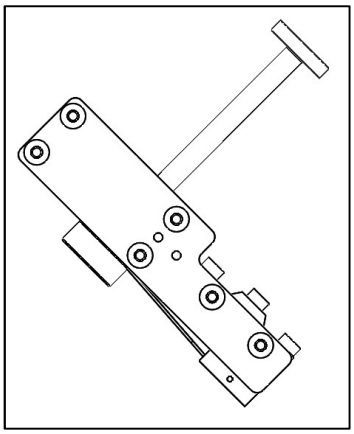
2- 5mm Plastic Shims

Mounting

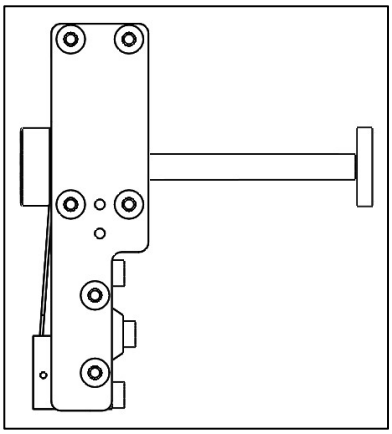
The Overthrow button can be mounted in several different positions. When mounting the Overthrow it is important to remember that gravity will affect how much the button will delay your reaction time. We have used a microcontroller to time the switch in three different positions (vertical, 45°, horizontal).



Vertical Mounting Position



45° Mounting Position



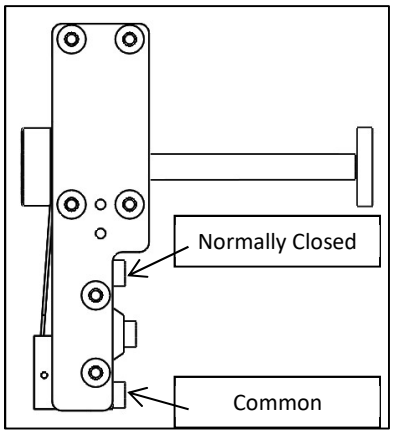
Horizontal Mounting Position

There are two mounting holes in the center of the body. These are M4x0.70 thread and they are threaded on both sides of the housing. These threaded mounting holes are spread 3/8” from center to center.

Warning: When mounting the switch please be mindful of gravity. If your car does a large wheelie and comes down hard there is a potential for the switch to bounce and reactivate. This is most likely when mounted in the vertical and 45° position. We have made it so the first ~0.25” of travel will not reactivate the switch which has made this less likely to happen but the potential is still there. This needs to be evaluated for each vehicle.

Wiring

This button will directly replace your current transbrake switch. Please use the Common and Normally Closed terminals on the switch. Please make sure to follow your transbrake solenoid manufactures recommendations for wire size and schematic if you do not already have a transbrake button installed.



Winner!

Cramsey innovations would not only like to give you product stickers but we would also like to give you your first winner sticker! We believe that you will have success with the Overthrow and once you get that first event win with the switch we would like you to put the sticker on the car and send us a picture and a race recap of your win! We are going to put the pictures and race recap on the blog portion of our website. That way not only do we get to show off the success of the switch but you also get the recognition you deserve! If you would like more winner stickers send us your picture and race recap and we will send them to you for free!

Timing

Each button will be mounted slightly different and each person will release the button slightly different so, we encourage you to test the switch yourself on a practice tree to see how much each shim affects you. Please see the chart below for a good starting point on how much each shim is worth! This chart was created using a microcontroller which timed when the button head was released to when the switch closed.

Overthrow Transbrake Button					
Position	Vertical	45°	Horizontal	Actual	Actual 2
Shim (mm)	Time (sec)	Time (sec)	Time (sec)	Time (sec)	Time (sec)
0	0.060	0.059	0.055		
5	0.055	0.055	0.050		
10	0.054	0.054	0.048		
15	0.051	0.051	0.046		
20	0.048	0.047	0.044		
25	0.046	0.046	0.042		
30	0.043	0.043	0.039		
35	0.041	0.041	0.035		
40	0.037	0.036	0.030		
45	0.032	0.032	0.026		
50	0.028	0.028	0.021		
55	0.023	0.023	0.015		
60	0.016	0.016	0.011		

Maintenance

The Overthrow button has been thoroughly tested and with that we started to develop some maintenance schedules. An advantage to the Overthrow design is that all components can be replaced! We recommend that the bearings and constant force spring be replaced around 2000 cycles. Although the internal bearing comes with a light rust preventing oil on them, if you live an area with high humidity there is a potential for the internal bearing to rust and it is recommended to replace more often. Avoid taking the shaft out of the bearing as the internal ball bearings could get forced out which will cause bearing failure. Avoid bending or pulling the constant force spring out too far. This is a memory spring steel and if it is bent it will not perform as it is intended. If the spring starts to sag (collar does not touch housing when closed) replace spring immediately. The Overthrow Button can be sent back to Cramsey Innovations for a reconditioning with a quick turnaround time!