

Window-glass Mount for GPS “Puck”

I use a Garmin GPS18X receiver with my mobile APRS set-up. It was a challenge to find a good location for the GPS sensor (puck) on my little Kia Soul. Yes I could have put it on the roof among the antennas there, as the GPS18X is weather-proof and it has a strong magnet inside. However, I didn't really want another cable to route outside and looked for another solution.

I ended up mounting the GPS18X inside and behind one of the small “keystone” shaped side windows in the vehicle. In the interest of safety, I chose a small window on the side of the car that cannot be seen by the driver under any circumstances – even with a 180 degree head rotation!

My initial tests showed that sensitivity was not an issue, as I could get a quick lock on the satellites even with the “puck” lying on the passenger seat!

The problem was, how to fix it to the glass? I first tried a mounting bracket with suction cups of various sizes, but found they were unreliable and eventually the bracket and the GPS fell off.

The solution that really worked well, was to use 3M Dual-Lock re-closable fasteners, type SJ3560. Sometimes referred to as “Toll Tape”, this product is often used to mount toll road transponders to the glass windshield of cars. The acrylic adhesive is rated at 200 deg F and is intended for use on glass.

As you can see in the top photo, the GPS receiver is mounted on a hand-bent piece of “All-Round” galvanized strapping with a $\frac{3}{4}$ ” piece of the 3M dual-lock at each end. A mating piece is fastened to the glass. The SJ3560 fastener is clear, and is seen as the ‘frosted’ parts at each end of the galvanized strapping.

The bottom photo shows the fasteners which employ interlocking mushroom heads. Just cut to length with scissors, peel off the backing paper and press firmly in place. Its also **very** important to pre-clean the mounting areas with an alcohol wipe.

Note: The 3M Dual Lock is an alternative fastener to the Hook and Loop type. Somewhat more expensive, it has several advantages over Hook and Loop:

Greater attachment strength, up to 5X; Positive attachment when pressed together – an audible “SNAP” !

On the other hand, Hook and Loop is lower cost, is longer lasting during frequent reclosing and is available for many different applications.

My experience has been that the Dual Lock is a more rigid mount and is more suited to “mount-and-forget” type applications.

