## Manual Throttle Friction Locks

Also known as 'cruise controls'. We sell simpler ones which actuate 'on-off' ergonomically and easily, and which separate on-off function from adjusting applied frictional resistance. For less wrist fatigue you want to be able to micro-adjust the precise amount frictional resistance so only barely enough is applied to hold engine speed steady, and nothing more.

Easiest types to install simply clamp over the twist grip and rest against the top of the front brake lever. These must be continually reset each time you open the throttle a little father, which is fine for most situations, but better solutions are the permanently installed types.

There are three general styles of this type: 'Bar-end' locks, 'Thumb-lever' locks and 'Throttle-housing' (screw-in) locks. And there are two versions of each style: Types which separate on-off function from frictional force applied, and those which don't.

## Installing and Adapting

Bar-end types are bolt-on replacements for bar-endweights. A few separate adjusting frictional resistance from onoff function. Those that don't are less ergonomically convenient because they require multiple rotational motions with the heel of your hand to incrementally screw them on or off.

Screw-in types sometimes require tapping a threaded hole in a throttle housing in exactly the right place, but many older BMWs and Harley Davidsons already have this and all one needs to do is remove a plug and screw in the correct part.

Flip-lever types sometimes bolt-on simply, but many application require a little improvising and adapting. Thumb lever-actuation is ergonomically easiest for most riders to manipulate. Filing and drilling their plastic parts where needed is usually simple, and is done either to hold one side of the clamp stationary, or to radius the inner frictional surface to exactly match the diameter of the throttle housing.

## Caution and Warning

For safety, throttles must automatically and instantly return to idle. Throttle locks defeat this important feature. Although we have never learned of anyone who's experienced safety-related problems with these locks, it's still possible. If you are not both competent and confident about working with and adjusting these kinds of mechanical devices, find someone competent to help you with installation. After the lock has been installed, and before your first ride, be absolutely certain that whenever the lock is disengaged or 'off,' your bike's throttle twist grip automatically and instantly returns to idle every time you take your hand off the twist grip.

Here are examples of types and installations:



Bar end throttle lock which requires rotating hand and heel of palm several times to add frictional resistance. Simple bolt-on installation, though not the easiest to 'off-on' actuate.



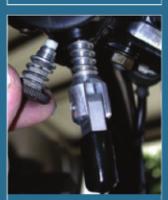
Bar end lock with oversize knurled end to help make adjusting on-and-off easier.



Universal Vista Cruise type owner-adapted to BMW R1200R. Owner modifications include: 1.) Throttle housing cover modified to provide stationary attachment point via custom steel plate, flush set-screws and JB Weld epoxy. 2.) Friction adjustment screw modified to be adjustable without tools. 3.) Twist grip inner flange modified/partly removed to allow inner friction ring to be installed.



Bar end lock with separate frictional adjuster (knurled wheel behind knob) and separate on-off flip lever.



Flip-a-lever cruise control for BMW Airheads, showing both BMW optional screw and Flip-a-lever replacement. Optional BMW screw doesn't separate on-off from adjustment of applied frictional resistance. Similar screws available for many Harley Davidson models.



NEP brand thumb flip friction lever owner-adapted to Ducati Multistrada. Owner modifications include: 1.) stationary end held with zip tie, 2.) friction adjustment screw replaced with custom made oversize aluminum knob, 3.) inner friction surface circumference filed/sanded/enlarged to exactly match throttle housing diameter.



Owner modified low profile Flip-a-lever on BMW R80 model, showing shortened flip lever, shortened inner nylon friction material and shortened screw section.



owner adapted to Honda XR650L. Owner modifications include: 1.) Stationary side of clamp held to throttle housing with small set screw via owner-tapped threaded hole. 2.) Friction screw pressure adjuster modified to be adjustable without tools.