Active Spring Tech Corp

13111 Brooks Drive #F, Baldwin Park, CA 91706

Tel: (626) 962-7779 Fax: (626) 962-3177

Email: sales@activespringtech.com

Engineered by Fast ED

Installation & How It Works:

1. The internal throttle fits one inch (1") handlebars, with 1/8" wall (without dimples).
2. You will have to cut approximately four (4) inches off the right side of handlebar.
3. The inner sleeve has a specially made shoulder bolt complete with a broach on the end for an Allen wrench and has an overall length of 4.050 inches.
4. Note ~ many handlebars are made with seamed or welded tubing which puts a linear burr on the inside of the handlebars, in some cases up to .015 to .020 thick. You may have to address this problem by removing the internal burr with a long dye grinder to a depth of 1 5/8". This will ensure a nice fit of the inner sleeve into the handlebar.
5. Stock throttle cable can be used providing you cut the ball end off and measure to proper length. The throttle cable is run through a hole (you have to drill) usually between the risers at the bottom of handlebar, fed up through the handlebar and through the end cap of the inner sleeve of the internal throttle.
6. There is an actuating barrel inside the inner sleeve and the inner cable (of the internal throttle cable) is fed through the actuating barrel and secured with two setscrews. The counter bore on the inner sleeve of the internal throttle stops the outer throttle cable.
7. **The inner sleeve portion that fits inside the handlebar is 1 5/8" in length and has a .737 OD.** This inner sleeve should be spot welded into place by drilling two holes on the bottom side of the handlebar. The holes/spot welds need to be centered within the 1 5/8" of inner sleeve that is inside the handlebar.
8. **If you want to have a completely removable internal throttle,** setscrews are provided so that the inner sleeve portion that fits inside the handlebar can be sets screwed into place, leaving no holes or ugly scars on handlebar!
9. There is a remaining 2 3/8" of inner sleeve that extends past the handlebar edges, this includes the scrolling actuator (scroll), brass bushing, pin and shoulder bolt. The shoulder bolt sets the endplay on the scroll.
10. The scroll slides onto the inner sleeve and is stopped by an inner lip that has been machined on the inside of the scroll, which is .010 narrower than the area machined into shoulder bolt. Due to machining tolerances, once the shoulder bolt is secured into place the end play on the scroll is between .006 and .015. The head of the shoulder bolt stops the movement of the scroll in the other direction. The OD of the Scroll is .930.
11. The 4" outer sleeve has an ID of .935 and an OD of exactly 1". This outer sleeve is placed over the remaining 2 3/8" of inner sleeve that protrudes from the handlebar and has to be spot/tack welded onto the scroll to actuate movement of the internal throttle. After spot/tack welding the outer sleeve to the scroll, there will be a remaining 1 5/8" of outer sleeve that extends past the inner sleeve.
12. A grip can then be installed over the 4" outer sleeve after the outer sleeve has been spot welded onto the scroll. **Please note, you will need a 1" grip for the right side that looks just like the left grip ~ it should not have notches for two throttle cables. A Grip made with notches for the throttle side has a slightly larger ID and will NOT work with the internal throttle!**
13. The grip, depending on the material it is made out of, will either press on with palm of hand or must be adhered (glued) onto the outer sleeve as specified by manufacturer, as does Harley-Davidson. If 1" billet grips are used then the setscrews that are provided by the manufacturer would be used to secure grip to outer sleeve.
14. The total overall length of the internal throttle equals 4"
15. The total outside diameter with outer sleeve equals 1"
16. The total travel equals 1 3/8" at 215 degrees rotation, or 1 3/8" of cable pull at 215 degrees of rotation.
17. Is made of steel construction
18. Brass Bushing w/ Pin
19. Single Pull

Please be careful when removing the Outer Sleeve, there is a very HIGH risk of the Brass Bushing and/or Pin falling out of place!