



ROADSMITH
TRIKE CONVERSIONS BY
THE TRIKE SHOP



Please thoroughly review the instructions before and during installation. Keep in mind that this product was designed to be installed by trained dealer technicians. If you are a do-it-yourselfer, be patient, trust your common sense, and if necessary call your dealer or contact The Trike Shop at 800-331-0705 if you run into any problems you cannot solve.

APPLICATION: 2001 and newer GL1800 two wheel bike or GL1800 based Trike
PRODUCT: Roadsmith 2nd gen. Comfort Controls
VERSION: 1
GENERAL NOTES:

The Comfort Control linkage is shipped pre-adjusted. Once assembled on the bike, you may raise or lower the brake lever/shift lever height to your desired level by adjusting the ball joint linkage.

The assemblies must be removed to adjust the linkage.

You must check for adequate pedal travel and clearance

When installing this kit on a motorcycle or trike with any related aftermarket accessory(s), use caution and/or common sense to determine if any interference may exist or present itself

If installing Comfort Controls on a Roadsmith HT1800 Trike with Wing Guards: *Install the brake lever boot kit (supplied separately) onto the right side wing guard. This boot allows the lower part of the brake pedal to travel through the floor of the Wing Guard.*

If the Comfort Controls are being installed on a Trike: Before installing or removing anything, perform the 3 steps below. Disregard these three steps for all two wheel motorcycles

- 1) Remove and discard the 3/8" spacer plates from the backside of both Comfort Controls foot peg mounting blocks:
 - a) Remove and discard the (2) 10-24 x 1/2" Allen screws, the (4) locating pins, and the (2) 3/8" spacer plates (pic #1)
- 2) Exchange the 1/4" chrome spacer & bolt locations on the brake pedal linkage
 - a) Carefully disassemble and re-assemble it as shown in diagram #1027
- 3) Use the (4) 8mm x 1.25 x 25mm bolts from the hardware bag to fasten the left and right Comfort Control foot peg mounting blocks to the bike chassis whenever the 3/8" spacer plates are removed

Brake side of bike

- 4) Note the clearance between the brake lever and the underside of the foot peg for later reference
- 5) If installing Comfort Controls kit on a Roadsmith Trike already equipped with Wing Guards, remove the Wing Guards and set them aside
- 6) Remove and save the footpeg/bracket and the bolts
- 7) Remove the brake pedal- save it & the pinch bolt
- 8) Install the Comfort Control brake bell crank/linkage assembly
 - a) Align the dot on the stock brake bell-crank post so that the slot in the Comfort Control bell crank is counter-clockwise one tooth of the dot (pic #2)
- 9) Install the Comfort Control block (use 2 of the supplied 8mm x 1.25 x 35mm bolts and wave washers) (pic #3)
 - a) If the 3/8" spacer plates were removed from the Comfort Control foot peg mounting blocks, use (2) of the supplied 8mm x 1.25 x 25mm bolts and wave washers here
- 10) Install the stock brake lever onto the Comfort Control brake bell crank post
 - a) Install the foot peg/bracket, check to see that the brake lever has approximately the same clearance between it and the foot peg as previously noted
 - b) Check for adequate brake pedal travel and clearance.
 - c) If pedal height is adjusted, adjust the ball joint or brake lever only- do not rotate the Comfort Control brake bell crank
 - d) If using the Comfort Controls with a Kuryakyn heel toe shifter set and you feel that you would prefer a bit more toe room between the brake lever and the valve cover, a brake lever extension plate is available
 - i) Part #A-100-988 (sold separately) The extension plate moves the foot pad on the Kuryakyn brake up $\frac{3}{4}$ " and out 1 $\frac{1}{2}$ " (pic #4). The extension plate fits Kuryakyn driver floorboard kit brake pedals only.

Shifter side of bike

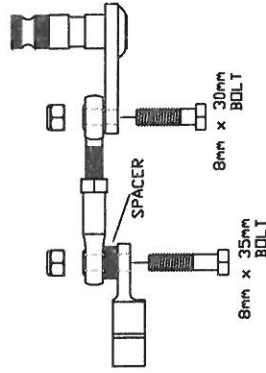
- 11) Remove and save the footpeg/bracket and bolts
- 12) Remove and save the left engine side cover
 - a) For Trike applications only:
 - i) Remove the side stand switch and securely zip-tie the switch in the "up" position. Zip-tie the switch's harness to avoid contact with hot or moving parts
 - b) For Trike applications only:
 - i) Remove and discard the side-stand and fasteners

- 13) Remove and save the front lower fairing and fasteners ([pic #5](#))
- 14) Remove and save the left front exhaust pipe protector and fasteners ([pic #6](#))
- 15) Remove and save the gearshift toe rubber from the stock shifter (soap solution helps)
- 16) Remove and discard the stock gearshift linkage assembly and fasteners ([pic #7](#))
- 17) Remove and discard the engine mounting sub-frame mounting bolt (just ahead of the side stand) ([pic #8](#))
- 18) If using this Comfort Control kit with an aftermarket (Kuryakyn) heel toe shifter, after taking careful note of the assembly order of the Comfort Control shifter linkage, remove the retaining clip, move the linkage arm to now use the forward pivot hole (the open hole in the photo), and replace the retaining clip ([pic #9](#))
- 19) Install the Comfort Control gearshift linkage assembly ([pic #10 & #11](#))
 - a) Be sure to note the inner pivot bushing placement/direction
 - b) Remove the pinch bolt from the shifter arm before installing
 - c) It will require some twisting and wiggling, but it does not need to be dis-assembled to install (be sure to keep the inner pivot bushing in place when performing this step)
 - d) Install the gearshift arm onto the gearshift spindle by aligning the open teeth of the spline on the arm with the closed teeth of the spline on the top of the spindle (The arm will end up being vertical or very close to it)
 - e) Install the pinch bolt and tighten it securely.
- 20) Install the supplied Comfort Control gearshift linkage/pivot bolt and washer (10mm x 1.25 x 70mm) and tighten securely
- 21) Check for adequate shift lever travel and clearance
- 22) If using the Comfort Control kit on a Trike with a Kuryakyn heel/toe shifter set, (this implies that the 3/8" spacer plates have been removed from the footpeg mounting blocks) install the supplied o-ring onto the Comfort Control shifter post between the Kuryakyn shifter fork plastic spacer and the raised edge on the shifter post. This will space the Kuryakyn shift fork bushing inward ([pic #12](#))
- 23) Install the toe rubber on the Comfort Control shifter post (soap solution)
- 24) Install the left engine cover
- 25) Position the left side Comfort Control block in place over the engine cover to mark a cut line on the engine cover ([pic #13 & #14](#))

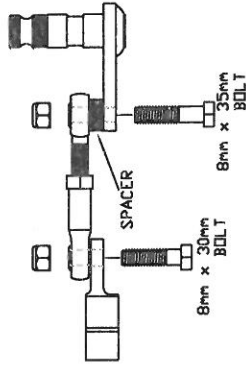
- 26) Remove the engine cover and carefully cut/grind to the line. When finished, there should be an air gap of 1/8" to 3/16" between the cover and the Comfort Control mounting block
- 27) Install the Comfort Control foot peg mounting block using 2 of the supplied 8mm x 1.25 x 35mm bolts and wave washers
 - a) If the 3/8" spacer plates were removed from the Comfort Control foot peg mounting blocks use 2 of the supplied 8mm x 1.25 x 25mm bolts and wave washers here
- 28) Install the foot peg/bracket and bolts.
- 29) Check now for personal preference of shifter height
- 30) Replace the exhaust pipe protector. Check to insure that there is no interference with the shifter after installing the exhaust cover
- 31) Replace the trimmed engine cover
- 32) Replace the front lower fairing
- 33) If installing the Comfort Controls on a Roadsmith HT1800 Trike with Wing Guards, before re-installing the Wing Guards, refer to the instructions supplied with the brake lever boot kit.

DIAGRAM #1027

BRAKE LINKAGE
AS RECEIVED FOR
2 WHEEL MOTORCYCLE



FOR TRIKE APPLICATIONS



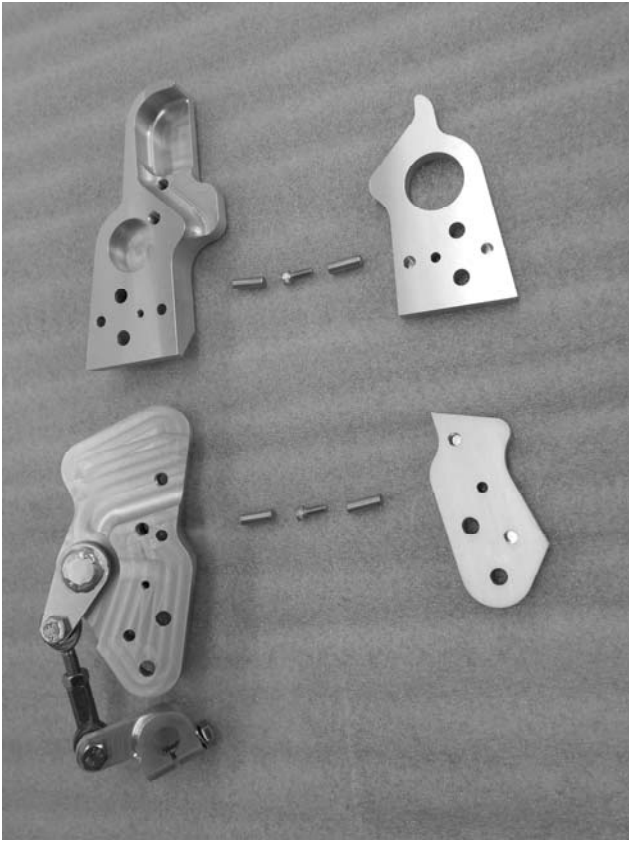
YOU MUST RECONFIGURE
THE BRAKE LINKAGE

CAREFULLY SWAP THE SPACER & BOLT LOCATION
ON THE BRAKE LINKAGE TO LOOK LIKE THIS

($\frac{3}{8}$ " SPACER PLATES REMOVED FROM COMFORT
CONTROLS FOOTPEG MOUNTING BLOCKS)

($\frac{3}{8}$ " SPACER PLATES IN PLACE ON COMFORT
CONTROLS FOOTPEG MOUNTING BLOCKS)

NOTE: IF THE $\frac{3}{8}$ " SPACER PLATES ARE REMOVED FROM THE BACKSIDE
OF THE COMFORT CONTROLS FOOTPEG MOUNTING BLOCKS, THE
SIDE STAND AND SIDE STAND SWITCH MUST ALSO BE REMOVED



#1



#2



#3



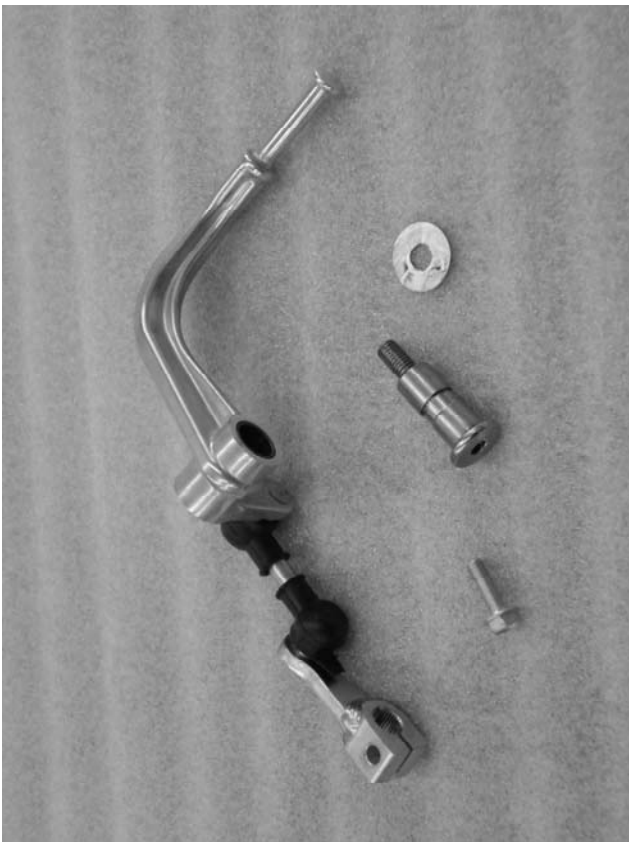
#4



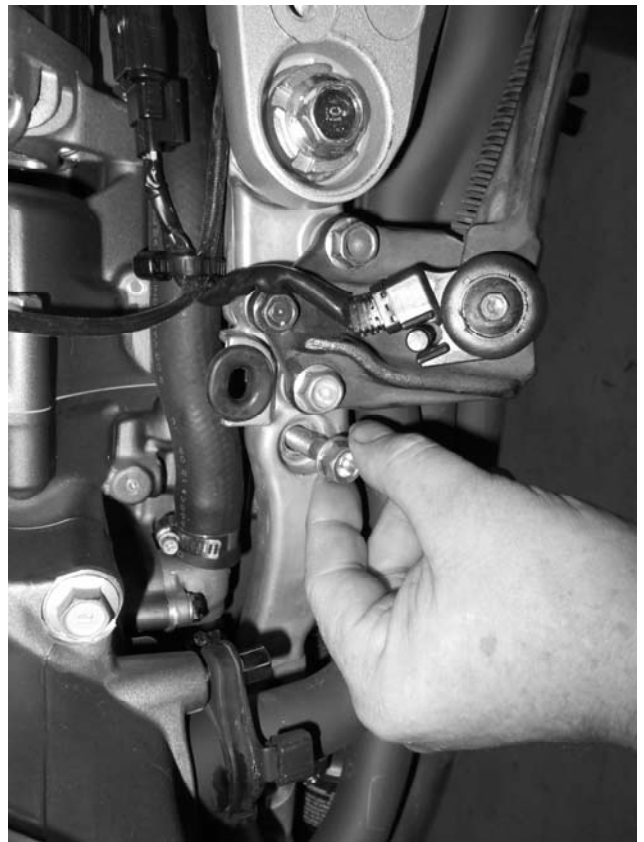
#5



#6



#7



#8



#9



#10



#11



#12



#13



#14



L side complete



R side complete