

GARMIN™

TR-1 Gold

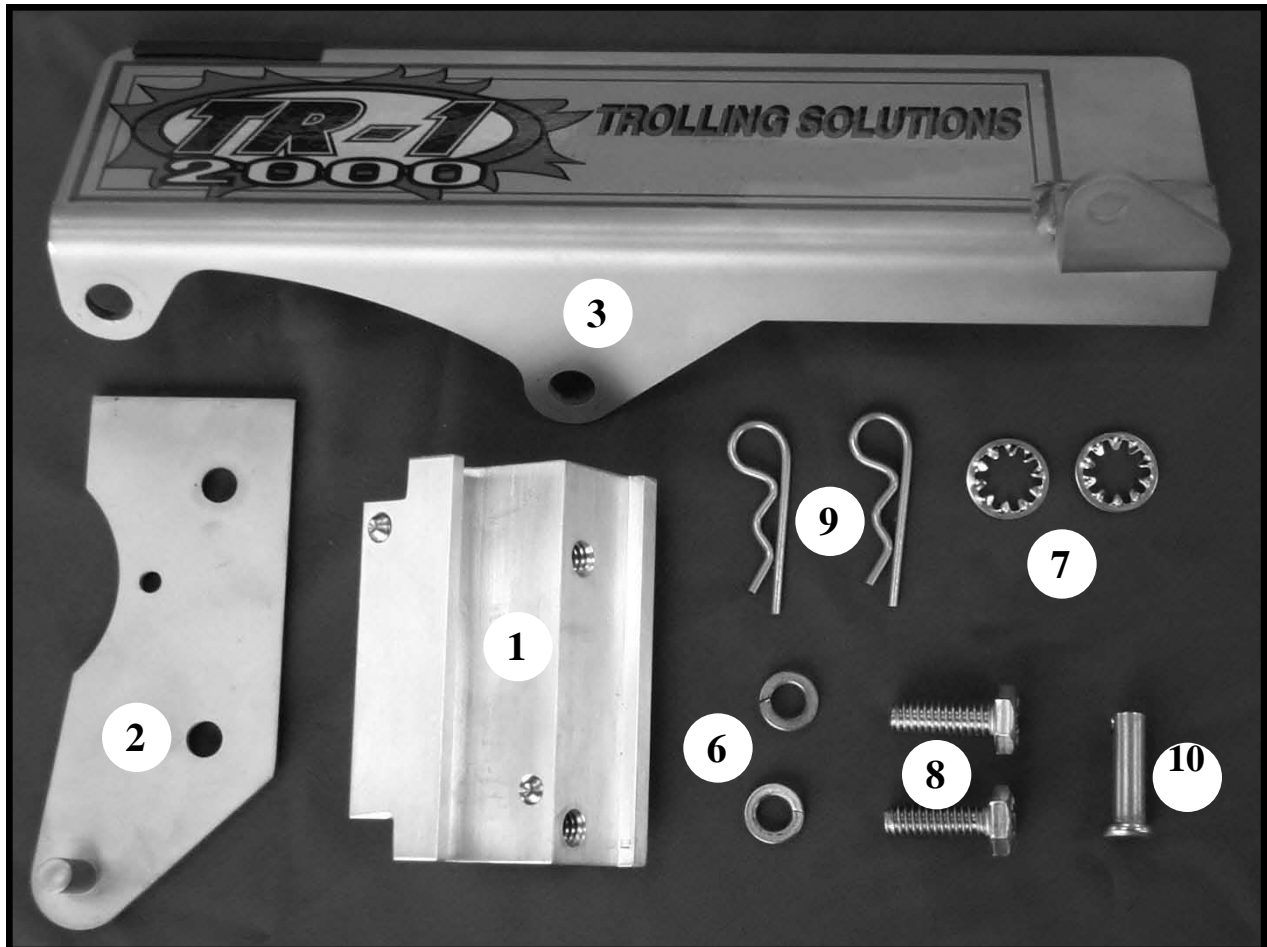
Cylinder and Bracket Mounting Instructions

Honda 8 HP 1987-2000



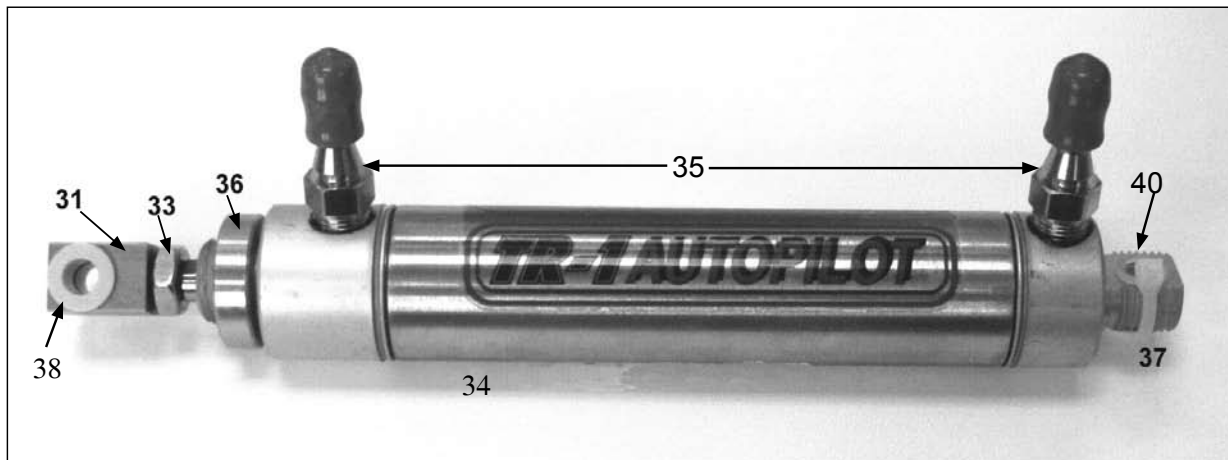
Cylinder Mounting Kit PN 120-1060-00

ITEM	PART NUMBER	QTY	DESCRIPTION
1	130-0055-00	1	Carrier, Eye Mounting Bkt.
2	130-1062-00	1	Bracket, Rod Eye Mounting
3	130-1064-00	1	Assy., Cylinder Mtg. Angle
6	310-0076-25	2	Washer Lock
7	310-0037-06	2	Washer, Ext. Star Lock 5/16 D
8	310-0200-75	2	Hex Cap 1/4 - 20 X 5/8 (Or 3/4)
9	310-0067-02	2	Hair Pin Cotter Med.
10	310-2500-79	1	Clevis Pin 1/4 D X .79

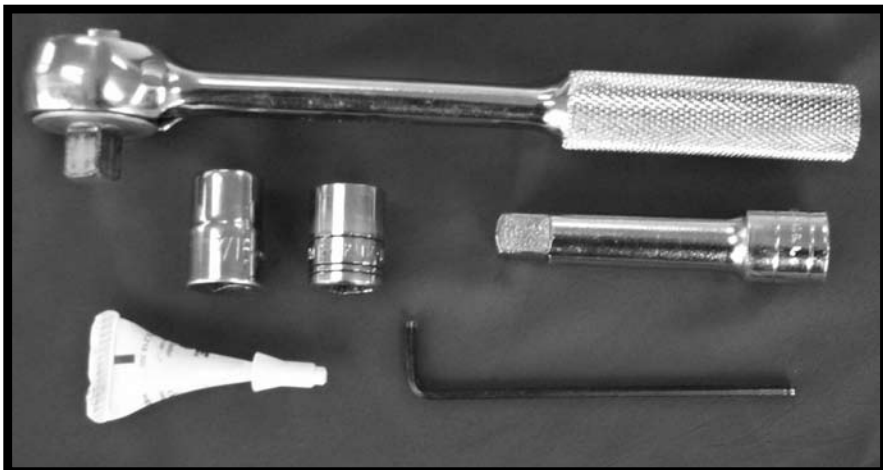


Cylinder Kit PN 120-0900-00

ITEM	PART NO.	QTY	NAME
31	330-1002-00	1	Rod Eye, 5/16-24
33	310-0042-09	1	Hex Jam Nut 5/16-24
34	340-0900-00	1	Cylinder
35	321-0001-00	2	Fitting, Straight 1/8 NPT X 1/4
36	330-1101-00	1	Zinc Anode (Replace)
37	310-0040-26	1	Washer, Flat, Nylon 1/4 ID X .03
38	328-0901-00	2	Bushing 1/4 ID X 5/16 OD X 1/4"L
40	328-0902-00	1	Cylinder Tail Bushing



Tools:



One; Hex Key

(Allen Wrench) 3/32

One; 12mm wrenches

Preferably a socket with extensions

One; 7/16 In. Wrench
Thread Locker

(Loctite or similar)

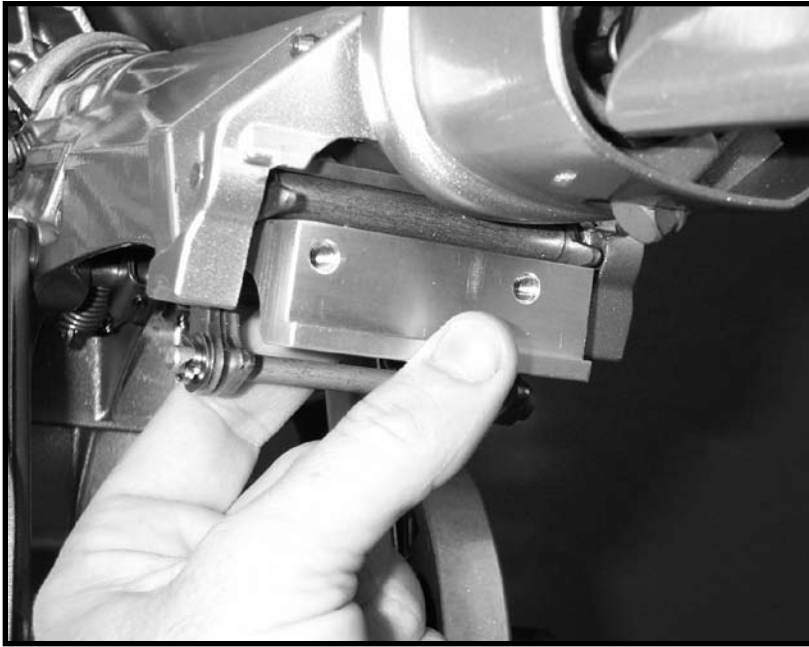


Figure 4

Hang Carrier

Tip the motor all the way up. Slide the Carrier for the Eye Mounting Bracket (*item 1*) up between the latch brackets and over the cross tube that joins them as shown in figure 4.

Bracket Install

Place the Rod Eye Mounting Bracket (*item 2*) as shown in figure 5 against the face of the Carrier (*item 1*). Install the Hex Cap Screws (*item 8*) and split Lock Washers (*item 6*) with some thread lock through the bracket and into the carrier and tighten the them.



Figure 5

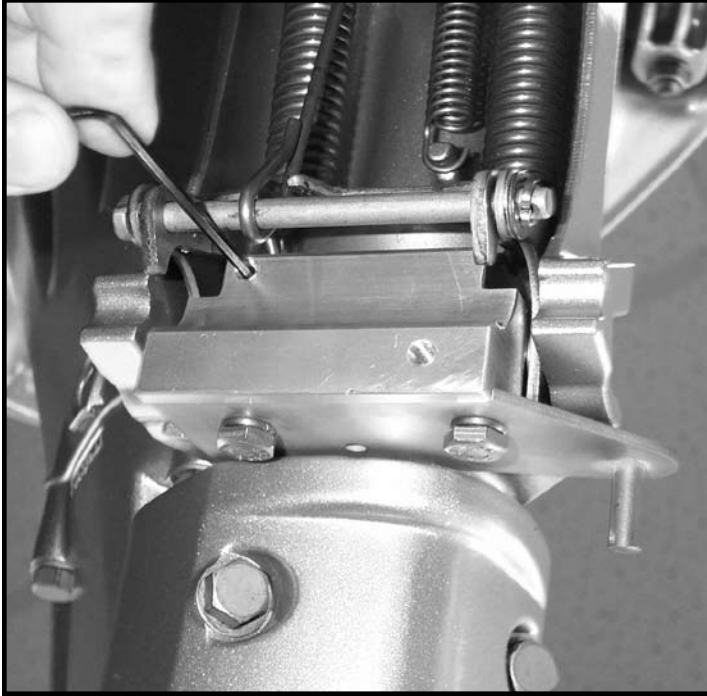


Figure 6

Tighten Set Screws

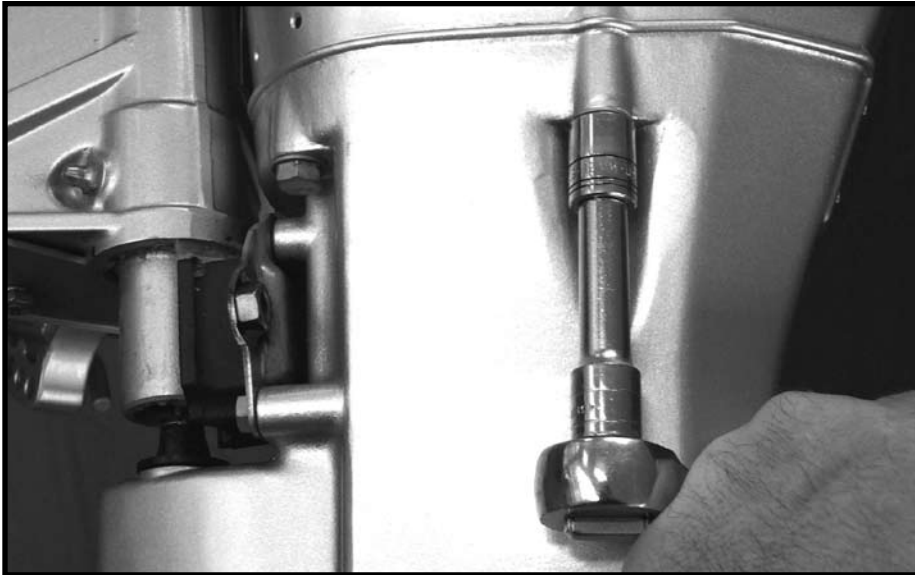
Using your 3/32 hex key tighten first the upper starboard set screw (*in the Carrier*) then the lower one.

Remove Shock Cover

Use the 12 MM wrench to remove the two screws that hold the lower vibration isolator shroud in place and remove the shroud. (*Be careful not to loose the rubber liner.*)



Figure 7



Remove Vertical Screws.

Next, use the 12mm wrench to remove the two port side screws shown in figure 8.

Figure 8

Mounting The Angle

Replace the washers on the last two screws removed with the star Lock washers (item 7). Put a little thread lock on the ends of them and install them through the cylinder mounting angle assembly (item 3) and back into the motor as shown in figure 9. (Angle with the label facing you right side up.) Tighten the screws. Replace the lower vibration isolator shroud removed at figure 7. A little thread lock should be used on these screws also.



Figure 9

Cylinder Rod Eye

Place the Rod Eye (*item 31*) over the vertical pin in the Rod Eye Mounting Bracket (*item 2*) as shown. (*Leave the cylinder attached.*) Put the plastic Washer (*item 14*) on the pin against the Rod Eye and install the Medium Hair Pin Cotter (*item 9*) through the hole in the vertical pin. Turn the Cylinder (*item 34*) Fittings (*item 35*) up. The cylinder back end cap mount should freely align against the top surface of the mounting ear of the Cylinder Mounting Angle Assembly (*item 3*). If it does not, adjust the set screws in the Carrier for the Rod Eye Mounting Bracket (*item 1*) so that they do. Be sure the set screws are tight when you are done.

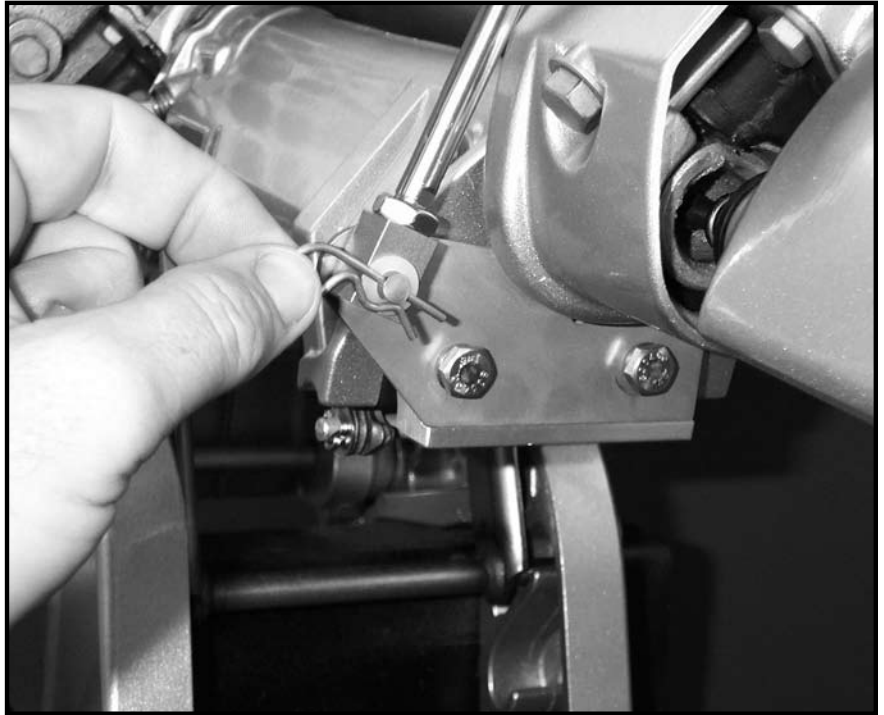


Figure 11



Figure 12

Cylinder End Cap

Line the hole in rear end cap of the Cylinder with the hole in the top of the Cylinder Mounting Angle Assembly. Slide the Clevis Pin (*item 10*) through both hole from the top. Put the second Hair Pin Cotter (*item 12*) through the cross holes in clevis.



Full Port & Starboard.

Tilt the motor down. Turn the motor hard over to port. That will retract the Cylinder rod into the Cylinder. Check that the Cylinder rod is still free to retract at least a little more. Next turn the motor hard over to starboard. That will extend the Cylinder rod out of the Cylinder. Check that the Cylinder rod is still free to extend at least a little more. It should have additional travel in both directions. If it does not adjust the position of the Rod Eye (*item 31*) on the Cylinder shaft. The Cylinder shaft should turn with your fingers if the Hex Jam Nut (*item 32*) is loose. (*If the shaft does not turn freely enough, use a thin 1/4 Inch open end wrench at the shaft's wrench flats.*) **Do not use any tool on the cylindrical part of the Cylinder shaft.** If the shaft gets scratched, bent, or damaged the seal will fail. With the cylinder properly adjusted, secure it by tightening the Hex Jam Nut against the Rod Eye. It is ready for plumbing. We suggest you put the original parts in a container and, carefully, store them. (*You may eventually want to sell or trade in your motor, but we know you will want to keep your TR-1 autopilot.*)

