E.A.R. Series Tuning

The E.A.R. Series combines an efficient reverse flow core with the tuneable diffuser disc outlet. For stock engines and jetting, 5 to 6 discs is ideal. Unlike the Racing Series, the core itself does provide some back pressure that can not be eliminated simply by adding discs. For this reason, 8 to 10 discs is the practical maximum that should be used. In other words, adding more discs will not reduce the overall back pressure further.

Repacking

1. Remove Silencer.
2. For Racing Series only, remove all discs and reassemble with aluminum end cap only (screws finger tight).
3. Using a 1-1/2" dia. wooden dowel approximately 15" long (flat on the end, not rounded), insert into silencer against back of end cap and carefully knock out core from aluminum housing. For E.A.R. Series cores, the dowel will bottom out against the reverse flow baffle instead of the end cap.
4. Repack core with Repack Kit, Part No. 400-4020.
5. Reassemble silencer. Remember - use High-Temp-Lube on threads.

Cleaning

Soapy water and a soft cloth should be used to clean pipe and aluminum silencer. Use a fine Scotch-Brite pad to remove exhaust deposits from the end cap and to touch up the silencer body. The diffuser discs should be removed and cleaned periodically. Oven cleaner is recommended to remove baked-on oil or carbon deposits.

Accessories & Replacement Parts

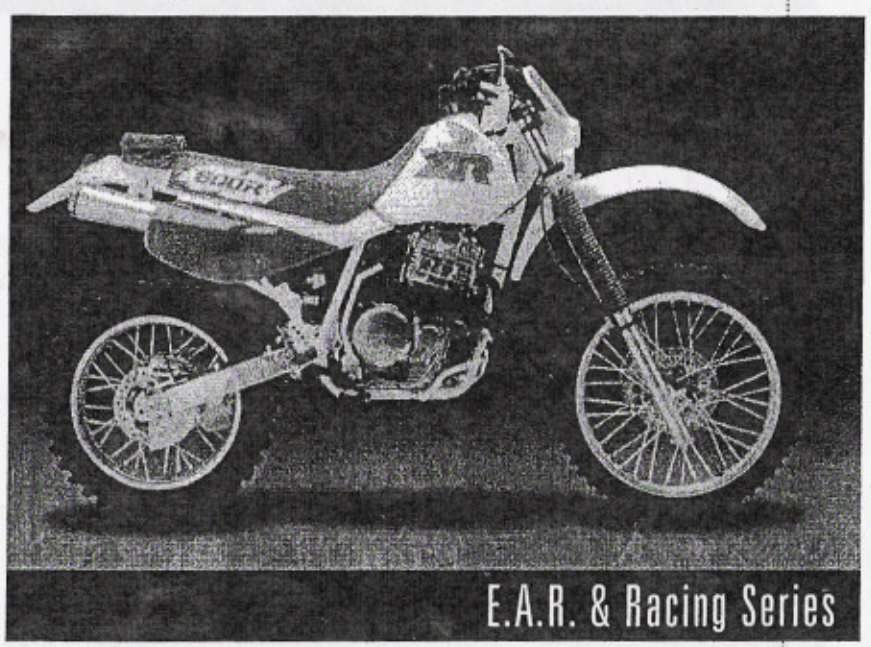
	Part No.
Diffuser Disc 6-Pack	404-6506
Diffuser Disc 12-Pack	404-6512
Stainless Steel Bolt 6-Pack (with High-Temp Lube)	404-7206
High-Temp Lube 3-pack	090-2622
Aluminum End Cap (with Blank Disc)	402-3046
Open End Cap (Closed-Course-Competition Only)	405-3046
Exhaust Shield (Protects 120 degrees)	405-2120
Fiberglass Repack Kit	400-4020
Racing Series Core (1.75" inlet, Includes Fiberglass)	400-8170
E.A.R. Series Core (1.75" inlet, Includes Fiberglass)	401-8170

Since 1975, SuperTrapp has built a reputation on innovation and technical superiority. SuperTrapp R&D is constantly designing, testing and improving; providing you with the latest in State-of-the- Art performance engineering.The SuperTrapp E.A.R. Series and Dirt Racing Series are absolutely the best bolt-on performance items available anywhere. They will provide years of trouble-free service.

SuperTrapp Industries 4540 W. 160th St. Cleveland, Ohio 44135
tel. (216)265-8400 fax. (216)265-0130
e-mail: sales@supertrapp.com / www.supertrapp.com

in 003-0051 2.26.98

SUPERTRAPP



E.A.R. & Racing Series

Honda

XR600R 1985-87 & 91-98
XR650L 1992-93

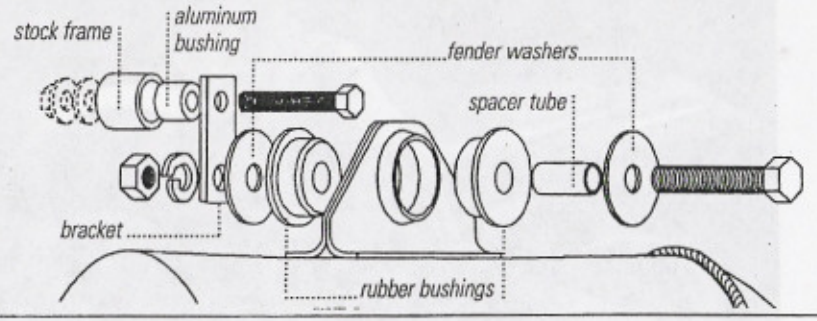
811-3601 E.A.R. Series 813-3601 Racing Series

Stock System Removal

1. Loosen headpipe flange nuts.
2. Remove right plastic side panel.
3. Remove stock silencer and gasket.
4. For XR600R, remove right fender bolt. For XR650L, remove right rear turn signal (*note jam nut inside fender*).

FIG 1

Vibration Mount Detail



SuperTrapp Installation

1. Install SuperTrapp inlet pipe using smaller T-bolt clamp supplied. DO NOT TIGHTEN.
2. On XR600R only, slide aluminum washer provided between stock asbestos washer and front frame mount. Install stock bolt into standoff on inlet pipe. DO NOT TIGHTEN.
3. Install stock rear mounting bolt loosely.
4. Slide larger T-bolt clamp over silencer inlet and slide onto inlet pipe. DO NOT TIGHTEN.
5. Assemble vibration mount on silencer (see Fig. 1). DO NOT TIGHTEN.
6. On XR600R only, use (shorter) 6mm bolt provided and aluminum bushing supplied to attach small hole end of shorter strap bracket to rear fender mount as shown. Note: bolt must enter from the silencer side and protrude through fender. Install 6mm nut with stock washer loosely.
7. On XR650L, use (longer) 6mm bolt provided and install longer strap bracket provided between turn signal and frame mount. Install stock jam nut behind fender.
8. Attach silencer to outside of strap bracket as illustrated.
9. First snug all clamps and mounting bolts, but do not tighten. Make sure there is no binding, then tighten, starting at the headpipe flange nuts and working rearward.
10. Loosen silencer to inlet pipe clamp and install "Retaining Pin" (see Figs. 2 & 3). Tighten clamp.

Retaining Pin Installation

1. Loosen T-bolt clamp and slide up S-bend.
2. Mark hole placement with center punch and drill a 1/8" hole (see Fig.2).
   Note: before you drill, make sure you drill through the perforated steel core and not the slotted portion.
3. Using only the tip of a 1/4" drill bit, carefully counter sink the hole for flush in-installation of the retaining pin (see Fig 3).
4. Drop retaining pin in the hole, slide clamp over retaining pin and tighten T-bolt clamp.

FIG 2

Drilling the Retaining Pin

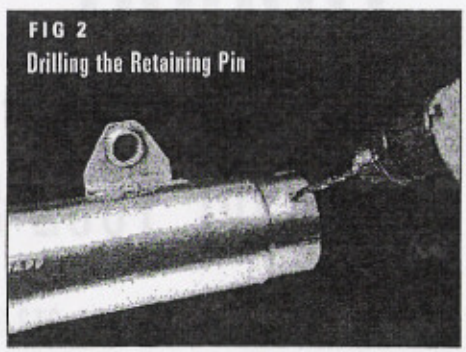
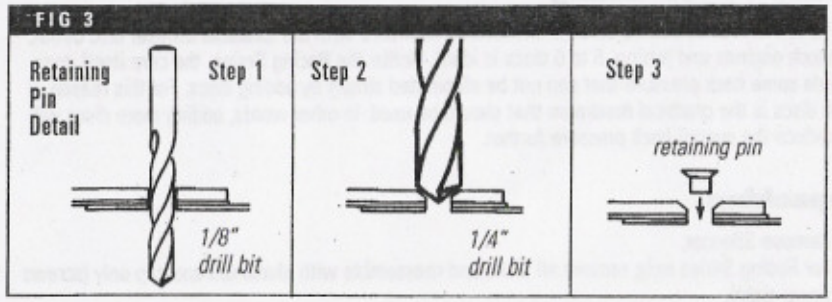


FIG 3



Silencer Assembly

When assembling or changing diffuser discs, apply a small amount of High-Temp Lube (supplied) to the threads of each screw. Note: the blank disc (without center hole) MUST be placed against the end cap. This is a non-functioning disc that insulates the aluminum end cap from extreme temperatures.

Be sure to install discs so that they fit into the contour of the silencer core cap. Their outlets should angle toward the aluminum end cap.

Tighten screws, using hex key provided, in a cross-pattern until snug. The screws provided will hold up to 20 discs.

General Tuning

SuperTrapp exhaust systems are uniquely tuneable. Back pressure and noise level are controlled by the number of discs used. Note: Increasing the number of discs creates a larger exhaust outlet area and therefore, causes less back pressure but more noise. Conversely, removing discs increases back pressure but reduces sound level. Also, richer jetting will be required as discs are added to match the improved air flow.

All SuperTrapps are US Forest Approved Spark Arrestors and are legal regardless of the number of discs installed providing the closed end cap is used. The optional Open End Cap is designed for Closed-Course-Competition only and will void the spark arrestor function. All systems are supplied with 8 discs (plus one blank disc described above) to provide a range of tuneability. Additional discs are available in 6 or 12 packs.

E.A.R. Series Versus Racing Series

The E.A.R. or Environmental Acoustic Reduction Series is designed to achieve significant performance increases while retaining near stock noise levels. For stock and mildly modified engines, the E.A.R. Series will offer the same performance advantage as the Racing Series but with significantly lower sound.

The Racing Series is designed for Closed-Course-Competition only. It will not meet the necessary sound regulations for street or trail use. Also, there is no performance advantage in using the Racing Series over the E.A.R. Series except with highly modified engines that can take advantage of the improved flow.

Replacement cores are available to convert from Racing to E.A.R. or E.A.R. to Racing Series. See Accessories and Replacement Parts.

Racing Series Tuning

The Racing Series uses a straight through perforated core. Back-pressure is controlled entirely by the discs since the core itself adds no back-pressure. This gives almost infinite tuneability to match any degree of engine modification. Four to five discs will work best on a stock engine with stock jetting. However, the E.A.R. Core is recommended in this application. Depending on modifications such as a big bore kit, carburetor/air box alterations, and cam changes, up to 20 discs may be required for optimum performance.

in 003-0051 2.26.98