

SAMSON

MOTORCYCLE PRODUCTS, INC.

INSTALLATION INSTRUCTIONS

Custom Shop True Dual System w/4" Mufflers
FOR Late 85-Up HARLEY FLH MODELS
Model CS-704S

WARNING PLEASE READ BEFORE INSTALLATION!

• Read all instructions thoroughly and confirm that all listed components are available for installation. • Adding a free flowing exhaust systems may require rejetting of the carburetor. Lean carburetor settings are a major factor causing exhaust discoloration and potential engine damage. • Samson® exhaust systems are designed to fit and work with OEM frames and motors. • **After installation thoroughly clean the new exhaust system before starting the motor.**

REMOVAL PROCEDURE:

- Loosen the muffler clamps holding the mufflers to the head pipes.
- Remove the bolts holding the mufflers to the mounting brackets.
- Remove the mufflers by pulling and twisting toward the rear of the bike. Use caution not to damage the head pipes.
- Remove heat shields from header pipes, remove flange nuts at exhaust ports, loosen and remove the clamps located under the transmission cover and behind the rear cylinder. Remove both header pipes.
- Remove snap rings and flanges from both pipes for re-use.
- Remove the rear pipe support bracket located over the transmission. This bracket will not be used with this system.
- On early model bikes where exhaust gaskets are used replace with Samson thick gaskets, part # A-144.

**CAUTION: WITH SOME EXHAUST DESIGNS
GROUND CLEARANCE MAY BE REDUCED!**

CHECK ALL MOUNTING POINTS AFTER 100 MILES!!

TOOLS REQUIRED:

- 1/2" Combination wrench
- 1/4" Allen wrench
- Ratchet, 1/2" and 5/16" socket
- 3/16" Allen wrench

PARTS LIST:

Qty.	Description
3	5/16-18 X 1" Hex head bolts
4	5/16-18 X 1/2" Hex head bolts
4	5/16" Split lock washer
3	5/16" Washer
3	5/16" Nylock nuts
2	2-1/8" Pinch clamps SP11-15
1	2" Side clamp SP11-18
6	#24 Hose clamps*
2	Removeable baffles SP04-22*
2	1/4"- 20 Button head screws*
2	10-32 Button head screws*

* Installed in head pipe assembly

INSTALLATION PROCEDURE:

NOTE: Do not tighten connections when first installing the system. To ensure proper fit and alignment all bolts and bracket are tightened at the end of the installation.

- Install the stock flanges and snap rings on the front and rear pipes.
- Install the rear pipe first by loosely attaching the flange to the exhaust port. • Using a 5/16" -18 X 1" hex head bolt, 5/16" flat washer and 5/16" nylock nut on the 2-1/8" Pinch clamp, slide pinch clamp over front of muffler. Slide the muffler over the end of the head pipe with the clamp in place. Loosely secure the muffler to the bag mounting bracket using two 5/16-18" x 1/2" hex head bolts and 5/16" split lock washer.
- Loosely install rear heat shields on rear head pipe using the hose clamps provided in kit. (Do not fully tighten at this time.)

NOTE: It will be necessary to remove floor board and loosen rear floor board mount to install front pipe.

- Using the 2" Side clamp, a 5/16-18" x 1" hex head bolt, 5/16" flat washer, and the 5/16" nylock nut, loosely attach the front pipe to the transmission bracket. Loosely install front heat shield on the head pipe using the hose clamps provided in kit. (Do not fully tighten at this time.) Install front head pipe by loosely attaching flange to the exhaust port. Using a 5/16-18" x 1" hex head bolt, 5/16" flat washer and 5/16" nylock nut on the 2-1/8" pinch clamp, slide pinch clamp over front of muffler. Slide the muffler over the end of the head pipe with the clamp in place. Loosely secure the muffler to the bag mounting bracket.
- Reinstall O2 Sensors in the front and rear head pipes. If you do not wish to operate this system with the factory O2 Sensors you will need to consult your local dealer for tuning options as operation without these Sensors can result in engine damage. The Sensor thread size is 18mm x 1.5 pitch.
- Carefully start to tighten the exhaust flanges first to insure proper seating of the pipe to the gasket. Note that the pipes will move away or towards the engine or primary as the flange nuts are tightened. Tighten each bolt a little at a time starting at the flanges, work toward the back and check the alignment often. Tightening each bolt a little at a time going bank and forth, front to rear, to insure a proper fit.
- Install baffle in each muffler using the 1/4-20 screws provided in kit, then install end cap on each muffler using the 10-32 screws. (Note: The removeable Varitech Cone baffle will work best for a stock bike or a bike with mild modifications.)

