

SDM - 812 / 825 / 851 / 852

Water Jet - Disassembly Instructions

Tools Required – 10, 13, 17, 19, 30 mm Sockets, Socket Wrench, 13mm, 17mm, 19mm Ring Spanner, Rubber Mallet, Torque Wrench, Nickel Anti-seize, CRC-WD40, small file, emery paper, grease.

1. Loosen and remove the steering crank bolt, slide the steering crank back off the steering shaft.
2. Loosen and remove the bolt and washers in the end of the reverse shaft.
3. Loosen and remove the two reverse crank bolts.
4. If fitted with hydraulic trim control - Loosen and remove the trim ram retaining bolt and nozzle nut, remove the trim ram from the jet - leave the hydraulic lines connected and leave the ram hanging off to one side.
5. Loosen and remove the four main stator nuts and washers.
6. Remove the tail pipe, nozzle, reverse bucket assembly by lowering the reverse bucket and pulling firmly on the reverse bucket, pull slightly on one side and then the other. This will aid in loosening the tail pipe from the stator. Once the tail pipe is loose slide the complete assembly backwards, at the same time slide the reverse crank backwards off the reverse shaft. In some cases the tail pipe may be sticky and hard to get off and may require tapping on each side of the tail pipe with a rubber mallet to loosen.
7. Loosen and remove the rear main shaft nut and washer, slide the rear SS sleeve off the main shaft, remove the rear impellor if two stage or front impellor if single stage. This is achieved by taking hold of the impellor blades and pulling firmly backwards. The impellor should slide back off the shaft and key with moderate force. Remove the key from the shaft. In some cases the impellor may be sticky and require the assistance of the impellor puller, the impellor puller kit (option) comes with two lengths of studs – the short ones are used for the single stage and the rear impellor on the two stage - the long studs for the front impellor. Screw the appropriate studs into the back of the impellor boss making sure they go at least 10mm in. Place the cross bar over the end of the shaft while feeding the studs through the two outer holes, place the washers over the studs and wind the nuts on to the studs, wind the nuts up against the washers, tighten the nuts evenly keeping the cross bar straight and the impellor will start to be pulled backwards off the shaft.
8. Remove the stator housing if two stage - this may require tapping on each side lightly with a rubber mallet - if the stator is sticky there is a relief slot machined in the center of the forward stator flange on the top - a flat blade screw driver can be inserted in here to assist with removing the stator assembly use gentle force as not to damage the castings. In extreme cases there are three tapped holes in the stator flanges - 8mm bolts can be wound in here to jack the stator away from the adjoining casting. If the jet is fitted with a separate front impellor housing or is a single stage and you require to remove this housing, remove the two or three retaining bolts and remove the housing in the same way as the stator.

SDM – 812 / 825 / 851 / 852

Water Jet - Assembly Instructions

Tools Required – 10, 13, 17, 19, 30 mm Sockets, Socket Wrench, 13, 17, 19mm Ring Spanner, Rubber Mallet, Torque Wrench, Nickle Anti-seize, CRC-WD40, small file, emery paper, grease.

1. Assembly is the opposite of disassembly but here is an outline on how to reassemble the jet. On the 800 jet there is an impellor spacer on the main shaft. This must be in place at the front of the shaft in front of the front impellor.
2. If the jet is a single stage or is fitted with a two piece stator, fit the front impellor housing to the intake (single stage and two piece stator front housing two stage). If the jet is a two stage with a one piece stator go to 3. Ensure all faces and spigots are clean and free of **ALL DIRT AND GRIT**, spray a light film of CRC or WD40 or similar over the mating faces, ensure that the two water pick-up O rings are in place in the water tube recess's - it is sometimes necessary to apply a light coat of grease to the O rings to hold them in place. Slide the impellor housing over the studs and into the spigot in the jet intake. Ensure it is sitting squarely in place then tighten the two or three retaining bolts. Ensure that the housing pulls squarely up onto the intake housing.
3. Ensure that the main-shaft is **CLEAN AND FREE** of dirt and that the key-way in the shaft is at the top. Fit the front impellor key (long Key) to the main-shaft. Apply a liberal coat of a good quality nickel based anti-seize paste to the entire main shaft area where the impellers and sleeves fit. N.B. **This is essential for assisting in later disassembly** . Slide the front impellor onto the main-shaft ensuring that the key is in place and engages into the key-way in the impellor, the impellor **SHOULD** slide into place and engage the key-way with only moderate force. Because of the tight tolerance between the impellor, main-shaft and key-way in service it is not uncommon to encounter small nicks or burrs on these components and they may need to be dressed with a fine file or emery paper to ensure assembly goes smoothly.
4. Slide the stainless hard sleeve onto the main-shaft and up against the back of the impellor. Single Stage - now fit the thick main-shaft washer, apply nickel anti-seize paste to the thread and fit the main-shaft nyloc nut to the shaft and tighten to 70 ft/lbs. Two Stage - fit the stator housing. Once again ensure that all faces are clean and free of **ALL DIRT AND GRIT** , spray a light film of CRC or WD40 or similar over the mating faces, ensure that the two water pick-up O rings are in place in the water tube recess' – it is sometimes necessary to apply a light coat of grease to the O rings to hold them in place. Slide the stator housing over the studs and into the spigot in the jet intake or front impellor housing - ensure it is sitting squarely in place. Fit the rear impellor key to the main-shaft, ensure there is still a good coat of nickel ant-seize on the main-shaft - if not apply some more, slide the rear impellor onto the main-shaft shaft ensuring that the key is in place and engages into the key-way in the impellor, the impellor **SHOULD** slide into place and engage the key-way with only moderate force. Because of the tight tolerance between the impellor, main-shaft and key-way in service it is not uncommon to encounter small nicks or burrs on these components and they may need to be dressed with a fine file or emery paper to ensure assembly goes smoothly. Fit the rear stainless hard sleeve onto the main-shaft and up against the back of the rear impellor. Now fit the thick main-shaft washer, apply nickel anti-seize paste to the thread and fit the main-shaft nyloc nut to the shaft and tighten to 70 ft/lbs.



SDM-812 / 825 / 851 / 852 Water Jet Assembly Instructions

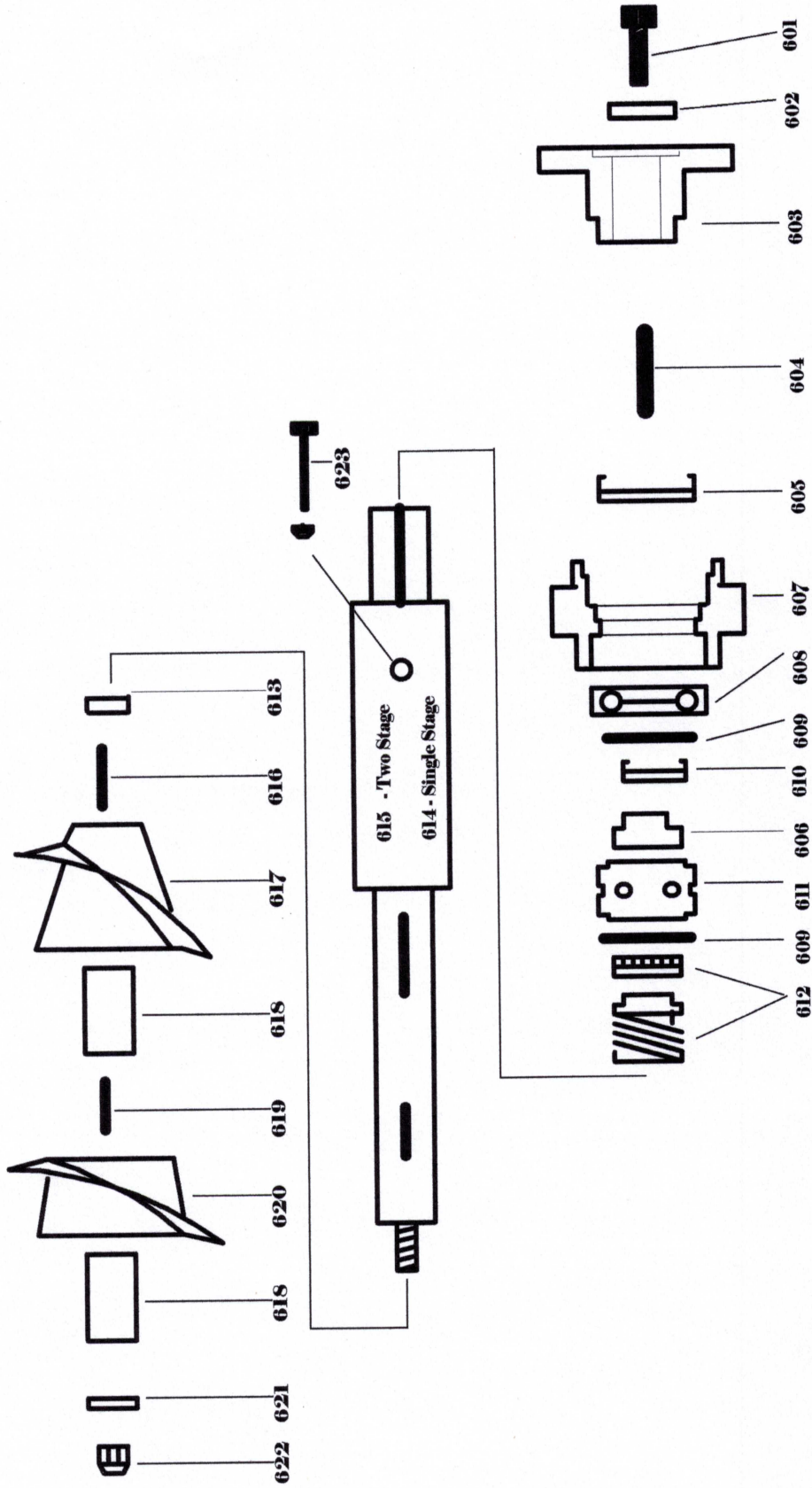
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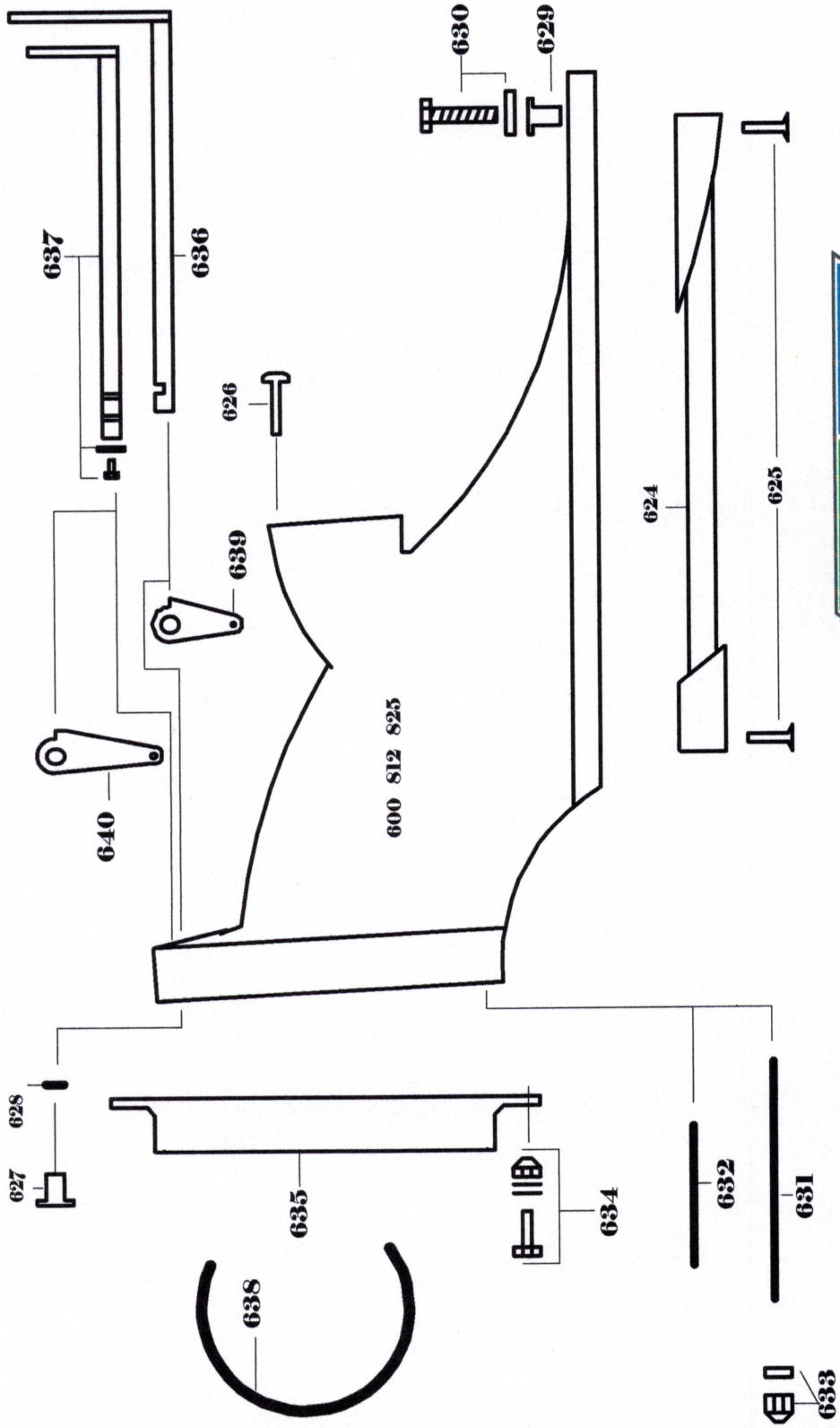
Page 2

5. Fit the tail-pipe, nozzle, reverse bucket assembly - ensure that all faces are clean and free of **ALL DIRT AND GRIT**, spray a light film of CRC or WD40 or similar over the mating faces, hold the entire assembly centered over the main-shaft and move towards the jet. Engage the reverse crank over the reverse shaft, a light coat of CRC, WD40 or similar sprayed on the reverse shaft will assist assembly, now slide the reverse crank further onto the reverse shaft while engaging the center of the tail-pipe over the main-shaft hard sleeve, engage the four stator studs in the four holes in the tail pipe and move the entire assembly back onto the stator or impellor housing. (It helps to have two people for this operation due to the weight). It helps to use a slight wiggling motion to engage the tail-pipe onto its adjoining spigot, ensure that the tail pipe is sitting squarely back onto the stator or impellor housing, apply nickel anti-seize paste to the threads on the four stator studs, fit the washers and start the four nyloc nuts - these nuts should be tightened evenly in a diagonal pattern ensuring that the tail-pipe assembly is pulling back squarely onto the stator or impellor housing. Tighten these nuts firmly approx 50ft/lbs. Fit the 8mmx20mm bolt, spring washer and large flat washer into the rear of the reverse shaft and tighten so that the reverse shaft is pulled fully back through the reverse bush in the steering nozzle, slide the reverse crank all the way back on the reverse shaft until it touches the end of the reverse bush in the steering nozzle. By raising or lowering the reverse bucket the reverse crank can be positioned in the correct place as to allow the bolts to be fitted into the reverse crank and through the notches in the reverse shaft. Apply nickel anti-seize paste to the threads of the bolts and screw them into place. The reverse bucket can be wiggled up and down slightly to assist in winding the bolts in, tighten both bolts firmly ensuring that there is no movement between the reverse crank and reverse shaft. Now fit the steering crank onto and over the end of the steering shaft by moving the steering nozzle from side to side - the steering crank can be positioned in the correct place as to allow the bolt to be fitted into the steering crank and through the notch in the steering shaft. Apply nickel anti-seize paste to the threads of the bolt and screw it into place - the steering nozzle can be wiggled side to side slightly to assist in winding the bolt in - tighten the bolt firmly ensuring that there is no movement between the steering crank and steering shaft.
6. If hydraulic trim control is fitted refit the trim cylinder to the top of the jet by engaging the rod end on the end of the cylinder over the stud on the trim nozzle top saddle, insert the other end of the cylinder body into its recess in the tail pipe, screw the 6mm bolt into the tail pipe and through the lug on the end of the cylinder and tighten, fit the 6mm nyloc nut onto the nozzle stud at the other end of the cylinder and tighten firmly.
7. Check all steering, reverse and trim movement after assembly to ensure full travel is available and that every thing is secure - it is also good to check the jet will wind over properly - this can be done by jabbing the starter button on the engine without starting the engine. **DO NOT START THE ENGINE WITH THE JET OUT OF THE WATER AS SEVERE DAMAGE CAN BE DONE TO THE CUTLESS BEARINGS.**

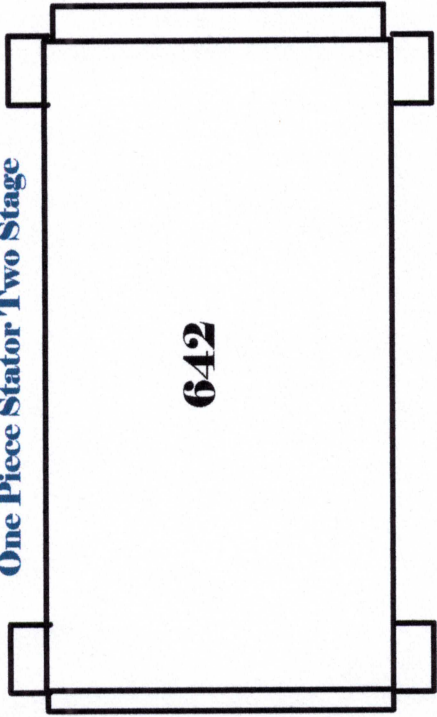
Exploded View - Two Stage

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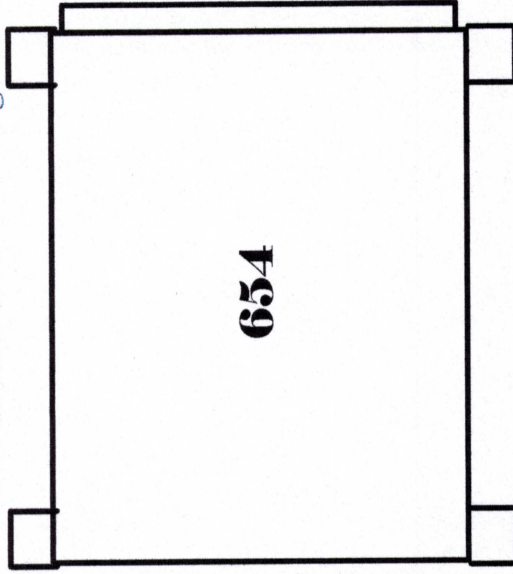




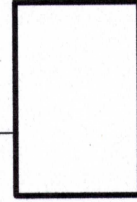
One Piece Stator Two Stage



Two Piece Stator Two Stage



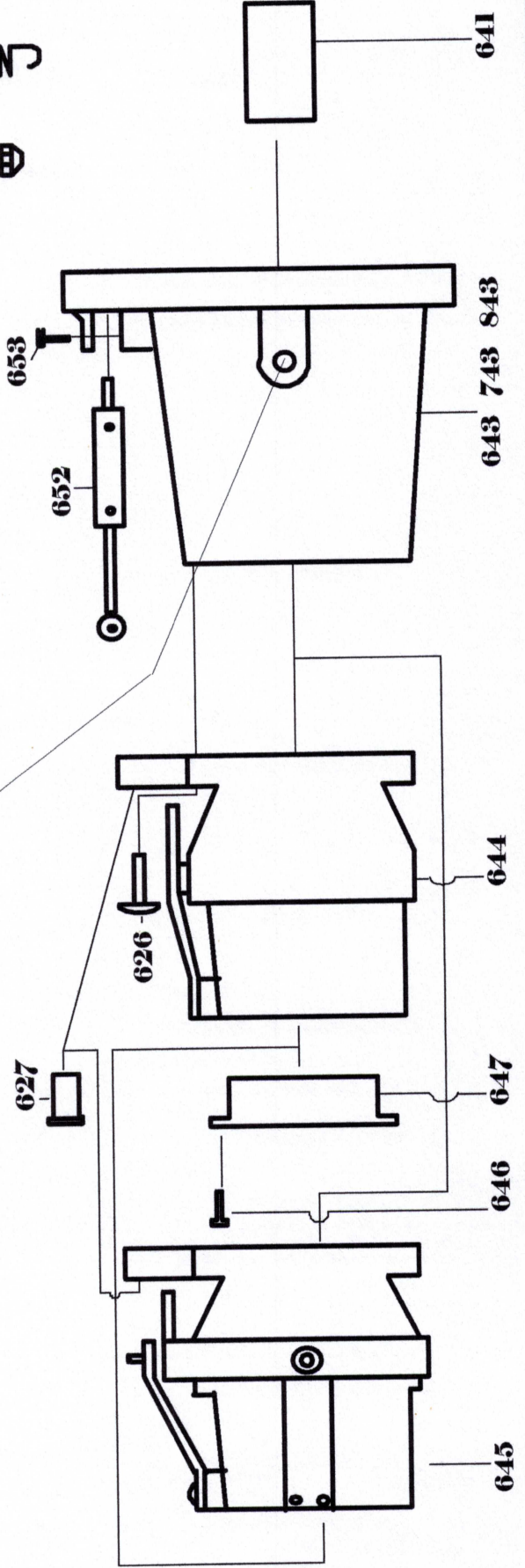
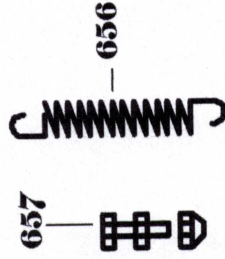
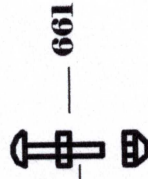
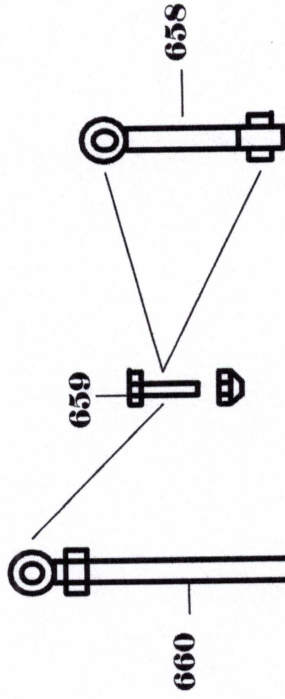
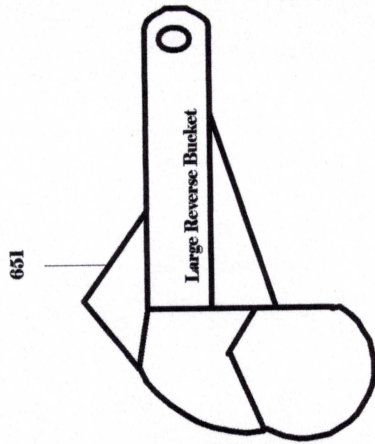
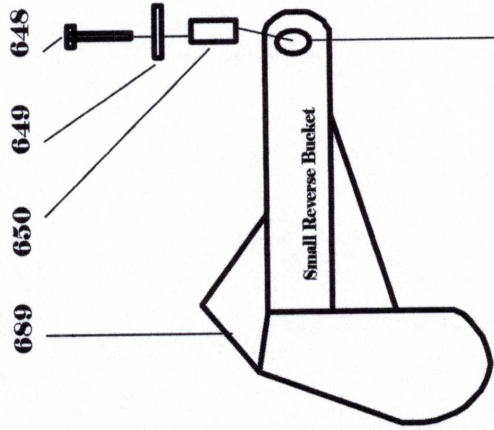
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**Single and Two Stage
Front Impeller Housing**



Hydraulic Reverse, Trim and Cable Steer Mounting

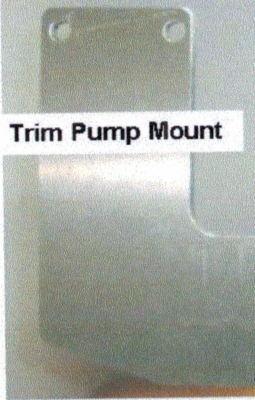
Trim Pump Fitted Without Steering Mount



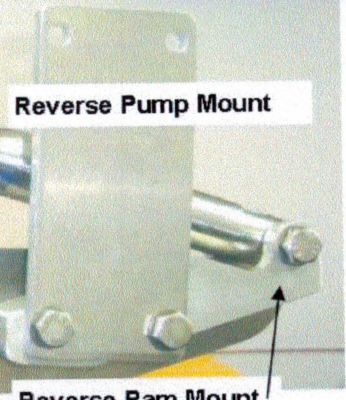
Reverse Pump Fitted Without Steering Mount



Trim Pump Mount



Reverse Pump Mount



Reverse Ram Mount

Steering Cable Mount



Cable Mount For Right Hand Drive



Cable Mount For Left Hand Drive



Cable Mount For Right Hand Drive with Pump Fitted

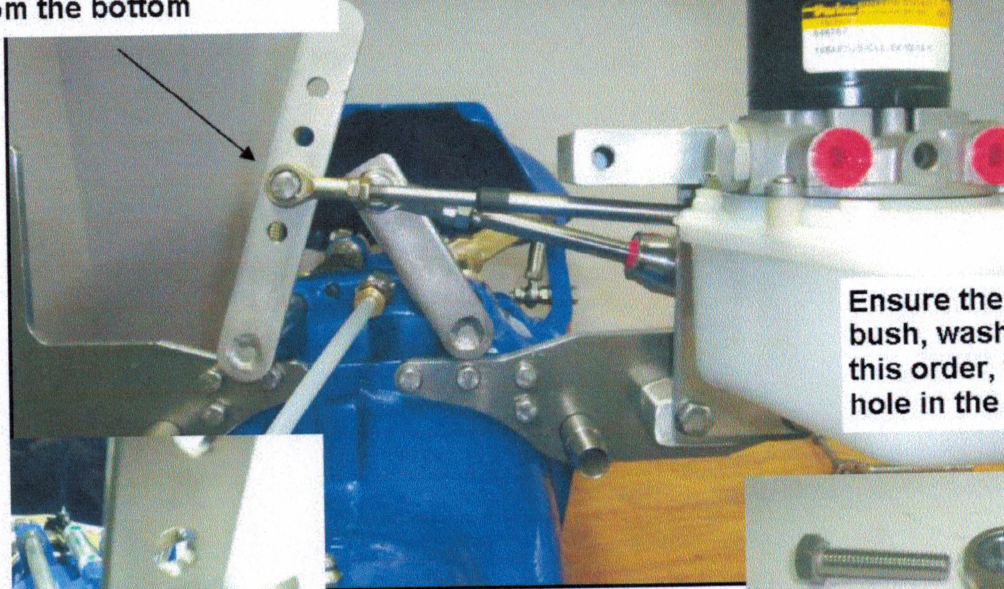


Cable Mount For Left Hand Drive with Pump Fitted

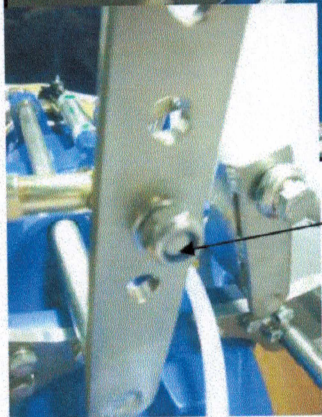


Cable Steer Mounting

Attach at second hole up
From the bottom



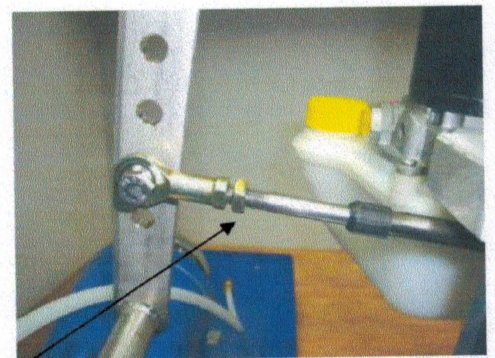
Ensure the bolt, rod end, washer, bush, washer and nut are fitted in this order, the bush fits into the hole in the SS Lever



Tighten Nut Firmly



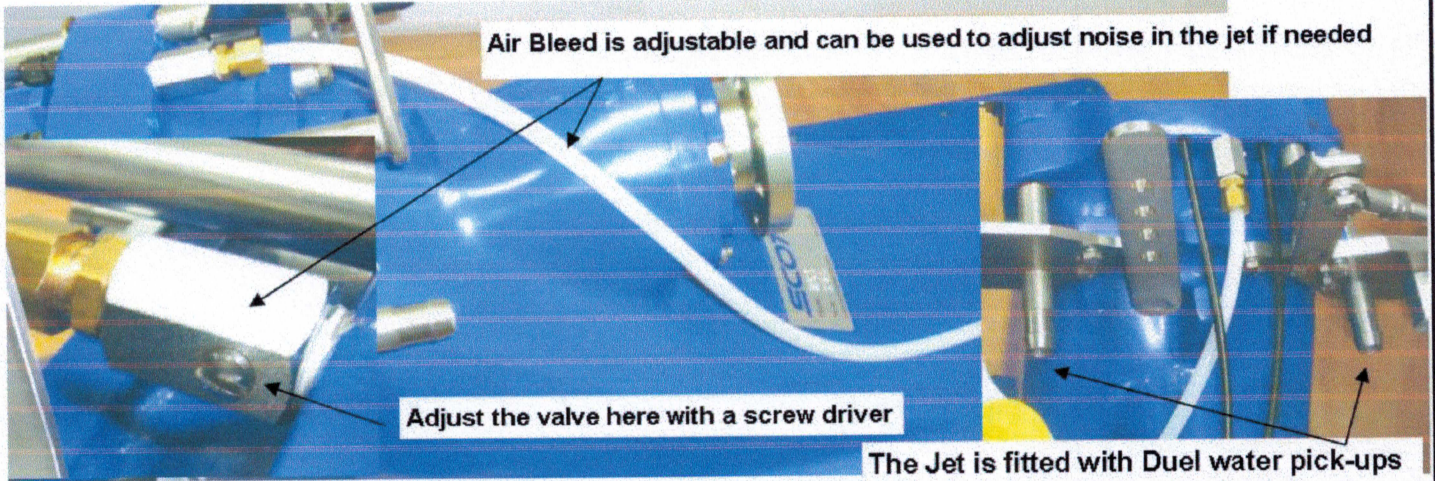
It is important to ensure that the steering nozzle on the jet is achieving full travel left and right, there are several adjustment points on the cable and mounts to ensure full travel is obtained, once these have been adjusted ensure that they are all tightened firmly



Adjustment Points



SDM- Trim and Reverse Plumbing, Water Pick ups & Air Bleed

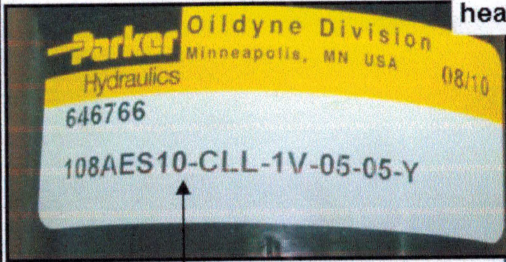


Air Bleed is adjustable and can be used to adjust noise in the jet if needed

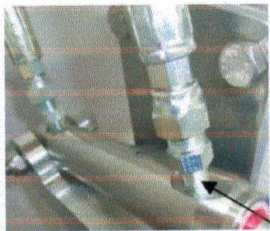
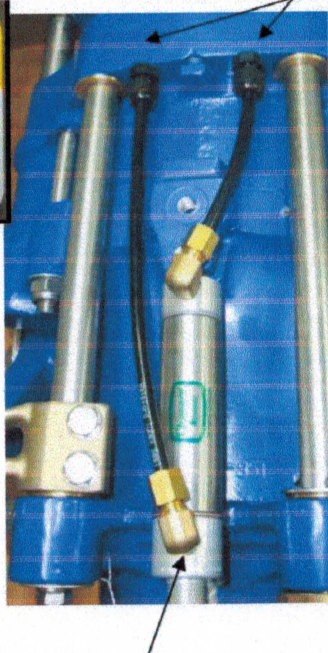
Adjust the valve here with a screw driver

Route trim lines through bulk head fittings and tighten glands

The Jet is fitted with Dual water pick-ups these can both be used to feed the engine cooling system by joining together, Or alternatively one for the cooling system and one for other accessories such as an oil cooler.



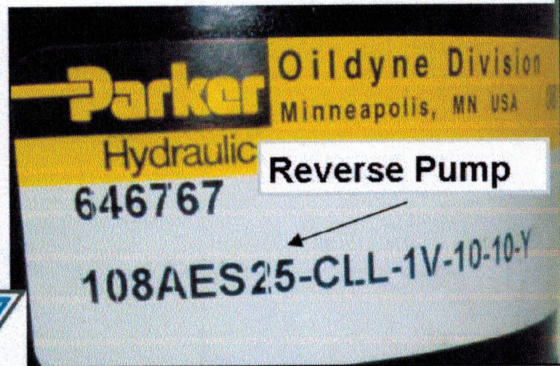
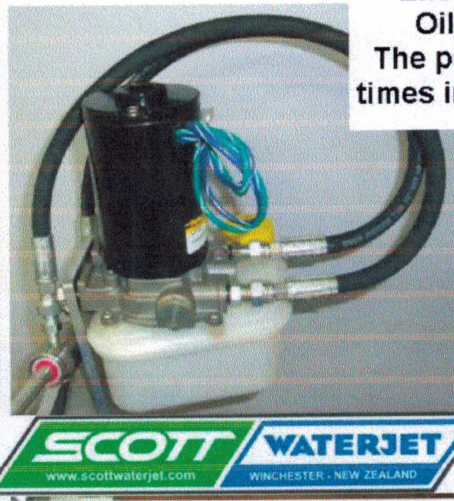
Trim Pump



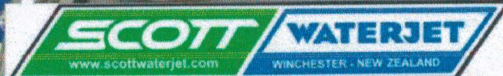
Apply sealer to threads and tighten fittings securely

NOTES

Ensure All Fittings are Tightened Firmly
Oil is Power Steering or ATF Oil Only
The pumps will need to be operated several times in both directions to bleed the systems

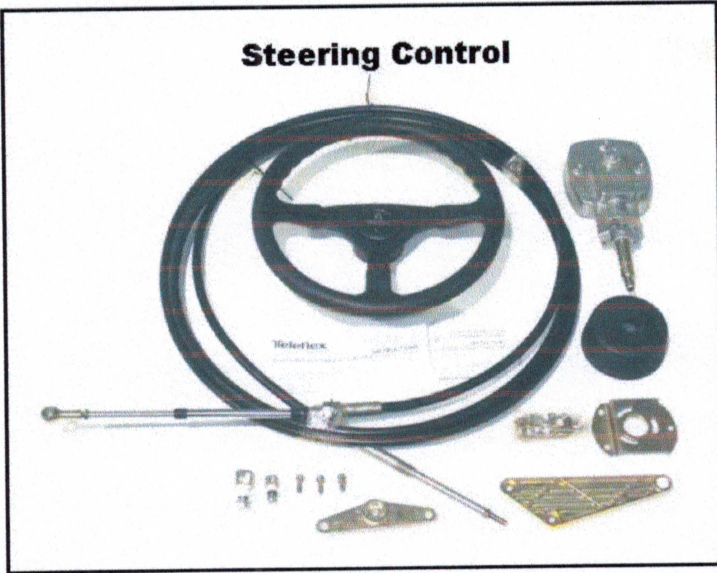


Reverse Pump

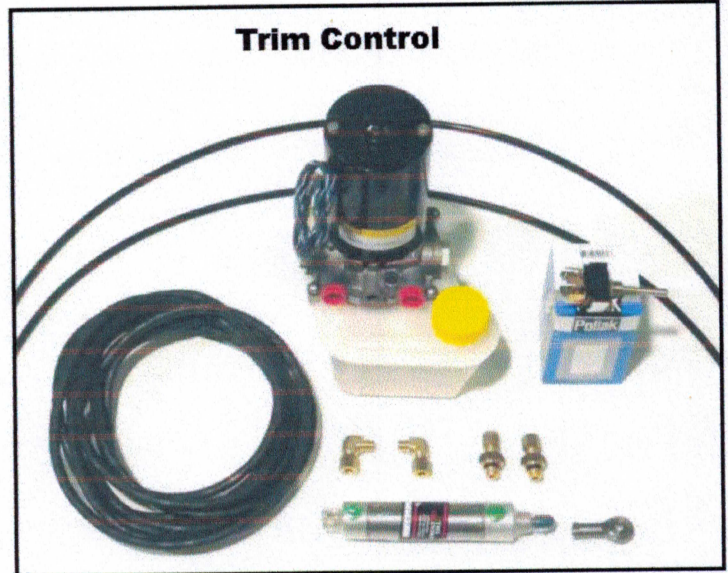


Scott Water Jet—751, 752, 811, 812, 825, 851 and 852 Accessories

Steering Control



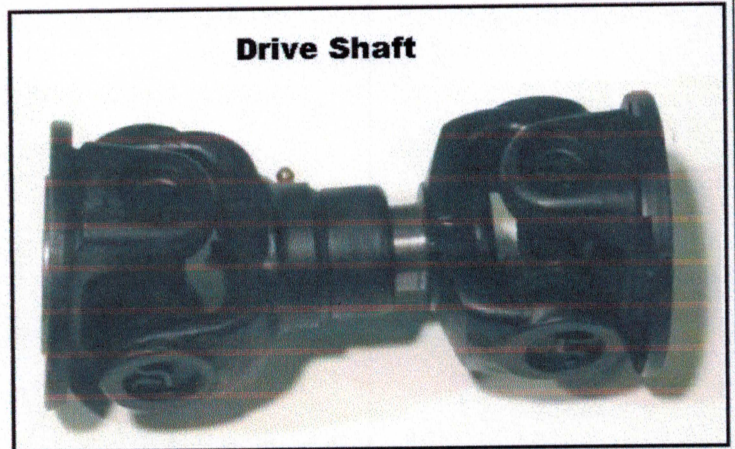
Trim Control



Reverse Control



Drive Shaft

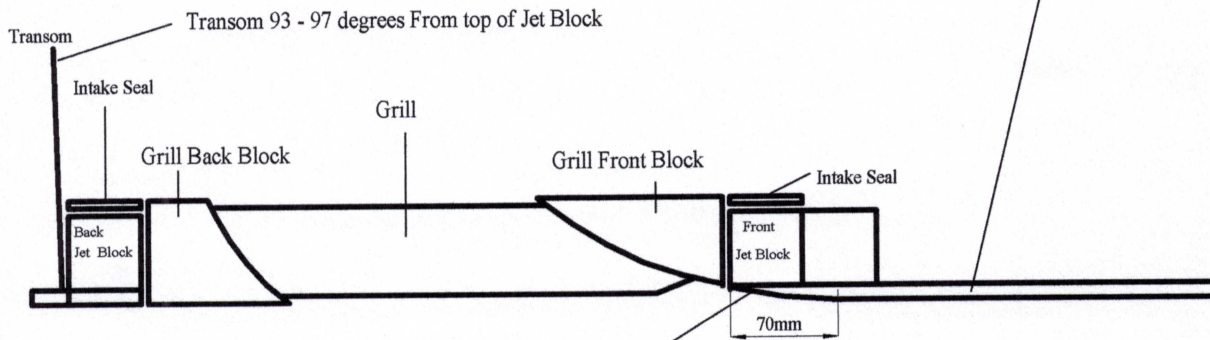
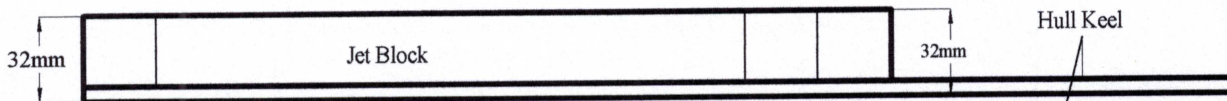
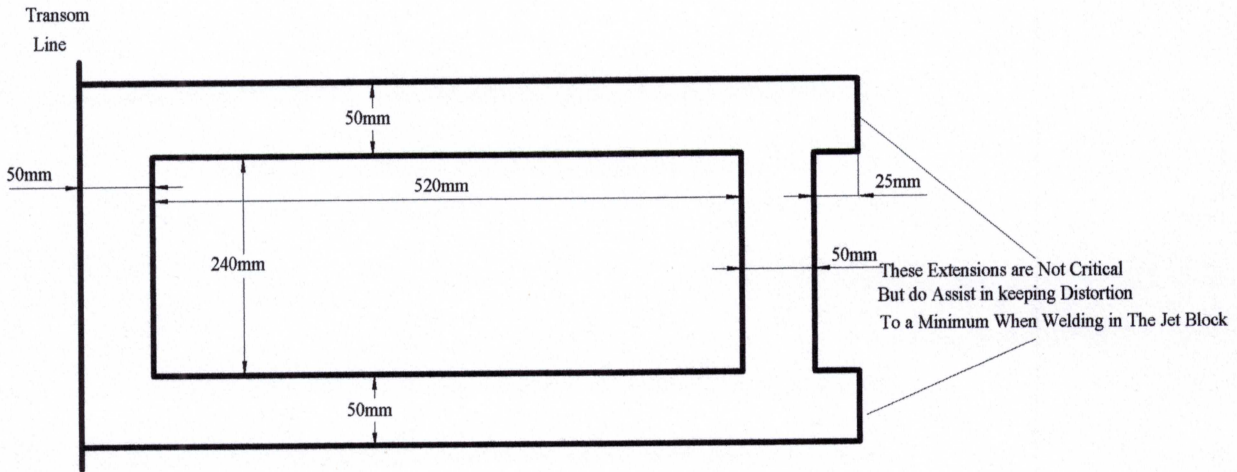


SDM200 / 801 & 802

SDM 812 / 825 / 852

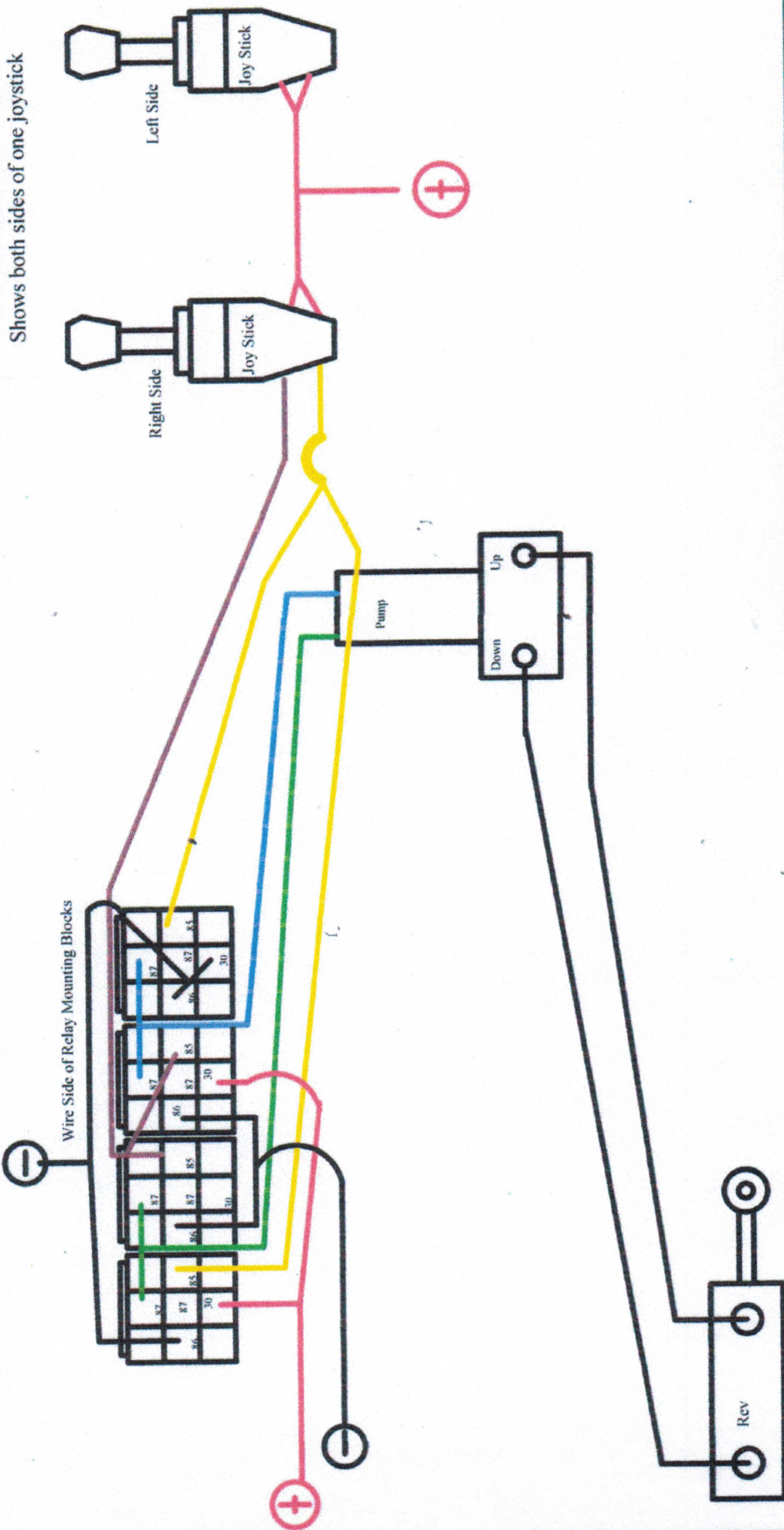
Series Water Jet

Jet Block Detail



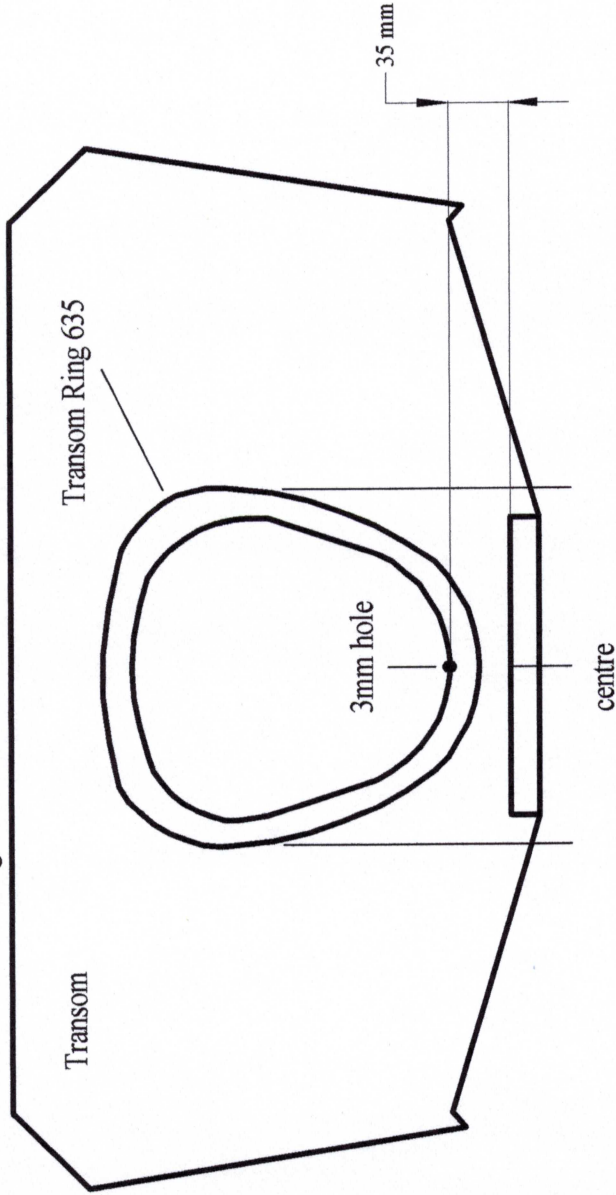
Transition from keel line to the front of the intake grill must be ground into the hull
This is best Done Once The Jet Is Fully Installed, Transition must be Smooth and Follow the Curve of the Intake Grill

SDM - Reverse Wiring - Relay's & Joystick



Shows both sides of one joystick

Diagram 1



Jet Block

Diagram 2

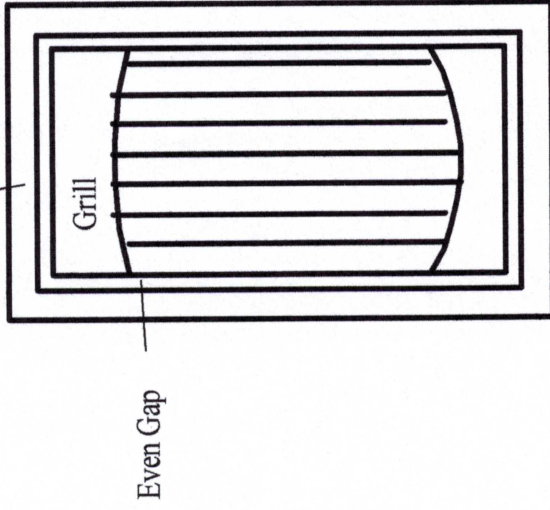
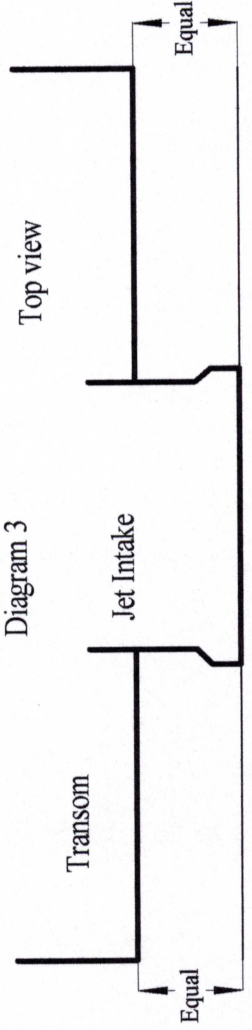


Diagram 3



Top view



SDM - Hyd Trim Wiring & Plumbing

