ST50 Early ST60 Wind Vane Transducer Service

Step 1 Remove the black plastic anemometer cups and wind direction feather using a 1.5mm Allen key to remove stainless grub screws.

Step 2 Remove pods from housing. Carefully grip pod and rotate back and fore while pulling gently don't pull to hard as damage to wires / sensors can result. When pods are free they can be rotated several times to unravel wires, which will make step 3 easier.

Step 3 Remove PCBs sensors are **very fragile** so take great care. Plastic is also brittle with age. Method I use is place small flat screwdriver in slot and use it to push on underside of PCB. **Don't** lever plastic clips they break. Work round from slot to slot pushing PCB up a little at a time. The important point here is that PCB comes out square if it get twisted ceramic sensors will be damaged.

Step 4 Now you have pods separated remove and discard old O-rings.

Step 5 Wind speed pod has 4 small magnets in plastic carrier. Pull the 4-magnet carrier of end of shaft with short nose pliers

Step 6 Warm plastic pods with hair drier this prevents brittle plastic cracking. Then while supporting pods push shafts and bearings out from inside.

Step 7 Remove old bearings from shafts. I use a vice to shatter small bearings (wear eye protection). Remove brass magnet from end of wind direction shaft.

Step 8 Clean shafts with some fine wet and dry. Fit new bearings to shafts, replace brass magnet to wind direction shaft.

Step 9 Warm the pods with hair drier then push shafts and bearings back into pods. Push the 4-magnets in carrier back onto wind speed shaft, Fit new 0- rings. Now hold shafts and spin pods they should spin free.

Step 10 Replace PCBs taking care that the locating key lines up with slot in PCB and that PCB goes in square. The fragile ceramic sensors need to slide into 2 slots inside the pod, Take great care not to damage ceramic sensors.

Step 11 Apply very small amount of silicone grease to 0 rings. Rotate pods several time to rave wires back up to make them short again then push pods into housing.

Step 12 Apply a little silicone grease to top of bearings to keep weather out.

Step 13 If your wind direction shaft doesn't have a flat on it you will have to modify your wind direction feather molding using a 3mm drill to remove flat. Also use 3mm drill to open up hole in cups molding as it can be tight.

Step 14 Fit new grub screw with thread lock to wind direction feather. By placing square nut in slot inside molding. Fit other grub screw to

Step 15 Fit new black plastic anemometer cups and wind direction feather using 1.5mm Allen key to tighten stainless grub screws. You want grub screw points to go into groove in shaft.