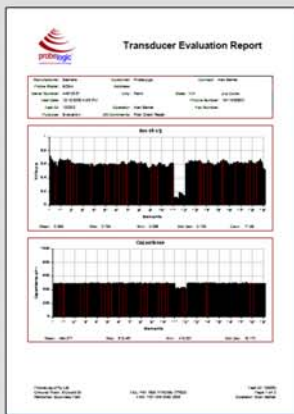
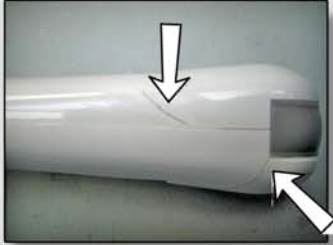


what happens when...



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Incorrect cleaning solutions or techniques are used?

The polymers used in the construction of the probes will degrade resulting in crazing (spiderweb cracks). This causes structural damage to the probe case and will eventually result in fluid ingress into the acoustic array cavity. This can result in destruction of the array. Warranty will be voided and Service Agreements will not cover this damage.

Probes are left in cleaning solutions beyond recommended times?

The polymers used in the construction of the probes will degrade and will result in swelling of the probe casing. The case will separate from the lens sealants and fluid will enter the acoustic array cavity. This can result in destruction of the array. Most vendors will not cover this damage under warranty or service agreements.

A probe is dropped (even on a carpeted floor)?

Even a minor impact will jar the crystal array. The damage is not always visibly apparent but can be detected on a digital analyzer. If even one crystal wafer is dislodged and fails, then the neighbouring wafers will decay and deteriorate over time. This results in an echo shadow in the image.

A chip appears in the plastic probe body?

As in (1) above, a chip often results in a fracture that penetrates the thickness of the probe case. This provides a path for fluid entry into the probe body or array cavity.

Fluid entry may cause excessive electrical leakage and renders the probe unsafe to use.

A crack starts to appear between the lens and the plastic probe body? (Separation of the Lens Sealant)

As above, a pathway is created for fluid entry into the array cavity causing a chemical reaction between the cleaning fluid, the crystals and the acoustic matching layer. This causes lens delamination and a build up of Verdigris (green oxidization of the matching layer and shielding) that corrodes and destroys the array.

A bubble or air fissure appears under the lens? (Delamination)

The lens has separated from the matching layer causing an anechoic air bubble. As ultrasound cannot penetrate the region of air, an acoustic shadow results on the image.

The probe is suspended from the probe body on a wall bracket?

Most connectors in use today are still the Cannon/ITT™ mechanical contact types that are engaged when rotating a locking lever. (Some vendors are changing to the pinless type). The larger mechanical action connectors are heavy and place a strain on the cable. This can result in the outer cable jacket separating from the strain relief grommet at the probe body end and exposing the cable wires.

smart transducer technology