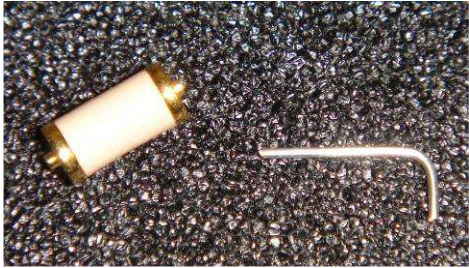
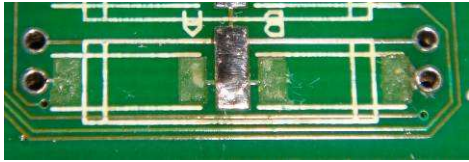
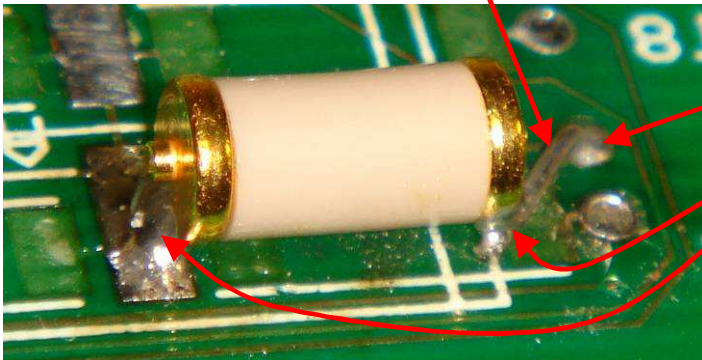
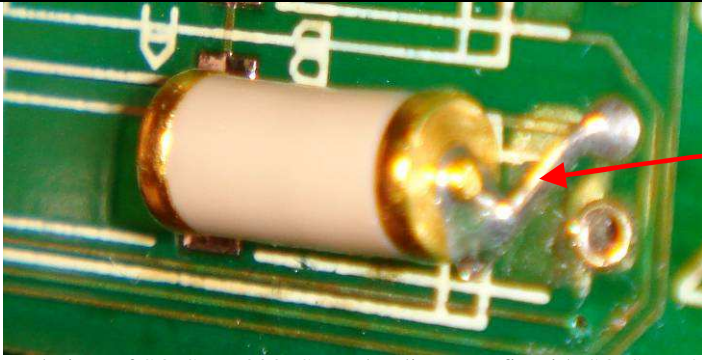



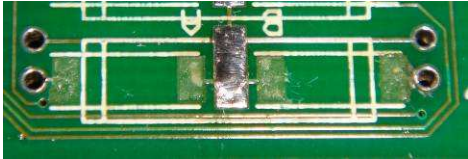
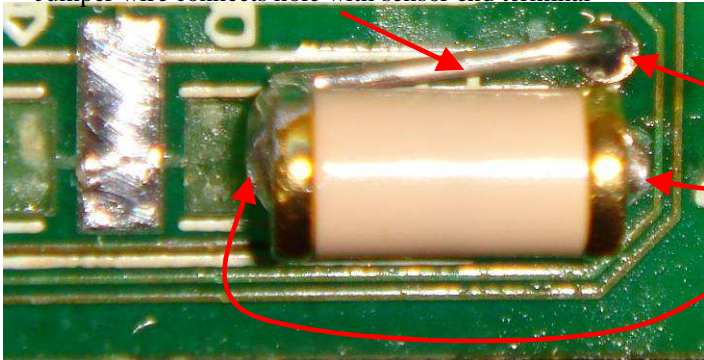
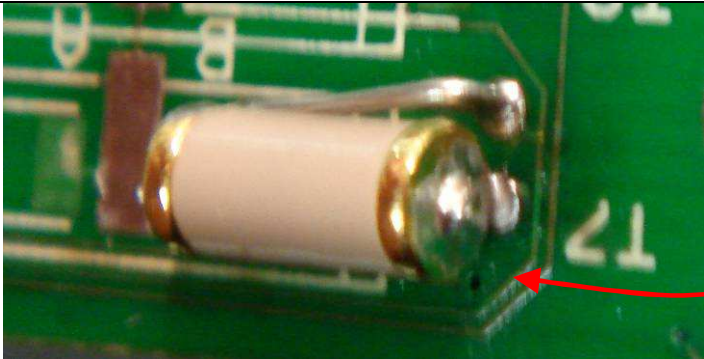
SQ-SEN-003P / 003PS RETROFIT

This note describes one method of soldering the new surface mount package used by SQ-SEN-200 and SQ-SEN-390 devices onto a PCB landing originally designed for through-hole devices such as SQ-SEN-003P and 003PS. Other methods are possible.

MATERIALS	 <p>SQ-SEN-200 / 390 and short jumper wire</p>	 <p>SQ-SEN-003P, SQ-SEN-003PS and SQ-SEN003PS-XL universal PCB landing.-</p>
RETROFIT	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <div style="margin-left: 10px;"> <p>Jumper wire</p> <p>Solder joints</p> </div> </div> <p>Top view of SQ-SEN-003PS-XL landing retrofit with SQ-SEN-200 / 390</p> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <div style="margin-left: 10px;"> <p>Jumper connects hole with sensor end terminal</p> </div> </div> <p>End view of SQ-SEN-003PS-XL landing retrofit with SQ-SEN-200 / 390</p> </div>	

SQ-SEN-003PS-XL / 001P / 001PS RETROFIT

This note describes one method of soldering the new surface mount package used by SQ-SEN-200 and SQ-SEN-390 devices onto a PCB landing originally designed for through-hole devices such as SQ-SEN-003PS-XL, SQ-SEN-001P, and SQ-SEN-001PS. Other methods are possible.

MATERIALS	 <p>SQ-SEN-200 / 390 and short jumper wire</p>	 <p>SQ-SEN-003P, SQ-SEN-003PS and SQ-SEN003PS-XL universal PCB landing.-</p>
RETROFIT	<div style="display: flex; flex-direction: column;"> <div data-bbox="375 814 1075 1192">  <p>Jumper wire connects hole with sensor end terminal</p> <p style="text-align: right;">Solder joints</p> </div> <div data-bbox="375 1255 1075 1612">  <p style="text-align: right;">Solder joint is made to hole</p> </div> </div> <p>Top view of SQ-SEN-003PS-XL landing retrofit with SQ-SEN-200 / 390</p> <p>End view of SQ-SEN-003PS-XL landing retrofit with SQ-SEN-200 / 390</p>	

COMPONENT VALUE ADJUSTMENT

When migrating from the through-hole sensor family to the new SMT sensor family, there are a few simple adjustments recommended for your application circuit. Because the new SMT style sensors are much smaller than the leaded style parts, they offer a number of enhancements including increased sensitivity, reliability and life. However, the smaller size results in a pulse output that is somewhat faster when compared to the leaded style parts.

If you are using a capacitor for filtering or debouncing, it will need to be decreased by a factor of about 5x to 10x for the new circuit. A good starting place is to use a voltage divider with a 4.7M and 1M resistor and add a 100 pF capacitor for gentle debounce.

Please see the “SQ-SEN-200 Application Circuits” and “SQ-SEN-390 Application Circuits” for more details on capacitor adjustment.