

Trouble-shooting

(1) Basic reasons for issues

Likely Cause	Troubleshooting
The power does not turn ON.	Please check for a problem with the power cord connection or a disconnection.
	While referring to the section on the Fuse (p.7-19), confirm whether the fuse is expired or not, and if it is expired, replace the fuse. If however the power still does not turn ON and the fuse cuts out again, the Oscillator might be out of order.
There is no oscillation	If it is possible to turn oscillation ON with the Test Switch, then the trouble is either that the one of the External Connection Receptacle connection points or the external device connection point might be weak or poorly secured. When oscillation cannot be turned ON even with the Test Switch, the Oscillator might be out of order.
	The Volume of Amplitude might be set at the minimum. Please increase the Volume.
There is no ultrasonic oscillation	It is not possible to confirm the ultrasonic oscillation by sight. While referring to the Operational check (p.8-24) section, take hold of the Transducer and compare the cutting performance while the oscillation is OFF with the cutting performance while the oscillation is ON.
The ultrasonic oscillation is irregular	It is not possible to confirm the ultrasonic oscillation by sight. After checking abnormal actions and noises, as well as the cutting conditions, please contact SONOTEC.
Clean cut cannot be made Cut cannot be made	The ultrasonic cutter is not a machine that can be used to cut everything. Although most materials that can be cut with a normal Blade are fine, in the case of metal and glass, the resulting resonant vibration and other factors can make cutting difficult. (Fiber glass is a different matter) Please refer to Operational check (p.8-24) and select the best configuration for cutting.
The ultrasonic output is noisy A high-pitched whine is emitted	The ultrasonic cutter is a cutter that makes use of ultrasonic oscillation in order to cut. Although a person with exceptionally good hearing may have the ability to hear the output (the frequency is 20kHz or higher), most people will not hear the output. If the Blade-mount is not rattling, then there are probably no issues affecting cutting.
Sounds unrelated to oscillation Rattling or abnormal vibration	There is a danger that the internal parts may be vibrating. There is a danger that the Blade-Mount may rattle. If there is no rattling, then there is no problem. If you have any further concerns, please contact SONOTEC.

Sounds unrelated to oscillation Crackling is heard	There is a danger that there is an electrical short-circuit in the Transducer unit. If this occurs, cease operation and contact SONOTEC as quickly as possible.
The Blade-mount is rattling	There is a risk that the flange, which supports the Oscillator and its housing, might have deteriorated and be worn out. In this case, contact SONOTEC. The flange cannot be replaced or repaired except by SONOTEC engineers.
The Transducer has been dropped	The Transducer is a precision machine. Therefore there is a risk of breakdown/malfunction. While referring to the Operational check (p.8-24) section, perform an operational check. If abnormal sound, such as rattling occurs, please contact SONOTEC.
The Blade is broken	The Blade is a Limited-Life Component. Once the Blade has become worn, the load will increase and cause damage to the Blade. While referring to the section on Maintenance of the Transducer (p.7-20), please replace the Blade. If anew Blade breaks quickly, please consult with SONOTEC regarding the suitability of that particular Blade for cutting a particular material.
The Blade vibrates to the point that an after-image is visible	It is normally not possible to confirm the ultrasonic oscillation by sight. Therefore, if the Blade is visibly vibrating, this may be due to abnormal conditions. While referring to the section on Maintenance of the Transducer (p.7-20), when exchanging parts other than the Blade, please take note of the related movement as well.
Wanting to change the type of Blade	Even if a Blade can be inserted into the Blade-mount, that particular Blade may not be a suitable match for this Oscillator.
Wanting to use a non-SONOTEC Blade	Any Blade not made to SONOTEC specifications cannot be used because it is not custom-designed to match our specific ultrasonic operation. If a special design is desired, SONOTEC will produce a custom order when appropriate.
The Blade screw-bolt is broken	The screw-bolt is a Limited-Life Component. Once the screw-bolt has become worn, the load will increase and cause further damage to the screw-bolt. When using the Blade screw-bolt (Model: 7522), we recommend that the screw-bolt be replaced after every second Blade replacement.
Wanting to add another Holder Wanting to file down Able to file down	The ultrasonic oscillation causes the Holder to vibrate, as well as the Blade. The fitting of a Holder without prior consultation can interfere with the ultrasonic output and cause malfunction. Because the continued use of such a Holder may cause problems, please make sure to have a replacement Holder ready and use it instead.

Holder is broken Holder is damaged	<p>The Holder is a Limited-Life Component. While referring to the section on Maintenance of the Transducer (p.7-20), please replace the Holder. The build-up of heat often causes the Holder to deteriorate. Please refer to the section on Cooling air (p.10-33) and check the Volume of air flow.</p> <p>If anew Holder breaks or is damaged quickly, please consult with SONOTEC regarding the condition of the Blade-mount and the cutting of a particular material.</p>
Holder color changes Burning occurs	<p>The ultrasonic output causes the Blade, the Blade screw-bolt, and the Holder to vibrate. The color change is due to heat generated by friction from the vibration.</p> <p>Please refer to the section on Cooling air (p.10-33) and check the Volume of air flow.□</p>
The Holder cover cannot be loosened It cannot be removed	While referring to the section on Maintenance of the Transducer (p.7-20), please use a pin spanner to loosen the Holder cover. In the event that through an oversight a pin spanner is not included, please contact SONOTEC.
Cord has been cut Cord is ruptured Power cord Transducer Con. cord External Con. A / B	<p>Stop use immediately, please contact SONOTEC.</p> <p>There is a risk of electric shock and breakdown/malfunction.</p>
Transducer has fallen in oil or water	The Transducer is a precision machine. Stop use immediately, please contact SONOTEC.
The housing is warped	The Transducer can operate normally with a few small dents. However, if any abnormality is noticed, please contact SONOTEC.
The machine is emitting smoke	If smoke issues from either the Oscillator or the Transducer, stop use immediately and contact SONOTEC. Please refer to Test-cut (p.8-26) In order to make the best adjustments for cutting.
The Transducer Blade-mount or material being cut is emitting smoke	<p>There is a risk that the Blade may create friction when cutting which causes smoke.</p> <p>Please refer to Test-cut (p.8-26) In order to make the best adjustments for cutting.</p>
Error	When an Error Lamp is illuminated, the Error Details will be indicated, and the issue can be dealt with accordingly.
Resetting after an Error	<p>If an Error occurs, it can be reset by turning the power OFF and then back ON after a 5 second delay</p> <p>Error Reset (p.10-42). Wait for 5 seconds at the minimum.</p>
Lamps are not illuminated	There is a risk that one or more of the Lamps are broken. Please contact SONOTEC.

(2) Error Lamp is illuminated

Error Details Lamp is illuminated O/L	If the Error Stop is the result of an Overload Error resulting from the Transducer, please refer to Error Status Lamp: O / L (Over-Load) (p.9-29) and confirm the cause of the Overload.
Error Details Lamp is illuminated O/H OSC	<p>If the "O/H OSC" Lamp is illuminated, this indicates that there is over-heating occurring on the Oscillator.</p> <p>After turning the power OFF, check the state of the fan to make sure that there is no problem with cooling.</p> <p>If the over-heating issue is solved, then the Oscillator can be used.</p>
Error Details Lamp is illuminated O/H TRD	<p>If the O/H TRD Lamp is illuminated, this indicates either that there is over-heating occurring through the Transducer or that there is a connection issue.</p> <p>After turning the power OFF, check the sections on Cooling air (p.10-33) and the Connecting the Transducer with the Oscillator (P.10-34) and check to make sure that there is no problem with the Cooling air supply to the Transducer. If everything is properly connected, then the Transducer can be used despite the generation of some heat.</p>

(3) Overload Stop occurs

In the case where an Overload occurs, make sure to pinpoint the cause of the Overload.

If a reset cannot be performed after an Overload, please contact SONOTEC.

Likely Cause	Troubleshooting
Material cannot be cut with this unit. The material is glass or metal. Glass or metal is contained in the material.	In the case of metal and glass, the resulting resonant vibration and other factors can make cutting difficult. Even if the material can be cut, it will cause the components to wear rapidly.
Cutting conditions are difficult The feed-rate is fast.	When the feed-rate is fast, the load that accumulates on the Transducer is increased. Therefore, reduce the feed-rate.
The Blade is not properly aligned with the Transducer set-up.	There is a risk that if the Blade is not properly aligned with the Transducer, the load will increase. Check the alignment with the Transducer and then resume use.
Blade is in contact with the frame or jig.	Please make sure that the Blade is not in contact with anything other than the material being cut.
A portion of either the Blade screw-bolt or the Holder is in contact with the material being cut.	Please make sure that there is no contact with the material being cut in order to prevent friction and melting.
The Blade is defective. Cracks, chips, or wear is observed.	Check the condition of the tool and if necessary consult the Maintenance of the Transducer (p.7-20) section and perform the necessary maintenance.

Grime (dirt) is adhering to the Blade.	Any change in the shape or weight of the Blade will affect the resonance of the ultrasonic oscillation. Clean off any adhering material at regular intervals.
Part defective. Cracks, chips, or wear is observed.	Check the condition of the tool and if necessary consult the Maintenance of the Transducer (p.7-20) section and perform the necessary maintenance.
The Blade screw-bolt or the Holder have been improperly affixed. Grime has accrued or tightening has not been executed properly.	A specified amount of torque has been designated for the tightening of each part. Please consult the Maintenance of the Transducer (p.7-20) section and perform the necessary maintenance.
Components not produced by SONOTEC have been used.	Any component not made to SONOTEC specifications cannot be used because it is not custom-designed to match our specific ultrasonic operation. Since SONOTEC is able to produce custom-designed components when necessary, please contact us.