

Machine is on, but no message appears on the display screen

- A. Make sure power cord is plugged in and that the wall outlet has power.
- B. Check to see if the back fan is working. If fuses are blown, then replace.
- C. Make sure emergency button is activated. Rotate the red knob clockwise to activate emergency button.
- D. Check the wire connection between the display and the electronic circuit board. If wire connection is loose re-connect wire. Unplug machine before connecting wires.
- E. Check fuse (F3) on the electronic control board. If fuse is blown, then replace. Unplug machine before checking or replacing fuse.
- F. If fuses are in good condition, the display screen may need to be replaced. Arrange to send machine in for repair.

The cutter motor is not working properly or Alarm 7 Cutter Motor appears

- A. Make sure power cord is plugged in and that the wall outlet has power.
- B. With machine unplugged, make sure motor wires are connected properly.
- C. Check the wire connection on the electronic control circuit board. Unplug machine before checking connectors.
- D. Make sure the microswitch for the safety shield is properly connected. Disconnect the machine before checking connections
- E. If all the wire connections are correct, check (F1) fuse. If fuse is blown, then replace. Unplug machine before checking or replacing fuse.
- F. If the fuse is in good condition it may be necessary to replace the motor or circuit board.
- G. If the problem persists, arrange to send machine in for repair.

The X and Y axes motors are not working properly

- A. Carry out the Motor Test (see user's manual)
- B. Check the fuse (F2) on the electronic control circuit board. If fuse is blown, then replace. Unplug machine before checking or replacing fuse.
- C. If the fuse is in good condition it may be necessary to replace the electronic circuit board.
- D. Make sure the wiring between the transformer and electronic control board is not loose or that the wire connector is connected properly. Unplug machine before checking wiring or connectors.
- E. If machine still does not run correctly, arrange to send machine in for repair.

The keyboard is not working correctly (partially or completely)

- A. Carry out Test 14 – Keypad, as shown in user's manual
- B. Check to see that the keyboard connector is properly connected to the interface board. Unplug machine before checking connectors.
- C. Check the wiring between the keyboard display unit and electronic control circuit board. Make sure connectors are not loose. Unplug machine and attach the relative connectors.
- D. If problem continues the keyboard or electronic control circuit board may need service. Arrange to send machine in for repair.

Electric contact is not working

- A. Carry out Test 13 – Electric Contact, as shown in user's manual.
- B. Make sure wiring between the connectors on the electronic control circuit board and cutter shaft is not loose or disconnected. Unplug machine before checking connectors.
- C. Check the wiring inside the Y axis carriage. It may not be attached properly. Unplug machine before checking connectors.
- D. Check the fuses on the electronic control circuit board. If fuses are blown, then replace. Unplug machine before checking or replacing fuses.
- E. Take off cutter and clean the cutter shaft of metal chips. Unplug machine before doing this procedure.
- F. If electric contact still does not work arrange to send machine in for repair.

Key machine fails to communicate with external computer

- A. Make sure that the 9-pin serial port cable and electronic circuit board is attached properly. Unplug machine before checking connectors.
- B. The serial cable between the machine and computer may be defective.
- C. Check the computer serial port. It may be defective. Use test functions to test serial port.

- D. Make sure that the connectors for the electronic control circuit board are attached. If the connectors are loose, unplug the machine and attach the relative connectors.
- E. If key machine still fails to communicate with the computer, arrange to send machine in for repair.

During the clamp calibration the display shows a message “Exceeded Setting Tolerance Limit”

- A. Make sure you are using the correct templates.
For the combination S1 – K1, template Z13 (disc Z13 in place of the cutter) and template Z12 (installed between the rotating clamp S1 and tailstock K1).
For the combination S1 – K2, template Z13 (disc Z13 in place of the cutter) and template Z15 installed in clamp S1 with tailstock K2 as if it were a key.
For clamp S100, template Z14 should be installed as if it were a double bit key.
- B. Check that template Z12 or Z15 is properly fitted into the most suitable side of the clamp. If template Z12 or Z15 is not properly fitted, turn off the machine and re-position the template. Refer to owner's manual before doing this procedure
- C. The settings will be accepted only if the tolerances remain within the range of .30mm.
- D. Make sure machine is zeroed out correctly. Refer to owner's manual before doing this procedure.

During the machine zero points (rotating clamp) the display shows a message “Template Error”

- A. Make sure you use the right templates. Template Z13 (disc Z13 in place of the cutter) and template Z12 (block Z12 between the rotating clamp S1 and tailstock K1).
- B. Manually move the X and Y axis up until the (Z13) and (Z12) templates are making contact.
Refer to your owner's manual for this procedure.
- C. Check that electrical contact feature is working correctly,
- D. If error message continues, arrange to send machine in for repair.

During the optical reader calibration (machine clearance – reader clamp), the display shows a message “Exceeded Setting Tolerance Limit”

- A. Make sure correct template is installed on machine (template Z14 for gauging).
- B. Check that template Z14 is properly fitted into the reader side of the clamp. If template Z14 is not properly fitted, turn off the machine and re-position template Z14. See user's manual for instructions.
- C. The settings will be accepted only if the tolerances remain within the range of .30mm.
- D. If error message continues, the Z14 template may need to be replaced.
- E. Clean the reader lens with a soft cloth.

The key machine is unable to read the key. The reading procedure begins normally and the key moves towards the optical reader, but after a brief movement on the X axis, it returns to the starting position

- A. Make sure the selected key is fitted into the right side of the clamp and that its dimensions are acceptable.
- B. Check the glass lens on the optical reader, it's possible that the lens could be dirty.
- C. Go to the optical reader test function and check to see if optical reader status changes from off to on.
Refer to owner's manual for this test function.
- D. If the problem persists, it may be necessary to replace the optic reader.

Optical reader does not work properly

- A. Make sure that the glass lens on the optical reader is clean.
- B. With the machine off, make sure that the wiring between the optic reader and the 9-pin serial port circuit board is properly connected.
- C. Check the optic reader connections. If the connections appear to be in good condition it may be necessary to replace the optic reader, as it is probably faulty.
- D. Check the fuses on the electronic control circuit board. If fuses appear to be in good condition, the electronic control circuit board may need service.

Key machine is out of adjustment (check machine settings)

- A. Make sure the clamp calibration is correct. Refer to owner's manual for this procedure.
- B. Make sure the machine zero points are adjusted correctly. Refer to owner's manual for this procedure.
- C. Make sure the optical reader is calibrated correctly. Refer to owner's manual for this procedure.

- D. Carry out a cutting test (see user's manual)
- E. If machine still does not run correctly, arrange to send machine in for repair.

The Y axis carriage moves rapidly to the right crashing into the machine's carriage "end of run". The cause of this is likely to be faulty operation of the Y axis sensor or photocell

- A. Check the Y axis photocell. Refer to owner's manual for this procedure. Turn off and unplug key machine before making this adjustment.
- B. Go to the test function and check to see if the Y axis photocell status changes from Off to On. Refer to your owner's manual for this procedure.
- C. If the problem continues, the photocell may need service.
- D. Check the Y axis sensor. Refer to your owner's manual for this procedure. Turn off and unplug key machine before making this adjustment.
- E. Go to the test function and check to see if the Y axis sensor status changes from Off to On. Refer to your owner's manual for this procedure.
- F. If the problem continues, the sensor may need service.
- G. Go to the Test function and check that the Y axis step motor moves. Refer to your owner's manual for this procedure
- H. If the Y axis step motor test fails, try replacing the motor's connecting wire.
- I. If the problem continues the Y axis step motor may need service.
- J. After following these procedures, if the problem still exists then arrange to send key machine in for repair.

The X axis carriage moves rapidly back and forth crashing into the machine's carriage, "end of run". The cause of this is likely to be faulty operation of the X axis step motor

- A. Check the X axis photocell. Refer to owner's manual for this procedure. Turn off and unplug key machine before making this adjustment.
- B. Go to the test function and check to see if the X axis photocell status changes from Off to On. Refer to owner's manual for this procedure.
- C. If the problem continues, the photocell may need to be replaced.
- D. Check the X axis sensor. Refer to owner's manual for this procedure. Turn off and unplug key machine before making adjustment.
- E. Go to the test function and check to see if the X axis sensor status changes from Off to On. Refer to owner's manual for this procedure.
- F. If the problem continues, the sensor may need to be replaced.
- G. Go to the Test function and check that the X axis step motor moves. Refer to owner's manual for this procedure.
- H. If the X axis step motor test fails, try replacing the motor's connecting wire.
- I. If problem continues the X axis step motor may need to be replaced.
- J. After following these procedures and problem still exist, then arrange to send key machine in for repair.