Lingo Test Procedure

Procedure for testing and adjusting the Lingo power supply.

Important note – it is vital that you follow the instructions in sequence and take careful note of any warnings in this procedure. This procedure requires that some checks are carried out on the Lingo while it is powered up with its sleeve removed – lethal voltages are present.

Equipment required

LP12 turntable configured for Lingo
Oscilloscope (if you do not have access to an oscilloscope, you can test the unit less accurately using the voltmeter only)
Voltmeter
Mains lead for Lingo
Small Flat-blade screwdriver

Estimated Time Required

Approx. 30 minutes

Power-up Procedure

WARNING – DO NOT POWER UP THE LINGO UNTIL INSTRUCTED TO DO SO

- Remove the Lingo sleeve and carefully set aside.
- Connect the 8-way interconnect lead from the LP12 into the socket on the back of the Lingo – make sure it clicks securely into place.
- Ground the oscilloscope by connecting the ground lead of the probe to the negative leg of capacitor C3.
  WARNING – ENSURE THIS CONNECTION IS CORRECT AS SHOWN IN FIG 1 BELOW – DO NOT CONNECT TO ANY OTHER COMPONENT OR TO THE POSITIVE LEG OF C3. ENSURE THAT THE GROUND CLIP DOES NOT SHORT TO ANY OTHER PART OF THE CIRCUIT

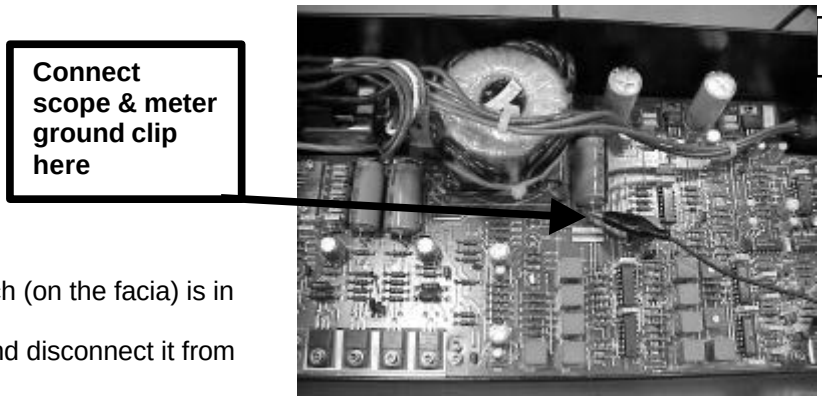

Fig 1

- Ensure the Lingo power switch (on the facia) is in the 'off ' (out) position.
- Take the Lingo power lead and disconnect it from the mains
- Connect the power lead into the back of the Lingo
- Connect the power lead to the mains
- Switch on the Lingo power switch – check that the power LED on the front panel lights up.

WARNING – THE LINGO IS NOW POWERED UP – DO NOT TOUCH ANY INTERNAL PARTS OF THE LINGO AS LETHAL VOLTAGES ARE PRESENT.

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Test Procedure

1. **Check the 'Blue Phase' of the Lingo motor drive output at 33.33rpm using the oscilloscope: -**
   a. Connect the oscilloscope probe to the negative leg of C20 as shown in Fig 2 below

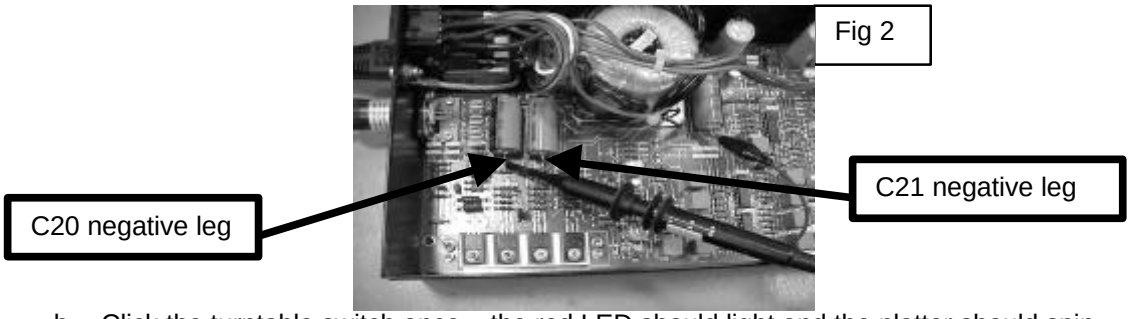

Fig 2

   b. Click the turntable switch once – the red LED should light and the platter should spin
   c. On the scope you should see a distorted wave similar to that shown in Fig 3. This is the "stall" waveform – do not be alarmed by its distorted shape and its apparent glitches and wobbles – this is not important. It is important, however to ensure that the Lingo does go into stall when switched on.

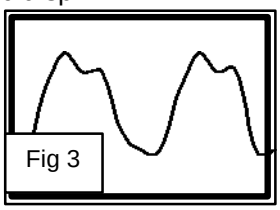
Fig 3

   d. About 7 seconds after switch on, this waveform will reduce in height and will form a perfect sine wave, which is the standard quiet-running waveform
   e. Check that the running waveform is not distorted and is stable (no glitches, distortion, wobbles etc.)

2. **Test the 'Blue Phase' at 33.33rpm using the voltmeter: -**
   a. Ground the meter at the negative leg of C3 (the same place that you grounded the oscilloscope as shown in Fig 1 above.)
   b. Connect the red probe of the meter to the negative leg of C20 (same point to which you connected the scope probe as shown in Fig 2 above)
   c. Set the meter to 'AC volts'
   d. The 'Blue Phase' output should measure roughly 90V ac when in stall (this figure may vary and does not require to be exact) and then should drop to 60V ac +/- 1V when in standard running mode (about 7 seconds after turntable switch is pressed).
   e. If the voltage measures >61V or <59V when in standard running mode, then adjust Pot 1 (see Fig 4) until the voltage reaches 60V +/- 1V. BE CAREFUL ABOUT THE VOLTMETER YOU USE – IF IT IS FAULTY OR HAS NOT BEEN RECENTLY CALIBRATED, YOU MAY ADJUST THE VOLTAGE OUT OF SPEC.

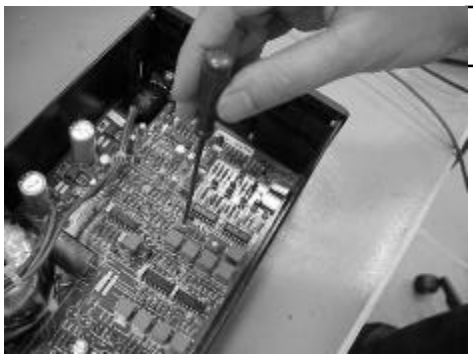
Fig 4

3. **Test the 'Red Phase' at 33.33rpm using the oscilloscope: -**
   a. Connect the oscilloscope probe to the negative leg of C21 (as shown in fig 2 above)
   b. Repeat 1b to 1e above for Red Phase.

4. **Test the 'Red Phase' at 33.33rpm using the voltmeter: -**
   Repeat **(2)** above except connect red meter probe to negative leg of C21.

5. **Repeat all the above tests for 45rpm**
   To switch to 45, switch off the turntable switch, then press & hold the switch until the LED changes from red to green.
   To adjust the voltage for 45rpm, adjust POT2 instead of POT1

Contents

If any of the above tests should show up a fault or anomaly, see the Lingo Service Manual.