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RESLOSOUND LIMITED

microphone, loudspeaker, transducer and precision engineers

SALES, MANUFACTURING AND SERVICE

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RESLOSOUND - ROMFORD - ESSEX	ROMFORD 61926 (3 lines)	25356

RESLO LINE MATCHING TRANSFORMERS - TYPE LMT.

Models L - H	30-50	ohms to Hi-Z (approx. 50K ohms).
L - M	30-50	ohms to 200-300 or 500-600 ohms.
L - 1K	30-50	ohms to 1000 ohms
L or M-M	30-50	or 200-300 ohms to 500-600 ohms.
M - H	200-300	ohms to Hi-Z (approx. 50K ohms)

Made in England

The Reslo LMT series of line matching transformers have been introduced to provide a convenient method of using long lines with low impedance microphones and matching with good efficiency, microphones to their associated equipment when their impedances differ appreciably. The transformer design has paid particular attention to the upper frequencies and has "rolled off" the very low frequencies to avoid boom and heavy speech.

The three single low impedance input models are all balanced to earth to give minimum hum pickup, low interference and good stability if the long microphone lines must be run near loudspeaker cables. All long microphone lines must be twin twisted with a fairly tight twist and screened and then insulated overall. The screening should only be "earthed" at the equipment connections to the equipment chassis or metal work.

The medium impedance input models are unbalanced and co-axial screened cable is used for both inputs and outputs because at the impedance range 200-600 ohms, co-ax cable losses and handling noises are quite low. Care should, however, be taken to avoid running co-ax cables near mains supply power wiring to avoid inductive hum pickup.

Each LMT coupler is fitted with a Reslo input socket for the signal input and has a 3ft. (90 cm) cable tail for the signal output connections. Hi-Z output models have the output cable terminated with a screened jack plug. A Reslo A.900 plug is supplied with each LMT for connecting to the microphone cable.

The A.900 plug has three pins or contacts, that beside the Keyway is pin A, that near to A is pin B, that furthest away is pin C. Full assembly and connecting details are given in later pages.

The use of the standard Reslo plug and socket for the microphone cable connections, allows the cables to be easily detached when required and simple and convenient extension by means of additional lengths, when terminated by the A.900 plugs and A.901 line extension sockets.

SPECIFICATION

Reslo LMT, line matching transformer, consists of a substantial outer screening case formed from magnetic material, primed and stove enamelled polychromatic beige. The microphone cable input connections are via a Reslo A.900 plug and an A.902 socket, the latter forming part of the matching unit. Output connection is by 3 ft. (90 cm) of flexible screened cable attached to the opposite end of the cylindrical case by the cable exit cone.

At the time of printing (Issue 1) 5 models are available with inputs and outputs as follows:-

Type	Input (ohms)	Output (ohms)
LMT L-H	30-50 (balanced).	Hi-Z (50K)
LMT L-M	30-50 (balanced).	200-300 or 500-600
LMT L-1K	30-50 (balanced).	1000-1500
LMT L or M-M	30-50 or 200-300.	500-600
LMT M-H	200-300	Hi-Z (50K)

All impedance values are approximate and assume a frequency of 1 Kc/s.

Frequency response: 100 c/s to 15 Kc/s, reference 1 Kc/s.
Hi-Z output models within 2 dB.
Medium Z output models within 1 dB.

Signal level transfer:

Model	Input (loaded)	Output (unloaded)
L to H	100 microV across 40 ohms	3.5 mV
L to M	100 microV across 40 ohms	(200 ohms 150 microV (600 ohms 250 microV
L to 1K	100 microV across 40 ohms	800 microV
L&M to M	100 microV across 40 ohms 150 microV across 200 ohms	(250 microV
M to H	250 microV across 200 ohms	3.5 mV

Dimensions: Case overall length 4 ins. (10.2 cm),
diameter 1¼ ins. (3.2 cm)

Weight: complete with plug and output cable 14 oz. (0.4 Kg).

Reslosound Limited reserve the right to vary and/or improve the specification without notice.

INSTRUCTIONS FOR USE

First connect the microphone cable to the A.900 plug, following the detailed instructions given on a later page. The plugs have 3 contacts, that nearest the keyway is pin A, that closest to pin A is pin B and that furthest away is pin C.

Low impedance (30-50 ohms) cables should be connected red to A, black to B and screening to C or plug body as preferred. The dual impedance input model LMT has alternative connections, 30-50 ohms, red to A, black to B and screening to plug body. No connection to C. 200-300 ohms, red to A, black to C, screening to plug body, no connection to pin B.

Medium impedance input cables (200-300 ohms) should be connected, red to pin A, black to pin C, screening to plug body, no connection to pin B. If the microphone cable is single screened (co-axial) type, then connect inner conductor to A and outer screening to C.

The high impedance output models have the 3 ft. (90 cm) cables terminated with a screened jack plug, ready to be inserted in the associated equipment's Hi-Z input socket. The 1000 ohm and 600 ohm output models have open ended single screened low capacity cables ready for attaching to the users special plug or connector.

The dual impedance output model has a 3 core flexible screened lead, black and red give 200-300 ohms and black and white give 500-600 ohms. The screening connects to the unit body and the input is balanced to "earth".

In use, the LMT coupler can be placed in any convenient position but care should be taken to choose a place as far from any mains transformers as possible, to ensure a silent background to the signal. It will be noticed that the two roundhead cable cone securing screws prevent the unit from rolling off any tilted surface. If the coupler must be near the equipment, it can often be turned in a direction which will give zero hum.

FITTING AND CONNECTING THE A.900 PLUG

(1) First remove the Reslo A.900 plug from the LMT by unscrewing the knurled locking ring and withdrawing the plug.
(2) Dismantle the plug connector by unscrewing the knurled cable securing cap and the PVC cable sleeve. Withdraw the rubber cable sleeve and the two N.P. washers, unscrew the counter-sunk screw in the plug body side and release the moulding from the plug body.
(3) Remove the outer sheath from the microphone cable for about 1½ inches by "ringing" and making a parallel cut with a sharp razor blade. Be careful not to cut through the tinned copper screening wires.
(4) Unwind or un-mesh the screening, lightly twist and cut off any cotton filler.
(5) Slide cable securing cap and the PVC sleeve up the cable and then slide on the rubber cable sleeve an inch or so up the cable. If the rubber sleeve or the PVC cable sleeve is very difficult to slide along, dust the cable with french chalk or talcum powder.
(6) Follow on now with the plug locking ring, plain end first, then the two N.P. washers followed by the main plug body, threaded end first, all the time keeping the screening wires and red and black insulated wires together.
(7) Now cut the red and black wires to approximately ½" in length and remove about ¼" of the red and black insulating sheath. Tin the ends ready for soldering to the appropriate pins.
(8) Now prepare the plug moulding for soldering. This has the three pins arranged in a triangle. Pin C is placed away from the other two and with this close to you, pin A on the left is to have the red wire attached and pin B on the right is to have the black wire attached. Stand the moulding, pins downwards, on an old folded newspaper or similar, and taking a hot soldering iron with a clean well tinned bit, apply radio type resin-cored solder to the hollow pins. Fill up with solder, one at a time, and then with the iron still applied, insert the tinned cable ends in the appropriate pins right up to the insulation. Quickly cool by blowing on the joint until the solder hardens. Wipe off any surplus flux.

or resin with a clean cloth. Alternative connections are given top page 3.
NOTE. Later manufacture will have the hollow pins already tinned.

(9) Now pull plug body forward over the moulding and refit the countersunk screw at the side.

(10) Twist the screening wires more tightly together and pull forward over the plug body. Slide forward the rubber cable sleeve up to the threaded end and pass the twisted screening wires back through the first N.P. washer then make a complete circle round the rubber cable sleeve in a clockwise direction, cutting off the surplus.

(11) Bring forward the second N.P. washer, clamping the screening wires between them and seat firmly against the threaded end of the plug body.

(12) Slide forward the plug locking ring as far as it will go over the plug body and then fit the knurled securing cap and PVC cable sleeve, screwing firmly on the threaded end of the plug body as tightly as possible.

EXTENDING THE MICROPHONE CABLE

Reslo A.900 series cable connectors are available in pairs or singly from the Works so that users can make up as required, various lengths of screened and twisted cable. These can then be coupled together as necessary to extend the microphone connections.

The Reslo plug as supplied with the LMT Unit is part No. A.900 and the Reslo line extension socket assembly is part A.901.

PERFORMANCE AND WORKMANSHIP

Reslosound Limited have taken every possible care to provide a satisfactory and reliable product and each transformer unit is carefully examined, tested and packed to ensure that it reaches the dealer or user in perfect condition.

Should however, the unit fail to work properly it should be returned to the Reslo Works for examination, with a label attached giving details of the unsatisfactory performance, date of purchase and name and address of the supplier.

Reslosound Limited then reserve the right to consider on its merits each individual case and to decide what repair or handling charge should be made, if any. In all cases, Reslosound Limited undertake the give the maximum possible assistance to users of their equipment.

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