

Item	Qty	Notes
Mains Transformer		18-0-18 V
Bridge Rectifier		35 V ac 2 A
Cap Elect 1000u		Radial 35 V
Cap Poly 2u2	x2	Metal Poly 100 V
Res 180 Ω		Carbon 1 W
Res 820 Ω		Carbon 1 W
Inductances 100	x 2	Maplin HW27E
Relay DPDT		coil see note

Mains inlet and fuse
 Tag strip
 Enclosure
 Telephone connectors

Note: 12 V relays do not operate on Teles 746. Voltage across coil off-hook is approx 3 V.

Auto-calling two-way telephones

These circuits are for a simple automatic caller using two surplus BT706 telephones. One circuit is a simple d.c. driven oscillator providing d.c. ring signal for intercom-type applications.

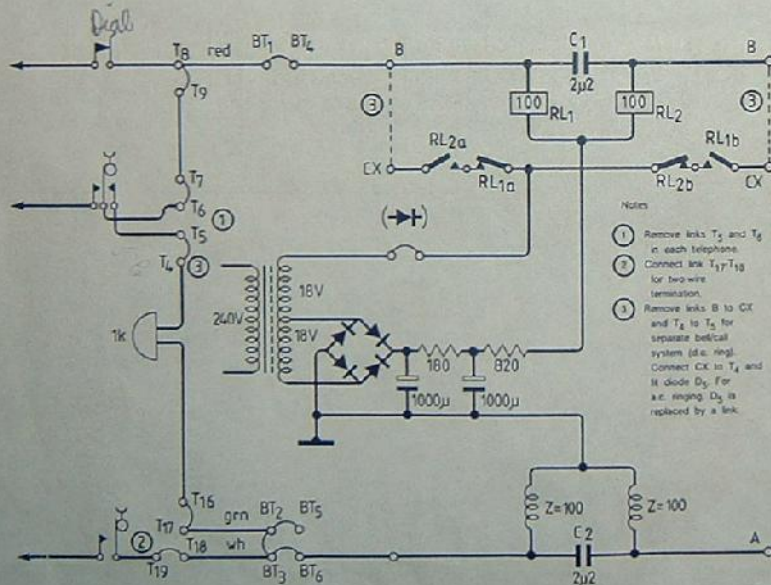
Switching for a simple two-way telephone system with automatic calling is shown in the second circuit. When the caller's handset is lifted, the other telephone rings.

In the switching circuit, two relay coils and two impedances form a central battery-type telephone-transmission bridge. When the first station's handset is lifted, a loop is extended causing relay RL₁ to operate. Alternating ring current passes to the second

station through contacts RL_{2b} and RL_{1b}, causing the second station's bell to ring.

When station two answers, relay RL₂ disconnects the station's a.c. ring current and contact RL_{2a} operates to prevent ring current from reaching station one. Capacitors C_{1,2} link the two loops together, completing the audio path.

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- Notes
- Remove links T₉ and T₆ in each telephone. Connect link T₁₇-T₁₈ for two-wire termination.
 - Remove links B to CX and T₄ to T₅ for separate bell system (d.c. ring). Connect CX to T₄ and fit diode D₁. For a.c. ringing D₁ is replaced by a link.
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