THE GECOPHONE JUNIOR TELEPHONE

Fig. 1.—Wall-mounted Gecophone Junior, in ivory-coloured plastic.

THERE is a wide field for very small systems, often consisting of no more than three or four telephones, in small businesses, on domestic premises, in hotels, garages, theatres and many other places where an internal telephone system is an important factor in smooth administration but does not need to be of the size that justifies the usual pushbutton intercommunication system or a private exchange.

To allow such systems to employ telephones that should rank as modern in shape and efficiency, the Gecophone Junior was designed. It uses the standard size of handset but the case is smaller than those of the public-service telephones and is so shaped that it can lie on a table, with its base horizontal, or mount with its base vertical on a wall, and still hold the handset in the cradle. The case and handset can be in black or ivory plastic and outwardly the Gecophone Junior looks as if its low price class can have been achieved only by cheapness of internal construction. The impression is removed by the die-cast alloy base, rigid brass frame, robust buzzer, strong bakelite case, long contact springs with silver contacts, stainless-steel plungers in the cradle switch, and sidetone suppression circuit in models fitted with induction coils. Low costs are, in fact, achieved by a standardisation of design for as many parts as can be made common to the various types. This standardisation acquires increased value when stocks of spare parts are considered , it is not intended to permit conversion from one type to another after purchase.

Fig. 2.—Table-mounted Gecophone Junior, in black plastic.

Fig. 3.—Internal construction.

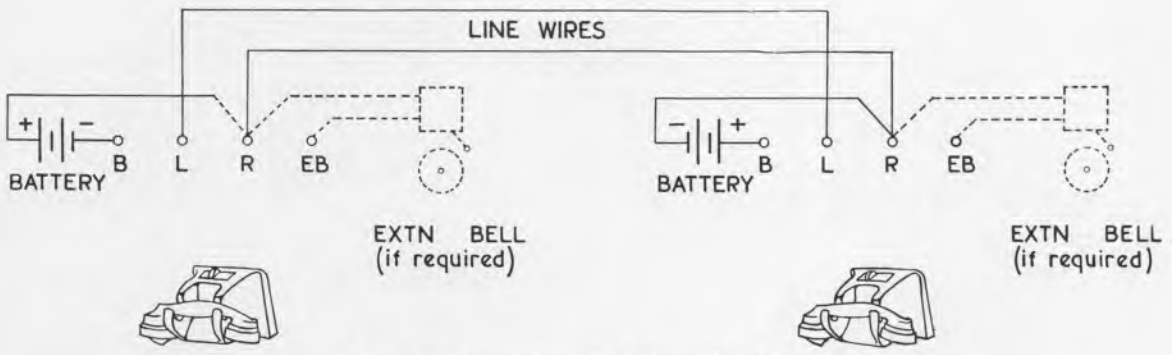

Fig. 4.—Connexions for Direct Working.

Types

Within the case can be accommodated the components necessary for a variety of types, each suited to a particular application.

Direct Working

The simplest is known as the Direct-Working type, two Gecophone Juniors are linked directly to each other by a short line (Fig. 4) and either may call and speak to the other. The telephones are not provided with induction coils and there is therefore no sidetone suppression. With a battery of two 1.5V cells at each telephone, the buzzer current requirements allow the line to have a loop resistance of up to 10 ohms for satisfactory operation. For lines of higher resistance, additional cells may be used or the Battery Call type may be preferred.

Battery Call

This type includes an induction coil and its transmitter current is therefore independent of line loop resistance. Its operating range of line loop resistance is 20 ohms with 4½-volt batteries at each telephone but for longer lines buzzer current requirements will necessitate additional cells. The induction coil gives a very effective degree of sidetone suppression.

The telephone can be used in pairs, but with different connexions, in the simple system of

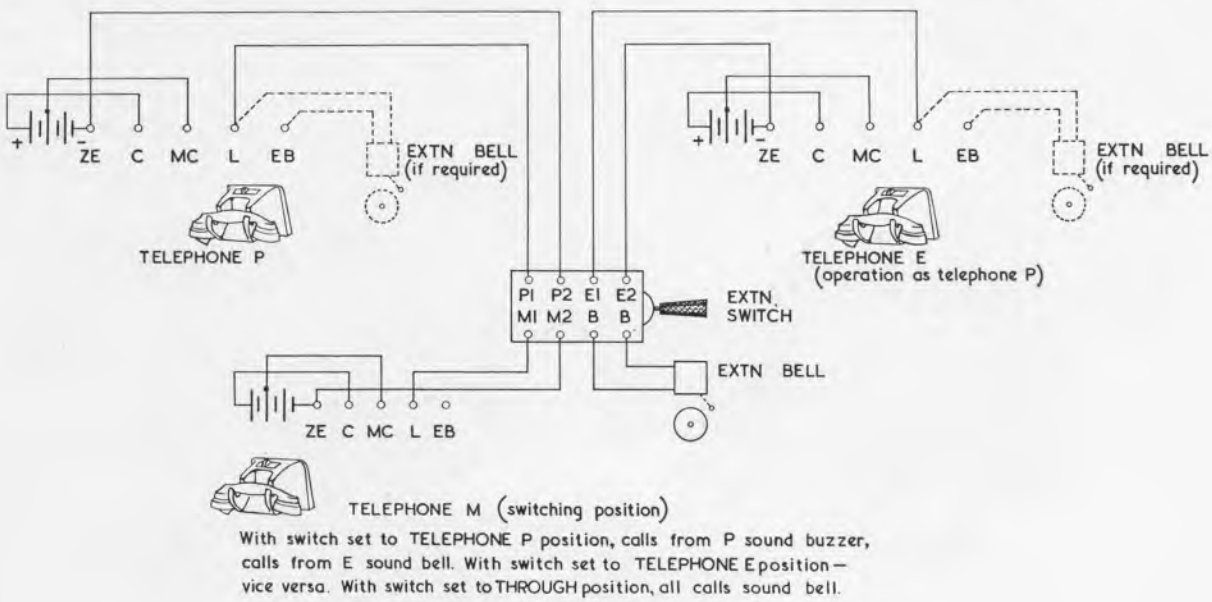

Fig. 5.—Connexions for Battery Call Working.

Fig. 4, or, in conjunction with a special external extension switch, in the arrangement shown diagrammatically in Fig. 5. Calls can be made from M to P or E, and from P or E to M. On request M can switch P through to E. When M is talking to P or E, a bell is switched to the disengaged line to signal any calls that may be made on this line during the conversation.

This type is also suitable for use with a battery-call switchboard in an exchange system.

For Apartment Flats

A telephone system specially designed for apartment flats was introduced by the G.E.C. some years ago to allow tenants to call for the services of the staff. The system included its own type of telephone but the Gecophone Junior is now available as an alternative, for use when the highest standard of shape and finish are needed. In this application, its styling and the choice of colour and of table or wall mounting, are particularly attractive features when decorative schemes are planned.

Calls to the reply panel are made by lifting the handset and incoming calls are signalled on a buzzer, which operates to the 50c/s ringing current used in the system.

Reply and Call; for loudspeaking intercommunication system

In the loudspeaking intercommunication system, described elsewhere in this issue, an executive may be provided with a loudspeaking telephone, from which he can obtain direct connexion to all other parties on the system. His secretary, however, may not need to call all other parties and the inclusion of the secretary in the main system would be a waste of a pushbutton telephone. This can be avoided by providing the secretary with the type of Gecophone Junior designed for the purpose. This is linked to the loudspeaking telephone by seven wires and the executive may call the secretary, or vice versa, at the touch of a key, conversation at the executive's end being, if desired, by loudspeaker and microphone exactly as for calls on the main intercommunication system.

Five-line Intercommunication

The dimensions of the case of the Gecophone Junior permit five keys to be fitted, with operating levers projecting from the front. With each key allotted to a line, the telephone can be used in an intercommunication system of up to six stations. In such a system, a multi-core cable, consisting of six line wires and three battery wires, joins all telephones together and permits all parties to engage in simultaneous separate conversations. A key, depressed to make a call, remains locked for conversation and is restored automatically when the handset is replaced.

The circuit diagram for this type of Gecophone Junior is as shown in Fig. 4 on page 36. For a total length of G.E.C. multi-core cable of up to approximately 150 yards batteries consist of two 1.5-volt dry cells for speaking and three cells for the buzzer circuit. For lengths up to 400 yards additional cells are fitted.

The small intercommunication system provided by the Gecophone Junior has potentially a very wide application. In small businesses and on domestic premises it can provide all the internal communication needed. In a wide range of possible examples, the private hotel could be served by telephones in the manager's office, at the reception desk, and in kitchen, staff room, dining room and garage. In a cinema, telephones could be in manager's office, box office and projection room, on the stage, and conveniently positioned for stalls and circle attendants. In the larger business, already served by an exchange system, Gecophone Juniors could be provided to link the heads of departments in an intercommunication system that provided direct and immediate contact between them without the need for dialling digits or asking for a number. An advantage of such an auxiliary is that direct enquiries can be made of other parties while a call is held on the main system.

Catalogue Leaflet MTL1 gives full ordering information and will be forwarded on request.