

POST OFFICE TELEPHONES

GLOSSARY OF TERMS

in common use in
connexion with the

TELEPHONE SERVICE

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GLOSSARY OF TELEPHONE TERMS

ABONNEMENT CALL.—See CALL (Subscription).

ABSENT SUBSCRIBER SERVICE. A service, given at suitable charges, which consists of the diversion of a subscriber's line to a suitable point where notification can be given to callers of the subscriber's absence, with certain additional facilities such as the giving of an alternative number where he may be obtained, and the recording of the caller's number for his information when he returns.

ADJUSTAPHONE. A cantilever metal arm, capable of expansion and contraction, fastened at one end to a fixed pillar or bracket, and at the other end holding a table telephone of the "candlestick" pattern; the instrument can thus be moved to suit the convenience of the user. Devices of this type under various trade names are supplied to subscribers by private firms.

ADVICE NOTE. The authority issued for:—

- (a) execution of work, *e.g.*, the provision or recovery of a telephone line.
- (b) raising, ceasing or altering a revenue charge.

ADVISE DURATION CALL.—See CALL.

ALARM CALL (Morning Call).—See CALL.

ANCILLARY SYSTEM. A system under which each calling signal and associated jack is repeated on two or more sections of a switchboard and can be answered by two or more groups of operators. (See also Multiplied Answering Equipment.)

AREA CORRECTION. The term used to denote the process of transferring subscribers from one exchange to another as the result either of the establishment of a new exchange or of a re-arrangement of the boundaries of the areas served by existing exchanges.

A-OPERATOR. The operator in a manual exchange responsible for answering, controlling and recording calls originated by subscribers.

A-POSITION. A position, in a manual exchange, on which calls from subscribers' circuits are received.

A-POSITION DEMAND WORKING. Demand trunk working at positions (in manual exchanges) primarily used for the handling of local traffic.

AUTODIAL. A mechanical unit for association with an automatic telephone whereby a subscriber can call one of a selected group of subscribers, shown on a list on the top of the unit, by setting a pointer to the name of the required subscriber and then depressing a lever. The device automatically transmits the necessary digits to call the required number.

AUTO-MANUAL EXCHANGE.—See EXCHANGE.

AUTOMATIC EXCHANGE.—See EXCHANGE.

AUXILIARY WORKING. A method of handling calls which provides that when one of a group of exchange lines serving a particular subscriber is engaged, another line of the group will be utilised.

BARRED TRUNKS. Exceptional arrangements made in connexion with a subscriber's exchange line or lines whereby originating trunk calls are not allowed.

Note.—Such arrangements are very undesirable from the Department's point of view and the number of such cases is restricted as much as possible.

BATCH BOOKING.—See CALL (Sequence).

BELL.—

Continuous Ringing. A trembler bell fitted in conjunction with an indicator so that, when the indicator is actuated, the bell rings continuously until the indicator is restored to its normal position.

Extension. A bell which is fitted as an extension of the telephone instrument bell. This is a magneto bell and is normally required when the instrument bell is not always within hearing of the subscriber.

Magneto. A bell rung by current from a generator, as distinct from a bell rung by current from a battery.

BELL—*continued*—

Non-Continuous ringing. A trembler bell which rings only so long as a ringing current is being sent out from the distant end.

Trembler. A bell rung by direct current supplied either from a local battery or from the exchange line.

BLOCK WIRING. The wiring of a building or block of buildings designed to meet the probable telephone requirements for a period of years.

BREAKAGE FORM. A form presented for signature to a subscriber by an engineering officer when repairing damaged apparatus for the cost of which the subscriber is liable.

B-OPERATOR. The operator who deals with incoming calls and is responsible for connecting (and, in some cases, ringing) the line asked for by the distant controlling operator, or shown on a display panel actuated by automatic apparatus. (See CODED CALL INDICATOR.)

BOTHWAY JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

B-POSITION. A switchboard position at which calls from the operators of other exchanges are received and connected.

BUSY (ENGAGED).—See ENGAGED.

BUSY HOUR. The two consecutive half-hours of the operating day or night during which the volume of traffic (either total or of any particular type) is the greatest.

BUSY (ENGAGED) TONE.—See TONES.

CALL.—

Advise Duration. A call on which a subscriber, by adding the words, " Advise Duration " when booking it, ensures that at its termination he will be advised of its duration.

Alarm (or Morning). The pre-arranged calling of a subscriber by the exchange at a specified time.

Conference. A call on which, by previous arrangement, three or more telephones are connected together at the same time by means of local, junction or trunk circuits so that conversation may be carried on between three or more persons.

CALL—*continued*—

Contract. A prolonged call between two subscribers previously contracted for with the District Manager, or Controller, London Telephone Service, and set up at an agreed time during the less busy hours of the day, when trunk circuits are normally available.

Note.—The call may either be a single call or one of a regular series. Reduced rates are charged.

Deferred. A trunk call booked to be completed not before a specified time. The call is not treated as a Fixed-Time call (q.v.) and no additional charge is made.

Demand Trunk. A trunk call to a subscriber on an exchange within the area of demand service.

Effective. A call in which the speaker at an originating subscriber's telephone has been connected with the line of the subscriber he requires and speech is exchanged.

Fixed-Time. A call booked in advance for completion at or about a specified time, either on a particular day or on a number of consecutive days.

Note.—An extra fee is charged for booking the call.

Ineffective. A call in which the speaker at an originating subscriber's telephone does not exchange speech with any person at the required subscriber's telephone.

Junction. A call between subscribers on different exchanges, which involves a payment of not more than four unit fees at full day rate.

Local. *From the operating point of view:* A call between two subscribers on the same exchange.

From the accounting point of view: A call for which the charge is one unit fee.

Note.—On subscribers' accounts, calls with charges of not more than four unit fees are shown as "Local Calls," a call of more than one unit fee being counted as two, three or four local calls, as the case may be.

Limited Duration. A call in which the subscriber, when booking, specifies that he does not desire the chargeable duration, or the charge for the call, to exceed a certain limit. The connexion is terminated as soon as the specified period has elapsed or specified charge has been reached.

Note.—Limited duration calls are normally permitted only on overseas radio services operated at the European end by the British Post Office.

Multi-metered. A call which involves more than one operation of the subscriber's meter.

CALL—continued—

Personal. A call booked for completion to a particular person or a substitute specified by name or description.

Notes.—

1. Personal calls may also be booked to departments of shops or businesses or to unnamed officials of firms (*e.g.*, "The Manager" "Someone who can discuss mortgages," etc.) or by business reference (*e.g.* AB/C 123).
2. In the Inland and Overseas services personal calls are timed, for charging purposes, only from the moment when the caller and the required person, or substitute, commence conversation.
3. In the Continental service a personal call is timed, for charging purposes, exactly as an ordinary call, but is connected if, and only if, information is first obtained that the required person (or an acceptable substitute designated at the time of booking) will be available to accept the call when it matures.
4. An additional fee is charged on all personal calls which is payable whether or not the call matures.

Picture. A call set up between two sets of special apparatus for the purpose of transmitting and receiving pictures.

Note.—Channels of special quality are sometimes required.

Public Address. A call set up between two points for the purpose of transmitting speech for reproduction by loudspeaker equipment.

Note.—Channels of special quality are sometimes required.

Sequence. (Batch Booking). One of a number of calls, booked by a subscriber at one time, to be effected consecutively either in a specified sequence or in the order permitted by the availability of outgoing circuits.

Service. A call made (*a*) by a telephone official on official business or (*b*) to any circuit, recognised as proper to the telephone administration, to which free calls are allowed.

Subscription. (Abonnement). Calls, in the International Services, which are booked, by written application, for establishment at a fixed time each day for a minimum period of one month. The times at which such calls are available vary according to the distant country concerned.

Suspended. A call, ineffective at the initial attempt, but kept in hand in the exchange for subsequent completion.

Telex. A telephone call set up between two renters of teleprinter apparatus for the purpose of communicating by teleprinter.

CALL—*continued*—

Note.—Messages can be sent from each end alternately, if desired, but not from both ends simultaneously.

Toll. A trunk call to a subscriber on an exchange within the area of toll service.

Trunk. A call between subscribers on different exchanges, which involves a payment of more than four unit fees at full day rate.

CALLING RATE. The average number of calls per line originated during a given period, in an exchange or over any type of line. For example, if an average of twelve calls per line per day (24 hours) are originated over the exchange lines of a given exchange, 2 of the calls being originated in the busy hour, the exchange is said to have a Day Calling Rate of 12 and a Busy Hour Calling Rate of 2.

CALLING SIGNAL. A lamp or indicator fitted on a subscriber's circuit or at the incoming end of a signal junction or trunk circuit, which, when actuated, indicates to the operator that attention on the circuit is required.

CALL OFFICE. An installation provided for the use of the public. It may be either (a) a kiosk in the public streets or on private property, (b) an installation on Post Office premises, (c) an installation on railway premises, or (d) an installation on other premises in respect of which a call office agreement has been signed.

CALL VALUE. The overall operating time of a particular type of call, e.g., signal junction, trunk, etc., expressed as a multiple of the time allowed for the unit call (q.v.).

CENTRAL BATTERY (C.B.) EXCHANGE.—See EXCHANGE.

CENTRAL BATTERY SIGNALLING (C.B.S.) EXCHANGE.—See EXCHANGE.

CHARGEABLE TIME CLOCK. A small, electrically-operated clock of the Veeder type, fitted on a switchboard position keyshelf and associated with a cord circuit, for timing trunk calls. It is started by the operator and, where standard clearing conditions obtain, stops automatically when the calling subscriber replaces his receiver, the elapsed time of the call being displayed. The time of day is not shown.

CHARGEABLE TIME INDICATOR. A strip or strips of numbered lamps controlled by a time pulse and indicating the time for which a call should be charged.

Note.—The indicator, which is common to a position, is

provided in conjunction with individual electrical timing equipments associated with the cord circuits used to set up timed calls. This equipment, when started by the operator, marks the passage of time and, under standard clearing conditions, stops automatically when the calling subscriber clears. The operator may associate any of the individual timing equipments with the Chargeable Time Indicator which will then show the time, to the next complete minute, which has elapsed since that particular mechanism was started.

CODED CALL INDICATOR. A device at a B-position in a manual exchange for the purpose of indicating to the operator the requirements of an automatic subscriber who has dialled the number of a subscriber on the manual exchange. The indicator (known also as the display) consists of an arrangement of lamps and stencilled figures fitted behind a ground glass screen in the B-position keyboard. As each call reaches the indicator, the figures of the required number are illuminated through the glass screen and the operator then makes the desired connexion.

COIN BOX. A receptacle fitted at most call offices and, in certain circumstances, at subscribers' premises, in which the appropriate fee is deposited before a call is completed (see also Multi-coin Box).

CONNEXION CHARGE. A charge (usually 15s., but may be less according to the work involved) payable initially in respect of each exchange line (whether exclusive, group or rural party). Where an installation is taken over without alteration a charge, known as a transfer fee, of 5s. a line is applicable.

CONTROLLING EXCHANGE. The exchange responsible for controlling, timing and recording a call.

CORDS. One or more insulated electrical conductors made up with silk, cotton or other material to form a flexible cord. Such a cord is used for connecting a telephone with its exchange line terminals and the receiver with the telephone and also, in another form, for providing a flexible means of making connexion between any two points on a telephone switchboard. The cords on a switchboard are usually associated in pairs, each fitted with a connecting plug. That cord of a pair which is used for answering a calling signal is termed an Answering Cord; the other cord of the pair, which is used for connecting to the required line, is termed a Calling Cord.

CREDIT TICKET. A ticket prepared in respect of a call which has been recorded on a subscriber's meter but which should not be charged against the subscriber.

DELAY LAMP. A lamp associated with a group of demand trunk circuits to indicate that demand service has been suspended on that group.

DELAY POSITION. A position used for the control of suspended trunk calls which cannot be completed on the A, joint trunk or trunk positions.

DELAY WORKING. A method of trunk working, used exceptionally, whereby the calling subscriber's circuit is released and the call is completed later.

DEMAND SERVICE. A service for which circuits are provided on such a basis as to be available, normally, in 90 seconds or less, for the completion of calls while the calling subscriber remains at the telephone.

DEMAND TRUNK CIRCUIT. A trunk circuit directly connecting two exchanges between which a demand service is provided.

DEVELOPMENT STUDY. An investigation as to the probable telephone line requirements, for varying periods, of districts, streets or blocks of buildings, for the purpose of ensuring economical and adequate cabling arrangements and the provision and extension of exchanges in advance of the immediate demands.

DIALLING (OR KEYING) OUT. The dialling or keying, by subscriber or operator, of one or more code digits (except 0 or a recognized service code) to gain access to an operator.

Note.—The call may be routed via one or more automatic exchanges.

DIALLING TONE.—See TONES.

DIRECT DIALLING (OR KEYING). The dialling, or keying, by subscriber or operator, of the required subscriber's number only.

Notes.—(i) In director automatic areas, the number includes the first three letters of the exchange name.

(ii) In some cases the operator may dial or key the latter portion only of the required number (in director automatic areas, the numerical digits only).

(iii) A multi-exchange area, having a linked numbering scheme, is regarded as one exchange for the purpose of this definition.

DIRECT DIALLING (P.A.B.X.'s).—See P.B.X. DIRECT DIALLING.

DIRECTORY ENQUIRY CENTRE. An exchange with which subscribers in a given area are connected when desiring to make directory enquiries. The particulars required are furnished either by reference to the directories or other lists held at the centre or by referring by telephone to the distant exchange (if directly connected) or the group directory enquiry centre for that exchange.

DISTRIBUTION RECORD. A periodical record of originating calls taken with the object of securing an even distribution of load on exchange positions.

DUAL SERVICE. Telephone service provided, when required, at both old and new addresses simultaneously, in cases of transfers of service. No charge is made unless the period of dual service exceeds one week.

EFFECTIVE CALL.—See CALL.

EMERGENCY BUTTON.—See MULTI-COIN BOX.

ENGAGED (BUSY). The condition of a line, or of a piece of apparatus, when it is in use.

Note.—The primary term, technically, is “ Busy ” but the term “ Engaged ” is to be used in all communications, written or oral, with the public and in operating instructions.

ENGAGED (BUSY) TEST. The audible signal (a click) heard in an operator's receiver when the tip of a connecting plug touches any jack associated with an engaged line. (See also GROUP ENGAGED TEST.)

ENGAGED (or BUSY) TONE.—See TONES.

ENQUIRY POSITION.—See MONITOR.

EQUATING FACTOR. The factor by which the actual (unvalued) traffic at an exchange is multiplied in order to obtain the equated load, this load being the measure of the staff required. The equating factor is obtained from the average call value (q.v.) by applying to the latter a factor which compensates for the loss of team work at end positions.

EXCHANGE. A switching centre equipped so that the lines which terminate there may be inter-connected as required.

Auto-Manual. An exchange devoted to the handling of the manually operated traffic for one or more automatic exchanges.

Automatic. An exchange at which communication between subscribers (excepting certain special types of call) is effected, without the intervention of an operator, by means of machine switches set in motion by the operation of a dial on the originating subscriber's instrument. (See also Full Automatic and Unit Automatic.)

Central Battery (C.B.). A manual exchange at which the electrical energy for controlling the subscribers' calling signals and the supervisory signals, together with the current required to enable the subscribers to speak, is supplied from a battery situated on the exchange premises.

Central Battery Signalling (C.B.S.). A manual exchange in connexion with which local batteries are provided at subscribers' premises for speaking purposes but a main battery, situated at the exchange, provides current for signalling purposes—both calling and clearing.

Dependent. An exchange which is not directly connected with its group centre.

Full Automatic. An automatic exchange, made up of apparatus on open-type racks, for which the capacity has been designed to meet specified traffic data.

Hypothetical. The portion of an existing exchange with which, pending the establishment of a separate exchange, are connected the lines of subscribers whose rentals are assessed by measurement of their radial distance from a separate Measuring Point (q.v.) in the main exchange area. These subscribers bear the name of and numbers on the hypothetical exchange and not the name of and numbers on the main exchange with which, actually, they are connected. They may be kept in a group separate from, or may be spread amongst, the main exchange subscribers.

Joint Trunk. An exchange (zone or group centre) primarily devoted to the handling of calls over demand trunk and toll circuits.

Local. An exchange provided essentially for the termination of subscribers' and call office circuits and equipped with the junction and trunk circuits required for the traffic to and from such subscribers' and call office circuits.

EXCHANGE—*continued*—

To constitute a local exchange there must be at least two subscribers' circuits, or a call office and one subscriber's circuit, connected therewith; a call office, although given a distinctive name, does not in itself constitute an exchange.

Magneto. A manual exchange at which the subscribers call by using magneto generators. Speaking current is provided by means of local batteries fitted at each subscriber's premises.

Minor. An exchange which is in direct communication with its group centre.

Parent. An exchange which handles junction and trunk traffic, enquiries, etc., for an automatic exchange whose subscribers obtain access to it by dialling 0 or 0 1.

Rural. An exchange situated within the boundaries of a Rural District or a small Urban District which is entirely of an agricultural or non-industrial character.

Tandem. An intermediate exchange primarily devoted to the switching of junction and trunk calls controlled at other exchanges.

Toll. An exchange (other than a zone or group centre) primarily devoted to the handling of calls over toll circuits.

Trunk. An exchange primarily devoted to the handling of calls over demand trunk circuits.

Note.—A trunk exchange may be in the same room as, but separate from, a local or toll exchange.

Unit Automatic. An automatic exchange, with a self-contained numbering scheme, made up of one or more composite units of apparatus, each designed for a fixed ultimate traffic capacity.

Urban. An exchange situated within the boundaries of a City, County Borough, Municipal Borough or Urban District (except small Urban Districts which are entirely of an agricultural or non-industrial character).

EXCHANGE LINE. A subscriber's, service or call office circuit to a public exchange, terminating in the answering field (if a manual exchange) or on a uniselector, or a line-finder bank (if an automatic exchange), and/or occupying a number in the subscriber's multiple (manual exchanges) or on a final selector bank (automatic exchanges).

EXHIBITION LINE. A temporary telephone circuit installed for the use of an exhibitor at a trades or other exhibition.

EXTENSION. An additional speaking point provided in connexion with a subscriber's installation for the purpose of communicating with the public system from a point other than the normal terminal of an exchange line, or for communicating with other extension points without the intervention of the public exchange. An extension is known as an internal extension when it connects two points in the same building and as an external extension when it connects points in two separate buildings.

EXTENSION BELL.—See BELL.

EXTRA MILEAGE. That portion of an exchange line which is beyond the distance covered by the minimum rental.

EXTRA (WATCH) RECEIVER. An additional receiver, connected with the single receiver normally supplied, for use in circumstances which otherwise prevent satisfactory hearing.

FILTER POSITION. A position, at a manual exchange, designed for dealing with calls for subscribers whose incoming service is the subject of investigation. Specially marked pegs are inserted in the multiple jacks of the subscriber's line concerned, to indicate that calls have to be diverted via the filter position.

FIXED-TIME CALL.—See CALL.

FLASHING SIGNAL. The alternate darkening and glowing of a calling or supervisory lamp, with the object of attracting the attention of the operator.

FREE-LINE SIGNAL. A visual signal associated with the demand trunk, toll or junction multiple to indicate the next circuit to be used.

FULL AUTOMATIC EXCHANGE.—See EXCHANGE.

GUARD SIGNAL. A flashing supervisory signal, without associated tone, connected by a B-operator either (i) to indicate that a circuit other than that allocated has been picked up (if the operator is at an order-wire B-position) or (ii) that no demand has been passed over a seized incoming circuit (if the operator is at a straight-forward B-position).

GROUP CENTRE. An exchange which controls the demand trunk calls from a group of exchanges surrounding it.

GROUP ENGAGED TEST. An arrangement made, at certain exchanges, on large groups of outgoing circuits, whereby the jacks of each group are divided by white markings into sets of five and the wiring arranged so that, when all five circuits in a set are engaged, a tone as well as a click will be heard when testing the first jack of the set. It is thus necessary only to test every fifth jack until a set is reached containing a disengaged circuit.

GROUP SERVICE. A telephone service whereby groups of not less than four nor more than eight subscribers, whose premises are close to each other and who are likely to be small users of the service, share the use of one circuit to the exchange. Secrecy is afforded, *i.e.*, when one member of the group is using the line, no other member can overhear and when a call is incoming to a member of the group, his bell alone will ring.

HAND MICROPHONE. A telephone, which consists primarily of a rigid combination of the transmitter and receiver in a form convenient for holding simultaneously to mouth and ear.

HEAD-GEAR RECEIVER.—See OPERATING SET.

HEAT COIL. Protective apparatus inserted in a telephone circuit which, while normally maintaining the continuity of the circuit, automatically protects that circuit if the current through it reaches a dangerous amount.

HOWLER. Apparatus which produces a howling or hooting sound and is connected with a telephone circuit for the purpose of gaining the subscriber's attention when he has left his receiver off the rest for some time.

HYPOTHETICAL EXCHANGE.—See EXCHANGE.

HYPOTHETICAL ROUTE. The shortest wiring route (*e.g.*, along walls, etc.) between the main station and extension point which could be followed if circumstances permitted; rates for internal extensions are quoted on the basis of the hypothetical route distance.

INCOMING JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

INDICATOR. An electro-mechanical type of signal fitted at exchanges not equipped with lamp signals.

INEFFECTIVE CALL.—See CALL.

INSTRUCTION CIRCUIT. A circuit provided at large exchanges to give monitorial and supervising officers direct and simultaneous connexion with the operators at all the exchange controlling positions. It is used to issue urgent and general instructions to the staff.

INTERCEPTION CIRCUIT. A circuit terminating on the monitors' desk or enquiry positions which permits of calls to a certain subscriber's circuit being intercepted for service purposes or at the subscriber's request.

INTERCOMMUNICATION. The facility which enables subscribers to communicate from one extension station to another or from one extension instrument to the main instrument, without calling the public exchange.

INTERDIALLING (OR INTERKEYING). The dialling, or keying, by subscriber or operator, of the required subscriber's number, preceded by one or more code digits, to route the call to a directly-connected automatic exchange.

Note.—A multi-exchange area, having a linked numbering scheme, is regarded as one exchange for the purpose of this definition.

JACK. The switching device on the face of the switchboard into which an operating plug is inserted in order to complete a connexion.

JOINT TRUNK EXCHANGE.—See EXCHANGE.

JOINT TRUNK POSITION. A position primarily devoted to the handling of calls over demand trunk and toll circuits.

JUNCTION CIRCUIT. A circuit directly connecting two exchanges, communication between the subscribers on which involves the payment of not more than four unit fees at full day rate.

Bothway. A circuit between two exchanges used, as it becomes available, by either exchange for outgoing calls to the other exchange.

Jack-ended. A circuit which terminates at the incoming end on a jack (as distinct from a plug-ended termination).

Outgoing ; Incoming. A circuit used only for calls going in one direction from one exchange to another. The circuit is termed an outgoing junction at the one exchange and an incoming junction at the other.

JUNCTION CIRCUIT—*continued*—

Plug-ended (Signal and Order-Wire). Circuits which terminate at the incoming end on switchboard plugs. In the case of signal junctions, the attention of the operator at the incoming end is gained by means of a lamp or indicator signal connected with the particular junction used; in the case of order-wire junctions, a special operators' speaker circuit is used, over which the originating operator orders the number required and the operator at the incoming end allots the junction to be used for the call.

Plug-ended (Straight-forward). Circuits which are arranged at the incoming end so that the headset of a B operator is automatically connected with a junction when it is picked up by an operator at the originating exchange, and is automatically disconnected from that junction when the required call has been set up.

Trunk. A circuit used for extending calls from a trunk exchange to a local exchange.

KEY. A manually-operated switch, specially designed for use as a component of switchboard operating position equipment.

KEY-CALLER.—See KEYSENDER.

KEY CAP.—See REMINDER RINGS.

KEYSENDER. A strip of ten digit keys which, with associated apparatus, control the operations of automatic apparatus to set up a call. A simplified model operated by clockwork mechanism known as a Key-caller, is available for use at subscribers' installations.

KIOSK. A telephone cabinet for use in public thoroughfares.

LAMP CAP. A cap with glass or cellastoid front which is placed in front of a switchboard lamp to diffuse the light. The cap may bear certain marks, or be of a distinctive colour, to indicate that there are restrictions in, or variations from, the service given to an ordinary subscriber with full facilities. Similar markings or colour may be used on junction circuit or other lamp caps to indicate exchange signalling conditions.

LAMP GLOWING (L.G.). The term used when a subscriber's calling lamp lights but the operator receives no

reply to her salutation. Such a "permanent call" may be caused by either a fault or incorrect manipulation on the part of the subscriber.

LIMITED DURATION CALL.—See CALL.

LINKED NUMBERING SCHEME. A numbering scheme in which a range of numbers (including the code letters in director automatic areas) is distributed between the subscribers on several exchanges in a given area. (See also SELF-CONTAINED NUMBERING SCHEME.)

LOCAL CALL.—See CALL.

LOCAL EXCHANGE.—See EXCHANGE.

MAGNETO BELL.—See BELL.

MEASURING POINT. In certain districts, where the area will eventually be served by a separate exchange, but for economic and/or other reasons the immediate opening of a new exchange is not desirable, measuring points are established to serve as centres from which radial measurements to subscribers' premises are made for the purpose of rental charges. (See also EXCHANGE, HYPOTHETICAL.)

METER KEY. The key which is depressed by an operator at a manual exchange for the purpose of recording a call on a meter.

METER.—

Position. A meter, operated either automatically or manually, used to show the number of calls dealt with at an individual operating position.

Subscriber's (Manual areas). A meter, fitted at the exchange, on which effective unit and second fee area calls made by a subscriber are recorded, by the operator depressing a meter key.

Subscriber's (Automatic areas). A meter, fitted at the exchange, on which local automatic calls are recorded automatically when the called subscriber answers.

Note.—Arrangements can be made, when required, for the automatic metering of each call beyond the local fee area, restricted at present to calls on which a charge of not more than four unit fees, at full day rate, is payable.

MONITOR. An experienced exchange officer, who deals with enquiries and complaints and renders general assistance to subscribers, usually at a specially equipped desk or position termed either a Monitors' Desk (if a separate suite consisting of desk type positions) or Enquiry Positions (if switchboard type positions, either en suite with the main switchboard or, in certain director auto-manual exchanges, in a separate suite).

MORNING CALL.—See CALL (Alarm).

MULTI-COIN BOX. (Prepayment and Postpayment). Apparatus fitted at call offices and subscribers' premises by means of which coins of more than one denomination (pennies, sixpences and shillings) can be collected.

Prepayment multi-coin boxes are provided with two buttons, labelled A and B. Coins, once inserted, are suspended within the mechanism and a caller cannot speak to the distant subscriber until Button A has been pressed and the money deposited in the box. Button B is provided for returning suspended coins in the case of ineffective calls. In the case of prepayment multi-coin boxes connected with a C.B. exchange, the insertion of two pennies actuates the exchange calling signal; an emergency button is provided at certain call offices for calling the exchange, without inserting money, in cases of emergency. When the prepayment multi-coin box is connected with an automatic exchange, the caller must insert two pennies before being able to dial a local number but the operator can be called, by dialling O, without the insertion of coins.

Postpayment multi-coin boxes are fitted on exchange lines in C.B.S. and Magneto exchange areas and on P.B.X. extensions in all areas and are similar in design to the prepayment type but no buttons are provided and the exchange is called without the insertion of coins. Coins are inserted at the request of the operator and cannot be regained.

MULTI-METERING. Metering of a call involving more than one operation of the subscriber's meter; a call on which this occurs is termed a multi-metered call.

MULTI-METERED CALL.—See CALL.

MULTIPLE.—

(a) An assembly of jacks (q.v.) fitted in the face of the switchboard and repeated at regular intervals, by means of which each operator has access to every subscriber, outgoing

junction circuit, outgoing trunk circuit and service line connected with the exchange.

(b) The contacts and wiring of the banks of a group of automatic switches, arranged so that each switch has access to all the outlets or subscribers' lines served by the particular group of switches.

MULTIPLIED ANSWERING EQUIPMENT. A type of ancillary equipment in which the calling signals and jacks are repeated, by means of switchboard multiple cable. Usually the appearances are repeated every six or twelve panels.

NIGHT SERVICE (a) *of subscribers on small rural exchanges.* Subscribers connected with rural C.B.S. exchanges which provide a day service only can often be afforded a night service, on a party line basis, by extension over a trunk or junction line to another exchange. An extra rental is charged for this night service.

(b) *of P.B.X. extensions.* Night service can be provided for extensions connected with private branch exchanges, where the private switchboard is not continuously staffed, by associating particular extensions with given exchange lines. Calling subscribers can gain access to the required extension via the extended exchange lines, either directly by means of extra directory entries or indirectly through the public exchange where, for additional charges, arrangements are made to divert the call to the appropriate exchange line.

NIGHT TELEGRAPH LETTER. A message that may be dictated by telephone any time up to midnight for delivery by the first post next day (Sundays excepted).

NUMBER UNOBTAINABLE TONE.—See TONES.

O.C.B.—See ORIGINATING CALLS BARRED.

OFFICIAL CIRCUIT.—See SERVICE CIRCUIT.

OPAL CODE. The standard markings used on lamp caps, pegs or labels (according to the exchange system) to designate the different classes of service.

OPERATING SET. A telephone specially designed for the use of an operator in order that she may have both hands free for operating. It consists normally of a transmitter, which can be fastened round the operator's neck and is known

as a breast-plate transmitter ; a receiver, which is carried on the head by a light metal or wire band and is known as a headgear receiver ; and a cord and plug, for the purpose of connecting the set with an operator's jack on the edge of the keyshelf.

OPERATING STATISTICS. The record of traffic, staff and equipment which is taken (usually half-yearly) at exchanges to provide a comprehensive record of the work of the exchange for a representative day. (The record is also sometimes termed a "peg count".) Its purposes are (a) to secure proper co-ordination of staff and positions with work and (b) to measure the subscribers' demand for service.

OPERATORS' SPEAKER CIRCUIT. A circuit over which instructions for the setting up of calls are passed from one operator to another.

ORDER-WIRE CIRCUIT. An operators' speaker circuit terminated at the incoming end on an operator's headset.

Note.—When an order-wire circuit is used in the outgoing direction by operators at one exchange only, it is known as a Straight Order-Wire Circuit ; when shared, in the outgoing direction by operators at more than one exchange, it is known as a Split Order-Wire Circuit.

ORDER-WIRE JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

ORDER-WIRE KEY. A non-locking key, associated with an order-wire circuit, which is depressed by an operator at the originating exchange when passing, to the distant B-operator, the demand for a connexion.

ORIGINATING CALLS BARRED. Suspension of the facility of originating calls, whilst incoming calls may still be received. Outgoing service may be suspended for non-payment of fees due or at the subscriber's request. (See also TEMPORARILY OUT OF SERVICE.)

OUTGOING JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

OUT-OF-ORDER TONE.—See TONES.

OVERPLUGGING.—The action of plugging into a multiple jack, ignoring the busy condition.

PARENT EXCHANGE.—See EXCHANGE.

PARTY LINE. An arrangement whereby a single exchange line is used in common by a number of independent subscribers. The ringing of a particular subscriber for incoming calls may be effected by a selective device or by a series of code rings. There are two types of party line in use in this country :—

(a) **Rural.** A line provided in distinctly rural areas. Not less than three and not more than twelve subscribers will ordinarily be connected with one line and premises within half a mile of the exchange may not be included.

(b) **Two-party.** A line provided for the joint use of two subscribers more than one mile radial distance from the exchange. (No new subscribers are being taken for this service.)

Group Service (q.v.) is also a form of party line working.

P.B.X.—See PRIVATE BRANCH EXCHANGE.

P.B.X. DIRECT DIALLING. A facility, available on Private Automatic Branch Exchanges, whereby an extension user, by dialling a special code, obtains access to the public exchange and then calls the required number in the same way as an ordinary direct line subscriber. The facility can also be provided between extensions on two P.A.B.X.'s over a circuit connecting the two installations.

P.B.X. THROUGH DIALLING. A facility whereby a Private Automatic Branch Exchange extension user, after calling the P.B.X. operator and being connected with an exchange line, can dial the number desired, in the same way as a direct exchange line subscriber.

PEG COUNT.—See OPERATING STATISTICS.

PERSONAL CALL.—See CALL.

PHONOGRAM. A telegram received by telephone from a subscriber or caller at a call office, or dictated by telephone to a subscriber. (See also TELEPHONE-TELEGRAM.)

PHONOGRAM CIRCUIT. A circuit between a local, auto-manual, joint trunk or trunk exchange and a telegraph office, over which telegrams are received from and/or dictated to subscribers by telephone.

PICTURE CALL.—See CALL.

PILOT LAMP. A master lamp, common to a group of lamps associated with individual services, which glows simultaneously with any of the individual lamps. Ordinarily it is larger and more conspicuous than the individual lamps and thus attracts an operator's attention more readily to the portion of the switchboard at which a call requires attention.

PLUG. A metal fitting, usually connected with the conductors of a flexible cord and used to make connexion with a jack (q.v.)

PLUG AND SOCKETS. Apparatus provided if a subscriber wishes to use a telephone instrument alternatively in two or more positions. A table telephone is fitted with a plug-ended cord, the exchange line is led to a socket at each of the points concerned and, when the telephone plug is inserted in any socket, connexion is made with the exchange line.

PLUG-ENDED JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

POSTMASTER'S VOUCHER. A term used, in the telephone service, to denote the duplicate (for Head Office use only) of a receipt given by a Postmaster for telephone charges paid at a Post Office.

POSTPAYMENT MULTI-COIN BOX.—See MULTI-COIN BOX.

PREPAYMENT MULTI-COIN BOX.—See MULTI-COIN BOX.

PRINTERGRAM. A telegram transmitted or received by a Telex subscriber, to or from a Telegraph Office, by teleprinter over a telephone circuit.

PRIVATE BRANCH EXCHANGE. Apparatus at a subscriber's premises designed to provide exchange facilities for, and local intercommunication between, the various extension telephones in that establishment.

PRIVATE WIRE. (1) A to A. A private wire circuit between different premises of the same person, firm or corporation, or between the offices of a person, firm or corporation

and a person in his or its exclusive employment. Such circuits are not within the Postmaster General's telegraphic monopoly.

(2) **A to B.** A private wire circuit running direct between two different persons or firms. Such circuits are within the Postmaster General's monopoly and cannot therefore be constructed without his licence.

(3) **Between switchboards.** A circuit connecting two private branch exchanges (whether A to A or A to B) provided to afford intercommunication between extension points on the two switchboards but not exchange service.

PUBLIC ADDRESS CALL.—See CALL.

RECORD CIRCUIT. A circuit over which subscribers pass only particulars of demand trunk calls for recording, the calls being subsequently reversed over other circuits.

REMINDER RINGS. Rings which are placed over keys or supervisory lamps and by their colour and/or position serve to remind the operator of some special operating procedure in connexion with a particular call.

REPORT CHARGE. The fee charged when an overseas (radio) call cannot be completed owing to the absence of the called person or for any reason outside the control of the Post Office.

RINGING LEAD. A circuit provided to supply ringing current from the main public exchange to a subscriber's private branch exchange, when the switchboard there is dealing with a considerable number of calls in the busy hour and the operating can thus be facilitated by the branch exchange operator utilizing current so provided for calling the extensions, without having to use a hand-generator.

RINGING TONE.—See TONES.

ROUTINE TESTING. The systematic and periodic testing of exchange and other equipment with the object of preventing inadvertent use of faulty apparatus and of maintaining a high standard of efficiency.

RURAL CALL OFFICE. A call office connected with a rural exchange, or one which although connected with an urban exchange is either :—

- (i) more than three miles from the exchange and is allotted an independent name, or

- (ii) within a radius of three miles from the exchange but is terminated in a Sub-Post Office, a kiosk or other premises situated within the boundaries of a Rural District.

RURAL EXCHANGE.—See EXCHANGE.

SECRECY APPARATUS.—

Telephone Installations. Apparatus used to ensure that it is not possible for anyone to listen to the conversation at an extension or other intermediate point when the connexions of a call have been completed.

Radio Telephone Services. Apparatus introduced in the radio transmitter to jumble or "scramble" the outgoing speech in such a way as to make it unintelligible when received on an ordinary wireless set.

SELECTOR. A switching device in an automatic telephone system which selects a particular contact in a group to give access to another selector, to a subscriber's line, or to a line to another exchange.

SELF-CONTAINED NUMBERING SCHEME. A numbering scheme in which the range of numbers allotted to the subscribers on an exchange is independent of the numbers allotted to subscribers on any other exchange. (See also LINKED NUMBERING SCHEME.)

SERVICE CIRCUIT. A telephone circuit provided for the official use of officers of the Post Office.

SIGNAL JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

SPEAKING KEY. The key associated with each pair of connecting cords on a switchboard, by means of which an operator may connect her telephone with, and speak on, a particular cord circuit.

STANDARD LOAD. The average amount of work expected of an operator in a given time, usually the busy hour, expressed in terms of unit calls. (q.v.)

STATION.—

Exchange. A telephone instrument (other than an instrument in a public exchange, used for operating, supervising etc., which is essential to the working of the exchange)

which can be connected with other instruments through the medium of a public exchange.

Private. A telephone instrument—on a main or extension circuit or attached to a switchboard—which can be connected with other instruments on a subscriber's (or service) private wire system, but not with a public exchange.

STRAIGHT-FORWARD JUNCTION CIRCUIT.—See JUNCTION CIRCUIT.

STREET INDEX. A record of all subscribers in a given area which is kept in alphabetical order of the name of the road or street in which they reside or operate, as opposed to the alphabetical order of the subscribers' names in the directory.

SUBSCRIPTION CALL.—See CALL.

SUPERSEDING AGREEMENT. A new agreement signed by a subscriber when his rental is altered owing to an alteration in conditions of his installation.

SUPERVISORY SIGNALS. The signals (usually lamp signals) associated with connecting cords and arranged on a switchboard keyshelf to correspond with the arrangement of the cords. The back lamp of each pair (the Answering Supervisory Signal) is associated with the back, or answering, cord of the pair and the front lamp (the Calling Supervisory Signal) with the front, or calling, cord. The glowing of either lamp, when a connexion has been effected with the relative cord circuit, indicates that the subscriber or exchange connected with the relative cord of the pair has gone out of circuit, by restoring the telephone receiver to its rest or by withdrawing the switchboard plug.

SUSPENDED CALL.—See CALL.

SWITCH. (a) A term used to refer generally to automatic exchange selectors, uniselectors and line-finders.

(b) A piece of auxiliary apparatus for modifying the conditions in an electrical circuit, *e.g.*, to transfer the ringing current from a bell fixed on a telephone to ring another bell fixed in a different part of the premises.

SWITCHBOARD. The manually-operated apparatus at an exchange, on which the various circuits from subscribers and other exchanges are terminated for the purpose of enabling operators to establish communication either between two subscribers on the same exchange or, by use of a junction or trunk circuit, between subscribers on different exchanges.

TANDEM DIALLING (OR TANDEM KEYING). The dialling, or keying, by subscriber or operator, of the required subscriber's number, preceded by two or more code digits to route the call via one or more intermediate automatic exchanges.

Note.—A multi-exchange area, having a linked numbering scheme, is regarded as one exchange for the purpose of this definition.

TANDEM EXCHANGE.—See EXCHANGE.

TELEGRAPH MONOPOLY. The Postmaster General has the exclusive monopoly, under the Telegraph Act of 1869, of transmitting telegraphic messages from one person to another, the definition of a telegraph being subsequently held by a judicial decision to include the telephone or any other means of transmitting electric signals with or without wires. It follows:—

(a) that all telegraph and telephone circuits, with the exception of "A to A" private wires, are within the Postmaster General's monopoly, and

(b) that messages cannot be transmitted by telegraph or telephone to a subscriber for delivery to a third party.

TELEPHONE EXPRESS LETTER. A message dictated over the telephone by a subscriber or call office user and written down for delivery by special messenger.

TELEPHONE ORDINARY OR AIR MAIL LETTER. A message dictated over the telephone by a subscriber or call office user and written down for onward transmission as an ordinary or air mail letter.

TELEPHONE-TELEGRAM. A telegram which is transmitted by telephone between two Post Offices. (See also PHONOGRAM.)

TELEPHONE-TELEGRAM CIRCUIT. A telephone circuit provided between two telegraph offices or between a telegraph office and a telephone exchange over which telegrams between Post Offices only are passed.

TELEPRINTER. A telegraph instrument fitted with a keyboard and printing mechanism closely resembling that of an ordinary typewriter. When two teleprinters are connected together over the telephone system (as in the Telex Service) a message typed on either machine is reproduced by both the home and the distant teleprinter simultaneously.

TELEX CALL.—See CALL.

TELEX DIRECTORY. A directory, issued to Telex subscribers, which contains particulars of the Telex service and the names and addresses, Telex and ordinary telephone numbers of Telex subscribers.

TELEX POSITION. (a) *Manual Exchanges.* A special switchboard position at which timed Telex calls are controlled.

(b) *Auto-manual Exchanges.* A special switchboard position at which are controlled all Telex calls which the originating subscriber cannot dial direct.

TEMPORARILY OUT OF SERVICE. The condition when a subscriber's line is temporarily disconnected from the exchange for both outgoing and incoming service. This may be done either because of non-payment of fees due or at the subscriber's request.

TERMINAL TRUNK CENTRE. The zone or group centre exchange which is responsible for connecting an incoming demand trunk call with the required exchange and number.

TEST CALLS. Calls passed by officers of, or under instructions from, the Traffic Department to determine the efficiency of the service; or by members of the Engineering Department to determine the electrical or mechanical efficiency of the equipment.

THEORETICAL CENTRE. The point in an area at which, as shown by a development study, it is theoretically most economical to establish an exchange.

THREE-MINUTE TONE SIGNAL. An audible signal, consisting of four "pips," superimposed on the conversation towards the end of each three-minute period, to indicate to subscribers the passage of time on trunk calls.

THROUGH CLEARING. A system which provides for a clearing signal to be transmitted through an intermediate switching point to the manual operator or automatic switches of a distant exchange. The intermediate switching point may be a public or a private branch exchange.

THROUGH DIALLING (P.A.B.X's).—See P.A.B.X.
THROUGH DIALLING.

TIME CHECK LAMP. A lamp, associated with a timing device, which glows or flashes at specified intervals.

TIME SIGNAL APPARATUS. Apparatus by means of which Greenwich Mean Time is transmitted to subscribers in the form of an electrical signal. The apparatus, which must be of approved pattern, is provided at the expense of the subscriber and a special tariff is charged for the time signal service.

TOKENS, COIN BOX. Metal discs which are used instead of coins by authorised officers when testing the working of telephone coin boxes at call offices.

TOLL CALL.—See CALL.

TOLL CIRCUIT. A trunk circuit directly connecting two exchanges between which a toll service is provided.

TOLL EXCHANGE.—See EXCHANGE.

TOLL POSITION. A position primarily devoted to the handling of calls over toll circuits.

TOLL SERVICE. A service for which trunk circuits are provided on such a basis as to be available, normally, for the immediate completion of calls.

TONES.—

Dialling. (Automatic exchanges only.) A continuous “purring” sound of low pitch—to indicate to subscribers that dialling may be commenced.

Engaged (or Busy). An intermittent audible signal indicating that either the required circuit, or the intermediate apparatus used in setting up the connexion, is busy. (The signal is of high pitch.)

Number Unobtainable. (Automatic exchanges only.) A continuous note of the same pitch as the Engaged Tone which indicates that the number dialled is unobtainable for some reason other than “number engaged” or “no reply.”

Out-of-Order (Manual exchanges only). A tone, connected at the plugging-up position, indicating that a subscriber's circuit is faulty and that connexion should be made with the testing telephonist who will advise the caller.

Ringling. A note of low pitch interrupted at and for the same periods as the ringing current which is applied to the called line. It indicates that the number dialled is being called.

Trunk. (Manual Exchanges only.) A distinct tone, used at certain exchanges, to indicate that the line to which it is applied is engaged on a trunk call.

T.O.S. See TEMPORARILY OUT OF SERVICE.

TRANSFER CHARGE.—See CONNEXION CHARGE.

TRANSFER CIRCUIT. A circuit between two positions in an exchange over which calls are extended.

TRANSFERRED CHARGE SERVICE. A facility whereby the charge for a trunk call is debited to the called subscriber, if he agrees.

TRUNK CALL.—See CALL.

TRUNK CIRCUIT. A circuit directly connecting two exchanges, communication between the subscribers on which involves the payment of more than four unit fees at full day rate.

TRUNK EXCHANGE.—See EXCHANGE.

TRUNK POSITION. A position primarily devoted to the handling of calls over demand trunk circuits.

UNISELECTOR. A selector having unidirectional motion.

UNIT AUTOMATIC EXCHANGE.—See EXCHANGE.

UNIT CALL. The local call at a C.B. exchange where the number of working hundreds in the subscribers' multiple is 50 or more. The overall time necessary to operate this type of call, at the required standard of service efficiency, is the unit of the call valuation system. (See CALL VALUE.)

URBAN EXCHANGE.—See EXCHANGE.

VALUE.—See CALL VALUE.

ZONE CENTRE. The exchange in a zone (i.e., an area containing a number of groups of exchanges) at which the principal demand trunk circuits between that zone and other zones are terminated.

Note.—A zone centre control demand trunk calls only for those exchanges to which it stands also in the relation of group centre.

