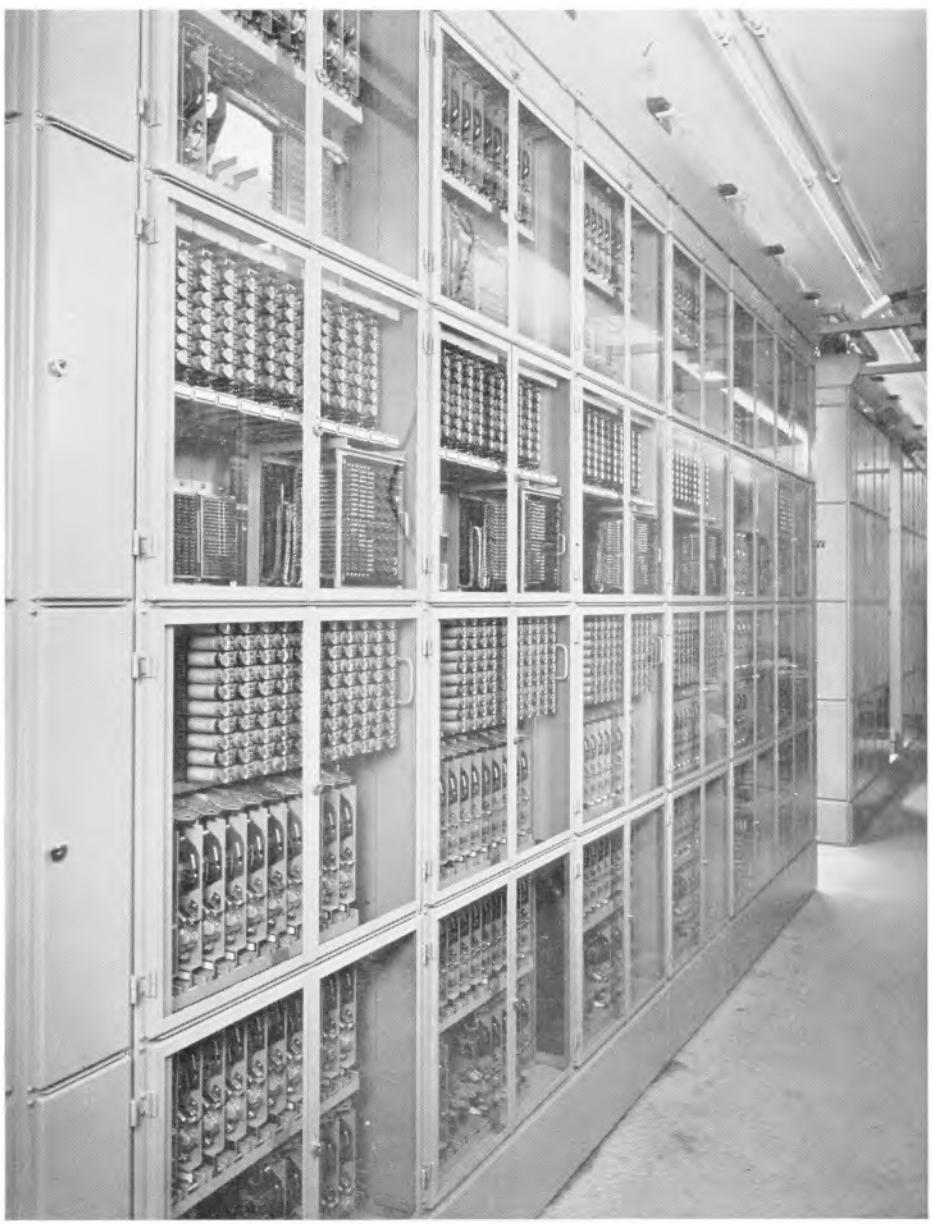
PHILIPS

Private automatic exchange type UB 49a



front view of subscribers' racks

division	Telecommunication
section	Private telephone exchanges
product	Private automatic exchange
type	UB 49a
pamphlet	T-62.413

General

The UB49a system can be supplied as a PAX for works and offices requiring internal traffic only, for any number of extensions from about 200 up to several thousands. The qualities inherent in the UB49a system make continuous technical attendance unnecessary The use of a single type of non-homing uniselector (the U45a; see leaflet T62.712) in all switching stages and of plug-in type relay units simplifies maintenance considerably, while regular readjustment of the selectors and relays is not necessary The equipment is efficiently arranged on standard racks provided with dust covers and occupies a minimum of floor space.

Attention is especially drawn to the optional feature of keyset dialling, whereby connections are, on the average, established in less than one third of the time taken by normal dialling.

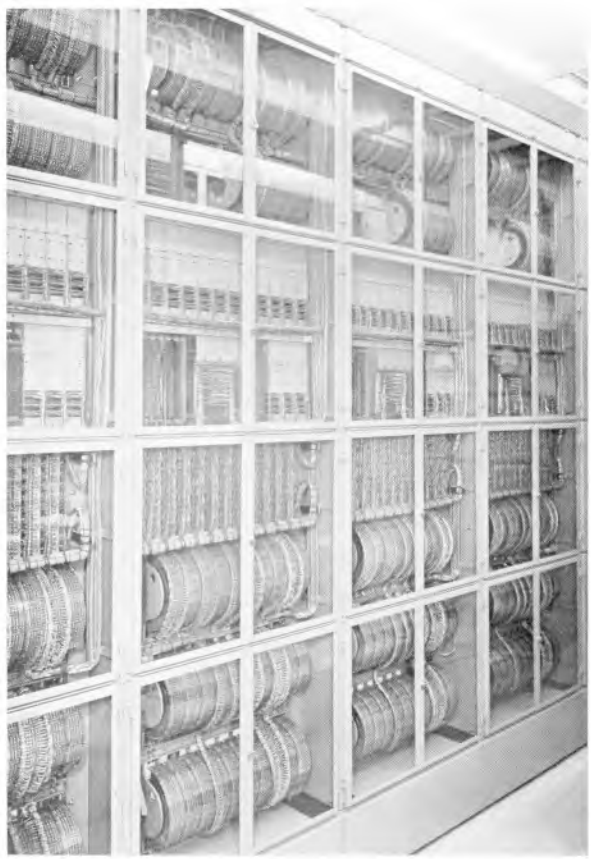
Description

The UB49a is a register system in which marking of the wanted outlet in the 100-point selector bank is followed by high-speed positioning of the wipers in one single sweep. The average waiting time for dial tone and ringing tone is less than half a second. Two or more exchanges can be coupled by adding tie line relay sets.

The PAX's are composed of one or more standard 48 TU groups, each comprising about 800 extensions, 1 marker and 9 registers.

side view of subscribers' racks

rear view of subscribers' racks

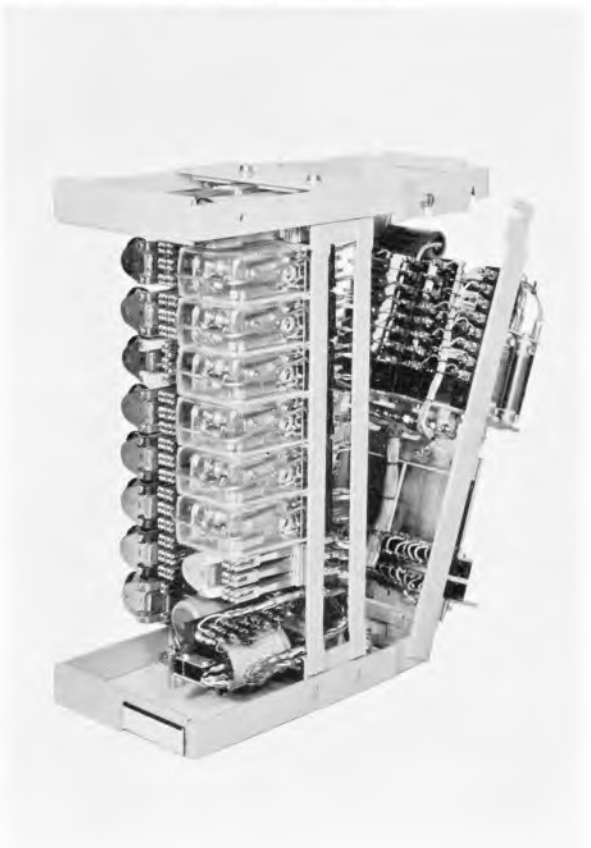


The UB49a system offers all usual PAX facilities such as full secrecy on all calls, immediate ringing, ring tripping and first-party release.
Other facilities can easily be provided by means of supplementary units:
The staff-location system employing visual and/or audible signals to inform a staff member who is not in his own room that he is wanted on the telephone. The staff-location equipment is automatically started by dialling the number of the staff-location system and the code number assigned to the person required. By dialling the answering number from the nearest extension, the person called is automatically connected to the caller.
The preference or right-of-way service enabling executives to enter an existing connection when the called extension is found busy
The conference service enabling a number of designated extensions to be interconnected in a conference circuit.

Keyset dialling
This very attractive facility can be obtained by adding supplementary registers and replacing the conventional dial on the extension sets by a pushbutton keyset. (This conversion is possible on most types of sets.) The connections are then established considerably faster than with the dial. Telephone sets with normal dial may also be connected to a PAX equipped for keyset dialling.

intermediate distribution frame

supplementary register for keyset dialling



Description (continued)

ALARMS

Alarm is given if a fault occurs in more or less vital circuits or if an extension user has failed to replace his handset. All alarms are signalled in the racks and may be extended to an alarm box at a point where it is readily visible to staff.

POWER SUPPLY

The nominal working voltage is 48 V DC ±8 V. The 48 V DC power supply unit consists of a selenium rectifier and a secondary cell battery in parallel, providing a full floating system which maintains the supply of DC power even during periods of mains failure. Stabilised rectifiers are supplied for an input (AC mains) voltage of 220 V + 10% − 15%, 50 − 60 c/s ±5%.

mobile test position

Technical data

Climatic conditions
the system is fully tropicalized

Nominal working voltage
48 V DC ±8 V

Permissible loop resistance
max. 1200 ohms, including telephone set

Leak resistance on extension loops
min. 20,000 ohms between a-wire and b-wire and between a-wire or b-wire and earth

Noise voltage measured psophometrically
less than 0.4 mV under severe test conditions

Crosstalk attenuation between two speech paths
better than 80 dB

Insulation resistance of wiring
more than 1000 megohms at any temperature or humidity

Normal impulse ratio
60 (open) to 40 (closed) with a speed of 7 to 12 impulses per second; wide tolerances are permitted

Dimensions of equipment racks
height 2360 mm (7 ft. 9 in.); width 719 mm (2 ft. 4 in.); depth 335 mm (1 ft. 1 in.)

Weight of a fully equipped rack
approx. 275 kg (600 lb.)

Minimum headroom
2900 mm (9 ft. 6 in.)

Preferred headroom
3100 mm (10 ft. 2 in.)