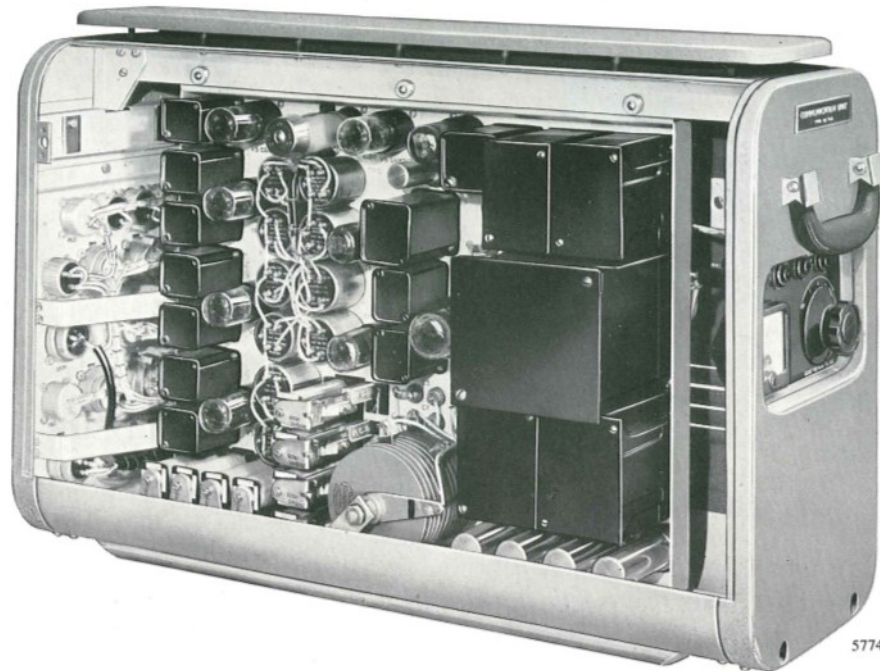




Communication Units

Types BD632, BD649, BD671



5774

THREE MAIN TYPES of communication units are available, as follows:

- Type BD 649 Mobile communication unit.
- Type BD 671 Studio communication unit.
- Type BD 632 Mobile single-channel communication unit.

Types BD 649 and BD 671

The Types BD 649 and BD 671 are identical in electrical design, the former being suitable for mounting in a mobile case, the latter for rack mounting.

Each unit provides an exchange point for all the cue lights and communication channels of the system, but contains no operating controls. It

The Type BD649 unit. The side of the mobile case is removed showing the component layout.

incorporates an LT power supply for operating the sundry carbon microphones and amplifiers for the producer's talk-back microphone and the various intercommunication circuits. It is thus possible to use the facilities available even though the units of a camera channel, etc., are not in use. The following inputs are utilised:

- (1) Mains power.
- (2) Up to three high quality microphone inputs from the producer, the technical director, etc., designated talk-back (TB).
- (3) Talk-back from camera control operators, *i.e.*, control room talk-back (CRTB).

- (4) Camera talk-back (CTB) from camera operators and studio assistants stationed at cameras.
- (5) Programme sound (PS) from the sound mixer.
- (6) Calling circuit (buzzer and lamp) from camera to camera control.
- (7) 'Available' cues from camera controls.
- (8) 'On Air' cues from the vision mixer.

The various inputs are mixed and re-routed to give the following basic outputs:

- (1) To cameras—TB, PS and CRTB plus 'air' cues.
- (2) To camera controls—TB, PS and CTB plus 'on air' cues and call circuit from camera.
- (3) To vision mixer—TB and PS plus 'available' cues from camera controls.
- (4) To production console—TB, PS, MCTB (mixed camera talk-back, *i.e.*, mixed output of all camera operators' microphones) plus 'air' and 'available' cues if required.
- (5) Spare outputs—TB, PS, MCTB and -24 V.

The general scheme is that each camera control, vision mixer and producer's console connects into the communication unit. On the producer's console is a high grade microphone over which the producer can talk to all personnel, the output of this microphone being referred to as talk-back. Provision is also made for the technical director and one other person, such as the sound mixer, to bring similar microphones in parallel by means of non-locking keys.

Each camera is provided with two outputs for double earpiece headsets and four outputs for double earpiece headphones. One headset is for use of the camera operator. In one ear he has talk-back and in the other programme sound plus control room talk-back, the latter being talk-back from the camera control operator. He has on this headset a microphone which can be switched into circuit as required. Over this microphone he can talk back to the camera control operator. The

other headset may be used by studio personnel if they require to talk to the control room other than over the studio microphones. Normally studio personnel use one of the four headphone outputs. From these they have talk-back in one ear and programme sound in the other. All signals are amplified to a level sufficiently high to be heard above the highest ambient noise. Independent gain controls are available on all circuits under the control of the personnel using the headsets or headphones. Levels of at least $+20$ dbm are available at the cameras and $+6$ dbm in the control room.

On each camera control there is a jack for a headset for the use of the camera control operator, who has the same facilities available to him as the camera operator. On the mixer is a jack for headphones which are supplied in one ear with programme sound and in the other with talk-back.

Jacks are provided on the production console so that, if required, the producer can plug in headphones. In this case he has in one ear programme sound and in the other mixed camera talk-back, that is, talk-back from all cameras. Alternatively he can plug in a headset, in which case the associated microphone replaces his normal high-quality talk-back microphone. Similar facilities are provided on the mobile engineering console. Also on the production console is a key which connects talk-back to a loudspeaker in the studio and at the same time mutes the control room loudspeaker. This is, of course, for rehearsal purposes.

One communication unit provides facilities for a total of four cameras. If more than four cameras are involved, then a second unit is added in parallel.

Type BD 632

The mobile single channel unit is used to provide communication and cue light facilities when a single camera channel is used. It is built into a small case fitted with a carrying handle.



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