

JPV/C

COMMISSIONING HANDBOOK

FOR

JP CONTROL DESKS



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A DIVISION OF

RANK AUDIO VISUAL LIMITED



SCOPE

This handbook contains information normally required during commissioning of the equipment or subsequently if a fault condition occurs. Certain checks require the use of special instruments, and these checks are best carried out by a qualified electrician familiar with the equipment.

SERVICE ASSISTANCE

For assistance with servicing or maintenance, please contact the nearest branch office, agent or associate company (see list attached at the end of this handbook) and state the Order Reference, Equipment Reference, Serial Number or other relevant information as well as an indication of the fault symptom encountered.

Revision/amendment since last issue of document:

- ▶ on Margin denotes minor changes
- ▶ against headings or illustration numbers denotes major revisions.



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1. GENERAL

The output voltage from each dimmer is a non-sinusoidal wave-form and therefore a dynamometer voltmeter must be used for accurate load voltage measurements.

WARNING: Only a qualified electrician, familiar with the equipment, should remove any rack cover for fault-finding or any other purpose when the equipment is switched on. On three phase installations 415v exists between heat sinks and printed circuit cards on adjacent modules.

2. TROUBLE SHOOTING

First determine the full extent of the fault. This provides a valuable clue to the source of the trouble. How many channels are affected and on which preset?

2.1 Complete loss of light on all channels on all presets

- i Check neon indicator lamp alight at desk; if alight check position of D.B.O. switch if fitted; if not alight check adjacent fuse at desk.
- ii Check neon indicator lamp alight at rack 1; if alight check 5 amp control fuse at rack 1, if not alight check main power supply to all racks, including all phases of the supply.

2.2 Complete loss of light on 10 or 20 consecutively-numbered channels on all presets

Check main power supply to corresponding rack. Finally, if still necessary, check connection between terminal C in that rack and corresponding terminal C in desk.

2.3 Complete loss of light on all channels but on one master fader only

Check 1 amp fuse for corresponding master fader.

2.4 Complete loss of light on one channel only on all presets

- i Check lamp load and any connectors in the load circuit.
- ii Check channel fuse but, if necessary, replace only with the same type.
- iii Check internal side of 10K ohm fixed resistor mounted in desk adjacent to terminal block. The voltage at this point, with respect to the C terminal, should vary between zero and -12v DC; the latter is the full light state.
- iv Check control connections.
- v Check connections to terminal D (or C) of dimmer module. (Equipment must be switched off).
- vi Substitute a new dimmer module. (Equipment must be switched off).

2.5 Complete loss of light on one channel only, but on one preset only

- i Check connections on rear of that dimmer lever unit.
- ii Check wiper brush contact and connections.
- iii Check diode within dimmer unit.

2.6 Loss of control on two adjacent-numbered channels

Check black common connection on rear of twin dimmer lever unit.

2.7 Loss of control (light full) on one channel on all presets

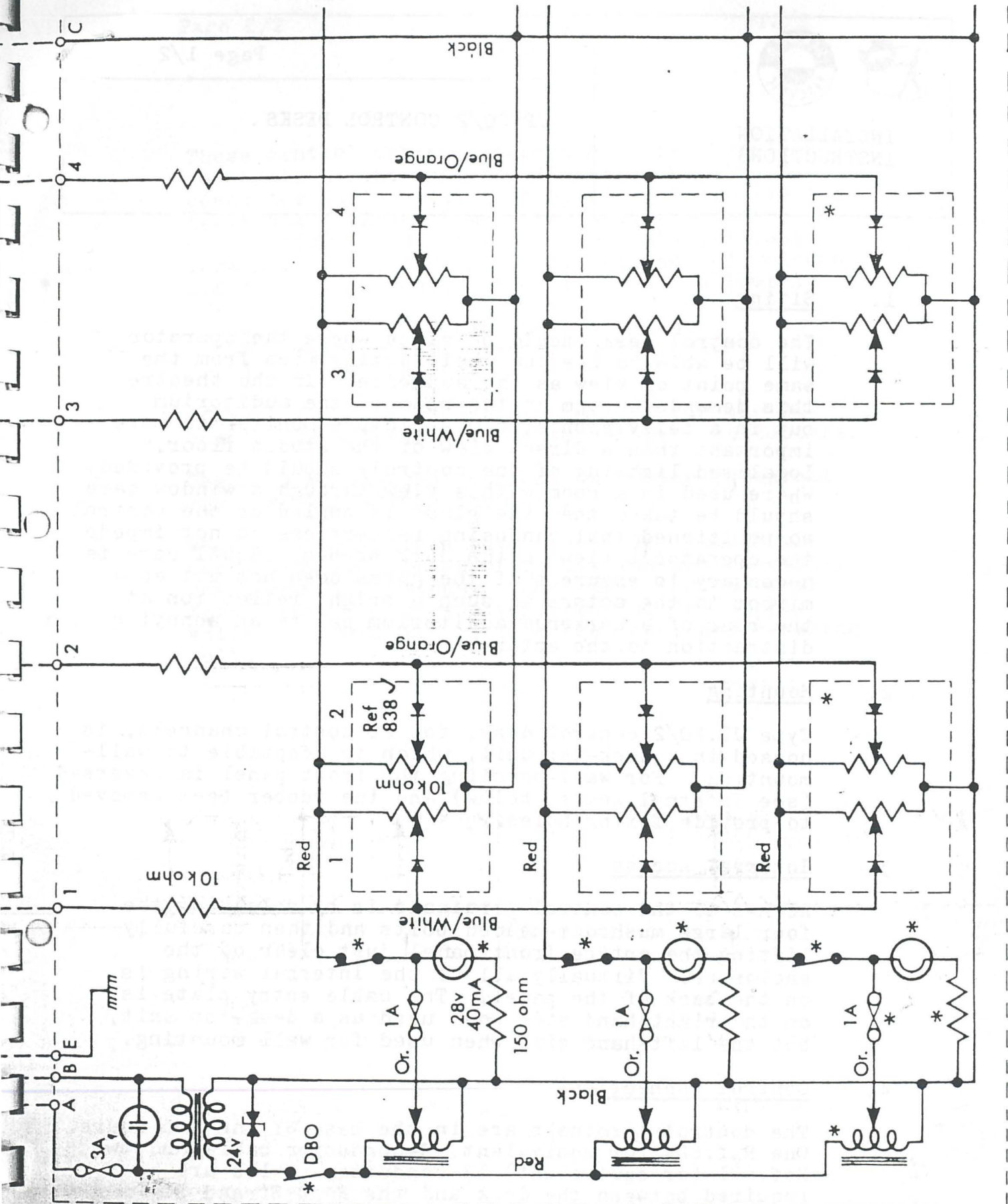
Check voltage as in 2.4 iii. above, if zero replace dimmer module.

2.8 Loss or gain of control at an intermediate intensity level

- i Check wiper brush contact of that dimmer lever.
- ii Check continuity of 10K ohm resistance strip.

2.9 Failure of one channel to fade to black-out on all presets

Adjust VR1, on printed circuit card of module, to produce 10v load output on dynamometer voltmeter with channel dimmer lever at position 1 and master fader full. WARNING: Great care must be taken during this adjustment. (see sec. 1 above). The fuses for the other channels in the rack should be removed.



✓ - Ref 947 on JP 20



JP CONTROL DESK

Items not applicable to
Type JP.20

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INSTALLATION
INSTRUCTIONS

JP2/I

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JP 20/2 CONTROL DESKS .

1. Siting

The control desk should be sited where the operator will be able to see the whole acting area from the same point of view as the audience. In the theatre this demands a room at the rear of the auditorium but in a television studio a picture monitor is more important than a direct view of the studio floor. Localised lighting of the controls should be provided. Where used in a room with a view through a window care should be taken that the glass is angled or the control so positioned that confusing reflections do not impede the operator's view in the dark scenes. Equal care is necessary to ensure that the glass does not act as a mirror to the actors as such a bright reflection at the rear of a darkened auditorium can be an annoying distraction to the actors.

2. Mounting

Type JP.20/2 control desk, for 20 control channels, is housed in a desk-top unit, which is adaptable to wall-mounting. For wall-mounting the front panel is reversed (see Internal Access below) and the rubber feet removed to provide fixing holes.

3. Internal Access

Access to the control terminals is by releasing the four large mushroom-headed bolts and then carefully lifting the entire front panel just clear of the enclosure. Virtually all of the internal wiring is on the back of the panel. The cable entry plate is on the right-hand side when used as a desk-top unit, but the left-hand side when used for wall mounting.

4. Control Connections

The control terminals are in the base of the enclosure. One Ref.604 (or equivalent) 3-conductor cable and two Ref.601 (or equivalent) 12-conductor cables are required between the desk and the Rank Strand 20-dimmer rack.

These control cables interconnect like-labelled terminals at the desk and dimmer rack. The 3-conductor cable (5 amp. at supply voltage) is for terminals A, B and E and the two 12-conductor cables (5mA at 24v) are for terminals 1-20 and terminal C. The recommended sequence of colours for Ref.601 12-conductor cable is as follows :

White, Slate, Brown, Red, Red/Blue
Red/White, Pink, Orange, Yellow, Blue,
Violet, Black.

If two 12-conductor cables are used for the 20-channel rack there will be three spare conductors.

There is no external connection to the Technical Earth busbar within the desk.

When all connections have been made, remove all cable ends and pieces of insulation and carefully check the connections. Check that the internal transformer is correctly tapped for the supply voltage. Carefully replace the panel and securing bolts.