



Fig. 2.5. Right-hand portion of front panel. Drilling details, layout of components, and panel engraving. Below the broken line there are two further sections, each a replica of "Operational Amplifier 1"

## COMPONENTS . . .

### UNIT "A" FRONT PANEL AND BOX

#### Resistors

R1-R5 9.1kΩ (5 off)  
 R6-R10 910Ω (5 off)  
 R11-R15 100Ω (5 off)  
 All 5%, 1/2W carbon film

#### Pre-set Potentiometers

VR1-VR5 250Ω miniature wirewound slider type (5 off)  
 VR15-VR17 50Ω wirewound panel mounting type (3 off)

#### Potentiometers

VR6-VR10 1kΩ 3W linear wirewound, ±20% or better, 270° effective rotation (5 off)  
 VR11-VR14 10kΩ 3W linear wirewound, ±20% or better, 270° effective rotation (4 off)

#### Switches

S1-S6 Double-pole, on/off slide switch (Radiospares) (6 off)

#### Plug

PL1 3 way panel mounting mains plug and cable connector

#### Fuse

FS1 1.5A cartridge fuse and 20mm fuseholder

#### Lamp

LPI Neon indicator lamp (Radiospares "miniature 200-250V panel neon" with self-contained resistor)

#### Sockets

21 Red, 15 Black, 15 Blue, 15 Yellow, 15 White, 12 Green (painted green, see text)  
 48 miniature sockets, black or red to choice

#### Terminals

Insulated screw, to take 4mm stackable plugs (Radiospares). 1 Red, 1 Green, 1 Blue

#### Miscellaneous

Material for panel and box: Hardboard: 2 off 13in × 5in, 2 off 18in × 5in, 1 off 13in × 17 3/4in. White plastic laminate: 2 off 13in × 5in, 2 off 18in × 5in, 1 off 13in × 17 3/4in. Softwood: 52in × 1/2in square, 4in × 3/4in × 3/8in.  
 20 s.w.g. tinned copper wire. Insulated sleeving

#### Dials and knobs

Nine 0-10 270° dial knobs (Bulgin type K400), black or grey