

**RP2/8**

**TRANSPORTABLE STEREO DISK REPRODUCER**

*Author K.R. Hempson  
issued May 1976*

© BBC 1976

The RP2/8 is a transportable stereo disk reproducer designed for O.B. use.

It consists of a Gates three speed turntable unit fitted with a Gray pick-up arm and a Goldring 800 pick-up cartridge.

<i>Motor unit</i>	Gates turntable model CB-77
<i>Pick-up arm</i>	Gray model 206-S/12"
<i>Pick-up</i>	Goldring 800
<i>Playing weight</i>	3 ¼ gm ±¼ gm
<i>Stylus</i>	0.0005" radius
<i>Turntable speeds</i>	33 1/3, 45 and 78 r.p.m.
<i>Wow and flutter</i>	Less than 0.1% peak, CCIR weighted
<i>Frequency response</i>	±3dB from 60Hz to 12kHz ±4dB from 40Hz to 15kHz
<i>Signal/noise ratio</i>	Electronic noise more than 64dB below peak programme level
<i>Rumble</i>	More than 42dB below peak programme level

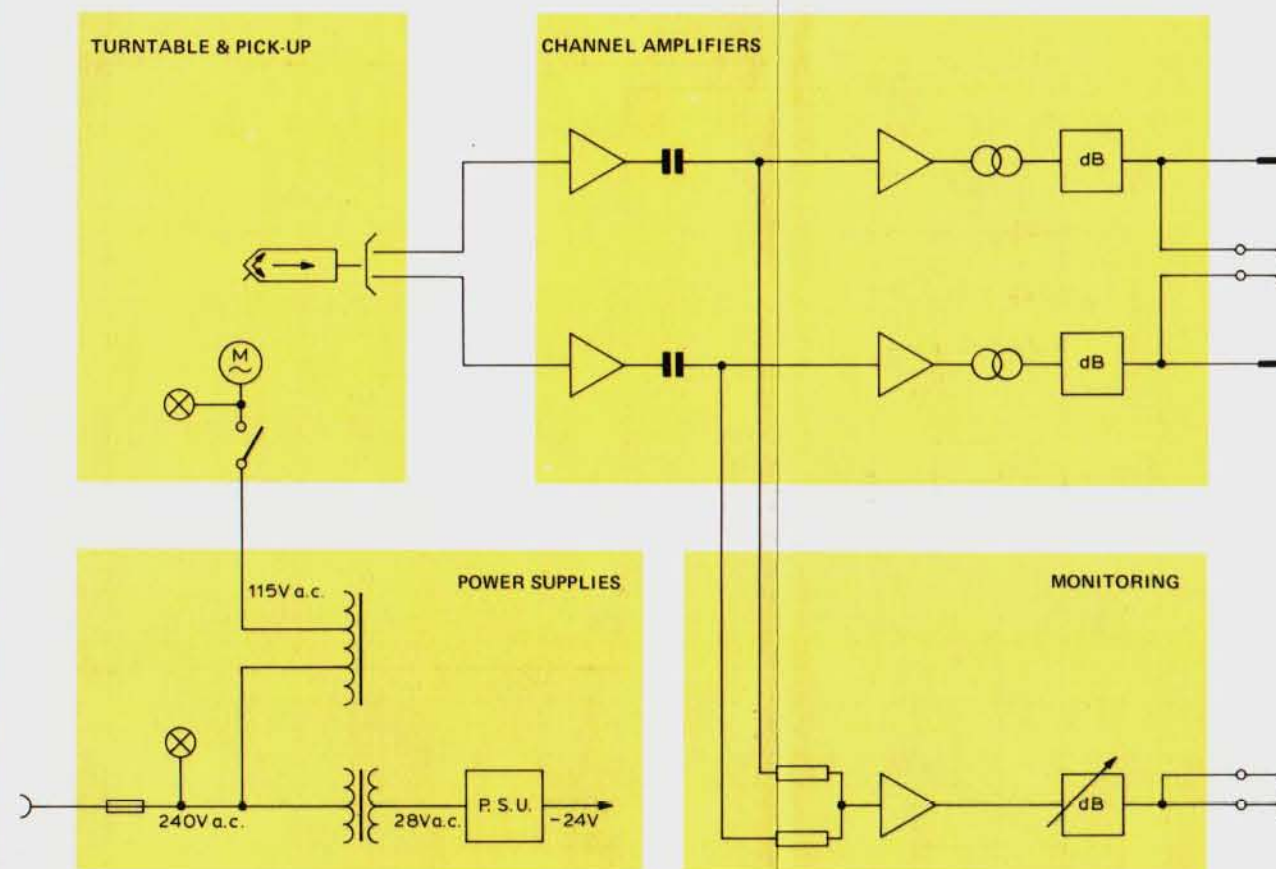
### OUTPUTS

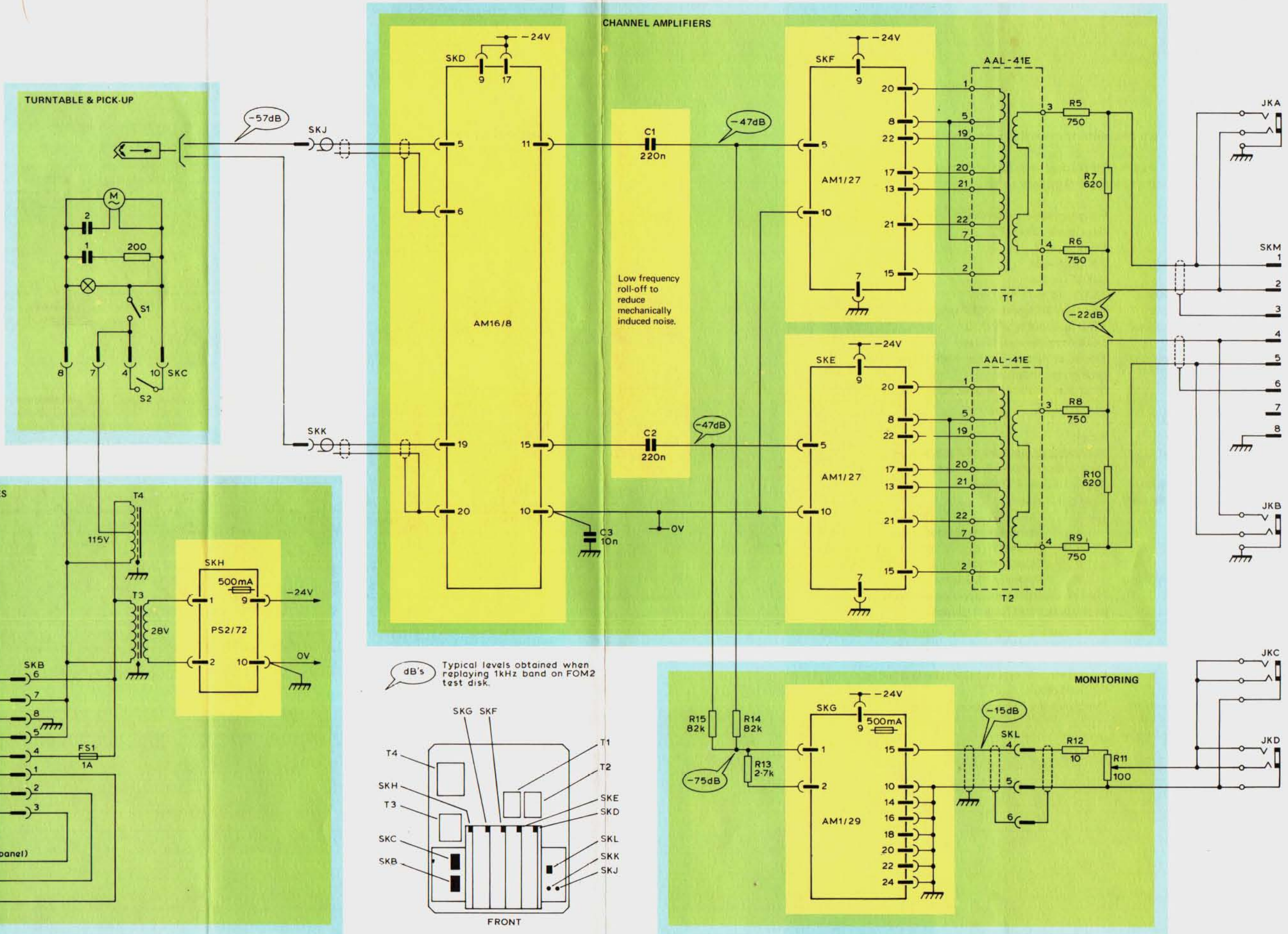
<i>LINE</i>	Stereo
<i>Level</i>	Normal maximum level of -2dB into an impedance of greater than 5 kilohms
<i>Impedance</i>	Approximately 450 ohms
<i>Connectors</i>	Eight pole Cannon
	pins 1, 2 Channel A (balanced)
	3 Channel A screen (not earthed)
	4, 5 Channel B (balanced)
	6 Channel B screen (not earthed)
	8 Mains and chassis earth

The two channels also appear on two jacks on the back panel for test purposes.

### MONITOR

<i>Level</i>	Normal maximum level of +17dB into an impedance of eight ohms Level is variable by a variable resistor fitted to the front panel
<i>Connectors</i>	Two paralleled P.O. jacks on front panel





WARNING — KEEP THE UNIT UPRIGHT. IF IT IS TILTED SIDEWAYS FOR MORE THAN 30 SECONDS THERE IS A RISK THAT DAMPING FLUID WILL BE LOST FROM THE PICK-UP ARM.

### DISMANTLING

#### Turntable

1. Remove the signal leads (plugs J and K), and the power lead (plug C).
2. Remove the rear and side panels.
3. Lift the turntable out of its cabinet.

#### Electronics Chassis

1. Remove the rear panel carrying the mains and programme connectors.
2. Disconnect the following leads:
  - (a) the signal leads from the turntable unit (plugs J and K)
  - (b) the power lead to the turntable unit (plug C)
  - (c) the mains connector to the front panel (plug B)
  - (d) the headphone monitor connector to the front panel (plug L).
3. The electronics chassis can now be removed after undoing four wing-screws.

### MAINTENANCE

#### Turntable

Lubrication — every two or three months use the special Valvoline oil supplied, or a similar grade of non-paraffin based oil to the following points:

- (a) one drop of oil on each of the sliding joints and bearings associated with the speed-change mechanism
- (b) one drop of oil on the idler-wheel bearing
- (c) two or three drops of oil in each of the motor-bearing lubrication tubes.

The correct level of oil in the turntable bearing is such that it just covers the ball.

When replacing the turntable into its cabinet it is advisable to tilt the turntable chassis so that the hole in the side of the bearing casting is uppermost, this reduces the possibility of oil-loss; refer to the WARNING above.

If the turntable is running slowly clean the spindle and bearing and refill with fresh oil.

Wobble of the turntable usually occurs because the bearing is dry. Refilling the bearing with oil should cure this fault.

#### Pick-up Arm

To check the damping of the pick-up arm:

1. put your hand between the turntable and the pick-up arm
2. lift the turntable as high as it will go
3. drop the pick-up arm into your hand.

The pick-up arm should take about a half-second to fall through this distance. Details of the fluid damping mechanism are given in the maker's handbook.

Full details of the pick-up arm and turntable unit are given in the following maker's handbooks:

1. Instruction Book, Models CH77 and CB-500 Turntable Chassis, Harris Intertype Corporation — Gates
2. Installation Instructions, 206-S/12", 208-S/16" Viscous Damped Professional Broadcast Stereo Tone Arms. Gray Research and Development Co. Div.

#### Electronics

When replaying the 1-kHz band on a FOM2 test-disk the output level should be  $-22 \pm 0.5$  dB into an impedance of about eight kilohms.

The output level can be adjusted by means of two variable resistors at the front of the AM16/8 printed-wiring-board.

#### Frequency Response

When replaying the FOM2 test-disk the response should lie between the limits shown below.

The response at the h.f. end of the range can be adjusted by means of two variable resistors at the rear of the AM16/8 printed-wiring-board.

