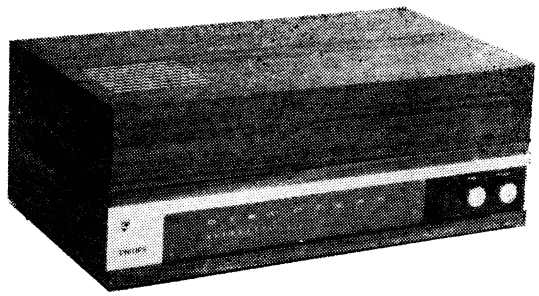
PHILIPS *Service* notes



MODELS GF370, GF470

SPECIFICATIONS

Power supply	200 - 250V, 50Hz
Current consumption	60 mA A.C. at 240V.
Record player (GF370)	GC032 (AG2032)
Record changer (GF470)	BSR UA50
Pick-up head (GF370)	GP224 (AG3224)
Pick-up head (GF470)	BSR CIST3
Lamp	12V, 0.1A, tub. screw, 8003D
Module	UA501

ACCESS FOR SERVICE

Place lid on and turn unit upside down on a protective cloth. Remove the case bottom panel. Remove both control knobs (direct pull). Remove the three screws mounting the metal chassis sheet. Lead length allows the chassis to be turned over thus providing full accessibility for service. There should not be need to remove the module for an operational check.

If the module is to be operated away from the chassis, ensure that the transistors are fitted with flag type heat sinks and that these in turn, are attached to a suitable metal strip for adequate heat dissipation.

Reinstallation is a reversal of the above procedure but with the GF470, check that leads do not foul the changer mechanism.

OUTPUT TRANSISTOR ADJUSTMENT

Provision is made by means of metering points for insertion of a meter for adjustment of output transistor current by means of R108. Current should be adjusted, at no signal, in accordance with the following table.

Temp. °F	TR103/104 Current (mA)
75	7.5
80	7.7
85	7.8
90	8.0
95	8.1
100	8.4
105	8.8
110	9.3
120	10.2

MECHANICAL PARTS LIST

Knob — control, 2x	CR.524.519
Lampholder	A3.311.15
Spring — changer mtg., 4x (GF470 only)	CS.200.088
Cabinet Hardware—	
Catch, case closing	CS.281.007
Push latch, case closing	CS.281.008
Foot, 4x	CS.240.045
Handle	CR.523.234
Retaining clip, 2x, for handle	3104.101.21021
Spring, 2x, for handle	3104.104.00551
Hinge — L.H.	CR.253.635
Hinge — R.H.	CR.253.634

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ELECTRICAL PARTS LISTS

CAPACITORS

C. No.	Description	V.W.	Tol. ±%	Type or Code No.
101	100K Polyester	160	10	C.296.AA/A100K
102	125M electrolytic	10	—	C.426.AR/D125
103	40M electrolytic	16	—	C.426.AR/E40
104	1G electrolytic	16	—	C.437.AR/E1000
201	33K Polyester	160	10	C.296.AA/A33K
202	150K Polyester	160	10	C.296.AA/A150K
203	64M electrolytic	10	—	C.426.AR/D64
204	10K Polyester	160	10	C.296.AA/A10K
205	47K Polyester	160	10	C.296.AA/A47K
206	80M electrolytic	16	—	C.426.AR/E80
305	640M electrolytic	25	—	C.437.AR/F640
306	640M electrolytic	25	—	C.437.AR/F640
307	82K Polyester	160	10	C.296.AA/A82K
308	270K Polyester	160	10	C.296.AA/A270K
311	80M electrolytic	16	—	C.426.AR/E80

RESISTORS

R. No.	Description	W.	Tol. ±%	Type or Code No.
101	56K carbon	½	10	IRC BTS
102	68K carbon	½	10	IRC BTS
103	22E cracked carbon	½	10	B8.305.05A/22E
104	4K7 carbon	½	10	IRC BTS
105	4K7 carbon	½	10	IRC BTS
106	33E cracked carbon	½	10	B8.305.05A/33E
107	33E disc. N.T.C.	1	20	B8.320.01P/33E
108	100E carbon potentiometer (bias adj.)			E.097.AC/100E
109	220E carbon	½	10	IRC BTS
110	E68 wire wound	½	10	IRC BW½
111	E68 wire wound	½	10	IRC BW½
112	220E carbon	½	10	IRC BTS
201	820K cracked carbon	½	10	B8.305.05A/820K
202	IM5 cracked carbon	½	10	B8.305.05A/IM5
203	10K carbon	½	10	IRC BTS
204	5K6 carbon	½	10	IRC BTS
205	22K carbon	½	10	IRC BTS
206	10K carbon	½	10	IRC BTS
207	10K carbon	½	10	IRC BTS
301	3E3 wire wound	½	10	IRC BW½
302	15K carbon	½	10	IRC BTS
304	25K carbon potentiometer taper C (tone)			CZ.034.150
305	1K2 carbon	½	10	IRC BTS
306	50K carbon potentiometer taper C, tapped at 5K (volume)			CZ.034.153
308	15E cracked carbon	½	10	B8.305.05A/15E
309	39K carbon (GF370 only	½	10	IRC BTS

INDUCTORS

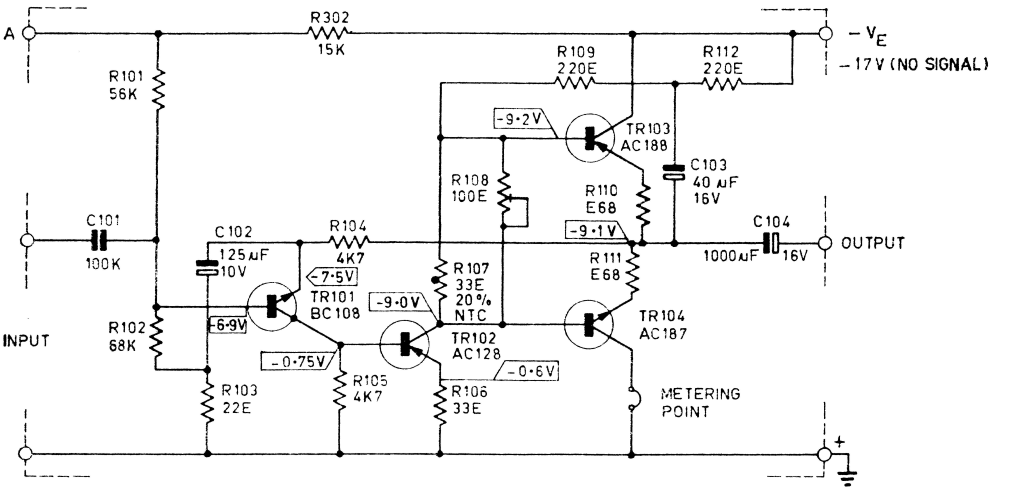
L. No.	Description	Code No.
303, 304, 305	Power Transformer	CZ.344.157
307	Speaker — Rola C5G/8	CZ.161.035

LAMP

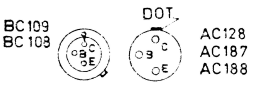
DESCRIPTION	CODE No.
La1 12V, O.I.A. tubular screw type	8003D

GF370, GF470

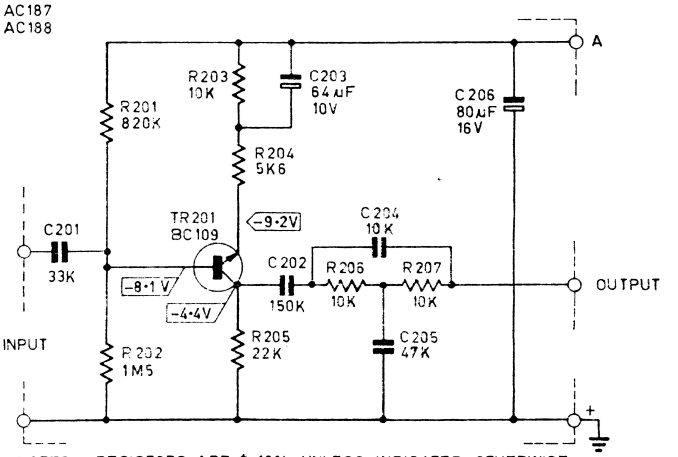
C	101	102			103, 104		C
R	101,102	103	302 104,105	108,107,106	109,110,111	112	R
TR			101	102	103,104		TR



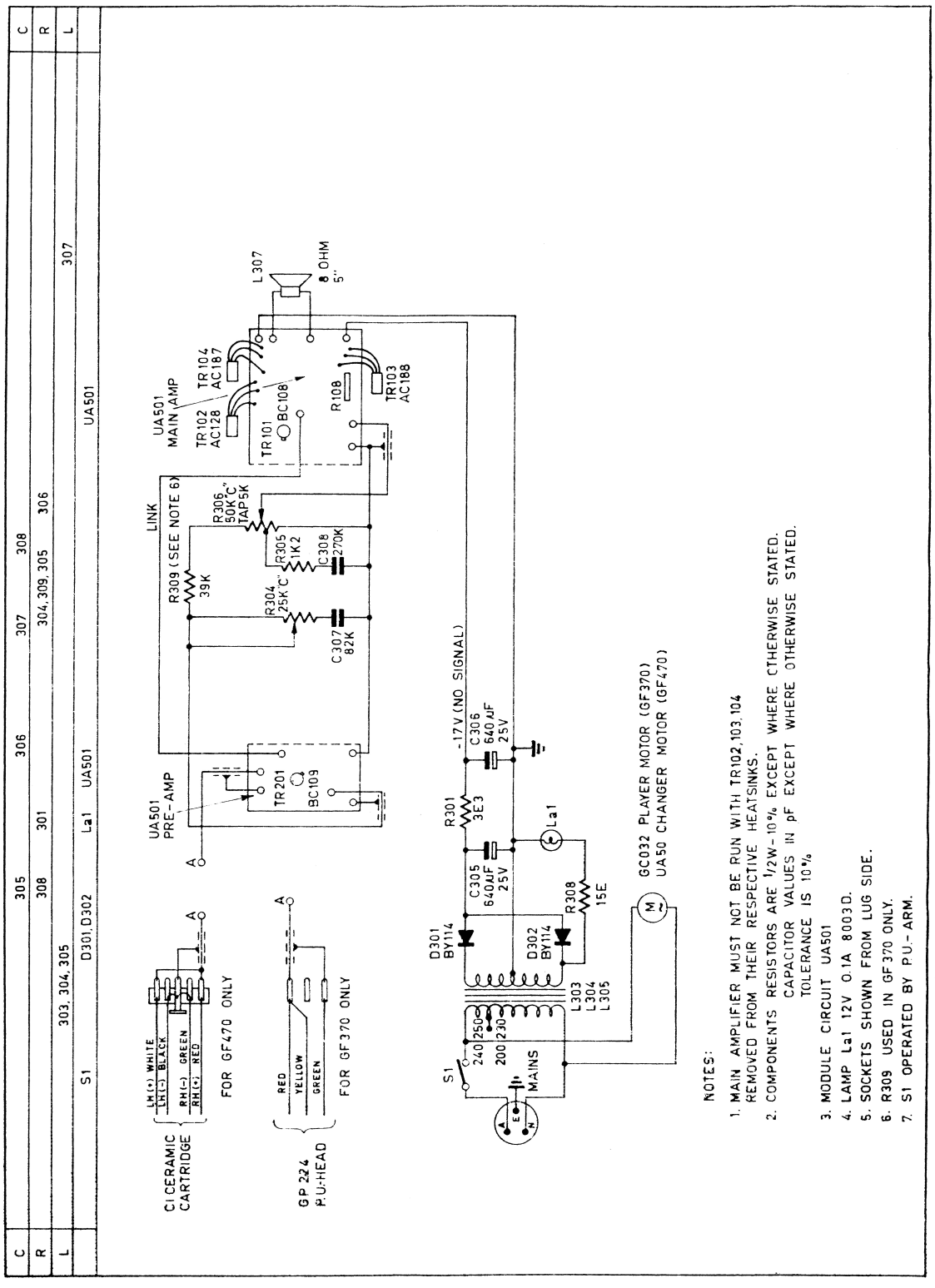
C	201	202,203, 204	205	206			C
R	201,202	204,205	206	207			R
TR	201						TR



TRANSISTOR CONNECTIONS



NOTES: RESISTORS ARE ± 10% UNLESS INDICATED OTHERWISE.
VOLTAGES ARE MEASURED WITH VTVM RELATIVE TO POSITIVE UNDER "NO SIGNAL" CONDITIONS.
QUIESCENT CURRENT TR103-TR104 SET BY MEANS OF R108 TO 7·5mA AT 17V AND 75°F.



NOTES:

1. MAIN AMPLIFIER MUST NOT BE RUN WITH TR102, 103, 104 REMOVED FROM THEIR RESPECTIVE HEATSINKS.
2. COMPONENTS RESISTORS ARE 1/2W-10% EXCEPT WHERE OTHERWISE STATED.
   CAPACITOR VALUES IN pF EXCEPT WHERE OTHERWISE STATED.
   TOLERANCE IS 10%
3. MODULE CIRCUIT UA501
4. LAMP La1 12V 0.1A 8003D.
5. SOCKETS SHOWN FROM LUG SIDE.
6. R309 USED IN GF370 ONLY.
7. S1 OPERATED BY P.U.-ARM.