

PL1
FROM
VIDEO
DISPLAY
PROCESSOR

POWERTRAN CORTEX R-G-B INTERFACE

C.C.W. 29-2-84

CORTEX R. G. B. INTERFACE - ASSEMBLY INSTRUCTIONS

1. Assemble the components on the P.C. board, using the component list to identify the components.
2. Make up the connecting leads as shown in the diagram.
3. Remove the main P.C. board from the Cortex.
Drill out the three holes A, B and C to .156" dia. (4mm).
Mount the three nylon spacers in the three holes, press firmly home.
Cut off the top peg on the spacer in position B.
Solder in position D a five way P.C. mounting plug.
Replace board in Cortex.
4. Plug the 5 pin connector on lead A on to the connector D on the Cortex P.C. board. The black wire goes to the pin nearest the keyboard.
5. Mount the RGB board on the spacers, the pegs on the spacers A and C go through the large holes in the edge of the board.
6. Plug the 4 pin connector on lead A on to connector PL1, the black wire goes to pin 4.
7. Connect red and black wires to the +12V and 0V terminals on the RGB board, twist them together, and connect them to the +12V and 0V lines on the power connector plug.
8. Feed the 5 pin flat socket on lead B through the spare DIN socket hole on the rear panel of the Cortex, fix the DIN socket to the rear panel of the Cortex, and then plug the 5 pin flat socket on to PL2, the black wire goes to pin 1.
9. Make up a lead as in diagram C using the DIN plug supplied, to connect to the LINEAR input to your monitor.
10. Test using the last program on page C6b of the Cortex Construction Manual.

CORTEX R. G. B. INTERFACE.PCB COMPONENTS.

Resistors:

All resistors are 0.125W, 5%.

22 ohms	R20, R45.
82 "	R27, R41, R52.
150 "	R7, R8.
220 "	R18, R33, R43.
330 "	R22, R36, R46.
390 "	R25, R28, R39, R42, R44, R50, R53.
470 "	R34.
560 "	R16, R17, R47.
680 "	R10, R19, R21.
1K "	R4, R9, R13, R26, R35, R40, R51.
2.2K "	R29, R30, R31, R32.
2.7K "	R23, R37, R48.
8.2K "	R2, R6, R24, R38, R49.
10K "	R5.
18K "	R12.
27K "	R14.
39K "	R11.
47K "	R3.
100K "	R15.
470K "	R1.

Capacitors:

All voltage ratings greater than 12V.

47nF Ceramic disc.	C1, C15, C17, C18, C20.
100pF " "	C2.
47pF " "	C3.
220pF " "	C4, C5.
470nF Polyester.	C6, C7.
10uF Electrolytic.	C8, C9, C10, C11, C12, C13, C14.
47uF Electrolytic.	C16, C19.

Semiconductors:

Transistor ZTX213	TR1, TR8, TR12, TR16.
" ZTX108	TR2, TR3, TR4, TR5, TR6, TR7, TR9, TR10, TR11, TR13, TR14, TR15, TR17.
Diode BAX13	D1, D2, D3.
Integrated circuit CD4011BE	ICA.
" " CD4066BE	ICB.

Inductor 47uH, 0.35A.	L1.
Connector, Male, 4 way.	PL1.
" " 5 way.	PL2.
Terminal pins, 1mm.	2 off.
Printed circuit board.	1 off.

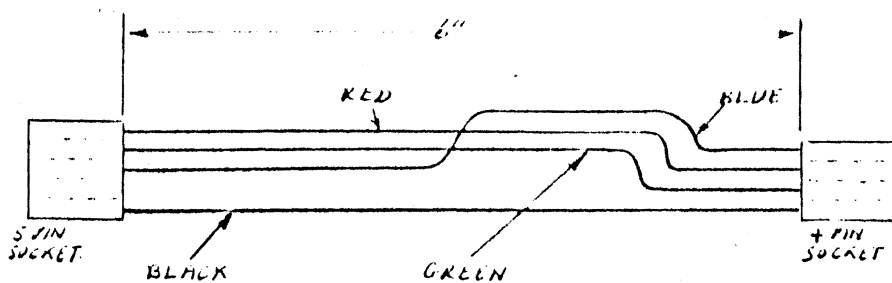
OTHER COMPONENTS.

DIN Plug, 5 pin, 240°	1 off.
DIN Socket, 5 pin, 240°	1 off.
Connector, Male, 5 way.	1 off.
Connector shell, 5 way.	2 off.
Connector shell, 4 way.	1 off.
Crimp terminal, Female.	14 off.
Board spacer.	3 off.

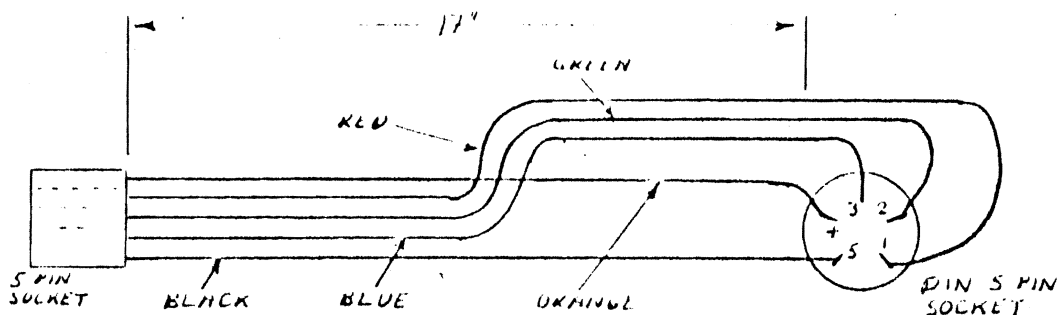
CCW
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THIRD ANGLE PROJECTION

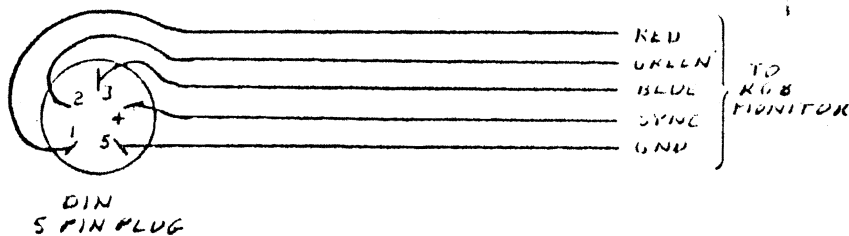
MANUFACTURE TO BE IN ACCORDANCE WITH FEEDBACK WORKSHOP / ASSEMBLY / TEST CODE OF PRACTICE



LEAD A



LEAD B



LEAD C

ISS	DATE	SIG	BN0	CH	APP
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EXCEPT WHERE STATED ALL DIMENSIONS IN mm TOLERANCES

FROM 0 TO 10 ± 0,1
 OVER 10 TO 60 ± 0,2
 OVER 60 TO 260 ± 0,3
 ANGLES ±

MATL

FEEDBACK LIMITED

TITLE POWERTRAN
 CORTEX RGB INTERFACE.

FINISH

DR

DATE

SCALE

CH

APP

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