

1 LOW VOLTAGE SUPPLIES

In early systems the fully stabilized +5 V d. c. supply was obtained from Advance power units, these were replaced by in-house units (developed at Kidsgrove) in later machines. The a. c. inputs to the low voltage power supplies and unit interconnexions for systems using Advance or Kidsgrove +5 V d. c. power units are shown in figures H1 and H2 respectively.

AC mains is applied to the system in either single phase or three phase form and may be isolated by means of the MAINS switch on the Filter/Isolator (unit 98). After the mains supply has been filtered it is applied to the AC Control Module (unit 96) where three current-sensitive strip switches S6, S7 and S8 control the supply to the individual power units.

Power unit DSC/1/1 (unit 56) generates +24 d. c. which is used in the CPU module (unit 02) and the Card Reader Hour-Meter Panel and alarm (unit 85), the line printer, card reader, modules 03 and 05. The +24 V supply is also applied to a Voltage regulator 5139110 (unit 62) and converted to +12 V to power the Communications Interface facility. In addition, unit 56 produces 160 V used to supply the three power units HFP/2 (unit 53), HFP/8 (unit 54) and HFP/8 (unit 55). The outputs, and their destinations, of units 53, 54 and 55 are shown in the table below.

Power Unit		Supplies	Destination
Unit No.	Type		
53	HFP/2	-12 V	CPU module (unit 02, keyboard (unit 77), line printer, modules 03 and 05
54	HFP/8	+19.5 V, +16 V, -5 V	Enhancement store module (unit 04).
55	HFP/8	+19.5 V, +16 V, -5 V	Basic store module (unit 01).

1.1 5 Volt Power Supply Units (Advance)

Positive 5 V for use throughout the basic system is produced from four Advance power units, PS01-4, housed in Unit 52. The positive rail of the supply is fused at 30 A and taken to a busbar BB01 where connexions are made for the appropriate module or peripheral. Two further +5 V power units are added when enhancements are fitted. PS05 is used to supply the Enhancement Store Module and PS06 used to supply the Enhancement Peripheral plane in the processor.

1.2 5 Volt Power Supply Units (Kidsgrove)

Positive 5 V for use throughout the basic system is produced from one Kidsgrove power unit, PS01, housed in Unit 52. The +5 V supply for the Basic Store and CPU Modules are distributed via 01.BB05 (+5 V) and 02.BB06 (0 V). The Printer, Card Reader, Keyboard, Hard Copy Device and FEDS obtain +5 V supply via the Wing Interface Panel.

A second Kidsgrove power unit, PS02, is added when enhancements are fitted. The +5 V supply is distributed to the Enhancement Store and Peripheral Modules via 91BB01 (+5 V) and 92BB02 (0 V).

2 MAINS SUPPLY DISTRIBUTION

In addition to the power units, certain other units require an a. c. mains supply. The distribution of mains supply to these units is shown in figure H3.



PART H - POWER SUPPLY SYSTEM

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RELATED DOCUMENTS

	Number
DC Distribution: Schematic Diagram	5134688
AC Distribution: Schematic Diagram	5134687
Power Supplies Interconnexions	5138989

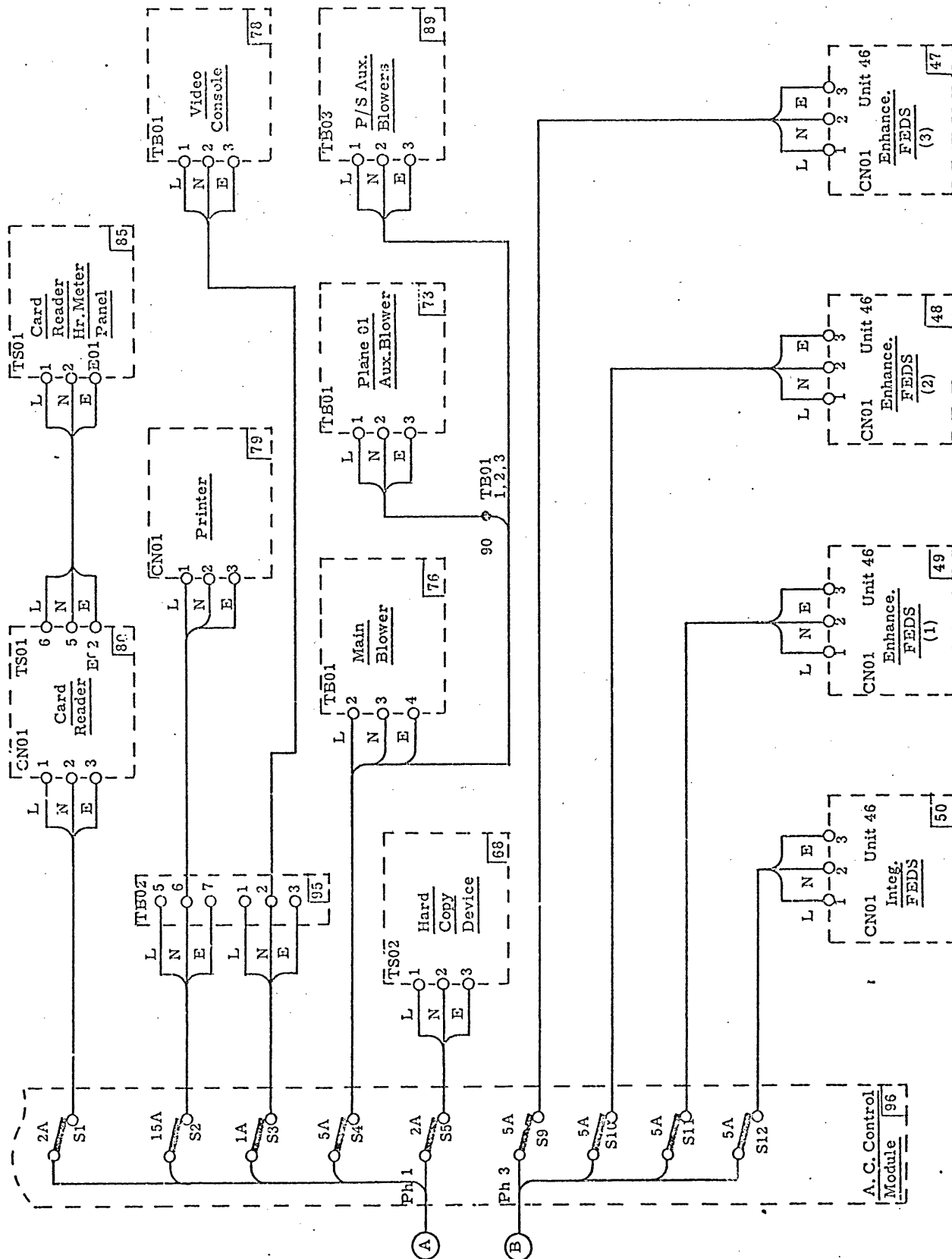
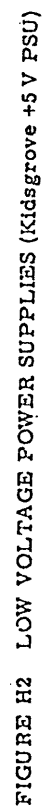


FIGURE 113 AC MAINS DISTRIBUTION TO MODULES, FEDS AND FANS



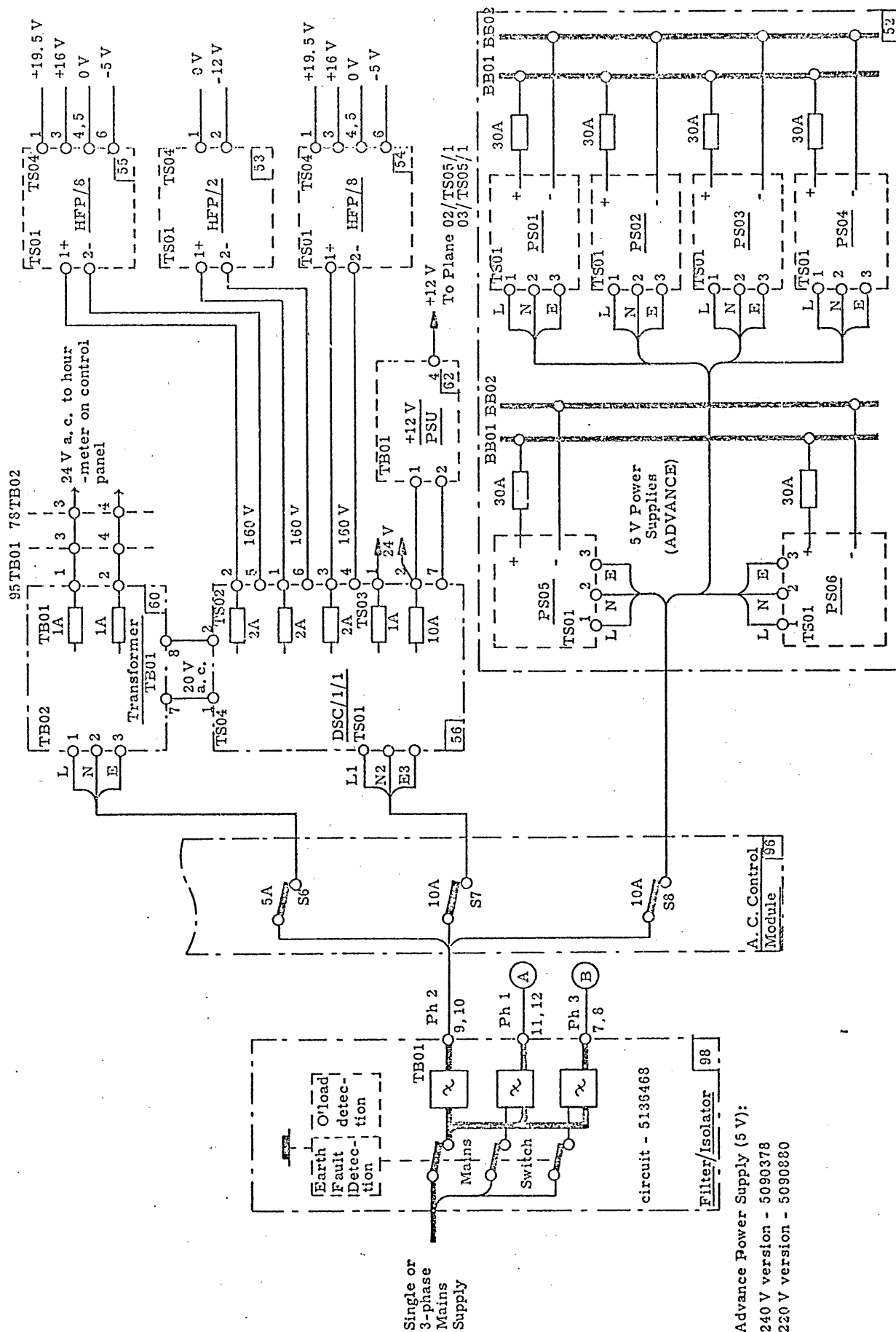


FIGURE H1 LOW VOLTAGE POWER SUPPLIES (Advance +5 V PSU)