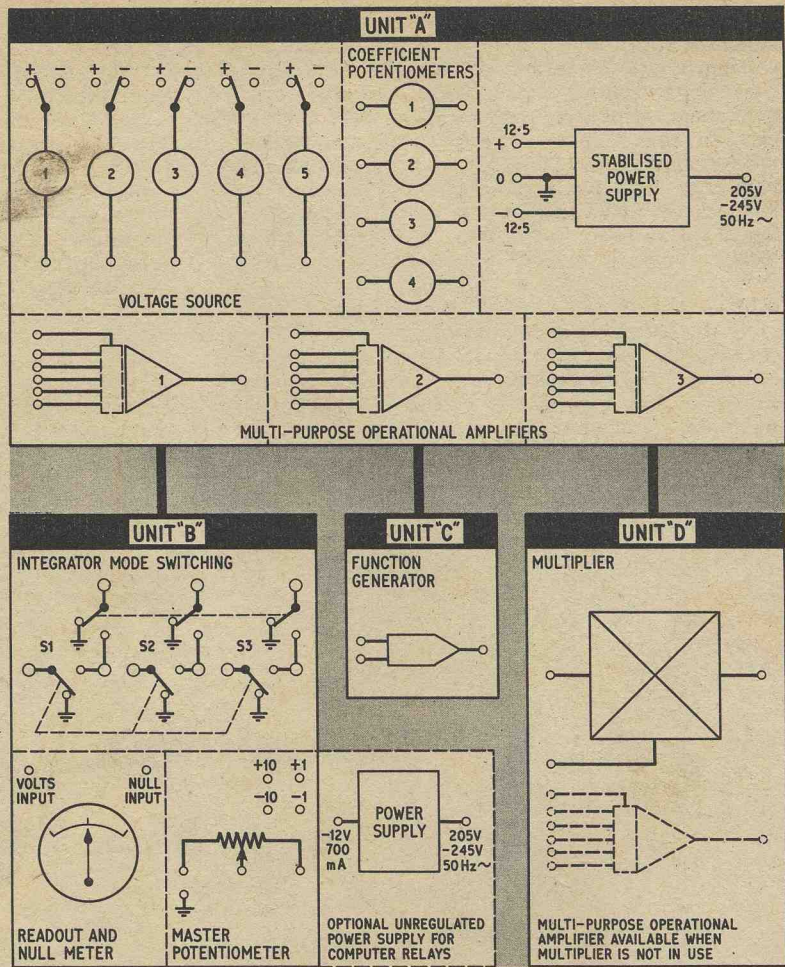
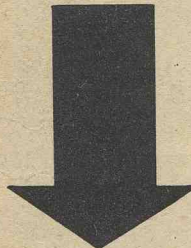


Fig. 1.1 Block diagram of

# PEAC



## SPECIFICATION



### UNIT "A"

#### POWER SUPPLY

Input 205V—245V 50Hz. Output  $\pm 12.5$ V d.c. Voltage regulation better than 1% for loads of 0—200mA, and 2% for 0—300mA. Total ripple 2mV. Complete short circuit protection.

#### AMPLIFIERS

Three multi-purpose operational amplifiers, each with five silicon transistors. Open loop voltage gain greater than 5,000. Output  $\pm 10$ V at 5mA. Current demand (average) 40mA. Equivalent input drift under normal room conditions better than  $\pm 0.5$ mV per hour. Unity gain frequency response within 1% for 0—10kHz, and 5% for 0—25kHz. Typical noise and hum at output 3mV.

#### VOLTAGE SOURCE

Five independent outputs, each continuously variable in three steps giving  $\pm 0-1$ V,  $\pm 0-1$ V, and  $\pm 0-10$ V. Dial setting accuracy better than 3% of full scale between dial divisions 1—10. Total current demand 50mA.

#### COEFFICIENT POTENTIOMETERS

Four 10 kilohm 270° potentiometers. Dial setting accuracy better than 5% of full scale between dial divisions 1—10.

#### SUMMING NETWORKS

Three five-input summing networks provided with voltage check sockets, and plug-in computing components.

### UNIT "B"

#### MASTER POTENTIOMETER

25 kilohm 300° wirewound; 25 watt. Two voltage measuring ranges  $\pm 0-1$ V and  $\pm 0-10$ V. Scale length 14in. Accuracy better than  $\pm 0.5\%$  of full scale.

#### READOUT METER

Centre zero 100—0—100 $\mu$ A, calibrated 0—0.3V, 0—1V, 0—3V, and 0—10V. Accuracy better than  $\pm 2\%$  of full scale.

#### INTEGRATOR SWITCHES

Provision for three or more integrating amplifiers. Compute times ranging from 10ms—1s. Single shot, or repetitive mode with "hold" facility. Current demand around 65mA.

### UNIT "C"

#### FUNCTION GENERATOR

Diode function generator for parabolic and other functions. Typical accuracy 2%. Frequency response to several kHz.

### UNIT "D"

#### MULTIPLIER

Four quadrant multiplication of two or more variable voltage inputs. Also incorporates an operational amplifier which may be used on its own to supplement the amplifiers of UNIT "A". Frequency response generally better than 0—50Hz. Approximate current demand around 75mA.