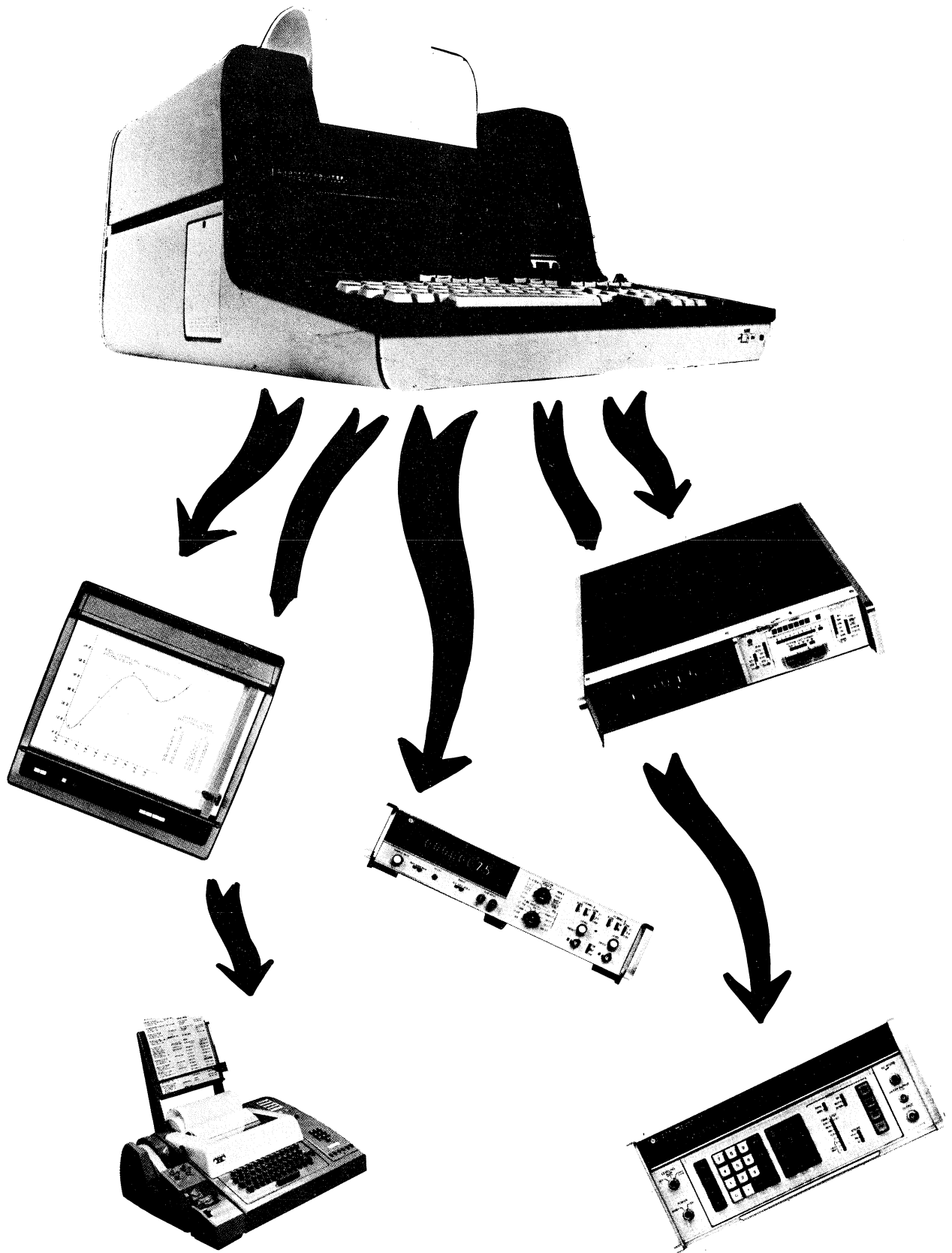




INTERFACING



EVERYONE NEEDS REGULATION

INTERFACE

* WHAT IS AN INTERFACE?

- A "BLACK BOX" TO CONNECT TWO INSTRUMENTS TOGETHER SO THAT THEY CAN COMMUNICATE.

* IT CONSISTS OF :

- 1. HARDWARE CONNECTION.
- 2. SOFTWARE DRIVER.

* SOFTWARE DRIVERS:

9810 — 11264A AND 11252A

9820 — 11220A —" — 11224A

9821 — 11220A —" — 11224A

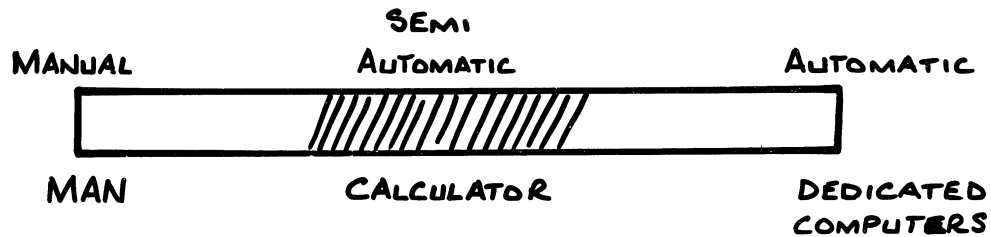
9830 — 11272A

★ 11202A GENERAL INPUT/OUTPUT ★

★ 11203A BCD INPUT ★

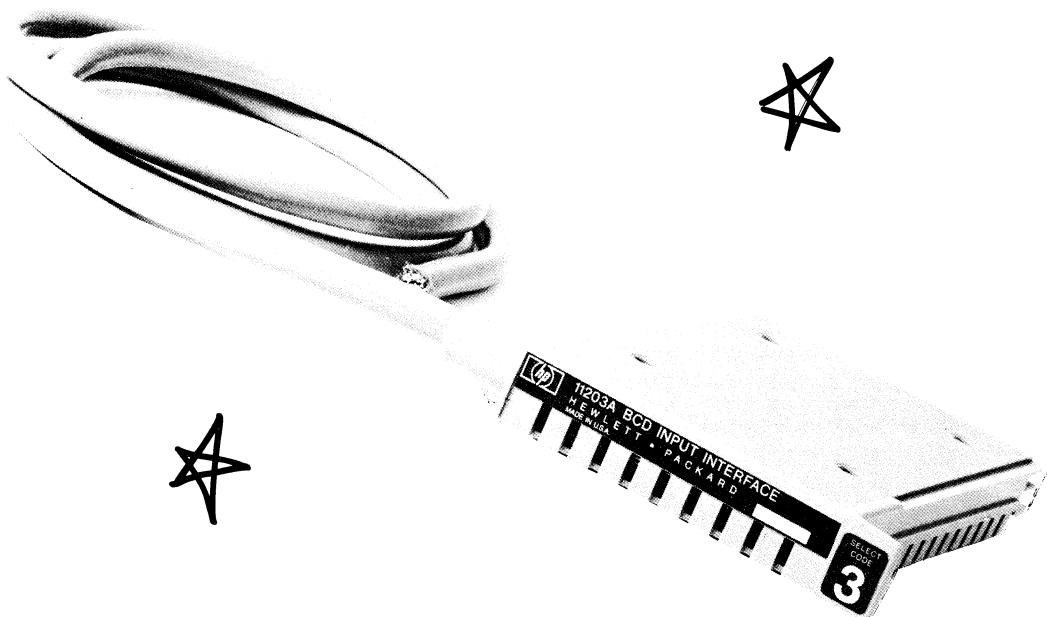
★ INTERFACE ★

AREA OF USAGE



* WHAT ARE THE LIMITATIONS?

- QUANTITY OF DATA.
- SPEED OF TRANSMISSION.
- SPEED OF DECISION TAKING.



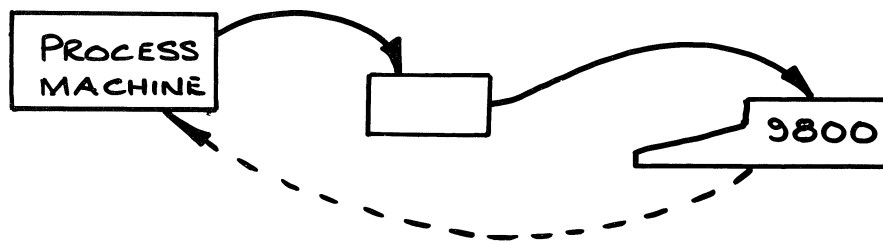
OFF LINE
SYSTEMS



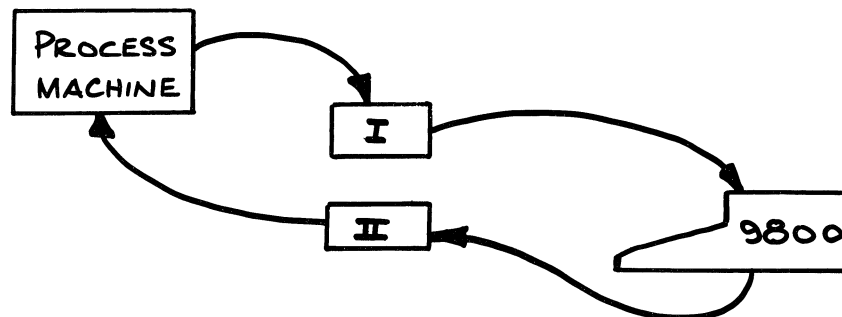
- PAPER TAPE
- PUNCHED CARDS
- DISPLAY
- HARDCOPY (PRINTER, TTY)

ON LINE SYSTEMS

* OPEN LOOP.

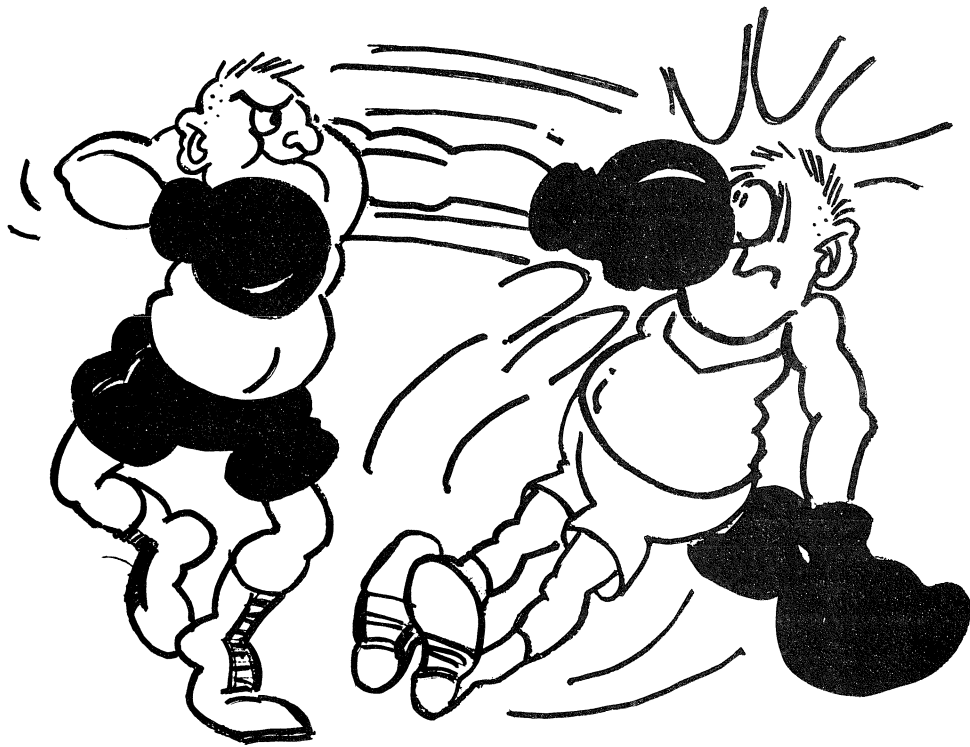


* CLOSED LOOP

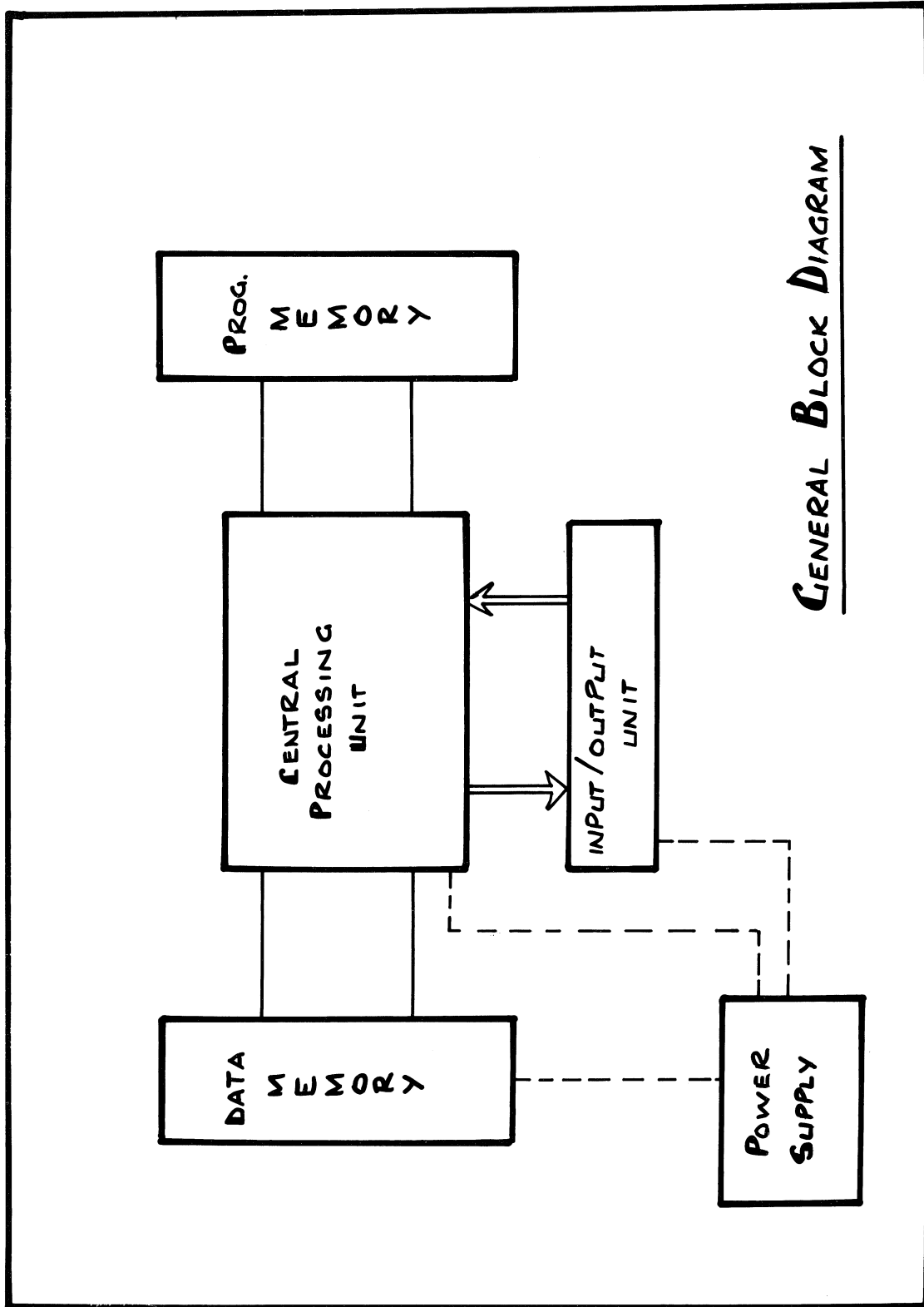


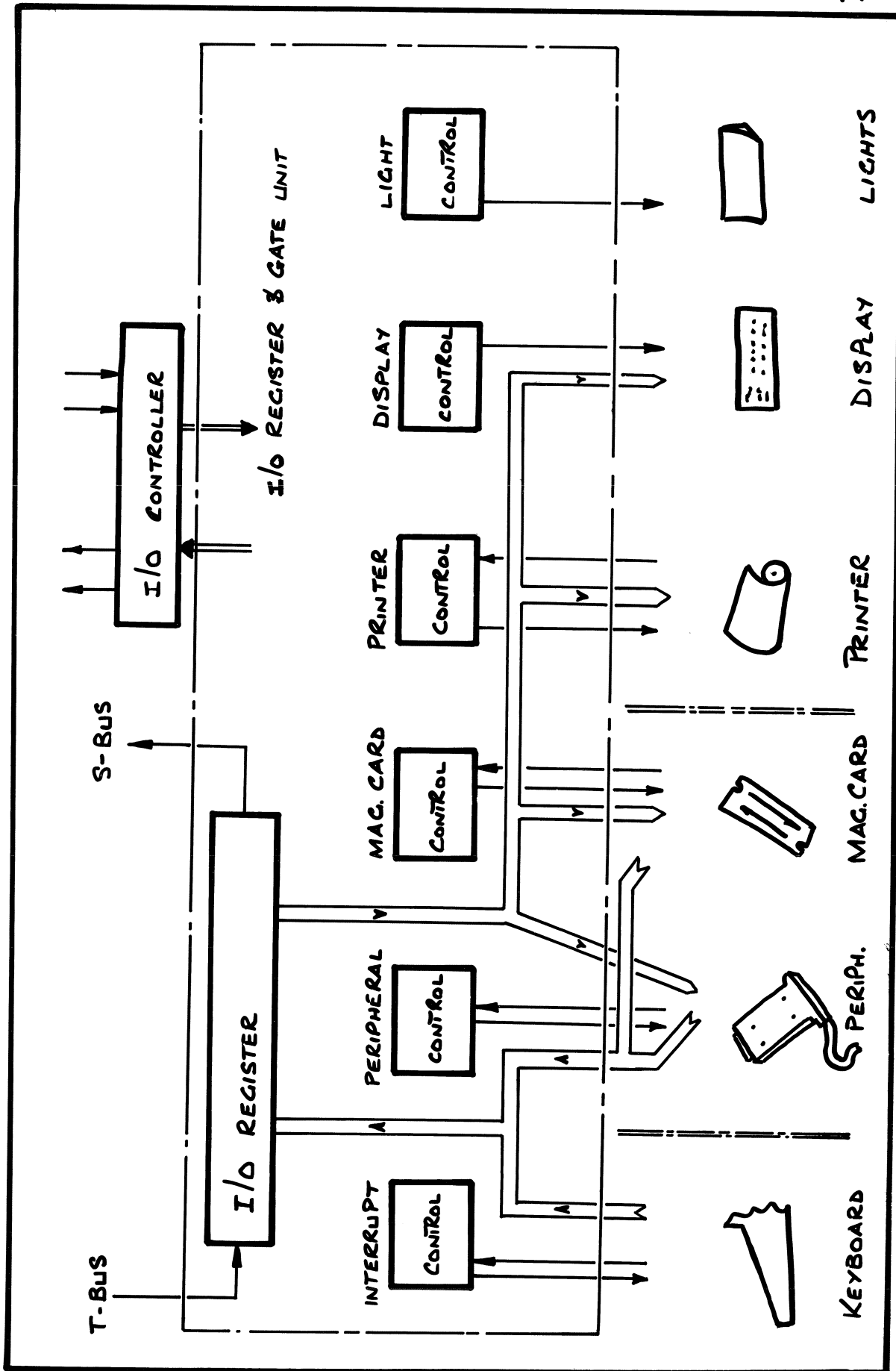
I : TO READ IN DATA

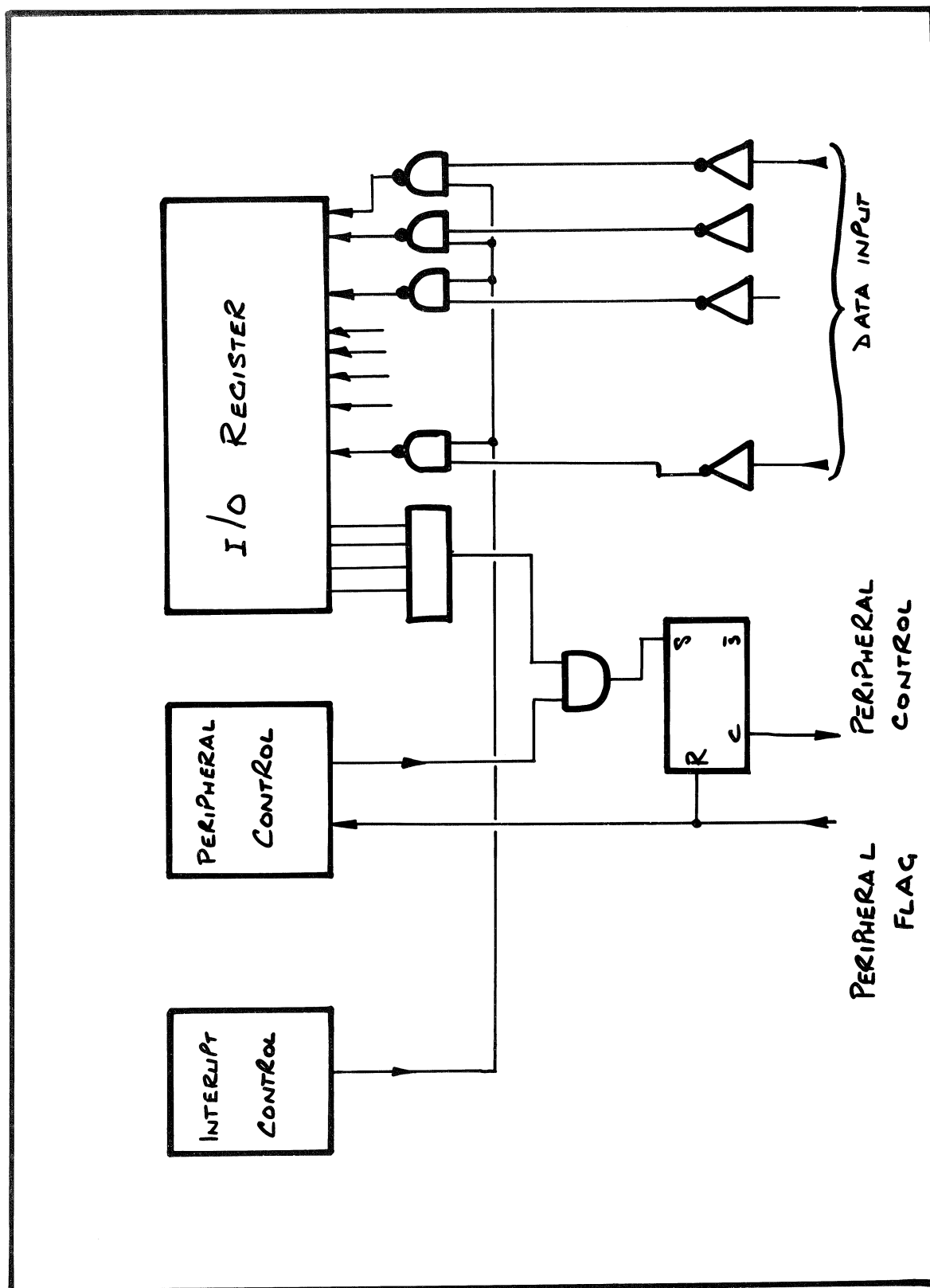
II : TO CONTROL PROCESS.



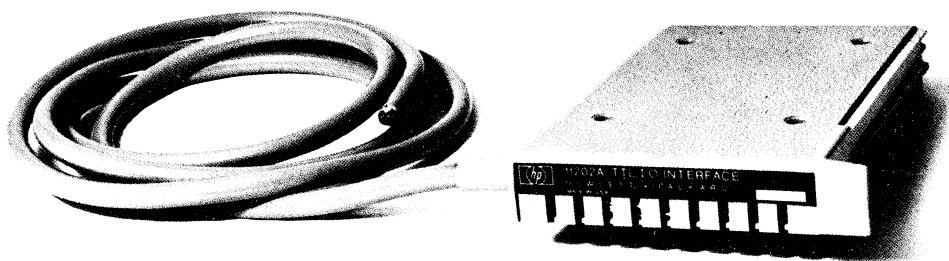
HANDSHAKE ? ! ? ?







11202A GENERAL INPUT/OUTPUT INTERFACE

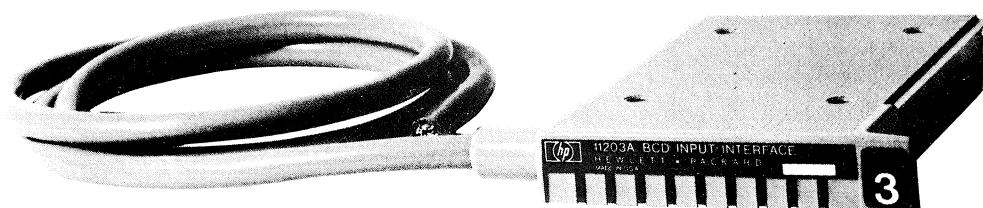


* GENERAL 8 BIT INTERFACE

- INPUT AND OUTPUT (ONE AT A TIME)
- CHARACTER SERIAL / BIT PARALLEL
- TTL 5VOLT LEVEL
- NEGATIVE TRUE
- SELECT CODE 1 TO 9
- CONTROL LINE : OUT
- FLAG LINE : IN.

NOTE! IF A CONNECTOR IS REQUIRED
THEN THE CORRECT OPTION
SHOULD BE ORDERED!

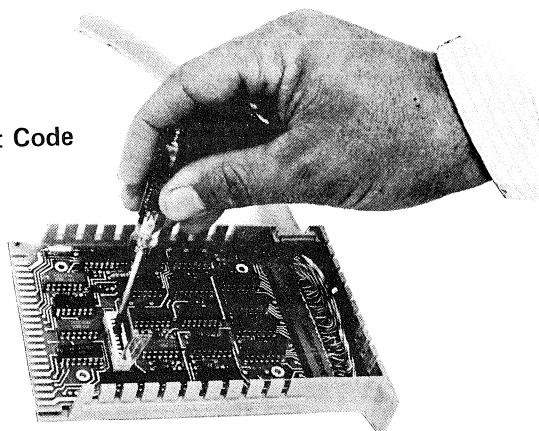
11203A BCD INPUT INTERFACE



* BINARY CODED DECIMAL INPUT 8421

- INPUT ONLY
- 9 DIGITS PARALLEL
- TTL 5 VOLTS LEVEL
- POSITIVE OR NEGATIVE TRUE
- SELECT CODE 1 TO 9
- CONTROL LINE : OUT
- FLAG LINE : IN

Setting the Select Code



11205A SERIAL ASCII INTERFACE

* ASCII CODE

- ASCII - AMERICAN STANDARD CODE FOR INFORMATION INTERCHANGE
- INPUT AND OUTPUT (ONE AT A TIME)
- CHARACTER SERIE / BIT SERIE
- TO EIA STANDARDS RS232C
EIA - ELECTRONIC INDUSTRIES ASSOCIATION.
- SPEED 110 - 1200 BAUD SELECTABLE
- SELECT CODE 1 TO 8 AND 15
- CONTROL LINE : CLEAR TO SEND
- FLAG LINE (OPTIONAL)

11206A MODEM

INTERFACE

* DATACOMMUNICATION

- ASCII CODE
- INPUT AND OUTPUT (ONE AT A TIME)
- CHARACTER SERIE / BIT SERIE
- E.I.A. STANDARDS RS 232C
- SPEED 3 TO 440 BAUD

NOTE! CALCULATOR OPERATES IN
HALF DUPLEX MODE.
NO "ECHO BACK"

