

P8000

PRODUCTION EPROM PROGRAMMER



DEVICES SUPPORTED

27128

25128

MK2764

2564

2764

68764

68766

68732.1

68732.0

2732A

2732

2532

48016

2716

2516

2758B

2758A

2508

2716(3)

2708

2704

P8000 PRODUCTION PROGRAMMER

The model P8000 Production Programmer is designed to provide practical, convenient and reliable gang programming of EPROMs. The P8000 programs up to 8 devices simultaneously in theoretical minimum programming times, coping with devices sizes up to 16k x 8 bytes.

For successful volume programming, reliability is the key to success. Reliability and operator confidence are assured by the automatic power up test, constant power supply monitoring, reversed and misplaced insertion tests performed during all operating modes. The programmer tests EPROMs for proper insertion, opens or shorts in data and address lines and supply line faults. Checks on the socket for misplaced/reversed insertion of devices are made. ZIF supply lines are checked for proper voltage levels. The menu driven display and six key operation means the P8000 is easy to use. The eight character alphanumeric display gives information on the selected mode and EPROM type and details of any faults or operator errors. Each zero insertion force socket has an LED indicator to give pass/fail information on completion of a mode cycle.

The P8000 will program all 24 and 28 pin EPROMs up to 128k byte designs. It also includes an RS232C input and RAM buffer for downloading data from a development system or microcomputer.

FEATURES

- Programmes all EPROMs up to 16k x 8 bytes
- No personality cards required
- One to eight EPROMs programmed simultaneously
- Simple menu driven operation
- Reverse and misplaced insertion checks
- Constant power supply and system checks
- Checksum, illegal bit test and self test cycles
- Interactive display for user information
- Includes RS232C serial interface as standard
- Single key programming operation

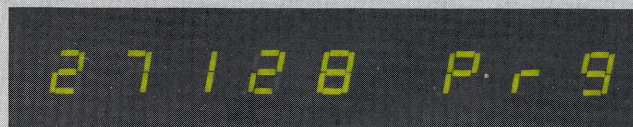
MENU SELECTION



After keying MODE, keying $\uparrow$ or $\downarrow$ will step through the MODE menu, shown in the LED display.

The device type is selected in a similar way, after keying TYPE.

GO starts the selected cycle. STOP halts the cycle, and powers down the master and copy sockets.



DEVICE TYPE

MODE

8 segment green LED with antiglare filter shows selected device type, mode, and error messages.

OPERATING MODES

DISPLAY WINDOW



FUNCTION

OPERATION

BLANK CHECK — All addresses are read, one device at a time, and the data at each address is confirmed to be hex FF. At the end of the cycle non-blank EPROMs are indicated by a flashing ZIF LED.

ILLEGAL BIT CHECK — Reads through all devices comparing data with the master socket EPROM, checking that identical copies of the master can be made. If this is not possible, 'non-programmable' EPROMs are indicated by a flashing ZIF LED.

CHECK SUM — Calculates the checksum of the master EPROM then compares each copy socket with the master. TYPE display contains the two byte checksum.

TEST — The machine tests the 2k RAM buffer, power supply, monitor program, ZIF socket buses and drivers.

SERIAL IN (INTEL) — Programs the copy EPROMs with data received from the RS232C port. Data received is in INTEL hexadecimal format (also MOSTEK compatible).

SERIAL IN (MOTOROLA) — Programs the copy EPROMs with data received from the RS232C port. Data received is in MOTOROLA 'S' format.

ERASE — Erases the HITACHI 48016 EEPROM.

PROGRAM — The machine performs an illegal bit check (checking for programmability), programs the devices, skipping unused bytes to reduce programming time, then compares each device with the master EPROM.

COMPARE — Compares the master EPROM data with each copy socket. Error devices are indicated by a flashing ZIF LED.

READY — Machine has just been powered up, and has completed an automatic self test successfully. The test checks out the power supply, monitor program, ZIF socket buses and drivers.

BUSY — Machine is actioning a mode cycle — indicates ZIF sockets are powered up — any other message indicates ZIF sockets are powered down.

DONE — Indicates completion of selected mode cycle.

FAIL — Means mode could not be completed due to a copy EPROM failure to pass a pre-check.

FAULT — Indicates a fault has occurred during a mode cycle. The nature of the fault is shown by a fault code in the mode display.

SPECIFICATIONS

PROGRAMMABLE DEVICES

27128, 25128, MK2764, 2564, 2764, 68764, 68766, 68732-1, 68732-0, 2732A, 2732, 2532, 48016, 2716, 2516, 2758B, 2758A, 2508, 2716(3), 2708, 2704.

OPERATING MODES

BLANK CHECK, ILLEGAL BIT CHECK, CHECKSUM, TEST, SERIAL IN (INTEL), SERIAL IN (MOTOROLA), ERASE, PROGRAM, COMPARE.

KEYS & INDICATORS

STOP, GO, $\triangleleft$, $\triangleright$, MODE, TYPE

8 digit alphanumeric display shows selected mode, device type, error messages.

Individual socket LEDs illuminate to locate faulty EPROMs or sockets.

Sounder signals beginning/end of mode cycles.

SERIAL DATA INTERFACE

Electrical : RS232C

Data Format : INTEL ASCII HEX & MOTOROLA 'S' as standard

Rate : 1200 baud.

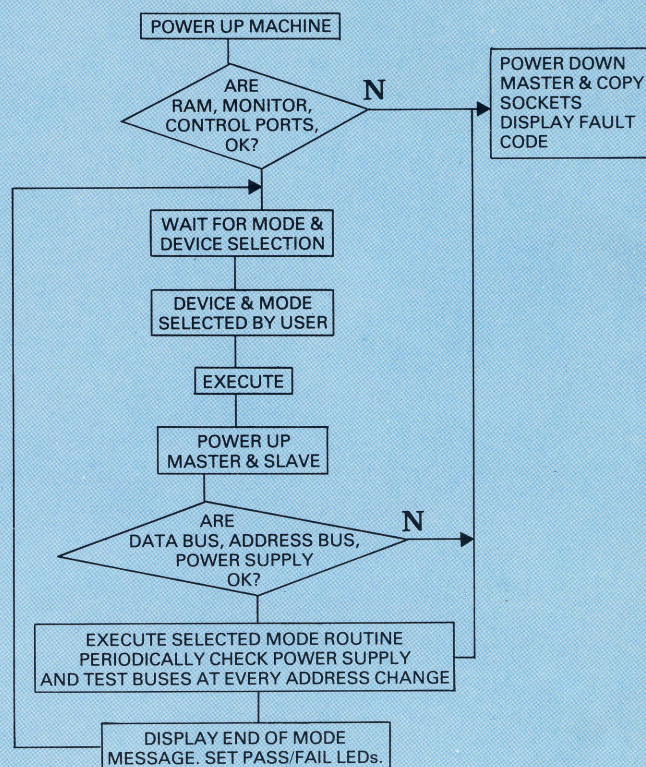
PROGRAMMING METHOD

Programs up to 8 devices simultaneously in theoretical minimum times, from either MASTER SOCKET or SERIAL PORT. Programs according to illegal bit check, program, verify. High speed programming algorithm skips unused bytes (set to FF) to reduce programming time. Devices are programmed according to manufacturers specification.

TESTS

- 1) Automatic self-test on power up — Checks power supply, monitor program, ZIF socket buses and drivers.
- 2) TEST MODE initiates test as automatic self test, as well as testing 2k RAM buffer.
- 3) Sockets and power supply tests are performed during all mode cycles.

MODE & CHECK SEQUENCE

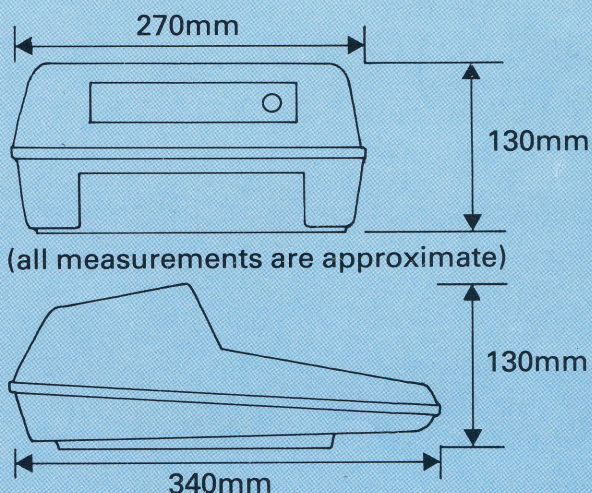


POWER

240V a.c. 50/60 HZ. 110V a.c. option available.

WEIGHT 3kgs

DIMENSIONS



Specification subject to change without notice

