



*Programming Systems*

# **EPP-4 Memory Programmer**

## **Stand-Alone Mode User Manual**



## **Dear User**

Thank you for buying the ART EPP-4 Memory Programmer. This product is designed to program FLASH programmable devices.

## **Standard accessories**

1. EPP-4 main unit x1
2. DC 9V 500 mA power adaptor x1
3. USB A-B Cable x1
4. EPP-4 software, drivers and manual on CD-ROM x1

## **Supported Devices**

EPROM	27C64-27C080, 27SF256-27SF020, 27E256-27E040
EEPROM	28C256, 28C010, 28C040
FLASH EPROM	28F256-28F020, 29C256-29C040, 29EE512-29EE040 29F010-29F040, 29F001-29F004, 39SF512-39SF040 49F512-49F040, 49F001-49F002

## **Getting Started**

When you start to use the EPP-4, take the following steps:

1. Stand-alone Mode:
  - Plug in DC 9V/500mA adapter or put two 9V (PP3) batteries into the battery compartment in the bottom of the unit.
2. PC Mode:
  - a. Make sure both PC and main unit are switched off.
  - b. Connect the USB cable to the PC's USB port and the EPP-4 main unit.
  - c. Plug in DC 9V/500mA adapter or put two 9V (PP3) batteries into the battery compartment in the bottom of the unit.

**NOTE:** Do not use batteries or adapters with other plug types, polarity or voltage; your equipment may be damaged.

3. Remove any device from the ZIF socket, if present.
4. Turn on the PC. Then turn on the EPP-4 (the power switch is located at the back).
5. To stop working with the EPP-4, turn off the EPP-4 first then the PC power. Remove any device from the ZIF socket.

## Stand-Alone Mode Operation

2 textools-MASTER & SLAVE and 5 function keys.

### ◆ TEXTOOL

MASTER : Source device socket (Left)

SLAVE : Target device socket (Right)

### ◆ Function keys

[FUNC.] : Function Menu Select:

Menu 1: Select Vendor

Menu 2: Programming Procedure

Menu 3: Select Algorithm

Menu 4: Select Voltage

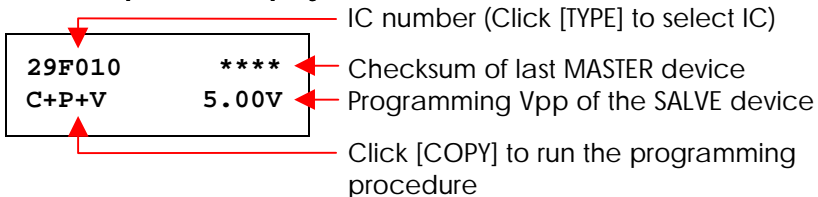
[TYPE] : Select device type from 2764 to 49F002

[BLANK] : Check if the device on SLAVE socket is blank.

[VER/SUM] : Get the sum of the MASTER device. / Verify the data of the SLAVE with the MASTER.

[COPY] : Copy data from the MASTER to the SLAVE.

### ◆ Main Operation Display



Function Keys action:

[FUNC.] : Select device Vendor Menu

[TYPE] : Select device number

[BLANK] : Blank Check with SLAVE device

[VER./SUM] : Get the checksum of the MASTER and verify with the SLAVE

[COPY] : Program with present settings

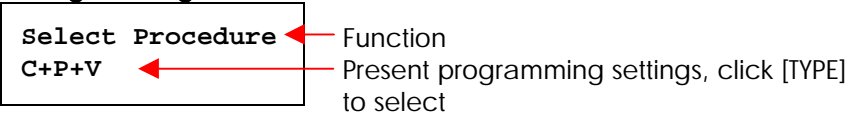
## ◆ Select device Vendor



Function Keys action:

- [FUNC.] : Select device Vendor Menu
- [TYPE] : Select device Vendor
- [BLANK] : No action
- [VER./SUM] : Confirm vendor, back to Main Operation Display
- [COPY] : No action

## ◆ Programming Procedure



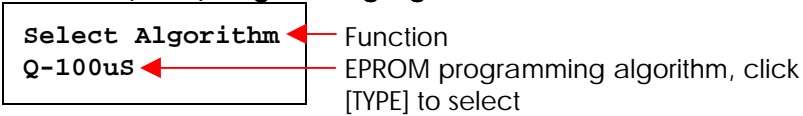
Function Keys action:

- [FUNC.] : Select Programming Procedure Menu
- [TYPE] : Select programming procedure, default: C + P + V
- [BLANK] : No action
- [VER./SUM] : Confirm programming procedure, back to Main Operation Display
- [COPY] : No action

Programming procedures:

- E + C : Erase + Blank Check
- E + C + P + V : Erase + Blank Check + Program + Verify
- E + C + P + V + T : Erase + Blank Check + Program + Verify + Protect
- P + V + T : Program + Verify + Protect
- P + V : Program + Verify
- C + P + V : Blank Check + Program + Verify (default)

## ◆ EPROM (27xxx) Programming Algorithm



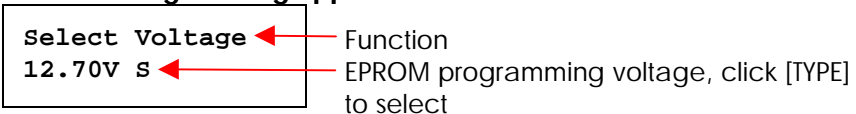
Function Keys action:

- [FUNC.] : Programming Algorithm Menu
- [TYPE] : Select EPROM programming algorithm
- [BLANK] : No action
- [VER./SUM] : Confirm EPROM programming algorithm, back to Main Operation Display
- [COPY] : No action

EPROM programming algorithms

- Q-100us : Quick Mode Pulse 100uS. (default)
- Q-50uS : Quick Mode Pulse 50uS.
- N-100uS : Snap Mode Pulse 100uS.
- I-500uS : Intelligent Mode Pulse 500uS.
- I-1mS : Intelligent Mode Pulse 1mS.

## ◆ EPROM Programming Vpp



Function Keys action:

- [FUNC.] : Select EPROM Programming Vpp Menu
- [TYPE] : Select EPROM programming Vpp (default: 12.70V)
- [BLANK] : No action
- [VER./SUM] : Confirm EPROM programming Vpp, Main Operation Display
- [COPY] : No action



EPROM programming Vpp

12.00V : VPP=12.0V

12.50V : VPP=12.5V

12.70V : VPP=12.7V (default)

13.00V : VPP=13.0V

### ***How to copy an IC?***

1. Select device vendor
2. Select IC parameters
3. Select programming options
4. Press [COPY] to copy the IC in the Master socket to the IC in the Slave socket

### ***PC mode operation***

Refer to different user manual on the CD-ROM.

### ***How To Get More Information***

The WebSite (<http://www.artbv.nl>) contains a wide variety of information, links, software and tools that are useful to every user. Also you will find information on the complete product line of Programming Systems.

If you have questions or problems, you can always e-mail Programming Systems at: [support@artbv.nl](mailto:support@artbv.nl)

We hope you enjoy working with the ART EPP-4 Memory Programmer.

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