Blue Point Engineering

Instruction I

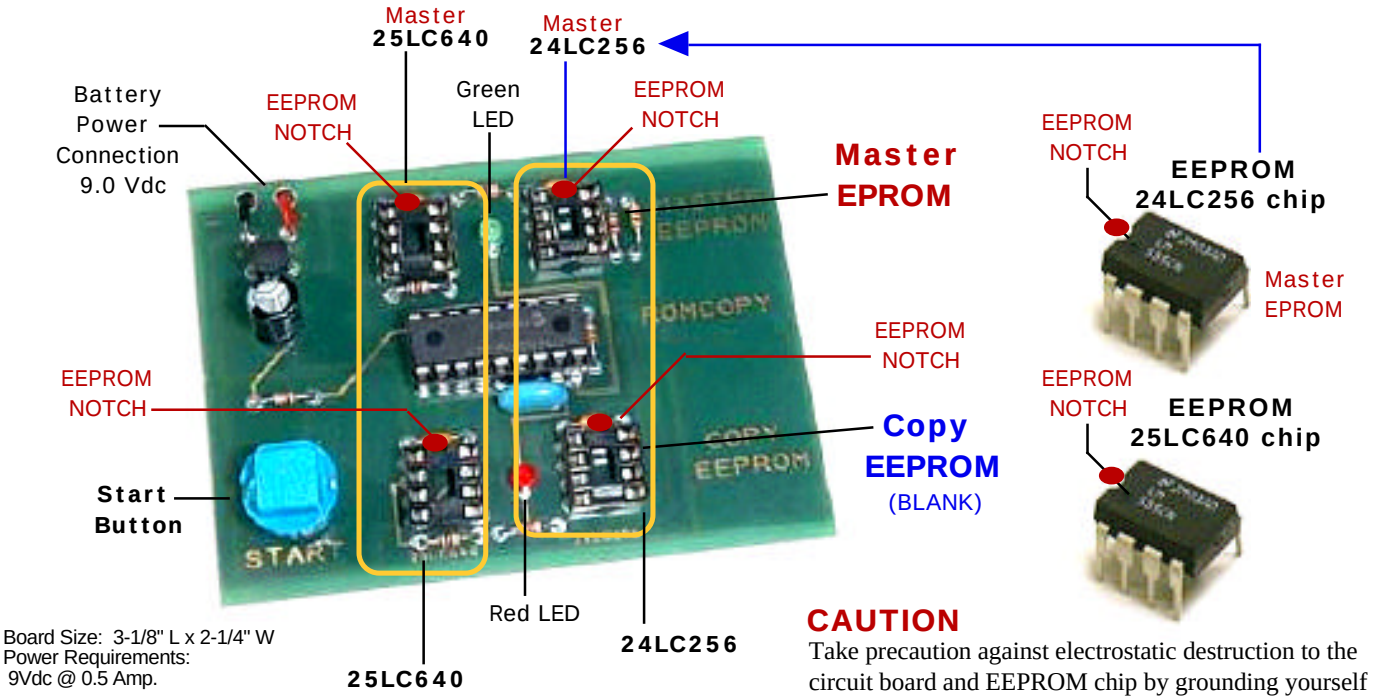
www.BPEsolutions.com

Pointing the Way to Solutions!

EEPROM COPY BOARD

(EPC-0100)

Controller



Board Size: 3-1/8" L x 2-1/4" W
Power Requirements:
9Vdc @ 0.5 Amp.

CAUTION

Take precaution against electrostatic destruction to the circuit board and EEPROM chip by grounding yourself before handling them. (touch a metal object first)

The **EEPROM Rom Copy** board provides a quick and convenient means of duplicating the serial EEPROM's used in the Puppeteer, Animate and other control boards.
Rom Copy supports two types of serial EEPROM's - the Microchip 25LC640 and the 24LC256.

- Microchip **25LC640** (used in the Puppeteer, Wizard and other boards).
- Microchip **24LC256** (used in the Wizard - I, II, III and other boards).

Note: Rom Copy only allows duplication between similar types of EEPROM's.

Operation

- Connect a standard 9V battery to the on board provided snap connector.
- Insert the **MASTER EPROM** in one of the two upper sockets - **NOTE:** The notch in the chip should be towards the top edge of the pcb. The **Left-hand side sockets** should be used for the 25LC640 chips and the **Right-side sockets** for the 24LC256 chips.
- Insert the Blank EEPROM chip into the correct lower sockets.
- **Press the Start Button.**
  The Red and Green LED's will alternately flash to indicate duplicating is in progress. Duplicating will take approximately 15 seconds for the 25LC640 chips and 40 seconds for the 24LC256 chips. At the end of the process, both LED's will turn **ON** for approximately 3 seconds then both turn **OFF**.
- It is now safe to remove the copied EEPROM when the LED's are OFF. (Use Cation Handling EEPROM)
- Repeat for further EEPROM's as needed.

(See EEPROM Handling Guide)

EEPROM Handling Guide

EEPROM
24LC256 chip

EEPROM
25LC640 chip

EEPROM
ISD 2560P

EEPROM

(**E**lectrical **E**rasable **P**rogrammable **R**ead **O**nly **M**emory) - An IC chip which can be re-programmed. Program instructions within the EEPROM are retained even after the controller board has been turned off.

Introduction

These instructions explain how to handle and change the EEPROM chip safely.
You must remove and install the EEPROM chip properly, otherwise the controller board and the EEPROM chip may be damaged permanently by **electrostatic destruction or physical damage to IC pins**

Preparation

You will need a small flat head screwdriver to pry up the EEPROM chip from its circuit board socket.
Take precaution against electrostatic destruction to the circuit board and EEPROM chip by grounding yourself before handling them. (touch a metal object first)

Before Installing or Removing the EEPROM

Be sure to turn off the power to the controller board, disconnect the power from the controller. Static electricity can damage the EEPROM. To avoid this, touch a metal object before handling the EEPROM. Do not remove the new EEPROM from the storage foam until you're ready to install it.

Removing the EEPROM

Locate the EEPROM on the circuit board. Note the orientation of the current EEPROM in the socket on the circuit board. (Notch on the end of the EEPROM).
The replacement EEPROM must be installed with the same orientation as the original chip, or the circuit board and EEPROM can be damaged permanently.
Observe which end of the EEPROM chip has the notch on it. You will need to know the orientation of the EEPROM chip to match it up with the new EEPROM chip being installed.

Carefully insert the tip of a small flat head screwdriver in the spacing between the EEPROM and the socket holding the EEPROM. Avoid making any contact with the other components found on the board.
Make sure that you do not insert the screwdriver between the EEPROM socket and the PC board; this could result in the socket and the chip being lifted off the circuit board causing serious damage to the circuit board.

GENTLY twist the screwdriver to lift the EEPROM row of pins a fraction of an inch, then continue to pry the chip upward gently as you insert the screwdriver down the chip socket, keeping the EEPROM level as it is raised from the socket

Avoid damaging the EPROM so that it can be used again.
Place the EEPROM on the anti-static foam block for storage.
Each time you remove an EEPROM, insert its replacement before removing the next one.

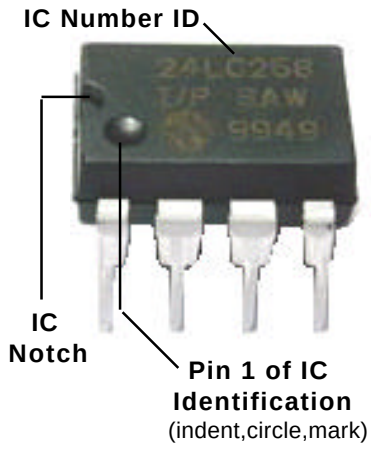
EEPROM Handling Guide

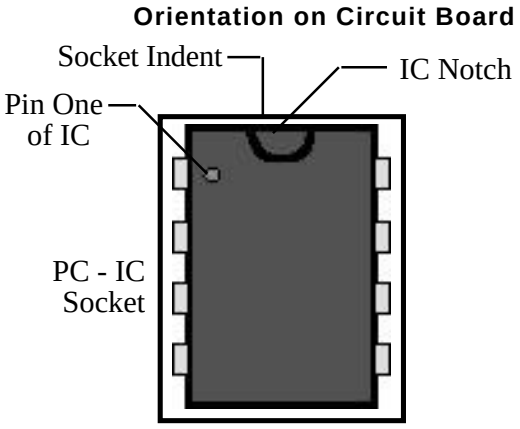
Installing the EEPROM

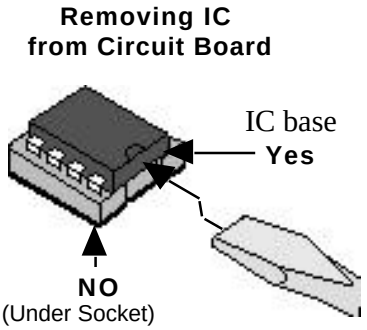
Make sure the new EEPROM you insert has the same name and sequence number as the EEPROM you are replacing. Before installing an EEPROM chip, verify that its pins match up with the holes in the chip socket. If the pins do not match properly, align the EEPROM chip pins by laying the chip on its side on a table and gently pressing the top edge of the EEPROM inward (not the pins) as shown in the illustration. Repeat for the second row of pins on the EEPROM.

Align the EEPROM chip with the empty chip socket. Be sure to check the orientation of the EEPROM chip to the socket as you observed earlier. (Both the chip and the socket have a small notch on one end, align the EEPROM chip so that its notch matches up with the notch on the socket). Press down lightly on IC, but do not push IC down fully.

Carefully examine the EEPROM chips pins. Look for any pins that are bent under or out of the socket. If you find bent pins, carefully remove the chip, gently, then straighten them, and re-install the EEPROM chip. Make sure the EEPROM pins are all aligned correctly, then press firmly and evenly on the chip to seat the EEPROM pins into the socket on the circuit board.







EEPROM - 24LC256 chip

The 24LC256 is a 32K x 8 (256K-bit) EEPROM . Serial Electrically Erasable Programmable Read Only Memory device . The 24LC256 chip features a page-write capability of up to 64 bytes of data and is capable of both random and sequential reads up to the 256K boundary.

EEPROM - 25LC640 chip

The 25LC640 is a general purpose 8k x 8 (64K-bit) Serial EEPROM device .

Pin Alignment, Orientation

If the pins do not match properly to the socket on the board, align the EEPROM chip pins by laying the chip on its side on a table and gently pressing the top edge of the EEPROM inward. Repeat for the second row of pins on the EEPROMs other side.