

Adapter DIP-24_A1

EzoFlash+ adapter for 8 bit EPROM in DIP-24W package.

1. Part list.

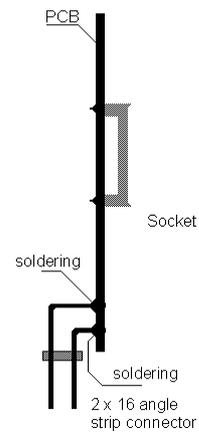
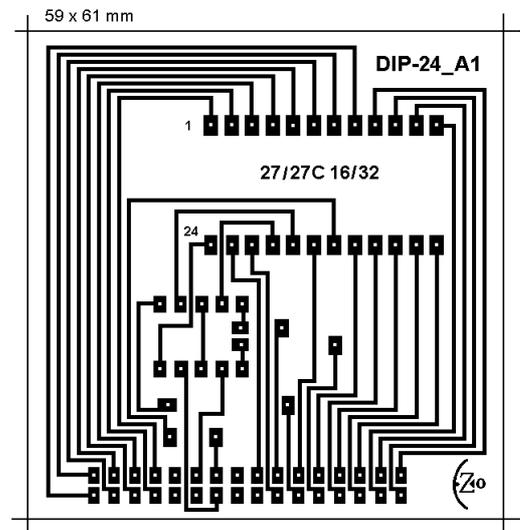
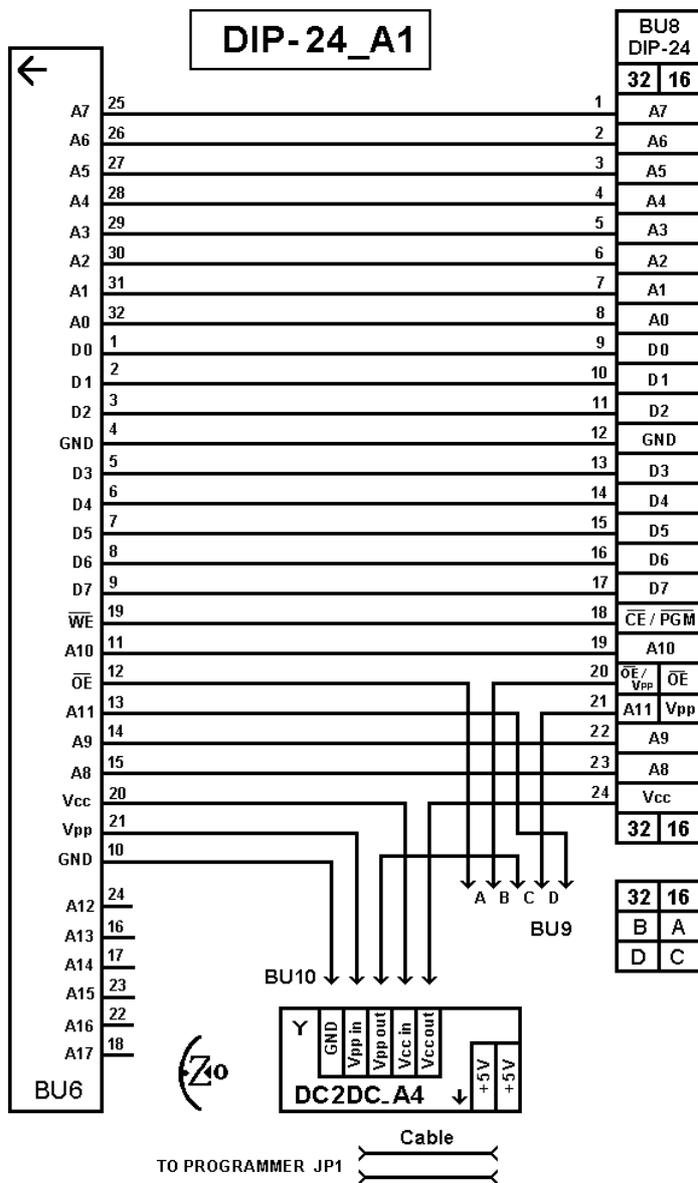
BU6 – Dual angle pin-header 2x16, division 2.54

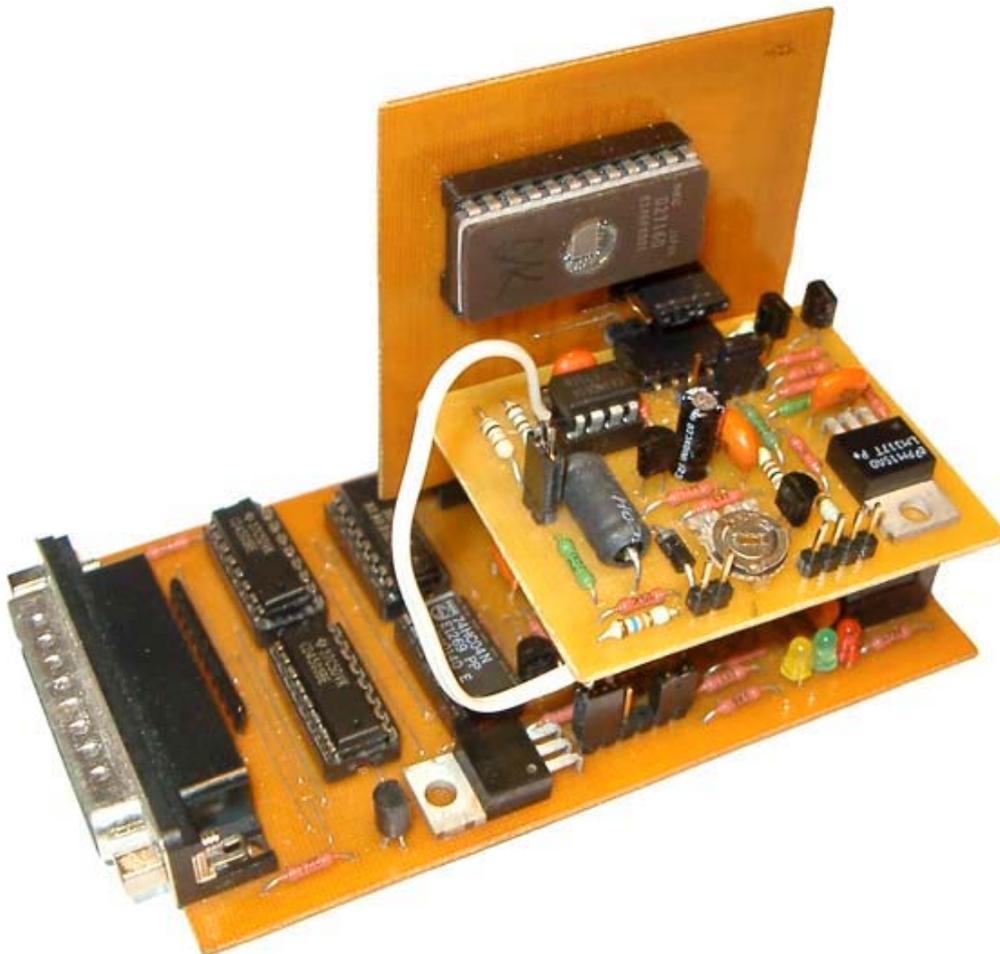
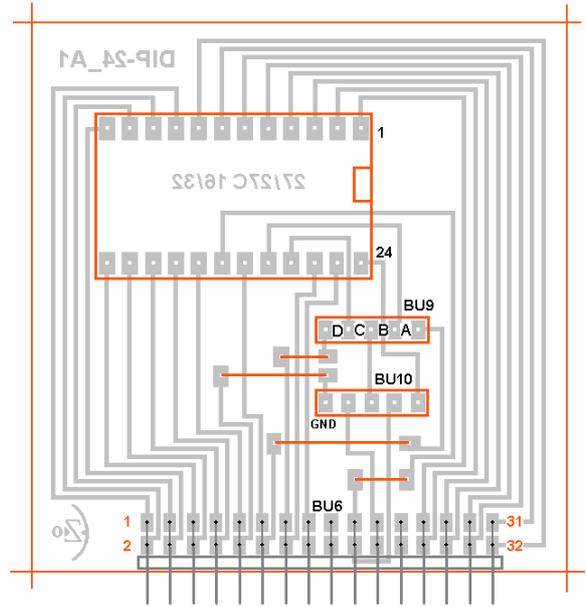
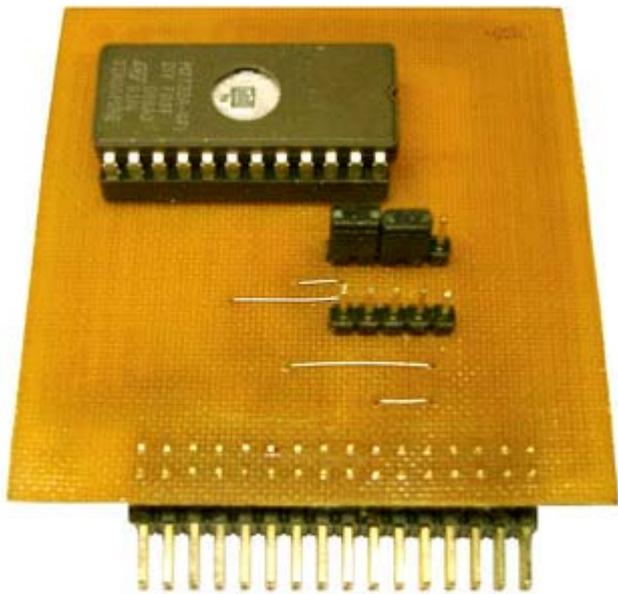
BU8 – IC Socket DIL-24

BU9 – Straight pin-header 1x5, division 2.54 / Jumper, division 2.54 (2pcs)

BU10 – Straight pin-header 1x5, division 2.54 / DC2DC_A4 adapter

2. Schematic, PCB and pictures





3. Settings, verified chip list and info.

Willem programmer software version 0.97ja or latest.

Programmer jumpers - W/Jp1- wire cable to dc2dc_a4, Jp3 (+5V), Jp4 (Vpp)

2716, 27C16

Selected device EPROM > 27xxx > 2716, change default twp from 25 to 10ms

Adapter jumpers JpA, JpC;

dc2dc_a4 jumpers - JpS (Vcc from programmer, +5.0), JpT (Vpp=4.3V, read)

Adjust R5 - Vpp=25.8V (2716, 27C16), Vpp=21.5V (2716A, 27C16A)

Verified chips :

AM2716D, MBM2716, HN462716, Intel D2716, M5L2716K, MK2716J, MM2716Q, Nec D2716D, SGS M2716FI, ST Micro M2716FI, SAB2716D, ET2716QQ, TMM2716, K573PΦ2, K573PΦ5

2732, 27C32

Selected device EPROM > 27xxx > 2732, change default twp from 25 to 10ms

Adapter jumpers JpB, JpD;

dc2dc_a4 jumpers - JpS (Vcc from programmer, +5.0)

Adjust R5 - Vpp=25.8V (2732, 27C32), Vpp=21.5V (2732A, 27C32, 27C32A)

Verified chips :

MBM2732A, Intel TD2732A, M2732A, TMS2732A, NMC27C32Q

27C16B

Selected device EPROM > 27xxx > 27C16, twp=140mks

Adapter jumpers JpA, JpC;

dc2dc_a4 jumpers - JpR (Vcc from dc2dc), JpM, JpN (Vcc=6.2V or without JpN Vcc=5.8V), JpP (Vpp=11..14V)

Adjust R5 - Vpp=12.9V

No verified chips .

2732B, 27C32B

Selected device EPROM > 27xxx > 27C32, twp =140mks

Adapter jumpers JpB, JpD;

dc2dc_a4 jumpers - JpR (Vcc from dc2dc), JpM, JpN (Vcc=6.2V or without JpN Vcc=5.8V), JpP (Vpp=11..14V)

Adjust R5 - Vpp=12.9V

No verified chips .

Chip test results find in chip_test.xls file.

How to adjust Vpp ?

Install dc2dc_a4 and eprom adapter without target chip on ezoflash+.

Connect power supply, PC and run SW. Adjust Vpp on LM317- IN with R5

Programmer power supply should provide 500mA current. Not recommended voltage more than +15V, regulator 7805 power dissipation is up to 4W and it will get more hot. More twp, more programming time and summary heat.

Practically all 2716 chips require +5V on Vpp during read, set jumper T, Vpp=4.3V.

Add diode in correct polarity between Vcc and Vpp on adapter when previous version voltage convertor dc2dc_a2 used.

Voltage convertor dc2dc cannot be used with dip24_a1.

Only erased EPROM can be programmed. Initially, and after each erasure, all bits of the EPROM are in the logic high state. Run SW command Blank check to assure all bytes are 0xFF. Logic lows are programmed into desired locations. Repeat programming (check voltage, increase twp) on logic low programming failure.

Programmed logic low can be erased only by ultraviolet light (UV lamp , wavelenght 2537 Angstroms, intensity 12mW/cm2, chip window 1..2cm from UV source, exposure time 12...20 minutes)

Note. Following chips cannot be programmed on this adapter.

TMS2716 – additionally -5V required, like for generic 2708.

TMS2532, HN462532, NTE2532, MCM2532- different pinout (pin18- A11, pin 21- Vpp)

Report problems and share your experience on Willem and EZoFlash forums.