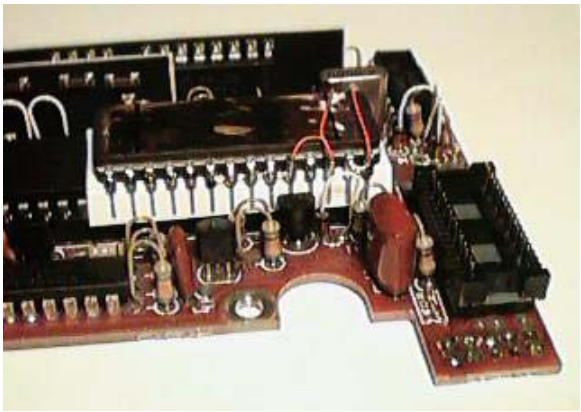
MXC100/Syntor EPROM Adaptor

This description will attempt to describe the wiring of the EPROM Adaptor for the MCX100 frequency and PL proms.

I use 2764 EPROM's, 30 awg wire wrap wire and a 16 pin DIP Plug for ribbon cable.
After programming the EPROM it is prepared in the following manner.

- The EPROM pins are pre-tinned with solder and bent slightly outwards to fit over the large IC. Cover the entire top surface of the EPROM with a paper sticker like a mailing label. This will make it easier to separate the EPROM from the adaptor wiring if you ever need to reprogram the EPROM.
- Pins 27,28 and 1 are connected together with a small jumper wire.
- Pins 20,21,22,23,24,26 and 2 are connected together with a small jumper wire.

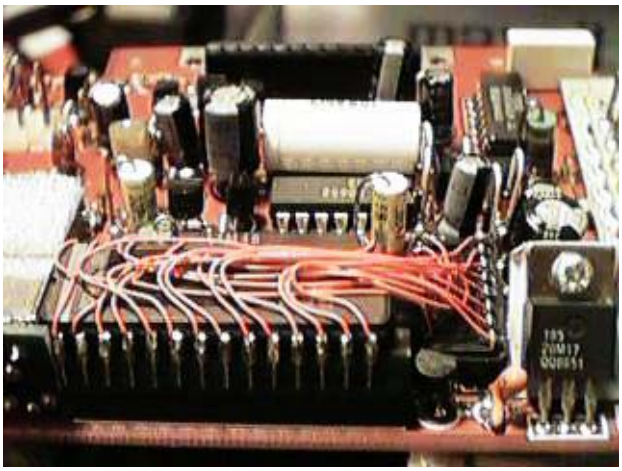


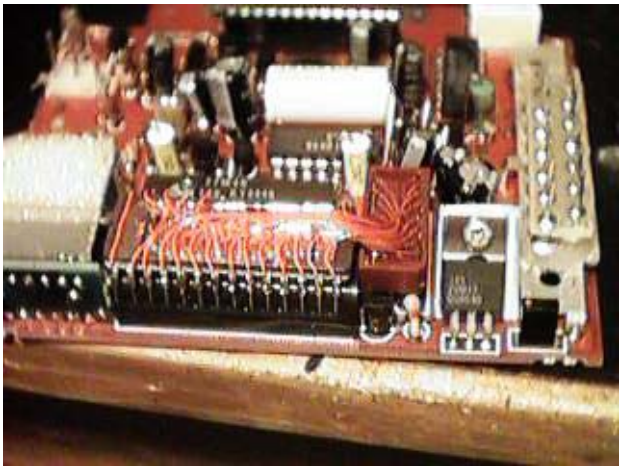
- Prepare an insulator to fit under the EPROM to insulate the EPROM pins from the pins on the large IC. I use card stock, as moisture should not be an issue.
- Attach the insulator to the underside of the EPROM with double-sided tape. I use "carpet tape" as it is very thin and readily available at most hardware stores.
- Using a very small piece of double sided tape mount the EPROM on top of the large IC as close to the prom socket as possible.
- Insert the dip plug into the prom socket. Note: if there are any holes through the bottom of the plug, cover them on the bottom side of the plug with cellophane tape before plugging it into the prom socket.
- Each of the interconnecting wires are connected first to the EPROM and then to the DIP Plug starting with the closest pin on the DIP Plug. Connect the circuits in order as listed in the following table. This way you do not cover up DIP Plug pins that do not have wires connected to them yet. When soldering to the EPROM pins pre-tin the wire end and "reflow" solder the wire to the pin.

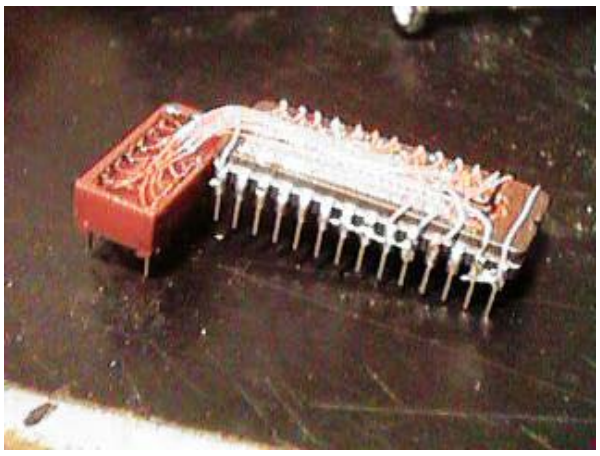
MCX100 Frequency Prom			MCX100 PL Prom		
EPROM Pin 28	Vcc	Plug Pin 16	EPROM Pin 15	D3	Plug Pin 9
EPROM Pin 3	A7	Plug Pin 15	EPROM Pin 13	D2	Plug Pin 10
EPROM Pin 25	A8	Plug Pin 14	EPROM Pin 12	D1	Plug Pin 11
EPROM Pin 20	CE	Plug Pin 13	EPROM Pin 11	D0	Plug Pin 12
EPROM Pin 11	D0	Plug Pin 12	EPROM Pin 20	CE	Plug Pin 13
EPROM Pin 12	D1	Plug Pin 11	EPROM Pin 25	A8	Plug Pin 14
EPROM Pin 13	D2	Plug Pin 10	EPROM Pin 3	A7	Plug Pin 15
EPROM Pin 15	D3	Plug Pin 9	EPROM Pin 28	Vcc	Plug Pin 16

MCX100 Frequency Prom			MCX100 PL Prom		
EPROM Pin 4	A6	Plug Pin 1	EPROM Pin 14	Gnd	Plug Pin 8
EPROM Pin 5	A5	Plug Pin 2	EPROM Pin 8	A2	Plug Pin 7
EPROM Pin 6	A4	Plug Pin 3	EPROM Pin 9	A1	Plug Pin 6
EPROM Pin 7	A3	Plug Pin 4	EPROM Pin 10	A0	Plug Pin 5
EPROM Pin 10	A0	Plug Pin 5	EPROM Pin 7	A3	Plug Pin 4
EPROM Pin 9	A1	Plug Pin 6	EPROM Pin 6	A4	Plug Pin 3
EPROM Pin 8	A2	Plug Pin 7	EPROM Pin 5	A5	Plug Pin 2
EPROM Pin 14	Gnd	Plug Pin 8	EPROM Pin 4	A6	Plug Pin 1

- Using a low wattage soldering iron with a clean tip, connect a wire first to the pin on the EPROM, form it to lay on the back of the EPROM, route the wire to the appropriate pin on the DIP plug, cut the wire to length and strip 1/16th inch of insulation from the wire. Using a very small screwdriver, gently force the wire into the pin on the plug. Secure it in place with the smallest amount of solder.
- Connect each circuit in turn until all of the DIP Plug pins have wires in them.
- It is a good idea to test the circuit before you seal it with epoxy. It is much easier to fix without the epoxy in place. Carefully inspect your work to be sure you have not created a solder bridge between pins on the EPROM or the DIP Plug.
- Once you have a working adaptor, using a tooth pick, carefully coat the wires and fill the DIP Plug with 5 minute Epoxy. Do not use any more epoxy that necessary to fill the DIP Plug or coat the wires. The epoxy will flow and you do not want it to run all over the place. The epoxy will reinforce the wire connections and make the adaptor durable.
- When installing the frequency EPROM adaptor in a radio that will be used in a mobile cut a small foam spacer to help keep the EPROM firmly on top of the large IC







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