



TABLE 1		Pin Numbers			Jumpers		
U2 part#	type	1	23	26	27	P2	P3
62256	32K RAM	A14	A11	A13	/WE	1-2,4-5	1-3,2-4
6264	8K RAM	A11	VDD	/WE		3-4	1-3,2-4
* 6116	2K RAM	/WE	VDD			3-4	2-3
27256	32K EPROM	VDD	A11	A13	A14	2-3,4-5	1-3,4-6
28C256	32K EEPROM	A14	A11	A13	/WE	1-2,4-5	1-3,2-4
27128	16K EPROM	VDD	A11	A13	VDD	2-3,4-5	1-3,4-5
2764	8K EPROM	VDD	A11	NC	VDD	2-3	1-3,4-5
28C64	8K EEPROM	VDD	A11	NC	/WE	2-3	1-3,2-4
* 2732	4K EPROM	A11	VDD			3-4	1-3
* 2716	2K EPROM	VDD	VDD			3-4	3-5

* is a 24-pin IC: put its pin 1 into socket pin 3.
 /pin 6 /ON: GND to Run, Open for Standby.
 P4 power / pin 5 TX: TTL serial out.
 + serial / pin 4 RX: TTL serial in.
 connector / pin 3 VDD: +3 to +5 VDC (3 AA cells etc)
 / pin 1 GND: Common for power (VSS).

SERIAL I/O
 For RS-232 (-5v to -12v idle, +5v to +12v active):
 - RXD Receive Data on J2 pin 20
 - TXD Transmit Data on J2 pin 15
 For TTL (+3v to +5v idle, 0v to +0.5v active):
 - RX Receive Data on P4 pin 4
 - TX Transmit Data on P4 pin 5

For PC Parallel Port: Set S8 DOWN, all others UP.
 Rev.B: Add Q1 (U2 /CE=0 if TPB=1 & A15=0). R8-10 was 100K, now 470K. Add RUN on P4-2. Add C6=82pF. Drill "O" to open 1804 VCC. I/O was 5/7 now 4-7.
 Rev.C: R4,8-10=499K, was 470K. C6=100pF, was 82pF. Rev.D: R2=6.8K, was 15K. Add R14 for RS-232 input. Add D12. Swap P1-J1 labels. Add jumpers O0-O3, A/B for 8 outputs on J2. Add N0-3 and Q1 options to stack Membership Cards to double memory & I/O.
 Rev.E: Add room for larger cap C5 (up to 0.22F).
 Rev.F: Remove R2 (R1 now does its job). Replace C1 with 1.8 MHz ceramic resonator.
 Rev.G: Add U8. Change C6 to bypass cap for U8. Add serial I/O to J2 using Q and EF3.
 Rev.H: Add D14. R4 was /CLEAR now GND. Q1 was 2N7000 now FJN3307. R5 was 100K now 10K.
 Rev.I: P4 now 6-pin (use Sparkfun #9718 USB-serial cable). Add Q6, R15. Add D15 UNDER PCB across C8. P4 /ON is RUN+LED: GND=run clock, 1802, LEDs. VDD or open=standby.
 Rev.J: Fix Q4 silkscreen. Add D15. Add Q7 to invert serial out (Q=0 is idle, LED off).
 Rev.J2: U4 was 4093, now 74HC132. R4 was 499K, now 1Meg. R8-10 was 499K now 100K.

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Title: 1802MC rev.J2 with 74HC132

Size	Document Number	REV
B	C:\ORCAD\SHEET\1802\DEV4J2.SCH	J2

Date: March 14, 2019 Sheet 1 of 1