

TECH NEWSLETTER #7

MACHINE CODE TAPE DUMP
FOR C1P, C2-4P & C2-8P
(ROM BASIC)

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1000 0000 ; MACHINE CODE TAPE DUMP (CH-1P, C2-4P, C2-8P ROM BASIC)
1010 0000 ;
1020 0000 ;
1030 0000 ; EQUATES :
1040 0000 ;
1050 0000 START=$00DD ; START OF TRANSFER ADDRESS
1060 0000 ENDADR=$00DF ; END OF TRANSFER ADDRESS (NON-INCLUSIVE)
1070 0000 GOADDR=$00E1 ; GO ADDR AT LOAD TIME ($FE03 TO MONITOR)
1080 0000 WARMST=$FFFC ; JMP INDIRECT HERE TO ENTER MONITOR
1090 0000 OUTFLG=$0205 ; (00) SAYS OUT TO TAPE & SCREEN
1100 0000 OUTPUT=$FFEE ; OUTPUT ROUTINE (SCREEN & TAPE)
1110 0000 RETURN=$0D ; CARRIAGE RETURN CHR CODE
1120 0000 ;
1130 0000 ;
1140 0000 ;
1150 0230 *= $0230
1160 0230 ;
1170 0230 ;
1180 0230 ;
1190 0230 D8 ENTRY: CLD ; RST TO BIN MATH
1200 0231 A9FF LDA #$FF
1210 0233 8D0502 STA OUTFLG
1220 0236 A5DE LDA START:+1 ; OUTPUT START ADDR
1230 0238 A4DD LDY START:
1240 023A 207402 JSR ADROUT
1250 023D A92F LDA #' / ; SELECT DATA ENTRY MODE
1260 023F 20EEFF JSR OUTPUT
1270 0242 ;
1280 0242 A000 LDY #$00 ; RST FOR TRANSFER
1290 0244 B1DD DATAOU LDA (START:),Y ; GET BY INDIRECT
1300 0246 207F02 JSR DOBYTE ; BYTE OUT TO TAPE
1310 0249 A90D LDA #RETURN ; CR TO MOV TO NXT LOCATION IN MEM
1320 024B 20EEFF JSR OUTPUT
1330 024E E6DD INC START: ; BMP MEM PNTR
1340 0250 D002 BNE CHKEND
1350 0252 E6DE INC START:+1 ; BMP PAGE PNTR
1360 0254 ;
1370 0254 A5DD CHKEND LDA START: ; ALL DONE ?
1380 0256 C5DF CMP ENDADR
1390 0258 D0EA BNE DATAOU ; NO-CONT
1400 025A A5DE LDA START:+1 ; MAYBE SO
1410 025C C5E0 CMP ENDADR+1
1420 025E D0E4 BNE DATAOU ; NOPE-CONT ON
1430 0260 ;
1440 0260 A5E2 LDA GOADDR+1 ; OUTPUT GO ADDR TO TAPE
1450 0262 A4E1 LDY GOADDR
1460 0264 207402 JSR ADROUT
1470 0267 A947 LDA #'G ; OUTPUT 'GO' COMMAND TO TAPE
1480 0269 20EEFF JSR OUTPUT
1490 026C ;
1500 026C A900 LDA #$00 ; RST CASSETTE OUT FLG TO VIDEO ONLY
1510 026E 8D0502 STA OUTFLG

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1520 0271 6CFCFF          JMP (WARMST)      ; GO TO MONITOR
1530 0274                ;
1540 0274                ;
1550 0274                ;
1560 0274                ;
1570 0274                ; COMMON ROUTINES
1580 0274                ;
1590 0274                ;
1600 0274                ; WORD & BYTE TO ASCII THEN TO TAPE
1610 0274                ;
1620 0274                ;
1630 0274 AA            ADROUT TAX                ; SAV A REG
1640 0275 A92E          LDA #'                ; SELECT ADDR MODE
1650 0277 20EEFF        JSR OUTPUT
1660 027A 8A            TXA                    ; RESTORE A REG
1670 027B A202          DOWORD LDX #$02        ; TWO LAPS 'RND
1680 027D D002          BNE BYTOUT
1690 027F A201          DOBYTE LDX #$01        ; JUST ONCE
1700 0281                ;
1710 0281 48            BYTOUT PHA             ; SAV A REG
1720 0282 4A            LSR A                 ; MS NIBBLE FIRST
1730 0283 4A            LSR A
1740 0284 4A            LSR A
1750 0285 4A            LSR A
1760 0286 209202        JSR HEXOUT            ; HEX TO ASCII THEN OUT TO TAPE
1770 0289 68            PLA                    ; GET A BACK
1780 028A 209202        JSR HEXOUT            ; LS NIBBLE OUT
1790 028D 98            TYA                    ; DO OTHER BYTE
1800 028E CA            DEX                    ; DONE ?
1810 028F D0F0          BNE BYTOUT            ; NO-CONT ON
1820 0291 60            RTS
1830 0292                ;
1840 0292                ;
1850 0292                ;
1860 0292                ; HEX TO ASCII THEN TO TAPE
1870 0292                ;
1880 0292                ;
1890 0292 290F          HEXOUT AND #$0F        ; MASK OUT MS NIBBLE
1900 0294 0930          ORA #'0              ; HEX TO ASCII
1910 0296 C93A          CMP #' :           ; >9 ?
1920 0298 9002          BCC Z9                ; NO-SO OUT TO TAPE
1930 029A 6906          AF ADC #$06           ; 'A - F' SO ADD 6+C=7
1940 029C 4CEEFF        Z9 JMP OUTPUT        ; OUT TO TAPE
```

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1920 0298 9002          BCC Z9                ; NO-SO OUT TO TAPE
1930 029A 6906          AF ADC #$06          ; 'A - F' SO ADD 6+C=7
1940 029C 4CEEFF        Z9 JMP OUTPUT        ; OUT TO TAPE
```

Sales Notes

All brown case C2-8P or C2-8P DF systems produced after 5/29/79 will incorporate the 542 sound keyboard. Blue case models will not.

CD-2P's and C3-S1's will be in brown cases probably after 5/29/79.

Most of the sales staff, including Rick Whitesel, will be unavailable during C.E.S. and N.C.C. (5/31/79 - 6/10/79).

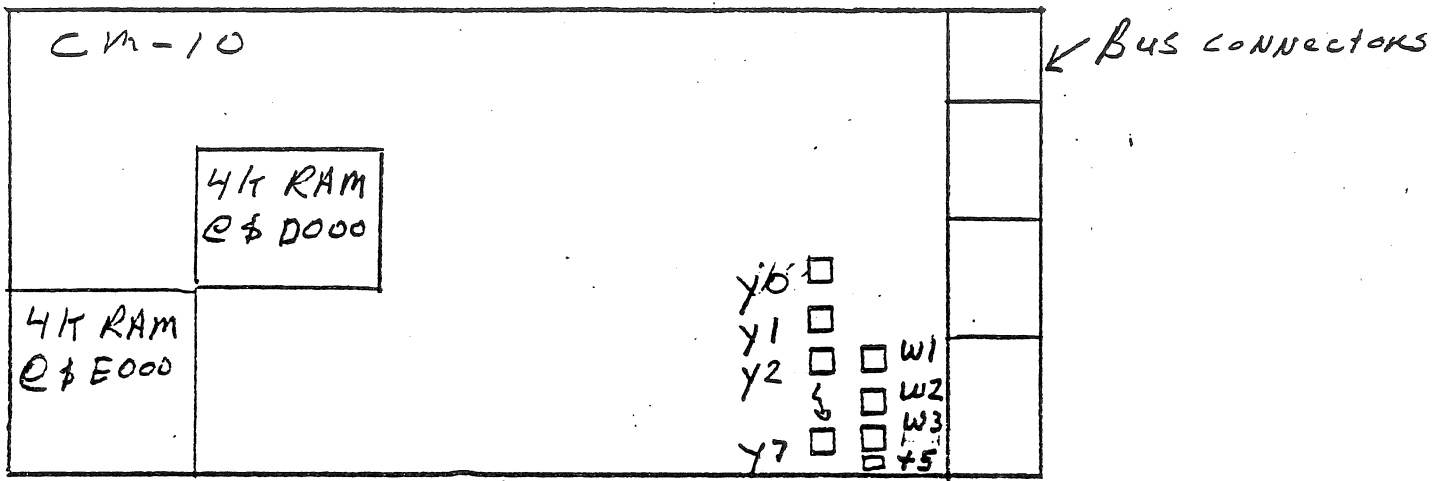
Possible future models will be shown at C.E.S. and N.C.C. by OHIO SCIENTIFIC, stop in and take a look around.

Dealers purchasing their first CD-23 or CD-74 hard discs are required to come to the factory for hard disc training. The training takes about two hours.

Please do not tell customers to call the factory direct. It is company policy for us to not accept the phone call. If the customer needs information, please contact us. We will do our best to help you--our working together will keep the customer happy.

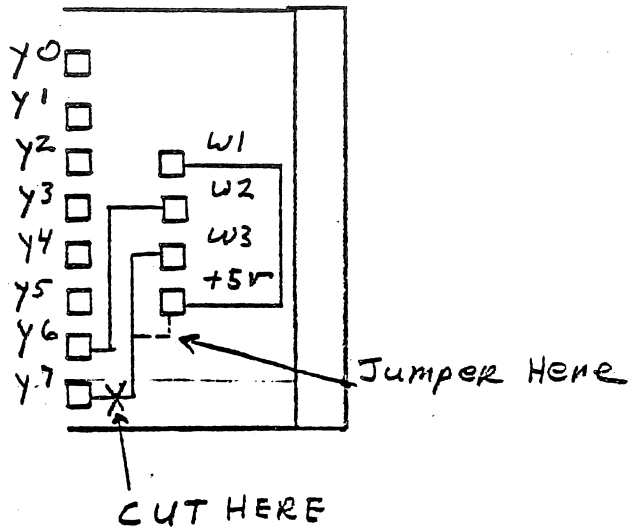
Many, many people are running into problems with CD-23 or CD-74 add ons to systems previously running OS-CP/M. The problem they are encountering involves the 525 dualport RAM board and the CM-10 boards. The CM-10 board contains 8K of RAM addressed from \$D0000 to \$EFFF. The 525 board contains 4K of RAM from \$E0000 to \$EFFF. Therefore, if one adds a hard disc to a system with a CM-10 board, there will be two sections of memory addressed for \$E0000 to \$EFFF. One may still run OS-CP/M by either replacing the CM-10 board with a 420 board addressed for \$D0000, or one may cut the CM-10 board as shown below. In either case, the 525 board will be used as the second 4K for use with CP/M.

Component side up



Exploded View

- 1) Cut and jumper as shown
- 2) Remove 8 2114 RAM CHIPS FROM 4K RAM @ \$ E000 as shown above. Use them as spares.



420 BOARD ADDRESSING FOR \$ D000 component side up

