

!A

*** End of Pass 1

*** End of Pass 2

```
0800      1          ttl "Insta-Disk DATALOAD96, DATALOAD96.L"
0800      2      ;
0800      3      ;
0800      4      ; DATALOAD96.L
0800      5      ;
0800      6      ; 2024 February 14
0800      7      ;
0800      8      ;
0800      9      ; This softawre is based on the work of Egan Ford.
0800     10      ;
0800     11      ;
0800     12      ; DOS 4.5, Build 06
0800     13      ;
0800     14      ; 2024 February 14
0800     15      ;
0800     16      ;
0800     17      ; Start of Source Code: 0x4000
0800     18      ; Start of Symbol List: 0x7800
0800     19      ;
0800     20      ;
0800     21      ; Copyright (c) 2024 February 14 by
0800     22      ; Walland Philip Vrbancic Jr.
0800     23      ;
0800     24      ; 6223 East Peabody Street
0800     25      ; Long Beach, California 90808
0800     26      ; United States of America
0800     27      ;
0800     28      ; All Rights Reserved
0800     29      ;
0800     30      ; This software is the confidential and
0800     31      ; proprietary intellectual property of
0800     32      ; Walland Philip Vrbancic Jr.
0800     33      ;
0800     34      ;
0000     35      DATAPTR    epz $00
0002     36      ENDPTR    epz $02
0004     37      CHKSUM    epz $04
0008     38      SRCPTR    epz $08
000A     39      DSTPTR    epz $0A
000F     40      PAGEBYTE epz $0F
0800     41      ;
0800     42      ;          enz
0800     43      ;
0000     44      ZERO      equ $00
00FF     45      NEGONE    equ $FF
0800     46      ;
000F     47      NIBLMASK equ $0F
0800     48      ;
008D     49      RETURN    equ $8D
0800     50      ;
0100     51      PAGESIZE equ $100
0800     52      ;
04FB     53      XMODE     equ $4FB
0800     54      ;
07D0     55      LINE23    equ $7D0
0800     56      ;
0810     57      DISKLOAD equ $810
0800     58      ;
2000     59      DISKADR    equ $2000
0600     60      DISKLEN    equ $600
```

```

0800      61      ;
0200      62      INFLLEN      equ      $200
0800      63      ;
1A00      64      DOSLEN1      equ      $1A00
0E00      65      DOSLEN2      equ      $E00
0200      66      DOSLEN3      equ      $200
2A00      67      DOSLEN      equ      DOSLEN1+DOSLEN2+DOSLEN3
0800      68      ;
B000      69      DATALOAD      equ      $B000
B200      70      DISKCOPY      equ      $B200
B800      71      INFLATE      equ      $B800
0800      72      ;
D000      73      DOSADR1      equ      $D000
D000      74      DOSADR2      equ      $D000
BE00      75      DOSADR3      equ      $BE00
0800      76      ;
BFF6      77      MNGUSER      equ      $BFF6
BFF8      78      INITDOS      equ      $BFF8
0800      79      ;
C00C      80      VID80OFF      equ      $C00C
C00E      81      ALTCHOFF      equ      $C00E
0800      82      ;
C010      83      CONNECT      equ      $C010
0800      84      ;
C060      85      TAPEIN      equ      $C060
0800      86      ;
C082      87      ROM2WP      equ      $C082
C083      88      RAM2WE      equ      $C083
C08B      89      RAM1WE      equ      $C08B
0800      90      ;
F941      91      PRNTAX      equ      $F941
FB2F      92      INIT      equ      $FB2F
FDDA      93      PRBYTE      equ      $FDDA
FDED      94      COUT      equ      $FDED
FE84      95      SETNORM      equ      $FE84
FE89      96      SETKBD      equ      $FE89
FE93      97      SETVID      equ      $FE93
0800      98      ;
FF69      99      MONITOR      equ      $FF69
0800      100     ;
0800      101     ;
0810      102             org      DISKLOAD
0810      103             obj      DISKLOAD
0810      104             usr
0810      105     ;
0810      106     ;
0810      107     ; Take control of the keyboard and video and set up for a
0810      108     ; normal display.
0810      109     ;
0810      A2      FF      110             ldx      #NEGONE
0812      9A      111             txs
0813      112     ;
0813      8E      FB      04      113             stx      XMODE
0816      8E      0C      C0      114             stx      VID80OFF
0819      8E      0E      C0      115             stx      ALTCHOFF
081C      116     ;
081C      20      84      FE      117             jsr      SETNORM
081F      20      2F      FB      118             jsr      INIT
0822      20      93      FE      119             jsr      SETVID
0825      20      89      FE      120             jsr      SETKBD
0828      121     ;

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```
0828      122 ;
0828      123 ; Print TEXT1, copy DATALOAD96 to DATALOAD at 0xB000,
0828      124 ; and call DATALOAD as a subroutine. Up to 0x3200 bytes
0828      125 ; are read and transferred to 0x2000. DISKCOPY is found
0828      126 ; at 0x2000 and its 0x600 bytes are copied to 0xB200. If
0828      127 ; CMPLOAD is not ZERO, INFLATE is found next and its 0x200
0828      128 ; bytes are copied to 0xB800. If DOSLOAD is not ZERO,
0828      129 ; DOS 4.5.06H is found next and its 0x2A00 bytes are copied
0828      130 ; to the Language Card, DOS is initialized, and the Page
0828      131 ; 0x03 Vectors are created. A running checksum is
0828      132 ; calculated in this version of DATALOAD96.
0828      133 ;
0828 A2 03      134         ldx #3
082A      135 ;
082A BD A4 0A  136 ^1      lda LOADTIME,X
082D 9D 14 09  137         sta TEXTMOD,X
0830      138 ;
0830 CA      139         dex
0831 10 F7      140         bpl <1
0833      141 ;
0833 A0 00      142         ldy #TEXT1-TEXTS
0835 20 EE 08  143         jsr PRNTTEXT
0838      144 ;
0838      145 ;
0838      146 ; Install DATALOAD at 0xB000 and read up to 0x3200 bytes.
0838      147 ;
0838 A2 00      148         ldx #ZERO
083A      149 ;
083A BD 23 09  150 ^2      lda DATACODE,X
083D 9D 00 B0  151         sta DATALOAD,X
0840      152 ;
0840 E8      153         inx
0841 D0 F7      154         bne <2
0843      155 ;
0843 A9 01      156         lda /CODELEN
0845 F0 0B      157         beq >4
0847      158 ;
0847 BD 23 0A  159 ^3      lda DATACODE+PAGESIZE,X
084A 9D 00 B1  160         sta DATALOAD+PAGESIZE,X
084D      161 ;
084D E8      162         inx
084E      163 ;
084E E0 81      164         cpx #CODELEN
0850 D0 F5      165         bne <3
0852      166 ;
0852 A0 00      167 ^4      ldy #DISKADR
0854 A9 20      168         lda /DISKADR
0856      169 ;
0856 84 00      170         sty DATAPTR
0858 85 01      171         sta DATAPTR+1
085A      172 ;
085A 84 08      173         sty SRCPTR
085C 85 09      174         sta SRCPTR+1
085E      175 ;
085E 84 0A      176         sty DSTPTR
0860      177 ;
0860 18      178         clc
0861      179 ;
0861 69 06      180         adc /DISKLEN
0863      181 ;
0863 AE A8 0A  182         ldx CMPLOAD
```

```

0866 F0 02      183      beq >5
0868          184      ;
0868 69 02      185      adc /INFLLEN
086A          186      ;
086A AE A9 0A  187      ^5      ldx DOSLOAD
086D F0 02      188      beq >6
086F          189      ;
086F 69 2A      190      adc /DOSLEN
0871          191      ;
0871 C8          192      ^6      iny                      ; modified EOF handler
0872          193      ;
0872 84 02      194      sty ENDPTR
0874 85 03      195      sta ENDPTR+1
0876          196      ;
0876 20 00 B0   197      jsr DATALOAD
0879          198      ;
0879          199      ;
0879          200      ; Move DISKCOPY to 0xB200.
0879          201      ;
0879 A0 00      202      ldy #ZERO
087B          203      ;
087B A9 B2      204      lda /DISKCOPY
087D A2 06      205      ldx /DISKLEN
087F          206      ;
087F 20 D7 08   207      jsr COPYPGS
0882          208      ;
0882          209      ;
0882          210      ; Move INFLATE to 0xB800 if CMPLOAD is not ZERO.
0882          211      ;
0882 AD A8 0A   212      lda CMPLOAD
0885 F0 07      213      beq >7
0887          214      ;
0887 A9 B8      215      lda /INFLATE
0889 A2 02      216      ldx /INFLLEN
088B          217      ;
088B 20 D7 08   218      jsr COPYPGS
088E          219      ;
088E          220      ;
088E          221      ; Move DOS 4.5.06H into the Language Card if DOSLOAD is not
088E          222      ; ZERO.
088E          223      ;
088E AD A9 0A   224      ^7      lda DOSLOAD
0891 F0 33      225      beq >8
0893          226      ;
0893 2C 83 C0   227      bit RAM2WE
0896 2C 83 C0   228      bit RAM2WE
0899          229      ;
0899 A9 D0      230      lda /DOSADR1
089B A2 1A      231      ldx /DOSLEN1
089D          232      ;
089D 20 D7 08   233      jsr COPYPGS
08A0          234      ;
08A0 2C 8B C0   235      bit RAM1WE
08A3 2C 8B C0   236      bit RAM1WE
08A6          237      ;
08A6 A9 D0      238      lda /DOSADR2
08A8 A2 0E      239      ldx /DOSLEN2
08AA          240      ;
08AA 20 D7 08   241      jsr COPYPGS
08AD          242      ;
08AD 2C 82 C0   243      bit ROM2WP

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```
08B0          244 ;
08B0 A9 BE    245         lda /DOSADR3
08B2 A2 02    246         ldx /DOSLEN3
08B4          247 ;
08B4 20 D7 08 248         jsr COPYPGS
08B7          249 ;
08B7          250 ;
08B7          251 ; Setup MNGUSR to return to RTNUSER after DOS 4.5.06H has
08B7          252 ; fully initialized and has created the PAGE3 Vectors.
08B7          253 ;
08B7 38       254         sec
08B8          255 ;
08B8 A0 C2    256         ldy #RTNUSER
08BA A9 08    257         lda /RTNUSER
08BC          258 ;
08BC 20 E8 08 259         jsr SETUSER
08BF          260 ;
08BF 6C F8 BF 261         jmp (INITDOS)
08C2          262 ;
08C2          263 ;
08C2          264 ; DOS 4.5.06H has initialized and the Page 0x03 Vectors are
08C2          265 ; now available for the RWTS routines. Return MNGUSR to
08C2          266 ; its default state and enter DISKCOPY.
08C2          267 ;
08C2 18       268 RTNUSER clc
08C3          269 ;
08C3 20 E8 08 270         jsr SETUSER
08C6          271 ;
08C6          272 ;
08C6          273 ; If SCNTFLAG is not ZERO, connect DOS to the disk device
08C6          274 ; located at the SLOTCX address.
08C6          275 ;
08C6 AD AA 0A 276 ^8         lda SCNTFLAG
08C9 F0 09    277         beq >9
08CB          278 ;
08CB AD AB 0A 279         lda SLOTCX
08CE 8D ED 08 280         sta SLOTCNT+2
08D1          281 ;
08D1 20 EB 08 282         jsr SLOTCNT
08D4          283 ;
08D4          284 ;
08D4          285 ; Ready to begin DISKCOPY.
08D4          286 ;
08D4 4C 00 B2 287 ^9         jmp DISKCOPY
08D7          288 ;
08D7          289 ;
08D7          290 ; SRCPTR needs to be initialized once. All routines are
08D7          291 ; copied sequentially to where they need to reside.
08D7          292 ;
08D7 85 0B    293 COPYPGS sta DSTPTR+1
08D9          294 ;
08D9 B1 08    295 ^1         lda (SRCPTR),Y
08DB 91 0A    296         sta (DSTPTR),Y
08DD          297 ;
08DD C8       298         iny
08DE D0 F9    299         bne <1
08E0          300 ;
08E0 E6 09    301         inc SRCPTR+1
08E2 E6 0B    302         inc DSTPTR+1
08E4          303 ;
08E4 CA       304         dex
```

```

08E5 D0 F2      305      bne <1
08E7            306      ;
08E7 60          307      rts
08E8            308      ;
08E8            309      ;
08E8 6C F6 BF    310      SETUSER  jmp (MNGUSER)
08EB            311      ;
08EB 4C 10 C0    312      SLOTCNT  jmp CONNECT
08EE            313      ;
08EE            314      ;
08EE B9 FA 08    315      PRNTTEXT  lda TEXTS,Y
08F1 F0 06       316      beq >1
08F3            317      ;
08F3 20 ED FD    318      jsr COUT
08F6            319      ;
08F6 C8          320      iny
08F7 D0 F5       321      bne PRNTTEXT      ; always taken
08F9            322      ;
08F9 60          323      ^1      rts
08FA            324      ;
08FA            325      ;
08FA            326      TEXTS:
08FA            327      ;
08FA 8D          328      TEXT1      byt RETURN
08FB C9 EE F3    329      asc "Installing c2t routines, "
08FE F4 E1 EC
0901 EC E9 EE
0904 E7 A0 E3
0907 B2 F4 A0
090A F2 EF F5
090D F4 E9 EE
0910 E5 F3 AC
0913 A0
0914 B0 B0 AE    330      TEXTMOD  asc "00.0 seconds"
0917 B0 A0 F3
091A E5 E3 EF
091D EE E4 F3
0920 8D 8D 00    331      byt RETURN,RETURN,ZERO
0923            332      ;
0923            333      ;
0923            334      ; I developed this version of the DATALOAD code using ideas
0923            335      ; from the DISKLOAD8000 and the DISKLOAD9600 routines. The
0923            336      ; c2t software should adjust the second half of the 1's
0923            337      ; waveform to match the second half of the 0's waveform.
0923            338      ; Testing has verified that this routine has no timing
0923            339      ; issues.
0923            340      ;
0923            341      DATACODE:
0923            342      ;
0923            343      phs DATALOAD
B000            344      ;
B000            345      CODEBGN:
B000            346      ;
B000            347      ; Initialize the DATALOAD routine.
B000            348      ;
B000 A9 FF       349      lda #NEGONE
B002 85 04       350      sta CHKSUM
B004            351      ;
B004 A0 00       352      ldy #ZERO
B006 8C E9 B0    353      sty VAL1
B009 8C EA B0    354      sty VAL2

```

```

B00C 8C EB B0    355          sty VAL3
B00F             356          ;
B00F             357          ;
B00F             358          ; Consume two of the first waveforms found.
B00F             359          ;
B00F 2C 60 C0    360          ^0          bit TAPEIN
B012 30 FB       361          bmi <0
B014             362          ;
B014 2C 60 C0    363          ^1          bit TAPEIN
B017 10 FB       364          bpl <1
B019             365          ;
B019             366          ;
B019             367          ; Display a running counter while receiving HDR data.
B019             368          ;
B019             369          MODJMP:
B019             370          ;
B019 4C 4A B1    371          ^1          jmp SHOWVAL3
B01C             372          ;
B01C             373          ;
B01C             374          ; Initialize the beginning of a new data byte.
B01C             375          ;
B01C             376          RTNJMP:
B01C             377          ;
B01C A9 01       378          ^2          lda #1
B01E             379          ;
B01E             380          ;
B01E             381          ; Consume the negative half of the old waveform.
B01E             382          ;
B01E 2C 60 C0    383          ^3          bit TAPEIN
B021 30 FB       384          bmi <3
B023             385          ;
B023             386          ;
B023             387          ; Expect a 0-bit to arrive in 42 us (12 KHz).
B023             388          ; Expect a 1-bit to arrive in 63 us (8 KHz).
B023             389          ; Expect a header bit to arrive in 83 us (6 KHz).
B023             390          ; Expect an idle bit to arrive in greater than 100 us.
B023             391          ;
B023             392          ; Start of wave form. Begin testing 16 cycles from now.
B023             393          ; Assume a zero-bit wave form now, so clear the C-flag.
B023             394          ;
B023 20 E8 B0    395          jsr DATARTN
B026             396          ;
B026 EA          397          nop
B027 18          398          clc
B028             399          ;
B028             400          ;
B028             401          ; 16 us from start of wave form. Bit tests at 20 us.
B028             402          ;
B028 2C 60 C0    403          bit TAPEIN
B02B 30 3A       404          bmi >5
B02D             405          ;
B02D             406          ;
B02D             407          ; 22-28 us from start of wave form. Bit tests at 26 us.
B02D             408          ;
B02D 2C 60 C0    409          bit TAPEIN
B030 30 35       410          bmi >5
B032             411          ;
B032             412          ;
B032             413          ; 28-34 us from start of wave form. Bit tests at 32 us.
B032             414          ;
B032 2C 60 C0    415          bit TAPEIN

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```
B035 30 30      416      bmi >5
B037            417      ;
B037            418      ;
B037            419      ; Assume wave form is for a one-bit now.
B037            420      ; 34-40 us from start of wave form. Bit tests at 38 us.
B037            421      ;
B037 2C 60 C0    422      bit TAPEIN
B03A 30 2A      423      bmi >4
B03C            424      ;
B03C            425      ;
B03C            426      ; 40-46 us from start of wave form. Bit tests at 44 us.
B03C            427      ;
B03C 2C 60 C0    428      bit TAPEIN
B03F 30 25      429      bmi >4
B041            430      ;
B041            431      ;
B041            432      ; 46-52 us from start of wave form. Bit tests at 50 us.
B041            433      ;
B041 2C 60 C0    434      bit TAPEIN
B044 30 20      435      bmi >4
B046            436      ;
B046            437      ;
B046            438      ; Assume wave form is for a HDR now.
B046            439      ; 52-58 us from start of wave form. Bit tests at 56 us.
B046            440      ;
B046 2C 60 C0    441      bit TAPEIN
B049 30 CE      442      bmi <1
B04B            443      ;
B04B            444      ;
B04B            445      ; 58-64 us from start of wave form. Bit tests at 62 us.
B04B            446      ;
B04B 2C 60 C0    447      bit TAPEIN
B04E 30 C9      448      bmi <1
B050            449      ;
B050            450      ;
B050            451      ; 64-70 us from start of wave form. Bit tests at 68 us.
B050            452      ;
B050 2C 60 C0    453      bit TAPEIN
B053 30 C4      454      bmi <1
B055            455      ;
B055            456      ;
B055            457      ; 70-76 us from start of wave form. Bit tests at 74 us.
B055            458      ;
B055 2C 60 C0    459      bit TAPEIN
B058 30 BF      460      bmi <1
B05A            461      ;
B05A            462      ;
B05A            463      ; 76-82 us from start of wave form. Bit tests at 80 us.
B05A            464      ;
B05A 2C 60 C0    465      bit TAPEIN
B05D 30 BA      466      bmi <1
B05F            467      ;
B05F            468      ;
B05F            469      ; 82-88 us from start of wave form. Bit tests at 86 us.
B05F            470      ;
B05F 2C 60 C0    471      bit TAPEIN
B062 30 B5      472      bmi <1
B064            473      ;
B064            474      ;
B064            475      ; 88 us from start of wave form.
B064            476      ; Assume wave form is at End of Data now.
```

```

B064          477 ;
B064 10 11    478          bpl >6          ; always taken
B066          479 ;
B066          480 ;
B066          481 ; Assume a one-bit wave form now, so set the C-flag.
B066          482 ;
B066 38       483 ^4          sec
B067          484 ;
B067          485 ;
B067          486 ; Capture bit value. Test for data byte complete. This
B067          487 ; processing takes 4-5 us to complete.
B067          488 ;
B067 2A       489 ^5          rol
B068 90 B4    490          bcc <3
B06A          491 ;
B06A          492 ;
B06A          493 ; Save data byte and update checksum. This processing
B06A          494 ; takes 12 us to complete.
B06A          495 ;
B06A 91 00    496          sta (DATAPTR),Y
B06C          497 ;
B06C 45 04    498          eor CHKSUM
B06E 85 04    499          sta CHKSUM
B070          500 ;
B070          501 ;
B070          502 ; Test for page complete. If so, point to the next page.
B070          503 ; Return to the top of the data loop and begin a new data
B070          504 ; byte.
B070          505 ;
B070 C8       506          iny
B071 D0 A9    507          bne <2
B073          508 ;
B073 E6 01    509          inc DATAPTR+1
B075 D0 A5    510          bne <2          ; always taken
B077          511 ;
B077          512 ;
B077          513 ; EOF handler. The 2000 Hz Header signal has been
B077          514 ; detected. Add the Y-reg to the DATAPTR.
B077          515 ;
B077 18       516 ^6          clc
B078          517 ;
B078 98       518          tya
B079 85 0F    519          sta PAGEBYTE          ; save Y-reg for analysis
B07B          520 ;
B07B 65 00    521          adc DATAPTR
B07D 85 00    522          sta DATAPTR
B07F          523 ;
B07F A5 01    524          lda DATAPTR+1
B081 69 00    525          adc #ZERO
B083 85 01    526          sta DATAPTR+1
B085          527 ;
B085          528 ;
B085          529 ; Print beginning of end address status message.
B085          530 ;
B085 A0 00    531          ldy #MSG1-MESGS          ; End address is
B087 20 DD B0 532          jsr PRNTEMESG
B08A          533 ;
B08A          534 ;
B08A          535 ; Test end address for correctness.
B08A          536 ;
B08A A5 00    537          lda DATAPTR

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```

B08C C5 02      538      cmp ENDPTR
B08E D0 2B      539      bne >7
B090            540      ;
B090 A5 01      541      lda DATAPTR+1
B092 C5 03      542      cmp ENDPTR+1
B094 D0 25      543      bne >7
B096            544      ;
B096            545      ;
B096            546      ; Complete address status and begin CHKSUM status message.
B096            547      ;
B096 A0 23      548      ldy #MSG3-MESGS      ; Okay.
B098 20 DD B0   549      jsr PRNTPMSG
B09B            550      ;
B09B A0 11      551      ldy #MSG2-MESGS      ; CHKSUM value is
B09D 20 DD B0   552      jsr PRNTPMSG
B0A0            553      ;
B0A0            554      ;
B0A0            555      ; Test CHKSUM for correctness.
B0A0            556      ;
B0A0 A5 04      557      lda CHKSUM
B0A2 F0 37      558      beq >8
B0A4            559      ;
B0A4            560      ;
B0A4            561      ; Complete CHKSUM error message.
B0A4            562      ;
B0A4 A0 29      563      ldy #MSG4-MESGS      ; 0x
B0A6 20 DD B0   564      jsr PRNTPMSG
B0A9            565      ;
B0A9 A5 04      566      lda CHKSUM
B0AB 20 DA FD   567      jsr PRBYTE
B0AE            568      ;
B0AE A0 2C      569      ldy #MSG5-MESGS      ; and not 0x
B0B0 20 DD B0   570      jsr PRNTPMSG
B0B3            571      ;
B0B3 A9 00      572      lda #ZERO
B0B5 20 DA FD   573      jsr PRBYTE
B0B8            574      ;
B0B8 4C D3 B0   575      jmp ERROR
B0BB            576      ;
B0BB            577      ;
B0BB            578      ; Complete end address error message.
B0BB            579      ;
B0BB A0 29      580      ^7 ldy #MSG4-MESGS      ; 0x
B0BD 20 DD B0   581      jsr PRNTPMSG
B0C0            582      ;
B0C0 A6 00      583      ldx DATAPTR
B0C2 A5 01      584      lda DATAPTR+1
B0C4            585      ;
B0C4 20 41 F9   586      jsr PRNTAX
B0C7            587      ;
B0C7 A0 2C      588      ldy #MSG5-MESGS      ; and not 0x
B0C9 20 DD B0   589      jsr PRNTPMSG
B0CC            590      ;
B0CC A6 02      591      ldx ENDPTR
B0CE A5 03      592      lda ENDPTR+1
B0D0            593      ;
B0D0 20 41 F9   594      jsr PRNTAX
B0D3            595      ;
B0D3            596      ;
B0D3            597      ; Enter the Monitor because an error occurred.
B0D3            598      ;

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```

B0D3 A0 38      599  ERROR      ldy #MSG6-MESGS      ; .
B0D5 20 DD B0   600              jsr PRNMSG
B0D8              601  ;
B0D8 4C 69 FF   602              jmp MONITOR
B0DB              603  ;
B0DB              604  ;
B0DB              605  ; Complete CHKSUM status and return to caller.
B0DB              606  ;
B0DB A0 23      607  ^8          ldy #MSG3-MESGS      ; Okay
B0DD              608  ;
B0DD              609  ;
B0DD B9 EC B0   610  PRNMSG     lda MSGS,Y
B0E0 F0 06      611              beq >1
B0E2              612  ;
B0E2 20 ED FD   613              jsr COUT
B0E5              614  ;
B0E5 C8          615              iny
B0E6 D0 F5      616              bne PRNMSG              ; always taken
B0E8              617  ;
B0E8              618  DATARTN:
B0E8              619  ;
B0E8 60          620  ^1          rts
B0E9              621  ;
B0E9              622  ;
B0E9              623  VAL1       dfs 1,ZERO
B0EA              624  VAL2       dfs 1,ZERO
B0EB              625  VAL3       dfs 1,ZERO
B0EC              626  ;
B0EC              627  ;
B0EC              628  MSGS:
B0EC              629  ;
B0EC 8D          630  MSG1       byt RETURN
B0ED C5 EE E4    631              asc "End address is "
B0F0 A0 E1 E4
B0F3 E4 F2 E5
B0F6 F3 F3 A0
B0F9 E9 F3 A0
B0FC 00          632              byt ZERO
B0FD              633  ;
B0FD 8D          634  MSG2       byt RETURN
B0FE C3 C8 CB    635              asc "CHKSUM value is "
B101 D3 D5 CD
B104 A0 F6 E1
B107 EC F5 E5
B10A A0 E9 F3
B10D A0
B10E 00          636              byt ZERO
B10F              637  ;
B10F CF EB E1    638  MSG3       asc "Okay."
B112 F9 AE
B114 00          639              byt ZERO
B115              640  ;
B115 B0 F8       641  MSG4       asc "0x"
B117 00          642              byt ZERO
B118              643  ;
B118 A0 E1 EE    644  MSG5       asc " and not 0x"
B11B E4 A0 EE
B11E EF F4 A0
B121 B0 F8
B123 00          645              byt ZERO
B124              646  ;

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```

B124 AE          647  MSG6      asc  "."
B125 8D 00       648          byt  RETURN,ZERO
B127          649  ;
B127          650  ;
B127 A9 4A       651  INCRVALS lda  #SHOWVAL3
B129 8D 1A B0    652          sta  MODJMP+1
B12C          653  ;
B12C F8          654          sed
B12D          655  ;
B12D 18          656          clc
B12E          657  ;
B12E AD EB B0    658          lda  VAL3
B131 69 01       659          adc  #1
B133 8D EB B0    660          sta  VAL3
B136          661  ;
B136 AD EA B0    662          lda  VAL2
B139 69 00       663          adc  #ZERO
B13B 8D EA B0    664          sta  VAL2
B13E          665  ;
B13E AD E9 B0    666          lda  VAL1
B141 69 00       667          adc  #ZERO
B143 8D E9 B0    668          sta  VAL1
B146          669  ;
B146 D8          670          cld
B147          671  ;
B147 4C 1C B0    672          jmp  RTNJMP
B14A          673  ;
B14A          674  ;
B14A A9 56       675  SHOWVAL3 lda  #SHOWVAL2
B14C 8D 1A B0    676          sta  MODJMP+1
B14F          677  ;
B14F AD EB B0    678          lda  VAL3
B152          679  ;
B152 A2 26       680          ldx  #$26
B154 D0 16       681          bne  SHOWVALS
B156          682  ;
B156          683  ;
B156 A9 62       684  SHOWVAL2 lda  #SHOWVAL1
B158 8D 1A B0    685          sta  MODJMP+1
B15B          686  ;
B15B AD EA B0    687          lda  VAL2
B15E          688  ;
B15E A2 24       689          ldx  #$24
B160 D0 0A       690          bne  SHOWVALS
B162          691  ;
B162          692  ;
B162 A9 27       693  SHOWVAL1 lda  #INCRVALS
B164 8D 1A B0    694          sta  MODJMP+1
B167          695  ;
B167 AD E9 B0    696          lda  VAL1
B16A          697  ;
B16A A2 22       698          ldx  #$22
B16C          699  ;
B16C          700  ;
B16C 48          701  SHOWVALS pha
B16D          702  ;
B16D 4A          703          lsr
B16E 4A          704          lsr
B16F 4A          705          lsr
B170 4A          706          lsr
B171          707  ;

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```
B171 09 B0      708      ora #"0"
B173 9D D0 07   709      sta LINE23,X
B176           710      ;
B176 68         711      pla
B177 29 0F      712      and #NIBLMASK
B179           713      ;
B179 09 B0      714      ora #"0"
B17B 9D D1 07   715      sta LINE23+1,X
B17E           716      ;
B17E 4C 1C B0   717      jmp RTNJMP
B181           718      ;
B181           719      ;
0181           720      CODELEN equ *-CODEBGN
B181           721      ;
B181           722      ;
B181           723      phs DATACODE+CODELEN
0AA4           724      ;
0AA4           725      ;
0AA4           726      ; The following values are supplied by c2t.
0AA4           727      ;
0AA4 B0 B0 AE   728      LOADTIME asc "00.0"          ; time to install c2t routines
0AA7 B0         729      ;
0AA8 00         730      CMPLOAD hex 00              ; compress load flag
0AA9 00         731      DOSLOAD hex 00              ; DOS load flag
0AAA           732      ;
0AAA 00         733      SCNTFLAG hex 00             ; slot connect flag
0AAB 00         734      SLOTCX hex 00               ; slot CX MSB address
0AAC           735      ;
0AAC           736      ;

BSAVE DATALOAD96,A$0810,B,L$029C

0AAC           737      usr DATALOAD96
0AAC           738      ;
0AAC           739      ;
0AAC           740      stt "DATALOAD96 Symbol Table"
0AAC           741      ;
0AAC           742      ;
0AAC           743      end 111
```

*** End of Assembly

Symbol List starts at 0x7800, ends at 0x7B34, used 0x0334, remaining 0x3C24

Symbols unsorted:

DATAPTR	0000	ENDPTR	0002	CHKSUM	0004	SRCPTR	0008	DSTPTR	000A
PAGEBYTE	000F	ZERO	0000	NEGONE	00FF	NIBLMASK	000F	RETURN	008D
PAGESIZE	0100	XMODE	04FB	LINE23	07D0	DISKLOAD	0810	DISKADR	2000
DISKLEN	0600	INFLLEN	0200	DOSLEN1	1A00	DOSLEN2	0E00	DOSLEN3	0200
DOSLEN	2A00	DATALOAD	B000	DISKCOPY	B200	INFLATE	B800	DOSADR1	D000
DOSADR2	D000	DOSADR3	BE00	MNGUSER	BFF6	INITDOS	BFF8	VID80OFF	C00C
ALTCHOFF	C00E	CONNECT	C010	TAPEIN	C060	ROM2WP	C082	RAM2WE	C083
RAM1WE	C08B	PRNTAX	F941	INIT	FB2F	PRBYTE	FDDA	COUT	FDED
SETNORM	FE84	SETKBD	FE89	SETVID	FE93	MONITOR	FF69	RTNUSER	08C2
COPYPGS	08D7	SETUSER	08E8	SLOT CNT	08EB	PRNTTEXT	08EE	TEXTS	08FA
TEXT1	08FA	TEXTMOD	0914	DATACODE	0923	CODEBGN	B000	MODJMP	B019
RTNJMP	B01C	ERROR	B0D3	PRNTMSG	B0DD	DATARTN	B0E8	VAL1	B0E9
VAL2	B0EA	VAL3	B0EB	MESGS	B0EC	MSG1	B0EC	MSG2	B0FD
MSG3	B10F	MSG4	B115	MSG5	B118	MSG6	B124	INCRVALS	B127
SHOWVAL3	B14A	SHOWVAL2	B156	SHOWVAL1	B162	SHOWVALS	B16C	CODELEN	0181
LOADTIME	0AA4	CMPLOAD	0AA8	DOSLOAD	0AA9	SCNTFLAG	0AAA	SLOT CX	0AAB

Symbols alphabetically sorted:

ALTCHOFF	C00E	CHKSUM	0004	CMPLOAD	0AA8	CODEBGN	B000	CODELEN	0181
CONNECT	C010	COPYPGS	08D7	COUT	FDED	DATACODE	0923	DATALOAD	B000
DATAPTR	0000	DATARTN	B0E8	DISKADR	2000	DISKCOPY	B200	DISKLEN	0600
DISKLOAD	0810	DOSADR1	D000	DOSADR2	D000	DOSADR3	BE00	DOSLEN	2A00
DOSLEN1	1A00	DOSLEN2	0E00	DOSLEN3	0200	DOSLOAD	0AA9	DSTPTR	000A
ENDPTR	0002	ERROR	B0D3	INCRVALS	B127	INFLATE	B800	INFLLEN	0200
INIT	FB2F	INITDOS	BFF8	LINE23	07D0	LOADTIME	0AA4	MSG1	B0EC
MSG2	B0FD	MSG3	B10F	MSG4	B115	MSG5	B118	MSG6	B124
MESGS	B0EC	MNGUSER	BFF6	MODJMP	B019	MONITOR	FF69	NEGONE	00FF
NIBLMASK	000F	PAGEBYTE	000F	PAGESIZE	0100	PRBYTE	FDDA	PRNTAX	F941
PRNTMSG	B0DD	PRNTTEXT	08EE	RAM1WE	C08B	RAM2WE	C083	RETURN	008D
ROM2WP	C082	RTNJMP	B01C	RTNUSER	08C2	SCNTFLAG	0AAA	SETKBD	FE89
SETNORM	FE84	SETUSER	08E8	SETVID	FE93	SHOWVAL1	B162	SHOWVAL2	B156
SHOWVAL3	B14A	SHOWVALS	B16C	SLOT CNT	08EB	SLOT CX	0AAB	SRCPTR	0008
TAPEIN	C060	TEXT1	08FA	TEXTMOD	0914	TEXTS	08FA	VAL1	B0E9
VAL2	B0EA	VAL3	B0EB	VID80OFF	C00C	XMODE	04FB	ZERO	0000

Symbols numerically sorted:

ZERO	0000	DATAPTR	0000	ENDPTR	0002	CHKSUM	0004	SRCPTR	0008
DSTPTR	000A	PAGEBYTE	000F	NIBLMASK	000F	RETURN	008D	NEGONE	00FF
PAGESIZE	0100	CODELEN	0181	INFLLEN	0200	DOSLEN3	0200	XMODE	04FB
DISKLEN	0600	LINE23	07D0	DISKLOAD	0810	RTNUSER	08C2	COPYPGS	08D7
SETUSER	08E8	SLOT CNT	08EB	PRNTTEXT	08EE	TEXTS	08FA	TEXT1	08FA
TEXTMOD	0914	DATACODE	0923	LOADTIME	0AA4	CMPLOAD	0AA8	DOSLOAD	0AA9
SCNTFLAG	0AAA	SLOT CX	0AAB	DOSLEN2	0E00	DOSLEN1	1A00	DISKADR	2000
DOSLEN	2A00	DATALOAD	B000	CODEBGN	B000	MODJMP	B019	RTNJMP	B01C
ERROR	B0D3	PRNTMSG	B0DD	DATARTN	B0E8	VAL1	B0E9	VAL2	B0EA
VAL3	B0EB	MESGS	B0EC	MSG1	B0EC	MSG2	B0FD	MSG3	B10F
MSG4	B115	MSG5	B118	MSG6	B124	INCRVALS	B127	SHOWVAL3	B14A
SHOWVAL2	B156	SHOWVAL1	B162	SHOWVALS	B16C	DISKCOPY	B200	INFLATE	B800
DOSADR3	BE00	MNGUSER	BFF6	INITDOS	BFF8	VID80OFF	C00C	ALTCHOFF	C00E
CONNECT	C010	TAPEIN	C060	ROM2WP	C082	RAM2WE	C083	RAM1WE	C08B

DOSADR2	D000	DOSADR1	D000	PRNTAX	F941	INIT	FB2F	PRBYTE	FDDA
COUT	FDED	SETNORM	FE84	SETKBD	FE89	SETVID	FE93	MONITOR	FF69