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0001 0000 *****
0002 0000 *
0003 0000 * FDC MOPPEL-FDC-Utilities V 10.5 21.11.85 *
0004 0000 *
0005 0000 *****
0006 0000 *
0007 0000 * Implementierung der Z80-Kompatibilität
0008 0000 * (Laden des Interrupt-Masken-Registers)
0009 0000 *
0010 0000 * TRAP (24/66h): PCHL <E9> DRQ
0011 0000 * RST5.5 (002Ch): POP PSW <F1> INTRQ
0012 0000 * (2F98h) IN STATUS <DB 48h>
0013 0000 * RET <C9>
0014 0000 *
0015 0000 * Parameter: RD/WR B = Select-Byte (s.u.)
0016 0000 * C = Anzahl Records
0017 0000 * D = Spur-Nr. 0...79
0018 0000 * E = Sektor-Nr. 1...16
0019 0000 * H&L= Buffer-Anfang
0020 0000 *
0021 0000 * FORMAT B = Select-Byte (s.u)
0022 0000 * L = Anzahl der Spuren
0023 0000 *
0024 0000 * Select-Byte: 7 6 5 4 3 2 1 0
0025 0000 * * * * * * *
0026 0000 * ! ! ! ! ! 0 = DD
0027 0000 * ! ! ! ! ! 1 = SD
0028 0000 * ! ! ! ! 0 0 = Drive 0
0029 0000 * ! ! ! ! 0 1 = Drive 1
0030 0000 * ! ! ! ! 1 0 = Drive 2
0031 0000 * ! ! ! ! 1 1 = Drive 3
0032 0000 * ! ! ! 0 0 = 6 ms Step Rate
0033 0000 * ! ! ! 0 1 = 12 ms
0034 0000 * ! ! ! 1 0 = 20 ms
0035 0000 * ! ! ! 1 1 = 30 ms
0036 0000 * ! ! 0 = Side 0
0037 0000 * ! ! 1 = Side 1
0038 0000 * n.c.
0039 0000 *
0040 0000 * Status-Reg.: 7 6 5 4 3 2 1 0
0041 0000 * * * * * * *
0042 0000 * ! ! ! ! ! 0 0
0043 0000 * ! ! ! ! ! 1 = Lost Dat.
0044 0000 * ! ! ! ! ! 1 = CRC Error
0045 0000 * ! ! ! ! 1 = Record Not Found
0046 0000 * ! ! ! 1 = Record Type/Spin-up
0047 0000 * ! ! 1 = Write Protect
0048 0000 * ! 1 = Disk Not Ready
0049 0000 *
0050 0000 *
0051 0000 BYTFF EQU 1AH
0052 0000 COMREG EQU 48H
0053 0000 TRKREG EQU 49H
0054 0000 SECREG EQU 4AH
0055 0000 DATREG EQU 4BH
0056 0000 STATUS EQU COMREG
0057 0000 *
0058 0000 CTRL EQU 40H *Latch für Hilfsbank #2000h
0059 0000 *
0060 0000 SECZAL EQU 10H
0061 0000 SECLDD EQU 1H *256 BYTES
0062 0000 *
0063 0000 *

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0064 0000      *
0065 0000      TIMEOUT EQU 32H      *mult. 0,1 s
0066 0000      *
0067 0000      FQUARZ EQU 06H
0068 0000      DLY100 EQU 13H
0069 0000      CI EQU 43H
0070 0000      CO EQU 49H
0071 0000      CSTS EQU 52H
0072 0000      *
0073 0000      PARIN EQU 1012H
0074 0000      STRING EQU 1021H
0075 0000      ERROR EQU 1027H
0076 0000      CRSPOS EQU 1033H
0077 0000      CRSON EQU 1036H
0078 0000      CRSOFF EQU 1039H
0079 0000      BYTOT EQU 103FH
0080 0000      *
0081 0000      MOVID EQU 1003H
0082 0000      ASS EQU 6000H
0083 0000      EDI EQU 7000H
0084 0000      *
0085 0000      BATBUF EQU 2D00H
0086 0000      FDCBUF EQU 2F70H
0087 0000      CPYBUF EQU 8000H
0088 0000      *
0089 0000      STACK EQU 2F00H
0090 0000      TRAP EQU 2F8CH
0091 0000      RST55 EQU 2F98H
0092 0000      RST551 EQU 2F99H
0093 0000      SRCBEG EQU 2FBFH
0094 0000      SRCEND EQU 2FC1H
0095 0000      DSTBEG EQU 2FC3H
0096 0000      LINZ EQU 2E54H
0097 0000      *
0098 0000      *
0099 0000      MSGO EQU 26D0H
0100 0000      MSG1 EQU 2703H
0101 0000      ARROW EQU 276CH
0102 0000      MSDRIV EQU 2771H
0103 0000      MSTRAK EQU 2784H
0104 0000      MSRCDS EQU 2798H
0105 0000      MSTART EQU 27ABH
0106 0000      MSGTRK EQU 27C0H
0107 0000      NUMB EQU 27D4H
0108 0000      BNUM EQU 27E8H
0109 0000      OKMSG EQU 27F9H
0110 0000      *
0111 0000      *
0112 0000      ORG 2000H
0113 0000      *
0114 0000      *
0115 2000      C3 CC 22 FDC: JMP FKALT *Kaltstart
0116 2003      C3 D8 22 WARM: JMP MAIN
0117 2006      C3 5A 24 JMP WRBLK *Block schr.
0118 2009      C3 50 24 JMP RDBLK *Block lesen
0119 200C      C3 40 20 JMP WRSEC *Sect. schr.
0120 200F      C3 66 20 JMP RDSEC *Sect. lesen
0121 2012      C3 88 23 JMP COPY
0122 2015      C3 3B 24 JMP FORDSK
0123 2018      *
0124 2018      D3 4B INTFOR: OUT DATREG
0125 201A      C9 RET
0126 201B      *
0127 201B      1A INTWR: LDAX D

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| | | | | | | | |
|------|------|----|-------|---------|------|---------|---------------------------|
| 0128 | 201C | D3 | 4B | | OUT | DATREG | |
| 0129 | 201E | 13 | | | INX | D | |
| 0130 | 201F | C9 | | | RET | | |
| 0131 | 2020 | | | * | | | |
| 0132 | 2020 | DB | 4B | INTRD: | IN | DATREG | |
| 0133 | 2022 | 12 | | | STAX | D | |
| 0134 | 2023 | 13 | | | INX | D | |
| 0135 | 2024 | C9 | | | RET | | |
| 0136 | 2025 | | | * | | | |
| 0137 | 2025 | DB | 4B | INTPG2: | IN | DATREG | |
| 0138 | 2027 | C9 | | | RET | | |
| 0139 | 2028 | | | * | | | |
| 0140 | 2028 | F1 | | ISR: | POP | PSW | |
| 0141 | 2029 | DB | 48 | | IN | STATUS | |
| 0142 | 202B | C9 | | | RET | | |
| 0143 | 202C | | | * | | | |
| 0144 | 202C | C5 | | INTON: | PUSH | B | |
| 0145 | 202D | 3E | 1E | | MVI | A,1EH | *8085-RST5.5 enable |
| 0146 | 202F | 06 | 02 | | MVI | B,2H | *NSC800-RSTC enable |
| 0147 | 2031 | C3 | 39 20 | | JMP | INTCTE | |
| 0148 | 2034 | C5 | | INTOF: | PUSH | B | |
| 0149 | 2035 | 3E | 1F | | MVI | A,1FH | *8085-RST5.5 disable |
| 0150 | 2037 | 06 | 00 | | MVI | B,0H | *NSC800-RSTC disable |
| 0151 | 2039 | 30 | | INTCTE: | SIM | | |
| 0152 | 203A | 00 | | | NOP | | *wg. NSC800-JR-Befehl |
| 0153 | 203B | 78 | | | MOV | A,B | |
| 0154 | 203C | D3 | BB | | OUT | OB BH | |
| 0155 | 203E | C1 | | | POP | B | |
| 0156 | 203F | C9 | | | RET | | |
| 0157 | 2040 | | | * | | | |
| 0158 | 2040 | CD | 0D 22 | WRSEC: | CALL | INIT | |
| 0159 | 2043 | E5 | | | PUSH | H | |
| 0160 | 2044 | 21 | 1B 20 | | LXI | H,INTWR | |
| 0161 | 2047 | 22 | 7C 2F | | SHLD | INTPRG | |
| 0162 | 204A | E1 | | | POP | H | |
| 0163 | 204B | 3A | 70 2F | | LDA | TRKNR | |
| 0164 | 204E | 57 | | | MOV | D,A | |
| 0165 | 204F | 3E | 2A | | MVI | A,2AH | *42d |
| 0166 | 2051 | BA | | | CMP | D | |
| 0167 | 2052 | 3E | A6 | | MVI | A,0A6H | *WRSEC;+30 ms;NO PRECOMP. |
| 0168 | 2054 | D2 | 73 20 | | JNC | START | |
| 0169 | 2057 | 47 | | | MOV | B,A | |
| 0170 | 2058 | 3A | 73 2F | | LDA | SELBYT | |
| 0171 | 205B | E6 | 01 | | ANI | 1H | |
| 0172 | 205D | 78 | | | MOV | A,B | |
| 0173 | 205E | C2 | 73 20 | | JNZ | START | |
| 0174 | 2061 | E6 | FD | | ANI | OFDH | *ab 42 mit PRECOMP. |
| 0175 | 2063 | C3 | 73 20 | | JMP | START | |
| 0176 | 2066 | | | * | | | |
| 0177 | 2066 | CD | 0D 22 | RDSEC: | CALL | INIT | |
| 0178 | 2069 | E5 | | | PUSH | H | |
| 0179 | 206A | 21 | 20 20 | | LXI | H,INTRD | |
| 0180 | 206D | 22 | 7C 2F | | SHLD | INTPRG | |
| 0181 | 2070 | E1 | | | POP | H | |
| 0182 | 2071 | 3E | 84 | | MVI | A,84H | *RDSEC;+30 ms |
| 0183 | 2073 | 32 | 79 2F | START: | STA | RWBEF | |
| 0184 | 2076 | CD | 39 10 | | CALL | CRSOFF | |
| 0185 | 2079 | 7E | | | MOV | A,M | *TRACKO...3 |
| 0186 | 207A | 07 | | | RLC | | |
| 0187 | 207B | D4 | FC 21 | | CNC | RECAL | *MSB=LOW: auf Spur 00 |
| 0188 | 207E | 7E | | | MOV | A,M | |
| 0189 | 207F | E6 | 7F | | ANI | 7FH | |
| 0190 | 2081 | D3 | 49 | | OUT | TRKREG | *aktuelle Kopfpos. |
| 0191 | 2083 | 3A | 70 2F | | LDA | TRKNR | |

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|------|------|----------|---------|------|----------|-----------------------|
| 0192 | 2086 | D3 4B | | OUT | DATREG | *gewünschte Position |
| 0193 | 2088 | 06 14 | | MVI | B,14H | *SEEK |
| 0194 | 208A | CD 46 22 | | CALL | POSIT | *Status in REG A |
| 0195 | 208D | E6 19 | | ANI | 19H | |
| 0196 | 208F | C2 BC 20 | | JNZ | ENDO | *Statusfehler: JMP |
| 0197 | 2092 | DB 49 | | IN | TRKREG | |
| 0198 | 2094 | 57 | | MOV | D,A | |
| 0199 | 2095 | 3A 70 2F | | LDA | TRKNR | |
| 0200 | 2098 | BA | | CMP | D | |
| 0201 | 2099 | CA A1 20 | | JZ | STACTE | |
| 0202 | 209C | 36 00 | | MVI | M,0H | |
| 0203 | 209E | 3E 10 | | MVI | A,10H | *=F#04 (Pos.Err.) |
| 0204 | 20A0 | C9 | | RET | | |
| 0205 | 20A1 | | * | | | |
| 0206 | 20A1 | AF | STACTE: | XRA | A | |
| 0207 | 20A2 | B8 | | CMP | B | |
| 0208 | 20A3 | 79 | | MOV | A,C | |
| 0209 | 20A4 | C8 | | RZ | | *TIMOUT; REG A=Status |
| 0210 | 20A5 | | * | | | |
| 0211 | 20A5 | DB 49 | | IN | TRKREG | *Posit. o.k.: |
| 0212 | 20A7 | F6 80 | | ORI | 80H | *MSB SETZEN |
| 0213 | 20A9 | 77 | | MOV | M,A | *neue Kopfposit. |
| 0214 | 20AA | | * | | | |
| 0215 | 20AA | 06 03 | | MVI | B,3H | *3 VERS. |
| 0216 | 20AC | C5 | WDHG: | PUSH | B | |
| 0217 | 20AD | E5 | | PUSH | H | |
| 0218 | 20AE | CD AE 22 | | CALL | RDWR | |
| 0219 | 20B1 | E6 5C | | ANI | 5CH | |
| 0220 | 20B3 | E1 | | POP | H | |
| 0221 | 20B4 | C1 | | POP | B | |
| 0222 | 20B5 | CA BE 20 | | JZ | ENDE | |
| 0223 | 20B8 | 05 | | DCR | B | |
| 0224 | 20B9 | C2 AC 20 | | JNZ | WDHG | |
| 0225 | 20BC | | * | | | |
| 0226 | 20BC | 36 00 | ENDO: | MVI | M,0H | |
| 0227 | 20BE | DB 48 | ENDE: | IN | STATUS | |
| 0228 | 20C0 | E6 7C | | ANI | 7CH | |
| 0229 | 20C2 | F5 | END1: | PUSH | PSW | |
| 0230 | 20C3 | CD 34 20 | | CALL | INTOF | |
| 0231 | 20C6 | F1 | | POP | PSW | |
| 0232 | 20C7 | C9 | | RET | | |
| 0233 | 20C8 | | * | | | |
| 0234 | 20C8 | CD 0D 22 | FORM: | CALL | INIT | |
| 0235 | 20CB | 21 18 20 | DD: | LXI | H,INTFOR | |
| 0236 | 20CE | 22 7C 2F | | SHLD | INTPRG | |
| 0237 | 20D1 | 3A 73 2F | | LDA | SELBYT | |
| 0238 | 20D4 | E6 20 | | ANI | 20H | |
| 0239 | 20D6 | 07 | | RLC | | |
| 0240 | 20D7 | 07 | | RLC | | |
| 0241 | 20D8 | 07 | | RLC | | |
| 0242 | 20D9 | 32 72 2F | | STA | SIDNR | |
| 0243 | 20DC | 06 04 | | MVI | B,4H | *RESTOR |
| 0244 | 20DE | CD 46 22 | | CALL | POSIT | |
| 0245 | 20E1 | AF | | XRA | A | |
| 0246 | 20E2 | B8 | | CMP | B | |
| 0247 | 20E3 | 79 | | MOV | A,C | |
| 0248 | 20E4 | C8 | | RZ | | *DISK NOT READY: RET |
| 0249 | 20E5 | | * | | | |
| 0250 | 20E5 | 1E 00 | ANF0: | MVI | E,0H | *SPUR-ZÄHLER |
| 0251 | 20E7 | 26 02 | ANF1: | MVI | H,2H | *2 VERS. |
| 0252 | 20E9 | 0E FE | ANF2: | MVI | C,0FEH | *256 BYTES |
| 0253 | 20EB | E5 | | PUSH | H | |
| 0254 | 20EC | CD 2C 21 | | CALL | FORMDD | *SPUR SCHREIBEN |
| 0255 | 20EF | E1 | | POP | H | |

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|------|------|----------|---------|------|----------|---------------------------|
| 0256 | 20F0 | DB 48 | | IN | STATUS | |
| 0257 | 20F2 | E6 7C | | ANI | 7CH | |
| 0258 | 20F4 | CA FE 20 | | JZ | ADRP | |
| 0259 | 20F7 | 25 | | DCR | H | |
| 0260 | 20F8 | C2 E9 20 | | JNZ | ANF2 | |
| 0261 | 20FB | C3 BE 20 | | JMP | ENDE | |
| 0262 | 20FE | | * | | | |
| 0263 | 20FE | DB 49 | ADRP: | IN | TRKREG | |
| 0264 | 2100 | 3C | | INR | A | |
| 0265 | 2101 | 2A 7A 2F | | LHLD | DATADR | |
| 0266 | 2104 | BD | | CMP | L | |
| 0267 | 2105 | CA 17 21 | | JZ | FOREND | |
| 0268 | 2108 | 06 54 | | MVI | B,54H | *STEPIN |
| 0269 | 210A | D5 | | PUSH | D | |
| 0270 | 210B | CD 46 22 | | CALL | POSIT | |
| 0271 | 210E | D1 | | POP | D | |
| 0272 | 210F | AF | | XRA | A | |
| 0273 | 2110 | B8 | | CMP | B | |
| 0274 | 2111 | 79 | | MOV | A,C | |
| 0275 | 2112 | C8 | | RZ | | *DISK NOT READY: RET |
| 0276 | 2113 | 1C | | INR | E | |
| 0277 | 2114 | C3 E7 20 | | JMP | ANF1 | |
| 0278 | 2117 | | * | | | |
| 0279 | 2117 | 06 04 | FOREND: | MVI | B,4H | *RESTOR |
| 0280 | 2119 | CD 46 22 | | CALL | POSIT | |
| 0281 | 211C | 3A 73 2F | | LDA | SELBYT | |
| 0282 | 211F | 0F | | RRC | | |
| 0283 | 2120 | E6 03 | | ANI | 3H | |
| 0284 | 2122 | 21 75 2F | | LXI | H,TRACKO | |
| 0285 | 2125 | 16 00 | | MVI | D,0H | |
| 0286 | 2127 | 5F | | MOV | E,A | |
| 0287 | 2128 | 19 | | DAD | D | |
| 0288 | 2129 | C3 BC 20 | | JMP | ENDO | |
| 0289 | 212C | | * | | | |
| 0290 | 212C | 16 01 | FORMDD: | MVI | D,1H | *SEKTOR-ZÄHLER |
| 0291 | 212E | 2A 7C 2F | | LHLD | INTPRG | |
| 0292 | 2131 | 06 3C | | MVI | B,3CH | *60 * 4E |
| 0293 | 2133 | DB 48 | | IN | STATUS | |
| 0294 | 2135 | CD 2C 20 | | CALL | INTON | |
| 0295 | 2138 | 3E 2A | | MVI | A,2AH | *42d |
| 0296 | 213A | BB | | CMP | E | |
| 0297 | 213B | 3E F6 | | MVI | A,0F6H | *WRTRK;+30 ms;NO PRECOMP. |
| 0298 | 213D | D2 42 21 | | JNC | FORM1 | |
| 0299 | 2140 | E6 FD | | ANI | OFDH | *ab 42 mit PRECOMP. |
| 0300 | 2142 | D3 48 | FORM1: | OUT | COMREG | |
| 0301 | 2144 | FB | | EI | | |
| 0302 | 2145 | | * | | | |
| 0303 | 2145 | 3E 4E | | MVI | A,4EH | *SPURBEGINN |
| 0304 | 2147 | 76 | ADR6: | HLT | | |
| 0305 | 2148 | 05 | | DCR | B | |
| 0306 | 2149 | C2 47 21 | | JNZ | ADR6 | |
| 0307 | 214C | | * | | | |
| 0308 | 214C | AF | | XRA | A | |
| 0309 | 214D | 76 | | HLT | | |
| 0310 | 214E | 06 0A | | MVI | B,0AH | *12 * 0 |
| 0311 | 2150 | 76 | ADR4: | HLT | | |
| 0312 | 2151 | 05 | | DCR | B | |
| 0313 | 2152 | C2 50 21 | | JNZ | ADR4 | |
| 0314 | 2155 | 76 | | HLT | | |
| 0315 | 2156 | | * | | | |
| 0316 | 2156 | 3E F5 | | MVI | A,0F5H | |
| 0317 | 2158 | 76 | | HLT | | *3 * F5 (FDC=A1!) |
| 0318 | 2159 | 76 | | HLT | | |
| 0319 | 215A | 76 | ADR5: | HLT | | |

| | | | | | | | |
|------|------|----|-------|---|---------|----------|------------------------|
| 0320 | 215B | | | * | | | |
| 0321 | 215B | 3E | FE | | MVI | A,0FEH | *1 * FE (IND.ADR.MARK) |
| 0322 | 215D | 76 | | | HLT | | |
| 0323 | 215E | | | * | | | |
| 0324 | 215E | 7B | | | MOV | A,E | *SPUR-NR. |
| 0325 | 215F | 76 | | | HLT | | |
| 0326 | 2160 | | | * | | | |
| 0327 | 2160 | 3A | 72 2F | | LDA | SIDNR | |
| 0328 | 2163 | 76 | | | HLT | | |
| 0329 | 2164 | | | * | | | |
| 0330 | 2164 | 7A | | | MOV | A,D | *SEKTOR-NR. |
| 0331 | 2165 | 76 | | | HLT | | |
| 0332 | 2166 | | | * | | | |
| 0333 | 2166 | 3E | 01 | | MVI | A,SECLDD | |
| 0334 | 2168 | 76 | | | HLT | | |
| 0335 | 2169 | | | * | | | |
| 0336 | 2169 | 3E | F7 | | MVI | A,0F7H | *1 * F7 (2 CRCs) |
| 0337 | 216B | 76 | | | HLT | | |
| 0338 | 216C | | | * | | | |
| 0339 | 216C | 14 | | | INR | D | *SEKTOR-NR. |
| 0340 | 216D | | | * | | | |
| 0341 | 216D | 3E | 4E | | MVI | A,4EH | |
| 0342 | 216F | 76 | | | HLT | | |
| 0343 | 2170 | 06 | 14 | | MVI | B,14H | *22 * 4E |
| 0344 | 2172 | 76 | | | ADR11: | HLT | |
| 0345 | 2173 | 05 | | | DCR | B | |
| 0346 | 2174 | C2 | 72 21 | | JNZ | ADR11 | |
| 0347 | 2177 | 76 | | | HLT | | |
| 0348 | 2178 | | | * | | | |
| 0349 | 2178 | AF | | | XRA | A | |
| 0350 | 2179 | 76 | | | HLT | | |
| 0351 | 217A | 06 | 0A | | MVI | B,0AH | *12 * 0 |
| 0352 | 217C | 76 | | | -ADR12: | HLT | |
| 0353 | 217D | 05 | | | DCR | B | |
| 0354 | 217E | C2 | 7C 21 | | JNZ | ADR12 | |
| 0355 | 2181 | 76 | | | HLT | | |
| 0356 | 2182 | | | * | | | |
| 0357 | 2182 | 3E | F5 | | MVI | A,0F5H | |
| 0358 | 2184 | 76 | | | HLT | | *3 * F5 (FCD=A1!) |
| 0359 | 2185 | 76 | | | HLT | | |
| 0360 | 2186 | 76 | | | ADR13: | HLT | |
| 0361 | 2187 | | | * | | | |
| 0362 | 2187 | 3E | FB | | MVI | A,0FBH | *1 * FB (DAT.ADR.MARK) |
| 0363 | 2189 | 76 | | | HLT | | |
| 0364 | 218A | | | * | | | |
| 0365 | 218A | 3E | E5 | | MVI | A,0E5H | *IBM |
| 0366 | 218C | 76 | | | HLT | | |
| 0367 | 218D | 41 | | | MOV | B,C | |
| 0368 | 218E | 76 | | | ADR14: | HLT | |
| 0369 | 218F | 05 | | | DCR | B | *DATENBLOCK |
| 0370 | 2190 | C2 | 8E 21 | | JNZ | ADR14 | |
| 0371 | 2193 | 76 | | | HLT | | |
| 0372 | 2194 | | | * | | | |
| 0373 | 2194 | 3E | F7 | | MVI | A,0F7H | *1 * F7 (2 CRCs) |
| 0374 | 2196 | 76 | | | HLT | | |
| 0375 | 2197 | | | * | | | |
| 0376 | 2197 | 3E | 4E | | ADRX: | MVI | A,4EH *SEKTOR-ENDE |
| 0377 | 2199 | 76 | | | HLT | | *54 * 4E |
| 0378 | 219A | 06 | 34 | | MVI | B,34H | *52d |
| 0379 | 219C | 76 | | | ADR16: | HLT | |
| 0380 | 219D | 05 | | | DCR | B | |
| 0381 | 219E | C2 | 9C 21 | | JNZ | ADR16 | |
| 0382 | 21A1 | 76 | | | HLT | | |
| 0383 | 21A2 | | | * | | | LOOP |

| | | | | | | |
|------|------|----|--------|-----|----------|------------------------|
| 0384 | 21A2 | AF | | XRA | A | |
| 0385 | 21A3 | 76 | | HLT | | |
| 0386 | 21A4 | 06 | 0A | MVI | B,0AH | *12 * 0 |
| 0387 | 21A6 | 76 | ADR17: | HLT | | |
| 0388 | 21A7 | 05 | | DCR | B | |
| 0389 | 21A8 | C2 | A6 21 | JNZ | ADR17 | |
| 0390 | 21AB | 76 | | HLT | | |
| 0391 | 21AC | 3E | F5 | MVI | A,OF5H | |
| 0392 | 21AE | 76 | | HLT | | *3 * F5 (FDC=A1!) |
| 0393 | 21AF | 76 | | HLT | | |
| 0394 | 21B0 | 76 | ADR18: | HLT | | |
| 0395 | 21B1 | | * | | | |
| 0396 | 21B1 | 3E | FE | MVI | A,OFEH | *1 * FE (IND.ADR.MARK) |
| 0397 | 21B3 | 76 | | HLT | | |
| 0398 | 21B4 | | * | | | |
| 0399 | 21B4 | 7B | | MOV | A,E | *SPUR-NR. |
| 0400 | 21B5 | 76 | | HLT | | |
| 0401 | 21B6 | | * | | | |
| 0402 | 21B6 | 3A | 72 2F | LDA | SIDNR | |
| 0403 | 21B9 | 76 | | HLT | | |
| 0404 | 21BA | | * | | | |
| 0405 | 21BA | 7A | | MOV | A,D | *SEKTOR-NR. |
| 0406 | 21BB | 76 | | HLT | | |
| 0407 | 21BC | | * | | | |
| 0408 | 21BC | 3E | 01 | MVI | A,SECLDD | |
| 0409 | 21BE | 76 | | HLT | | |
| 0410 | 21BF | | * | | | |
| 0411 | 21BF | 3E | F7 | MVI | A,OF7H | *1 * F7 (2 CRCs) |
| 0412 | 21C1 | 76 | | HLT | | |
| 0413 | 21C2 | | * | | | |
| 0414 | 21C2 | 14 | | INR | D | *SEKTOR-NR. |
| 0415 | 21C3 | | * | | | |
| 0416 | 21C3 | 3E | 4E | MVI | A,4EH | *22 * 4E |
| 0417 | 21C5 | 76 | | HLT | | |
| 0418 | 21C6 | 06 | 14 | MVI | B,14H | |
| 0419 | 21C8 | 76 | ADR19: | | | |
| 0420 | 21C9 | 05 | | DCR | B | |
| 0421 | 21CA | C2 | C8 21 | JNZ | ADR19 | |
| 0422 | 21CD | 76 | | HLT | | |
| 0423 | 21CE | | * | | | |
| 0424 | 21CE | AF | | XRA | A | |
| 0425 | 21CF | 76 | | HLT | | |
| 0426 | 21D0 | 06 | 0A | MVI | B,0AH | *12 * 0 |
| 0427 | 21D2 | 76 | ADR20: | HLT | | |
| 0428 | 21D3 | 05 | | DCR | B | |
| 0429 | 21D4 | C2 | D2 21 | JNZ | ADR20 | |
| 0430 | 21D7 | 76 | | HLT | | |
| 0431 | 21D8 | | * | | | |
| 0432 | 21D8 | 3E | F5 | MVI | A,OF5H | |
| 0433 | 21DA | 76 | | HLT | | *3 * F5 (FDC=A1!) |
| 0434 | 21DB | 76 | | HLT | | |
| 0435 | 21DC | 76 | ADR21: | HLT | | |
| 0436 | 21DD | | * | | | |
| 0437 | 21DD | 3E | FB | MVI | A,OFBH | |
| 0438 | 21DF | 76 | | HLT | | |
| 0439 | 21E0 | | * | | | |
| 0440 | 21E0 | 3E | E5 | MVI | A,OE5H | *IBM |
| 0441 | 21E2 | 76 | | HLT | | |
| 0442 | 21E3 | 41 | | MOV | B,C | *BYTE-ANZAHL (-2) |
| 0443 | 21E4 | 76 | ADR22: | HLT | | |
| 0444 | 21E5 | 05 | | DCR | B | *DATENBLOCK |
| 0445 | 21E6 | C2 | E4 21 | JNZ | ADR22 | |
| 0446 | 21E9 | 76 | | HLT | | |
| 0447 | 21EA | | * | | | |

| | | | | | | |
|------|------|----------|---------|------|----------|--------------------------------------|
| 0448 | 21EA | 3E F7 | | MVI | A,0F7H | *1 * F7 (2 CRCs) |
| 0449 | 21EC | 76 | | HLT | | |
| 0450 | 21ED | 3E 10 | | MVI | A,SECZAL | |
| 0451 | 21EF | 3C | | INR | A | |
| 0452 | 21F0 | BA | | CMP | D | *ALLE SEK.VOLL? |
| 0453 | 21F1 | C2 97 21 | | JNZ | ADRX | *NEIN: JMP |
| 0454 | 21F4 | | * | | | |
| 0455 | 21F4 | 3E 4E | ADRY: | MVI | A,4EH | *4E BIS INTRG KOMMT |
| 0456 | 21F6 | FB | | EI | | |
| 0457 | 21F7 | 76 | ADRZ: | HLT | | |
| 0458 | 21F8 | FB | | EI | | |
| 0459 | 21F9 | C3 F7 21 | | JMP | ADRZ | |
| 0460 | 21FC | | * | | | |
| 0461 | 21FC | 06 04 | RECAL: | MVI | B,4H | *RESTOR |
| 0462 | 21FE | CD 46 22 | | CALL | POSIT | |
| 0463 | 2201 | AF | | XRA | A | |
| 0464 | 2202 | B8 | | CMP | B | |
| 0465 | 2203 | CA 0B 22 | | JZ | RECAL1 | *TIMOUT: JMP |
| 0466 | 2206 | 36 80 | | MVI | M,80H | *TRACKO...3 |
| 0467 | 2208 | DB 48 | | IN | STATUS | |
| 0468 | 220A | C9 | | RET | | |
| 0469 | 220B | 79 | RECAL1: | MOV | A,C | |
| 0470 | 220C | C9 | | RET | | |
| 0471 | 220D | | * | | | |
| 0472 | 220D | F3 | INIT: | DI | | |
| 0473 | 220E | 22 7A 2F | | SHLD | DATADR | |
| 0474 | 2211 | C5 | | PUSH | B | *SAVE C |
| 0475 | 2212 | 6A | | MOV | L,D | *TRKNR |
| 0476 | 2213 | 63 | | MOV | H,E | *SECNR |
| 0477 | 2214 | 22 70 2F | | SHLD | TRKNR | |
| 0478 | 2217 | | * | | | |
| 0479 | 2217 | 3E C3 | | MVI | A,0C3H | |
| 0480 | 2219 | 32 98 2F | | STA | RST55 | |
| 0481 | 221C | 21 28 20 | | LXI | H,ISR | |
| 0482 | 221F | 22 99 2F | | SHLD | RST551 | |
| 0483 | 2222 | | * | | | |
| 0484 | 2222 | AF | | XRA | A | |
| 0485 | 2223 | D3 1A | | OUT | BYTFF | *SSTEP-FF RÜCKSETZEN |
| 0486 | 2225 | | * | | | |
| 0487 | 2225 | 78 | | MOV | A,B | |
| 0488 | 2226 | 32 73 2F | | STA | SELBYT | |
| 0489 | 2229 | 0F | | RRC | | |
| 0490 | 222A | E6 03 | | ANI | 3H | |
| 0491 | 222C | F5 | | PUSH | PSW | |
| 0492 | 222D | 21 C8 22 | | LXI | H,LAUFWO | |
| 0493 | 2230 | 16 00 | | MVI | D,0H | |
| 0494 | 2232 | 5F | | MOV | E,A | |
| 0495 | 2233 | 19 | | DAD | D | |
| 0496 | 2234 | 4E | | MOV | C,M | *LW-ADR.2/4/8/10 |
| 0497 | 2235 | 21 73 2F | | LXI | H,SELBYT | |
| 0498 | 2238 | 7E | | MOV | A,M | |
| 0499 | 2239 | E6 21 | | ANI | 21H | |
| 0500 | 223B | B1 | | ORA | C | |
| 0501 | 223C | 23 | | INX | H | *H&L=SELOUT |
| 0502 | 223D | 77 | | MOV | M,A | |
| 0503 | 223E | 23 | | INX | H | *H&L=TRACKO |
| 0504 | 223F | F1 | | POP | PSW | *DRIVE 0...3 |
| 0505 | 2240 | 16 00 | | MVI | D,0H | |
| 0506 | 2242 | 5F | | MOV | E,A | |
| 0507 | 2243 | 19 | | DAD | D | *H,L=TRACKO...3 |
| 0508 | 2244 | C1 | | POP | B | *RESTORE C |
| 0509 | 2245 | C9 | | RET | | |
| 0510 | 2246 | | * | | | |
| 0511 | 2246 | | * | | | Ausgabe eines Befehls an den WD1770; |


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0512 2246      *      beim Rücksprung steht in REG A der Status
0513 2246      *      bei TIMEOUT ist das MSB in REG A auf HIGH
0514 2246      *
0515 2246 CD 2C 20 POSIT: CALL      INTON
0516 2249 3A 73 2F      LDA      SELBYT
0517 224C OF          RRC
0518 224D OF          RRC
0519 224E OF          RRC
0520 224F E6 03      ANI      3H
0521 2251 B0          ORA      B      *STEP RATE
0522 2252 D3 48      OUT      COMREG
0523 2254 DB 48      POSIT1: IN      STATUS
0524 2256 07          RLC          *MOTOR ON
0525 2257 D2 54 22      JNC      POSIT1
0526 225A 3A 74 2F      LDA      SELOUT
0527 225D D3 40      OUT      CTRL
0528 225F FB          EI
0529 2260      *
0530 2260 06 32      MVI      B,TIMOUT  *max.Einstellzeit
0531 2262 3A 06 00 POSLOP: LDA      FQUARZ  *Quarzfrequenz
0532 2265 4F          MOV      C,A
0533 2266 11 00 08 POSL:  LXI      D,800H  * 2048d*24 CLKs
0534 2269 1B          POSL:  DCX      D      *(16 ms bei 6 MHz)
0535 226A 7B          MOV      A,E
0536 226B B2          ORA      D      *Endabfrage
0537 226C C2 69 22      JNZ      POSL
0538 226F 0D          DCR      C
0539 2270 C2 66 22      JNZ      POSLP
0540 2273 05          DCR      B
0541 2274 C2 62 22      JNZ      POSLOP
0542 2277      *
0543 2277 3E D0      MVI      A,ODOH  *FORCE INTR.
0544 2279 D3 48      OUT      COMREG
0545 227B CD 34 20      CALL     INTOF
0546 227E DB 48      IN      STATUS
0547 2280 E6 7C      ANI      7CH
0548 2282 F6 80      ORI      80H  *DISK NOT READY
0549 2284 4F          MOV      C,A
0550 2285 C9          RET
0551 2286      *
0552 2286 3E 01      READC: MVI      A,1H  *SEK-REG
0553 2288 D3 4A      OUT     SECREG
0554 228A 16 10      MVI     D,SECZAL
0555 228C 06 00      MVI     B,0H  *256 BYTES
0556 228E CD 2C 20      CALL     INTON
0557 2291 3E 94      MVI     A,94H  *RDMULTSEC;30 ms DELAY
0558 2293 D3 48      OUT     COMREG
0559 2295 FB          EI
0560 2296 76          ADRG:  HLT          *DATENBYTES LESEN
0561 2297 05          DCR     B
0562 2298 C2 96 22      JNZ     ADRG
0563 229B 15          DCR     D      *ALLE SEK.GELESEN?
0564 229C C2 96 22      JNZ     ADRG  *NEIN: JMP
0565 229F 06 10      MVI     B,SECZAL
0566 22A1 04          INR     B
0567 22A2 DB 4A      ADR99: IN      SECREG
0568 22A4 B8          CMP     B
0569 22A5 C2 A2 22      JNZ     ADR99
0570 22A8 3E D4      MVI     A,OD4H  *FORCE INTR.ON IND.PULSE
0571 22AA D3 48      OUT     COMREG
0572 22AC FB          EI
0573 22AD 76          HLT
0574 22AE      *
0575 22AE 2A 7A 2F RDWR: LHLD     DATADR

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| | | | | | | | |
|------|------|----|----|----|---------------------------|----------|--------|
| 0576 | 22B1 | E5 | | | PUSH | H | |
| 0577 | 22B2 | D1 | | | POP | D | |
| 0578 | 22B3 | 2A | 7C | 2F | LHLD | INTPRG | |
| 0579 | 22B4 | 3A | 71 | 2F | LDA | SECNR | |
| 0580 | 22B9 | D3 | 4A | | OUT | SECREG | |
| 0581 | 22BB | CD | 2C | 20 | CALL | INTON | |
| 0582 | 22BE | 3A | 79 | 2F | LDA | RWBEF | |
| 0583 | 22C1 | D3 | 48 | | OUT | COMREG | |
| 0584 | 22C3 | FB | | | RDWR1: EI | | |
| 0585 | 22C4 | 76 | | | HLT | | |
| 0586 | 22C5 | C3 | C3 | 22 | JMP | RDWR1 | |
| 0587 | 22C8 | | | | * | | |
| 0588 | 22C8 | 02 | | | LAUFW0: DB | 02H | |
| 0589 | 22C9 | 04 | | | LAUFW1: DB | 04H | |
| 0590 | 22CA | 08 | | | LAUFW2: DB | 08H | |
| 0591 | 22CB | 10 | | | LAUFW3: DB | 10H | |
| 0592 | 22CC | | | | * | | |
| 0593 | 22CC | 21 | D0 | 26 | FKALT: LXI | H,MSGO | |
| 0594 | 22CF | CD | 21 | 10 | CALL | STRING | |
| 0595 | 22D2 | 21 | 03 | 27 | MENUE: LXI | H,MSG1 | |
| 0596 | 22D5 | CD | 21 | 10 | CALL | STRING | |
| 0597 | 22D8 | 31 | 00 | 2F | MAIN: LXI | SP,STACK | |
| 0598 | 22DB | 21 | D8 | 22 | LXI | H,MAIN | |
| 0599 | 22DE | E5 | | | PUSH | H | |
| 0600 | 22DF | 21 | 6C | 27 | LXI | H,ARROW | |
| 0601 | 22E2 | CD | 21 | 10 | CALL | STRING | |
| 0602 | 22E5 | CD | 36 | 10 | CALL | CRSON | |
| 0603 | 22E8 | CD | 43 | 00 | CALL | CI | |
| 0604 | 22EB | 4F | | | MOV | C,A | |
| 0605 | 22EC | CD | 49 | 00 | CALL | CO | |
| 0606 | 22EF | FE | 1B | | CPI | 1BH | *CTL+C |
| 0607 | 22F1 | CA | CC | 22 | JZ | FKALT | |
| 0608 | 22F4 | E6 | 5F | | ANI | 5FH | |
| 0609 | 22F6 | FE | 41 | | CPI | "A" | |
| 0610 | 22F8 | CA | 00 | 60 | JZ | ASS | |
| 0611 | 22FB | FE | 42 | | CPI | "B" | |
| 0612 | 22FD | CA | 2B | 23 | JZ | BATCH | |
| 0613 | 2300 | FE | 43 | | CPI | "C" | |
| 0614 | 2302 | CA | 88 | 23 | JZ | COPY | |
| 0615 | 2305 | FE | 44 | | CPI | "D" | |
| 0616 | 2307 | CA | FB | 23 | JZ | DISKIN | |
| 0617 | 230A | FE | 45 | | CPI | "E" | |
| 0618 | 230C | CA | 00 | 70 | JZ | EDI | |
| 0619 | 230F | FE | 46 | | CPI | "F" | |
| 0620 | 2311 | CA | 35 | 24 | JZ | FORMAT | |
| 0621 | 2314 | FE | 4D | | CPI | "M" | |
| 0622 | 2316 | CA | 03 | 10 | JZ | MOVID | |
| 0623 | 2319 | FE | 52 | | CPI | "R" | |
| 0624 | 231B | CA | 4D | 24 | JZ | READ | |
| 0625 | 231E | FE | 57 | | CPI | "W" | |
| 0626 | 2320 | CA | 57 | 24 | JZ | WRITE | |
| 0627 | 2323 | 3E | 20 | | MVI | A,20H | |
| 0628 | 2325 | CD | 27 | 10 | CALL | ERROR | |
| 0629 | 2328 | C3 | D8 | 22 | JMP | MAIN | |
| 0630 | 232B | | | | * | | |
| 0631 | 232B | | | | * | | |
| 0632 | 232B | | | | ***** | | |
| 0633 | 232B | | | | * | | |
| 0634 | 232B | | | | * Batch-Vorspann ausgeben | | |
| 0635 | 232B | | | | * | | |
| 0636 | 232B | | | | ***** | | |
| 0637 | 232B | | | | * | | |
| 0638 | 232B | CD | 7A | 23 | BATCH: CALL | RDO | |
| 0639 | 232E | CD | 36 | 10 | CALL | CRSON | |

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0640 2331 21 D4 27 BATOT: LXI H,NUMB
0641 2334 CD FF 24 CALL INSUB
0642 2337 7C MOV A,H
0643 2338 CD 4A 25 CALL ASCHEX
0644 233B FE 20 CPI 20H *max. 32d
0645 233D D4 69 25 CNC INPERR
0646 2340 D2 31 23 JNC BATOT
0647 2343 11 00 2D LXI D,BATBUF
0648 2346 07 RLC
0649 2347 07 RLC
0650 2348 07 RLC
0651 2349 5F MOV E,A *D&E:Batch-Pointer
0652 234A 65 MOV H,L
0653 234B 2E 00 MVI L,0H *H&L:Programmstart
0654 234D *
0655 234D 7D MOV A,L
0656 234E 12 STAX D *Startadr.(lower)
0657 234F 13 INX D
0658 2350 7C MOV A,H
0659 2351 12 STAX D *Startadr.(upper)
0660 2352 13 INX D
0661 2353 EB XCHG
0662 2354 E5 PUSH H
0663 2355 CD 86 24 CALL BLOKIN *Parameter holen
0664 2358 22 84 2F SHLD BUFSRC
0665 235B E1 POP H
0666 235C 71 MOV M,C *Records
0667 235D 23 INX H
0668 235E 70 MOV M,B *SELBYT
0669 235F 23 INX H
0670 2360 73 MOV M,E *Sec.Nr.
0671 2361 23 INX H
0672 2362 72 MOV M,D *Trk.Nr.
0673 2363 23 INX H
0674 2364 EB XCHG
0675 2365 2A 84 2F LHLD BUFSRC
0676 2368 EB XCHG
0677 2369 73 MOV M,E *RAM-Adr.(lower)
0678 236A 23 INX H
0679 236B 72 MOV M,D *RAM-Adr.(upper)
0680 236C *
0681 236C 06 18 WRO: MVI B,18H *Trk0,Sec1 schreiben
0682 236E 11 01 00 LXI D,1H
0683 2371 21 00 2D LXI H,BATBUF
0684 2374 CD 40 20 CALL WRSEC
0685 2377 C3 77 25 JMP TEST
0686 237A *
0687 237A 06 18 RDO: MVI B,18H *Trk0,Sec1 einlesen
0688 237C 11 01 00 LXI D,1H
0689 237F 21 00 2D LXI H,BATBUF
0690 2382 CD 66 20 CALL RDSEC
0691 2385 C3 77 25 JMP TEST
0692 2388 *
0693 2388 *
0694 2388 *****
0695 2388 *
0696 2388 * Spuren kopieren
0697 2388 *
0698 2388 *****
0699 2388 *
0700 2388 06 00 COPY: MVI B,0H
0701 238A 11 04 04 LXI D,404H
0702 238D 21 98 27 LXI H,MSRCDS *Source, Dest.
0703 2390 CD FF 24 CALL INSUB

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0704 2393 D4 69 25 CNC INPERR
0705 2396 D2 88 23 JNC COPY
0706 2399 22 83 2F SHLD BUFDST *BUFSRC,BUFDST
0707 239C CD E9 24 CALL TRKSTP *H=Trk-Anzahl,B=SELBYT
0708 239F 7C MOV A,H
0709 23A0 FE 00 CPI OH
0710 23A2 CA 8D 25 JZ OK *Nulleingabe: JMP
0711 23A5 32 85 2F STA CPYEND
0712 23A8 *
0713 23A8 21 00 00 LXI H,OH *Spurzähler
0714 23AB CD 9C 25 CPYLOP:CALL CRLF
0715 23AE E5 PUSH H
0716 23AF 7C MOV A,H
0717 23B0 CD 3F 10 CALL BYTOT
0718 23B3 78 MOV A,B
0719 23B4 E6 F9 ANI OF9H *Dest.-Drive löschen
0720 23B6 47 MOV B,A
0721 23B7 3A 84 2F LDA BUFSRC
0722 23BA CD EF 23 CALL CPYPAR *Source-Drive einstellen
0723 23BD E5 PUSH H
0724 23BE CD 50 24 CALL RDBLK
0725 23C1 E1 POP H
0726 23C2 E1 POP H
0727 23C3 CD 99 25 CALL DRIVOF
0728 23C6 C8 RZ *Fehler: RET
0729 23C7 E5 PUSH H
0730 23C8 *
0731 23C8 78 MOV A,B
0732 23C9 E6 F9 ANI OF9H *Source-Drive löschen
0733 23CB 47 MOV B,A
0734 23CC 3A 83 2F LDA BUFDST
0735 23CF CD EF 23 CALL CPYPAR *Dest.-Drive einstellen
0736 23D2 E5 PUSH H
0737 23D3 CD 5A 24 CALL WRBLK
0738 23D6 E1 POP H
0739 23D7 E1 POP H
0740 23D8 CD 99 25 CALL DRIVOF
0741 23DB C8 RZ *Fehler: RET
0742 23DC *
0743 23DC 7C MOV A,H *1fd. Trk-Nr. (dez.)
0744 23DD 3C INR A
0745 23DE 27 DAA
0746 23DF 67 MOV H,A
0747 23E0 2C INR L *1fd. Trk-Nr. (bin.)
0748 23E1 3A 85 2F LDA CPYEND
0749 23E4 3D DCR A *Tracks gesamt
0750 23E5 32 85 2F STA CPYEND
0751 23E8 C2 AB 23 JNZ CPYLOP *Endabfrage
0752 23EB CD 99 25 CALL DRIVOF
0753 23EE C9 RET
0754 23EF *
0755 23EF 07 CPYPAR:RLC *Drive-Nr.
0756 23F0 B0 ORA B
0757 23F1 47 MOV B,A *ins SELBYT
0758 23F2 0E 10 MVI C,SECZAL
0759 23F4 55 MOV D,L
0760 23F5 1E 01 MVI E,1H
0761 23F7 21 00 80 LXI H,CPYBUF
0762 23FA C9 RET
0763 23FB *
0764 23FB *
0765 23FB *****
0766 23FB *
0767 23FB * Block einlesen und Programmstart (Batch)

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0768 23FB          *
0769 23FB          *****
0770 23FB          *
0771 23FB  21 E8 27 DISKIN:LXI  H,BNUM
0772 23FE  CD FF 24          CALL  INSUB
0773 2401  7C              MOV   A,H
0774 2402  CD 4A 25          CALL  ASCHEX
0775 2405  FE 20              CPI   20H      *max. 32d
0776 2407  D4 69 25          CNC   INPERR
0777 240A  D2 FB 23          JNC   DISKIN
0778 240D  07              RLC
0779 240E  07              RLC
0780 240F  07              RLC
0781 2410  21 00 2D          LXI   H,BATBUF
0782 2413  6F              MOV   L,A      *H&L:Batch-Pointer
0783 2414  E5              PUSH  H
0784 2415  CD 7A 23          CALL  RDO
0785 2418  E1              POP   H
0786 2419          *
0787 2419  5E              MOV   E,M      *Start-Adr.(lower)
0788 241A  23              INX   H
0789 241B  56              MOV   D,M      *Start-Adr.(upper)
0790 241C  23              INX   H
0791 241D  D5              PUSH  D      *in den Stack
0792 241E  4E              MOV   C,M      *Records
0793 241F  23              INX   H
0794 2420  46              MOV   B,M      *SELBYT
0795 2421  23              INX   H
0796 2422  5E              MOV   E,M      *Sec-Nr.
0797 2423  23              INX   H
0798 2424  56              MOV   D,M      *Trk-Nr.
0799 2425  23              INX   H
0800 2426  7E              MOV   A,M      *RAM-Adr. (lower)
0801 2427  23              INX   H
0802 2428  66              MOV   H,M      *RAM-Adr. (upper)
0803 2429  6F              MOV   L,A      *H&L: RAM-Adresse
0804 242A          *
0805 242A  CD 50 24          CALL  RDBLK
0806 242D  E1              POP   H      *Startadresse holen
0807 242E  CD 36 10          CALL  CRSON
0808 2431  CD 99 25          CALL  DRIVOF
0809 2434  E9              PCHL
0810 2435          *
0811 2435          *
0812 2435          *****
0813 2435          *
0814 2435          *      Diskette formatieren
0815 2435          *
0816 2435          *****
0817 2435          *
0818 2435  CD CB 24  FORMAT:CALL  DRVSID      *B=SELBYT
0819 2438  CD E9 24          CALL  TRKSTP      *H=Trk-Anz., B updated
0820 243B  6C              FORDSK:MOV  L,H
0821 243C  CD 39 10          CALL  CRSOFF
0822 243F  CD C8 20          CALL  FORM
0823 2442  CD 99 25          CALL  DRIVOF
0824 2445  FE 24              CPI   24H
0825 2447  CA 8D 25          JZ    OK
0826 244A  C3 77 25          JMP   TEST
0827 244D          *
0828 244D          *
0829 244D          *****
0830 244D          *
0831 244D          *      Block/Sektor lesen und schreiben

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0832 244D      *
0833 244D      *****
0834 244D      *
0835 244D  CD 86 24 READ:  CALL BLOKIN
0836 2450  E5      RDBLK: PUSH H
0837 2451  21 66 20      LXI  H,RDSEC
0838 2454  C3 5E 24      JMP  RDWRSB
0839 2457      *
0840 2457  CD 86 24 WRITE: CALL BLOKIN
0841 245A  E5      WRBLK: PUSH H
0842 245B  21 40 20      LXI  H,WRSEC
0843 245E      *
0844 245E  22 7F 2F RDWRSB:SHLD RWSUB1      *RAM-Hilfsroutine
0845 2461  E1      POP  H
0846 2462  3E C3      MVI  A,0C3H      *"JMP"
0847 2464  32 7E 2F      STA  RWSUB
0848 2467      *
0849 2467  E5      RWLOP: PUSH H
0850 2468  D5      PUSH D
0851 2469  C5      PUSH B
0852 246A  CD 7E 2F      CALL RWSUB      *I/O-Routine
0853 246D  C1      POP  B
0854 246E  D1      POP  D
0855 246F  E1      POP  H
0856 2470      *
0857 2470  B7      ORA  A      *Status in REG A
0858 2471  C2 77 25      JNZ  TEST      *Fehler: JMP
0859 2474  OD      DCR  C
0860 2475  CA 77 25      JZ   TEST      *Ende: JMP
0861 2478      *
0862 2478  24      INR  H      *Next Page
0863 2479  1C      INR  E      *Next Sector
0864 247A  3E 10      MVI  A,SECZAL
0865 247C  BB      CMP  E
0866 247D  D2 67 24      JNC  RWLOP
0867 2480  1E 01      MVI  E,1H
0868 2482  14      INR  D      *Next Track
0869 2483  C3 67 24      JMP  RWLOP
0870 2486      *
0871 2486      *
0872 2486      *****
0873 2486      *
0874 2486      *      Parameter-Block einlesen
0875 2486      *
0876 2486      *****
0877 2486      *
0878 2486  CD CB 24 BLOKIN:CALL DRVSID      *B=SELBYT
0879 2489      *
0880 2489  21 84 27 PAR2:  LXI  H,MSTRAK
0881 248C  1E 10      MVI  E,SECZAL
0882 248E  1C      INR  E
0883 248F  CD B6 24      CALL PARIN2      *Trk/Sec
0884 2492  3A 81 2F      LDA  HIBUF      *Sec-Nr.
0885 2495  FE 00      CPI  OH      *min. 1!
0886 2497  CC 69 25      CZ   INPERR
0887 249A  CA 89 24      JZ   PAR2
0888 249D      *
0889 249D  21 AB 27 PAR3:  LXI  H,MSTART
0890 24A0  CD FF 24      CALL INSUB
0891 24A3  7D      MOV  A,L
0892 24A4  94      SUB  H
0893 24A5  DC 69 25      CC   INPERR
0894 24A8  DA 9D 24      JC   PAR3
0895 24AB  3C      INR  A

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| | | | | | | |
|------|------|----|-------|-------------|----------|-------------------------|
| 0896 | 24AC | 4F | | MOV | C,A | *C=Anzahl Records |
| 0897 | 24AD | 2E | 00 | MVI | L,0H | *H&L: Startadresse |
| 0898 | 24AF | E5 | | PUSH | H | |
| 0899 | 24B0 | 2A | 81 2F | LHLD | HIBUF | |
| 0900 | 24B3 | EB | | XCHG | | *D&E: Trk/Sec |
| 0901 | 24B4 | E1 | | POP | H | |
| 0902 | 24B5 | C9 | | RET | | |
| 0903 | 24B6 | | | * | | |
| 0904 | 24B6 | 16 | 51 | PARIN2:MVI | D,51H | *max.80d Tracks |
| 0905 | 24B8 | C5 | | PUSH | B | |
| 0906 | 24B9 | D5 | | PUSH | D | |
| 0907 | 24BA | E5 | | PUSH | H | |
| 0908 | 24BB | CD | 3A 25 | CALL | INSBXH | *Trk/Sec. ./ . Trk/Step |
| 0909 | 24BE | 22 | 81 2F | SHLD | HIBUF | |
| 0910 | 24C1 | E1 | | POP | H | |
| 0911 | 24C2 | D1 | | POP | D | |
| 0912 | 24C3 | C1 | | POP | B | |
| 0913 | 24C4 | D4 | 69 25 | CNC | INPERR | |
| 0914 | 24C7 | D2 | B6 24 | JNC | PARIN2 | |
| 0915 | 24CA | C9 | | RET | | |
| 0916 | 24CB | | | * | | |
| 0917 | 24CB | 06 | 00 | DRVSID:MVI | B,0H | |
| 0918 | 24CD | 11 | 02 04 | LXI | D,402H | |
| 0919 | 24D0 | 21 | 71 27 | LXI | H,MSDRIV | |
| 0920 | 24D3 | CD | FF 24 | CALL | INSUB | |
| 0921 | 24D6 | D4 | 69 25 | CNC | INPERR | |
| 0922 | 24D9 | D2 | CB 24 | JNC | DRVSID | |
| 0923 | 24DC | 7D | | MOV | A,L | *Side |
| 0924 | 24DD | 0F | | RRC | | |
| 0925 | 24DE | 0F | | RRC | | |
| 0926 | 24DF | 0F | | RRC | | |
| 0927 | 24E0 | F6 | 18 | ORI | 18H | *Step 3 |
| 0928 | 24E2 | B0 | | ORA | B | |
| 0929 | 24E3 | 47 | | MOV | B,A | *B=Side,Step |
| 0930 | 24E4 | 7C | | MOV | A,H | *Drive |
| 0931 | 24E5 | 07 | | RLC | | |
| 0932 | 24E6 | B0 | | ORA | B | |
| 0933 | 24E7 | 47 | | MOV | B,A | |
| 0934 | 24E8 | C9 | | RET | | |
| 0935 | 24E9 | | | * | | |
| 0936 | 24E9 | 21 | 00 27 | TRKSTP:LXI | H,MSGTRK | |
| 0937 | 24EC | 1E | 04 | MVI | E,4H | |
| 0938 | 24EE | CD | B6 24 | CALL | PARIN2 | *H=Trk-Nr., L=Step |
| 0939 | 24F1 | 2A | 81 2F | LHLD | HIBUF | |
| 0940 | 24F4 | 78 | | MOV | A,B | |
| 0941 | 24F5 | E6 | E7 | ANI | 0E7H | *Step 3 löschen |
| 0942 | 24F7 | 47 | | MOV | B,A | |
| 0943 | 24F8 | 7D | | MOV | A,L | |
| 0944 | 24F9 | 07 | | RLC | | |
| 0945 | 24FA | 07 | | RLC | | |
| 0946 | 24FB | 07 | | RLC | | |
| 0947 | 24FC | B0 | | ORA | B | |
| 0948 | 24FD | 47 | | MOV | B,A | *B=SELBYT |
| 0949 | 24FE | C9 | | RET | | |
| 0950 | 24FF | | | * | | |
| 0951 | 24FF | C5 | | INSUB: PUSH | B | |
| 0952 | 2500 | D5 | | PUSH | D | |
| 0953 | 2501 | CD | 21 10 | CALL | STRING | *Textzeile ausgeben |
| 0954 | 2504 | 2A | 54 2E | LHLD | LINZ | |
| 0955 | 2507 | 11 | 0E 00 | LXI | D,0EH | *Versatz hinter Pfeil |
| 0956 | 250A | 19 | | DAD | D | |
| 0957 | 250B | CD | 33 10 | CALL | CRSPOS | |
| 0958 | 250E | | | * | | |
| 0959 | 250E | CD | 43 00 | INLOP: CALL | CI | *Tastatur abfragen |

| | | | | | | | | |
|------|------|----|----|----|--------------|--------|---|---------------------------|
| 0960 | 2511 | 4F | | | MOV | C,A | | |
| 0961 | 2512 | CD | 49 | 00 | CALL | CG | | *Echo |
| 0962 | 2515 | FE | 1B | | CPI | 1BH | | *CTL+C? |
| 0963 | 2517 | CA | D8 | 22 | JZ | MAIN | | |
| 0964 | 251A | FE | 0D | | CPI | ODH | | *Ret? |
| 0965 | 251C | C2 | 0E | 25 | JNZ | INLOP | | *nein: weiter einlesen |
| 0966 | 251F | | | | | | * | |
| 0967 | 251F | 2A | 54 | 2E | LHLD | LINZ | | |
| 0968 | 2522 | 11 | 13 | 00 | LXI | D,13H | | *Versatz hinter Parameter |
| 0969 | 2525 | 19 | | | DAD | D | | |
| 0970 | 2526 | 0E | 06 | | MVI | C,6H | | *Länge +1 |
| 0971 | 2528 | CD | 12 | 10 | CALL | PARIN | | *Parameter vom Bildschirm |
| 0972 | 252B | 3A | BF | 2F | LDA | SRCBEG | | |
| 0973 | 252E | 67 | | | MOV | H,A | | |
| 0974 | 252F | 3A | C1 | 2F | LDA | SRCEND | | |
| 0975 | 2532 | 6F | | | MOV | L,A | | |
| 0976 | 2533 | D1 | | | POP | D | | |
| 0977 | 2534 | C1 | | | POP | B | | |
| 0978 | 2535 | BB | | | INCTE: CMP | E | | |
| 0979 | 2536 | D0 | | | RNC | | | *Error |
| 0980 | 2537 | 7C | | | MOV | A,H | | |
| 0981 | 2538 | BA | | | CMP | D | | |
| 0982 | 2539 | C9 | | | RET | | | |
| 0983 | 253A | | | | | | * | |
| 0984 | 253A | CD | FF | 24 | INSBHX: CALL | INSUB | | |
| 0985 | 253D | 7C | | | MOV | A,H | | |
| 0986 | 253E | CD | 4A | 25 | CALL | ASCHEX | | |
| 0987 | 2541 | 67 | | | MOV | H,A | | |
| 0988 | 2542 | 7D | | | MOV | A,L | | |
| 0989 | 2543 | CD | 4A | 25 | CALL | ASCHEX | | |
| 0990 | 2546 | 6F | | | MOV | L,A | | |
| 0991 | 2547 | C3 | 35 | 25 | JMP | INCTE | | |
| 0992 | 254A | | | | | | * | |
| 0993 | 254A | D5 | | | ASCHEX: PUSH | D | | *ASCII/HEX-Umsetzung |
| 0994 | 254B | 57 | | | MOV | D,A | | |
| 0995 | 254C | E6 | 0F | | ANI | 0FH | | |
| 0996 | 254E | 5F | | | MOV | E,A | | *E=Lower Nibble |
| 0997 | 254F | FE | 0A | | CPI | 0AH | | |
| 0998 | 2551 | 7A | | | MOV | A,D | | |
| 0999 | 2552 | E6 | F0 | | ANI | 0F0H | | |
| 1000 | 2554 | 0F | | | RRC | | | |
| 1001 | 2555 | 0F | | | RRC | | | |
| 1002 | 2556 | 0F | | | RRC | | | |
| 1003 | 2557 | 0F | | | RRC | | | |
| 1004 | 2558 | FE | 0A | | CPI | 0AH | | |
| 1005 | 255A | 57 | | | MOV | D,A | | *D=upper Nibble |
| 1006 | 255B | B7 | | | ORA | A | | |
| 1007 | 255C | CA | 66 | 25 | JZ | ASCEND | | |
| 1008 | 255F | AF | | | XRA | A | | |
| 1009 | 2560 | C6 | 0A | | ASCLOP: ADI | 0AH | | *10d |
| 1010 | 2562 | 15 | | | DCR | D | | |
| 1011 | 2563 | C2 | 60 | 25 | JNZ | ASCLOP | | |
| 1012 | 2566 | 83 | | | ASCEND: ADD | E | | |
| 1013 | 2567 | D1 | | | POP | D | | |
| 1014 | 2568 | C9 | | | RET | | | |
| 1015 | 2569 | | | | | | * | |
| 1016 | 2569 | F5 | | | INPERR: PUSH | PSW | | |
| 1017 | 256A | E5 | | | PUSH | H | | |
| 1018 | 256B | D5 | | | PUSH | D | | |
| 1019 | 256C | C5 | | | PUSH | B | | |
| 1020 | 256D | 3E | 21 | | MVI | A,21H | | |
| 1021 | 256F | CD | 27 | 10 | CALL | ERROR | | |
| 1022 | 2572 | C1 | | | POP | B | | |
| 1023 | 2573 | D1 | | | POP | D | | |

| | | | | | | | |
|------|------|----|-------|---------|--------|---------|------------------------|
| 1024 | 2574 | E1 | | | POP | H | |
| 1025 | 2575 | F1 | | | POP | PSW | |
| 1026 | 2576 | C9 | | | RET | | |
| 1027 | 2577 | | | * | | | |
| 1028 | 2577 | E6 | FC | TEST: | ANI | OFCH | *REG A: Status |
| 1029 | 2579 | CA | 8D 25 | | JZ | OK | |
| 1030 | 257C | CD | 99 25 | | CALL | DRIVOF | |
| 1031 | 257F | OE | 08 | | MVI | C,8H | |
| 1032 | 2581 | OD | | TELOP: | DCR | C | |
| 1033 | 2582 | 07 | | | RLC | | |
| 1034 | 2583 | D2 | 81 25 | | JNC | TELOP | |
| 1035 | 2586 | 79 | | | MOV | A,C | |
| 1036 | 2587 | 79 | | | MOV | A,C | *Err |
| 1037 | 2588 | C6 | 20 | | ADI | 20H | |
| 1038 | 258A | C3 | 27 10 | | JMP | ERROR | |
| 1039 | 258D | | | * | | | |
| 1040 | 258D | 21 | F9 27 | OK: | LXI | H,OKMSG | |
| 1041 | 2590 | CD | 21 10 | | CALL | STRING | |
| 1042 | 2593 | CD | 99 25 | | CALL | DRIVOF | |
| 1043 | 2596 | AF | | | XRA | A | |
| 1044 | 2597 | 3C | | | INR | A | |
| 1045 | 2598 | C9 | | | RET | | |
| 1046 | 2599 | | | * | | | |
| 1047 | 2599 | F5 | | DRIVOF: | PUSH | PSW | |
| 1048 | 259A | F1 | | | POP | PSW | |
| 1049 | 259B | C9 | | | RET | | |
| 1050 | 259C | | | * | | | |
| 1051 | 259C | C5 | | CRLF: | PUSH | B | |
| 1052 | 259D | OE | 0A | | MVI | C,0AH | |
| 1053 | 259F | CD | 49 00 | | CALL | CO | |
| 1054 | 25A2 | OE | 0D | | MVI | C,0DH | |
| 1055 | 25A4 | CD | 49 00 | | CALL | CO | |
| 1056 | 25A7 | C1 | | | POP | B | |
| 1057 | 25A8 | C9 | | | RET | | |
| 1058 | 25A9 | | | * | | | |
| 1059 | 25A9 | | | * | | | |
| 1060 | 25A9 | | | ORG | FDCBUF | | |
| 1061 | 25A9 | | | * | | | |
| 1062 | 2F70 | | | TRKNR: | DS | 1H | |
| 1063 | 2F71 | | | SECNR: | DS | 1H | |
| 1064 | 2F72 | | | SIDNR: | DS | 1H | |
| 1065 | 2F73 | | | SELBYT: | DS | 1H | |
| 1066 | 2F74 | | | SELOUT: | DS | 1H | |
| 1067 | 2F75 | | | TRACK0: | DS | 4H | *Monitor-Bezugsadresse |
| 1068 | 2F79 | | | RWBFEF: | DS | 1H | |
| 1069 | 2F7A | | | DATADR: | DS | 2H | |
| 1070 | 2F7C | | | INTPRG: | DS | 2H | |
| 1071 | 2F7E | | | RWSUB: | DS | 1H | |
| 1072 | 2F7F | | | RWSUB1: | DS | 2H | |
| 1073 | 2F81 | | | HIBUF: | DS | 2H | |
| 1074 | 2F83 | | | BUFDST: | DS | 1H | |
| 1075 | 2F84 | | | BUFSRC: | DS | 1H | |
| 1076 | 2F85 | | | CPYEND: | DS | 1H | |
| 1077 | 2F85 | | | * | | | |
| 1078 | 2F86 | | | END | | | |

| | | | |
|------|------|-------|------------------|
| 0001 | 0000 | * | |
| 0002 | 0000 | * | FDC-Texte V 10.5 |
| 0003 | 0000 | * | |
| 0004 | 0000 | ORG | 26DOH |
| 0005 | 26D0 | OFS | 6DOH |
| 0006 | 26D0 | * | |
| 0007 | 26D0 | MSG0: | DS OH |
| 0008 | 26D0 | | DB ODH |
| 0009 | 26D1 | | DB ODH |
| 0010 | 26D2 | | DB "M" |
| 0011 | 26D3 | | DB "Q" |
| 0012 | 26D4 | | DB "P" |
| 0013 | 26D5 | | DB "P" |
| 0014 | 26D6 | | DB "E" |
| 0015 | 26D7 | | DB "L" |
| 0016 | 26D8 | | DB "-" |
| 0017 | 26D9 | | DB "F" |
| 0018 | 26DA | | DB "D" |
| 0019 | 26DB | | DB "C" |
| 0020 | 26DC | | DB "-" |
| 0021 | 26DD | | DB "U" |
| 0022 | 26DE | | DB "t" |
| 0023 | 26DF | | DB "i" |
| 0024 | 26E0 | | DB "l" |
| 0025 | 26E1 | | DB "i" |
| 0026 | 26E2 | | DB "t" |
| 0027 | 26E3 | | DB "i" |
| 0028 | 26E4 | | DB "e" |
| 0029 | 26E5 | | DB "s" |
| 0030 | 26E6 | | DB 20H |
| 0031 | 26E7 | | DB "V" |
| 0032 | 26E8 | | DB 20H |
| 0033 | 26E9 | | DB "i" |
| 0034 | 26EA | | DB "O" |
| 0035 | 26EB | | DB "." |
| 0036 | 26EC | | DB "5" |
| 0037 | 26ED | | DB ODH |
| 0038 | 26EE | | DB "C" |
| 0039 | 26EF | | DB "o" |
| 0040 | 26F0 | | DB "p" |
| 0041 | 26F1 | | DB "y" |
| 0042 | 26F2 | | DB "r" |
| 0043 | 26F3 | | DB "i" |
| 0044 | 26F4 | | DB "g" |
| 0045 | 26F5 | | DB "h" |
| 0046 | 26F6 | | DB "t" |
| 0047 | 26F7 | | DB 20H |
| 0048 | 26F8 | | DB "(" |
| 0049 | 26F9 | | DB "C" |
| 0050 | 26FA | | DB ")" |
| 0051 | 26FB | | DB 20H |
| 0052 | 26FC | | DB OEH |
| 0053 | 26FD | | DB OFH |
| 0054 | 26FE | | DB 10H |
| 0055 | 26FF | | DB 27H |
| 0056 | 2700 | | DB "8" |
| 0057 | 2701 | | DB "5" |
| 0058 | 2702 | | DB OH |
| 0059 | 2703 | MSG1: | DS OH |
| 0060 | 2703 | | DB ODH |
| 0061 | 2704 | | DB ODH |
| 0062 | 2705 | | DB 20H |
| 0063 | 2706 | | DB "A" |

| | | | | |
|------|------|----|----|-----|
| 0064 | 2707 | 3A | DB | 3AH |
| 0065 | 2708 | 20 | DB | 20H |
| 0066 | 2709 | 41 | DB | "A" |
| 0067 | 270A | 73 | DB | "s" |
| 0068 | 270B | 73 | DB | "s" |
| 0069 | 270C | 65 | DB | "e" |
| 0070 | 270D | 6D | DB | "m" |
| 0071 | 270E | 62 | DB | "b" |
| 0072 | 270F | 6C | DB | "l" |
| 0073 | 2710 | 65 | DB | "e" |
| 0074 | 2711 | 72 | DB | "r" |
| 0075 | 2712 | 0D | DB | 0DH |
| 0076 | 2713 | 20 | DB | 20H |
| 0077 | 2714 | 42 | DB | "B" |
| 0078 | 2715 | 3A | DB | 3AH |
| 0079 | 2716 | 20 | DB | 20H |
| 0080 | 2717 | 42 | DB | "B" |
| 0081 | 2718 | 61 | DB | "a" |
| 0082 | 2719 | 74 | DB | "t" |
| 0083 | 271A | 63 | DB | "c" |
| 0084 | 271B | 68 | DB | "h" |
| 0085 | 271C | 20 | DB | 20H |
| 0086 | 271D | 6F | DB | "o" |
| 0087 | 271E | 75 | DB | "u" |
| 0088 | 271F | 74 | DB | "t" |
| 0089 | 2720 | 0D | DB | 0DH |
| 0090 | 2721 | 20 | DB | 20H |
| 0091 | 2722 | 43 | DB | "C" |
| 0092 | 2723 | 3A | DB | 3AH |
| 0093 | 2724 | 20 | DB | 20H |
| 0094 | 2725 | 43 | DB | "C" |
| 0095 | 2726 | 6F | DB | "o" |
| 0096 | 2727 | 70 | DB | "p" |
| 0097 | 2728 | 79 | DB | "y" |
| 0098 | 2729 | 0D | DB | 0DH |
| 0099 | 272A | 20 | DB | 20H |
| 0100 | 272B | 44 | DB | "D" |
| 0101 | 272C | 3A | DB | 3AH |
| 0102 | 272D | 20 | DB | 20H |
| 0103 | 272E | 44 | DB | "D" |
| 0104 | 272F | 69 | DB | "i" |
| 0105 | 2730 | 73 | DB | "s" |
| 0106 | 2731 | 6B | DB | "k" |
| 0107 | 2732 | 20 | DB | 20H |
| 0108 | 2733 | 69 | DB | "i" |
| 0109 | 2734 | 6E | DB | "n" |
| 0110 | 2735 | 0D | DB | 0DH |
| 0111 | 2736 | 20 | DB | 20H |
| 0112 | 2737 | 45 | DB | "E" |
| 0113 | 2738 | 3A | DB | 3AH |
| 0114 | 2739 | 20 | DB | 20H |
| 0115 | 273A | 45 | DB | "E" |
| 0116 | 273B | 64 | DB | "d" |
| 0117 | 273C | 69 | DB | "i" |
| 0118 | 273D | 74 | DB | "t" |
| 0119 | 273E | 6F | DB | "o" |
| 0120 | 273F | 72 | DB | "r" |
| 0121 | 2740 | 0D | DB | 0DH |
| 0122 | 2741 | 20 | DB | 20H |
| 0123 | 2742 | 46 | DB | "F" |
| 0124 | 2743 | 3A | DB | 3AH |
| 0125 | 2744 | 20 | DB | 20H |
| 0126 | 2745 | 46 | DB | "F" |
| 0127 | 2746 | 6F | DB | "o" |

| | | | | |
|------|------|----|------------|-----|
| 0128 | 2747 | 72 | DB | "r" |
| 0129 | 2748 | 6D | DB | "m" |
| 0130 | 2749 | 61 | DB | "a" |
| 0131 | 274A | 74 | DB | "t" |
| 0132 | 274B | 0D | DB | ODH |
| 0133 | 274C | 20 | DB | 20H |
| 0134 | 274D | 4D | DB | "M" |
| 0135 | 274E | 3A | DB | 3AH |
| 0136 | 274F | 20 | DB | 20H |
| 0137 | 2750 | 4D | DB | "M" |
| 0138 | 2751 | 6F | DB | "o" |
| 0139 | 2752 | 6E | DB | "n" |
| 0140 | 2753 | 69 | DB | "i" |
| 0141 | 2754 | 74 | DB | "t" |
| 0142 | 2755 | 6F | DB | "o" |
| 0143 | 2756 | 72 | DB | "r" |
| 0144 | 2757 | 0D | DB | ODH |
| 0145 | 2758 | 20 | DB | 20H |
| 0146 | 2759 | 52 | DB | "R" |
| 0147 | 275A | 3A | DB | 3AH |
| 0148 | 275B | 20 | DB | 20H |
| 0149 | 275C | 52 | DB | "R" |
| 0150 | 275D | 65 | DB | "e" |
| 0151 | 275E | 61 | DB | "a" |
| 0152 | 275F | 64 | DB | "d" |
| 0153 | 2760 | 0D | DB | ODH |
| 0154 | 2761 | 20 | DB | 20H |
| 0155 | 2762 | 57 | DB | "W" |
| 0156 | 2763 | 3A | DB | 3AH |
| 0157 | 2764 | 20 | DB | 20H |
| 0158 | 2765 | 57 | DB | "W" |
| 0159 | 2766 | 72 | DB | "r" |
| 0160 | 2767 | 69 | DB | "i" |
| 0161 | 2768 | 74 | DB | "t" |
| 0162 | 2769 | 65 | DB | "e" |
| 0163 | 276A | 0D | DB | ODH |
| 0164 | 276B | 00 | DB | OH |
| 0165 | 276C | | ARROW: DS | OH |
| 0166 | 276C | 0D | DB | ODH |
| 0167 | 276D | 0D | DB | ODH |
| 0168 | 276E | 46 | DB | "F" |
| 0169 | 276F | 3E | DB | 3EH |
| 0170 | 2770 | 00 | DB | OH |
| 0171 | 2771 | | MSDRIV: DS | OH |
| 0172 | 2771 | 0D | DB | ODH |
| 0173 | 2772 | 44 | DB | "D" |
| 0174 | 2773 | 72 | DB | "r" |
| 0175 | 2774 | 69 | DB | "i" |
| 0176 | 2775 | 76 | DB | "v" |
| 0177 | 2776 | 65 | DB | "e" |
| 0178 | 2777 | 2C | DB | 2CH |
| 0179 | 2778 | 53 | DB | "S" |
| 0180 | 2779 | 69 | DB | "i" |
| 0181 | 277A | 64 | DB | "d" |
| 0182 | 277B | 65 | DB | "e" |
| 0183 | 277C | 20 | DB | 20H |
| 0184 | 277D | 20 | DB | 20H |
| 0185 | 277E | 20 | DB | 20H |
| 0186 | 277F | 3E | DB | 3EH |
| 0187 | 2780 | 30 | DB | "O" |
| 0188 | 2781 | 2C | DB | 2CH |
| 0189 | 2782 | 30 | DB | "O" |
| 0190 | 2783 | 00 | DB | OH |
| 0191 | 2784 | | MSTRAK: DS | OH |

| | | | | |
|------|------|----|------------|-----|
| 0192 | 2784 | 0D | DB | ODH |
| 0193 | 2785 | 54 | DB | "T" |
| 0194 | 2786 | 72 | DB | "r" |
| 0195 | 2787 | 61 | DB | "a" |
| 0196 | 2788 | 63 | DB | "c" |
| 0197 | 2789 | 6B | DB | "k" |
| 0198 | 278A | 2C | DB | 2CH |
| 0199 | 278B | 53 | DB | "S" |
| 0200 | 278C | 65 | DB | "e" |
| 0201 | 278D | 63 | DB | "c" |
| 0202 | 278E | 74 | DB | "t" |
| 0203 | 278F | 6F | DB | "o" |
| 0204 | 2790 | 72 | DB | "r" |
| 0205 | 2791 | 20 | DB | 2OH |
| 0206 | 2792 | 3E | DB | 3EH |
| 0207 | 2793 | 30 | DB | "O" |
| 0208 | 2794 | 31 | DB | "i" |
| 0209 | 2795 | 2C | DB | 2CH |
| 0210 | 2796 | 31 | DB | "i" |
| 0211 | 2797 | 00 | DB | OH |
| 0212 | 2798 | | MSRCDS: DS | OH |
| 0213 | 2798 | 0D | DB | ODH |
| 0214 | 2799 | 53 | DB | "S" |
| 0215 | 279A | 6F | DB | "o" |
| 0216 | 279B | 75 | DB | "u" |
| 0217 | 279C | 72 | DB | "r" |
| 0218 | 279D | 63 | DB | "c" |
| 0219 | 279E | 65 | DB | "e" |
| 0220 | 279F | 2C | DB | 2CH |
| 0221 | 27A0 | 44 | DB | "D" |
| 0222 | 27A1 | 65 | DB | "e" |
| 0223 | 27A2 | 73 | DB | "s" |
| 0224 | 27A3 | 74 | DB | "t" |
| 0225 | 27A4 | 2E | DB | 2EH |
| 0226 | 27A5 | 20 | DB | 2OH |
| 0227 | 27A6 | 3E | DB | 3EH |
| 0228 | 27A7 | 30 | DB | "O" |
| 0229 | 27A8 | 2C | DB | 2CH |
| 0230 | 27A9 | 31 | DB | "i" |
| 0231 | 27AA | 00 | DB | OH |
| 0232 | 27AB | | MSTART: DS | OH |
| 0233 | 27AB | 0D | DB | ODH |
| 0234 | 27AC | 53 | DB | "S" |
| 0235 | 27AD | 74 | DB | "t" |
| 0236 | 27AE | 61 | DB | "a" |
| 0237 | 27AF | 72 | DB | "r" |
| 0238 | 27B0 | 74 | DB | "t" |
| 0239 | 27B1 | 2C | DB | 2CH |
| 0240 | 27B2 | 45 | DB | "E" |
| 0241 | 27B3 | 6E | DB | "n" |
| 0242 | 27B4 | 64 | DB | "d" |
| 0243 | 27B5 | 20 | DB | 2OH |
| 0244 | 27B6 | 50 | DB | "P" |
| 0245 | 27B7 | 67 | DB | "g" |
| 0246 | 27B8 | 2E | DB | ." |
| 0247 | 27B9 | 3E | DB | 3EH |
| 0248 | 27BA | 39 | DB | "9" |
| 0249 | 27BB | 30 | DB | "O" |
| 0250 | 27BC | 2C | DB | 2CH |
| 0251 | 27BD | 39 | DB | "9" |
| 0252 | 27BE | 46 | DB | "F" |
| 0253 | 27BF | 00 | DB | OH |
| 0254 | 27C0 | | MSGTRK: DS | OH |
| 0255 | 27C0 | 0D | DB | ODH |

| | | | | | |
|------|------|----|--------|----|-----|
| 0256 | 27C1 | 54 | | DB | "T" |
| 0257 | 27C2 | 72 | | DB | "r" |
| 0258 | 27C3 | 61 | | DB | "a" |
| 0259 | 27C4 | 63 | | DB | "c" |
| 0260 | 27C5 | 6B | | DB | "k" |
| 0261 | 27C6 | 73 | | DB | "s" |
| 0262 | 27C7 | 2C | | DB | 2CH |
| 0263 | 27C8 | 53 | | DB | "S" |
| 0264 | 27C9 | 74 | | DB | "t" |
| 0265 | 27CA | 65 | | DB | "e" |
| 0266 | 27CB | 70 | | DB | "p" |
| 0267 | 27CC | 20 | | DB | 2OH |
| 0268 | 27CD | 20 | | DB | 2OH |
| 0269 | 27CE | 3E | | DB | 3EH |
| 0270 | 27CF | 34 | | DB | "4" |
| 0271 | 27D0 | 30 | | DB | "0" |
| 0272 | 27D1 | 2C | | DB | 2CH |
| 0273 | 27D2 | 31 | | DB | "1" |
| 0274 | 27D3 | 00 | | DB | OH |
| 0275 | 27D4 | | NUMB: | DS | OH |
| 0276 | 27D4 | 0D | | DB | ODH |
| 0277 | 27D5 | 4E | | DB | "N" |
| 0278 | 27D6 | 75 | | DB | "u" |
| 0279 | 27D7 | 6D | | DB | "m" |
| 0280 | 27D8 | 62 | | DB | "b" |
| 0281 | 27D9 | 65 | | DB | "e" |
| 0282 | 27DA | 72 | | DB | "r" |
| 0283 | 27DB | 2C | | DB | 2CH |
| 0284 | 27DC | 53 | | DB | "S" |
| 0285 | 27DD | 74 | | DB | "t" |
| 0286 | 27DE | 61 | | DB | "a" |
| 0287 | 27DF | 72 | | DB | "r" |
| 0288 | 27E0 | 74 | | DB | "t" |
| 0289 | 27E1 | 20 | | DB | 2OH |
| 0290 | 27E2 | 3E | | DB | 3EH |
| 0291 | 27E3 | 30 | | DB | "0" |
| 0292 | 27E4 | 2C | | DB | 2CH |
| 0293 | 27E5 | 32 | | DB | "2" |
| 0294 | 27E6 | 38 | | DB | "8" |
| 0295 | 27E7 | 00 | | DB | OH |
| 0296 | 27E8 | | BNUM: | DS | OH |
| 0297 | 27E8 | 0D | | DB | ODH |
| 0298 | 27E9 | 42 | | DB | "B" |
| 0299 | 27EA | 61 | | DB | "a" |
| 0300 | 27EB | 74 | | DB | "t" |
| 0301 | 27EC | 63 | | DB | "c" |
| 0302 | 27ED | 68 | | DB | "h" |
| 0303 | 27EE | 20 | | DB | 2OH |
| 0304 | 27EF | 4E | | DB | "N" |
| 0305 | 27F0 | 75 | | DB | "u" |
| 0306 | 27F1 | 6D | | DB | "m" |
| 0307 | 27F2 | 62 | | DB | "b" |
| 0308 | 27F3 | 65 | | DB | "e" |
| 0309 | 27F4 | 72 | | DB | "r" |
| 0310 | 27F5 | 20 | | DB | 2OH |
| 0311 | 27F6 | 3E | | DB | 3EH |
| 0312 | 27F7 | 30 | | DB | "0" |
| 0313 | 27F8 | 00 | | DB | OH |
| 0314 | 27F9 | | OKMSG: | DS | OH |
| 0315 | 27F9 | 0D | | DB | ODH |
| 0316 | 27FA | 6F | | DB | "o" |
| 0317 | 27FB | 2E | | DB | ." |
| 0318 | 27FC | 6B | | DB | "k" |
| 0319 | 27FD | 2E | | DB | ." |

0320 27FE 20
0321 27FF 00
0322 2800
0323 2800

DB 20H
DB 0H

*
END

```

0001 0000 *****
0002 0000 *
0003 0000 *          CP/M-Boot-Loader   V 11.5                30.10.85 *
0004 0000 *
0005 0000 *****
0006 0000 *
0007 0000 TRKB0 EQU 2H *Start für          30 K
0008 0000 SECB0 EQU 1H *Start-Sektor      30 K
0009 0000 NUMS0 EQU 1FH *Sektor-Anzahl 30 K
0010 0000 *
0011 0000 TRKB1 EQU 0H *Start-Spur         60 K
0012 0000 SECB1 EQU 2H *Start-Sektor      60 K
0013 0000 NUMS1 EQU 1FH *Sektor-Anzahl 60 K
0014 0000 *
0015 0000 CCP30K EQU 05C00H
0016 0000 CCP60K EQU 0D400H
0017 0000 *
0018 0000 BIOS30 EQU 07200H
0019 0000 BIOS60 EQU 0EA00H
0020 0000 *
0021 0000 CI EQU 43H
0022 0000 MOVID EQU 1003H
0023 0000 STRING EQU 1021H
0024 0000 CRSON EQU 1036H
0025 0000 CRSOFF EQU 1039H
0026 0000 RDSEC EQU 200FH
0027 0000 RAMBEG EQU 2800H *Boot-Bereich
0028 0000 CPYRAM EQU 2900H *(C)-Text
0029 0000 *
0030 0000 BANK EQU 24H *Latch A16...A18
0031 0000 *
0032 0000 *
0033 0000 ORG 2800H
0034 2800 OFS 3800H
0035 2800 *
0036 2800 *
0037 2800 21 28 BOOT0: DW BOOT30 *Batch 30-K-CP/M
0038 2802 01 DB 1H *Anzahl Sektoren
0039 2803 18 DB 18H *SELBYT
0040 2804 01 DB 1H *Start-Sektor
0041 2805 00 DB 0H *Start-Spur
0042 2806 00 28 DW RAMBEG *Boot-Buffer
0043 2808 *
0044 2808 37 28 BOOT1: DW BOOT60 *Batch 60-K-CP/M
0045 280A 01 DB 1H *Anzahl Sektoren
0046 280B 18 DB 18H *SELBYT
0047 280C 01 DB 1H *Start-Sektor
0048 280D 00 DB 0H *Start-Spur
0049 280E 00 28 DW RAMBEG *Boot-Buffer
0050 2810 *
0051 2810 18 28 BOOT2: DW CPYRIG *Batch Copyright
0052 2812 01 DB 1H *Anzahl Sektoren
0053 2813 18 DB 18H *SELBYT
0054 2814 10 DB 10H *Start-Sektor
0055 2815 03 DB 3H *Start-Spur
0056 2816 00 29 DW CPYRAM *(C)-Buffer
0057 2818 *
0058 2818 21 00 29 CPYRIG:LXI H,CPYRAM
0059 281B CD 21 10 CALL STRING
0060 281E C3 03 10 JMP MOVID *./ Floppy-Routinen
0061 2821 *
0062 2821 AF BOOT30:XRA A
0063 2822 CD 70 28 CALL STRIN2

```



```

0064 2825 21 00 5C B30: LXI H,CCP30K
0065 2828 16 02 MVI D,TRKBO
0066 282A 1E 01 MVI E,SECBO
0067 282C 06 1F MVI B,NUMSO
0068 282E CD 4E 28 CALL LOADLP
0069 2831 CD 36 10 CALL CRSON
0070 2834 C3 00 72 JMP BIOS30
0071 2837 *
0072 2837 3E 01 BOOT60:MVI A,1H
0073 2839 CD 70 28 CALL STRIN2
0074 283C 21 00 D4 B60: LXI H,CCP60K
0075 283F 16 00 MVI D,TRKB1
0076 2841 1E 02 MVI E,SECB1
0077 2843 06 1F MVI B,NUMS1
0078 2845 CD 4E 28 CALL LOADLP
0079 2848 CD 36 10 CALL CRSON
0080 284B C3 00 EA JMP BIOS60
0081 284E *
0082 284E D5 LOADLP:PUSH D
0083 284F E5 PUSH H
0084 2850 C5 PUSH B
0085 2851 06 18 MVI B,18H *SELBYT
0086 2853 CD 0F 20 CALL RDSEC
0087 2856 C1 POP B
0088 2857 E1 POP H
0089 2858 11 00 01 LXI D,100H
0090 285B 19 DAD D
0091 285C D1 POP D
0092 285D B7 ORA A
0093 285E C2 81 28 JNZ BOTERR
0094 2861 *
0095 2861 05 DCR B
0096 2862 C8 RZ
0097 2863 1C INR E
0098 2864 7B MOV A,E
0099 2865 FE 11 CPI 11H
0100 2867 C2 4E 28 JNZ LOADLP
0101 286A *
0102 286A 14 INR D *nächste Spur
0103 286B 1E 01 MVI E,1H *erster Sektor
0104 286D C3 4E 28 JMP LOADLP
0105 2870 *
0106 2870 32 F5 28 STRIN2:STA FLAG
0107 2873 CD 39 10 CALL CRSOFF
0108 2876 21 9C 28 LXI H,TEXT0
0109 2879 CD 21 10 CALL STRING
0110 287C 3E 81 MVI A,81H *Bank 1 parallel
0111 287E D3 24 OUT BANK
0112 2880 C9 RET
0113 2881 *
0114 2881 *
0115 2881 21 CE 28 BOTERR:LXI H,ERRMSG
0116 2884 CD 21 10 CALL STRING
0117 2887 CD 36 10 CALL CRSON
0118 288A CD 43 00 CALL CI
0119 288D FE 0D CPI 0DH *Return?
0120 288F C2 03 10 JNZ MOVID *nein: Monitor-Warmstart
0121 2892 3A F5 28 LDA FLAG
0122 2895 B7 ORA A *30 K?
0123 2896 CA 21 28 JZ BOOT30 *ja: JMP
0124 2899 C3 37 28 JMP BOOT60 *sonst 60 K
0125 289C *
0126 289C OD TEXT0: DB 0DH
0127 289D OD DB 0DH

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| | | | | |
|------|------|----|-----------------|-------|
| 0128 | 289E | 4D | DB | "M" |
| 0129 | 289F | 4F | DB | "O" |
| 0130 | 28A0 | 50 | DB | "P" |
| 0131 | 28A1 | 50 | DB | "P" |
| 0132 | 28A2 | 45 | DB | "E" |
| 0133 | 28A3 | 4C | DB | "L" |
| 0134 | 28A4 | 2D | DB | " - " |
| 0135 | 28A5 | 43 | DB | "C" |
| 0136 | 28A6 | 50 | DB | "P" |
| 0137 | 28A7 | 2F | DB | "/" |
| 0138 | 28A8 | 4D | DB | "M" |
| 0139 | 28A9 | 2D | DB | " - " |
| 0140 | 28AA | 55 | DB | "U" |
| 0141 | 28AB | 72 | DB | "r" |
| 0142 | 28AC | 6C | DB | "l" |
| 0143 | 28AD | 6F | DB | "o" |
| 0144 | 28AE | 61 | DB | "a" |
| 0145 | 28AF | 64 | DB | "d" |
| 0146 | 28B0 | 20 | DB | 20H |
| 0147 | 28B1 | 56 | DB | "V" |
| 0148 | 28B2 | 20 | DB | 20H |
| 0149 | 28B3 | 31 | DB | "1" |
| 0150 | 28B4 | 31 | DB | "1" |
| 0151 | 28B5 | 2E | DB | ". " |
| 0152 | 28B6 | 35 | DB | "5" |
| 0153 | 28B7 | 0D | DB | 0DH |
| 0154 | 28B8 | 43 | DB | "C" |
| 0155 | 28B9 | 6F | DB | "o" |
| 0156 | 28BA | 70 | DB | "p" |
| 0157 | 28BB | 79 | DB | "y" |
| 0158 | 28BC | 72 | DB | "r" |
| 0159 | 28BD | 69 | DB | "i" |
| 0160 | 28BE | 67 | DB | "g" |
| 0161 | 28BF | 68 | DB | "h" |
| 0162 | 28C0 | 74 | DB | "t" |
| 0163 | 28C1 | 20 | DB | 20H |
| 0164 | 28C2 | 28 | DB | " (" |
| 0165 | 28C3 | 43 | DB | "C" |
| 0166 | 28C4 | 29 | DB | ") " |
| 0167 | 28C5 | 20 | DB | 20H |
| 0168 | 28C6 | 0E | DB | 0EH |
| 0169 | 28C7 | 0F | DB | 0FH |
| 0170 | 28C8 | 10 | DB | 10H |
| 0171 | 28C9 | 27 | DB | 27H |
| 0172 | 28CA | 38 | DB | "8" |
| 0173 | 28CB | 35 | DB | "5" |
| 0174 | 28CC | 0D | DB | 0DH |
| 0175 | 28CD | 00 | DB | 0H |
| 0176 | 28CE | | | |
| 0177 | 28CE | 0D | * ERRMSG: DB | 0DH |
| 0178 | 28CF | 0D | DB | 0DH |
| 0179 | 28D0 | 42 | DB | "B" |
| 0180 | 28D1 | 6F | DB | "o" |
| 0181 | 28D2 | 6F | DB | "o" |
| 0182 | 28D3 | 74 | DB | "t" |
| 0183 | 28D4 | 20 | DB | 20H |
| 0184 | 28D5 | 45 | DB | "E" |
| 0185 | 28D6 | 72 | DB | "r" |
| 0186 | 28D7 | 72 | DB | "r" |
| 0187 | 28D8 | 6F | DB | "o" |
| 0188 | 28D9 | 72 | DB | "r" |
| 0189 | 28DA | 0D | DB | 0DH |
| 0190 | 28DB | 50 | DB | "P" |
| 0191 | 28DC | 72 | DB | "r" |

| | | | | | |
|------|------|----|-------|-------------------------|--------------------------|
| 0192 | 28DD | 65 | DB | "e" | |
| 0193 | 28DE | 73 | DB | "s" | |
| 0194 | 28DF | 73 | DB | "s" | |
| 0195 | 28E0 | 20 | DB | 20H | |
| 0196 | 28E1 | 52 | DB | "R" | |
| 0197 | 28E2 | 45 | DB | "E" | |
| 0198 | 28E3 | 54 | DB | "T" | |
| 0199 | 28E4 | 55 | DB | "U" | |
| 0200 | 28E5 | 52 | DB | "R" | |
| 0201 | 28E6 | 4E | DB | "N" | |
| 0202 | 28E7 | 20 | DB | 20H | |
| 0203 | 28E8 | 74 | DB | "t" | |
| 0204 | 28E9 | 6F | DB | "c" | |
| 0205 | 28EA | 20 | DB | 20H | |
| 0206 | 28EB | 52 | DB | "R" | |
| 0207 | 28EC | 65 | DB | "e" | |
| 0208 | 28ED | 73 | DB | "s" | |
| 0209 | 28EE | 74 | DB | "t" | |
| 0210 | 28EF | 61 | DB | "a" | |
| 0211 | 28F0 | 72 | DB | "r" | |
| 0212 | 28F1 | 74 | DB | "t" | |
| 0213 | 28F2 | 07 | DB | 7H | *Bell |
| 0214 | 28F3 | 0D | DB | 0DH | |
| 0215 | 28F4 | 00 | DB | 0H | |
| 0216 | 28F5 | | * | | |
| 0217 | 28F5 | | FLAG: | DS 1H | *30 K ./, 60 K |
| 0218 | 28F5 | | * | | |
| 0219 | 28F5 | | * | | |
| 0220 | 28F5 | | ***** | | |
| 0221 | 28F5 | | * | | |
| 0222 | 28F5 | | * | Disketten-Organisation: | |
| 0223 | 28F5 | | * | | |
| 0224 | 28F5 | | ***** | | |
| 0225 | 28F5 | | * | | |
| 0226 | 28F5 | | * | Tr0, Sec01 (2800h): | Batch-Vorspann, Unloader |
| 0227 | 28F5 | | * | | |
| 0228 | 28F5 | | * | Tr0, Sec02 (D400h): | CCP (60 K) |
| 0229 | 28F5 | | * | ... | |
| 0230 | 28F5 | | * | Sec09 (DB00h) | |
| 0231 | 28F5 | | * | | |
| 0232 | 28F5 | | * | Tr0, Sec10 (DC00h): | BDOS (60 K) |
| 0233 | 28F5 | | * | ... | |
| 0234 | 28F5 | | * | Tr1, Sec07 (E900h) | |
| 0235 | 28F5 | | * | | |
| 0236 | 28F5 | | * | Tr1, Sec08 (EA00h): | BIOS (60 K) |
| 0237 | 28F5 | | * | ... | |
| 0238 | 28F5 | | * | Sec16 (F200h) | |
| 0239 | 28F5 | | * | | |
| 0240 | 28F5 | | * | Tr2, Sec01 (5C00h): | CCP (30 K) |
| 0241 | 28F5 | | * | ... | |
| 0242 | 28F5 | | * | Sec08 (6300h) | |
| 0243 | 28F5 | | * | | |
| 0244 | 28F5 | | * | Tr2, Sec09 (6400h): | BDOS (30 K) |
| 0245 | 28F5 | | * | ... | |
| 0246 | 28F5 | | * | Tr3, Sec06 (7100h) | |
| 0247 | 28F5 | | * | | |
| 0248 | 28F5 | | * | Tr3, Sec07 (7200h): | BIOS (30 K) |
| 0249 | 28F5 | | * | ... | |
| 0250 | 28F5 | | * | Sec15 (7A00h) | |
| 0251 | 28F5 | | * | | |
| 0252 | 28F5 | | * | Tr3, Sec16: (2900h): | Copyright-Vermerk |
| 0253 | 28F5 | | * | | |
| 0254 | 28F5 | | * | Tr4, Sec01: (-----): | Directory |
| 0255 | 28F5 | | * | | |