```
                    IDENT AMAST
                   ***************************************************************
                   *TEST LOOP FOR AMAGA OF THE BELIER FAMILY.
                   *
                   *RUNS WITH INTERRUPT.
                   *
                   **VARIABLE DEVICE ADDRSSES AND INT. LEVELS
                   ***************************************************************
0000                       RES     /100
0200  20BF         START   INH
0202  87A0                 LDKL    A15,/150
0204  0150
0206  80A0                 LDKL    A8,/0809
0208  0809
020A  81A0                 LDKL    A9,1                LINE NUMBER 0 AND 1
020C  0001
                   *
                   *CLEAR I/O COMMANDS
                   *
020E  82A0                 LDKL    A10,/FFC0
0210  FFC0
0212  84A0                 LDKL    A12,CIOST1
0214  0000  F
0216  A2B3         CLEAR   ANRS    A10,A12
0218  94A0                 ADKL    A12,2
021A  0002
021C  ECA0                 CWK     A12,SST2+2
021E  0000  F
0220  5C0C                 RB(4)   CLEAR
0222  207F                 HLT
                   *
                   ***************************************************************
                   *LOAD IN A8 INTERRUPT LEVEL AND CU ADDRESS
                   *BIT 02-07, INTERRUPT HIGHEST PRIORITY
                   *BIT 10-15, DEVICE ADDRESS
                   *
                   *LOAD IN A9 THE TWO LINE NUMBERS
                   *BIT 05-07, TRANSMITTER.
                   *BIT 13-15, RECEIVER.
                   *
                   *LOAD IN A5 THE CHARACTER TO BE TRANSMIT.
                   *LOAD IN A6 THE BLOCK LENGTH.
                   *
                   *CONNECT THE TESTBOX TO THE CONTROL UNIT (WITH THE
                   *SELECTED LINE NUMBERS)
                   *OR CONNECT ON THE CONNECTOR ITSELF.
                   *
                   *
                   *
                   ***************************************************
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```
00043  0224  8382          LDR     A11,A8
00044  0226  8120          LDKL    A1,CIOST1
       0228  0000  F
00045  022A  A3A0          ANKL    A11,/3F
       022C  003F
00046  022E  93A5    CALC  ADRS    A11,A1          CALCULATE DEVICE ADDRESS.2
00047  0230  9120          ADKL    A1,2
       0232  0002
00048  0234  E920          CWK     A1,SST2+2
       0236  0000  F
00049  0238  5C0C          RB(4)   CALC
00050                *CALCULATION OF INTERRUPT LEVELS.
00051  023A  E102          ECR     A1,A8           CALCULATE INTERRUPT ADDRESS
00052  023C  213E          ANK     A1,/3E          TAKE INPUT INTERRUPT
00053  023E  3941          SLL     A1,1
00054  0240  82A0          LDKL    A10,INTB
       0242  0000  F
00055  0244  82A5          STR     A10,A1          STORE INTERRUPT ADDRESS
00056  0246  1102          ADK     A1,2
00057  0248  84A0          LDKL    A12,INTA
       024A  0000  F
00058  024C  84A5          STR     A12,A1
00059  024E  5700  F       RF(7)   START1
00060                *
00061                *I/O COMMANDS
00062                *
00063  0250  41C0    CIOST1 CIO    A1,1,0
00064  0252  4150    CIOHL1 CIO    A1,0,0
00065  0254  4C00    INR1   INR    A4,0,0
00066  0256  4500    OTR1   OTR    A5,0,0
00067  0258  4C40    INRD   INR    A4,1,0          INR DATA
00068  025A  42C0    CIOST2 CIO    A2,1,0
00069  025C  4260    CIOHL2 CIO    A2,0,0          CIO HALT
00070  025E  4BC0    SST2   SST    A3,0
```

```
00071                          EJECT
00072                  *
00073                  *
00074                  *MAIN PROGRAM STARTS HERE
00075                  *LOAD A5, A6, A9 AGAIN IF POWER WAS OFF.
00076                  *
00077  0260  87A0      START1  LDKL    A15,/150        STACKPOINTER
       0262  0150
00078  0264  86A0              LDKL    A14,0
       0266  0000
00079  0268  86C1              ST      A14,0
       026A  0000
00080  026C  8106              LDR     A1,A9           LINE NUMBER TRANSMITTER
00081  026E  A120              ANKL    A1,/0700        OUTPUT NO PARITY
       0270  0700
00082  0272  E206              ECR     A2,A9           LINE NUMBER RECEIVER
00083  0274  A220              ANKL    A2,/0700
       0276  0700
00084  0278  1201              ADK     A2,1            INPUT, NO PARITY
00085  027A  82A0              LDKL    A10,0           RESET COUNTER
       027C  0000
00086  027E  83A0              LDKL    A11,0           RESET COUNTER
       0280  0000
00087  0282  84A0              LDKL    A12,0           RESET FLAG
       0284  0000
00088  0286  2840              ENB
00089  0288  F041              EX      CIOST2          START INPUT
       028A  025A  R
00090  028C  5002              RF(0)   *+4
00091  028E  207F              HLT                     NOT ACCEPTED
00092  0290  F041              EX      CIOST1          START OUTPUT
       0292  0250  R
00093  0294  5002              RF(0)   *+4
00094  0296  207F              HLT                     NOT ACCEPTED
00095  0298  EE0A              CHR     A6,A10          WAIT TILL LAST CHARACTER IS TRANSM.
00096  029A  5C04              RB(4)   *-2
00097  029C  5F3E              RB(7)   START1          START AGAIN
```

```
                                EJECT
                        *
                        *INTERRUPT ROUTINE OUTPUT
                        *
029E  813F              INTA    STR     A1,A15          SAVE A1
02A0  A120                      ANKL    A1,/0700
02A2  0700
02A4  F041                      EX      INRD            INR ADDRESS IN A4
02A6  0258  R
02A8  5400  F                   RF(4)   SSTOU
02AA  A420                      ANKL    A4,/700         SELECT LINENUMBER OF A4
02AC  0700
02AE  EC04                      CWR     A4,A1           COMPARE LINE NUMBER
02B0  5002                      RF(0)   *+4
02B2  207F                      HLT                     WRONG LINE NUMBER
02B4  F041                      EX      OTR1            A5 ON OUTPUT
02B6  0256  R
02B8  5400  F                   RF(4)   SSTOU           OTR NOT ACC.
02BA  93A0                      ADKL    A11,1
02BC  0001
02BE  EE0E                      CWR     A6,A11          END OF BLOCK?
02C0  5100  F                   RF(1)   RETOU
02C2  F041                      EX      CIOHL1          STOP TRANSMISSION.
02C4  0252  R
02C6  5000  F                   RF(0)   RETOU
02C8  F041              SSTOU   EX      SST2            SST IN A3.
02CA  025E  R
02CC  5002                      RF(0)   *+4
02CE  207F                      HLT                     STATUS NOT ACC.
02D0  E90C                      CWR     A1,A3           STATUS ZERO?
02D2  5002                      RF(0)   *+4
02D4  207F                      HLT                     STATUS ERROR
02D6  813E              RETOU   LDR*    A1,A15
02D8  F03E                      RTN     A15
02DA                            RES     /10
```

```
00126                                   EJECT
00127                           *
00128                           *INTERRUPT ROUTINE INPUT.
00129                           *
00130  02FA  813F       INTB    STR     A1,A15          SAVE REGISTERS
00131  02FC  823F               STR     A2,A15
00132  02FE  A220               ANKL    A2,/700
       0300  0700
00133  0302  F041               EX      INR1            INR. IN A4
       0304  0254  R
00134  0306  5002               RF(0)   *+4             INR NOT ACC.
00135  0308  207F               HLT
00136  030A  8110               LDR     A1,A4
00137  030C  A120               ANKL    A1,/700
       030E  0700
00138  0310  E908               CWR     A1,A2           CHECK LINE NUMBER
00139  0312  5002               RF(0)   *+4
00140  0314  207F               HLT                     WRONG LINE NUMBER
00141  0316  24FF               ANK     A4,/FF          REMOVE LINE NUMBER
00142  0318  ED10               CWR     A5,A4
00143  031A  5002               RF(0)   *+4
00144  031C  207F               HLT                     WRONG CHARACTER RECEIVED.
00145  031E  92A0               ADKL    A10,1
       0320  0001
00146  0322  EE0A               CWR     A6,A10          LAST CHARACTER?
00147  0324  5400  F            RF(4)   RET
00148  0326  1201               ADK     A2,1
00149  0328  F041               EX      CIOHL2          STOP RECEIVING
       032A  025C  R
00150  032C  823E       RET     LDR*    A2,A15
00151  032E  813E               LDR*    A1,A15
00152  0330  F03E               RTN     A15
00153  0332                     RES     /10
00154                           END     START
```

```
          SYMBOL TABLE

 START   0200  R   CIOST1  0250  R   CLEAR   0216  R   SST2    025E  R
 CALC    022E  R   INTB    02FA  R   INTA    029E  R   START1  0260  R
 CIOHL1  0252  R   INR1    0254  R   OTR1    0256  R   INRD    0258  R
 CIOST2  025A  R   CIOHL2  025C  R   SSTOU   02C8  R   RETOU   02D6  R
 RET     032C  R

          ASS.ERR.    00000
:EOF
PROG ELAPSED TIME:  00H-01M-02S-500MS-
```