



PRODUCT UPDATE

ATARI HOME COMPUTER SYSTEM



ATARI® Assembler Editor User's Manual Update

This product update contains a number of corrections and additions to the *ATARI Assembler Editor User's Manual* (C014189-03 REV. 1).

Inside Front Cover.

The codes listed are **BASIC Error Codes**, and should be replaced with **Assembler Error Codes** as shown (which are also listed in Appendix 1):

Error No.

- 1 Insufficient memory
- 2 No start address for DEL command
- 3 Mini-assembler address error
- 4 LOAD file error
- 5 Undefined label reference
- 6 Error in syntax of statement
- 7 Label defined more than once
- 8 Buffer overflow
- 9 Missing label
- 10 Value greater than 255
- 11 Invalid null string
- 12 Incorrect address or address type
- 13 Phase error
- 14 Undefined forward reference
- 15 Line too large
- 16 Unrecognizable source statement
- 17 Line number too large
- 18 Misuse of LOMEM command
- 19 No starting address
- 20 Overflow in NUM or RENUM
- 128 **BREAK** key pressed during I/O operation
- 130 Nonexistent device
- 132 Invalid command
- 136 End of file
- 137 Record longer than 256 characters
- 138 Device does not respond
- 139 Device does not return Acknowledge signal
- 140 Serial bus input framing error
- 142 Serial bus data frame overrun
- 143 Serial data checksum error
- 144 Device done error
- 145 Read-after-write compare error
- 146 Function not implemented
- 162 Disk full
- 165 Filename error

Page vii. These are the correct page numbers for:

- How to Write Operands 11
- Hex Operands 11
- Immediate Operands 11
- Page Zero Operands 11
- Absolute Operands 11
- Absolute Indexed Operands 11
- Non-indexed Indirect Operands 12
- Indexed Indirect Operands 12
- Indirect Indexed Operands 12
- Indexed Page Zero Operands 12
- String Operands 12
- REN Command 16
- FIND Command 16



Page viii. In the Appendices, the title for Appendix 9 should read:

9 Using the Assembler Editor
Cartridge to Best Advantage:
Sample Programs 63

Page 1 and Page 2.

Delete reference to ATARI 815 Dual Disk Drive.

Page 5. The caption for Figure 2 should read:

Figure 2. Memory map without use of LOMEM.

Page 9.

The example shown in Figure 4 is not an executable program. It is used only to demonstrate the format of a sample program.

Page 11. The third paragraph should read:

Please refer to the description of the LABEL = directive . . .

Page 12. This information pertains to Indirect Indexed Operands:

Using indirect indexed operands will sometimes produce an error 12, although the source code appears to assemble correctly anyway. Use with caution; examine the object code to be certain.

Page 17. Under the REP Command, the first listing in the left column should read:

REP/OLD/NEW/

Page 18. On the sample Programming Form, the following line numbers are missing:

20
30
40
50
60
70
80
90

In Figure 7 on line 50, IMY should be:

INY

Page 19. This information pertains to the LIST Command:

The LIST command does not set the display flag, so a LIST containing control characters will execute those functions instead of printing the characters.

The LIST Command format should read:

LIST [{ xx[,yy] }
[# { device: }
[filespec] [,xx[,yy]]]]



Page 20. The program should read as follows—note in particular the indentation and spacing:

```

EDIT
LIST RETURN
10  * = $3000
20  LDY #00
30  REP LDX ABSX, Y
40  BNE XEQ SAME PAGE
50  INY TALLY
60  JMP REP
70  ABSX = $3744
80  XEQ = *+$60
90  .END
  
```

```

EDIT
LIST30 RETURN
30  REP LDX ABSX, Y
  
```

```

EDIT
LIST 60,80 RETURN
60  JMP REP
70  ABSX = $3744
80  XEQ = *+$60
  
```

EDIT

Page 22. The **SAVE Command Example** should look like this:

```

Examples: SAVE#C:<1235,1736
             SAVE#D2:MYFILE<1235,1736
             SAVE#C9:<1235,1736
  
```

To save an object program residing in hex address1 to address2 on cassette or diskette, the commands are:

SAVE#C: < address1, address2

CAUTION: Use the CSAVE procedure illustrated in your 410 Program Recorder Operator's Manual.

SAVE#D:FILENAME < address1, address2

where FILENAME is an arbitrary name you give to the block of memory that you are saving (where your object program is stored).

SAVE#C9: < address1, address2

Saves an object file without the DOS header bytes. This command procedure is used to generate tapes that can be booted on the cassette. You will have to supply your own cassette boot control information in your program. (See section 10 of Technical Reference Notes CA016555)

Page 22. The **LOAD Command Format** should look like this:

Format: LOAD# { device: }
 { filespec }



Page 25. In the general form diagram the upper left line should read:

Add to Figure 8.

Page 26. This information pertains to where object program is to be stored:

Page 28.

In addition, one \circ should be deleted from the sixth line down so that it reads:

Under **Title and Page Directives**, add the following note:

Page 29. Under the **Tab Directive**, the following clause and table should be inserted after the form of the directive (third paragraph):

The last two drawings at the bottom of the page, should be replaced by:

ASM [#D[n]:PROGNAME[.SRC]]

In Figure 8, an additional line will appear at the end of the assembly, prior to the next EDIT prompt. The added line shows the number of errors in the assembly.

When generating tapes that can be booted on the cassette, do not assemble directly to the cassette using ASM,,#C9:.. Store the object code in RAM and then use SAVE#C9: < address 1, address 2.

One more space should be added between the line numbers and pseudo ops on the top half of the page.

100 .OPT NOOBJ

The number of lines per page is set at 56 lines. To change the number of lines per page, change the content of location 480H. To cause an assembly listing to feed to top of page, change the location 481H to a non-zero value.

For example:

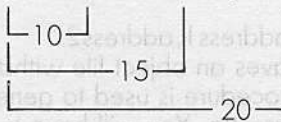
```
BUG RETURN
DEBUG
C480<3C
```

(this changes the number of lines in the printout to 60)

—where each number corresponds to the number of columns to the right of the line number field to start printing.

Number	Field
1	op code
2	operator
3	comment

```
3005 D064 40 BNE XEQ SAME PAGE
```



```
3005 D064 40 BNE XEQ S
AME PAGE
```

