ASSEMBLING SIR PROGRAMS

903 1-Pass SIR entry points.

8 Cancel all dictionaries and begin assembly of SIR  
 tape.   
 9 Assemble SIR tape, maintaining current dictionaries.  
10 Cancel current dictionary, clear store and read RLB   
 tape.  
11 Read a RLB tape, maintaining current dictionary.   
12 As for 10, but CPA not reset so tape will be loaded   
 following the previous program.

ACD 1-Pass SIR entry points.

&17740 Cancel all dictionaries and begin assembly of SIR  
tape. Punch messages in 900 telecode.

&17741 Cancel all dictionaries and begin assembly of SIR  
tape. Punch messages in 920 telecode.

&17742 Continue to assemble SIR, maintaining current dictionaries.

&17734 Cancel current dictionary, clear store and read RLB   
tape. Punch messages in 900 telecode.

&17735 Cancel current dictionary, clear store and read RLB   
tape. Punch messages in 920 telecode.

&17736 Read a RLB tape, maintaining current dictionary.

&17737 Cancel current dictionary, clear store and read RLB   
tape into store following the previous program.

ACD 2-Pass SIR entry points.

8 Read first tape, first pass, reports in 920   
 telecode.   
 9 Read subsequent tape, first pass.  
10 Read first tape, second pass.  
11 Read subsequent tape, second pass.   
12 Read first tape, first pass, reports in 900 telecode.

(You can switch input telecode after any halt code).  
13 As 10 but ignore first pass errors.  
14 As 8 or 12 but retain directory.  
15 As 8 or 12 but retain directory & literals.  
16 Dump assembler and dictionary.

Error indications.

Errors are printed out in the form

EN n

Where N is the error number

n is the block number.

E0: Instruction Error:

1. function > 15
2. address part of quasi-instruction not absolute.

E1: Contextual Error.

Any impermissible sequence of characters, not giving any other error indication.

E2: Octal or Alphanumeric error:

1. too many characters in an octal or alphanumeric group
2. character in octal group other than digits 0-7.

E3: Label used Twice.

Label found identical to a previous label in block where previous label is still valid.

E4: Global identifier not beginning with a letter.

Applies only to identifiers in a Global Identifier List.

E5: Store Full or Patch Error:

1. program is about to overwrite dictionary, or vice-  
    versa
2. patch address outside range 2-8163 & 8192-16383.

E6: Number Overflow:

1. integer outside range -131,071 to +131,071
2. more than six digits in fraction.

E7: Buffer Overflow:

Over 120 characters in line of text (i.e., too many characters for read buffer).

E8: Illegal character:

1. misread or mispunched tape
2. character on tape having no meaning in SIR (e.g. "?")
3. parity error.

E9: Stop Code not first character on line.

Character other than blanks or erases between 'new line' and stop code.

EG: Global Error.

An attempt has been made to redefine a global label as   
 sub-global.

EL: Literal Error.

A literal has been used with an instruction other than 0,1,2,4,6,12 or 13.

EP: Patch Error.

A patch or obeyed instruction, refers to an unlocated address.

EU: Unlocated Identifier.

Identifier has appeared but never as a label. Given at end of block for local identifiers, or on reading % for global or sub-global identifiers.

Note for EU errors, EU is followed by the identifier and an "address". If this is 8191, the label only appears in Global label lists, otherwise it is the address of the last reference to the identifier.