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DIAGNOSTIC MANUAL
MARK I COMPUTER
VOLUME III
DP PROGRAM

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1. Introduction

The maintenance program described herein has been designed to:

- (a) thoroughly test the Data Preselector, and
- (b) to be used as a tool in isolating a detected fault.

The programs then, can be used by maintenance personnel for the routine exercising of the DP during scheduled (preventive) maintenance periods or troubleshooting the DP after a malfunction has been noted in order to minimize time-to-repair.

To accomplish these objectives the GP computer is used to test and diagnose the DP for the purpose of isolating a defect to a small number of logic cards (S-Pacs) and with a minimum of operator participation.

2.0 General Design Philosophy

The maintenance program may be logically separated into two functions: a testing function and a diagnostic function. A testing function is defined as those program steps needed to determine whether a particular unit is or is not operating properly. The term "unit" is used here quite generally, and may denote a register, an instruction, a flip-flop, a gate, etc. The operation of a testing function results in one of two conditions: either the unit has successfully passed all tests performed by the subroutines, indicating that the unit is in proper operation condition; or it has failed one or more of the tests, indicating that a defect exists. A diagnostic function is defined as those program steps required to isolate the cause of a detected failure within a unit and provide this detailed information to the maintenance technician.

2.1 Testing Function

The testing function has been designed to detect failures in gates and/or flip-flops which exhibit symptoms of being improperly on or improperly off. The testing function exercises, in sequence, each unit of the Mark I to determine whether it is functioning properly. The performance of testing functions through the use of programs implies that certain portions of the equipment are used

to test other portions. The logic used to test each capability is carefully limited to the minimum essential for the performance of the test. The underlying philosophy is that any given gate or flip-flop is suspect to failure unless previously tested by the program. The performance of the tests have, therefore, been sequenced so as to assure that only features that have already been proven reliable will be used for further testing of other capabilities.

2.2 Diagnostic Function

The diagnostic function is initiated whenever a failure is detected by the testing function. The diagnostic functions are those program steps required to isolate the cause of a detected failure and provide this information to the maintenance personnel. The technique used in isolating a fault is similar to that used by maintenance personnel for manual diagnosis - except the order is reversed. In manual diagnosis the engineer notes the symptoms or effect and traces back through the logic diagrams to determine those S-Pacs which if faulty, could be the cause. The designer of a programmed diagnostic, on the other hand, assumes a component is failing then traces forward through the logic diagrams to determine the effect. The computer is then programmed to "look" for the effect, and remember the cause. In most (almost all) instances more than one fault can cause identically the same effect. In order to keep the number of suspect

gates and/or flip-flops to a minimum the program makes use of a second technique which is essentially a process of elimination. The program eliminates suspected elements by noting those which were previously tested and by trying other operations which use the remaining elements. In this way if a particular element or group of elements is used for more than one operation, it is possible to further isolate a defect to the element(s) which causes two operations to fail.

2.3 Assumptions

In the interest of reducing the task to manageable proportions the following assumptions have been adhered to:

- (a) The program is not responsible for the diagnosis of transient or intermittent type failures. If a transient or intermittent type failure occurs during execution of the program it will be detected; that is the program will not come to its normal error free conclusion - it will come to an error stop, however the diagnosis will not be correct. It is for this reason that the program should be executed more than once (see looping options Sec. 3.3) when an error stop occurs, for transient or intermittent type failures are characterized by yielding different diagnosis (varying stop codes).

(b) Any detected errors are caused by component failures only.

The assumption is made that the computer has been initially "de-bugged" and therefore eliminates the possibility of design or wiring errors.

(c) No more than one defect is present. It is expected that frequent exercise of the computer by means of the maintenance program will result in detection of a defect before another defect can occur. It should be noted, however, that if a second defect is present, it will not hamper diagnosis of the first defect providing the diagnosis of the first defect is independent of the circuit containing the second defect.

2.4 Operator Communications

Any information which must be conveyed to operating personnel is done so via the System Instruction nixies of the Mark I console.

Whenever operator action is required the program executes a STOP. The address portion of each STOP instruction has been uniquely coded and is defined in the Stop Codes List. A detailed description on the use of Stop Codes is contained in Section 4.

3. Operating Instructions for DP Diagnostic Program

3.1 Program Loading

1. Enter Single Stop Mode at location 00 0037.
2. Mount the DP Program Tape.
3. Turn Drum Write ON.
4. Turn Reader Power ON.
5. Select Short Block Mode.
6. Select Write/Check Mode.
7. The 2^{10} switch may be in either position.
8. Depress GP LOAD button.
9. Set Drum Address to 000.
10. Master Clear
11. Depress START LOAD.
12. After the Photo Electric reader stops, depress LFI LOAD button.
13. Master Clear
14. Depress START LOAD.
15. After the photo electric reader stops, depress DP LOAD button.
16. Master Clear.
17. Depress START LOAD.
18. After the photo electric reader stops, turn Drum Write OFF.

3.2 Start-Up Procedure

1. Make sure Override Bit is inoperative. (See Program Description, Section 5, page 30).
2. Place Conditional Stop ON.
3. Enable DP Execute Failure Test as follows:
 - (a) Place Execute Failure ON.
 - (b) Depress DP button under Execute Failure.
 - (c) Clear Failure Occurred Indicator by depressing Operation Continue.
4. Turn Instruction Replace OFF (unless it is desired to exercise Option # 4, see 3.3 Options).
5. Make sure Skip Counter equals zero and Depress NORMAL RUN.
6. If no failures are encountered and Option # 4 has not been selected, the program will stop (after several seconds) with a 27 3000 in the system instruction nixies. Options # 1, 3 or 4 may be selected at this time.

If no failures are encountered and Option # 4 has been selected, the program will stop at location 00 0260 with the Failure Occurred Indicator ON.

If a STOP 27 XXXX occurs, where XXXX \neq 3000, a failure has been detected. For a diagnosis of the fault refer to Stop Code XXXX in Section 4. Option # 2 should be selected at this time.*

If the Mark I stops with the Failure Occurred Indicator ON and the Stop Location \neq 00 0260 a failure has been detected. For a diagnosis of the fault refer to the DP FE Stop in Section 4. Option # 2 should be selected at this time.*

* The program should always be executed at least twice whenever an error stop occurs. This will establish whether the fault is transient or intermittent in which case the diagnosis is not reliable.

3.3 Options

1. Execute Continuously (this option may be initiated only when the Mark I stops with a 27 3000).

- (a) Continuous Replace location 00 0036 with a 12 0000
- (b) Depress Operation Continue

The program can be conveniently stopped by turning Instruction Replace OFF.

2. Execute Once More (this option may be initiated at any time).

- (a) Place 00 0037 in the Single Step Address Switches
- (b) Enter Single Step Mode
- (c) Go to Step 3(c) of the Start-Up Procedure

3. No Error-Execute Once More (this option may be initiated only when the Mark I stops with a 27 3000).

- (a) Depress Operation Continue

4. Include DP FE Stop Circuit Test. This option allows the program to run normally with the addition of one more test. Option # 2 may be selected in conjunction with this option. Option # 1 and # 3 may not be selected.

- (a) Start the program in the normal manner except at Step 4 Continuous Replace location 00 7524 with 34 3405.

4. Stop Codes List

Upon detection and diagnosis of a failure the program will stop. If the stop is due to the execution of a STOP instruction, the address portion of the stop instruction is uniquely coded and can be found in the list which follows. As a cross check the list also provides the location at which the stop should occur. The diagnosis should not be relied upon if the stop code occurs at a location different than that listed. If the stop is due to a DP FE STOP, the stop code is written as DP, FE. Note that the band address listed, is the physical band address and bears no relationship to the sequence in which the bands are executed.

The diagnosis specifies the S-Pac(s), the gate or flip-flop on the S-Pac, the card type and the logic drawing number which contains the S-Pac. For example:

5C19 (9, 13) DN-30, 041-3

indicates that the gates associated with pins 9 and 13 of S-Pac 5C19 are suspect. Note that the pin numbers are used only to identify the suspect gate or flip-flop on the card. DN-30 is the card type and the logic is shown on drawing number 041, sheet 3.

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
DP FE	Any address ≠ 00 0260	4D26 (31, 28, 12, 11) FF-30, 217 4D27 (17, 9) DN-30, 217 4D28 (10, 15) DN-30, 217 4D25 (16, 7) DI-30, 217
DP FE	00 0260	The DP diagnostic has been successfully completed under option # 4. No malfunctions have been encountered. The diagnostic has purposely generated a DP FE stop in order to test the DP FE logic. You may at this time select option # 2 (together with, or without option # 4) as described in the operating instructions.
3000	00 0036	The DP diagnostic has been successfully completed. No malfunctions have been encountered. The logic necessary to generate a DP FE stop has not been completely tested. This may be tested by selecting option # 4. You may at this time select option # 1, #3, or #4 as described in the operating instructions.

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3011	00 2525	4D16 (7,11) DI-30, 186 4D17 (14) BC-30, 186 4D12 (9,13,17,21) DN-30, 186 4D14 (8,31,25) FF-30, 186 4D13 (13) DN-30, 186 4D15 (15) UF-30, 186 4A10 (7) DI-30, 031-1 4A11 (12) DI-30, 031-1 4A25 (9) DI-30, 053 4A24 (17) DN-30, 053 4C20 (14) PA-30, 053 4D18 (34) DI-30, 186 4C21 (14) BC-30, 186
3014	00 7502	4D8 (13) DN-30, 216 4D17 (10) BC-30, 216
3022	00 3225	4D25 (34) DI-30, 217 4D23 (10) PA-30, 217 4D26 (25) FF-30, 217 4A24 (21,13,9) DN-30, 053 4A11 (9) DI-30, 053 4A25 (16,23,6,12,27,33,34) DI-30, 053 4A26 (7,16,23)DI-30, 053 4D15 (15) UF-30, 186
3024	00 3230	4D27 (34) DN-30, 217 4H27 (9) DN-30, 217 4C21 (34) BC-30, 182

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3025	01) Thru) 7233 12) 01) Thru) 7252 12)	4A25 (11, 30, 19, 17, 22, 31, 20) DI-30, 053 4A26 (30, 11, 9) DI-30, 053
3026	00 7014 00 7106 00 7176 00 7274 00 7356 00 7520	4D28 (35) DN-30, 217 4C17 (16) FF-30, 053 4A27 (11, 16, 23, 28) FF-30, 053 4A26 (6, 12, 27, 33, 34, 7, 16, 23) DI-30, 053 4A28 (20, 27, 18, 6) BC-30, 053 4C21 (25) BC-30, 053 4D24 (9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217 4D26 (12) FF-30, 217 4D21 (23) DI-30, 217
3034	00 3074	4D21 (27) DI-30, 217
3040	00 6223 00 6342	4D22 (27, 16) DI-30, 217 4D24 (21, 35) DN-30, 217
3042	00 6352 00 7107	4D22 (33, 23, 6) DI-30, 217 4D18 (6, 16) DI-30, 217 4F21 (32, 35) DN-30, 217

<u>Stop Code</u>	<u>Stop Locs</u>	<u>Diagnosis</u>
3044	00 6245 00 7177	4D22 (34,7) DI-30, 217 4D18 (23) DI-30, 217
3046	00 3112	4C23 (13,7) DI-30, 182 4C24 (23) FF-30, 182 4C26 (34) DI-30, 182
3047	00 3124 00 7457	4C23 (26) DI-30, 182 4C22 (6) BC-30, 182 4C26 (6,12,27,33) DI-30, 182
3050	00 3136 00 6033 00 6450 00 7450	4C23 (18) DI-30, 182 4C22 (18) BC-30, 182 4C25 (7) DI-30, 182 4C26 (7,16,23) DI-30, 182
3051	00 0451 00 3150 00 6034 00 6373	4C23 (10) DI-30, 182 4C22 (27) BC-30, 182 4C25 (34) DI-30, 182 4C18 (16) DI-30, 182

Also see Stop Code 3047.

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3052	00 0431 00 0441 00 3164	4C23 (27) DI-30, 182 4C22 (22) BC-30, 182 4C25 (12,27,33) DI-30, 182
3053	00 2522 00 3233	4C23 (21,25) DI-30, 182 4C21 (12,33) BC-30, 182
3054	00 6062	4A2 (25,27,34,12) DI-30, 031-2 4A1 (27) DI-30, 031-2
3055	00 6147	4A1 (10,6,16,23,33) DI-30, 031-2
3056	00 6255	4C25 (19) DI-30, 182 4C22 (18,27) BC-30, 182 4C18 (16) DI-30, 182
3057	00 6235	4A10 (6,9,12) DI-30, 031-1 4A8 (17,34) DI-30, 031-1 Also see Stop Code 3124

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3060	00 6363	4A9 (6,9) DI-30, 031-1 4A10 (27) DI-30, 031-1 4A7 (17,34) DI-30, 031-1 4D22 (21,7) DI-30, 217 4D18 (23) DI-30, 217
3061	00 6500	4A11 (34,17) DI-30, 031-1 4A8 (6,9) DI-30, 031-1
3062	00 6510	4A9 (34,17) DI-30, 031-1 4A7 (6,9) DI-30, 031-1
3063	00 6540	4A6 (6,9) DI-30, 031-1
3064	00 6550	4A5 (6,9) DI-30, 031-2
3065	00 6577, 217, 218	4A6 (17,34) DI-30, 031-1
3066	00 6607	4A5 (17,34) DI-30, 031-2

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3067	00 6640	4A4 (27, 30) DI-30, 031-2
3070	00 6650	4A2 (9,16) DI-30, 031-2
3071	00 6677	4A3 (9,16) DI-30, 031-2
3072	00 6707	4A3 (17, 27) DI-30, 031-2
3073	00 6734	4A2 (17, 27) DI-30, 031-2
3074	00 6761	4A1 (11, 23) DI-30, 031-2
3075	00 0261	4C24 (17) FF-30, 217 4D28 (13) DN-30, 217 4D27 (13) DN-30, 217 6L12 (16) DC-30, 231-3 6L15 (16) BC-30, 231-3

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3100	00 2561	4D18 (17,22,33) DI-30, 186 4D13 (27) DN-30, 186 4A28 (22) BC-30, 053 4A11 (12,34) DI-30, 031-1 4C15 (7) DI-30, 033-1 Also see Stop Code 3124
3101	00 2567	4C14 (7) DL-30, 033-1 4A8 (12) DI-30, 031-1 4A 9 (27) DI-30, 031-1
3102	00 2575	4C9 (7) DI-30, 033-1 4A6 (12) DI-30, 031-1 4A7 (27) DI-30, 031-1
3103	00 2603	4A3 (7) DI-30, 031-2 4A5 (27) DI-30, 031-2 4C5 (7)DI-30,033-2
3104	00 2614	4A1 (16) DI-30, 031-2 4A3 (34) DI-30, 031-2 4C1 (7) DI 30-033-2

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3105	00 2622	4D16 (30) DI-30, 186 4D13 (26) DN-30, 186 4A10 (7) DI-30, 031-1 4A9 (7) DI-30, 031-1 4C15 (12) DI-30, 033-1
3106	00 2630	4A7 (7) DI-30, 031-1 4A8 (16) DI -30, 031-1 4C14 (12) DI-30, 033-1
3107	00 2636	4A6 (13) DI-30, 031-1 4A5 (7) DI-30, 031-2 4C9 (12) DI-30, 033-2
3110	00 2644	4A2 (7) DI-30, 031-2 4A4 (6) DI-30, 031-2 4C5 (12) DI-30, 033-2
3111	00 2652	4A1 (27) DI-30, 031-2 4A2 (34) DI-30, 031-2 4C1 (12) DI-30, 033-2

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3112	00 2660	4D12 (2, 6, 22, 29, 32, 35) DN-30, 186 4D14 (9, 29) FF-30, 186 4D9 (6, 22, 31) DI-30, 186 4D25 (22, 33, 6, 23) DI-30, 217 4D24 (17, 9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217
3113	00 2666	4D9 (7, 12) DI-30, 186 4D11 (9) DN-30, 186 4D12 (2, 6, 22, 29, 32, 35) DN-30, 186 4D14 (9, 29) FF-30, 186
3114	00 2674	4D9 (16, 23) DI-30, 186 4D11 (13) DN-30, 186 4D12 (2, 6, 22, 29, 32, 35) DN-30, 186 4D14 (9, 29) FF-30, 186
3115	00 2702	4D23 (14, 20) PA-30, 217 4D24 (13, 9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217 4D12 (2, 6, 22, 29, 32, 35) DN-30, 186 4D14 (9, 29) FF-30, 186
3116	00 2710	4D23 (18, 2) PA-30, 217 4D24 (9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3117	00 2716	4D23 (18) PA-30, 217 4D24 (9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217
3120	00 2724	4D23 (25) PA-30, 217 4D24 (9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217
3121	00 2732	4D24 (17, 9) DN-30, 217 4D18 (7) DI-30, 217 4D17 (25, 33) BC-30, 217
3124	00 2757	4D22 (33, 23) DI-30, 217 4D18 (6, 16) DI-30, 217 4F21 (32, 35) DN-30, 217 4D9 (6) DI-30, 186 4D11 (9, 13) DN-30, 186
3125	00 2765 00 7015	4D22 (29, 16) DI-30, 217 4D24 (21, 35) DN-30, 217
3126	00 2773	4D21 (16) DI-30, 217 4D22 (12) DI-30, 217

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3127	00 3001	4D21 (7) DI-30, 217
3131	00 3015	4A1 (27, 33, 34, 6, 12, 16, 23, 7) DI-30, 031-2 4A2 (12, 27, 33, 34) DI-30, 031-2 4C1 (7, 12, 16, 23, 6, 27, 33, 34) DI-30, 033-2 4C2 (14, 8, 31, 25) FF-30, 033-2 4C3 (31, 25) FF-30, 033-2 4C4 (23, 6, 12, 27, 33, 34) DI-30, 033-2
3132	003023	4A2 (7, 16, 23, 6) DI-30, 031-2 4A3 (12, 27, 33, 34, 7, 16, 23, 6) DI-30, 031-2 4A4 (23, 27, 12, 6, 33) DI-30, 031-2 4C5 (7, 16, 23, 6, 12, 27, 33, 34) DI-30, 033-2 4C7 (14, 8, 31, 25) FF-30, 033-2 4C3 (14, 8) FF-30, 033-2 4C6 (12, 27, 33, 34) DI-30, 033-2 4C4 (7, 16) DI-30, 033-2
3133	00 3031	4C9 (12, 27, 33, 34, 7, 16, 23, 6) DI-30, 033-1, 2 4C8 (8, 31, 25, 14) FF-30, 033-1, 2 4C6 (16, 23, 6, 7) DI-30, 033-1, 2 4C12 (31, 25) FF-30, 033-1 4C11 (33, 34) DI-30, 033-1 4A5 (7, 6, 23, 16, 12, 34, 33, 27) DI-30, 031-2 4A4 (16, 7) DI-30, 031-1, 2 4A6 (7, 6, 23, 16, 12, 34, 33, 27) DI-30, 031-1

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3134	00 3037	4A7 (6,7,23,16,12,34,33,27) DI-30, 031-1 4A10 (34,33) DI-30, 031-1 4A8 (6,7,23,16,12,34,33,27) DI-30, 031-1 4C14 (7,16,23,6,12,27,33,34) DI-30, 033-1 4C13 (14,8,31,25) FF-30, 033-1 4C12 (14,8) FF-30, 033-1 4C11 (7,16,23,6,12,27) DI-30, 033-1
3135	00 3045	4C15 (7,16,23,6,12,27,23,34) DI-30, 033-1 4C17 (31,25) FF-30, 033-1 4C16 (14,8,31,25) FF-30, 033-1 4C18 (23,6,12,27,33,34) DI-30, 033-1 4A10 (7,6,23,16,12,27) DI-30, 031-1 4A9 (7,6,23,16,12,34,33,27) DI-30, 031-1 4A11 (12,34,33,27) DI-30, 031-1
3136	00 3053	4D13 (28) DN-30, 186
3137	00 3061	4D18 (27,31) DI-30, 186 4D13 (13) DN-30, 186 4D16 (16) DI-30, 186 4D12 (9) DN-30, 186
3200	00 3446	4A13 (6,34) DI-30, 042-1 4A14 (25) FF-30, 042-1 3D2 (34) DI-30, 437-1

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3201	00 3445	4A13 (23, 33) DI-30, 042-1 4A14 (31) FF-30, 042-1 3D2 (33) DI-30, 437-1
3202	00 3444	4A13 (16, 27) DI-30, 042-1 4A14 (8) FF-30, 042-1 3D2 (27) DI-30, 437-1
3203	00 3443	4A13 (7, 12) DI-30, 042-1 4A14 (14) FF-30, 042-1 3D2 (12) DI-30, 437-1
3204	00 3442	4A15 (6, 34) DI-30, 042-1 4A16 (25) FF-30, 042-1 3D2 (6) DI-30, 437-1
3205	00 3441	4A15 (23, 33) DI-30, 042-1 4A16 (31) FF-30, 042-1 3D2 (23) DI-30, 437-1
3206	00 3440	4A15 (16, 27) DI-30, 042-1 4A16 (8) FF-30, 042-1 3D2 (16) DI-30, 437-1

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3207	00 3437	4A15 (7,12) DI-30, 042-1 4A16 (14) FF-30, 042-1 3D2 (7) DI-30, 437-1
3210	00 3436	4A17 (6,34) DI-30, 042-1 4A18 (25) FF-30, 042-1 3D4 (34) DI-30, 437-1
3211	00 3435	4A17 (23,33) DI-30, 042-1 4A18 (31) FF-30, 042-1 3D4 (33) DI-30, 437-1
3212	00 3434	4A17 (16,27) DI-30, 042-2 4A18 (8) FF-30, 042-2 3D4 (27) DI-30, 437-1
3213	00 3433	4A17 (7,12) DI-30, 042-2 4A18 (14) FF-30, 042-2 3D4 (12) DI-30, 437-1
3214	00 3432	4A21 (6,34) DI-30, 042-2 4A20 (25) FF-30, 042-2 3D4 (6) DI-30, 437-1

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3215	00 3431	4A21 (23,33) DI-30, 042-2 4A20 (31) FF-30, 042-2 3D4 (23) DI-30, 437-2
3216	00 3430	4A21 (16,27) DI-30, 042-2 4A20 (8) FF-30, 042-2 3D4 (16) DI-30, 437-2
3217	00 3427	4A21 (7,12) DI-30, 042-2 4A20 (14) FF-30, 042-2 3D4 (7) DI-30, 437-2
3220	00 3426	4A23 (6,34) DI-30, 042-2 4A22 (25) FF-30, 042-2
3221	00 3425	4A23 (23,33) DI-30, 042-2 4A22 (31) FF-30, 042-2
3222	00 3424	4A23 (16,27) DI-30, 042-2 4A22 (8) FF-30, 042-2

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3223	00 3423	4A23 (7,12) DI-30, 042-2 4A22 (14) FF-30, 042-2
3300	00 0617	4A9 (12,27,33,34) DI-30, 031-1 4C15 (12) DI-30, 033-1
3301	00 0612	4A7 (12,27,33,34) DI-30, 031-1 4C14 (12) DI-30, 033-1
3302	00 0605	4A5 (12,27,33,34) DI-30, 031-2 4C9 (12) DI-30, 033-2
3303	00 0600	4A3 (12,27,33,34) DI-30, 031-2 4C5 (12) DI-30, 033-2
3304	00 0573	4A1 (33,34) DI-30, 031-2 4C1 (12) DI-30, 033-2

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3305	00 0566	4A10 (7, 6, 23, 16, 12) DI-30, 031-1 4C15 (7) DI-30, 033-1
3306	00 0561	4A8 (6, 7, 16, 23) DI-30, 031-1 4A10 (33) DI-30, 031-1 4C14 (7) DI-30, 033-1
3307	00 0554	4A 6 (6, 7, 16, 23) DI-30, 031-1 4A 4 (7) DI-30, 031-1 4C9 (7) DI-30, 033-1
3310	00 0547	4A4 (6, 12, 23, 27, 33) DI-30, 031-2 4C5 (7) DI-30, 033-2
3311	00 0542	4A2 (12, 27, 33, 34) DI-30, 031-2 4A1 (7, 27) DI-30, 031-2 4C1 (7) DI-30, 033-2
3313	00 0532	4A1 (7, 6, 33, 34, 27, 12, 23, 16) DI-30, 031-2 4A2 (7, 16, 23, 6, 12, 27, 33, 34) DI-30, 031-2 4C1 (7, 12) DI-30, 033-2

<u>Stop Code</u>	<u>Stop Locs.</u>	<u>Diagnosis</u>
3314	00 0525	4A3 (7,16,23,6,12,27,33,34) DI-30, 031-2 4A2 (7,16,23,6) DI-30, 031-2 4A4 (23,27,12,6,33,34) DI-30, 031-2 4C5 (7,12) DI-30, 033-2
3315	00 0520	4A5 (7, 6,23,16,12,34,33,27) DI-30, 031-2 4A4 (16,7) DI-30, 031-1,2 4A6 (7,6,23,16,12,34,33,27) DI-30, 031-1 4C9 (7,12) DI-30, 033-1,2
3316	00 0513	4A7 (7,12,34,33,27) DI-30, 031-1 4A8 (7,6,23,16,12,34,33,27) DI-30, 031-1 4A10 (33, 34) DI-30, 031-1 4C14 (7,12) DI-30, 033-1
3317	00 0506	4A9 (7,6,23,16,12,34,33,27) DI-30, 031-1 4A10 (7,6,2,3,16,12,27) DI-30, 031-1 4A11 (12,34,33,27) DI-30, 031-1 4C15 (7,12) DI-30, 033-1
3777	See Program Listing	This stop code logically should not occur. It has been used in the program as a safety stop. If, for example, the program has 4 choices it generally does not assume the 4th choice after eliminating the first three. Instead the program looks for the 4th condition - if it also does not exist then the program will stop with a 27 3777. This will prevent the program from continuing when unpredictable symptoms occur. Transients, intermittents or more than one failure will in many cases cause a 27 3777 stop.

5.0 Program Description

This section provides more detailed information than Section 2 concerning the design of the DP Diagnostic. Used in conjunction with the Flow Charts, Appendix A, and the Program Listing, Appendix B, thorough knowledge of the DP Diagnostic may be obtained. Before studying the details, the general design philosophy, Section 2 should be read. In particular Section 2.3, Assumptions, should be thoroughly understood, since they have been rigidly adhered to in the design of the program.

The general purpose computer is used to test and diagnose the DP. Thus the DP Diagnostic consists of a GP program and a DP program which are to be executed in parallel. The logical interconnection between these two programs is basic to the DP Diagnostic. The GP program stores data in memory locations that the DP is expected to access, and it examines the output memory locations after the data transfer from the DP drum band has taken place.

The program utilizes all eleven GP bands and the DP band. The LFI band is blanked out. The operation of the DP Diagnostic depends on the fact that there is a fast band (i. e. a GP band which is executed on every other drum cycle). The GP program logically consists of only two bands of instructions, each logical band being accessed on alternate drum revolutions. This is accomplished by loading the same set of instructions on each of the ten non-fast bands.

When the program runs to completion data will have been selected from every group in all five fields, utilizing different test patterns which have been chosen to detect logical failures. For example, flip-flops will have been set and reset using every input to the set, reset and complement modes shown on the logic diagrams. This implies that in general data is selected from the same group more than once. Data is not selected under all possible conditions. This is not necessary and, practically speaking is impossible to perform. Thus it must be concluded that the program is not responsible for the detection of failures which are sensitive to random type patterns.

Although the Mark I DP is designed to select marker stations by X/Y coordinates only, the DP drum band may be loaded with lower and upper frequency limits which are not maximums. If this is done, the current VHF frequency input will be a determining factor in the selection of marker stations.

Thus, to facilitate a flexible program design, the DP drum band is not loaded with maximum frequency limits for marker stations. Because of this the Override Bit must be made inoperative before running the DP Diagnostic. This can be done by disconnecting the wires at pins 6 and 10 of the DI-30 S-Pac at location 4D21.

Since the DP logic is based on a cycle of four drum revolutions, the GP program of the DP Diagnostic must know what part of the logic cycle is supposed to be working at a particular time in order to know when to look for certain output data from the DP band. This is accomplished by initializing a counter to count from 0-3 at the start of the program. The counter is advanced at the beginning of each drum revolution.

The first DP circuitry to be checked is the Station Counter and Station Register Comparator. The next tests check the DP Position Comparator. Several stations are selected using various test patterns supplied by the GP program to the Present Position Register and also using various groups of Preselection Control Data from the DP drum band. The test patterns are designed so that if the wrong station is selected, then the malfunction is pinpointed to a small section of the DP Position Comparator and the Present Position Register.

On the other hand, if all the correct stations are selected then a large section of the DP logic must be error free. For example, the Data Word Storage Register is now known to pass a one and a zero through all twenty bit positions. Also, part of the input and output addressing logic is working correctly.

Priority Control, Sequencing Control and input/output addressing are next completely checked by selecting data from each group at least once and by selecting stations for all four VHF receivers and both LF receivers.

A test is then made to verify that zeros are transferred to core memory in the event of a field failure.

The last part of the DP Diagnostic is a test of the DP FE Stop Circuitry. This test is not performed unless option # 4 (See Section 3.3) is chosen. If option # 4 is chosen and if the program is successfully completed, the Mark I will stop at location 00 0260 with the Failure Occurred Indicator ON.

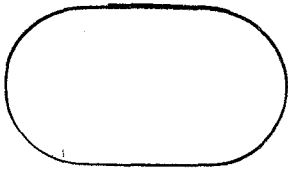
If option # 4 is not chosen and if the program is successfully completed, the Mark I will STOP with a 27 3000. The program has provided the ability to continuously loop, or to execute itself once more and stop again. If either of these options is chosen the program will start again at its logical beginning (location 00 0037) immediately following the STOP 27 3000. This is noted here, because it is a departure from most simulator type programs which really have no logical beginning or end.

Upon detection and diagnosis of a failure the program stops with a uniquely coded STOP instruction. The program has no capability for distinguishing between intermittent and solid type failures.

The program, however, has provided a convenient way for the operator to execute again via looping option # 2 (section 3.3). This option should always be chosen at least once and if the same STOP occurs again the failure can be safely called solid. The STOP codes list, section 4 can then be used to isolate the fault. In using the stop codes list, the Stop Code and location at which the STOP occurs must match. This will serve as a partial check on program loading.

The program tape consists of 44 GP blocks followed by a Reel End Code, followed by 16 LFI blocks and a Reel End Code, followed by 4 DP blocks and a Reel End Code. All blocks are short blocks.

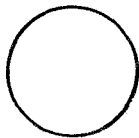
FLOW CHARTING SYMBOLS



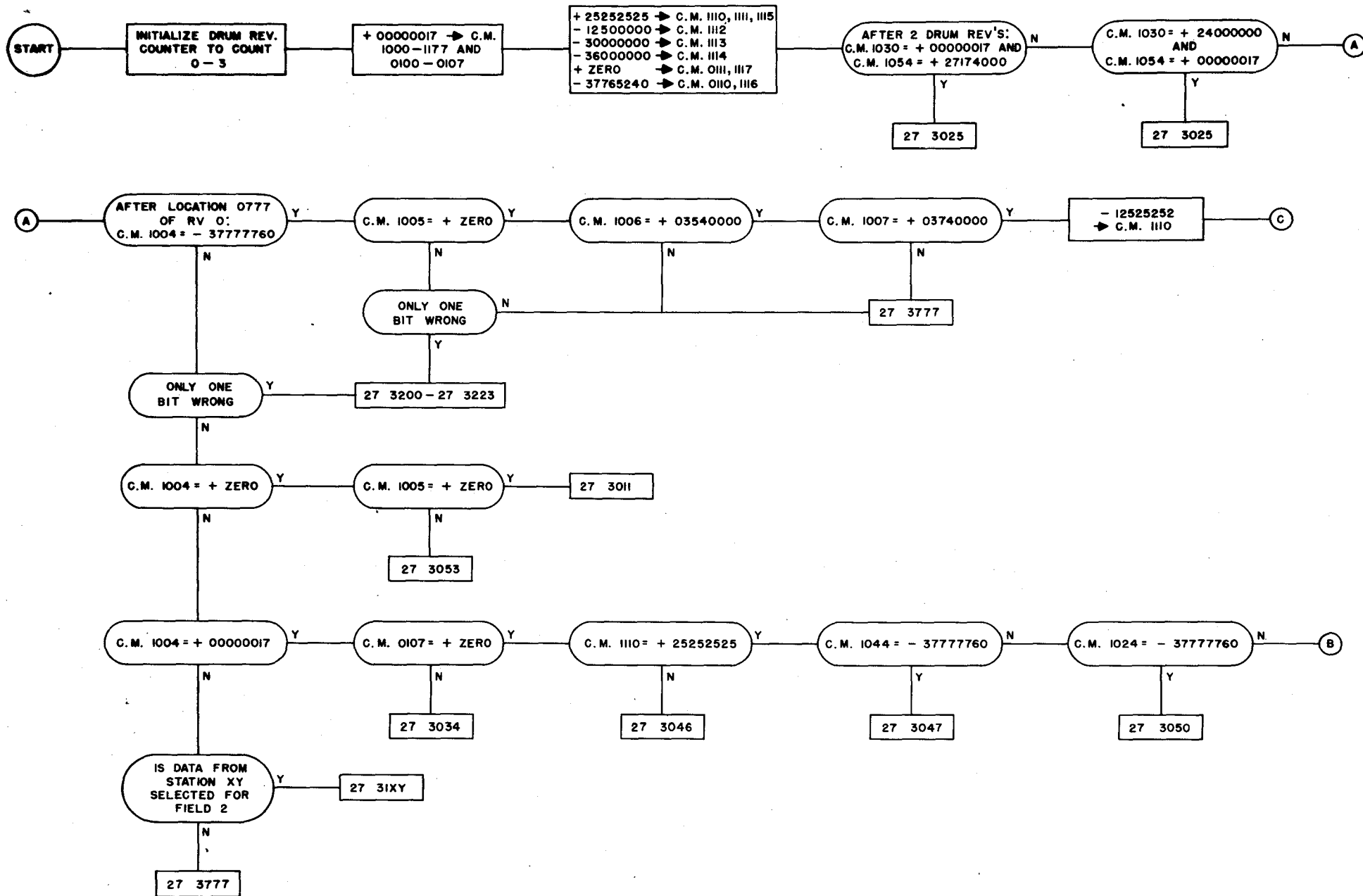
Decision

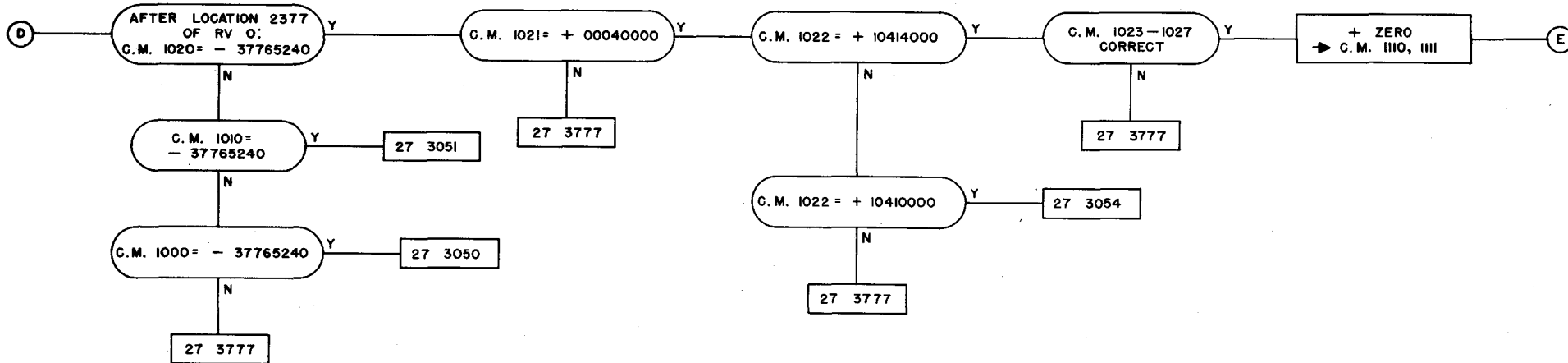
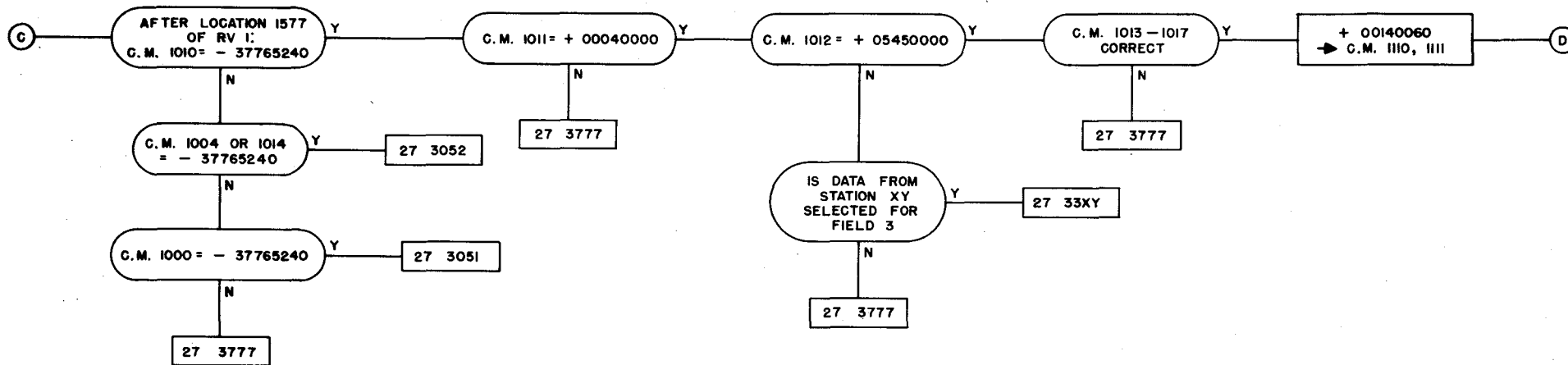
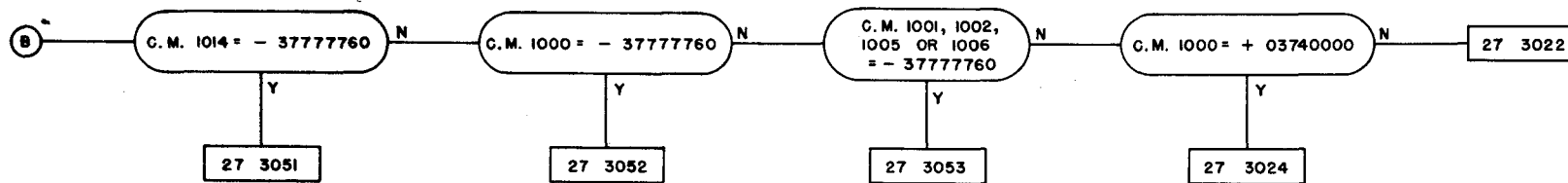


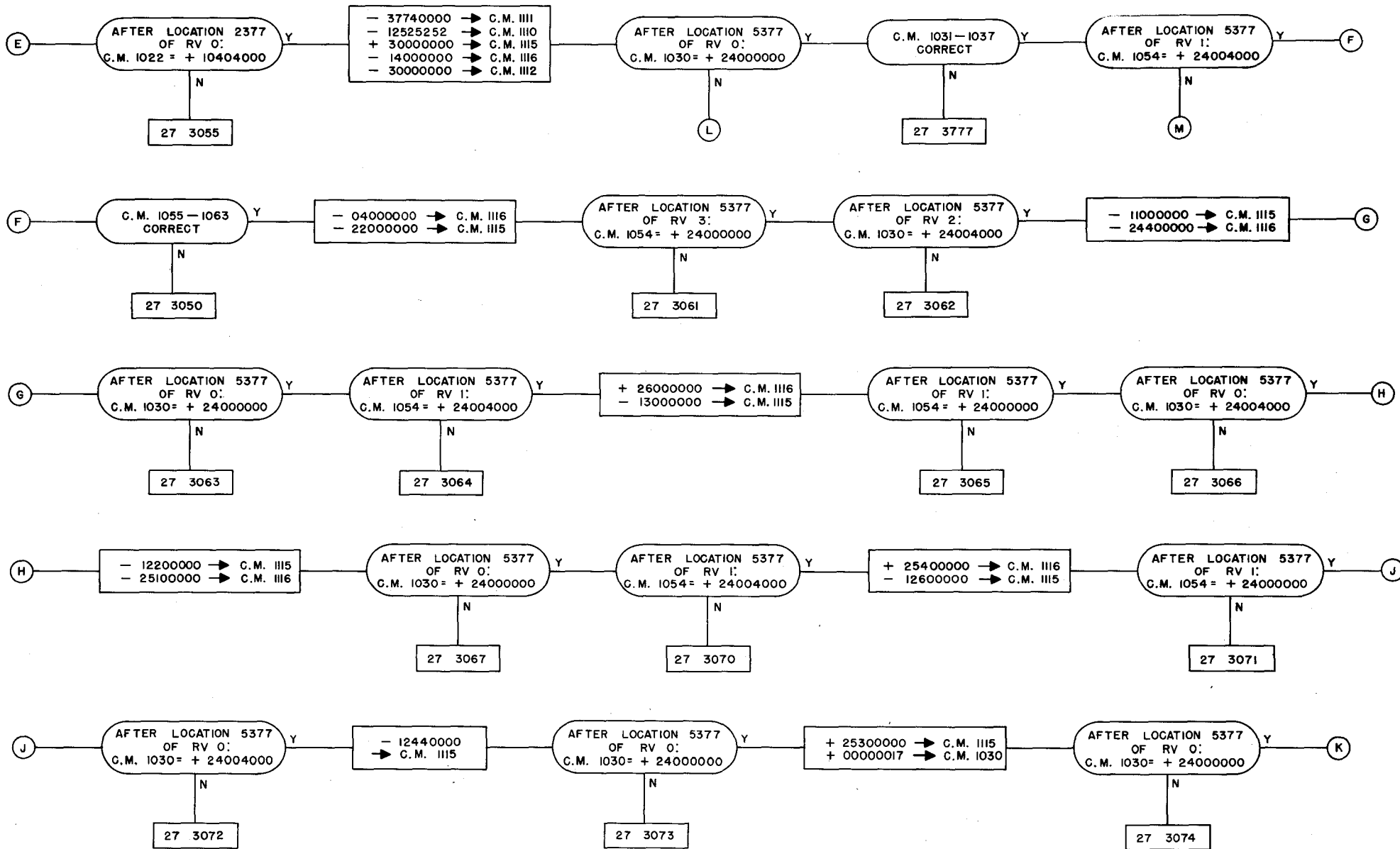
Statements

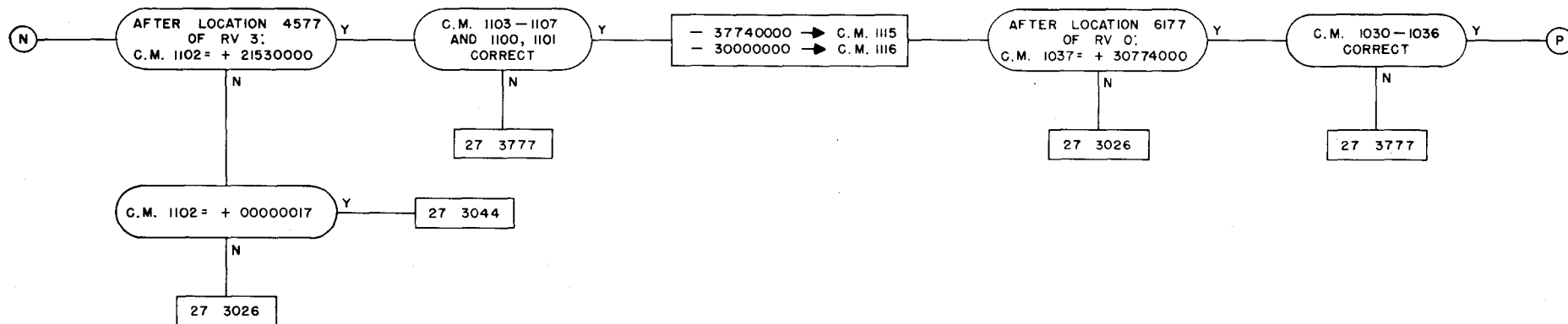
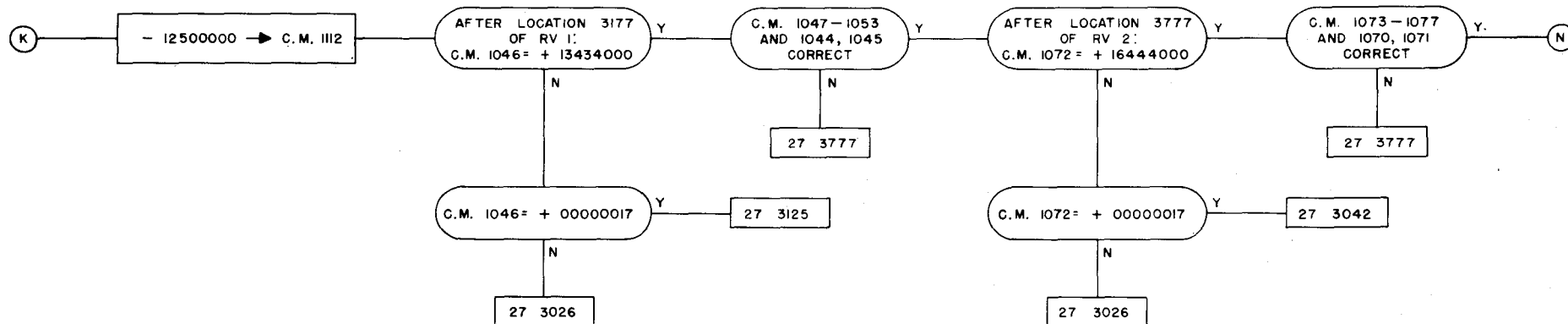
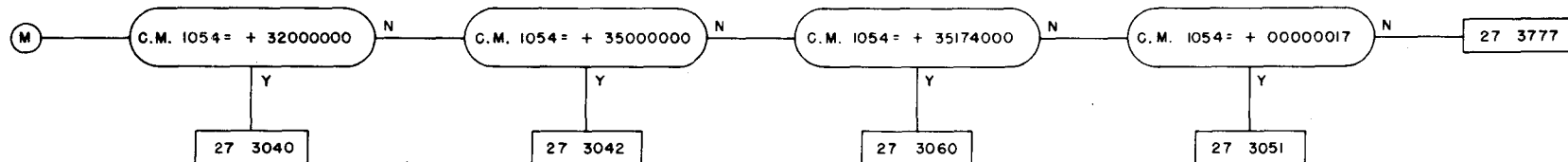
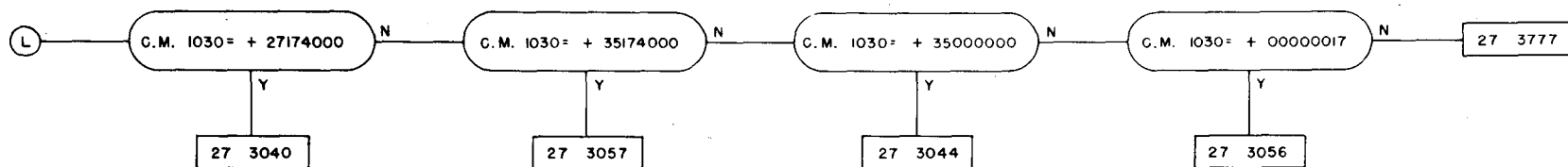


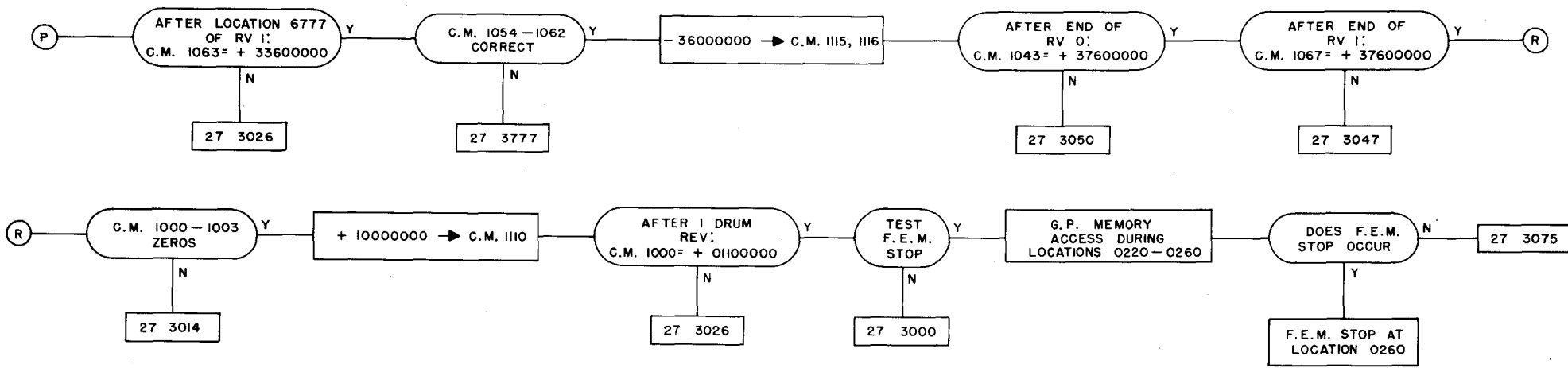
Connector











B-001

INSTRUCTION

LOCATION

+12 0000	00 0001
+00 0000	00 0002
+00 0000	00 0003
+00 0000	00 0004
+00 0000	00 0005
+00 0000	00 0006
+20 0177	00 0007
+11 0001	00 0010
+16 0000	00 0011
+26 0001	00 0012
+22 7376	00 0013
+23 0177	00 0014

-LOCS. 00 0015 - 00 0031 ARE BLANK

+33 3773	00 0032
+26 0001	00 0033
+33 3404	00 0034
+26 0016	00 0035
+27 3000	00 0036
+22 7376	00 0037
+23 0177	00 0040
+22 7776	00 0041
+23 0167	00 0042
+23 0166	00 0043
+23 0165	00 0044
+23 0164	00 0045
+23 0163	00 0046
+23 0162	00 0047
+23 0161	00 0050
+23 0160	00 0051
+22 3776	00 0052
+23 0170	00 0053

- LOCS. 00 0054 - 00 0215 ARE BLANK

+33 3405	00 0216
+26 0042	00 0217
+23 3000	00 0220
+23 3000	00 0221
+23 3000	00 0222
+23 3000	00 0223
+23 3000	00 0224
+23 3000	00 0225
+23 3000	00 0226
+23 3000	00 0227
+23 3000	00 0230
+23 3000	00 0231
+23 3000	00 0232
+23 3000	00 0233
+23 3000	00 0234
+23 3000	00 0235

B-002

INSTRUCTION

LOCATION

+23 3000	00 0236
+23 3000	00 0237
+23 3000	00 0240
+23 3000	00 0241
+23 3000	00 0242
+23 3000	00 0243
+23 3000	00 0244
+23 3000	00 0245
+23 3000	00 0246
+23 3000	00 0247
+23 3000	00 0250
+23 3000	00 0251
+23 3000	00 0252
+23 3000	00 0253
+23 3000	00 0254
+23 3000	00 0255
+23 3000	00 0256
+23 3000	00 0257
+23 3000	00 0260
+27 3075	00 0261
+00 0000	00 0262
+00 0000	00 0263
+00 0000	00 0264
+22 2636	00 0265
+11 1001	00 0266
+23 0777	00 0267

- LOCS. 00 0270 - 00 0357 ARE BLANK

+33 3613	00 0360
+26 0023	00 0361
+22 5252	00 0362
+11 1005	00 0363
+11 1005	00 0364
+11 1001	00 0365
+22 2524	00 0366
+01 0000	00 0367
+13 0000	00 0370
+23 1110	00 0371
+22 0524	00 0372
+11 1005	00 0373
+11 1003	00 0374
+22 7774	00 0375
+01 0000	00 0376
+13 0000	00 0377
+23 3771	00 0400
+22 7600	00 0401
+23 3777	00 0402
+22 7576	00 0403
+23 0170	00 0404
+33 3612	00 0405

INSTRUCTION	LOCATION
+26 0004	00 0406
+20 3777	00 0407
+11 0001	00 0410
+23 3777	00 0411
+16 0000	00 0412
+26 0036	00 0413
+20 1410	00 0414
+02 3771	00 0415
+14 0000	00 0416
+01 3774	00 0417
+16 0000	00 0420
+26 0031	00 0421
+20 1404	00 0422
+02 3771	00 0423
+14 0000	00 0424
+01 3774	00 0425
+16 0000	00 0426
+32 0000	00 0427
+26 0001	00 0430
+27 3052	00 0431
+20 1414	00 0432
+02 3771	00 0433
+14 0000	00 0434
+01 3774	00 0435
+16 0000	00 0436
+32 0000	00 0437
+26 0001	00 0440
+27 3052	00 0441
+20 1400	00 0442
+02 3771	00 0443
+14 0000	00 0444
+01 3774	00 0445
+16 0000	00 0446
+26 0001	00 0447
+27 3777	00 0450
+27 3051	00 0451
+26 0145	00 0452
+22 0010	00 0453
+02 1411	00 0454
+14 0000	00 0455
+01 3774	00 0456
+16 0000	00 0457
+26 0001	00 0460
+27 3777	00 0461
+20 1412	00 0462
+11 0005	00 0463
+11 0005	00 0464
+11 0002	00 0465
+10 0005	00 0466
+10 0005	00 0467

B-004

INSTRUCTION	LOCATION
+10 0005	00 0470
+11 0001	00 0471
+16 0000	00 0472
+32 0000	00 0473
+26 0001	00 0474
+27 3777	00 0475
+20 0777	00 0476
+02 1412	00 0477
+16 0000	00 0500
+32 0000	00 0501
+26 0004	00 0502
+01 3775	00 0503
+16 0000	00 0504
+26 0001	00 0505
+27 3317	00 0506
+02 3773	00 0507
+16 0000	00 0510
+32 0000	00 0511
+26 0001	00 0512
+27 3316	00 0513
+02 3773	00 0514
+16 0000	00 0515
+32 0000	00 0516
+26 0001	00 0517
+27 3315	00 0520
+02 3773	00 0521
+16 0000	00 0522
+32 0000	00 0523
+26 0001	00 0524
+27 3314	00 0525
+02 3773	00 0526
+16 0000	00 0527
+32 0000	00 0530
+26 0001	00 0531
+27 3313	00 0532
+02 3773	00 0533
+16 0000	00 0534
+26 0063	00 0535
+02 3773	00 0536
+16 0000	00 0537
+32 0000	00 0540
+26 0001	00 0541
+27 3311	00 0542
+02 3773	00 0543
+16 0000	00 0544
+32 0000	00 0545
+26 0001	00 0546
+27 3310	00 0547
+02 3773	00 0550
+16 0000	00 0551

INSTRUCTION

LOCATION

+32 0000	00 0552
+26 0001	00 0553
+27 3307	00 0554
+02 3773	00 0555
+16 0000	00 0556
+32 0000	00 0557
+26 0001	00 0560
+27 3306	00 0561
+02 3773	00 0562
+16 0000	00 0563
+32 0000	00 0564
+26 0001	00 0565
+27 3305	00 0566
+02 3773	00 0567
+16 0000	00 0570
+32 0000	00 0571
+26 0001	00 0572
+27 3304	00 0573
+02 3773	00 0574
+16 0000	00 0575
+32 0000	00 0576
+26 0001	00 0577
+27 3303	00 0600
+02 3773	00 0601
+16 0000	00 0602
+32 0000	00 0603
+26 0001	00 0604
+27 3302	00 0605
+02 3773	00 0606
+16 0000	00 0607
+32 0000	00 0610
+26 0001	00 0611
+27 3301	00 0612
+02 3773	00 0613
+16 0000	00 0614
+26 0001	00 0615
+27 3777	00 0616
+27 3300	00 0617
+26 0055	00 0620
+22 1352	00 0621
+02 1413	00 0622
+14 0000	00 0623
+01 3774	00 0624
+16 0000	00 0625
+26 0001	00 0626
+27 3777	00 0627
+22 1412	00 0630
+02 1414	00 0631
+14 0000	00 0632
+01 3774	00 0633

INSTRUCTION

LOCATION

+16 0000	00 0634
+26 0001	00 0635
+27 3777	00 0636
+22 1452	00 0637
+02 1415	00 0640
+14 0000	00 0641
+01 3774	00 0642
+16 0000	00 0643
+26 0001	00 0644
+27 3777	00 0645
+22 1512	00 0646
+02 1416	00 0647
+14 0000	00 0650
+01 3774	00 0651
+16 0000	00 0652
+26 0001	00 0653
+27 3777	00 0654
+22 1552	00 0655
+02 1417	00 0656
+14 0000	00 0657
+01 3774	00 0660
+16 0000	00 0661
+26 0001	00 0662
+27 3777	00 0663
+22 0006	00 0664
+11 1004	00 0665
+11 1004	00 0666
+22 0030	00 0667
+01 0000	00 0670
+23 1110	00 0671
+23 1111	00 0672
+22 7677	00 0673
+23 3777	00 0674
+23 0170	00 0675

- LOCS. 00 0676 - 00 0775 ARE BLANK

+33 3773	00 0776
+26 0027	00 0777
+12 0000	00 1000
+20 1004	00 1001
+23 1204	00 1002
+20 1005	00 1003
+23 1205	00 1004
+20 1006	00 1005
+23 1206	00 1006
+20 1007	00 1007
+23 1207	00 1010
+20 1110	00 1011
+23 1310	00 1012
+20 1044	00 1013

B-007

INSTRUCTION

LOCATION

+23 1244	00 1014
+20 1024	00 1015
+23 1224	00 1016
+20 1014	00 1017
+23 1214	00 1020
+20 1000	00 1021
+23 1200	00 1022
+20 1001	00 1023
+23 1201	00 1024
+20 1002	00 1025
+23 1202	00 1026

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK

+12 0000 00 2001

- LOCS. 00 2002 - 00 2375 ARE BLANK

+33 3773	00 2376
+26 0025	00 2377
+12 0000	00 2400
+20 1020	00 2401
+23 1620	00 2402
+20 1021	00 2403
+23 1621	00 2404
+20 1022	00 2405
+23 1622	00 2406
+20 1023	00 2407
+23 1623	00 2410
+20 1024	00 2411
+23 1624	00 2412
+20 1025	00 2413
+23 1625	00 2414
+20 1026	00 2415
+23 1626	00 2416
+20 1027	00 2417
+23 1627	00 2420
+20 1010	00 2421
+23 1610	00 2422
+20 1000	00 2423
+23 1600	00 2424
+00 0000	00 2425
+00 0000	00 2426
+00 0000	00 2427
+22 7760	00 2430
+11 1004	00 2431
+11 1004	00 2432
+11 1003	00 2433

B-008

INSTRUCTION

LOCATION

+22 7776	00 2434
+01 0000	00 2435
+13 0000	00 2436
+23 3772	00 2437
+02 1204	00 2440
+14 0000	00 2441
+01 3774	00 2442
+16 0000	00 2443
+32 0000	00 2444
+26 0033	00 2445
+01 1205	00 2446
+16 0000	00 2447
+26 0003	00 2450
+01 3774	00 2451
+13 0000	00 2452
+16 0000	00 2453
+26 0022	00 2454
+22 0730	00 2455
+02 1206	00 2456
+14 0000	00 2457
+01 3774	00 2460
+16 0000	00 2461
+32 0000	00 2462
+26 0006	00 2463
+22 0770	00 2464
+02 1207	00 2465
+14 0000	00 2466
+01 3774	00 2467
+16 0000	00 2470
+32 0000	00 2471
+26 0005	00 2472
+33 3614	00 2473
+26 0002	00 2474
+22 7376	00 2475
+23 0170	00 2476
+26 0045	00 2477
+33 3614	00 2500
+26 0001	00 2501
+27 3777	00 2502
+20 1204	00 2503
+16 0000	00 2504
+26 0003	00 2505
+01 3774	00 2506
+16 0000	00 2507
+32 0000	00 2510
+26 0014	00 2511
+20 1205	00 2512
+16 0000	00 2513
+26 0003	00 2514
+01 3774	00 2515

INSTRUCTION

LOCATION

+16 0000	00 2516
+26 0003	00 2517
+33 3614	00 2520
+26 0001	00 2521
+27 3053	00 2522
+33 3614	00 2523
+26 0001	00 2524
+27 3011	00 2525
+20 1204	00 2526
+02 3776	00 2527
+14 0000	00 2530
+01 3774	00 2531
+16 0000	00 2532
+26 0057	00 2533
+20 1204	00 2534
+11 0005	00 2535
+11 0005	00 2536
+11 0002	00 2537
+14 0000	00 2540
+01 3774	00 2541
+16 0000	00 2542
+32 0000	00 2543
+26 0006	00 2544
+26 0044	00 2545
+22 0600	00 2546
+02 1204	00 2547
+16 0000	00 2550
+26 0002	00 2551
+32 0000	00 2552
+26 0035	00 2553
+01 3775	00 2554
+16 0000	00 2555
+26 0001	00 2556
+33 3614	00 2557
+26 0001	00 2560
+27 3100	00 2561
+01 3773	00 2562
+16 0000	00 2563
+26 0001	00 2564
+33 3614	00 2565
+26 0001	00 2566
+27 3101	00 2567
+01 3773	00 2570
+16 0000	00 2571
+26 0001	00 2572
+33 3614	00 2573
+26 0001	00 2574
+27 3102	00 2575
+01 3773	00 2576
+16 0000	00 2577

B-010

INSTRUCTION

LOCATION

+26 0001	00 2600
+33 3614	00 2601
+26 0001	00 2602
+27 3103	00 2603
+01 3773	00 2604
+16 0000	00 2605
+26 0001	00 2606
+33 3614	00 2607
+26 0004	00 2610
+26 0126	00 2611
+26 0126	00 2612
+26 0126	00 2613
+27 3104	00 2614
+01 3773	00 2615
+16 0000	00 2616
+26 0001	00 2617
+33 3614	00 2620
+26 0001	00 2621
+27 3105	00 2622
+01 3773	00 2623
+16 0000	00 2624
+26 0001	00 2625
+33 3614	00 2626
+26 0001	00 2627
+27 3106	00 2630
+01 3773	00 2631
+16 0000	00 2632
+26 0001	00 2633
+33 3614	00 2634
+26 0001	00 2635
+27 3107	00 2636
+01 3773	00 2637
+16 0000	00 2640
+26 0001	00 2641
+33 3614	00 2642
+26 0001	00 2643
+27 3110	00 2644
+01 3773	00 2645
+16 0000	00 2646
+26 0001	00 2647
+33 3614	00 2650
+26 0001	00 2651
+27 3111	00 2652
+01 3773	00 2653
+16 0000	00 2654
+26 0001	00 2655
+33 3614	00 2656
+26 0001	00 2657
+27 3112	00 2660
+01 3773	00 2661

INSTRUCTION

LOCATION

+16 0000	00 2662
+26 0001	00 2663
+33 3614	00 2664
+26 0001	00 2665
+27 3113	00 2666
+01 3773	00 2667
+16 0000	00 2670
+26 0001	00 2671
+33 3614	00 2672
+26 0001	00 2673
+27 3114	00 2674
+01 3773	00 2675
+16 0000	00 2676
+26 0001	00 2677
+33 3614	00 2700
+26 0001	00 2701
+27 3115	00 2702
+01 3773	00 2703
+16 0000	00 2704
+26 0001	00 2705
+33 3614	00 2706
+26 0001	00 2707
+27 3116	00 2710
+01 3773	00 2711
+16 0000	00 2712
+26 0001	00 2713
+33 3614	00 2714
+26 0001	00 2715
+27 3117	00 2716
+01 3773	00 2717
+16 0000	00 2720
+26 0001	00 2721
+33 3614	00 2722
+26 0001	00 2723
+27 3120	00 2724
+01 3773	00 2725
+16 0000	00 2726
+26 0001	00 2727
+33 3614	00 2730
+26 0001	00 2731
+27 3121	00 2732
+01 3773	00 2733
+16 0000	00 2734
+26 0001	00 2735
+33 3614	00 2736
+26 0004	00 2737
+26 0121	00 2740
+26 0121	00 2741
+26 0121	00 2742
+27 3777	00 2743

INSTRUCTION	LOCATION
+01 3773	00 2744
+16 0000	00 2745
+26 0001	00 2746
+33 3614	00 2747
+26 0001	00 2750
+27 3777	00 2751
+01 3773	00 2752
+16 0000	00 2753
+26 0001	00 2754
+33 3614	00 2755
+26 0001	00 2756
+27 3124	00 2757
+01 3773	00 2760
+16 0000	00 2761
+26 0001	00 2762
+33 3614	00 2763
+26 0001	00 2764
+27 3125	00 2765
+01 3773	00 2766
+16 0000	00 2767
+26 0001	00 2770
+33 3614	00 2771
+26 0001	00 2772
+27 3126	00 2773
+01 3773	00 2774
+16 0000	00 2775
+26 0001	00 2776
+33 3614	00 2777
+26 0001	00 3000
+27 3127	00 3001
+01 3773	00 3002
+16 0000	00 3003
+26 0001	00 3004
+33 3614	00 3005
+26 0001	00 3006
+27 3777	00 3007
+01 3773	00 3010
+16 0000	00 3011
+26 0001	00 3012
+33 3614	00 3013
+26 0001	00 3014
+27 3131	00 3015
+01 3773	00 3016
+16 0000	00 3017
+26 0001	00 3020
+33 3614	00 3021
+26 0001	00 3022
+27 3132	00 3023
+01 3773	00 3024
+16 0000	00 3025

INSTRUCTION

LOCATION

+26 0001	00 3026
+33 3614	00 3027
+26 0001	00 3030
+27 3133	00 3031
+01 3773	00 3032
+16 0000	00 3033
+26 0001	00 3034
+33 3614	00 3035
+26 0001	00 3036
+27 3134	00 3037
+01 3773	00 3040
+16 0000	00 3041
+26 0001	00 3042
+33 3614	00 3043
+26 0001	00 3044
+27 3135	00 3045
+01 3773	00 3046
+16 0000	00 3047
+26 0001	00 3050
+33 3614	00 3051
+26 0001	00 3052
+27 3136	00 3053
+01 3773	00 3054
+16 0000	00 3055
+26 0001	00 3056
+33 3614	00 3057
+26 0001	00 3060
+27 3137	00 3061
+26 0077	00 3062
+26 0077	00 3063
+20 0107	00 3064
+16 0000	00 3065
+26 0003	00 3066
+01 3774	00 3067
+16 0000	00 3070
+26 0001	00 3071
+33 3614	00 3072
+26 0001	00 3073
+27 3034	00 3074
+22 5252	00 3075
+11 1004	00 3076
+11 1004	00 3077
+11 1004	00 3100
+22 5252	00 3101
+01 0000	00 3102
+02 1310	00 3103
+14 0000	00 3104
+01 3774	00 3105
+16 0000	00 3106
+26 0001	00 3107

INSTRUCTION

LOCATION

+33 3614	00 3110
+26 0001	00 3111
+27 3046	00 3112
+20 1244	00 3113
+02 3772	00 3114
+14 0000	00 3115
+01 3774	00 3116
+16 0000	00 3117
+32 0000	00 3120
+26 0001	00 3121
+33 3614	00 3122
+26 0001	00 3123
+27 3047	00 3124
+20 1224	00 3125
+02 3772	00 3126
+14 0000	00 3127
+01 3774	00 3130
+16 0000	00 3131
+32 0000	00 3132
+26 0001	00 3133
+33 3614	00 3134
+26 0001	00 3135
+27 3050	00 3136
+20 1214	00 3137
+02 3772	00 3140
+14 0000	00 3141
+01 3774	00 3142
+16 0000	00 3143
+32 0000	00 3144
+26 0001	00 3145
+33 3614	00 3146
+26 0001	00 3147
+27 3051	00 3150
+20 1200	00 3151
+02 3772	00 3152
+14 0000	00 3153
+01 3774	00 3154
+16 0000	00 3155
+32 0000	00 3156
+26 0001	00 3157
+33 3614	00 3160
+26 0003	00 3161
+26 0051	00 3162
+26 0060	00 3163
+27 3052	00 3164
+20 1201	00 3165
+02 3772	00 3166
+14 0000	00 3167
+01 3774	00 3170
+16 0000	00 3171

INSTRUCTION

LOCATION

+26 0005	00 3172
+20 1202	00 3173
+02 3772	00 3174
+14 0000	00 3175
+01 3774	00 3176
+16 0000	00 3177
+26 0005	00 3200
+20 1205	00 3201
+02 3772	00 3202
+14 0000	00 3203
+01 3774	00 3204
+16 0000	00 3205
+26 0005	00 3206
+20 1206	00 3207
+02 3772	00 3210
+14 0000	00 3211
+01 3774	00 3212
+16 0000	00 3213
+26 0014	00 3214
+22 0770	00 3215
+02 1200	00 3216
+14 0000	00 3217
+01 3774	00 3220
+16 0000	00 3221
+26 0003	00 3222
+33 3614	00 3223
+26 0001	00 3224
+27 3022	00 3225
+33 3614	00 3226
+26 0001	00 3227
+27 3024	00 3230
+33 3614	00 3231
+26 0001	00 3232
+27 3053	00 3233
+20 1204	00 3234
+11 1001	00 3235
+13 0000	00 3236
+20 3772	00 3237
+11 1001	00 3240
+01 0000	00 3241
+11 0001	00 3242
+26 0001	00 3243
+20 1205	00 3244
+23 0176	00 3245
+11 0004	00 3246
+23 0175	00 3247
+22 0046	00 3250
+11 1001	00 3251
+33 3757	00 3252
+26 0001	00 3253

INSTRUCTION

LOCATION

+02 3773	00 3254
+33 3756	00 3255
+26 0001	00 3256
+02 3773	00 3257
+33 3755	00 3260
+26 0001	00 3261
+02 3773	00 3262
+33 3754	00 3263
+26 0001	00 3264
+02 3773	00 3265
+33 3753	00 3266
+26 0001	00 3267
+02 3773	00 3270
+33 3752	00 3271
+26 0001	00 3272
+02 3773	00 3273
+33 3751	00 3274
+26 0001	00 3275
+02 3773	00 3276
+33 3750	00 3277
+26 0001	00 3300
+02 3773	00 3301
+33 3747	00 3302
+26 0001	00 3303
+02 3773	00 3304
+33 3746	00 3305
+26 0001	00 3306
+02 3773	00 3307
+33 3745	00 3310
+26 0001	00 3311
+02 3773	00 3312
+33 3744	00 3313
+26 0001	00 3314
+02 3773	00 3315
+33 3743	00 3316
+26 0001	00 3317
+02 3773	00 3320
+33 3742	00 3321
+26 0001	00 3322
+02 3773	00 3323
+33 3741	00 3324
+26 0001	00 3325
+02 3773	00 3326
+33 3740	00 3327
+26 0001	00 3330
+02 3773	00 3331
+33 3723	00 3332
+26 0001	00 3333
+02 3773	00 3334
+33 3722	00 3335

B-017

INSTRUCTION	LOCATION
+26 0001	00 3336
+02 3773	00 3337
+33 3721	00 3340
+26 0001	00 3341
+02 3773	00 3342
+33 3720	00 3343
+26 0001	00 3344
+02 3773	00 3345
+33 3614	00 3346
+26 0077	00 3347
+14 0000	00 3350
+01 3774	00 3351
+16 0000	00 3352
+26 0001	00 3353
+27 3777	00 3354
+33 3757	00 3355
+26 0067	00 3356
+33 3756	00 3357
+26 0064	00 3360
+33 3755	00 3361
+26 0061	00 3362
+33 3754	00 3363
+26 0056	00 3364
+33 3753	00 3365
+26 0053	00 3366
+33 3752	00 3367
+26 0050	00 3370
+33 3751	00 3371
+26 0045	00 3372
+33 3750	00 3373
+26 0042	00 3374
+33 3747	00 3375
+26 0037	00 3376
+33 3746	00 3377
+26 0034	00 3400
+33 3745	00 3401
+26 0031	00 3402
+33 3744	00 3403
+26 0026	00 3404
+33 3743	00 3405
+26 0023	00 3406
+33 3742	00 3407
+26 0020	00 3410
+33 3741	00 3411
+26 0015	00 3412
+33 3740	00 3413
+26 0012	00 3414
+33 3723	00 3415
+26 0007	00 3416
+33 3722	00 3417

INSTRUCTION	LOCATION
+26 0004	00 3420
+33 3721	00 3421
+26 0001	00 3422
+27 3223	00 3423
+27 3222	00 3424
+27 3221	00 3425
+27 3220	00 3426
+27 3217	00 3427
+27 3216	00 3430
+27 3215	00 3431
+27 3214	00 3432
+27 3213	00 3433
+27 3212	00 3434
+27 3211	00 3435
+27 3210	00 3436
+27 3207	00 3437
+27 3206	00 3440
+27 3205	00 3441
+27 3204	00 3442
+27 3203	00 3443
+27 3202	00 3444
+27 3201	00 3445
+27 3200	00 3446
- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK	
+12 0000	00 4001
- LOCS. 00 4002 - 00 4773 ARE BLANK	
+33 3775	00 4774
+26 0002	00 4775
+20 3776	00 4776
+23 1030	00 4777
-LOCS. 00 5000 - 00 5375 ARE BLANK	
+33 3773	00 5376
+26 0021	00 5377
+12 0000	00 5400
+20 1030	00 5401
+23 2030	00 5402
+20 1031	00 5403
+23 2031	00 5404
+20 1032	00 5405
+23 2032	00 5406
+20 1033	00 5407
+23 2033	00 5410
+20 1034	00 5411

B-019

INSTRUCTION

LOCATION

+23 2034	00 5412
+20 1035	00 5413
+23 2035	00 5414
+20 1036	00 5415
+23 2036	00 5416
+20 1037	00 5417
+23 2037	00 5420
+33 3775	00 5421
+26 0002	00 5422
+20 1030	00 5423
+23 2230	00 5424

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK

+33 3611	00 6001
+26 0004	00 6002
+20 3777	00 6003
+11 0001	00 6004
+23 3777	00 6005
+16 0000	00 6006
+26 0121	00 6007
+20 1620	00 6010
+02 3771	00 6011
+14 0000	00 6012
+01 3774	00 6013
+16 0000	00 6014
+26 0017	00 6015
+20 1610	00 6016
+02 3771	00 6017
+14 0000	00 6020
+01 3774	00 6021
+16 0000	00 6022
+26 0010	00 6023
+20 1600	00 6024
+02 3771	00 6025
+14 0000	00 6026
+01 3774	00 6027
+16 0000	00 6030
+26 0001	00 6031
+27 3777	00 6032
+27 3050	00 6033
+27 3051	00 6034
+22 0010	00 6035
+02 1621	00 6036
+14 0000	00 6037
+01 3774	00 6040
+16 0000	00 6041

INSTRUCTION

LOCATION

+26 0001	00 6042
+27 3777	00 6043
+22 2103	00 6044
+01 3773	00 6045
+02 1622	00 6046
+14 0000	00 6047
+01 3774	00 6050
+16 0000	00 6051
+26 0010	00 6052
+22 2102	00 6053
+02 1622	00 6054
+14 0000	00 6055
+01 3774	00 6056
+16 0000	00 6057
+26 0001	00 6060
+27 3777	00 6061
+27 3054	00 6062
+22 2143	00 6063
+01 3773	00 6064
+02 1623	00 6065
+14 0000	00 6066
+23 3001	00 6067
+22 2203	00 6070
+01 3773	00 6071
+02 1624	00 6072
+14 0000	00 6073
+23 3002	00 6074
+22 2243	00 6075
+01 3773	00 6076
+02 1625	00 6077
+14 0000	00 6100
+23 3003	00 6101
+22 2303	00 6102
+01 3773	00 6103
+02 1626	00 6104
+14 0000	00 6105
+23 3004	00 6106
+22 2343	00 6107
+01 3773	00 6110
+02 1627	00 6111
+14 0000	00 6112
+01 3001	00 6113
+01 3002	00 6114
+01 3003	00 6115
+01 3004	00 6116
+01 3774	00 6117
+16 0000	00 6120
+26 0001	00 6121
+27 3777	00 6122
+22 0000	00 6123

B-021

INSTRUCTION

LOCATION

+23 1110	00 6124
+23 1111	00 6125
+22 7736	00 6126
+23 0170	00 6127
+23 3777	00 6130
+33 3610	00 6131
+26 0004	00 6132
+20 3777	00 6133
+11 0001	00 6134
+23 3777	00 6135
+16 0000	00 6136
+26 0035	00 6137
+22 2101	00 6140
+01 3773	00 6141
+02 1622	00 6142
+14 0000	00 6143
+01 3774	00 6144
+16 0000	00 6145
+26 0001	00 6146
+27 3055	00 6147
+22 7770	00 6150
+13 0000	00 6151
+23 1111	00 6152
+22 5252	00 6153
+11 1005	00 6154
+11 1005	00 6155
+11 1001	00 6156
+22 2524	00 6157
+01 0000	00 6160
+13 0000	00 6161
+23 1110	00 6162
+22 6000	00 6163
+23 1115	00 6164
+13 0000	00 6165
+23 1112	00 6166
+22 3000	00 6167
+13 0000	00 6170
+23 1116	00 6171
+22 7750	00 6172
+23 0170	00 6173
+23 3777	00 6174
+33 3607	00 6175
+26 0004	00 6176
+20 3777	00 6177
+11 0001	00 6200
+23 3777	00 6201
+16 0000	00 6202
+26 0052	00 6203
+22 5000	00 6204
+02 2030	00 6205

B-022

INSTRUCTION

LOCATION

+14 0000	00 6206
+01 3774	00 6207
+16 0000	00 6210
+26 0045	00 6211
+22 5637	00 6212
+01 3773	00 6213
+02 2030	00 6214
+14 0000	00 6215
+01 3774	00 6216
+16 0000	00 6217
+26 0002	00 6220
+32 0000	00 6221
+26 0001	00 6222
+27 3040	00 6223
+22 7237	00 6224
+01 3773	00 6225
+02 2030	00 6226
+14 0000	00 6227
+01 3774	00 6230
+16 0000	00 6231
+26 0002	00 6232
+32 0000	00 6233
+26 0001	00 6234
+27 3057	00 6235
+22 7200	00 6236
+02 2030	00 6237
+14 0000	00 6240
+01 3774	00 6241
+16 0000	00 6242
+32 0000	00 6243
+26 0001	00 6244
+27 3044	00 6245
+20 3776	00 6246
+02 2030	00 6247
+14 0000	00 6250
+01 3774	00 6251
+16 0000	00 6252
+26 0001	00 6253
+27 3777	00 6254
+27 3056	00 6255
+26 0115	00 6256
+22 5040	00 6257
+02 2031	00 6260
+14 0000	00 6261
+23 3001	00 6262
+22 5100	00 6263
+02 2032	00 6264
+14 0000	00 6265
+23 3002	00 6266
+22 5140	00 6267

INSTRUCTION

LOCATION

+02 2033	00 6270
+14 0000	00 6271
+23 3003	00 6272
+22 5200	00 6273
+02 2034	00 6274
+14 0000	00 6275
+23 3004	00 6276
+22 5240	00 6277
+02 2035	00 6300
+14 0000	00 6301
+23 3005	00 6302
+22 5300	00 6303
+02 2036	00 6304
+14 0000	00 6305
+23 3006	00 6306
+22 5340	00 6307
+02 2037	00 6310
+14 0000	00 6311
+01 3001	00 6312
+01 3002	00 6313
+01 3003	00 6314
+01 3004	00 6315
+01 3005	00 6316
+01 3006	00 6317
+01 3774	00 6320
+16 0000	00 6321
+26 0001	00 6322
+27 3777	00 6323
+22 5001	00 6324
+01 3773	00 6325
+02 2054	00 6326
+14 0000	00 6327
+01 3774	00 6330
+16 0000	00 6331
+26 0042	00 6332
+22 6400	00 6333
+02 2054	00 6334
+14 0000	00 6335
+01 3774	00 6336
+16 0000	00 6337
+32 0000	00 6340
+26 0001	00 6341
+27 3040	00 6342
+22 7200	00 6343
+02 2054	00 6344
+14 0000	00 6345
+01 3774	00 6346
+16 0000	00 6347
+32 0000	00 6350
+26 0001	00 6351

INSTRUCTION

LOCATION

+27 3042	00 6352
+22 7237	00 6353
+01 3773	00 6354
+02 2054	00 6355
+14 0000	00 6356
+01 3774	00 6357
+16 0000	00 6360
+32 0000	00 6361
+26 0001	00 6362
+27 3060	00 6363
+20 3776	00 6364
+02 2054	00 6365
+14 0000	00 6366
+01 3774	00 6367
+16 0000	00 6370
+26 0001	00 6371
+27 3777	00 6372
+27 3051	00 6373
+26 0066	00 6374
+22 5041	00 6375
+01 3773	00 6376
+02 2055	00 6377
+14 0000	00 6400
+23 3001	00 6401
+22 5101	00 6402
+01 3773	00 6403
+02 2056	00 6404
+14 0000	00 6405
+23 3002	00 6406
+22 5141	00 6407
+01 3773	00 6410
+02 2057	00 6411
+14 0000	00 6412
+23 3003	00 6413
+22 5201	00 6414
+01 3773	00 6415
+02 2060	00 6416
+14 0000	00 6417
+23 3004	00 6420
+22 5241	00 6421
+01 3773	00 6422
+02 2061	00 6423
+14 0000	00 6424
+23 3005	00 6425
+22 5301	00 6426
+01 3773	00 6427
+02 2062	00 6430
+14 0000	00 6431
+23 3006	00 6432
+22 5341	00 6433

INSTRUCTION

LOCATION

+01 3773	00 6434
+02 2063	00 6435
+14 0000	00 6436
+01 3001	00 6437
+01 3002	00 6440
+01 3003	00 6441
+01 3004	00 6442
+01 3005	00 6443
+01 3006	00 6444
+01 3774	00 6445
+16 0000	00 6446
+26 0001	00 6447
+27 3050	00 6450
+22 1000	00 6451
+13 0000	00 6452
+23 1116	00 6453
+22 4400	00 6454
+13 0000	00 6455
+23 1115	00 6456
+22 7766	00 6457
+23 0170	00 6460
+22 7000	00 6461
+23 3777	00 6462
+33 3606	00 6463
+26 0004	00 6464
+20 3777	00 6465
+11 0001	00 6466
+23 3777	00 6467
+16 0000	00 6470
+26 0031	00 6471
+22 5000	00 6472
+02 2254	00 6473
+14 0000	00 6474
+01 3774	00 6475
+16 0000	00 6476
+26 0001	00 6477
+27 3061	00 6500
+22 5001	00 6501
+01 3773	00 6502
+02 2230	00 6503
+14 0000	00 6504
+01 3774	00 6505
+16 0000	00 6506
+26 0001	00 6507
+27 3062	00 6510
+22 2200	00 6511
+13 0000	00 6512
+23 1115	00 6513
+22 5100	00 6514
+13 0000	00 6515

INSTRUCTION

LOCATION

+23 1116	00 6516
+22 7772	00 6517
+23 0170	00 6520
+22 7000	00 6521
+23 3777	00 6522
+33 3605	00 6523
+26 0004	00 6524
+20 3777	00 6525
+11 0001	00 6526
+23 3777	00 6527
+16 0000	00 6530
+26 0030	00 6531
+22 5000	00 6532
+02 2030	00 6533
+14 0000	00 6534
+01 3774	00 6535
+16 0000	00 6536
+26 0001	00 6537
+27 3063	00 6540
+22 5001	00 6541
+01 3773	00 6542
+02 2054	00 6543
+14 0000	00 6544
+01 3774	00 6545
+16 0000	00 6546
+26 0001	00 6547
+27 3064	00 6550
+22 5400	00 6551
+23 1116	00 6552
+22 2600	00 6553
+13 0000	00 6554
+23 1115	00 6555
+22 7774	00 6556
+23 0170	00 6557
+22 7000	00 6560
+23 3777	00 6561
+33 3604	00 6562
+26 0004	00 6563
+20 3777	00 6564
+11 0001	00 6565
+23 3777	00 6566
+16 0000	00 6567
+26 0032	00 6570
+22 5000	00 6571
+02 2054	00 6572
+14 0000	00 6573
+01 3774	00 6574
+16 0000	00 6575
+26 0001	00 6576
+27 3065	00 6577

INSTRUCTION

LOCATION

+22 5001	00 6600
+01 3773	00 6601
+02 2030	00 6602
+14 0000	00 6603
+01 3774	00 6604
+16 0000	00 6605
+26 0001	00 6606
+27 3066	00 6607
+22 2440	00 6610
+13 0000	00 6611
+23 1115	00 6612
+22 5220	00 6613
+13 0000	00 6614
+23 1116	00 6615
+34 3604	00 6616
+32 0000	00 6617
+34 3576	00 6620
+22 7000	00 6621
+23 3777	00 6622
+33 3576	00 6623
+26 0004	00 6624
+20 3777	00 6625
+11 0001	00 6626
+23 3777	00 6627
+16 0000	00 6630
+26 0030	00 6631
+22 5000	00 6632
+02 2030	00 6633
+14 0000	00 6634
+01 3774	00 6635
+16 0000	00 6636
+26 0001	00 6637
+27 3067	00 6640
+22 5001	00 6641
+01 3773	00 6642
+02 2054	00 6643
+14 0000	00 6644
+01 3774	00 6645
+16 0000	00 6646
+26 0001	00 6647
+27 3070	00 6650
+22 5300	00 6651
+23 1116	00 6652
+22 2540	00 6653
+13 0000	00 6654
+23 1115	00 6655
+22 5776	00 6656
+23 0167	00 6657
+22 7000	00 6660
+23 3777	00 6661

INSTRUCTION

LOCATION

+33 3575	00 6662
+26 0004	00 6663
+20 3777	00 6664
+11 0001	00 6665
+23 3777	00 6666
+16 0000	00 6667
+26 0026	00 6670
+22 5000	00 6671
+02 2054	00 6672
+14 0000	00 6673
+01 3774	00 6674
+16 0000	00 6675
+26 0001	00 6676
+27 3071	00 6677
+22 5001	00 6700
+01 3773	00 6701
+02 2030	00 6702
+14 0000	00 6703
+01 3774	00 6704
+16 0000	00 6705
+26 0001	00 6706
+27 3072	00 6707
+22 2510	00 6710
+13 0000	00 6711
+23 1115	00 6712
+22 6776	00 6713
+23 0167	00 6714
+22 7000	00 6715
+23 3777	00 6716
+33 3574	00 6717
+26 0004	00 6720
+20 3777	00 6721
+11 0001	00 6722
+23 3777	00 6723
+16 0000	00 6724
+26 0016	00 6725
+22 5000	00 6726
+02 2030	00 6727
+14 0000	00 6730
+01 3774	00 6731
+16 0000	00 6732
+26 0001	00 6733
+27 3073	00 6734
+22 5260	00 6735
+23 1115	00 6736
+20 3776	00 6737
+23 1030	00 6740
+22 7376	00 6741
+23 0167	00 6742
+23 3777	00 6743

INSTRUCTION

LOCATION

+33 3573	00 6744
+26 0004	00 6745
+20 3777	00 6746
+11 0001	00 6747
+23 3777	00 6750
+16 0000	00 6751
+26 0015	00 6752
+22 5000	00 6753
+02 2030	00 6754
+14 0000	00 6755
+01 3774	00 6756
+16 0000	00 6757
+26 0001	00 6760
+27 3074	00 6761
+22 2520	00 6762
+13 0000	00 6763
+23 1112	00 6764
+22 7576	00 6765
+23 0167	00 6766
+23 3777	00 6767
+33 3572	00 6770
+26 0004	00 6771
+20 3777	00 6772
+11 0001	00 6773
+23 3777	00 6774
+16 0000	00 6775
+26 0071	00 6776
+22 2707	00 6777
+01 3773	00 7000
+02 1046	00 7001
+14 0000	00 7002
+01 3774	00 7003
+16 0000	00 7004
+26 0010	00 7005
+20 3776	00 7006
+02 1046	00 7007
+14 0000	00 7010
+01 3774	00 7011
+16 0000	00 7012
+26 0001	00 7013
+27 3026	00 7014
+27 3125	00 7015
+20 3771	00 7016
+02 1044	00 7017
+14 0000	00 7020
+23 3001	00 7021
+22 0010	00 7022
+02 1045	00 7023
+14 0000	00 7024
+23 3002	00 7025

INSTRUCTION

LOCATION

+22 2747	00 7026
+01 3773	00 7027
+02 1047	00 7030
+14 0000	00 7031
+23 3003	00 7032
+22 3007	00 7033
+01 3773	00 7034
+02 1050	00 7035
+14 0000	00 7036
+23 3004	00 7037
+22 3047	00 7040
+01 3773	00 7041
+02 1051	00 7042
+14 0000	00 7043
+23 3005	00 7044
+22 3107	00 7045
+01 3773	00 7046
+02 1052	00 7047
+14 0000	00 7050
+23 3006	00 7051
+22 3147	00 7052
+01 3773	00 7053
+02 1053	00 7054
+14 0000	00 7055
+01 3001	00 7056
+01 3002	00 7057
+01 3003	00 7060
+01 3004	00 7061
+01 3005	00 7062
+01 3006	00 7063
+01 3774	00 7064
+16 0000	00 7065
+26 0002	00 7066
+27 3777	00 7067
+26 0165	00 7070
+22 3511	00 7071
+01 3773	00 7072
+02 1072	00 7073
+14 0000	00 7074
+01 3774	00 7075
+16 0000	00 7076
+26 0010	00 7077
+20 3776	00 7100
+02 1072	00 7101
+14 0000	00 7102
+01 3774	00 7103
+16 0000	00 7104
+26 0001	00 7105
+27 3026	00 7106
+27 3042	00 7107

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INSTRUCTION

LOCATION

+20 3771	00 7110
+02 1070	00 7111
+14 0000	00 7112
+23 3001	00 7113
+22 0010	00 7114
+02 1071	00 7115
+14 0000	00 7116
+23 3002	00 7117
+22 3551	00 7120
+01 3773	00 7121
+02 1073	00 7122
+14 0000	00 7123
+23 3003	00 7124
+22 3611	00 7125
+01 3773	00 7126
+02 1074	00 7127
+14 0000	00 7130
+23 3004	00 7131
+22 3651	00 7132
+01 3773	00 7133
+02 1075	00 7134
+14 0000	00 7135
+23 3005	00 7136
+22 3711	00 7137
+01 3773	00 7140
+02 1076	00 7141
+14 0000	00 7142
+23 3006	00 7143
+22 3751	00 7144
+01 3773	00 7145
+02 1077	00 7146
+14 0000	00 7147
+01 3001	00 7150
+01 3002	00 7151
+01 3003	00 7152
+01 3004	00 7153
+01 3005	00 7154
+01 3006	00 7155
+01 3774	00 7156
+16 0000	00 7157
+26 0001	00 7160
+27 3777	00 7161
+22 4326	00 7162
+02 1102	00 7163
+14 0000	00 7164
+01 3774	00 7165
+16 0000	00 7166
+26 0010	00 7167
+20 3776	00 7170
+02 1102	00 7171

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INSTRUCTION

LOCATION

+14 0000	00 7172
+01 3774	00 7173
+16 0000	00 7174
+26 0001	00 7175
+27 3026	00 7176
+27 3044	00 7177
+20 3771	00 7200
+02 1100	00 7201
+14 0000	00 7202
+23 3001	00 7203
+22 0010	00 7204
+02 1101	00 7205
+14 0000	00 7206
+23 3002	00 7207
+22 4366	00 7210
+02 1103	00 7211
+14 0000	00 7212
+23 3003	00 7213
+22 4426	00 7214
+02 1104	00 7215
+14 0000	00 7216
+23 3004	00 7217
+22 4466	00 7220
+02 1105	00 7221
+14 0000	00 7222
+23 3005	00 7223
+22 4526	00 7224
+02 1106	00 7225
+14 0000	00 7226
+23 3006	00 7227
+22 4566	00 7230
+02 1107	00 7231
+14 0000	00 7232
+01 3001	00 7233
+01 3002	00 7234
+01 3003	00 7235
+01 3004	00 7236
+01 3005	00 7237
+01 3006	00 7240
+01 3774	00 7241
+16 0000	00 7242
+26 0001	00 7243
+27 3777	00 7244
+22 7770	00 7245
+13 0000	00 7246
+23 1115	00 7247
+22 7000	00 7250
+11 0001	00 7251
+23 1116	00 7252
+22 7676	00 7253

INSTRUCTION

LOCATION

+23 0167	00 7254
+23 3777	00 7255
+33 3571	00 7256
+26 0004	00 7257
+20 3777	00 7260
+11 0001	00 7261
+16 0000	00 7262
+23 3777	00 7263
+26 0146	00 7264
+22 6177	00 7265
+01 3773	00 7266
+02 1037	00 7267
+14 0000	00 7270
+01 3774	00 7271
+16 0000	00 7272
+26 0001	00 7273
+27 3026	00 7274
+22 5637	00 7275
+01 3773	00 7276
+02 2030	00 7277
+14 0000	00 7300
+23 3000	00 7301
+22 5677	00 7302
+01 3773	00 7303
+02 1031	00 7304
+14 0000	00 7305
+23 3001	00 7306
+22 5737	00 7307
+01 3773	00 7310
+02 1032	00 7311
+14 0000	00 7312
+23 3002	00 7313
+20 1033	00 7314
+16 0000	00 7315
+26 0030	00 7316
+23 3003	00 7317
+22 6037	00 7320
+01 3773	00 7321
+02 1034	00 7322
+14 0000	00 7323
+23 3004	00 7324
+22 6077	00 7325
+01 3773	00 7326
+02 1035	00 7327
+14 0000	00 7330
+23 3005	00 7331
+22 6137	00 7332
+01 3773	00 7333
+02 1036	00 7334
+14 0000	00 7335

INSTRUCTION

LOCATION

+01 3000	00 7336
+01 3001	00 7337
+01 3002	00 7340
+01 3003	00 7341
+01 3004	00 7342
+01 3005	00 7343
+01 3774	00 7344
+16 0000	00 7345
+26 0001	00 7346
+27 3777	00 7347
+22 6740	00 7350
+02 1063	00 7351
+14 0000	00 7352
+01 3774	00 7353
+16 0000	00 7354
+26 0001	00 7355
+27 3026	00 7356
+22 6400	00 7357
+02 2054	00 7360
+14 0000	00 7361
+23 3001	00 7362
+22 6440	00 7363
+02 1055	00 7364
+14 0000	00 7365
+23 3002	00 7366
+22 6500	00 7367
+02 1056	00 7370
+14 0000	00 7371
+23 3003	00 7372
+22 6540	00 7373
+02 1057	00 7374
+14 0000	00 7375
+23 3004	00 7376
+22 6600	00 7377
+02 1060	00 7400
+14 0000	00 7401
+23 3005	00 7402
+22 6640	00 7403
+02 1061	00 7404
+14 0000	00 7405
+23 3006	00 7406
+22 6700	00 7407
+02 1062	00 7410
+14 0000	00 7411
+01 3001	00 7412
+01 3002	00 7413
+01 3003	00 7414
+01 3004	00 7415
+01 3005	00 7416
+01 3006	00 7417

INSTRUCTION

LOCATION

+01 3774	00 7420
+16 0000	00 7421
+26 0001	00 7422
+27 3777	00 7423
+22 7400	00 7424
+13 0000	00 7425
+23 1115	00 7426
+23 1116	00 7427
+23 3777	00 7430
+22 7736	00 7431
+23 0167	00 7432
+33 3570	00 7433
+26 0004	00 7434
+20 3777	00 7435
+11 0001	00 7436
+16 0000	00 7437
+23 3777	00 7440
+26 0046	00 7441
+22 7740	00 7442
+02 1043	00 7443
+14 0000	00 7444
+01 3774	00 7445
+16 0000	00 7446
+26 0001	00 7447
+27 3050	00 7450
+22 7740	00 7451
+02 1067	00 7452
+14 0000	00 7453
+01 3774	00 7454
+16 0000	00 7455
+26 0001	00 7456
+27 3047	00 7457
+20 1000	00 7460
+16 0000	00 7461
+26 0002	00 7462
+20 1001	00 7463
+16 0000	00 7464
+26 0002	00 7465
+20 1002	00 7466
+16 0000	00 7467
+26 0002	00 7470
+20 1003	00 7471
+16 0000	00 7472
+26 0006	00 7473
+01 1002	00 7474
+01 1001	00 7475
+01 1000	00 7476
+01 3774	00 7477
+16 0000	00 7500
+26 0001	00 7501

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INSTRUCTION

LOCATION

+27 3014	00 7502
+22 2000	00 7503
+23 1110	00 7504
+22 7756	00 7505
+23 0167	00 7506
+26 0001	00 7507
+33 3567	00 7510
+26 0013	00 7511
+22 0220	00 7512
+02 1000	00 7513
+14 0000	00 7514
+01 3774	00 7515
+16 0000	00 7516
+26 0001	00 7517
+27 3026	00 7520
+22 7776	00 7521
+23 0167	00 7522
+32 0000	00 7523
+34 3404	00 7524

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK

INSTRUCTION	LOCATION
+12 0000	01 0001
+00 0000	01 0002
+00 0000	01 0003
+00 0000	01 0004
+00 0000	01 0005
+00 0000	01 0006
+20 0177	01 0007
+11 0001	01 0010
+16 0000	01 0011
+26 0001	01 0012
+22 7376	01 0013
+23 0177	01 0014
- LOCS. 01 0015 - 01 1575 ARE BLANK	
+33 3774	01 1576
+26 0025	01 1577
+12 0000	01 1600
+20 1010	01 1601
+23 1410	01 1602
+20 1011	01 1603
+23 1411	01 1604
+20 1012	01 1605
+23 1412	01 1606
+20 1013	01 1607
+23 1413	01 1610
+20 1014	01 1611
+23 1414	01 1612
+20 1015	01 1613
+23 1415	01 1614
+20 1016	01 1615
+23 1416	01 1616
+20 1017	01 1617
+23 1417	01 1620
+20 1004	01 1621
+23 1404	01 1622
+20 1000	01 1623
+23 1400	01 1624
- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK	
+12 0000	01 2001
- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK	

INSTRUCTION	LOCATION
+12 0000	01 4001
- LOCS. 01 4002 - 01 4773 ARE BLANK	
+33 3776	01 4774
+26 0002	01 4775
+20 3776	01 4776
+23 1054	01 4777
- LOCS. 01 5000 - 01 5375 ARE BLANK	
+33 3774	01 5376
+26 0021	01 5377
+12 0000	01 5400
+20 1054	01 5401
+23 2054	01 5402
+20 1055	01 5403
+23 2055	01 5404
+20 1056	01 5405
+23 2056	01 5406
+20 1057	01 5407
+23 2057	01 5410
+20 1060	01 5411
+23 2060	01 5412
+20 1061	01 5413
+23 2061	01 5414
+20 1062	01 5415
+23 2062	01 5416
+20 1063	01 5417
+23 2063	01 5420
+33 3776	01 5421
+26 0002	01 5422
+20 1054	01 5423
+23 2254	01 5424
- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK	
+12 0000	01 6001
- LOCS. 01 6002 - 01 6710 ARE BLANK	
+33 3776	01 6711
+26 0001	01 6712
+33 3616	01 6713
+26 0024	01 6714
+22 0036	01 6715
+11 1005	01 6716
+11 1005	01 6717
+11 1002	01 6720
+23 1000	01 6721

INSTRUCTION

LOCATION

+23 1001	01 6722
+23 1002	01 6723
+23 1003	01 6724
+23 1004	01 6725
+23 1005	01 6726
+23 1006	01 6727
+23 1007	01 6730
+23 1010	01 6731
+23 1011	01 6732
+23 1012	01 6733
+23 1013	01 6734
+23 1014	01 6735
+23 1015	01 6736
+23 1016	01 6737
+23 1017	01 6740
+26 0030	01 6741
+23 1020	01 6742
+23 1021	01 6743
+23 1022	01 6744
+23 1023	01 6745
+23 1024	01 6746
+23 1025	01 6747
+23 1026	01 6750
+23 1027	01 6751
+23 1030	01 6752
+23 1031	01 6753
+23 1032	01 6754
+23 1033	01 6755
+23 1034	01 6756
+23 1035	01 6757
+23 1036	01 6760
+23 1037	01 6761
+23 1040	01 6762
+23 1041	01 6763
+23 1042	01 6764
+23 1043	01 6765
+23 1044	01 6766
+23 1045	01 6767
+23 1046	01 6770
+23 1047	01 6771
+26 0030	01 6772
+23 1050	01 6773
+23 1051	01 6774
+23 1052	01 6775
+23 1053	01 6776
+23 1054	01 6777
+23 1055	01 7000
+23 1056	01 7001
+23 1057	01 7002
+23 1060	01 7003

INSTRUCTION

LOCATION

+23 1061	01 7004
+23 1062	01 7005
+23 1063	01 7006
+23 1064	01 7007
+23 1065	01 7010
+23 1066	01 7011
+23 1067	01 7012
+23 1070	01 7013
+23 1071	01 7014
+23 1072	01 7015
+23 1073	01 7016
+23 1074	01 7017
+23 1075	01 7020
+23 1076	01 7021
+23 1077	01 7022
+26 0030	01 7023
+23 1100	01 7024
+23 1101	01 7025
+23 1102	01 7026
+23 1103	01 7027
+23 1104	01 7030
+23 1105	01 7031
+23 1106	01 7032
+23 1107	01 7033
+23 1120	01 7034
+23 1121	01 7035
+23 1122	01 7036
+23 1123	01 7037
+23 1124	01 7040
+23 1125	01 7041
+23 1126	01 7042
+23 1127	01 7043
+23 1130	01 7044
+23 1131	01 7045
+23 1132	01 7046
+23 1133	01 7047
+23 1134	01 7050
+23 1135	01 7051
+23 1136	01 7052
+23 1137	01 7053
+26 0030	01 7054
+23 1140	01 7055
+23 1141	01 7056
+23 1142	01 7057
+23 1143	01 7060
+23 1144	01 7061
+23 1145	01 7062
+23 1146	01 7063
+23 1147	01 7064
+23 1150	01 7065

B-041

INSTRUCTION

LOCATION

+23 1151	01 7066
+23 1152	01 7067
+23 1153	01 7070
+23 1154	01 7071
+23 1155	01 7072
+23 1156	01 7073
+23 1157	01 7074
+23 1160	01 7075
+23 1161	01 7076
+23 1162	01 7077
+23 1163	01 7100
+23 1164	01 7101
+23 1165	01 7102
+23 1166	01 7103
+23 1167	01 7104
+26 0030	01 7105
+23 1170	01 7106
+23 1171	01 7107
+23 1172	01 7110
+23 1173	01 7111
+23 1174	01 7112
+23 1175	01 7113
+23 1176	01 7114
+23 1177	01 7115
+23 0100	01 7116
+23 0101	01 7117
+23 0102	01 7120
+23 0103	01 7121
+23 0104	01 7122
+23 0105	01 7123
+23 0106	01 7124
+23 0107	01 7125
+22 5252	01 7126
+22 5252	01 7127
+11 1005	01 7130
+11 1005	01 7131
+11 1002	01 7132
+01 0000	01 7133
+23 1110	01 7134
+23 1111	01 7135
+26 0030	01 7136
+23 1115	01 7137
+22 2520	01 7140
+13 0000	01 7141
+23 1112	01 7142
+22 6000	01 7143
+13 0000	01 7144
+23 1113	01 7145
+22 7600	01 7146
+11 0001	01 7147

INSTRUCTION

LOCATION

+23 1114	01 7150
+22 0000	01 7151
+23 0111	01 7152
+23 1117	01 7153
+22 0524	01 7154
+11 1005	01 7155
+11 1003	01 7156
+22 7774	01 7157
+01 0000	01 7160
+13 0000	01 7161
+23 0110	01 7162
+23 1116	01 7163
+22 5776	01 7164
+23 0170	01 7165
+22 0400	01 7166
+26 0004	01 7167
+23 3777	01 7170
+22 0002	01 7171
+11 1001	01 7172
+23 3773	01 7173
+33 3615	01 7174
+26 0005	01 7175
+20 3777	01 7176
+11 0001	01 7177
+23 3777	01 7200
+16 0000	01 7201
+32 0000	01 7202
+26 0051	01 7203
+22 0000	01 7204
+23 3775	01 7205
+13 0000	01 7206
+23 3774	01 7207
+22 0036	01 7210
+11 1004	01 7211
+11 1004	01 7212
+11 1004	01 7213
+23 3776	01 7214
+02 1030	01 7215
+14 0000	01 7216
+01 3774	01 7217
+16 0000	01 7220
+32 0000	01 7221
+26 0007	01 7222
+22 5637	01 7223
+01 3773	01 7224
+02 1054	01 7225
+14 0000	01 7226
+01 3774	01 7227
+16 0000	01 7230
+32 0000	01 7231

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INSTRUCTION

LOCATION

+26 0001	01 7232
+27 3025	01 7233
+20 1054	01 7234
+02 3776	01 7235
+14 0000	01 7236
+01 3774	01 7237
+16 0000	01 7240
+32 0000	01 7241
+26 0006	01 7242
+22 5000	01 7243
+02 1030	01 7244
+14 0000	01 7245
+01 3774	01 7246
+16 0000	01 7247
+32 0000	01 7250
+26 0001	01 7251
+27 3025	01 7252
+22 6776	01 7253
+23 0170	01 7254

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK.

LOC		DATA PRESELECTOR		
0000		+00007733	+00000000	+00000000
0004	+00000000	+00007733	+00100020	+00000000
0010	+00000000	+00007733	+00200100	+00000000
0014	+00000000	+00007733	+00300120	+00000000
0020	+00000000	+00007733	+01000200	+00000000
0024	+00000000	+00007733	+01100220	+00000000
0030	+00000000	+00007733	+01200300	+00000000
0034	+00000000	+00007733	+01300320	+00000000
0040	+00000000	+00007733	+02000400	+00000000
0044	+00000000	+00007733	+02100420	+00000000
0050	+00000000	+00007733	+02200500	+00000000
0054	+00000000	+00007733	+02300520	+00000000
0060	+00000000	+00007733	+03000600	+00000000
0064	+00000000	+00007733	+03100620	+00000000
0070	+00000000	+00007733	+03200700	+00000000
0074	+00000000	+00007733	+03300720	+00000000
0100	+00000000	+00007733	+04001000	+00000000
0104	+00000000	+00007733	+04101020	+00000000
0110	+00000000	+00007733	+04201100	+00000000
0114	+00000000	+00007733	+04301120	+00000000
0120	+00000000	+00007733	+05001200	+00000000
0124	+00000000	+00007733	+05101220	+00000000
0130	+00000000	+00007733	+05201300	+00000000
0134	+00000000	+00007733	+05301320	+00000000
0140	+00000000	+00007733	+06001400	+00000000
0144	+00000000	+00007733	+06101420	+00000000
0150	+00000000	+00007733	+06201500	+00000000
0154	+00000000	+00007733	+06301520	+00000000
0160	+00000000	+00007733	+07001600	+00000000
0164	+00000000	+00007733	+07101620	+00000000
0170	+00000000	+00007733	+07201700	+00000000
0174	+00000000	+00007733	+07301720	+00000000
0200	+00200000	+00201000	+00202000	+00203000
0204	+00204000	+00205000	+00206000	+00207000
0210	+00210000	+00211000	+00212000	+00213000
0214	+00214000	+00215000	+00216000	+00217000
0220	+00220000	+00221000	+00222000	+00223000
0224	+00224000	+00225000	+00226000	+00227000
0230	+00230000	+00231000	+00232000	+00233000
0234	+00234000	+00235000	+00236000	+00237000
0240	+00240000	+00241000	+00242000	+00243000
0244	+00244000	+00245000	+00246000	+00247000
0250	+00250000	+00251000	+00252000	+00253000
0254	+00254000	+00255000	+00256000	+00257000
0260	+00260000	+00261000	+00262000	+00263000
0264	+00264000	+00265000	+00266000	+00267000
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0274	+00274000	+00275000	+00276000	+00277000
0300	+00300000	+00301000	+00302000	+00303000
0304	+00304000	+00305000	+00306000	+00307000
0310	+00310000	+00311000	+00312000	+00313000
0314	+00314000	+00315000	+00316000	+00317000
0320	+00320000	+00321000	+00322000	+00323000
0324	+00324000	+00325000	+00326000	+00327000

LOC

0330	+00330000	+00331000	+00332000	+00333000
0334	+00334000	+00335000	+00336000	+00337000
0340	+00340000	+00341000	+00342000	+00343000
0344	+00344000	+00345000	+00346000	+00347000
0350	+00350000	+00351000	+00352000	+00353000
0354	+00354000	+00355000	+00356000	+00357000
0360	+00360000	+00361000	+00362000	+00363000
0364	+00364000	+00365000	+00366000	+00367000
0370	+00370000	+00371000	+00372000	+00373000
0374	+00374000	+00375000	+00376000	+00377000
0400	+00000000	+20007733	+20007733	+20007733
0404	+00000000	+14007733	+14007733	+14007733
0410	+00000000	+13007733	+13007733	+13007733
0414	+00000000	+12307733	+12307733	+12307733
0420	+00000000	+12267733	+12267733	+12267733
0424	+00000000	+00001733	+00001733	+00001733
0430	+00000000	+00002333	+00002333	+00002333
0434	+00000000	+00002433	+00002433	+00002433
0440	+00000000	+00002503	+00002503	+00002503
0444	+00000000	+00002510	+00002510	+00002510
0450	+00000000	+00000000	+12252511	+12252511
0454	+00000000	+12252511	+00000000	+12252511
0460	+00000000	+12252511	+12252511	+00000000
0464	+00000000	+12252511	+00000000	+00000000
0470	+00000000	+12252511	+37377733	+37377733
0474	+00000000	+12252511	+37007600	+37007600
0500	+00000000	+12252511	+00370133	+00370133
0504	+00000000	+37377733	+12252511	+12252511
0510	+00000000	+37370000	+37370000	+37370000
0514	+00000000	+37370000	+37370000	+37370000
0520	+00000000	+12257000	+25125222	+00000000
0524	+00000000	+12252511	+37007600	+00000000
0530	+00000000	+00010001	+37377733	+25125222
0534	+00000000	+00000000	+37377733	+25125222
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0544	+00000000	+12242513	+12242513	+12242513
0550	+00000000	+12202533	+12202533	+12202533
0554	+00000000	+12002733	+12002733	+12002733
0560	+00000000	+10003733	+10003733	+10003733
0564	+00000000	+00007733	+00007733	+00007733
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0574	+00000000	+37370000	+37370000	+37370000
0600	+01200000	+01201000	+01202000	+01203000
0604	+01204000	+01205000	+01206000	+01207000
0610	+01210000	+01211000	+01212000	+01213000
0614	+01214000	+01215000	+01216000	+01217000
0620	+01220000	+01221000	+01222000	+01223000
0624	+01224000	+01225000	+01226000	+01227000
0630	+37377733	+01231000	+01232000	+01233000
0634	+01234000	+01235000	+01236000	+01237000
0640	+01240000	+01241000	+01242000	+01243000
0644	+01244000	+01245000	+01246000	+01247000
0650	+01250000	+01251000	+01252000	+01253000
0654	+01254000	+01255000	+01256000	+01257000
0660	+01260000	+01261000	+01262000	+01263000

LOC

0664	+01264000	+01265000	+01266000	+01267000
0670	+00000000	+01271000	+01272000	+01273000
0674	+01274000	+01275000	+01276000	+01277000
0700	+01300000	+01301000	+01302000	+01303000
0704	+01304000	+01305000	+01306000	+01307000
0710	+01310000	+01311000	+01312000	+01313000
0714	+01314000	+01315000	+01316000	+01317000
0720	+01320000	+01321000	+01322000	+01323000
0724	+01324000	+01325000	+01326000	+01327000
0730	+01330000	+01331000	+01332000	+01333000
0734	+01334000	+01335000	+01336000	+01337000
0740	+01340000	+01341000	+01342000	+01343000
0744	+01344000	+01345000	+01346000	+01347000
0750	+01350000	+01351000	+01352000	+01353000
0754	+01354000	+01355000	+01356000	+01357000
0760	+01360000	+01361000	+01362000	+01363000
0764	+01364000	+01365000	+01366000	+01367000
0770	+01370000	+01371000	+01372000	+01373000
0774	+01374000	+01375000	+01376000	+01377000
1000	+00000000	+30007733	+30007733	+30007733
1004	+00000000	+26007733	+26007733	+26007733
1010	+00000000	+25207733	+25207733	+25207733
1014	+00000000	+25147733	+25147733	+25147733
1020	+00000000	+25137733	+25137733	+25137733
1024	+00000000	+00003733	+00003733	+00003733
1030	+00000000	+00004733	+00004733	+00004733
1034	+00000000	+00005133	+00005133	+00005133
1040	+00000000	+00005213	+00005213	+00005213
1044	+00000000	+00005221	+00005221	+00005221
1050	+00000000	+25125222	+25125222	+25125222
1054	+00000000	+25105223	+25105223	+25105223
1060	+00000000	+25005233	+25005233	+25005233
1064	+00000000	+24005333	+24005333	+24005333
1070	+00000000	+20005733	+20005733	+20005733
1074	+00000000	+00007733	+00007733	+00007733
1100	+00000000	+00007733	+00007733	+00007733
1104	+00000000	+00007733	+00007733	+00007733
1110	+00000000	+00007733	+00007733	+00007733
1114	+00000000	+00007733	+00007733	+00007733
1120	+00000000	+00007733	+00007733	+00007733
1124	+00000000	+00007733	+00007733	+00007733
1130	+00000000	+00007733	+00007733	+00007733
1134	+00000000	+00007733	+00007733	+00007733
1140	+00000000	+00007733	+00007733	+00007733
1144	+00000000	+00007733	+00007733	+00007733
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1154	+00000000	+00007733	+00007733	+00007733
1160	+00000000	+00007733	+00007733	+00007733
1164	+00000000	+00007733	+00007733	+00007733
1170	+00000000	+00007733	+00007733	+00007733
1174	+00000000	+00007733	+00007733	+00007733
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1204	+37375222	+37375222	+37375222	+37375222
1210	+37375222	+37375222	+37375222	+37375222
1214	+37375222	+37375222	+37375222	+37375222

LOC

1220	+37375222	+37375222	+37375222	+37375222
1224	+37375222	+37375222	+37375222	+37375222
1230	+37375222	+37375222	+37375222	+37375222
1234	+37375222	+37375222	+37375222	+37375222
1240	+00010000	+00010000	+00010000	+00010000
1244	+00010000	+00010000	+00010000	+00010000
1250	+00010000	+00010000	+00010000	+00010000
1254	+00010000	+00010000	+00010000	+00010000
1260	+00010000	+00010000	+00010000	+00010000
1264	+00010000	+00010000	+00010000	+00010000
1270	+00010000	+00010000	+00010000	+00010000
1274	+00010000	+00010000	+00010000	+00010000
1300	+02300000	+02301000	+02302000	+02303000
1304	+02304000	+02305000	+02306000	+02307000
1310	+02310000	+02311000	+02312000	+02313000
1314	+02314000	+02315000	+02316000	+02317000
1320	+02320000	+02321000	+02322000	+02323000
1324	+02324000	+02325000	+02326000	+02327000
1330	+02330000	+02331000	+02332000	+02333000
1334	+02334000	+02335000	+02336000	+02337000
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1354	+02354000	+02355000	+02356000	+02357000
1360	+02360000	+02361000	+02362000	+02363000
1364	+02364000	+02365000	+02366000	+02367000
1370	+02370000	+02371000	+02372000	+02373000
1374	+02374000	+02375000	+02376000	+02377000
1400	+03000000	+03001000	+03002000	+03003000
1404	+03004000	+03005000	+03006000	+03007000
1410	+03010000	+03011000	+03012000	+03013000
1414	+03014000	+03015000	+03016000	+03017000
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1434	+03034000	+03035000	+03036000	+03037000
1440	+03040000	+03041000	+03042000	+03043000
1444	+03044000	+03045000	+03046000	+03047000
1450	+03050000	+03051000	+03052000	+03053000
1454	+03054000	+03055000	+03056000	+03057000
1460	+03060000	+03061000	+03062000	+03063000
1464	+03064000	+03065000	+03066000	+03067000
1470	+03070000	+03071000	+03072000	+03073000
1474	+03074000	+03075000	+03076000	+03077000
1500	+03100000	+03101000	+03102000	+03103000
1504	+03104000	+03105000	+03106000	+03107000
1510	+03110000	+03111000	+03112000	+03113000
1514	+03114000	+03115000	+03116000	+03117000
1520	+03120000	+03121000	+03122000	+03123000
1524	+03124000	+03125000	+03126000	+03127000
1530	+03130000	+03131000	+03132000	+03133000
1534	+03134000	+03135000	+03136000	+03137000
1540	+03140000	+03141000	+03142000	+03143000
1544	+03144000	+03145000	+03146000	+03147000
1550	+03150000	+03151000	+03152000	+03153000

LOC

1554	+03154000	+03155000	+03156000	+03157000
1560	+03160000	+03161000	+03162000	+03163000
1564	+03164000	+03165000	+03166000	+03167000
1570	+03170000	+03171000	+03172000	+03173000
1574	+03174000	+03175000	+03176000	+03177000
1600	+00000000	+00010000	+00010000	+00010000
1604	+00000000	+00000000	+00000000	+00000000
1610	+00000000	+00030002	+00030002	+00030002
1614	+00000000	+00030003	+00030003	+00030003
1620	+00000000	+12252511	+12252511	+12252511

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK

2000		+37375222	+37375222	+37375222
2004	+37375222	+37375222	+37375222	+37375222
2010	+37375222	+37375222	+37375222	+37375222
2014	+37375222	+37375222	+37375222	+37375222
2020	+37375222	+37375222	+37375222	+37375222
2024	+37375222	+37375222	+37375222	+37375222
2030	+37375222	+37375222	+37375222	+37375222
2034	+37375222	+37375222	+37375222	+37375222
2040	+00010000	+00010000	+00010000	+00010000
2044	+00010000	+00010000	+00010000	+00010000
2050	+00010000	+00010000	+00010000	+00010000
2054	+00010000	+00010000	+00010000	+00010000
2060	+00010000	+00010000	+00010000	+00010000
2064	+00010000	+00010000	+00010000	+00010000
2070	+00010000	+00010000	+00010000	+00010000
2074	+00010000	+00010000	+00010000	+00010000
2100	+04100000	+04101000	+04102000	+04103000
2104	+04104000	+04105000	+04106000	+04107000
2110	+04110000	+04111000	+04112000	+04113000
2114	+04114000	+04115000	+04116000	+04117000
2120	+04120000	+04121000	+04122000	+04123000
2124	+04124000	+04125000	+04126000	+04127000
2130	+04130000	+04131000	+04132000	+04133000
2134	+04134000	+04135000	+04136000	+04137000
2140	+04140000	+04141000	+04142000	+04143000
2144	+04144000	+04145000	+04146000	+04147000
2150	+04150000	+04151000	+04152000	+04153000
2154	+04154000	+04155000	+04156000	+04157000
2160	+04160000	+04161000	+04162000	+04163000
2164	+04164000	+04165000	+04166000	+04167000
2170	+04170000	+04171000	+04172000	+04173000
2174	+04174000	+04175000	+04176000	+04177000
2200	+04200000	+04201000	+04202000	+04203000
2204	+04204000	+04205000	+04206000	+04207000
2210	+04210000	+04211000	+04212000	+04213000
2214	+04214000	+04215000	+04216000	+04217000
2220	+04220000	+04221000	+04222000	+04223000
2224	+04224000	+04225000	+04226000	+04227000
2230	+04230000	+04231000	+04232000	+04233000
2234	+04234000	+04235000	+04236000	+04237000
2240	+04240000	+04241000	+04242000	+04243000
2244	+04244000	+04245000	+04246000	+04247000

LOC

2250	+04250000	+04251000	+04252000	+04253000
2254	+04254000	+04255000	+04256000	+04257000
2260	+04260000	+04261000	+04262000	+04263000
2264	+04264000	+04265000	+04266000	+04267000
2270	+04270000	+04271000	+04272000	+04273000
2274	+04274000	+04275000	+04276000	+04277000
2300	+04300000	+04301000	+04302000	+04303000
2304	+04304000	+04305000	+04306000	+04307000
2310	+04310000	+04311000	+04312000	+04313000
2314	+04314000	+04315000	+04316000	+04317000
2320	+04320000	+04321000	+04322000	+04323000
2324	+04324000	+04325000	+04326000	+04327000
2330	+04330000	+04331000	+04332000	+04333000
2334	+04334000	+04335000	+04336000	+04337000
2340	+04340000	+04341000	+04342000	+04343000
2344	+04344000	+04345000	+04346000	+04347000
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2354	+04354000	+04355000	+04356000	+04357000
2360	+04360000	+04361000	+04362000	+04363000
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2370	+04370000	+04371000	+04372000	+04373000
2374	+04374000	+04375000	+04376000	+04377000
2400	+00000000	+00000000	+00000000	+00000000
2404	+00000000	+00000000	+00000000	+00000000
2410	+00000000	+00000000	+00000000	+00000000
2414	+00000000	+00000000	+00000000	+00000000
2420	+00000000	+00000000	+00000000	+00000000
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2454	+00000000	+00000000	+00000000	+00000000
2460	+00000000	+00000000	+00000000	+00000000
2464	+00000000	+00000000	+00000000	+00000000
2470	+00000000	+00000000	+00000000	+00000000
2474	+00000000	+00000000	+00000000	+00000000
2500	+00000000	+00000000	+00000000	+00000000
2504	+00000000	+00000000	+00000000	+00000000
2510	+00000000	+00000000	+00000000	+00000000
2514	+00000000	+00000000	+00000000	+00000000
2520	+00000000	+00000000	+00000000	+00000000
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2544	+00000000	+00000000	+00000000	+00000000
2550	+00000000	+00000000	+00000000	+00000000
2554	+00000000	+00000000	+00000000	+00000000
2560	+00000000	+00000000	+00000000	+00000000
2564	+00000000	+00000000	+00000000	+00000000
2570	+00000000	+00000000	+00000000	+00000000
2574	+00000000	+00000000	+00000000	+00000000
2600	+37375222	+37375222	+37375222	+37375222

LOC

2604	+37375222	+37375222	+37375222	+37375222
2610	+37375222	+37375222	+37375222	+37375222
2614	+37375222	+37375222	+37375222	+37375222
2620	+37375222	+37375222	+37375222	+37375222
2624	+37375222	+37375222	+37375222	+37375222
2630	+37375222	+37375222	+37375222	+37375222
2634	+37375222	+37375222	+37375222	+37375222
2640	+00010000	+00010000	+00010000	+00010000
2644	+00010000	+00010000	+00010000	+00010000
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2660	+00010000	+00010000	+00010000	+00010000
2664	+00010000	+00010000	+00010000	+00010000
2670	+00010000	+00010000	+00010000	+00010000
2674	+00010000	+00010000	+00010000	+00010000
2700	+05300000	+05301000	+05302000	+05303000
2704	+05304000	+05305000	+05306000	+05307000
2710	+05310000	+05311000	+05312000	+05313000
2714	+05314000	+05315000	+05316000	+05317000
2720	+05320000	+05321000	+05322000	+05323000
2724	+05324000	+05325000	+05326000	+05327000
2730	+05330000	+05331000	+05332000	+05333000
2734	+05334000	+05335000	+05336000	+05337000
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2744	+05344000	+05345000	+05346000	+05347000
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2754	+05354000	+05355000	+05356000	+05357000
2760	+05360000	+05361000	+05362000	+05363000
2764	+05364000	+05365000	+05366000	+05367000
2770	+05370000	+05371000	+05372000	+05373000
2774	+05374000	+05375000	+05376000	+05377000
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3004	+06004000	+06005000	+06006000	+06007000
3010	+06010000	+06011000	+06012000	+06013000
3014	+06014000	+06015000	+06016000	+06017000
3020	+06020000	+06021000	+06022000	+06023000
3024	+06024000	+06025000	+06026000	+06027000
3030	+06030000	+06031000	+06032000	+06033000
3034	+06034000	+06035000	+06036000	+06037000
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3054	+06054000	+06055000	+06056000	+06057000
3060	+06060000	+06061000	+06062000	+06063000
3064	+06064000	+06065000	+06066000	+06067000
3070	+06070000	+06071000	+06072000	+06073000
3074	+06074000	+06075000	+06076000	+06077000
3100	+06100000	+06101000	+06102000	+06103000
3104	+06104000	+06105000	+06106000	+06107000
3110	+06110000	+06111000	+06112000	+06113000
3114	+06114000	+06115000	+06116000	+06117000
3120	+06120000	+06121000	+06122000	+06123000
3124	+06124000	+06125000	+06126000	+06127000
3130	+06130000	+06131000	+06132000	+06133000
3134	+06134000	+06135000	+06136000	+06137000

LOC

3140	+06140000	+06141000	+06142000	+06143000
3144	+06144000	+06145000	+06146000	+06147000
3150	+06150000	+06151000	+06152000	+06153000
3154	+06154000	+06155000	+06156000	+06157000
3160	+06160000	+06161000	+06162000	+06163000
3164	+06164000	+06165000	+06166000	+06167000
3170	+06170000	+06171000	+06172000	+06173000
3174	+06174000	+06175000	+06176000	+06177000
3200	+00000000	+00000000	+00000000	+00000000
3204	+00000000	+00000000	+00000000	+00000000
3210	+00000000	+00000000	+00000000	+00000000
3214	+00000000	+00000000	+00000000	+00000000
3220	+00000000	+00000000	+00000000	+00000000
3224	+00000000	+00000000	+00000000	+00000000
3230	+00000000	+00000000	+00000000	+00000000
3234	+00000000	+00000000	+00000000	+00000000
3240	+00000000	+00000000	+00000000	+00000000
3244	+00000000	+34007000	+00007733	+00007733
3250	+00000000	+00000000	+00000000	+00000000
3254	+00000000	+00000000	+00000000	+00000000
3260	+00000000	+00000000	+00000000	+00000000
3264	+00000000	+00000000	+00000000	+00000000
3270	+00000000	+00000000	+00000000	+00000000
3274	+00000000	+00000000	+00000000	+00000000
3300	+00000000	+00000000	+00000000	+00000000
3304	+00000000	+00000000	+00000000	+00000000
3310	+00000000	+00000000	+00000000	+00000000
3314	+00000000	+00000000	+00000000	+00000000
3320	+00000000	+00000000	+00000000	+00000000
3324	+00000000	+00000000	+00000000	+00000000
3330	+00000000	+00000000	+00000000	+00000000
3334	+00000000	+00000000	+00000000	+00000000
3340	+00000000	+00000000	+00000000	+00000000
3344	+00000000	+00000000	+00000000	+00000000
3350	+00000000	+00000000	+00000000	+00000000
3354	+00000000	+00000000	+00000000	+00000000
3360	+00000000	+00000000	+00000000	+00000000
3364	+00000000	+00000000	+00000000	+00000000
3370	+00000000	+00000000	+00000000	+00000000
3374	+00000000	+00000000	+00000000	+00000000
3400	+37375222	+37375222	+37375222	+37375222
3404	+37375222	+37375222	+37375222	+37375222
3410	+37375222	+37375222	+37375222	+37375222
3414	+37375222	+37375222	+37375222	+37375222
3420	+37375222	+37375222	+37375222	+37375222
3424	+37375222	+37375222	+37375222	+37375222
3430	+37375222	+37375222	+37375222	+37375222
3434	+37375222	+37375222	+37375222	+37375222
3440	+00010000	+00010000	+00010000	+00010000
3444	+00010000	+00010000	+00010000	+00010000
3450	+00010000	+00010000	+00010000	+00010000
3454	+00010000	+00010000	+00010000	+00010000
3460	+00010000	+00010000	+00010000	+00010000
3464	+00010000	+00010000	+00010000	+00010000
3470	+00010000	+00010000	+00010000	+00010000

LOC

3474	+00010000	+00010000	+00010000	+00010000
3500	+07100000	+07101000	+07102000	+07103000
3504	+07104000	+07105000	+07106000	+07107000
3510	+07110000	+07111000	+07112000	+07113000
3514	+07114000	+07115000	+07116000	+07117000
3520	+07120000	+07121000	+07122000	+07123000
3524	+07124000	+07125000	+07126000	+07127000
3530	+07130000	+07131000	+07132000	+07133000
3534	+07134000	+07135000	+07136000	+07137000
3540	+07140000	+07141000	+07142000	+07143000
3544	+07144000	+07145000	+07146000	+07147000
3550	+07150000	+07151000	+07152000	+07153000
3554	+07154000	+07155000	+07156000	+07157000
3560	+07160000	+07161000	+07162000	+07163000
3564	+07164000	+07165000	+07166000	+07167000
3570	+07170000	+07171000	+07172000	+07173000
3574	+07174000	+07175000	+07176000	+07177000
3600	+07200000	+07201000	+07202000	+07203000
3604	+07204000	+07205000	+07206000	+07207000
3610	+07210000	+07211000	+07212000	+07213000
3614	+07214000	+07215000	+07216000	+07217000
3620	+07220000	+07221000	+07222000	+07223000
3624	+07224000	+07225000	+07226000	+07227000
3630	+07230000	+07231000	+07232000	+07233000
3634	+07234000	+07235000	+07236000	+07237000
3640	+07240000	+07241000	+07242000	+07243000
3644	+07244000	+07245000	+07246000	+07247000
3650	+07250000	+07251000	+07252000	+07253000
3654	+07254000	+07255000	+07256000	+07257000
3660	+07260000	+07261000	+07262000	+07263000
3664	+07264000	+07265000	+07266000	+07267000
3670	+07270000	+07271000	+07272000	+07273000
3674	+07274000	+07275000	+07276000	+07277000
3700	+07300000	+07301000	+07302000	+07303000
3704	+07304000	+07305000	+07306000	+07307000
3710	+07310000	+07311000	+07312000	+07313000
3714	+07314000	+07315000	+07316000	+07317000
3720	+07320000	+07321000	+07322000	+07323000
3724	+07324000	+07325000	+07326000	+07327000
3730	+07330000	+07331000	+07332000	+07333000
3734	+07334000	+07335000	+07336000	+07337000
3740	+07340000	+07341000	+07342000	+07343000
3744	+07344000	+07345000	+07346000	+07347000
3750	+07350000	+07351000	+07352000	+07353000
3754	+07354000	+07355000	+07356000	+07357000
3760	+07360000	+07361000	+07362000	+07363000
3764	+07364000	+07365000	+07366000	+07367000
3770	+07370000	+07371000	+07372000	+07373000

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK

4000		+00000000	+00000000	+00000000
4004	+00000000	+00000000	+00000000	+00000000
4010	+00000000	+00000000	+00000000	+00000000
4014	+00000000	+00000000	+00000000	+00000000

LOC

4020	+00000000	+00000000	+00000000	+00000000
4024	+00000000	+00000000	+00000000	+00000000
4030	+00000000	+00000000	+00000000	+00000000
4034	+00000000	+00000000	+00000000	+00000000
4040	+00000000	+00000000	+00000000	+00000000
4044	+00000000	+00000000	+00000000	+00000000
4050	+00000000	+00000000	+00000000	+00000000
4054	+00000000	+00000000	+00000000	+00000000
4060	+00000000	+00000000	+00000000	+00000000
4064	+00000000	+00000000	+00000000	+00000000
4070	+00000000	+00000000	+00000000	+00000000
4074	+00000000	+00000000	+00000000	+00000000
4100	+00000000	+00000000	+00000000	+00000000
4104	+00000000	+00000000	+00000000	+00000000
4110	+00000000	+00000000	+00000000	+00000000
4114	+00000000	+00000000	+00000000	+00000000
4120	+00000000	+00000000	+00000000	+00000000
4124	+00000000	+00000000	+00000000	+00000000
4130	+00000000	+37007600	+00007733	+00007733
4134	+00000000	+00007733	+00007733	+00007733
4140	+00000000	+00000000	+00000000	+00000000
4144	+00000000	+00000000	+00000000	+00000000
4150	+00000000	+00000000	+00000000	+00000000
4154	+00000000	+00000000	+00000000	+00000000
4160	+00000000	+00000000	+00000000	+00000000
4164	+00000000	+00000000	+00000000	+00000000
4170	+00000000	+00000000	+00000000	+00000000
4174	+00000000	+00000000	+00000000	+00000000
4200	+37375222	+37375222	+37375222	+37375222
4204	+37375222	+37375222	+37375222	+37375222
4210	+37375222	+37375222	+37375222	+37375222
4214	+37375222	+37375222	+37375222	+37375222
4220	+37375222	+37375222	+37375222	+37375222
4224	+37375222	+37375222	+37375222	+37375222
4230	+37375222	+37375222	+37375222	+37375222
4234	+37375222	+37375222	+37375222	+37375222
4240	+00010000	+00010000	+00010000	+00010000
4244	+00010000	+00010000	+00010000	+00010000
4250	+00010000	+00010000	+00010000	+00010000
4254	+00010000	+00010000	+00010000	+00010000
4260	+00010000	+00010000	+00010000	+00010000
4264	+00010000	+00010000	+00010000	+00010000
4270	+00010000	+00010000	+00010000	+00010000
4274	+00010000	+00010000	+00010000	+00010000
4300	+10300000	+10301000	+10302000	+10303000
4304	+10304000	+10305000	+10306000	+10307000
4310	+10310000	+10311000	+10312000	+10313000
4314	+10314000	+10315000	+10316000	+10317000
4320	+10320000	+10321000	+10322000	+10323000
4324	+10324000	+10325000	+10326000	+10327000
4330	+10330000	+10331000	+10332000	+10333000
4334	+10334000	+10335000	+10336000	+10337000
4340	+10340000	+10341000	+10342000	+10343000
4344	+10344000	+10345000	+10346000	+10347000
4350	+10350000	+10351000	+10352000	+10353000

LOC

4354	+10354000	+10355000	+10356000	+10357000
4360	+10360000	+10361000	+10362000	+10363000
4364	+10364000	+10365000	+10366000	+10367000
4370	+10370000	+10371000	+10372000	+10373000
4374	+10374000	+10375000	+10376000	+10377000
4400	+11000000	+11001000	+11002000	+11003000
4404	+11004000	+11005000	+11006000	+11007000
4410	+11010000	+11011000	+11012000	+11013000
4414	+11014000	+11015000	+11016000	+11017000
4420	+11020000	+11021000	+11022000	+11023000
4424	+11024000	+11025000	+11026000	+11027000
4430	+11030000	+11031000	+11032000	+11033000
4434	+11034000	+11035000	+11036000	+11037000
4440	+11040000	+11041000	+11042000	+11043000
4444	+11044000	+11045000	+11046000	+11047000
4450	+11050000	+11051000	+11052000	+11053000
4454	+11054000	+11055000	+11056000	+11057000
4460	+11060000	+11061000	+11062000	+11063000
4464	+11064000	+11065000	+11066000	+11067000
4470	+11070000	+11071000	+11072000	+11073000
4474	+11074000	+11075000	+11076000	+11077000
4500	+11100000	+11101000	+11102000	+11103000
4504	+11104000	+11105000	+11106000	+11107000
4510	+11110000	+11111000	+11112000	+11113000
4514	+11114000	+11115000	+11116000	+11117000
4520	+11120000	+11121000	+11122000	+11123000
4524	+11124000	+11125000	+11126000	+11127000
4530	+11130000	+11131000	+11132000	+11133000
4534	+11134000	+11135000	+11136000	+11137000
4540	+11140000	+11141000	+11142000	+11143000
4544	+11144000	+11145000	+11146000	+11147000
4550	+11150000	+11151000	+11152000	+11153000
4554	+11154000	+11155000	+11156000	+11157000
4560	+11160000	+11161000	+11162000	+11163000
4564	+11164000	+11165000	+11166000	+11167000
4570	+11170000	+11171000	+11172000	+11173000
4574	+11174000	+11175000	+11176000	+11177000
4600	+00000000	+12255222	+12255222	+12255222
4604	+00000000	+25126511	+25126511	+25126511
4610	+00000000	+00000000	+00000000	+00000000
4614	+00000000	+00000000	+00000000	+00000000
4620	+00000000	+00000000	+00000000	+00000000
4624	+00000000	+00000000	+00000000	+00000000
4630	+00000000	+00000000	+00000000	+00000000
4634	+00000000	+00000000	+00000000	+00000000
4640	+00000000	+00000000	+00000000	+00000000
4644	+00000000	+00000000	+00000000	+00000000
4650	+00000000	+00000000	+00000000	+00000000
4654	+00000000	+00000000	+00000000	+00000000
4660	+00000000	+00000000	+00000000	+00000000
4664	+00000000	+00000000	+00000000	+00000000
4670	+00000000	+00000000	+00000000	+00000000
4674	+00000000	+00000000	+00000000	+00000000
4700	+00000000	+00000000	+00000000	+00000000
4704	+00000000	+00000000	+00000000	+00000000

LOC

B-055

4710	+00000000	+00000000	+00000000	+00000000
4714	+00000000	+00000000	+00000000	+00000000
4720	+00000000	+00000000	+00000000	+00000000
4724	+00000000	+00000000	+00000000	+00000000
4730	+00000000	+00000000	+00000000	+00000000
4734	+00000000	+00000000	+00000000	+00000000
4740	+00000000	+00000000	+00000000	+00000000
4744	+00000000	+00000000	+00000000	+00000000
4750	+00000000	+00000000	+00000000	+00000000
4754	+00000000	+00000000	+00000000	+00000000
4760	+00000000	+00000000	+00000000	+00000000
4764	+00000000	+00000000	+00000000	+00000000
4770	+00000000	+00000000	+00000000	+00000000
4774	+00000000	+00000000	+00000000	+00000000
5000	+12000000	+12001000	+12002000	+12003000
5004	+12004000	+12005000	+12006000	+12007000
5010	+12010000	+12011000	+12012000	+12013000
5014	+12014000	+12015000	+12016000	+12017000
5020	+12020000	+12021000	+12022000	+12023000
5024	+12024000	+12025000	+12026000	+12027000
5030	+12030000	+12031000	+12032000	+12033000
5034	+12034000	+12035000	+12036000	+12037000
5040	+12040000	+12041000	+12042000	+12043000
5044	+12044000	+12045000	+12046000	+12047000
5050	+12050000	+12051000	+12052000	+12053000
5054	+12054000	+12055000	+12056000	+12057000
5060	+12060000	+12061000	+12062000	+12063000
5064	+12064000	+12065000	+12066000	+12067000
5070	+12070000	+12071000	+12072000	+12073000
5074	+12074000	+12075000	+12076000	+12077000
5100	+12100000	+12101000	+12102000	+12103000
5104	+12104000	+12105000	+12106000	+12107000
5110	+12110000	+12111000	+12112000	+12113000
5114	+12114000	+12115000	+12116000	+12117000
5120	+12120000	+12121000	+12122000	+12123000
5124	+12124000	+12125000	+12126000	+12127000
5130	+12130000	+12131000	+12132000	+12133000
5134	+12134000	+12135000	+12136000	+12137000
5140	+12140000	+12141000	+12142000	+12143000
5144	+12144000	+12145000	+12146000	+12147000
5150	+12150000	+12151000	+12152000	+12153000
5154	+12154000	+12155000	+12156000	+12157000
5160	+12160000	+12161000	+12162000	+12163000
5164	+12164000	+12165000	+12166000	+12167000
5170	+12170000	+12171000	+12172000	+12173000
5174	+12174000	+12175000	+12176000	+12177000
5200	+12200000	+12201000	+12202000	+12203000
5204	+12204000	+12205000	+12206000	+12207000
5210	+12210000	+12211000	+12212000	+12213000
5214	+12214000	+12215000	+12216000	+12217000
5220	+12220000	+12221000	+12222000	+12223000
5224	+12224000	+12225000	+12226000	+12227000
5230	+12230000	+12231000	+12232000	+12233000
5234	+12234000	+12235000	+12236000	+12237000
5240	+12240000	+12241000	+12242000	+12243000

5244	+12244000	+12245000	+12246000	+12247000
5250	+12250000	+12251000	+12252000	+12253000
5254	+12254000	+12255000	+12256000	+12257000
5260	+12260000	+12261000	+12262000	+12263000
5264	+12264000	+12265000	+12266000	+12267000
5270	+12270000	+12271000	+12272000	+12273000
5274	+12274000	+12275000	+12276000	+12277000
5300	+12300000	+12301000	+12302000	+12303000
5304	+12304000	+12305000	+12306000	+12307000
5310	+12310000	+12311000	+12312000	+12313000
5314	+12314000	+12315000	+12316000	+12317000
5320	+12320000	+12321000	+12322000	+12323000
5324	+12324000	+12325000	+12326000	+12327000
5330	+12330000	+12331000	+12332000	+12333000
5334	+12334000	+12335000	+12336000	+12337000
5340	+12340000	+12341000	+12342000	+12343000
5344	+12344000	+12345000	+12346000	+12347000
5350	+12350000	+12351000	+12352000	+12353000
5354	+12354000	+12355000	+12356000	+12357000
5360	+12360000	+12361000	+12362000	+12363000
5364	+12364000	+12365000	+12366000	+12367000
5370	+12370000	+12371000	+12372000	+12373000
5374	+12374000	+12375000	+12376000	+12377000
5400	+00000000	+00000000	+00000000	+00000000
5404	+00000000	+00000000	+00000000	+00000000
5410	+00000000	+00000000	+00000000	+00000000
5414	+00000000	+00000000	+00000000	+00000000
5420	+00000000	+00000000	+00000000	+00000000
5424	+00000000	+00000000	+00000000	+00000000
5430	+00000000	+00000000	+00000000	+00000000
5434	+00000000	+00000000	+00000000	+00000000
5440	+00000000	+00000000	+00000000	+00000000
5444	+00000000	+00000000	+00000000	+00000000
5450	+00000000	+00000000	+00000000	+00000000
5454	+00000000	+00000000	+00000000	+00000000
5460	+00000000	+00000000	+00000000	+00000000
5464	+00000000	+00000000	+00000000	+00000000
5470	+00000000	+00000000	+00000000	+00000000
5474	+00000000	+00000000	+00000000	+00000000
5500	+00000000	+00000000	+00000000	+00000000
5504	+00000000	+00000000	+00000000	+00000000
5510	+00000000	+00000000	+00000000	+00000000
5514	+00000000	+00000000	+00000000	+00000000
5520	+00000000	+00000000	+00000000	+00000000
5524	+00000000	+00000000	+00000000	+00000000
5530	+00000000	+00000000	+00000000	+00000000
5534	+00000000	+00000000	+00000000	+00000000
5540	+00000000	+00000000	+00000000	+00000000
5544	+00000000	+00000000	+00000000	+00000000
5550	+00000000	+00000000	+00000000	+00000000
5554	+00000000	+00000000	+00000000	+00000000
5560	+00000000	+00000000	+00000000	+00000000
5564	+00000000	+00000000	+00000000	+00000000
5570	+00000000	+00000000	+00000000	+00000000
5574	+00000000	+37377733	+00007733	+00007733

LOC

5600	+13200000	+13201000	+13202000	+13203000
5604	+13204000	+13205000	+13206000	+13207000
5610	+13210000	+13211000	+13212000	+13213000
5614	+13214000	+13215000	+13216000	+13217000
5620	+13220000	+13221000	+13222000	+13223000
5624	+13224000	+13225000	+13226000	+13227000
5630	+13230000	+13231000	+13232000	+13233000
5634	+13234000	+13235000	+13236000	+13237000
5640	+13240000	+13241000	+13242000	+13243000
5644	+13244000	+13245000	+13246000	+13247000
5650	+13250000	+13251000	+13252000	+13253000
5654	+13254000	+13255000	+13256000	+13257000
5660	+13260000	+13261000	+13262000	+13263000
5664	+13264000	+13265000	+13266000	+13267000
5670	+13270000	+13271000	+13272000	+13273000
5674	+13274000	+13275000	+13276000	+13277000
5700	+13300000	+13301000	+13302000	+13303000
5704	+13304000	+13305000	+13306000	+13307000
5710	+13310000	+13311000	+13312000	+13313000
5714	+13314000	+13315000	+13316000	+13317000
5720	+13320000	+13321000	+13322000	+13323000
5724	+13324000	+13325000	+13326000	+13327000
5730	+13330000	+13331000	+13332000	+13333000
5734	+13334000	+13335000	+13336000	+13337000
5740	+13340000	+13341000	+13342000	+13343000
5744	+13344000	+13345000	+13346000	+13347000
5750	+13350000	+13351000	+13352000	+13353000
5754	+13354000	+13355000	+13356000	+13357000
5760	+13360000	+13361000	+13362000	+13363000
5764	+13364000	+13365000	+13366000	+13367000
5770	+13370000	+13371000	+13372000	+13373000

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK

6000		+14001000	+14002000	+14003000
6004	+14004000	+14005000	+14006000	+14007000
6010	+14010000	+14011000	+14012000	+14013000
6014	+14014000	+14015000	+14016000	+14017000
6020	+14020000	+14021000	+14022000	+14023000
6024	+14024000	+14025000	+14026000	+14027000
6030	+14030000	+14031000	+14032000	+14033000
6034	+14034000	+14035000	+14036000	+14037000
6040	+14040000	+14041000	+14042000	+14043000
6044	+14044000	+14045000	+14046000	+14047000
6050	+14050000	+14051000	+14052000	+14053000
6054	+14054000	+14055000	+14056000	+14057000
6060	+14060000	+14061000	+14062000	+14063000
6064	+14064000	+14065000	+14066000	+14067000
6070	+14070000	+14071000	+14072000	+14073000
6074	+14074000	+14075000	+14076000	+14077000
6100	+14100000	+14101000	+14102000	+14103000
6104	+14104000	+14105000	+14106000	+14107000
6110	+14110000	+14111000	+14112000	+14113000
6114	+14114000	+14115000	+14116000	+14117000
6120	+14120000	+14121000	+14122000	+14123000

LOC

6124	+14124000	+14125000	+14126000	+14127000
6130	+14130000	+14131000	+14132000	+14133000
6134	+14134000	+14135000	+14136000	+14137000
6140	+14140000	+14141000	+14142000	+14143000
6144	+14144000	+14145000	+14146000	+14147000
6150	+14150000	+14151000	+14152000	+14153000
6154	+14154000	+14155000	+14156000	+14157000
6160	+14160000	+14161000	+14162000	+14163000
6164	+14164000	+14165000	+14166000	+14167000
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6214	+00000000	+00000000	+00000000	+00000000
6220	+00000000	+00000000	+00000000	+00000000
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6424	+15024000	+15025000	+15026000	+15027000
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6440	+15040000	+15041000	+15042000	+15043000
6444	+15044000	+15045000	+15046000	+15047000
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6464	+15064000	+15065000	+15066000	+15067000
6470	+15070000	+15071000	+15072000	+15073000
6474	+15074000	+15075000	+15076000	+15077000
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6640	+15240000	+15241000	+15242000	+15243000
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6650	+15250000	+15251000	+15252000	+15253000
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7024	+00000000	+00000000	+00000000	+00000000
7030	+00000000	+00000000	+00000000	+00000000
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7064	+00000000	+00000000	+00000000	+00000000
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7164	+00000000	+00000000	+00000000	+00000000
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7364	+16364000	+16365000	+16366000	+16367000
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7664	+17264000	+17265000	+17266000	+17267000
7670	+17270000	+17271000	+17272000	+17273000
7674	+17274000	+17275000	+17276000	+17277000
7700	+17300000	+17301000	+17302000	+17303000

LOC

7704	+17304000	+17305000	+17306000	+17307000
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7754	+17354000	+17355000	+17356000	+17357000
7760	+17360000	+17361000	+17362000	+17363000
7764	+17364000	+17365000	+17366000	+17367000
7770	+17370000	+17371000	+17372000	+17373000

- BLOCK END CODE-THE REST OF THIS QUAD. IS BLANK