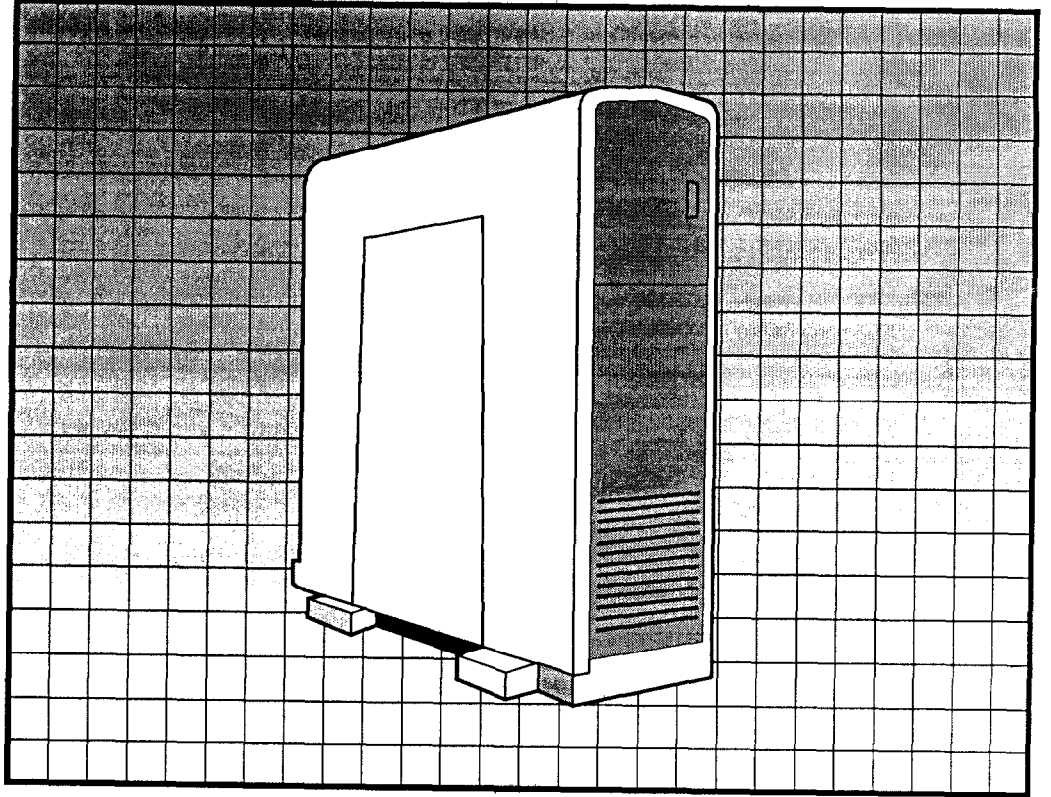


C-15



Memory Diagnostics Test

INTRODUCTION

A C-15 memory diagnostic disk will provide the field service technician with the ability to determine if all expansion boards are strapped and/or seated properly. This disk will be provided in a bootable 5 1/4" floppy format that will only execute when the cold-start jumper is installed.

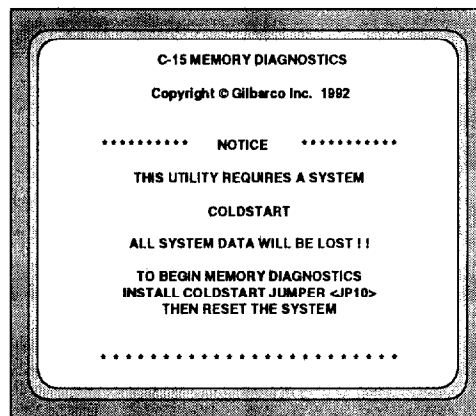
When booted, the disk will provide the following information:

- The number of boards installed and total amount of memory available.
- Boards that were physically present but did not pass memory tests.
- Whether or not the system will support Exxon Version 5 software.

SYSTEM OPERATION

To execute the diagnostic software, the system must be reset with the bootable utilities disk installed in the floppy disk drive. When the cold-start jumper <JP10> is installed, memory tests will automatically begin.

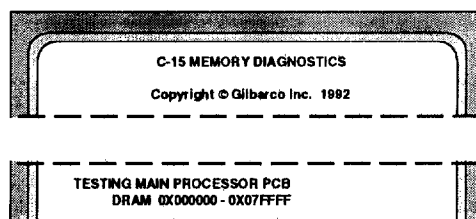
If the jumper is not present however, the following will be displayed:



All LEDs on Communication I/O boards will flash until the system reset occurs.

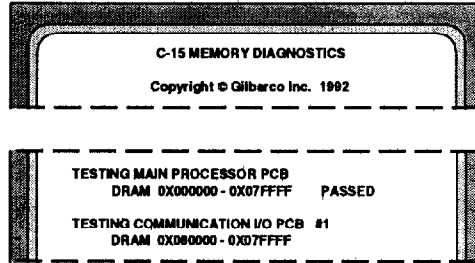
This indicates that <JP10> must be installed to a technician with no access to a TCR-15 console.

When the cold-start jumper is installed, memory tests will automatically begin and the following will be displayed on all consoles:



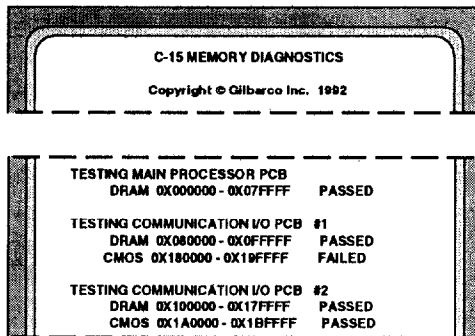
During the Main Processor PCB test, LED1 will be lit.

After completion of the first test, the status of the first test will be displayed and tests will begin for the first I/O Board:



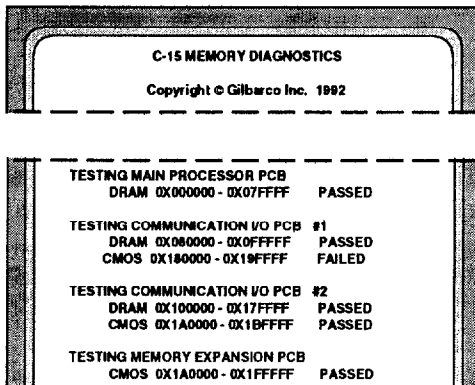
If the test on the Main Processor PCB passed, LED1 remains on through the remaining system tests.. When "FAILED" is shown, LED1 flashes. In either case, LED2 is turned on when tests on I/O Board #1 begin.

Tests continue in a similar manner, displaying the status of the previous test followed by the next test. After all I/O boards have been tested, a screen similar to the one below appears:

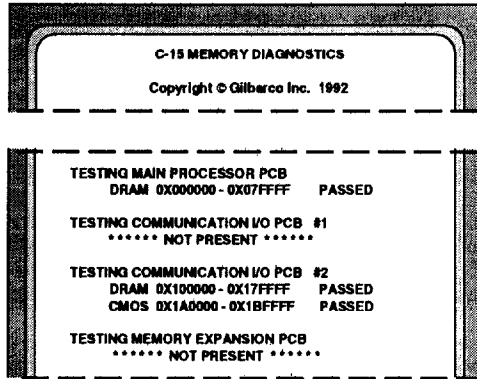


In this instance, LEDs 1 and 3 are lit indicating that the Main Processor and I/O #2 PCBs passed memory tests. LED2 flashes due to the error found in CMOS memory.

If an memory expansion board is detected, the board is tested similarly with LED 4 being lit during the test:

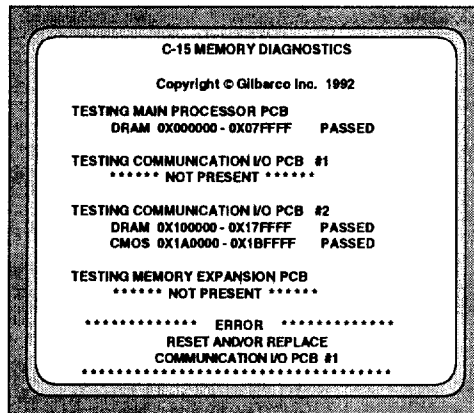


If any board is not present or memory does not respond when addressed, a screen similar to the following appears:



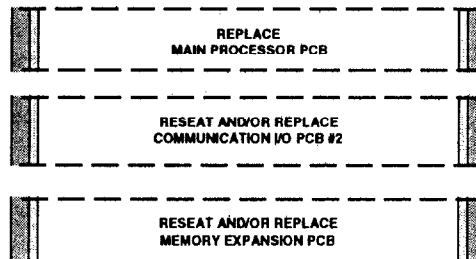
However, in the case of the Memory Expansion PCB, this may not be an error as this board is only required for Exxon Version 5 software or greater.

When all tests are complete, the system status is displayed:

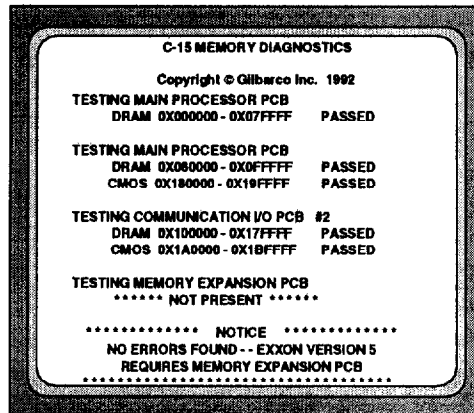


If no console is readily available this fault is also indicated by lighting a corresponding LED for all boards that passed memory tests. LEDs are flashed for boards that were found but had memory problems. All other LEDs are turned off.

Other error messages include:

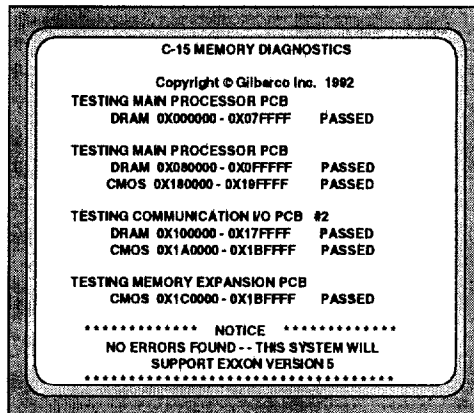


When no problems are found, but the system hardware is not configured for Exxon Version 5 software, the following will be displayed:



For the above system, LEDs 1-3 are turned on.

The following screen is displayed for a system capable of running Exxon Version 5 software:



For the above system, LEDs 1-4 are turned on.

ERROR CODES

The following error codes will be displayed on Communication I/O Board LEDs after memory diagnostics have completed:

LEDs								Description
1	2	3	4	5	6	7	8	
X	X	X	X	X	X	X	X	<JP10> Not Installed
X	-	-	-	0	0	0	0	Failure, Replace Processor PCB
-	0	-	-	0	0	0	0	Replace/Reseat I/O Board #1
-	X	-	-	0	0	0	0	Failure, Replace/Reseat I/O Board #1
-	-	0	-	0	0	0	0	Replace/Reseat I/O Board #2
-	-	X	-	0	0	0	0	Failure, Replace/Reseat I/O Board #2
-	-	-	x	0	0	0	0	Failure, Replace/Reseat Memory Board
1	1	1	0	0	0	0	0	No Error, No Memory Expansion Board
1	1	1	1	0	0	0	0	No Error, Will Support Exxon Ver 5

0 = LED Off, Board Not Present

1 = LED On, Board Passed Memory Tests

x = LED Flashing, Board Failed Memory Tests

- = Don't Care

