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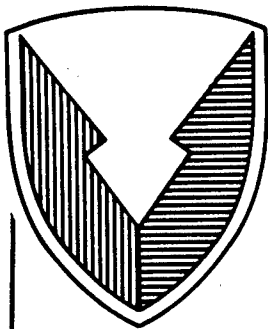
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Technical Report



No. 13518

FINAL REPORT FOR THE
SIMPLIFIED TEST EQUIPMENT - EXPANDED (STE-X)

CONTRACT NO. DAAE07-88-C-R133

SEPTEMBER 1990

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PREFACE

This report has been generated in accordance with direction established at the 9 August 1990 meeting between the GE Program Management Office (D. Bartlett, T. Dwan and M. Fitzgerald) and the Contracting Officer's Technical Representative (W. Hnatzuk). The report format and scope were tailored as mutually agreed upon per paragraph C.4.7.1 of the contract.

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1.0 INTRODUCTION

The primary intent of this Final Report is to provide a bridge between the STE-X configuration (hardware and software) at the end of its DTII and the STE-X portion of the Howitzer Improvement Program (HIP) analyser set at the conclusion of its operational test (OT). In addition, contract close-out activity and final position are documented for purposes of completeness.

2.0 HARDWARE CHANGES BETWEEN STE-X DTII AND HIP OT

The major hardware changes in the STE-X test unit design from DTII (P/N 12315155) as described in the STE-X Full Scale Engineering Development (FSED) Final Technical Report No. 13398 to the HIP analyser set OT configuration (P/N 12361309), as a result of the Engineering Change Notices (ECNs) listed in Appendix A, are described below.

2.1 Mainframe (P/N changed from 12315156 to 12335934)

No major changes were made to the STE-X mainframe except for those described in the following sub-paragraph:

2.1.1 CPU PWA (P/N changed from 12315161 to 12335928)

The Random Access Memory (RAM) was increased from 256K to 512K bytes.

2.1.2 Three Bubble PWA (P/N changed from 12335734 to 12335925)

Changes made to this PWA included the addition of a "Z" coil for erasing the bubble memory along with artwork clean-up changes.

2.1.3 Power Module (P/N changed from 12335649 to 12361287)

Additional input power protection for voltage pulses of up to 70 volts for one second duration was added to this supply.

2.2 Memory Module (P/N changed from 12335743 to 12335973)

The major change to the memory module assembly involved the one bubble PWA change.

2.2.1 One Bubble PWA (P/N changed from 12335731 to 12335922)

The primary change to this PWA was the addition of a "Z" coil for erasing the contents of the bubble memory.

2.3 Interface Module (P/N changed from 12315177 to 12361290)

The major interface module changes involved the addition of 1553 and RS422 communication capability, the deletion of memory in the interface module, and the special functions PWA "ID" change.

2.3.1 1553/RS422 Communications PWA (P/N 12361293 - Addition)

This PWA was added to the interface module configuration during the HIP program.

- 2.3.2 Three Bubble Memory PWA (P/N 12335734 - Deletion)
This PWA was deleted from the interface module configuration during the HIP program.
- 2.3.3 Special Functions PWA (P/N changed from 12315185 to 12361342)
The part number change of this PWA was required as a result of the change to its "ID" via a resistor change.

3.0 SOFTWARE CHANGES BETWEEN STE-X DTII AND HIP OT

The STE-X software as configured for Development Test (DT) was divided into six Computer Program Configuration Items (CPCI's): Operating System Software, Development Support Utilities Software, Selftest Software, M1 Applications Software, STE/ICE Applications Software, and M2 Applications software. For Operational Test (OT) two additional CPCI's were added; SETCOM Software was added to support the new SETCOM, and to accommodate the HIP configuration an additional CPCI, HIP Applications software, was added. Two CPCI's, M1 Applications and M2 Applications, were removed for OT on the HIP vehicle.

3.1 12335631 STE-X Operating System CPCI

The STE-X Operating System CPCI, as released for DT, was broken down into two groups of four each Computer Program Components (CPC's). The first group, Core Executives CPC's, provide the functionality to access all STE-X hardware, the serial ports, the bubble memory, and the measurement/stimulus hardware. The Core Executive software is always loaded in PROM or RAM memory for other CPC or CPCI software to use. The Core Executive CPC's are the Bootstrap Loaded Operating System software, PROM resident Operating system, On-Board Slave software, and Analog Slave software. The second group of four Operating System CPC's are differentiated from the first in that they are loaded into RAM memory only at the time of their use. The second group is made up of the Software Transfer Utility software, Analog Debug software, DFL Interpreter software, and Cable Interpreter software. Additional CPC's were added to support HIP, HIP Operating System Extension software, and HIP DFL Interpreter Extensions. HIP Operating System Extension software provides the operating system software to support functionality added for HIP including 1553B bus drivers, RS422 serial port drivers and reprogramming capability STE-X to PDIU. HIP DFL Interpreter Extensions software provides routines to interpret nine new DFL Measurement words and interface with the new 1553B and RS422 hardware and HIP Operating System Extension software drivers.

3.1.1 STE-X Core Executive CPC's:

3.1.1.1 12335946 Bootstrap Loaded Operating System CPC (Baselined to 12336014 Core Operating System):

The Bootstrap Loaded Operating System executed on the main 8086 CPU is loaded from bubble memory to RAM by the PROM Resident Operating System at powerup. The Bootstrap Loaded Operating

System once loaded remains in RAM memory to be accessed by all other STE-X CPCI's and CPC's. The Bootstrap Loaded Operating System functions are: system initialization, LTL loaded operating system interface, test selection, file handler, 8086 program loader, measurements, exception handling, serial transfer, 8051 program loader, library functions and procedures, trace, cloning, and Pascal Run Time system interface.

System initialization software initializes the necessary file, queue, pointer and stack environment for the other functions of the Bootstrap Loaded Operating System to run. It initializes when control is transferred from the PROM Resident Operating System after power up or when a fatal error has occurred.

The Load Time Locating (LTL) Loaded Operating System Interface provides an interface for applications software to access the functions and procedures of the Bootstrap Loaded Operating System. This is accomplished by a table at fixed address in memory with pointers to the fixed addresses of accessible Bootstrap Loaded Operating System functions and procedures.

Test Selection provides the software to interface with the operator using Library Utilities to query the operator for test choice. Tests selected can be those loaded into RAM by the Bootstrap Loader at power up, or those requiring the Load Time Locating Loader to load them at run time. The File Handler Software provides functions and routines to be used by the non-PROM based program loaders and software transfer utilities to create and maintain the file system on STE-X. Functions and procedures include creating, opening, reading, writing, closing and deleting files, selecting a directory, and reporting information on a file, directory or volume.

The 8086 Program Loader loads non-Bootstrap loaded files 8086 executed files from bubble memory to RAM at run time. A new feature of the HIP Operating system allows multiple files to be linked and loaded at run time. Measurement software interfaces with and directs the Analog Slaves on the Final Mux Boards which actually make the measurements.

Exception Utility software provides for servicing raised exception and error flags and provides for the raising of error and exception flags.

The Serial Transfer Utility provide software to load individual files from a host Intel computer to STE-X mainframe bubble.

The STE-X 8051 Loader provides the software to load executable 8051 code from bubble to analog slave shared memory at run time.

Library Utility provides the other Bootstrap Loaded Operating System functions with a library of frequently used Pascal functions and procedures to interface with the operator through the SETCOM and for string manipulation.

The Trace utility provides software to store data on cassette memory for purposes of data collection and software debug. It also provides for the operator interface to use and manipulate the Trace utility.

The Pascal Run Time System Interface provides the software to start up and subsequently shut down the Pascal Run Time System on the 8086 processor. It also provides an interface from the Pascal Run Time System to the STE-X error and exception handling routines.

3.1.1.2 12335947 PROM Resident Operating System CPC (HIP Rebaselined to 12336014 Core Operating System):

The PROM resident PROM Resident Operating System is executed on the 8086 main processor and consists of the software required to perform Power Up Confidence Test, to load the Bootstrap Loaded Operating System software from bubble to RAM, or to load the Bootstrap Loaded Operating System onto the bubble from the cassette or a host development system.

3.1.1.3 12335948 Onboard Slave CPC (HIP Rebaselined to 12336014 Core Operating System):

The PROM resident Onboard Slave software is executed on the 8051 CPU located on the CPU board. It provides for RAM memory refresh, time of day functions, counter/timer functions. For HIP, software was added for controlling the SETCOM Universal Asynchronous Receiver Transmitter (UART).

3.1.1.4 12335949 Analog Slave CPC (HIP Rebaselined to 12336014 Core Operating System):

The PROM resident Analog Slave software is executed on the 8051 CPU located on the Final Mux boards. It is responsible for analog measurements and stimulus, and controls bidirectional serial UART interface.

3.1.2 CPC Loaded at Run Time:

3.1.2.1 12335950 Software Transfer CPC (HIP Rebaselined to 12336016 Core Utilities):

The Software Transfer software provides for transferring Applications software from a host VAX to the STE-X mainframe bubble. It also provides software for transferring the Bootstrap Loaded Operating System from mainframe bubble to cassette bubble, the Bootstrap Loaded Operating System from cassette bubble to mainframe bubble, and applications code from mainframe bubble to cassette bubble.

3.1.2.2 12335951 Analog Debug CPC (HIP Rebaselined to 12336014 Core Operating System):

The Analog Debug Software provides complete STE-X operator access to the measurement and stimulus capability of the STE-X hardware.

3.1.2.3 12335952 DFL Interpreter CPC (HIP Rebaselined to 12336012 Core DFL Interpreter):

The Diagnostic Flowchart Language (DFL) Interpreter is loaded by the Program Loader when needed to interpret an application written in DFL and invokes the necessary operating system software. The DFL Interpreter initializes an interface to the Operating System, moves the application DFL object files from mainframe bubble to RAM, interprets the DFL object code and invokes the Operating System Software necessary. DFL object code can call for operator interface, measuring external signals, generating stimuli and comparing results.

3.1.2.4 12335953 Cable Interpreter CPC (HIP Rebaselined to 12336014 Core Operating System):

The Cable Interpreter is loaded by the program loader at runtime from mainframe bubble to RAM to interface with the operator to inquire which cable test is to be run, which cable and what cable end is to be tested. The Cable Interpreter then interprets the cable table of pins and connections and performs continuity testing and then shorts testing on the selected cable. Shorts test is accomplished by testing a selected pin against all other pins looking for unexpected shorts. Results are returned to the operator.

3.1.2.5 12361352 HIP DFL Interpreter System Extensions:

To support the HIP application for OT, HIP DFL Interpreter Extension Software was added. The HIP DFL Interpreter Extension provides operator access to hardware added for the HIP application, specifically RS422 serial communications routines to perform both synchronous and asynchronous serial data transfer on the two RS422 serial ports added, and 1553B Bus communications routines to perform and control communication on the dual redundant 1553B busses added. When a HIP specific measurement word is recognized by the Core DFL Interpreter, it passes a one-byte parameter to the HIP DFL Extensions Interpreter. With a one-byte parameter passed up to 256 HIP DFL words can be supported, only nine were used. The HIP DFL Extension Interpreter checks to see if the passed parameter is supported by the nine new DFL words. If not, a flag is set and returned to the Core DFL Interpreter error handling routines. If the passed parameter is supported, the measurement word function will be performed. The nine new DFL words can be broken down into two categories, seven designed to handle 1553B communications, and two to handle RS422 communications.

The 1553B DFL measurement words are as follows:

BUSCH,	rt, mask - logically AND the last status word received from the specified remote terminal (rt) with the mask provided (mask), leave the result in the integer accumulator.
--------	--

DEFINE1553, dev, bus, ref, rt - defines the 1553B bus as a remote terminal, bus controller, or bus monitor (dev), defines which dual redundant bus to use (bus), defines the reference voltage of 0-10 or 15, if STE-X is defined to be a remote terminal in the first parameter (dev) then defines STE-X's remote terminal address (rt).

SEND1553, rt, msg - sends message (msg) to remote terminal (rt). STE-X must be in the bus controller mode.

SEND1553, msg - sends message (msg) to the current bus controller.

READ1553, iram, rt - reads data on the 1553B bus from remote terminal (rt) and stores it at a specified integer RAM location (iram).

READ1553, iram - reads data on the 1553B bus from the current bus controller and stores it at a specified integer RAM location (iram).

TAKE1553, time, iram - takes control of the 1553B bus in the specified number of seconds (time), returns a flag indicating whether taking control was accomplished and stores it in a specified integer RAM location (iram).

The RS422 DFL measurement words are as follows:

READ422, chan, iram - Reads data from the specified RS422 channel (chan) and stores it at integer RAM locations beginning at specified address (iram).

SEND422, chan, msg - Sends data (msg) over the specified RS422 channel (chan).

3.1.2.6 12361350 HIP Operating System Extensions:

New operating system software, HIP Operating System Extensions, was written to support three STE-X functions added for the HIP vehicle application. The three added STE-X functions are software drivers for the MIL-STD-1553B dual redundant bus, software drivers for the RS422 serial ports and software to download PDIU software from STE-X to the PDIU.

Communication between the HIP vehicle LRU's is held on dual redundant MIL-STD-1553B busses. To communicate with the LRU's on the 1553B busses, hardware was added on a new board, the 1553B Interface Board, and Operating System Extensions software written to drive the 1553B hardware. The new software consists of all routines necessary for initializing 1553B hardware and for transmitting and receiving messages on the 1553B bus, as specified in MIL-STD-1553B, as needed by HIP. Some message transmission options specified in MIL-STD-1553B are not used for HIP and, therefore, were not supported by STE-X.

RS422 Serial Ports were added to communicate with the MAPS unit on the HIP vehicle, using protocol specified in "Critical Item Development Specification, Dynamic Reference Unit." STE-X, using the RS422, sends commands to and receives responses from the MAPS unit. Hardware was added on a new board, the 1553B Interface Board, and Operating System Extensions software written to drive the RS422 hardware. The new software consists of all routines necessary to initialize RS422 hardware and for transmitting and receiving messages on the RS422 bus.

Operating System Extensions software was written to give STE-X the capability to field reprogram PDIU applications code by downloading from STE-X to the PDIU over the RS422 bus. Software was added to initialize the interface over the RS422 bus between STE-X and PDIU, to look for and transfer the STE-X file "PDIU.MEM," and to assure the transfer was accomplished correctly.

3.2 12335632 STE-X Development Support CPCI

3.2.1 12335960 Build Utility (HIP Rebaselined to 12336020 Build Utility)

The Build Utility is the VAX side of the Software Transfer Utility. Build locates and downloads all the files that a target STE-X requires in an application software package. Build provides transfer error checking; it checks application compatibility with the operating system. Build produces a chronicle file listing the files transferred and the results of the transfer.

3.2.2 12335961 CSCT Utility Programs (HIP Rebaselined to 12336019 CSCT Utility):

The Computer Source Code Translator (CSCT) Utility provides a debugging aid for DFL programs to be run on a VAX computer. It translates an error-free DFL file and simulates the logical flow of the test.

3.2.3 12335962 TWG Utility Programs (HIP Rebaselined to 12336018 GTWG/XTWG Utilities):

The Test Word Generator (TWG) Utility Programs translate DFL files into binary form to be interpreted by the DFL Interpreter at runtime. Global TWG (GTWG) software processes the Globals, frequently used action messages, actions words, limit pairs and measurement words called by DFL tests, to save memory. STE-X TWG (XTWG) translate DFL test files into binary form. XTWG was changed on HIP to include nine new measurement words added to support RS422 and 1553B communication.

3.2.4 12335963 Operating System Development Support (HIP Rebaselined to 12336017 Intel Utilities):

Operating System Development Support software consists of software to be run on an Intel development system to aid in compiling, building, and transferring the STE-X Operating System. Utilities are provided to initialize the Intel file structure; to create the Operating System shell; to create a STE-X Operating System to be loaded at serial cold start; to create a STE-X Operating System to

be loaded by STEXLD; to set the baud rate for serial coldstart transfer; and to transfer the STE-X Operating System from the Intel to STE-X at serial cold start.

- 3.2.5 12336021 ASM51:
Not previously released, ASM51 software provides a 8051 assembler developed by GE to run on a VAX-11/780.
- 3.2.6 12336022 PASC51:
Not previously released, PASC51 software provides a Pascal 8051 Compiler developed by GE to run on a VAX-11/780.
- 3.2.7 12336023 STEXUTIL:
STEXUTL provides developmental software for two specific purposes. GTGEN.pas was released on STE-X with DFL Interpreter Programs. The purpose of GTGEN is to generate the Global Template Table (GTT.LD) and the Global Measurement Table (GMT.LD)--two Global files used by the STE-X DFL Interpreter. MSGMRG.pas was not previously released. MSGMRG merges Global Action Message (GAM) files into the file ALLGAM.LD--a file used by the DFL Interpreter.
- 3.2.8 12336024 XPREP:
XPREP is a developmental utility to preprocess STE-M1/FVS DFL files and convert them to STE-X DFL files. The XPREP utility was released with HIP software but not changed for HIP or used on HIP.
- 3.2.9 12336025 XSHARE:
XSHARE is a developmental utility for software configuration management. XSHARE provides for "get"--getting files from a software configuration management library, and "share"--placing files into a software configuration management library.
- 3.3 12335634 STE-X Selftest CPCI:
- 3.3.1 12335954 Mainframe Selftest (HIP Rebaselined to 12336015 Mainframe Selftest):
The Mainframe Selftest software isolates STE-X faults to the board level in the STE-X mainframe. Isolated functions are the Final Mux, CPU, Bubble Memory, Memory Module, STE-ICE function.
- 3.3.2 12335955 Interface Module Selftest (HIP Rebaselined to 12361351 HIP Module Selftest):
The Interface Module Selftest software isolates STE-X faults to the board or cable in or attached to the M1/M2/HIP module. Isolated functions or cables included are the IRU Drive, Special Functions, Mux Boards, 1553 board, the CX305 cables and the HIP CX802, CX803 cables. Added functionality for HIP includes the RS422 and RS1553 communications on the HIP 1553 board and cable test on the HIP CX802 and CX803 cables.

3.4 12335636 STE/ICE Applications CPCI:

3.4.1 12335958 STE/ICE Applications S/W (HIP Rebaselined to 12336011 STE/ICE Applications S/W):

STE/ICE Applications CPCI software provides the software to run STE/ICE equivalent tests with STE-X. The STE-X/ICE interpreter uses four major data structures: test definitions, vehicle definition, permanent global area, and the transient global area. The test definitions define the operating parameters of each of the STE-X/ICE tests. All established test definitions reside in the test definition files (TDF) on STE-X bubble memory. Up to two active test definitions may be copied into the transient global data area for reference.

Vehicle definitions for all vehicles supported by this application package reside in the vehicle definition file in the bubble memory. One vehicle definition may be copied into the permanent global data area. The vehicle definition includes: the vehicle identification number (VID), the vehicle name or military designation, the generic DCA class to which the vehicle belongs, the number of cylinders, the number of strokes per engine cycle, and special test constants for the engine power test, and compression unbalance.

The transient global data area contains information regarding the test (or tests) that are active during a particular invocation of STE-X/ICE. The transient global data is initialized whenever STE-X/ICE is invoked and lost when control is returned to the STE-X executive.

The permanent global data area is initialized the first time STE-X/ICE is called and maintained as long as the test set is powered. The permanent global data include vehicle definitions, transducer channel offsets, and operator entered test data. STE-X/ICE software was changed, although not specifically for HIP, to account for hardware changes made to attenuate damaging voltage spikes.

3.5 12335633 SETCOM CPCI:

SETCOM software provide the operator the capability to interface with STE-X. It also performs SETCOM Power Up Confidence Test (PUCT), Digital Multimeter (DMM) functions, and DMM selftest. In the interface mode, the SETCOM software provides the operator the ability to input test numbers, respond to queries, and issue commands to control test flow. In the interface mode, the DMM switch is monitored to see if the operator wants to go into DMM mode. SETCOM PUCT Software checks to see if the SETCOM is fully functional. The CPU, RAM and PROM are checked. DMM Selftest SETCOM Software checks the hardware of the DMM board to make sure components and measurement paths are operational. DMM SETCOM Software lets the operator use the SETCOM to make AC and DC voltage measurements, AC and DC current measurements, frequency and resistance measurements.

3.6 12362002 HIP Applications CPCI:

HIP Applications Software contains three CPC's written to diagnose problems on the HIP vehicle, Microclimate Conditioning System (MCS) Test, Automatic Fire Control System/Cab Electrical (AFCS/CABEL) Test, and Hip Cable Test.

3.6.1 12361347 MCS Test:

The MCS Applications Software isolates faults in the MCS system on the HIP vehicle. Testing is broken down into 11 modules. The MCS Test Manager module controls the flow of MCS testing. The MCS Test Manager calls five Phase-One state modules where measurements are made, queries asked of the operator, and flags set based on the results. Based on the data collected and flags set in the Phase-One state modules, the MCS Test Manager then calls appropriate isolation module if necessary. The following are isolated Air Distribution System, Air Particle Separator, Freon Charge, Hull Batteries, Hull Battery Charging System, M48 Filter, MCS Control Panel, MCS Main Pack, Slip Ring, W56, W57, W58 in following combinations:

- '\$ REPLACE M48 FILTER'
- 'FAULTY AIR DISTRIBUTION SYSTEM'
- 'FAULTY AIR PARTICLE SEPARATOR'
- 'FAULTY FREON CHARGE'
- 'FAULTY HULL BATTERIES'
- 'FAULTY HULL BATTERY/CHARGING SYS'
- 'FAULTY MCS CONTROL PANEL'
- 'FAULTY MCS MAIN PACK OR W58'
- 'FAULTY MCS MAIN PACK'
- 'FAULTY SLIP RING OR W57'
- 'FAULTY SLIP RING OR W56 AND W57'
- 'FAULTY SLIP RING'

3.6.2 12361348 AFCS/CABEL Test:

AFCS/CABEL Applications Software provides software to test the Automatic Fire Control System (AFCS) and Cab Electrical system. Ninety modules are broken down into three main functions, Common Core, AFCS, and CABEL. Common Core contains 21 modules, such as test managers, standard conditions, and frequently use functions such as turning on or off vehicle power, or special functions such as making multiple power or resistance measurements.

AFCS contains 47 modules specifically for identifying then isolating faults in the AFCS system. Faults are isolated in the Ballistic Computer Weapon Controller (BCWC), Communication Processor (CP), Display and Control Unit (DCU), Dynamic Reference Unit (DRU), Power Conditioning Unit (PCU), Prognostic Diagnostic Interface Unit (PDIU), Slip Rings (SLR), Radio Racks and the Vehicle Motion Sensors on the cab and hull (VMS-C). (VMS-H) or W1, W2, W7, W13, W14, W11, W12, W13, W14, W17, W21, W28, W26, W27, W61, W62, W111 cables in the following combinations:

'\$_SYSTEM ERROR'
 'FAULTY BCWC AND (PCU, W1 P1-P3, OR W13 P2-P3)'
 'FAULTY BCWC OR W7 P1-P3'
 'FAULTY BCWC'
 'FAULTY CP AND (PCU, W1 P1-P4, OR W13 P2-P3)'
 'FAULTY CP AND (PCU, W2 P1-P4, OR W14 P2-P3)'
 'FAULTY CP'
 'FAULTY CP,RR,W9,W10,W11,W12,OR W26'
 'FAULTY DCU AND (PCU, W1 P1-P2 OR W13 P2-P3)'
 'FAULTY DCU AND (PCU, W2 P1-P2 OR W14 P2-P3)'
 'FAULTY DCU OR W17 P1-P3'
 'FAULTY DCU'
 'FAULTY DCU, OR W17 P1-P2,P3'
 'FAULTY DRU AND (PCU OR W27)'
 'FAULTY DRU OR W17 P1-P3'
 'FAULTY DRU'
 'FAULTY PCU AND (CP,RR,W9,W10,W11,W12,OR W26)'
 'FAULTY PCU OR W13 P1-P2'
 'FAULTY PCU OR W14 P1-P2'
 'FAULTY PCU OR W27'
 'FAULTY PCU'
 'FAULTY PCU, W1 P1-P2 OR W13 P2-P3'
 'FAULTY PCU, W1 P1-P3, OR W13 P2-P3'
 'FAULTY PCU, W1 P1-P4, OR W13 P2-P3'
 'FAULTY PCU, W2 P1-P2, OR W14 P2-P3'
 'FAULTY PCU, W2 P1-P3, OR W14 P2-P3'
 'FAULTY PCU, W2 P1-P4, OR W14 P2-P3'
 'FAULTY PDIU AND (PCU OR W13 P1-P2)'
 'FAULTY PDIU AND (PCU OR W14 P1-P2)'
 'FAULTY PDIU'
 'FAULTY SLR OR W111 P5-P1,P2'
 'FAULTY SLR OR W62 P7-BB2'
 'FAULTY SLR,W61 P1-P2,P3,P4,P5,P6,_W62 P1-P2,P3,P4,P5,P6,
 W111'
 'FAULTY STEX'
 'FAULTY TTS OR 12576092'
 'FAULTY VMS, W21, OR W28'
 'FAULTY VMS-C OR W17 P1-P3'
 'FAULTY VMS-C'
 'FAULTY VMS-H'
 'FAULTY VMS-H'
 'FAULTY W21'

Twenty-two modules are specifically for identifying then isolating faults in the Cab Electrical system. Faults are isolated in the BCWC, CP, DCU, DRU, Ext Batt A, Ext Batt B, Hull Batteries, Hull Battery/Chg Sys, PCU, PDIU, Radio Rack, Slip Ring, or W1, W2, W13, W14, W25, W26, W27, W50, W65 cables in the following combinations:

'FAULTY BCWC'
 'FAULTY CP, W2 P1-P2,P3,P4'
 'FAULTY DCU'
 'FAULTY DCU, W1 P1-P2, OR W13 P2-P3'

'FAULTY DCU, W1 P1-P2, OR W13 P2-P3 AND W2 P1-P2 OR W14 P2-P3'
 'FAULTY DCU, W2 P1-P2, OR W14 P2-P3'
 'FAULTY DRU OR W27 P1-P2'
 'FAULTY EXT BATT A AND EXT BATT B OR W25 P1-P2,P3'
 'FAULTY EXT BATT A OR W25 P2-P3'
 'FAULTY EXT BATT A'
 'FAULTY EXT BATT A, OR W25 P2-P3'
 'FAULTY EXT BATT B'
 'FAULTY HULL BATTERIES'
 'FAULTY HULL BATTERY/CHG SYS'
 'FAULTY PCU OR W65 P1-P2'
 'FAULTY PCU AND (DCU, W1 P1-P2, OR W13 P2-P3)'
 'FAULTY PCU AND (DCU, W2 P1-P2, OR W14 P2-P3)'
 'FAULTY PCU AND W25 P1-P3'
 'FAULTY PCU AND W25 P2-P3'
 'FAULTY PCU AND W50'
 'FAULTY PCU OR W13 P2-P1,P3'
 'FAULTY PCU OR W14 P2-P1,P3'
 'FAULTY PCU OR W25 P2-P3'
 'FAULTY PCU OR W65 P1-P2'
 'FAULTY PCU'
 'FAULTY PCU, OR W25 P1-P2,P3'
 'FAULTY PCU, OR W65 P1-P2'
 'FAULTY PCU,W1 P1-P2, OR W13 P1-P2,P3, W2 P1-P2 OR W14 P1-P2,P3'
 'FAULTY PCU,W2 P1-P2, OR W14 P1-P2,P3'
 'FAULTY PDIU OR W65 P1-P2'
 'FAULTY PDIU'
 'FAULTY PDIU'
 'FAULTY RADIO RACK OR W26 P1-P2'
 'FAULTY SLIP RING OR W50'
 'FAULTY SLIP RING'
 'FAULTY W1 P1-P2, OR W13 P2-P3, OR W2 P1-P2, OR W14 P2-P3'

3.6.3 12361349 Cable Test:

For HIP, Cable Test was expanded to perform cable test and adapter test on the following HIP tables, and adapter tables were expanded to include the following HIP specific cables and adapters:

<u>CABLES</u>		<u>ADAPTERS</u>	
W1	W27	CA800	CA824
W2	W28	CA802	CA826
W7	W50	CA804	CA828
W12	W51	CA806	CA832
W13	W52	CA810	CA837
W14	W58	CA814	CA838
W17	W61	CA816	CA840
W21	W62	CA818	CA998
W25	W64	CA820	
W26	W65	CA822	

4.0 HIP ANALYSER SET (STE-X) OPERATIONAL TEST (OT)

This section documents the HIP STE-X OT test performed at Yuma Proving Grounds, Arizona, during 1989. This test and the analysis of the Test Incident Reports (TIRs) generated from the test (see appendix B) was supported by GE under the STE-X OT contract from June 1989 until January 1990.

4.1 Yuma OT Test Format

The Yuma HIP STE-X technical test consisted of both Go Chain and fault insertion tests. These tests were conducted on the STE-X HIP AFCS, Cab Electrical and MCS subsystem tests. Additionally, the STE-X Cable, Adapter and STE/ICE Go chain tests were also run.

The fault insertion tests consisted of running a randomly selected group of Validation Test Reports (VTRs). Two Fault Insertion Boxes (FIBs) supplied by GE were used. GE provided informal training and documentation on how to use the FIB and follow the VTR instructions.

It is important to note that VTRs and FIBs are not part of the operational procedures and equipment normally used by mechanics. Problems associated with the use of these special procedures and equipment do not affect the evaluation of STE-X since they are not used in the field environment.

A TIR was written every time a fault insertion or Go Chain test was performed, even when the test was a success. The government's "OT evaluation" scores go from Success to Failure and include No Test, Crew Procedural Error, Unreliable and OT failure (incorrectly conducted test) results.

4.2 HIP STE-X TIRs

Five hundred and two HIP STE-X TIR's have been received documenting OT testing at Yuma Proving Grounds.

The following are the results of the initial OT scores where Unreliable scores are included as failures and No Tests, Crew Procedural Errors and OT Failures (Failures in the way the evaluation test was run) are not counted.

OT Scores - Initial, No Review

System/Test	Success	No Test	Crew Error	Unreliable	Fail	% Success
STE-X:						
AFCs Test	99	5	3	5	18	81.1%
CAB EL Test	57	16	7	16	36	52.3%
MCS Test	53	2	1	6	9	77.9%
Self Test	28	24	3	0	18	60.9%
Cable Test	10	5	0	2	2	71.4%
Adapter Test	8	3	0	1	1	80.0%
ICE Tests	11	29	0	0	20	35.5%
STE-X Total	266	84	14	30	104	66.5%

4.3 Yuma HIP STE-X OT TIR Analysis

As the TIRs were received by GE, they were logged into a TIR database. This database, with the TIR status at the conclusion of work, is shown in Appendix B. Note that a blank status block indicates an open TIR which was not responded to prior to the termination of work.

An initial analysis was performed to determine whether a response was required. This initial analysis consisted mostly of reading each TIR and correlating it with incident descriptions on other TIRs. In most cases, the TIR failures are answered on succeeding TIRs where operator errors, vehicle and test set hardware failures are confirmed.

Of the 502 TIRs received by GE, responses were required for the 134 Failure and unreliable scores. An additional 58 TIRs scored as No Test also required responses, due to incorrect evaluation scoring. Of these 192 open TIRs, GE responded to 38 before being requested to stop work.

Sixty-eight TIRs require further analysis to determine the cause of the incident result and the correct evaluation score.

One STE-X test set (A1 Input Mux Board), 4 cables (a CX801, CX802, CX804 and a CX805) and a CA830 adapter failed during the technical test. This initially caused problems while running self test, but once these were corrected, a self test was run repeatedly without problems.

The following is the status of the OT scoring as a result of this preliminary analysis:

OT Scores - Preliminary Review

System/ Test	Success	No Test	Crew Error	Unreliable	Fail	% Success
STE-X:						
AFCs Test	107	7	5	1	9	91.5%
CAB EL Test	N/A	N/A	N/A	N/A	N/A	N/A
MCS Test	56	0	6	0	9	86.1%
Self Test	61	9	0	0	3	95.3%
Cable Test	15	0	3	0	1	93.7%
Adapter Test	10	1	1	0	1	90.9%
ICE Tests	16	39	0	0	5	76.2%
STE-X Total	265	53	15	1	28	90.1%

A detailed description of the TIRs for each subsystem follows:

AFCs Test: The initial OT scores for AFCs tests included 18 Fail and five Unreliable TIR scores. Preliminary analysis determined the following:

- o Five failure scores were caused by VMS failures in the vehicle which were successfully detected by STE-X and the scores should be changed to successes.
- o Seven failures were caused by faulty STE-X CX805 cable.
- o One failure and one unreliable score were caused by a Honeywell Tube Temp status software problem. Both should be scored as a "No Test".
- o Crew Procedural Errors accounted for one fail and one unreliable score.
- o A typographical error (wrong Fault termination number) on a VTR caused one No Test and one Unreliable score. Based on the HIP STE-X test plan approved for the HIP, the VTR is corrected and the scores should be changed to successes.
- o An obsolete VTR from a previous version of HIP STE-X software was run four times causing two fail and two No Test scores. These scores should be changed to OT Fail, since the instructions in the STE-X documentation package were not followed in selecting VTRs for the test.

Cab Electrical Test: The initial OT scores for Cab Electrical tests included 36 Fail and 16 Unreliable TIR scores. GE investigated these problems and discovered a ground loop problem in the vehicle causing 6 to 8.5 volts to be present on open signals. This ground loop problem was also causing problems with the PDIU and instrumentation installed by the Army.

While GE was not able to isolate the ground loop problem, this problem is not present in any other vehicle. GE believes the Cab Electrical test results are invalid, because the test was performed on a modified vehicle which does not represent the HIP vehicle design.

MCS Test: The initial OT scores for MCS tests included nine Fail and six Unreliable TIR scores. Preliminary analysis determined the following:

- o One Failure and two No Test scores were assigned to successful tests.
- o Five Unreliable scores were caused by crew procedural errors. These errors deal with running the test with the VTRs and are not indicative of using the STE-X in the field.
- o One Unreliable score was caused by a software message problem and should be scored as a failure.
- o The remaining eight Failure scores have not been analyzed.

STE-X Self Test: The initial OT scores for STE-X Self Test included 18 Fail TIR scores. Preliminary analysis determined the following:

- o Two Fail, two Crew Procedural Error and two No Test scores were caused by a faulty CX801 which was successfully detected by Self Test and the scores should be changed to successes.
- o Eight Fail scores were caused by a faulty CX802 which was successfully detected by Self Test, and the scores should be changed to successes.
- o Three Fail, one Crew Procedural Error and three No Test scores were caused by a faulty CX804 which was successfully detected by Self Test, and the scores should be changed to successes.
- o Two Fail scores were caused by a faulty CA830 which was successfully detected by Self Test, and the scores should be changed to successes.
- o Ten No Test scores were assigned to successful tests.

STE-X Adapter Test: The initial OT scores for STE-X adapter test included one Fail and one Unreliable TIR scores. Preliminary analysis determined the following:

- o The Unreliable score was caused by a Crew procedural error with the fault insertion box.
- o Two No Test scores were assigned to successful tests.

Cable Test: The initial OT scores for STE-X Self test included two Fail and two Unreliable TIR Scores. Preliminary analysis determined the following:

- o Two Unreliable and one Fail scores were caused by Crew Procedural errors.
- o The cause of the remaining Fail score has not been determined.
- o Five No Test scores were assigned to successful tests.

STE-X STE-ICE Tests: The initial OT scores for STE-X STE-ICE tests included 20 Fail TIR scores. Preliminary analysis determined the following:

- o Nine Fuel Supply Pressure test failures were caused by a broken pin in the DCA. The TIR scores should be changed to No Test. The DCA is the responsibility of the vehicle manufacturer and not part of STE-X.
- o Six Alternator Field Voltage test failures occurred. Inspection of DCAs on other HIP vehicles has shown this signal to be miswired. It is believed that this is the case on this vehicle, too. The TIR scores should be changed to No Test. The DCA is the responsibility of the vehicle manufacturer and not part of STE-X.
- o Five No Test scores were assigned to successful tests.

5.0

COMMON STE-X REVIEW

On 8 August 1990, a meeting was conducted under this contract to review the common STE-X software to assist in applying STE-X to specific applications. In attendance were representatives from TACOM, Missile Command (MICOM), LTV Corporation, and GE to discuss the Army Tactical Missile System (TACMS) Missile Monitor Test Device (MMTD) (AN/TSM-193) as the only currently active application. A memo of the minutes for this meeting is contained in Appendix C, with all action items appropriately closed.

For record purposes, Appendix D contains a matrix describing the STE-X support tools. In addition, Appendix E contains a list of all the common hardware between the two STE-X development applications to date - the HIP analyzer set and the Army TACMS MMTD.

6.0 FINANCIAL SUMMARY

The latest available financial performance data on this contract, which includes estimated expenditures through contract close-out, is contained in Appendix F.

7.0 RESIDUAL MATERIAL DISPOSITION RECOMMENDATION

GE recommends that all material under TACOM Contract No. DAAE07-88-C-R133 be transferred to the MICOM Contract No. DAAH01-86-C-A036, LTV No. P-3108760.

APPENDIX A

ENGINEERING CHANGE NOTICE (ECN) LISTING

ENGINEERING CHANGE NOTICE (ECN) LISTING

J54254	J56500	J61100
J54255	J56501	TO
J54256	J56502	J61147
J54257	J56503	J61149
J54258	J56505	J61149
J54259	J56506	TO
J54260	J56507	J61199
J54261	J56509	
J54262	J56515	J64200
J54263	J56516	J64205
J54264	J56517	J64209
J54265	J56518	J64226
J54266	J56519	J64227
J54267	J56520	J64228
J54268	J56521	J64229
J54269	J56524	J64238
J54270	J56525	J64262
J54271	J56528	J64263
J54272	J56530	
J54273	J56531	J65405
J54274	J56532	J65411
J54275	J56536	J65412
J54276	J56537	J65450
J54277	J56538	J65452
J54278	J56542	J65459
J54279	J56545	J65460
J54280	J56546	J65465
J54281	J56552	J65466
J54282	J56553	J65495
J54283	J56560	
J54284	J56563	J67200
J54285	J56564	TO
J54286	J56567	J62764
J54287	J56568	
J54288	J56569	J69906
J54289	J56577	J69932
J54290	J56580	J69936
J54291	J56581	
J54292	J56595	
J54293		
J54294	J557500	
J54295	TO	
J54296	557599	
J54297		
J54298		
J54299		

APPENDIX B

HIP STE-X
TEST INCIDENT REPORT (TIR)
LOG

HIP TEST INCIDENT REPORT (TIR) LOG

TIR #	UNIT	VTR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
KE-B0013	N/A	N/A	N/A	DU screen was blank - STE-X faulted the DCU. The DCU unit received from spares was also faulty	890617	6385	N/A	N/A	N/A	NO ACTION	None. STE-X worked successfully STE-X is not under contract to isolate between DU and CU.
K2-J0055	N/A	N/A	N/A	STE-X/ICE failure, DCA Connector Miswired	890303	2207	-	-	89****	NO ACTION	The STE-X hardware failed due to overvoltage on a ground wire caused by miswiring in the vehicle.
LS-STE0002	STE-X	ICE	No Test	STE-ICE Baseline tests	890712		N/A	N/A	N/A	N/A	N/A
LS-STE0003	STE & PDIU	SYS SELF	IOBT & Fail	Ran STE-X self test and PDIU System Test. Self test Faulted CX801 cable intermittently	890728		N/A	N/A	N/A	N/A	N/A
LS-STE0020	STEX	MCS	1 Bite Succ		890811		N/A	N/A	N/A	N/A	N/A
LS-STE0053	STEX	CAB EL	No Test	Test ran correctly	890801		MDL 900215		900212	NO ACTION	None. No apparent reason for score
LS-STE0054	STEX	CAB EL	No Test	Test ran correctly	890801		MDL 900215		900212	NO ACTION	None. No apparent reason for score
LS-STE0055	STEX	CAB EL	No Test	Test ran correctly	890801		MDL 900215		900212	NO ACTION	None. No apparent reason for score
LS-STE0056	STEX	CAB EL	No Test	Test ran correctly	890801		MDL 900215		900212	NO ACTION	None. No apparent reason for score
LS-STE0057	STEX	SELF TEST	Crew Proc Err	Faulted CX804 - Rerun and passed - assumed to be an operator Error	890801		N/A	N/A	N/A	N/A	N/A
LS-STE0058	STEX	CAB EL	No Test	Test ran correctly	890801		N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0059	STEX	CAB	EL TEST	Faulted CX004	890801						
L5-STE0060	STEX	CAB	EL TEST	Test ran correctly	890801						
L5-STE0061	STEX	CAB	EL TEST	Documenta Cab El System Test runs reported on other TIR's	890801						
L5-STE0062	STEX	CAB	EL TEST	Detected Backup Battery Problem - Faulted EXT BATT A	890801						
L5-STE0063	STEX	CAB	EL TEST	Test ran correctly	890801						
L5-STE0064	STEX	CAB	EL TEST	Detected Backup Battery Problem - Faulted EXT BATT A	890801						
L5-STE0065	STEX	CAB	EL TEST	Test ran correctly	890801						
L5-STE0066	STEX	CAB	EL TEST	- Faulted PCU or W65	890801						
L5-STE0067	STEX	CAB	EL TEST	Test ran correctly	890801						
L5-STE0068	STEX	CAB	EL TEST	Detected Backup Battery Problem - Faulted EXT BATT A	890801						
L5-STE0070	STEX	CAB	EL TEST	Faulted CX001 cable - Test passes when the CX002 cable is used instead of the CX001	890802	2856					
L5-STE0071	STEX	CAB	EL TEST	Faulted CX001 cable - Test passes when the CX002 cable is used instead of the CX001	890802	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTB#	SCORE	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
LS-STE0072	STEX	SELF TEST	CREW PROC ERR	Faulted CX801 cable - Test passes when the CX802 cable is used instead of the CX801	890802	2856					
LS-STE0073	STEX	SELF TEST	NO TEST	No Faults found - used CX802 cable instead of the CX801	890802	2856					
LS-STE0074	STEX	SELF TEST	NO TEST	No Faults found - used CX802 cable instead of the CX801	890802	2856					
LS-STE0075	STEX	MCS 25	Crew Proc Error	Operator connected FIB backwards	890802	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0076	STEX	AFCS SYS TEST	DBT SYS Fail	Test run to isolate VMS problem detected by BIT/BITE - ran into DBA adapter problem, given field bulletin - VMS to be replaced based on Honeywell/BMY reps	890817	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0077	STEX	MCS 25	Succ		890802	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0079	STEX	MCS 25	Succ		890802	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0080	STEX	AFCS SYS TEST	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0081	STEX	MCS3 Unre lib	Unre lib	Probes hookup message error	890818	2856					
LS-STE0082	STEX	MCS3	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0083	STEX	MCS 10	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0084	STEX	MCS 15	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	TR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0091	STEX	MCS	25	Fail	Wrong fault message rec'd	890818	2856				
L5-STE0092	STEX	MCS	18	Succ		890818	2856	N/A	N/A	N/A	N/A
L5-STE0094	STEX	MCS	20	Succ		890818	2856	N/A	N/A	N/A	N/A
L5-STE0095	STEX	MCS	23	Unre / 1 tab	Operator hooked up wrong cable	890818	2856				
L5-STE0096	STEX	MCS	23	Succ		890818	2856	N/A	N/A	N/A	N/A
L5-STE0097	STEX	MCS	25	Fail		890818	2856				
L5-STE0098	STEX	MCS	35	Fail		890818	2856				
L5-STE0099	STEX	MCS	SYS TEST	Succ	Discovered a faulty MCS control panel	890818	2856	N/A	N/A	N/A	N/A
L5-STE0100	STEX	MCS	35	FAIL		890818	2856				
L5-STE0101	STEX	AFCS	P2-1	Succ		890818	2856	N/A	N/A	N/A	N/A
L5-STE0102	STEX	MCS	37	Succ		890818	2856	N/A	N/A	N/A	N/A
L5-STE0103	STEX	MCS	39	Succ		890818	2856	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT VTR/ SCOR		DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
	STEX	MCS								
L5-STE0104		25		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0105	STEX	MCS 35	SUCC	890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0106	STEX	MCS 42	SUCC	890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0107	STEX	MCS 43	FAIL	890821	2856					
L5-STE0108	STEX	MCS 43	FAIL	890821	2856					
L5-STE0109	STEX	MCS 43	FAIL	890821	2856					
L5-STE0110	STEX	MCS 53	SUCC	890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0111	STEX	MCS 56	SUCC	890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0112	STEX	MCS 59	FAIL	890821	2856					
L5-STE0113	STEX	MCS 43	SUCC	890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0114	STEX	MCS 64	Unre Lib	890821	2856					
L5-STE0115	STEX	MCS 64	Unre Lib	890821	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR #	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0116	STEX	AFCS P2-2	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0117	STEX	MCS 64	Unre Liab	Operator/VTR Error. VTR does not identify how to answer airflow questions	890822	2856					
L5-STE0118	STEX	MCS 64	SUCC		890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0119	STEX	AFCS P2-5	FAIL	Invalid VTR - Replaced by VTR # AFCS-P2-03	890822	2856	MDL 900131	900119	NO ACTION	NO ACTION	None. STE-X documentation correctly identifies this VTR as obsolete
L5-STE0120	STEX	AFCS P2-5	FAIL	Invalid VTR - Replaced by VTR # AFCS-P2-03	890822	2856	MDL 900131	900119	NO ACTION	NO ACTION	None. STE-X documentation correctly identifies this VTR as obsolete
L5-STE0121	STEX	AFCS P213 Proc Err	Crew	Operator connected DBA on wrong side of FIB	890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0122	STEX	AFCS P213	SUCC		890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0123	STEX	AFCS P214	SUCC		890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0124	STEX	AFCS P230	FAIL	Operator connected DBA on wrong side of FIB	890822	2856	MDL 900131	900119	NO ACTION	NO ACTION	None.
L5-STE0125	STEX	AFCS P230	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0126	STEX	AFCS P231	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0127	STEX	AFCS 38	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTB#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0128	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0129	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0130	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0131	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0132	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0133	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0134	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0135	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0136	STEX	AFCS	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0137	STEX	SELF TEST	No Test	Faulted CX801 - Operator found CX801 and CX802 from accessory box S/N 007 to be faulty	890824	2856					
L5-STE0138	STEX	SELF TEST	Fail	Faulted CX801 from S/N 007	890824	2856					
L5-STE0139	STEX	SELF TEST	Fail	Faulted CX801 from S/N 007	890824	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0140	STEX	SELF TEST	No TEST	Faulted CX001 from S/N 007	890824	2856					
L5-STE0141	STEX	SELF TEST	Fail TEST	Faulted CA030 from S/N 004	890824	2856					
L5-STE0142	STEX	SELF TEST	Fail TEST	Faulted CX002 from S/N 007	890824	2856					
L5-STE0143	STEX	SELF TEST	Fail TEST	Faulted CX002 from S/N 007 using STE S/N 004	890824	2856					
L5-STE0144	STEX	AFCS P2-1	FAIL	Extra problem detected	890824	2856					
L5-STE0145	STEX	SELF TEST	No TEST	No Faults found using Accessory box S/N 006 and STE S/N 004	890824	2856					
L5-STE0146	STEX	SELF TEST	No TEST	Faulted CX004 from S/N 006	890824	2856					
L5-STE0147	STEX	SELF TEST	Fail TEST	Faulted CX002 from S/N 005	890824	2856					
L5-STE0148	STEX	SELF TEST	Fail TEST	Faulted CX002 from S/N 007	890824	2856					
L5-STE0149	STEX	SELF TEST	Fail TEST	Faulted CX002 from S/N 007	890824	2856					
L5-STE0150	STEX	SELF TEST	Fail TEST	Faulted CX002 from S/N 007 using STE S/N 004	890824	2856					
L5-STE0151	STEX	AFCS P202	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0152	STEX	AFCS P284	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0153	STEX	AFCS P286	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0154	STEX	AFCS P288	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0155	STEX	SELF TEST	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0156	STEX	AFCS SYS TEST	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0157	STEX	AFCS Unre P265 Liob		Received wrong fault termination number - VTR Error	890825	2856	MDL 900131	900131	900131	HOLD	VTR Error - Will be corrected in next update of STE-X Documentation
L5-STE0158	STEX	AFCS P2-7	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0159	STEX	AFCS P264	FAIL	2 extra problems detected - VMS problem	890825	2856					
L5-STE0160	STEX	AFCS P264	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0161	STEX	SELF TEST	FAIL	Faulted CX802 from S/N 007	890825	2856					
L5-STE0162	STEX	AFCS P271	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0163	STEX	AFCS 65	UNRE	VTR Error, VMS problem in vehicle	890825	2856	MDL 900131	900131	900131	HOLD	VTR Error - Will be corrected in next update of STE-X Documentation

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0164	STEX	AFCS	FAIL	VMS problem in vehicle	890825	2856					
L5-STE0165	STEX	SELF TEST	No Test	No Faults Found using accessory box a/n 006	890826	2856					
L5-STE0166	STEX	AFCS	No Test	Test ran correctly	890826	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0167	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0168	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0169	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0170	STEX	CAB EL	No Test	Test ran correctly	890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0171	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0172	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0173	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0174	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0175	STEX	AFCS	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0176	STEX	AFC5	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0177	STEX	AFC5	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0178	STEX	AFC5	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0179	STEX	CAB	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0180	STEX	ELP2	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0181	STEX	AFC5	SUCC		890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0182	STEX	?	No Test	Test ran correctly	890828	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0183	STEX	CAB	FAIL	No faults found - VTR Error	890828	2856					
L5-STE0184	STEX	CAB	FAIL	Faulted wrong LRU - VTR Error	890828	2856					
L5-STE0185	STEX	CAB	FAIL	Faulted wrong LRU - VTR Error	890828	2856					
L5-STE0186	STEX	CAB	FAIL	Wrong problem detected	890828	2856					
L5-STE0187	STEX	CAB	FAIL	Wrong problem detected	890828	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT VTR# SCOR			DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
	STEX	CAB	SUCC								
L5-STE0188	STEX	CAB 142	SUCC	Ran with VTR corrected	890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0189	STEX	CAB 64	SUCC		890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0190	STEX	CAB 67	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0191	STEX	CAB 84	SUCC		890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0192	STEX	CAB 22	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0193	STEX	CAB 36	Unre Liab	Detected wrong problems - 2	890829	2856					
L5-STE0195	STEX	CAB 36	Unre Liab	Extra problem detected - problem in vehicle suspected	890829	2856					
L5-STE0196	STEX	CAB 28	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0197	STEX	CAB 21	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0198	STEX	CAB 23	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0199	STEX	CAB 29	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0200	STEX	SELF TEST	No Test	No Faults Found	890830	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0201	STEX	CAB	NO TEST	Operator Error	890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0202	STEX	CAB	Unre EL Liab	Faulted EXT BATT A	890830	2856					
L5-STE0203	STEX	CAB	Unre EL Liab	Detected Backup Battery Problem	890830	2856					
L5-STE0204	STEX	CAB	NO TEST	Test correctly resulted in no Faults found	890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0205	STEX	CAB	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0206	STEX	CAB	NO TEST	Test correctly resulted in no Faults found	890830	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0207	STEX	CAB	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0208	STEX	CAB	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0209	STEX	CAB	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0210	STEX	CAB	Unre EL Liab	Extra problem detected	890830	2856					
L5-STE0211	STEX	CAB	Unre EL Liab	Extra problem detected	890830	2856					
L5-STE0212	STEX	CAB	Unre EL Liab	Extra problem detected	890830	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0213	STEX	CAB	Unre	Extra problem detected	890830	2856					
		ELP2	Liab								
		33									
L5-STE0214	STEX	Self	Fail	Faulted CX002 Cable	890831	2856					
		Test									
L5-STE0215	STEX	Self	Fail	Faulted CX004 Cable	890831	2856					
		Test									
L5-STE0216	STEX	Self	Fail	Faulted CA030 Adapter	890831	2856					
		Test									
L5-STE0217	STEX	Self	NO	Test resulted in no	890831	2856	N/A	N/A	N/A	N/A	N/A
		Test	TEST	Faults found							
L5-STE0218	STEX	CAB	Fail	Detected Backup Battery Problem	890831	2856					
		EL									
		SYS									
L5-STE0219	STEX	CAB	NO	Test resulted in no	890831	2856	N/A	N/A	N/A	N/A	N/A
		EL	TEST	Faults found							
		SYS									
L5-STE0220	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
		ELP2									
		37									
L5-STE0221	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
		ELP2									
		38									
L5-STE0222	STEX	CAB	Fail	Rec'd Faulty DCU Notification	890831	2856					
		ELP2		message - Did not find inserted							
		43		fault							
L5-STE0223	STEX	CAB	Fail	Rec'd Faulty DCU Notification	890831	2856					
		ELP2		message - Did not find inserted							
		43		fault							
L5-STE0224	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
		ELP2									
		54									

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0225	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0226	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0227	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0228	STEX	CAB	SUCC	VTR Error	890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0229	STEX	CAB	SUCC	VTR Error	890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0230	STEX	CAB	Fail	No Faults Found	890831	2856					
L5-STE0231	STEX	CAB	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0232	STEX	AFCS	SUCC		890901	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0233	STEX	AFCS	Fail	Operator ran DBA workaround procedure	890901	2856					
L5-STE0234	STEX	CAB	Fail	VTR Error	890901	2856					
L5-STE0235	STEX	SELF	Fail	Faulted Test Set	890907	2856					
L5-STE0236	STEX	SELF	Fail	Faulted Test Set - MAJOR Incident Classification	890907	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT/VTR/SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0238	STEX/AFCS SYS TEST		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0239	STEX/CAB EL SYS	Detected Backup Battery Problem	890837	2856					
L5-STE0240	STEX/AFCS P2 53		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0241	STEX/CAB ELP2 2		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0242	STEX/CAB ELP2 34	No Faults Found	890907	2856					
L5-STE0243	STEX/SELF Test	Faulted Test Set	890907	2856					
L5-STE0244	STEX/SELF Test	Test resulted in no Faults found	890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0245	STEX/SELF Test	Test resulted in no Faults found	890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0246	STEX/AFCS P2 5	Invalid VTR	890907		N/A	N/A	N/A	NO ACTION	None.
L5-STE0247	STEX/AFCS P2 1		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0248	STEX/AFCS P2 2		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0249	STEX/AFCS P2 5	Invalid VTR	890907		N/A	N/A	N/A	NO ACTION	None.

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	ISCR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0250	STEX	AFCS	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0251	STEX	AFCS	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0252	STEX	AFCS	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0253	STEX	AFCS	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0254	STEX	Cabl No	Test Test	Test ran correctly	890908	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0255	STEX	Cabl No	Test Test	Test ran correctly	890908	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0256	STEX	Cabl No	Test Test	Test ran correctly	890908	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0257	STEX	AFCS	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0258	STEX	AFCS	Unre	Operator Error	890908	2856					
L5-STE0259	STEX	AFCS	Unre	2 Extra problems detected	890908	2856					
L5-STE0260	STEX	AFCS	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0261	STEX	AFCS	FAIL	TTS Fault not detected by STE-X	890908	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0262	STEX	AFCS	P2 62		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0263	STEX	AFCS	P2 64		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0264	STEX	AFCS	P2 65		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0265	STEX	AFCS	P2 17		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0266	STEX	AFCS	P2 66		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0267	STEX	AFCS	FAIL SYS TEST	Faulted BCWC - Operator Suspects faulty CX005 or CA043 from Accessory box S/N 006	890911	2856					
L5-STE0268	STEX	AFCS	SUCC SYS TEST	Used CX005 and CA043 from S/N 007	890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0269	STEX	AFCS	FAIL SYS TEST	Faulted BCWC - Operator Suspects faulty CX005 or CA043 from Accessory box S/N 006	890911	2856					
L5-STE0270	STEX	SELF	SUCC TEST		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0271	STEX	AFCS	FAIL SYS TEST	VMS BIT Failure	890909	2856					
L5-STE0272	STEX	AFCS	FAIL SYS TEST	VMS BIT Failure	890909	2856					
L5-STE0273	STEX	CABL	UNRE TEST	Tested W17 cable due to VMS problem - Operator Error	890909	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
LS-STE0274	STEX	CABL TEST	Tested W17 cable due to VMS problem	890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0275	STEX	AFCS SYS TEST		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0276	STEX	AFCS P2 76		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0277	STEX	AFCS P2 71		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0278	STEX	AFCS P2 75	VMS BIT Failure	890909	2856					
LS-STE0279	STEX	AFCS P2 75	Test faulted BCWC and CP. Also detected Fire Cont Sys Problem	890909	2856					
LS-STE0280	STEX	AFCS SYS TEST		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0281	STEX	AFCS P2 75		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0282	STEX	AFCS P2 76	Test faulted BCWC. Also detected Fire Cont Sys Problem => Faulty Cp	890909	2856					
LS-STE0283	STEX	AFCS P2 76		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0284	STEX	AFCS P2 76		890909	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0285	STEX	SELF TEST		890909	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTIR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0286	STEX	SELF TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0287	STEX	AFCS SYS TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0288	STEX	AFCS P2 80	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0289	STEX	AFCS P2 82	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0290	STEX	AFCS P2 83	FAIL		890911	2856					
L5-STE0291	STEX	AFCS P2 83	FAIL		890911	2856					
L5-STE0292	STEX	AFCS I08T SYS FAIL TEST	FAIL	Test Stopped due to Sys Fault lamp being on	890911	2856					
L5-STE0293	STEX	AFCS I08T SYS FAIL TEST	FAIL	Detected Auto Fire Cont and 1553 Bus problems	890911	2856					
L5-STE0294	STEX	SELF TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0295	STEX	AFCS SYS TEST	FAIL	Test Stopped - used CX085 and CA043 from S/N 006	890911	2856					
L5-STE0296	STEX	AFCS SYS TEST	SUCC	Run using CX085 and CA043 from S/N 007	890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0297	STEX	AFCS SYS TEST	SUCC	Isolated problem to a faulty CX085 from S/N 008	890911	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0298	STEX	AFCS P2 83	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0299	STEX	AFCS P2 84	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0300	STEX	AFCS P2 86	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0301	STEX	AFCS P2 102	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0302	STEX	MCS SYS TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0303	STEX	MCS 10	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0304	STEX	MCS 15	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0305	STEX	MCS 18	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0306	STEX	MCS 20	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0307	STEX	MCS 23	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0308	STEX	MCS 25	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0309	STEX	SELF TEST	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT / VTR / SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0310	STEX / MCS / SELF TEST		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0311	STEX / MCS / SYS TEST	Test ran correctly to No Faults Found	890912	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0312	STEX / MCS / J5		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0313	STEX / MCS / J7		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0314	STEX / MCS / J9		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0315	STEX / MCS / J53		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0316	STEX / MCS / J56	Operator Error	890912	2856					
L5-STE0317	STEX / MCS / J56		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0318	STEX / CAB / EL / SYS	Detected Backup Battery Problem - Caused by Hull effects instrumentation	890912	2856					
L5-STE0319	STEX / CAB / EL / SYS		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0320	STEX / CAB / ELP2 / 2		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0321	STEX / CAB / ELP2 / 6		890912	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT/VTR/SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
LS-STE0310	STEX SELF TEST		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0311	STEX MCS FAIL SYS TEST	Test ran correctly to No Faults Found	890912	2856	MDL 900215		900212	NO ACTION	None. No apparent reason for score
LS-STE0312	STEX MCS SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0313	STEX MCS SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0314	STEX MCS SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0315	STEX MCS SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0316	STEX MCS UNRE	Operator Error	890912	2856					
LS-STE0317	STEX MCS SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0318	STEX CAB EL SYS UNRE	Detected Backup Battery Problem - Caused by Hull effects instrumentation	890912	2856					
LS-STE0319	STEX CAB EL SYS SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0320	STEX CAB ELP2 SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0321	STEX CAB ELP2 SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0322	STEX	CAB	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0323	STEX	CAB	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0324	STEX	CAB	UNRE	Wrong Fault message displayed	890912	2856					
L5-STE0325	STEX	CAB	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0326	STEX	CAB	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0327	STEX	CAB	UNRE	Extra problem detected	890912	2856					
L5-STE0328	STEX	SELF	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0329	STEX	CAB	Fail	Faulted PCU for power with CB #3 off	890913	2856					
L5-STE0330	STEX	CAB	Fail	Faulted PCU for charging Problem	890913	2856					
L5-STE0331	STEX	CAB	Fail	Detected Backup Battery Problem and CB #3 fault	890913	2856					
L5-STE0332	STEX	CAB	Fail	Detected Backup Battery Problem and CB #3 fault	890913	2856					
L5-STE0333	STEX	CAB	Fail	Detected Backup Battery Problem and CB #3 fault	890913	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	TR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0334	STEX	CAB	Fail	Faulted PCU for charging Problem	890913	2856					
L5-STE0335	STEX	SELF	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0336	STEX	CABL	UNRE	Operator Error	890913	2856					
L5-STE0337	STEX	CABL	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0338	STEX	CAB	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0339	STEX	CAB	Fail	Detected Backup Battery Problem	890913	2856					
L5-STE0340	STEX	CAB	Fail	Faulted PCU for charging Problem	890913	2856					
L5-STE0341	STEX	CABL	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0342	STEX	SELF	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0343	STEX	CAB	Fail	Detected Backup Battery Problem EXT BATT A suspected	890914	2856					
L5-STE0344	STEX	CAB	Fail	Detected Backup Battery Problem Instrumentation removed	890914	2856					
L5-STE0345	STEX	CAB	Fail	Detected Backup Battery Problem EXT BATT A suspected	890914	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	TR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0346	STEX	CAB	Fail	Detected Backup Battery Problem EXT BATT A suspected Also faulted PCU for CB #3 prob	890914	2856					
L5-STE0347	STEX	ADAP	UNRE	Operator Error with FIB	890914	2856					
L5-STE0348	STEX	ADAP	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0349	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0350	STEX	MC	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0351	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0352	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0353	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0354	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0355	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0356	STEX	MC	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0357	STEX	SELF	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT VTR		SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
	STEX	ADAP TEST									
L5-STE0358					890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0359	STEX	MCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		SYS TEST									
L5-STE0360	STEX	MCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		37									
L5-STE0361	STEX	MCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		39									
L5-STE0362	STEX	MCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		53									
L5-STE0363	STEX	MCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		56									
L5-STE0364	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		SYS TEST									
L5-STE0365	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		P2 1									
L5-STE0366	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		P2 2									
L5-STE0367	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		P2 7									
L5-STE0368	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
		P2 17									
L5-STE0369	STEX	AFCS	-	Test ran correctly	890915	2856	MDL 900215	900212	NO ACTION	None.	
		P2 22									

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0370	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0371	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0372	STEX	SELF TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0373	STEX	ADAP TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0374	STEX	CAB EL SYS	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0375	STEX	AFCS SYS TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0376	STEX	AFCS UNRE		TTS Fault not detected by STE-X	890917	2856					
L5-STE0377	STEX	AFCS CREW P2 PROC 59 ERR			890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0378	STEX	AFCS SUCC			890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0379	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem and Hull charging fault	890917	2856					
L5-STE0380	STEX	SELF TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0381	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem - Faulted PCU or W25	890917	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0382	STEX	AFCS	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0383	STEX	SELF TEST	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0384	STEX	CABL TEST W1	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0385	STEX	CABL TEST W2	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0386	STEX	CABL TEST W7	Fail	Operator Error's during Probing	890918	2856					
L5-STE0387	STEX	SELF TEST	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0388	STEX	CABL TEST EL SYS	SUCC	Detected Backup Battery Problem - Faulted PCU or W25	890919	2856					
L5-STE0389	STEX	CABL TEST EL SYS	FAIL	Detected Backup Battery Problem - Faulted PCU or W25 Also had Hull Charging Fault	890919	2856					
L5-STE0390	STEX	CABL TEST EL SYS	SUCC	Detected Backup Battery Problem - Faulted EXT BATT A	890919	2856					
L5-STE0391	STEX	CABL TEST EL SYS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0392	STEX	CABL TEST W12	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0393	STEX	CABL TEST EL SYS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0394	STEX	CAB	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		ELP2	64								
L5-STE0395	STEX	CAB	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		ELP2	84								
L5-STE0396	STEX	AFCS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		SYS	TEST								
L5-STE0397	STEX	AFCS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		P2	62								
L5-STE0398	STEX	AFCS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		P2	64								
L5-STE0399	STEX	AFCS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		P2	65								
L5-STE0400	STEX	AFCS	CREW		890919	2856	N/A	N/A	N/A	N/A	N/A
		P2	PROC								
		68	ERR								
L5-STE0401	STEX	N/A	NO TEST	GE Data collection	890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0402	STEX	CABL	Fall		890918	2856					
		TEST	W13								
L5-STE0403	STEX	ADAP	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
		TEST									
L5-STE0404	STEX	AFCS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		P2	68								
L5-STE0405	STEX	AFCS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
		P2	70								

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0406	STEX	AFC	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0407	STEX	SELF	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0408	STEX	ADAP	FAIL		890918	2856					
L5-STE0409	STEX	ADAP	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0410	STEX	CAB	FAIL	Detected Backup Battery Problem - Faulted EXT BATT A	890920	2856					
L5-STE0411	STEX	AFC	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0412	STEX	CAB	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0413	STEX	CAB	FAIL	Faulted wrong LRU. Also detected extra problem	890920	2856					
L5-STE0414	STEX	CAB	FAIL	Detected extra Problem	890920	2856					
L5-STE0415	STEX	CAB	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0416	STEX	CAB	NO	Test Stopped - Operator turned off DCU power before DCU finished power up - power stayed on	890919	2856					
L5-STE0417	STEX	CAB	FAIL	Detected extra Problem	890920	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VT#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0418	STEX	CAB ELP2 36	FAIL	Detected extra Problem	890920	2856					
L5-STE0419	STEX	CAB EL SYS	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0420	STEX	CAB ELP2 36	CREW PROC ERR		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0421	STEX	CAB ELP2 36	CREW PROC ERR		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0422	STEX	CAB ELP2 36	CREW PROC ERR		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0423	STEX	CAB ELP2 36	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0424	STEX	CAB ELP2 42	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0425	STEX	CAB ELP2 37	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0426	STEX	CAB ELP2 43	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0427	STEX	CAB ELP2 53	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0428	STEX	CAB ELP2 54	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0429	STEX	Self Test	Fall	Faulted CX004 Cable -- was bent during test	890921	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	TR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0430	STEX	SELF TEST	SUCC		890921	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0431	STEX	ADAP TEST	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0432	STEX	CAB EL SYS	Fail	Faulted ALT or VREG	890921	2856					
L5-STE0433	STEX	AFCs SYS TEST	SUCC		890921	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0434	STEX	ADAP TEST	NO		890831	2856	MDL 900215	900212	NO ACTION		None. No apparent reason for score
L5-STE0435	STEX	Self Test	Fail	Faulted CX004	890924	2856					
L5-STE0436	STEX	Self Test	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0437	STEX	Adap Test	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0438	STEX	CAB EL SYS	FAIL	Detected Backup Battery Problem - Faulted EXT BATT A	890924	2856					
L5-STE0439	STEX	Cab El 84	Fail	Operator Error. Also rec'd Charging Sys alert message	890924	2856					
L5-STE0440	STEX	Cab El 84	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0441	STEX	Cab El 88	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR #	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0442	STEX	Cob	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0443	STEX	Cob	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0444	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0445	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0446	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0447	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0448	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0449	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0450	STEX	AFCS	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0451	STEX	Cob	Succ	Rec'd Charging Sys alert message	890921	2856					
L5-STE0452	STEX	Self	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0453	STEX	Adop	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VT	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0454	STEX	Cab	Unre	Faulted PCU for CB Problem & had Backup Batt Supp problem	890922	2856					
L5-STE0455	STEX	Cab	Unre	Double entry - Same incident as 454	890922	2856					
L5-STE0456	STEX	Cab	Fall	Faulted PCU for CB Problem & Ext Batt A	890922	2856					
L5-STE0457	STEX	Cab	Unre	Backup Batt Supp problem	890922	2856					
L5-STE0458	STEX	Cab	Crew		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0459	STEX	Cab	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0460	STEX	Cab	Succ		890921	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0461	STEX	Cab	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0462	STEX	Cab	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0463	STEX	ICE	No Test	STE-ICE Baseline tests	890925	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0464	STEX	ICE	Fall	Alt. field Voltage	890926	2856					
L5-STE0465	STEX	ICE	No Test	STE-ICE Baseline tests	890925	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0466	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890926	2856					
L5-STE0467	STEX	ICE	Fail	Alt. field Voltage	890926	2856					
L5-STE0468	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890926	2856					
L5-STE0469	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890926	2856					
L5-STE0470	STEX	ICE	Fail	Alt. field Voltage	890927	2856					
L5-STE0471	STEX	N/A	No Test	Andy replaced A1 board in s/n 5	890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0472	STEX	ICE	No Test	STE-ICE Baseline tests	890928	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0473	STEX	ICE	No Test	STE-ICE Baseline tests	890927	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0474	STEX	N/A	No Test	Broken pin CA on DCA CX150	890927	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0475	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890927	2856					
L5-STE0476	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890927	2856					
L5-STE0477	STEX	ICE	Fail	Alt. field Voltage	890927	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT/VTR/SCOR			DESCRIPTION	INCIDENT DATE	VEH. #	ENG SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
	UNIT	VTR	SCOR							
L5-STE0478	STEX	N/A	Man Proc Err	Troubleshoot W102 w TM 314-20-1	890928	2856				
L5-STE0479	STEX	ICE	Fail	Alt. field Voltage	890928	2856				
L5-STE0480	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890928	2856				
L5-STE0481	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890928	2856				
L5-STE0482	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890928	2856				
L5-STE0483	STEX	ICE	No Test	STE-ICE Baseline tests	890929	2856	N/A	N/A	N/A	N/A
L5-STE0484	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890929	2856				
L5-STE0485	STEX	ICE	Fail	Fuel flit diff press	890929	2856				
L5-STE0486	STEX	ICE	Fail	Starter Positive term voltage Read 0.0 PSI???	890929	2856				
L5-STE0487	STEX	ICE	Fail	Alt. field Voltage	890929	2856				
L5-STE0507	STE	N/A	No Test	PIN AC broken in CX150	890927	2856	N/A	N/A	N/A	N/A
L5-STE0529	STEX	ICE	Succ	STE-ICE Baseline tests	891010	2856	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0530	STEX	ICE	No Test	Alt. field Voltage	891010	2856					
L5-STE0531	STEX	ICE	No Test	Starter Positive term voltage	891010	2856					
L5-STE0532	STEX	ICE	No Test	Fuel supply Press - Broken pin in CX150	891010	2856					
L5-STE0533	STEX	ICE	Succ	STE-ICE Baseline tests	891010	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0560	STEX	Self Test	Succ		891005	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0561	STEX	ICE	Succ	Static Battery Voltage	891005	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0570	STEX	ICE	No Test	Static Battery Voltage test passed	891006	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0571	STEX	Self Test	No Test	No Faults Found	891011	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0572	STEX	ICE	Succ	STE-ICE Baseline tests	891011	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0573	STEX	ICE	No Test	Static Battery Voltage test passed	891001	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0574	STEX	Cabi Test	Succ	No Faults Found	891011	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0575	STEX	ICE	No Test	Fuel supply Press - Broken pin in CX150	891011	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT VTR / SCOR			DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
	STEX	ICE	No Test								
L5-STE0576				Alt. field Voltage	891011	2856					
L5-STE0577	STEX	Self Test	No Test	No Faults Found	891011	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0578	STEX	Self Test	Succ Test	No Faults Found	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0579	STEX	Self Test	Succ Test	No Faults Found	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0580	STEX	ICE	Succ	STE-ICE Baseline tests	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0581	STEX	Self Test	No Test	No Faults Found - Possible power surge or dropout occurred in vehicle	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0582	STEX	Cobl Test	No Test	No Faults Found	891012	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0583	STEX	ICE	No Test	Fuel supply Press - Broken pin in CX156	891012	2856					
L5-STE0584	STEX	ICE	No Test	Alt. field Voltage	891012	2856					
L5-STE0585	STEX	Self Test	Succ Test	No Faults Found	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0586	STEX	ICE	Succ	STE-ICE Baseline tests	891013	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0587	STEX	Cobl Test	No Test	No Faults Found	891013	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0588	STEX		Self Test	No Faults Found	891013	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0589	STEX		Self Test	No Faults Found	891016	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0590	STEX		ICE	STE-ICE Baseline tests	891016	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0591	STEX		Cabi Test	No Faults Found	891016	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0592	STEX		Self Test	No Faults Found	891017	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0593	STEX		ICE	STE-ICE Baseline tests	891017	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0594	STEX		Cabi Test	No Faults Found	891017	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0595	STEX		ICE	STE-ICE Baseline tests	891018	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0596	STEX		Cabi Test	No Faults Found	891018	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0597	STEX		ICE	Setcom locked up - would not clear	891018	2856					
L5-STE0598	STEX		ICE	A E/R message appeared on the Setcom after entering the test mode	891022	2856					
L5-STE0601	STEX		ICE	Setcom locked up - would not clear	891022	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0602	STEX	Self & Cabi	No Test	Various Tests No Faults Found	891022	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0603	STEX	ICE	No Test	Various Tests No Faults Found	891022	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0604	STEX	Self & Cabi	Succ	Various Tests No Faults Found	891020	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0605	STEX	ICE	Succ	Automotive Tests No Faults Found	891020	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0606	STEX	Self & Cabi	No Test	Various Tests No Faults Found	891023	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0607	STEX	MCS SYS Test	No Test	No Faults Found	891023	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0608	STEX	MCS 10	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0609	STEX	MCS 15	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0610	STEX	MCS 18	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0611	STEX	MCS 20	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0612	STEX	MCS 23	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0613	STEX	MCS 25	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT VTR#		SCORE	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
	STEX	MCS									
LS-STE0614		35	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0615		37	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0616		39	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0617		42	No Test	Test worked correctly	891023	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
LS-STE0618		Self & Cabi	No Test	Various Tests No Faults Found	891024	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
LS-STE0619		ICE	No Test	Various Tests No Faults Found	891024	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0620		ICE	No Test	Various Tests No Faults Found	891024	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0621		Self & Cabi	No Test	Various Tests No Faults Found	891025	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
LS-STE0622		ICE	No Test	Various Tests No Faults Found	891025	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
LS-STE0623		ICE	No Test	Various Tests No Faults Found	891025	2856	N/A	N/A	N/A	N/A	N/A
LS-STE0624		Self & Cabi	No Test	Various Tests No Faults Found	891026	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
LS-STE0625		ICE	No Test	Various Tests No Faults Found	891026	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0626	STEX	Self & Cabl	Succ	Various Tests No Faults Found	891027	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0627	STEX	ICE	Succ	Various Tests No Faults Found	891027	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0628	STEX	ICE	No Test	Various Tests No Faults Found	891029	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0629	STEX	Self & Cabl	No Test	Various Tests No Faults Found	891029	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0630	STEX	ICE	No Test	Various Tests No Faults Found	891029	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0633	STEX	ICE	No Test	Various Tests No Faults Found	891030	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0663	STEX	Cab E1 6	No Test	Ran DBA Field workaround proc.	891107	2856					
L5-STE0664	STEX	Cab E1 64	Succ		891107	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0665	STEX	Cab E1 84	Unre	Wrong Fault Message	891107	2856					
L5-STE0666	STEX	Cab E1 84	Unre	Wrong Fault Message	891107	2856					
L5-STE0667	STEX	Self & Cabl	No Test	Various Tests No Faults Found	891108	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0668	STEX	ICE	No Test	Test mode 67 No Faults Found	891108	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0669	STEX	AFCS P2 65	Succ		891108	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0670	STEX	Self Test	No Test	No Faults Found	891109	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0671	STEX	ICE	No Test	Various Tests No Faults Found	891109	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0672	STEX	Self Test	No Test	Various Tests No Faults Found	891113	2856	MDL	900215	900212	NO ACTION	None. No apparent reason
L5-STE0673	STEX	ICE	No Test	Test mode 67 No Faults Found	891113	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0674	STEX	Self Test	No Test	No Faults Found - Note: PCU was removed from the vehicle	891113	2856	N/A	N/A	N/A	N/A ACTION	N/A for score

APPENDIX C

COMMON STE-X SOFTWARE DOCUMENTATION
REVIEW MEETING MINUTES



To: Attendees

Automated Systems Department
General Electric Company
P.O. Box 588, Burlington, MA 01803

From: T.S. Dwan

Dial Comm: 8*326-3820

Date: 14 August 1990

ATS-TSD-90-17A

Re: 8 AUGUST 1990 COMMON STE-X SOFTWARE DOCUMENTATION REVIEW MEETING
MINUTES

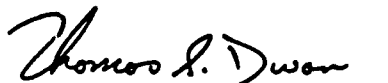
Reference: TACOM Contract No. DAAE07-88-C-R133

Enclosures: (a) Attendance list of the subject meeting
(b) Agenda for the subject meeting

The subject meeting, attended by those individuals listed in enclosure (a), followed the enclosure (b) agenda. Action items resulting from the meeting were as follows:

- 1) GE to supply LTV with lines of code count by COB 8-13-90.
- 2) GE to send LTV version 8 of the STE-X operating system on magnetic media once it is released. Post meeting information that the availability of version 8 will be delayed, may require sending version 7 in its place.
- 3) GE to retain the hard copy of common STE-X software specifications reviewed at the meeting pending future LTV direction.
- 4) LTV to submit RFP to GE for a mark-up of the existing common STE-X software specifications deleting all non-MMTD applicable material.
- 5) LTV plans to take lead in establishing requirements for the common STE-X source code.
- 6) GE to supply TACOM with hard copy and LTV with magnetic tape of the "Interface Specification for STE-X System Software" last revised June 10, 1987.

If there are any questions concerning the above minutes, please contact the undersigned at (617) 229-3820.


Thomas S. Dwan
Program Manager

krr

Attachments

cc: G. Martin

ATTENDANCE LIST
COMMON STE-X SOFTWARE DOCUMENTATION
REVIEW MEETING
(8/8/90)

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE #</u>
Steve Adams	MICOM, SFAE-FS-AT-C	205-842-0683
Mike Addams	MICOM	205-876-7105
Don Bartlett	GE ASD, PMO	617-229-3389
Mike Baughn	MICOM, SFAE-FS-AT-E	205-876-2460
Brac Beuke	LTV, Config. Mgmt.	214-266-9330
Randy Cann	MICOM, SED/TRW	205-830-3462
J.D. Chaney	LTV, Prog. Office	214-266-1538
Thomas S.Dwan	GE ASD, PMO	617-229-3820
Earl Evans	LTV, Eng.	214-266-1467
William A. Fentom	LTE, Eng.	214-266-9654
Mike Hennessey	TACOM	313-574-5414
Steven Heyl	GE ASD, Eng.	617-229-3887
Wsewolod Hnatzuk	TACOM	313-229-5840
Larry Malone	MICOM, ANSMI-RD-SE-TD-CM	205-876-6166
Ken St. Pierre	GE ASD, Eng.	617-229-3563
Matthew Vega	MICOM, SFAE-FS-AT-E	205-876-1575
Raoul Weyler	GE ASD, CM & DM	617-229-5203
Woodrow A. Williams	Army TACMS, SFAE-FS-AT-T	205-876-5666
Jim Wright	LTV, Software	214-266-0249

AGENDA
(8 AUGUST 1990)

- o INTRODUCTION 8:00 AM
- o COMMON STE-X SOFTWARE SPECIFICATIONS 8:15 AM
 - SPEC HIERARCHY OVERVIEW
 - DOCUMENTATION REVIEW
 - DISCUSSION OF FUTURE DIRECTION
- o LUNCH 12:00
- o COMMON STE-X SOFTWARE 1:00 PM
 - FAMILY TREE OVERVIEW
 - PROGRAM (S/W) INDEX/FILE LISTING REVIEW
 - DISCUSSION OF FUTURE DIRECTION
- o CLOSING REMARKS 4:00 PM

APPENDIX D
COMMON
HIP ANALYZER SET
AND
ARMY TACTICAL MISSILE SYSTEM (ATACMS)
MISSILE MONITOR TEST DEVICE (MMTD)
(AN/TSM-193)
PARTS

The highlighted part numbers on the enclosed Engineering Data List (Program MC0301-V02Q) dated 08/03/90 are common to the HIP Analyzer Set (P/N 12361300) and the Army TACMS MMTD (P/N 13289700).

PROGRAM MC0301-V029
SUBSET OF ENGINEERING DATALIST
DATE : 08/03/90
PAGE 1
PREFIX DRAWING NUMBER SIZE DW'S REV DATE-ISS ECN #SH RESP DESCRIPTION L TYPE OUTSTANDING ECNS

DEFINITION OF EDL COLUMN HEADINGS
=====

PREFIX : 2 DIGIT ALPHA ACRONYM FOR TYPE OF DOCUMENT/DRAWING
DRAWING NUMBER : NUMBER ASSIGNED BY RESPONSIBLE AUTHORITY
SIZE : LETTER INDICATES SIZE OF FORMAT
DW : "0" OR "W" INDICATES APPROVED DEVIATION OR WAIVER
: INFORMATION FOR DOCUMENTATION CONTROL AND REPRODUCTION
S : SECURITY CLASS PER MIL-STD-804
REV : LATEST REVISION LETTER INCORPORATED INTO DOCUMENT/DRAWING
DATE-ISS : THE DATE THAT THE ASSOCIATED REVISION LETTER WAS RELEASED FOR USE
ECN : ENGINEERING-CHANGE-NOTICE NUMBER OR RELEASED INFORMATION FOR LATEST REVISION LETTER INCORPORATED INTO DOCUMENT/DRAWING
#SH : THE NUMBER OF SHEETS THAT MAKE UP THE DOCUMENT/DRAWING
RESP : RESPONSIBLE PROGRAM CODE (TO IDENTIFY DOCUMENT/DRAWING OWNER)
DESCRIPTION : TITLE OF DOCUMENT/DRAWING
L : LEVEL OF CHANGE CONTROL PER RCA, BURLINGTON O. I.2913
TYPE : DOCUMENT/DRAWING TYPE PER MIL-STD-482

OUTSTANDING ECN'S : ALL ECN'S AUTHORIZED FOR USE BUT NOT INCORPORATED INTO THE DOCUMENT/DRAWING

PREFIX	DRAWING NUMBER	SIZE	DWGS	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE
C	N	B	09/18/86	J54294	1	1088			IC-VOLTAGE REGULATOR	2	044
C	N	A	12/21/82	REL-A	3	1088			IC-QUAD 2-INPUT NAND BUFFERS	2	044
C	N	A	12/21/82	REL-A	3	1088			IC-HEX INVERTER	2	044
C	N	A	12/21/82	REL-A	3	1088			IC-QUAD 2-INPUT OR GATES	2	044
C	N	B	09/18/86	J54294	2	1088			IC-QUAD 2-INPUT OR GATE	2	044
C	N	A	12/24/81	REL-A	1	1088			CRYSTAL 15MHZ	2	044
C	N	C	02/08/83	J33832	1	1088			CRYSTAL 6.144 MHZ	2	025
C	N	C	08/09/83	J37216	3	1088			IC-CMOS DUAL D FLIP FLOP	2	044
C	N	A	11/09/82	REL-A	1	1088			DIODE, CURRENT REGULATOR	2	044
C	N	A	11/09/82	REL-A	2	1088			IC-TRIPLE 3 INPUT NOR GATE	2	044
C	N	C	08/09/83	J37216	2	1088			IC-CMOS HEX INVERTER	2	044
C	N	B	04/12/83	J35502	3	1088			HYBRID, OPTICALLY COUPLED MULTIPLEXER	2	044
C	N	B	09/18/86	J54294	2	1088			IC-SAMPLE/HOLD AMPLIFIER	2	044
C	N	C	09/18/86	J54294	4	1088			IC-12-BIT A/D CONVERTER	2	044
C	N	A	12/02/82	REL-A	3	1088			IC-PROGRAMMABLE AMPLIFIER	2	044
C	N	A	10/27/81	REL-A	2	1088			RELAY, 2-POLE AC/DC	2	044
C	N	A	11/16/82	REL-A	2	1088			IC-MULTIPLIER	2	044
C	N	B	09/18/86	J54294	4	1088			IC-ANALOG MULTIPLEXER	2	044
C	N	C	08/09/83	J37216	3	1088			IC-CMOS QUAD 2 INPUT AND GATE	2	044
C	N	B	09/18/86	J54294	4	1088			IC-8 BIT ADDRESSABLE LATCH	2	044
C	N	C	08/09/83	J37212	3	1088			IC-OCTAL DECODER/MULTIPLEXER	2	044
C	N	A	12/21/82	REL-A	2	1088			IC-+10V REFERENCE	2	044
C	N	B	01/26/83	J33809	2	1088			IC-OPERATIONAL AMPLIFIER	2	044
C	N	B	09/18/86	J54294	1	1088			DIODE, LOW LEAKAGE SEMICONDUCTOR DEVICE	2	044
C	N	A	11/09/82	REL-A	1	1088			TRANSISTOR, POWER MOSFET	2	044
C	N	B	10/03/86	J57506	3	1088			IC-QUAD 2-INPUT NAND SCHMITT TRIGGER	2	044
C	N	B	09/18/86	J54294	4	1088			IC-COUNTER, 4-BIT DECADE	2	044
C	N	C	08/09/83	J37216	3	1088			IC-CMOS QUAD 2 INPUT NAND GATE	2	044
C	N	D	09/18/86	J54294	3	1088			IC-CMOS QUAD 2 INPUT NOR GATE	2	044
C	N	A	12/07/82	REL-A	3	1088			IC-8 CHANNEL DATA SELECTOR	2	044
C	N	C	08/09/83	J37216	3	1088			IC-CMOS QUAD 2 INPUT OR GATE	2	044
C	N	C	08/09/83	J37216	3	1088			IC-8 BIT LATCH DRIVER	2	044
C	N	B	10/03/86	J57506	2	1088			IC-TRIPLE 3-INPUT OR GATE	2	044
C	N	B	09/25/86	J54299	4	1088			IC-BINARY COUNTER/DIVIDER	2	044
C	N	B	09/25/86	J54299	4	1088			IC-PHASE-LOCKED LOOP	2	044
C	N	A	12/04/83	J61278	2	1088			IC-ANALOG RATE	2	044
C	N	A	12/24/81	REL-A	1	1088			CRYSTAL 1.31072MHZ	2	044
C	N	C	08/22/89	J67258	3	1088			IC-D/A CONVERTER	2	044
C	N	B	09/25/86	J54299	2	1088			IC-AMPLIFIER/DUAL OPERATIONAL	2	044
C	N	A	11/18/82	REL-A	2	1088			IC-OPERATIONAL AMPLIFIER	2	044
C	N	B	09/25/86	J54299	3	1088			IC-8 CHANNEL DATA SELECTOR	2	044
C	N	C	08/09/83	J37215	3	1088			IC-OCTAL-D-FLIP-FLOP	2	044
C	N	C	08/09/83	J37213	3	1088			IC-OCTAL-D-LATCH	2	044
C	N	B	09/25/86	J54299	3	1088			IC-DUAL 4-INPUT NOR GATE	2	044
C	N	A	12/14/82	REL-A	4	1088			IC-1024 BIT (256 X 4) RAM	2	044
C	N	B	09/18/86	J54294	1	1088			HEAT SINK	2	044

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12314895	C	N	A	10/27/81	REL-A	2	1088	RELAY, 2-POLE AC/DC	2	044
12314897	C	N	A	11/24/81	REL-A	5	1088	IC-ERASABLE 4K X 8 PROM	2	044
12314898	C	N	A	02/10/82	REL-A	1	1088	SCREW, CAPTIVE	2	044
12314899	C	N	B	09/18/86	J35294	1	1088	SOCKET, CONTACT	2	025
12314900	C	N	B	06/15/83	J35566	2	1088	CONNECTOR, ELECTRICAL	2	025
12314901	C	N	A	04/08/82	REL-A	2	1088	PRINTED CIRCUIT	2	025
12314902	C	N	A	11/03/82	REL-A	1	1088	CONNECTOR	2	025
12314903	C	N	A	11/18/82	REL-A	1	1088	BUSHING, LOCKING	2	025
12314904	C	N	A	12/22/82	REL-A	1	1088	LOCKING SCREW	2	025
12314905	C	N	A	02/25/82	REL-A	1	1088	KEY, LOCATING	2	025
12314907	C	N	A	05/04/82	REL-A	2	1088	CONNECTOR, ELECTRICAL	2	025
12314908	C	N	A	03/01/84	J37275	1	1088	CONNECTOR	2	025
12314909	C	N	B	09/18/86	J35294	1	1088	SOCKET, CONTACT	2	025
12314910	E	N	N	02/13/84	J37270	2	1088	FINAL MUX	2	044
PL 12314910	A	N	N	02/13/84	J37270	7	1088	CIRCUIT CARD ASSEMBLY	2	021
12314911	E	N	C	08/03/83	J37209	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314912	E	N	C	03/08/83	J33859	2	1088	SCH-FINAL MUX	2	034
12314913	D	N	A	02/08/82	REL-A	1	1088	PMB-FINAL MUX	2	265
12314917	E	N	D	08/10/83	J37224	1	1088	PLATE, HEAT SINK	2	029
PL 12314917	A	N	D	08/10/83	J37224	5	1088	COMPUTER NO.2	2	021
12314918	E	N	B	08/10/83	J37225	3	1088	CIRCUIT CARD ASSEMBLY	2	PLA
12314919	E	N	C	06/01/83	J35558	2	1088	FOR MC ONLY-HARD COPY N/A	2	034
12314920	A	N	B	02/18/83	J33839	1	1088	SCH-COMPUTER NO.2	2	265
PL 12314921	C	N	C	06/02/83	J35562	1	1088	MAGNETIC BUBBLE/PULSE	2	276
12314921	A	N	C	06/02/83	J35562	1	1088	GENERATOR MATCHED SET	2	021
12314925	C	N	A	05/04/82	REL-A	2	1088	IC-DRAM ASSEMBLY	2	PLA
12314926	C	N	A	04/08/82	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	025
12314927	C	N	A	04/08/82	REL-A	1	1088	CONNECTOR, ONE BUBBLE MEMORY	2	025
12314928	C	N	A	04/08/82	REL-A	1	1088	SOCKET CONTACT ASSEMBLY	2	025
12314929	C	N	A	12/02/82	REL-A	2	1088	IC-DRAM ASSEMBLY	2	044
12314930	C	N	A	12/17/82	REL-A	1	1088	IC-QUAD 2-INPUT/NOR GATE	2	044
12314931	C	N	A	12/17/82	REL-A	1	1088	RETAINER, SLIDING LOCK	2	025
12314932	C	N	A	12/17/82	REL-A	1	1088	POST, LOCK/SLIDING	2	025
12314933	C	N	B	09/18/86	J35294	1	1088	RETAINER, SOCKET	2	044
12314934	C	N	B	09/18/86	J35294	1	1088	SWITCH, 2-POSITION	2	025
12314935	C	N	A	12/09/82	REL-A	1	1088	PAO, MOUNTING	2	025
12314936	C	N	C	11/07/84	J43185	1	1088	SHIELDING GASKET, EMI/RFI	2	025
12314937	C	N	B	06/24/85	J47079	1	1088	GASKET, EMI/RFI	2	025
12314938	C	N	A	08/18/82	REL-A	5	1088	IC-UV ERASABLE 8K X 8 PROM	2	044
12314939	C	N	G	06/06/90	J76636	3	1088	IC-HIGH VOLTAGE MULTIPLIER	2	044
12314940	C	N	A	01/27/83	REL-A	7	1088	IC-64K-BIT DYNAMIC RAM	2	044
12314941	C	N	B	10/03/83	J37234	2	1088	SINGLE INLINE PACKAGE, 22 LEADS	2	025
12314942	C	N	F	03/01/85	J45328	5	1088	IC-129K(16K X 8)UV PROM	2	044
12314943	C	N	B	08/22/83	J37231	1	1088	CAPACITOR, CERAMIC CHIP	2	044
12314944	C	N	A	01/20/83	REL-A	3	1088	IC-RELAY DRIVER	2	044
12314945	C	N	B	04/01/83	J33881	1	1088	HEATER, BUBBLE MEMORY	2	044

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12314949	C	N	A	06/02/83	REL-A	2	1088	INTEGRATED CIRCUIT, OCTAL BUFFER/LINEDRIVER	2	044
12314950	C	N	A	06/06/83	REL-A	2	1088	IC-CMOS OCTAL D LATCH	2	044
12314951	A	N	B	09/18/86	J54295	1088	1088	PROBE CURRENT	2	025
12314952	E	N	E	11/23/82	J26959	2	1088	NEST ASSEMBLY, INTERFACE (BRAZED)	2	021
PL 12314952	A	N	E	11/23/82	J26959	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314953	D	N	B	08/12/83	J37227	1	1088	BRACKET CONNECTOR MOUNTING	2	029
12314954	D	N	C	04/16/83	J33894	2	1088	PANEL, FRONT (INTERFACE MODULE)	2	021
PL 12314954	A	N	C	04/16/83	J33894	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314955	D	N	B	04/07/83	J33893	1	1088	FRONT PANEL-MARKING DETAIL	2	265
12314956	D	N	C	12/01/82	J26969	1	1088	SNUBBER, MAIN FRAME	2	029
12314957	D	N	A	02/10/82	REL-A	1	1088	BRACKET, CONNECTOR MOUNTING	2	029
12314958	D	N	A	02/22/82	REL-A	1	1088	COVER, BOTTOM	2	029
12314959	D	N	B	12/01/82	J26970	1	1088	GUIDE	2	029
12314960	E	N	G	07/18/83	J35597	2	1088	INTERFACE MODULE ASSEMBLY	2	021
PL 12314960	A	N	G	07/18/83	J35597	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314961	E	N	F	11/23/82	J26960	2	1088	NEST ASSEMBLY, MAIN FRAME (BRAZED)	2	021
PL 12314961	A	N	F	11/23/82	J26960	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314962	D	N	C	11/18/82	J26961	1	1088	COVER, TOP, INTERFACE	2	021
PL 12314962	A	N	C	11/18/82	J26961	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314963	D	N	D	11/18/82	J26981	1	1088	EXTRACTOR (P.W. CARD)	2	029
12314964	E	N	B	11/18/82	J26962	1	1088	COVER, TOP, MAIN FRAME	2	021
PL 12314964	A	N	B	11/18/82	J26962	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314965	D	N	A	02/22/82	REL-A	1	1088	COVER, BOTTOM	2	029
12314966	D	N	A	02/22/82	REL-A	1	1088	HANDLE	2	021
12314967	D	N	A	02/22/82	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314968	D	N	A	02/10/82	REL-A	1	1088	PIN, GUIDE	2	029
12314969	C	N	A	02/10/82	REL-A	1	1088	PIN, GUIDE	2	029
12314970	E	N	C	04/20/83	J35512	1	1088	MEMORY MODULE ASSEMBLY	2	021
PL 12314970	A	N	C	04/20/83	J35512	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314971	E	N	E	06/15/83	J35571	2	1088	PANEL ASSEMBLY FRONT	2	021
PL 12314971	A	N	E	06/15/83	J35571	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314972	E	N	B	10/03/83	J37233	2	1088	LIQUID CRYSTAL DISPLAY 2 X 20 CHARACTERS	2	025
12314973	E	N	B	03/09/82	J26910	1	1088	COVER, I.R.U.	2	021
PL 12314973	A	N	B	03/09/82	J26910	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314974	E	N	F	06/30/83	J35570	1	1088	GUIDE ASSEMBLY MEMORY MODULE	2	021
PL 12314974	A	N	F	06/30/83	J35570	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314975	E	N	A	03/17/82	REL-A	1	1088	SUPPORT ASSEMBLY MEMORY MODULE	2	021
PL 12314975	A	N	A	03/17/82	REL-A	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314976	E	N	B	05/01/83	J35534	1	1088	SET COMMUNICATOR ASSEMBLY	2	021
PL 12314976	A	N	B	05/01/83	J35534	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314977	D	N	A	06/30/89	J72324	1	1088	CABLE ASSEMBLY (CX50)	2	277
PL 12314977	A	N	A	06/30/89	J72324	2	1088	CABLE ASSEMBLY (CX50)	2	PLA
12314979	D	N	B	04/07/83	J33888	1	1088	PANEL, FRONT-MARKING DRAWING	2	265

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12314980	C	N	A	03/23/82	REL-A	1	1088	GASKET, MEMORY MODULE	2	029
12314981	D	N	A	03/23/82	REL-A	1	1088	GASKET, INTERFACE MODULE	2	029
12314982	D	N	A	03/23/82	REL-A	1	1088	GASKET, TRANSIT CASE	2	029
12314983	D	N	A	03/23/82	REL-A	1	1088	GASKET, TRANSIT CASE	2	029
12314984	E	N	O	08/12/83	J37228	1	1088	CHASSIS ASSEMBLY	2	021
PL 12314984	A	N	D	08/23/83	J37228	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314985	C	N	B	05/04/82	J26926	1	1088	SPACER, PCB	2	029
12314986	D	N	A	03/16/82	REL-A	1	1088	RETAINER ASSEMBLY PCB	2	021
12314987	C	N	A	09/22/82	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12314988	E	N	D	07/21/83	J37200	1	1088	MEMORY MODULE-MARKING DWG	2	265
12314989	A	N	D	07/21/83	J37200	1	1088	TRANSIT CASE ASSY ACCESSORIES	2	021
PL 12314989	C	N	C	04/05/83	J33884	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314989	E	N	H	07/21/83	J37201	2	1088	STE-X ANALYZER SET, VEHICULAR	2	021
12314990	A	N	H	07/21/83	J37201	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314990	E	N	H	07/21/83	J37201	1	1088	TRANSIT CASE, ACCESSORIES	2	021
12314991	D	N	U	04/18/89	J67244	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314991	A	N	U	04/18/89	J67244	2	1088	CABLE ASSEMBLY CX150	2	277
12314992	D	N	L	03/10/89	J67234	2	1088	CABLE ASSEMBLY, (CX150)	2	PLA
PL 12314992	A	N	L	03/10/89	J67234	2	1088	TK CABLE ASSEMBLY (CX152)	2	277
12314993	D	N	K	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314993	A	N	K	09/30/86	J57502	2	1088	CABLE ASSY TK POWER (CX151)	2	277
12314994	D	N	B	04/21/83	J35514	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314994	A	N	B	04/21/83	J35514	2	1088	COVER, INTERFACE MODULE	2	021
12314995	D	N	B	04/21/83	J35515	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314995	A	N	B	04/21/83	J35515	1	1088	COVER, MEMORY MODULE	2	021
12314997	D	N	D	11/02/84	J43176	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314997	A	N	D	11/02/84	J43176	1	1088	ADAPTER (CA151)	2	277
12314998	D	N	E	05/09/83	J35543	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12314998	A	N	E	05/09/83	J35543	2	1088	ADAPTER (CA150)	2	021
12315004	E	N	C	05/05/83	J35540	26	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315005	A	N	C	05/05/83	J35540	26	1088	COVER ASSEMBLY (LAYOUT)	5	029
12315006	D	N	J	08/10/83	J37226	35	1088	WCL-INTERFACE MODULE	2	WLA
PL 12315006	A	N	J	08/10/83	J37226	35	1088	WCL-MAIN FRAME	2	277
12315008	E	N	L	06/06/90	J76626	2	1088	POWER CABLE (CX544)	2	277
12315009	E	N	A	05/03/82	REL-A	2	1088	POWER CABLE (CX544)	2	044
12315010	E	N	A	05/15/87	J61121	1	1088	TRANSIT CASE, LIGHTWEIGHT	2	029
12315011	E	N	A	02/26/88	J61180	1	1088	TRANSIT CASE, LIGHTWEIGHT	2	021
PL 12315011	E	N	A	08/02/82	REL-A	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315012	E	N	C	11/18/82	J26943	2	1088	LIQUID CRYSTAL DISPLAY	2	025
12315013	D	N	A	08/02/82	REL-A	2	1088	2 X 20 CHARACTERS	2	025
12315016	D	N	A	11/01/82	REL-A	1	1088	LCD DRIVER ASSEMBLY	2	025
12315017	E	N	J	04/12/83	J33891	5	1088	CONNECTOR LCD	2	029
PL 12315017	A	N	J	04/12/83	J33891	5	1088	CERAMIC BOARD, TEST	2	021
12315019	E	N	C	01/06/86	J49792	1	1088	HOUSING, SET COMMUNICATOR	2	PLA
PL 12315019	A	N	C	01/06/86	J49792	1	1088	FOR MC ONLY-HARD COPY N/A	2	021
12315019	E	N	C	01/06/86	J49792	1	1088	CHASSIS, SET COMMUNICATOR	2	021
PL 12315019	A	N	C	01/06/86	J49792	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA

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12315021	D	N	C	09/30/86	J57503	1	1088	PLATE, CONTENTS	2	029
12315022	D	N	F	09/30/86	J57503	1	1088	PLATE, CONTENTS	2	029
12315023	C	N	C	07/27/89	J72336	1	1088	CABLE, MULTICONDUCTOR SHIELDED*	2	025
12315024	C	N	E	01/31/89	J67229	1	1088	ADAPTER, STRAIGHT-SHIELDED*	2	025
12315025	D	N	A	11/16/82	REL-A	2	1088	PWB-LCD TEST ADAPTER	2	265
								SHEET 1 IS NOT RELEASED		
12315026	E	N	E	01/18/84	J37263	1	1088	DISPLAY ASSEMBLY	2	021
PL 12315026	A	N	E	01/18/84	J37263	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315028	E	N	B	02/01/83	J33816	1	1088	BEZEL	2	029
12315029	D	N	B	01/26/83	J33807	1	1088	MOUNT, LCD	2	029
12315030	D	N	C	07/11/84	J37295	1	1088	FOR MC ONLY-HARD COPY N/A	2	021
PL 12315030	A	N	C	07/11/84	J37295	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315031	E	N	D	01/31/84	J37264	1	1088	DISPLAY/COMPUTER ASSEMBLY	2	021
PL 12315031	A	N	D	01/31/84	J37264	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315032	D	N	C	01/26/83	J33811	2	1088	FLEXIBLE PW DRIVER BOARD	2	265
12315034	E	N	H	02/13/84	J37267	1	1088	CHASSIS ASSEMBLY	2	021
PL 12315034	A	N	G	10/04/83	J37236	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315035	E	N	D	01/11/84	J37256	1	1088	COVER ASSEMBLY	2	021
PL 12315035	A	N	C	09/06/83	J37232	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315036	E	N	J	01/06/86	J49754	1	1088	COVER, SET COMMUNICATOR*	2	021
PL 12315036	A	N	J	01/06/86	J49754	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315038	C	N	E	04/27/89	J67245	1	1088	GASKET, CHASSIS*	2	025
12315039	C	N	B	09/24/86	J54297	1	1088	GASKET, EMP	2	025
12315040	C	N	F	03/12/90	J76600	1	1088	HANDLE, SET COMMUNICATOR*	2	025
12315041	A	N	D	04/10/85	J47005	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12315041	C	N	D	04/10/85	J47005	1	1088	GASKET, COVER	2	029
12315042	C	N	B	10/27/83	J37244	1	1088	WINDOW, CONDUCTIVE	2	044
12315044	C	N	B	01/31/83	J33815	1	1088	COVER, BATTERY COMPARTMENT	2	029
12315045	C	N	B	10/27/83	J37243	1	1088	COVER	2	029
12315046	D	N	D	10/13/83	J37239	1	1088	CHASSIS	2	029
12315047	D	N	C	10/26/83	J37240	1	1088	PROTOTYP	2	025
12315050	C	N	C	04/12/83	J35503	1	1088	HEATER, LCD	2	044
12315055	C	N	C	04/03/86	J39919	1	1088	STRAP, CONNECTOR	2	029
12315057	A	N	B	10/03/86	J37910	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
PL 12315057	C	N	B	10/03/86	J37910	1	1088	STRAP, WEAVING, ASSEMBLY*	2	021
12315058	C	N	B	10/03/86	J37511	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315059	A	N	B	10/03/86	J37911	1	1088	INSERT, COVER*	2	029
12315060	B	N	A	02/14/83	REL-A	1	1088	PAINTING, RIBBER*	2	029
12315061	E	N	C	10/06/86	J37507	1	1088	LIQUID CRYSTAL DISPLAY	2	025
12315062	E	DN	A	12/07/82	REL-A	2	1088	2 X 20 CHARACTERS	2	025
12315063	C	N	B	09/29/86	J54297	1	1088	SPACER	2	029
12315064	E	N	C	03/15/83	J33860	3	1088	LCD LAMPS FLEXIBLE PW	2	265
12315065	C	N	A	12/21/82	REL-A	1	1088	CLIP, FLEXIBLE CABLE	2	029
12315066	C	N	F	07/27/89	J72341	1	1088	SCH, SET-COM CHASSIS	2	034
12315067	C	N	C	10/30/86	J37531	1	1088	SCH, SET-COM COVER	2	034
12315068	C	N	A	01/26/83	REL-A	1	1088	BATTERY, LITHIUM	2	025
12315069	A	N	B	06/30/83	J35588	2	1088	SCREW, FLAT HEAD*	2	268

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L	TYPE	DESCRIPTION	ECN	REV	DATE	ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE
12315010	C	1088 B001-HEAT-SHRINKABLE	1088	06/02/88	J66504	???	???	???	???	1088 B001-HEAT-SHRINKABLE	2	025
12315011	E	2 1088 LIQ XTAL DISPLAY 2X30 CHAR	2	1088	LIQ XTAL DISPLAY 2X30 CHAR	5	025			2 1088 LIQ XTAL DISPLAY 2X30 CHAR	5	025
12315012	E	2 1088 LCD DRIVER ASSY 30 CHAR DSPL	2	1088	LCD DRIVER ASSY 30 CHAR DSPL	5	025			2 1088 LCD DRIVER ASSY 30 CHAR DSPL	5	025
12315013	D	2 1088 ADAPTER CAL52	2	1088	ADAPTER CAL52	2	021			2 1088 ADAPTER CAL52	2	021
PL 12315013	A	1088 FOR MC ONLY-HARD COPY N/A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA			1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12315014	C	1088 TEST UNIT ASSEMBLY	1	1088	TEST UNIT ASSEMBLY	2	021			1088 TEST UNIT ASSEMBLY	2	021
PL 12315014	A	1088 FOR MC ONLY-HARD COPY N/A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA			1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12315015	C	4 1088 POWER MODULE	4	1088	POWER MODULE	2	044			4 1088 POWER MODULE	2	044
12315016	D	1 1088 COVER, BATTERY COMPARTMENT	1	1088	COVER, BATTERY COMPARTMENT	5	029			1 1088 COVER, BATTERY COMPARTMENT	5	029
12315017	E	10 1088 PWB-TWO BUBBLE MEMORY	10	1088	PWB-TWO BUBBLE MEMORY	2	059			10 1088 PWB-TWO BUBBLE MEMORY	2	059
12315018	E	10 1088 PWB-ONE BUBBLE MEMORY	10	1088	PWB-ONE BUBBLE MEMORY	2	059			10 1088 PWB-ONE BUBBLE MEMORY	2	059
12315019	E	2 1088 SCH-LCD DRIVER 30 CHARACTER DISPLAY	2	1088	SCH-LCD DRIVER 30 CHARACTER DISPLAY	2	034			2 1088 SCH-LCD DRIVER 30 CHARACTER DISPLAY	2	034
12315020	D	1 1088 LABEL, CONTENTS	1	1088	LABEL, CONTENTS	2	029			1 1088 LABEL, CONTENTS	2	029
12315021	C	1 1088 BRACKET, HEATER/BOTTOM	1	1088	BRACKET, HEATER/BOTTOM	2	029			1 1088 BRACKET, HEATER/BOTTOM	2	029
12315022	C	1 1088 BRACKET, HEATER/TOP	1	1088	BRACKET, HEATER/TOP	2	029			1 1088 BRACKET, HEATER/TOP	2	029
12315023	C	1 1088 WINDOW	1	1088	WINDOW	2	029			1 1088 WINDOW	2	029
12315024	D	1 1088 SETCOM INTERCONNECTION DIAGRAM	1	1088	SETCOM INTERCONNECTION DIAGRAM	2	029			1 1088 SETCOM INTERCONNECTION DIAGRAM	2	029
12315025	C	1 1088 SET-COMMUNICATOR ASSEMBLY	1	1088	SET-COMMUNICATOR ASSEMBLY	2	021			1 1088 SET-COMMUNICATOR ASSEMBLY	2	021
12315026	C	7 1088 IC-BU888 MEMORY CONTROLLER	7	1088	IC-BU888 MEMORY CONTROLLER	2	PLA			7 1088 IC-BU888 MEMORY CONTROLLER	2	PLA
12315027	C	2 1088 IC-CMOS LOGIC BUFFER	2	1088	IC-CMOS LOGIC BUFFER	2	044			2 1088 IC-CMOS LOGIC BUFFER	2	044
12315028	C	4 1088 INTEGRATED CIRCUIT, CURRENT PULSE GENERATOR	4	1088	INTEGRATED CIRCUIT, CURRENT PULSE GENERATOR	2	044			4 1088 INTEGRATED CIRCUIT, CURRENT PULSE GENERATOR	2	044
12315029	C	5 1088 INTEGRATED CIRCUIT, SENSE AMPLIFIER	5	1088	INTEGRATED CIRCUIT, SENSE AMPLIFIER	2	044			5 1088 INTEGRATED CIRCUIT, SENSE AMPLIFIER	2	044
12315030	C	3 1088 INTEGRATED CIRCUIT, QUAD 2 INPUT NOR GATE	3	1088	INTEGRATED CIRCUIT, QUAD 2 INPUT NOR GATE	2	044			3 1088 INTEGRATED CIRCUIT, QUAD 2 INPUT NOR GATE	2	044
12315031	C	5 1088 FOUR MEGABIT BUBBLE MEMORY	5	1088	FOUR MEGABIT BUBBLE MEMORY	2	044			5 1088 FOUR MEGABIT BUBBLE MEMORY	2	044
12315032	C	4 1088 INTEGRATED CIRCUIT, OCTAL BUFFER/DRIVER	4	1088	INTEGRATED CIRCUIT, OCTAL BUFFER/DRIVER	2	044			4 1088 INTEGRATED CIRCUIT, OCTAL BUFFER/DRIVER	2	044
12315033	C	2 1088 IC-CMOS GUARD 2 INPUT OR GATE	2	1088	IC-CMOS GUARD 2 INPUT OR GATE	2	044			2 1088 IC-CMOS GUARD 2 INPUT OR GATE	2	044
12315034	C	5 1088 IC-CMOS MULTIPLYING DAC	5	1088	IC-CMOS MULTIPLYING DAC	2	044			5 1088 IC-CMOS MULTIPLYING DAC	2	044
12315035	C	2 1088 IC-CMOS HEX SCHMITT TRIGGER	2	1088	IC-CMOS HEX SCHMITT TRIGGER	2	044			2 1088 IC-CMOS HEX SCHMITT TRIGGER	2	044
12315036	C	9 BIT PARITY GENERATOR	9	1088	INTEGRATED CIRCUIT, 9 BIT PARITY GENERATOR	2	044			9 BIT PARITY GENERATOR	2	044
12315037	C	QUAD COMPARATOR	2	1088	INTEGRATED CIRCUIT, QUAD COMPARATOR	2	044			QUAD COMPARATOR	2	044
12315038	C	2 1088 INTEGRATED CIRCUIT, J-K FLIP FLOP	2	1088	INTEGRATED CIRCUIT, J-K FLIP FLOP	2	044			2 1088 INTEGRATED CIRCUIT, J-K FLIP FLOP	2	044
12315039	C	3 1088 RESISTOR NETWORK	3	1088	INTEGRATED CIRCUIT, RESISTOR NETWORK	2	044			3 1088 RESISTOR NETWORK	2	044
12315040	C	2 1088 INTEGRATED CIRCUIT, HEX 2-INPUT NOR GATE	2	1088	INTEGRATED CIRCUIT, HEX 2-INPUT NOR GATE	2	044			2 1088 INTEGRATED CIRCUIT, HEX 2-INPUT NOR GATE	2	044
12315041	C	3 1088 INTEGRATED CIRCUIT, OPERATIONAL AMPLIFIER	3	1088	INTEGRATED CIRCUIT, OPERATIONAL AMPLIFIER	2	044			3 1088 INTEGRATED CIRCUIT, OPERATIONAL AMPLIFIER	2	044
12315042	C	4 1088 IC, 8K X 8 STATIC RAM	4	1088	IC, 8K X 8 STATIC RAM	2	044			4 1088 IC, 8K X 8 STATIC RAM	2	044

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12315125	C	N	A	08/19/83	REL-A	2	1088	INTEGRATED CIRCUIT	2	044
12315126	C	N	A	08/16/83	REL-A	1	1088	CAPACITOR, VARIABLE	2	044
12315127	C	N	A	11/17/86	J57547	2	1088	IC, DUAL, SPDT, ANALOG GATE	2	044
12315130	C	N	B	09/25/86	U54298	2	1088	INTEGRATED CIRCUIT	2	044
12315131	C	N	E	06/12/89	J67248	4	1088	DUAL OPST ANALOG GATE	2	044
12315132	A	N	B	09/25/86	J54299	2	1088	IC, 32K, 4K, 1K, 8 PROM	2	044
12315133	C	N	C	07/11/86	J54237	2	1088	PERRITE BEAD	2	044
12315134	C	N	D	06/02/88	J66505	2	1088	IC, DUAL DRIVER	2	044
12315135	C	N	C	02/23/89	J67231	3	1088	CRYSTAL UNIT, QUARTZ	2	025
12315136	C	N	B	08/28/86	J54286	6	1088	MOS, OCTAL LATCH	2	044
12315137	A	N	A	06/07/84	REL-A	2	1088	IC, CMOS, 3 TO 10 LINE DECODER	2	044
12315138	C	N	B	07/29/86	J54258	3	1088	IC, CMOS, OCTAL BUFFER	2	044
12315139	A	N	A	05/22/84	REL-A	2	1088	IC, DUAL OPERATIONAL AMPLIFIER	2	044
12315140	C	N	D	02/23/89	J67232	2	1088	IC, CMOS, 1 OF 8 DECODER	2	044
12315141	C	N	C	09/24/86	J54297	2	1088	IC, CMOS, QUARD 2 INP NAND GATE	2	044
12315142	C	N	C	09/24/86	J54297	3	1088	IC, CMOS, DUAL 4 BIT COUNTER	2	044
12315143	C	ON	C	09/24/86	J54297	2	1088	IC, CMOS, 1 OF 8 DECODER	2	044
12315144	A	N	A	05/31/84	REL-A	2	1088	IC, MOS DRIVER	2	044
12315145	A	N	A	05/31/84	REL-A	2	1088	IC, VOLTAGE REGULATOR	2	044
12315146	B	DN	C	09/24/86	J54297	2	1088	IC, VOLTAGE REGULATOR	2	044
12315147	C	N	E	06/02/88	J66506	2	1088	IC, VOLTAGE REGULATOR	2	044
12315148	C	N	J	11/30/89	J67289	1	1088	MARKER, CABLE	2	029
12315149	C	N	C	08/29/89	J67283	2	1088	MARKER, CABLE	2	029
12315150	E	N	B	05/13/83	J35549	2	1088	TRANSIT CASE/HOUSING T.S.C.	2	029
12315151	E	N	A	06/25/83	REL-A	1	1088	TRANSIT CASE T.S.C.	2	044
12315152	A	N	B	08/17/84	J43104	3	1088	EPONY, CONDUCTIVE	2	025
12315153	A	N	A	06/20/83	REL-A	2	1088	PLASTAZOTE	2	025
12315154	C	N	A	09/14/84	REL-A	1	1088	ANALYZER SET VEHICULAR	2	029
12315155	E	N	A	09/18/84	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315156	A	N	J	03/12/87	J57591	2	1088	TEST UNIT	2	021
12315157	E	N	J	03/12/87	J57591	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315158	E	N	AP	03/09/87	J57582	2	1088	MAIN FRAME ASSEMBLY	2	029
12315159	A	N	AP	03/09/87	J57582	5	1088	MAIN FRAME ASSEMBLY	2	PLA
12315160	E	DN	H	04/02/86	J49792	1	1088	TRANSIT CASE ASSY, ACCESSORIES	2	029
12315161	A	N	H	04/02/86	J49792	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315162	E	N	L	03/30/87	J57599	1	1088	COMPUTER CIRCUIT CARD ASSY	2	021
12315163	E	N	F	07/11/86	J54238	6	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315164	E	N	F	07/11/86	J54238	9	1088	SCH, STE-X-CPU BOARD	2	029
12315165	E	N	E	07/24/85	J48614	2	1088	PWB, COMPUTER	2	059
12315166	E	N	R	03/16/87	J57592	2	1088	INTERFACE MODULE ASSEMBLY	2	021
12315167	A	N	R	03/16/87	J57592	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315168	E	N	J	04/29/88	J67202	1	1088	SPECIAL FUNCTIONS CCA	2	021
12315169	A	N	J	04/29/88	J67202	5	1088	CCA, SPECIAL FUNCTIONS N/A	2	PLA
12315170	E	N	E	08/14/86	J54273	2	1088	SCH, SPECIAL FUNCTIONS	2	034
12315171	E	N	F	10/27/88	J67227	2	1088	PWB-SPECIAL FUNCTIONS	2	059
12315172	E	DN	G	08/10/88	J65293	3	1088	TRANSIT CASE WITH INSERT	2	029
12315173	A	N	G	08/10/88	J65293	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315174	E	N	L	04/29/88	J67201	1	1088	IRU DRIVE CIRCUIT CARD ASSY	2	021

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PL 12315195	A	N	L	04/29/88	J67201	4	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315196	D	N	B	05/23/85	J47041	2	1088	SCH-IRU DRIVE	2	034
12315197	E	N	D	10/27/88	J67227	2	1088	PWB-IRU DRIVE	2	029
12315198	E	N	-	?????	?????	2	1088	LIQUID CRYSTAL DISPLAY	5	025
								2 X 30 CHARACTERS		
12315199	D	N	A	08/17/83	REL-A	1	1088	BOARD PULLER, MAINFRAME	2	029
12315200	D	N	A	08/17/83	REL-A	1	1088	BOARD PULLER, INTERFACE	2	029
12315201	C	N	B	09/24/86	J54297	2	1088	IC-RMS-TO-DC-CONVERTER	2	044
12315202	C	N	E	09/24/86	J54297	2	1088	IC-BIFET OPERATIONAL AMPL	2	044
12315203	C	N	B	09/24/86	J54297	1	1088	IC-2-5 VOLTS REGULATOR	2	044
12315205	C	N	D	04/14/87	J61107	1	1088	CRYSTAL QUARTZ	2	025
12315206	C	N	B	06/02/88	J66509	2	1088	IC-PHOTON COUPLED ISOLATOR	2	044
12315207	C	N	A	12/14/82	REL-A	3	1088	IC-LCD DRIVER	2	044
12315208	C	N	E	06/04/87	J61127	4	1088	IC-16K BIT-RAM	2	044 (F-J76641)
12315209	C	N	C	07/16/86	J54254	3	1088	IC-CHOS A/D CONVERTER	2	044
12315210	C	N	A	09/21/82	REL-A	2	1088	IC-VOLTAGE COMPARATOR	2	044
12315211	C	N	A	11/01/82	REL-A	4	1088	IC-16K UV ERASABLE PROM	2	044
12315212	C	N	-	?????	?????	2	1088	TRANSISTOR, FET/N CHANNEL	5	044
12315213	C	N	D	02/14/86	J49775	4	1088	IC-OCIAL LATCH/DRIVER	2	044
12315214	C	N	C	11/19/84	J43680	2	1088	PHOTON COUPLED ISOLATOR	2	044
12315215	C	N	B	09/24/86	J54297	3	1088	IC-CHOS-BCD TO DECIMAL CONV	2	044
12315216	C	N	A	09/21/82	REL-A	3	1088	IC-CHOS, DUAL D FLIP FLOP	2	025
12315217	C	N	B	06/06/84	J37287	5	1088	IC-8 BIT MICROCOMPUTER	2	044
12315218	C	N	C	02/03/88	J61171	2	1088	IC-DUAL VOLTAGE COMPARATOR	2	044
12315219	C	N	A	09/21/82	REL-A	2	1088	TRANSISTOR, NPN	2	044
12315220	C	N	C	09/25/86	J54298	1	1088	SEMICONDUCTOR DEVICE, DIODE	2	044
12315221	E	DN	H	10/30/84	J43169	2	1088	CIRCUIT CARD ASSEMBLY COMPUTER2 021	2	PLA
12315222	E	DN	F	10/30/84	J43171	2	1088	FOR MC ONLY-HARD COPY N/A	2	034
12315223	E	N	B	02/01/84	J37262	2	1088	SCH-COMPUTER	1	265
								PWB-COMPUTER		
								INACTIVE		
12315224	E	DN	H	02/29/84	J37274	1	1088	CIRCUIT CARD ASSEMBLY DMH	1	021
								INACTIVE		
PL 12315224	A	N	H	02/29/84	J37274	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12315225	E	N	F	01/31/84	J37259	1	1088	SCH-DMH	2	034
12315226	E	DN	D	04/12/83	J35501	9	1088	PWB-DMH	1	265 (E-J37235) (F-J37254) (G-J37258)
								INACTIVE		
12315227	C	N	-	?????	?????	3	1088	IC-CHOS, 5 STAGE JOHNSON COUNTER	5	044
12315228	C	N	B	02/29/84	J37273	1	1088	RESISTOR, FIXED, WIREWOUND	2	044
12315229	C	N	C	03/27/86	J49790	1	1088	CONVERTER DC-DC	2	025
12315230	C	N	F	07/12/90	J76644	1	1088	CONNECTOR, ELECTRICAL	2	025
								SPECIAL PURPOSE		
12315231	C	N	C	07/25/89	J67252	1	1088	CONNECTOR	2	025 (D-J76643)
12315232	C	N	F	07/12/90	J76645	1	1088	CONNECTOR, P.C. BOARD	2	025
12315233	C	N	D	07/23/87	J61175	1	1088	CONNECTOR, PC BOARD	2	025
12315234	C	N	F	01/11/84	J37255	3	1088	KEYBOARD	2	025
12315235	C	N	M	04/14/87	J61109	1	1088	CLIP, BATTERY	2	025
12315236	C	N	C	09/24/86	J54297	1	1088	SOCKET STRIP	2	025

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12315237	C	N	A	03/16/89	J67236	1 1088 SOCKET STRIP	2	025
12315238	C	N	C	09/25/88	J54298	1 1088 TERMINAL STRIP	2	025
12315239	C	N	E	07/12/90	J76649	1 1088 NETWORK RESISTOR	2	044
12315240	C	N	A	10/27/82	REL-A	1 1088 NETWORK RESISTOR	2	044
12315241	C	N	A	11/01/92	REL-A	2 1088 IC-PROGRAMMABLE OPERATIONAL AMPLIFIER	2	044
12315242	C	N	A	10/13/82	REL-A	1 1088 CAPACITOR, FIXED-POLYPROPYLENE	2	044
12315243	C	N	C	03/06/86	J49782	1 1088 CAPACITOR, FIXED-POLYPROPYLENE	2	044
12315244	C	N	A	10/13/82	REL-A	1 1088 CLIP, FUSE	2	025
12315245	C	N	E	09/24/86	J54297	1 1088 PIN, CONTACT	2	025
12315246	C	N	A	11/22/82	REL-A	1 1088 PIN, RECEPTACLE	2	025
12315247	C	N	A	10/26/82	REL-A	1 1088 THERMISTOR, NTC	2	044
12315248	C	N	A	11/02/82	REL-A	1 1088 THERMISTOR, NTC	2	025
12315249	C	N	C	09/25/86	J54297	1 1088 THERMISTOR, NTC	2	025
12315250	C	N	B	03/27/86	J49789	1 1088 SWITCH, PUSHBUTTON (SPDT)	2	025
12315251	C	N	A	12/17/82	REL-A	4 1088 IC-CMOS, 4 CHANNEL MULTIPLEXER	2	044
12315252	C	N	A	11/18/82	REL-A	1 1088 TERMINAL INSULATED	2	025
12315253	C	N	A	10/03/86	J57506	1 1088 RUBBER SPONGE ADHESIVE BACKED	2	025
12315254	C	N	B	09/30/86	J57503	3 1088 COMPOUND MOLDING/ARS	2	025
12315255	C	N	B	07/27/89	J67254	2 1088 CONDUCTIVE COATING, SET COMM	2	025
12315256	C	N	A	01/06/83	REL-A	3 1088 ADHESIVE, CONDUCTIVE	2	025
12315257	C	N	M	02/16/90	J76610	3 1088 KEYBOARD, 4 X 5 MATRIX	2	025
12315258	C	N	E	02/27/89	J68926	1 1088 INTEGRATED CIRCUIT, CMOS 4X8 UV PROM	2	044
12315259	C	N	A	01/06/83	REL-A	1 1088 WIRE, EIGHT HEIGHT/1000 VOLT	2	025
12315260	C	N	B	09/30/86	J57503	1 1088 SURFACE FINISH, MOLDED	2	026
12315261	C	N	A	03/23/83	REL-A	1 1088 CAPACITOR, FIXED POLYPROPYLENE	2	025
12315262	C	N	A	06/16/83	REL-A	2 1088 IC-OPERATIONAL AMPLIFIER	2	044
12328450	C	N	B	03/12/87	J53993	5 1088 IC, 256K(32KX8)UV PROM	2	044
12328464	D	N	A	11/07/85	REL-A	1 1088 BRACKET ASSEMBLY	2	029
12335564	C	N	A	11/06/85	REL-A	1 1088 BRACKET ASSEMBLY	2	PLA
12335565	C	N	B	12/15/83	J37250	1 1088 MASK, WINDOW	2	029
12335569	C	N	-	727277	727277	1 1088 GASKET, COVER	5	029
12335569	D	N	C	09/30/86	J57502	2 1088 CABLE ASSEMBLY CX304	2	277
12335570	A	N	C	09/30/86	J57502	2 1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335570	D	N	B	09/30/86	J57502	2 1088 CABLE ASSEMBLY CX305	2	277
12335571	A	N	B	09/30/86	J57502	2 1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335571	D	N	C	09/30/86	J57502	2 1088 CABLE ASSEMBLY CX307	2	277
12335572	A	N	C	09/30/86	J57502	2 1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335572	D	N	C	09/30/86	J57502	2 1088 CABLE ASSEMBLY CX308	2	277
12335573	A	N	C	09/30/86	J57502	2 1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335573	D	N	C	10/03/86	J57505	2 1088 CABLE ASSEMBLY CX309	2	277
12335574	A	N	C	10/03/86	J57505	2 1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335574	E	N	A	05/11/90	J76623	1 1088 CIRCUIT CARD ASSY STE-ICE-FEM2	021	
12335575	A	N	R	05/11/90	J76623	6 1088 CCA, STE-ICE FUNCTION	2	PLA
12335575	E	DN	K	11/09/89	J67279	5 1088 SCH-STE/ICE FUNCTION	2	034
12335576	E	DN	G	11/16/89	J67286	2 1088 PWB-STE/ICE FUNCTION	2	059
12335577	E	N	M	05/11/90	J76623	1 1088 CIRCUIT CARD ASSY INPUT MUX	2	021
12335577	A	N	M	05/11/90	J76623	3 1088 FOR MC ONLY-HARD COPY N/A	2	PLA

PREFIX	DRAWING NUMBER	SIZE	DWGS	REV	DATE	ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING	ECNS
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12335578	E	N	J	11/09/89	J67280	2	1088	SCH-INPUT: MUX	2	034			
12335579	E	N	D	10/27/88	J67227	2	1088	PMB-INPUT: MUX	2	029			
12335580	E	N	AK	06/22/90	J76640	2	1088	CIRCUIT CARD ASSY FINAL MUX	2	021	(AL-J76649)		
12335581	A	N	AK	06/22/90	J76640	9	1088	CCA, FINAL MUX ASSY, FINAL MUX	2	PLA	(AL-J76649)		
12335582	E	N	J	11/09/89	J67282	4	1088	SCH-FINAL: MUX	2	034			
12335583	E	N	M	11/16/89	J67287	2	1088	PMB-FINAL: MUX	2	059			
12335584	D	N	-	??????	??????	1	1088	PANEL ASSEMBLY, FRONT	5	021			
12335585	D	N	-	??????	??????	1	1088	GASKET, FRONT PANEL	5	029			
12335586	C	N	-	??????	??????	1	1088	PANEL, FRONT (INTERFACE MODULE)	5	021			
12335587	C	N	-	??????	??????	1	1088	MARKING DRWG MEMORY MODULE	5	029			
12335588	E	N	-	??????	??????	1	1088	MARKING DRWG INTERFACE MODULE	5	029			
12335589	E	N	-	??????	??????	1	1088	GUIDE ASSY, MEMORY MODULE	5	021			
12335590	E	N	-	??????	??????	1	1088	CHASSIS ASSY, MEMORY MODULE	5	021			
12335591	C	N	-	??????	??????	3	1088	TEST UNIT	5	021			
12335596	C	N	A	06/27/83	REL-A	1	1088	GASKET MEMORY MODULE	5	029			
12335606	D	N	B	11/29/83	J37503	1	1088	STIFFENER	2	029			
						1	1088	VARIABLE RELUCTANCE SENSOR (ELECTRICAL)	2	034			
12335609	E	N	F	07/24/84	J37296	2	1088	TRANSIT CASE/HOUSING TSC (HD)	2	044			
12335613	C	N	C	05/01/86	J49796	1	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	021			
12335614	A	N	C	05/01/86	J49796	1	1088	FOR M/C ONLY-HARD COPY N/A	2	PLA			
12335615	C	N	A	11/05/84	REL-A	1	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	021			
12335616	C	N	A	11/02/84	REL-A	1	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	021			
12335617	C	N	A	11/05/84	REL-A	1	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	021			
12335618	C	N	A	11/02/84	REL-A	1	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	PLA			
12335621	A	N	A	11/05/84	REL-A	1	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	021			
12335622	E	N	E	10/30/84	J43170	2	1088	CONNECTOR ASSEMBLY, ELECTRICAL	2	PLA			
12335623	E	N	E	10/30/84	J43170	4	1088	CIRCUIT CARD ASSY COMPUTER	2	029			
12335624	E	N	D	10/19/84	J43160	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA			
12335625	E	DN	C	10/16/84	J43157	2	1088	SCH-COMPUTER	2	034			
12335626	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335627	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335628	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335629	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335630	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335631	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335632	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335633	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335634	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335635	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335636	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335637	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335638	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335639	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335640	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335641	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335642	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335643	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335644	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335645	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335646	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335647	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335648	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335649	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335650	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335651	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335652	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335653	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335654	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335655	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335656	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335657	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335658	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335659	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335660	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335661	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335662	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335663	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335664	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335665	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335666	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335667	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335668	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335669	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335670	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335671	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335672	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335673	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335674	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335675	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335676	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335677	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335678	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335679	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335680	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335681	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335682	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335683	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335684	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335685	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335686	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335687	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335688	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335689	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335690	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335691	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335692	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335693	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335694	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335695	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335696	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335697	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335698	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335699	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335700	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335701	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335702	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335703	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335704	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			
12335705	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	034			
12335706	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	059			
12335707	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	029			
12335708	E	N	C	10/16/84	J43157	2	1088	PMB-COMPUTER	2	PLA			

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OUTSTANDING ECNS

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PL 12335650	A	N	G	06/03/88	J66569	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335651	C	N	B	08/04/88	J66529	1	1088	GASKET	2	029
12335652	D	N	C	06/03/88	J66570	1	1088	SUPPORT ASSEMBLY-SWITCH BANK	2	021
PL 12335653	A	N	C	06/03/88	J66570	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335654	D	N	B	05/29/87	J60721	1	1088	SILK SCREEN-COVER ASSY,GUN SIM	2	029
12335655	C	N	R	07/29/88	J66531	1	1088	GUARD-CIRCUIT BREAKER	2	029
12335656	C	N	A	07/31/84	REL-A	1	1088	GASKET-CIRCUIT BREAKER	2	029
12335657	E	N	L	05/31/89	J72308	1	1088	CHASSIS ASSY,GUN SIMULATOR	2	021
PL 12335658	A	N	L	05/31/89	J72308	2	1088	CHASSIS ASSY,GUN SIMULATOR	2	PLA
12335659	C	N	C	06/02/88	J66532	1	1088	ENCLOSURE	2	025
12335660	C	N	A	07/31/84	REL-A	1	1088	GRASPER/LATCH ASSEMBLY	2	021
12335661	C	N	A	08/07/84	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335662	C	N	A	07/31/84	REL-A	1	1088	ANCHOR PLATE	2	029
12335663	C	N	C	07/29/88	J66533	2	1088	ACOUSTICAL INDICATOR	2	025
12335664	C	N	D	07/29/88	J66534	2	1088	CIRCUIT BREAKER WITH SEAL	2	025
12335665	C	N	B	10/27/87	J61160	1	1088	CONNECTOR-ELECTRICAL	2	025
12335666	C	N	A	10/30/84	REL-A	1	1088	KEY-POLARIZING	2	025
12335667	D	N	A	07/31/84	REL-A	1	1088	STRAP ASSEMBLY	2	021
PL 12335668	A	N	A	08/07/84	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335669	C	N	B	06/02/88	J66535	1	1088	BUMPER PAD	2	029
12335670	C	N	D	07/29/88	J66536	2	1088	SWITCH,LIGHTED PB AND INDICATOR	2	025
12335671	C	N	E	07/29/88	J66537	2	1088	CONNECTOR,INPUT/OUTPUT 30 PIN	2	025
12335672	C	N	D	06/02/88	J66538	2	1088	CONNECTOR,INPUT/OUTPUT 60 PIN	2	025
12335673	C	N	D	06/02/88	J66538	2	1088	CONNECTOR,INPUT/OUTPUT 60 PIN	2	025
12335674	D	N	F	06/10/87	J61128	1	1088	BRACKET-ASSEMBLY	2	021
PL 12335675	A	N	F	06/10/87	J61128	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335676	C	N	C	01/24/86	J49761	1	1088	PIN GUIDE	2	029
12335677	E	N	H	09/25/86	J54299	2	1088	CHASSIS ASSEMBLY MEMORY MODULE	2	021
12335678	A	N	G	09/12/86	J54291	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335679	C	N	A	08/13/84	REL-A	2	1088	GUIDE	2	025
12335680	C	N	A	09/14/84	REL-A	2	1088	WASHER	2	025
12335681	C	N	P	12/17/89	J61209	1	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335682	C	N	E	06/13/88	J61210	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335683	C	N	A	06/08/88	J61210	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335684	A	N	B	10/22/84	J61210	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335685	C	N	E	12/06/89	J61210	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335686	C	N	D	09/10/87	J61143	3	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335687	C	N	B	08/28/86	J54287	3	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335688	C	N	E	06/06/90	J61210	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335689	C	N	D	12/04/89	J61210	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335690	A	N	B	11/06/84	J43180	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335691	C	N	C	09/24/86	J54291	3	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335692	C	N	E	08/28/88	J54288	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335693	C	N	B	11/11/86	J57546	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335694	C	N	C	06/11/87	J61137	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335695	A	N	A	06/19/84	REL-A	2	1088	DUAL DIODE	2	044
12335696	C	N	C	09/25/86	J54298	2	1088	TC-18-DUAL MICROCOMPUTER	2	044
12335697	C	N	D	02/20/90	J74608	3	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335698	C	N	C	09/25/86	J54298	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335699	C	N	B	09/25/86	J54298	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044
12335700	C	N	M	09/25/86	J54298	2	1088	IC,CMOS,OCAL-BUS TRANSCEIVER	2	044

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OUTSTANDING ECNS

PREFIX	DRAWING NUMBER	SIZE	DWGS	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE
12335701									IC, 10V REFERENCE	2	044
12335702									IC, OPERATIONAL AMPLIFIER	2	044
12335703									RESISTOR NETWORK	2	044
12335704									BUBBLE MEMORY, 1 MBIT	2	044
12335705									IC, CURRENT PULSE GENERATOR	2	044
12335706									IC-BUBBLE MEMORY CONTROLLER	2	044
12335707									IC, CMOS, DIGITAL BUFFER	2	044
12335708									CONNECTOR, ELECTRICAL (HTHBC)	2	025
12335709									CONN. ELECTRICAL (MOTHER BOARD)	2	025
12335710									CONN. ELEC (INPUT/OUTPUT)	2	025
12335711									CONNECTOR, ELECTRICAL (CKT CD)	2	025
12335712									IC, 8-BIT MICROCOMPUTER	2	044
12335713									MAGNETIC BUBBLE/PULSE GEN.	2	276
12335714									MATCHSET	2	044
12335715									TRANSISTOR, MOS, FET	2	044
12335716									TRANSISTOR, FET, N-CHANNEL	2	044
12335717									RESISTOR NETWORK	2	044
12335718									IC, CMOS, QUAD 2 INPUT NOR GATE	2	044
12335719									RESISTOR, FIXED, FILM	2	044
12335720									FERRITE BEAD	2	025
12335721									IC-HEX 2 INPUT DRIVER	2	044
12335722									IC, CMOS, 4PL 3 INPUT NAND GATE	2	044
12335723									IC, MOS DRIVER	2	044
12335724									CONNECTOR/PIN (PCB TYPE)	2	025
12335725									CONTACT, ELECTRICAL	2	025
12335726									CONNECTOR/Socket (PCB TYPE)	2	025
12335727									CONTACT, ELECTRICAL	2	025
12335728									CONNECTOR/Socket (CONTACTS)	2	029
12335729									CONNECTOR (LESS CONTACTS)	2	025
12335730									IC, MOS LATCH DRIVER	2	044
12335731									IC, CMOS, 110KX10V PROM	2	044
12335732									CCA, SINGLE BUBBLE MEMORY	2	021
12335733									CIRCUIT CARD MEMORY	2	021
12335734									FOR MC ONLY-HARD COPY N/A	2	PLA
12335735									SCH, ONE BUBBLE MEMORY	2	029
12335736									PWB, ONE BUBBLE MEMORY	2	059
12335737									CCA, 3 BUBBLE MEMORY	2	021
12335738									CIRCUIT CARD ASSEMBLY	2	021
12335739									FOR MC ONLY-HARD COPY N/A	2	PLA
12335740									SCH, THREE BUBBLE MEMORY	2	029
12335741									PWB, THREE BUBBLE MEMORY	2	265
12335742									LATCH	2	025
12335743									RIVET	2	025
12335744									MEMORY MODULE ASSEMBLY	2	021
12335745									FOR MC ONLY-HARD COPY N/A	2	PLA
12335746									GASKET, MEMORY MODULE	2	029

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12335745	E	N	C	I	N	0	09/25/86	J54298	1	1088	O-RING	2	025
12335746	E	N	V	08/23/88	J67216	1	1088	CHASSIS-ASSEMBLY	2	021		2	021
12335746	A	N	V	08/23/88	J67216	2	1088	CHASSIS ASSY	2	PLA		2	PLA
12335747	E	N	V	08/12/90	J67292	1	1088	COVER ASSEMBLY	2	021		2	021
12335747	A	N	J	01/12/90	J67292	2	1088	COVER ASSEMBLY	2	PLA		2	PLA
12335748	E	N	K	12/17/86	J57553	1	1088	TRANSIT CASE/HOUSING TSC (HD)	2	044		2	044
12335749	E	N	A	03/01/95	REL-A	1	1088	TRANSIT CASE	2	044		2	044
12335750	E	N	A	03/01/85	REL-A	1	1088	TRANSIT CASE ASSEMBLY	2	021		2	021
12335751	E	N	L	02/17/86	J49776	1	1088	FLEXPRINT ASSEMBLY MAIN FRAME	2	021		2	021
12335751	A	N	L	02/17/86	J49776	2	1088	FOR MC ONLY HARD COPY N/A	2	PLA		2	PLA
12335752	E	N	F	10/01/85	J49736	1	1088	FLEXPRINT ASSEMBLY INTERFACE	2	021		2	021
12335752	A	N	F	10/01/85	J49736	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335753	E	N	C	09/30/86	J57503	2	1088	CHASSIS	2	029		2	029
12335754	E	N	D	06/23/90	J76639	2	1088	INTERFACE MODULE CASTING	2	029		2	029
12335755	E	N	G	10/03/86	J57505	2	1088	CHASSIS-MAIN-FRAME-CASTING	2	029		2	029
12335755	B	N	G	10/03/86	J57505	1	1088	INTERFACE MODULE NEST MACHINING	2	029		2	029
12335756	E	N	M	06/13/90	J76637	2	1088	FOR MC ONLY HARD COPY N/A	2	PLA		2	PLA
12335756	B	N	M	06/13/90	J76637	2	1088	MAIN-FRAME-NEST-MACHINING	2	021		2	021
12335758	E	N	D	08/08/85	J48677	15	1088	MAIN-FRAME-NEST-MACHINING	2	PLA		2	PLA
12335759	E	N	C	03/21/85	J44997	15	1088	FLEXPRINT INTERFACE	2	029		2	029
12335760	E	N	C	03/21/85	J44997	15	1088	FLEXPRINT MAIN FRAME	1	029		2	029
12335761	E	N	E	10/03/86	J57505	1	1088	INACTIVE	2	029		2	029
12335761	A	N	E	10/03/86	J57505	2	1088	CASTING-MEMORY-MODULE	2	029		2	029
12335762	E	N	B	09/30/88	J57503	1	1088	GUIDE ASSEMBLY-MEMORY MODULE	2	021		2	021
12335763	E	N	L	05/06/87	J61120	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335763	A	N	L	05/06/87	J61120	2	1088	STIPPER	2	029		2	029
12335765	D	N	F	09/16/85	J49718	1	1088	TOP PANEL ASSEMBLY	2	021		2	021
12335766	D	N	B	11/13/84	J43190	1	1088	FOR MC ONLY HARD COPY N/A	2	PLA		2	PLA
12335767	D	N	A	09/13/84	REL-A	1	1088	GASKET	2	029		2	029
12335767	A	N	A	09/19/84	REL-A	1	1088	RETAINER-PWA M/F	2	021		2	021
12335768	E	N	C	09/30/86	J57503	1	1088	COVER ASSEMBLY	2	021		2	021
12335769	D	N	E	09/30/86	J57502	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335769	A	N	E	09/30/86	J57502	2	1088	COVER ASSEMBLY M/H	2	021		2	021
12335770	E	N	D	08/22/85	J48688	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335770	A	N	D	08/22/85	J48688	2	1088	COVER ASSEMBLY INTERFACE	2	021		2	021
12335771	C	N	D	06/02/88	J66539	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335772	C	N	C	06/02/88	J66540	2	1088	CONNECTOR-ELEC (MOTHER BOARD)	2	025		2	025
12335774	D	N	A	09/13/84	REL-A	1	1088	CONNECTOR-ELEC (MOTHER BOARD)	2	025		2	025
12335775	D	N	A	09/13/84	REL-A	1	1088	RETAINER-PWA I/M	2	029		2	029
12335775	A	N	A	09/21/84	REL-A	1	1088	COVER ASSEMBLY I/H	2	021		2	021
12335776	E	N	H	07/16/86	J54251	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335776	B	N	H	07/16/86	J54251	1	1088	PANEL ASSEMBLY-FRONT	2	021		2	021
12335777	C	N	G	07/16/86	J54252	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA		2	PLA
12335779	C	N	B	07/29/88	J66541	1	1088	GASKET	2	029		2	029
12335780	C	N	A	08/16/85	REL-A	1	1088	SHIELD-BEAD	2	025		2	025
12335781	A	N	D	07/24/89	J49617	4	1088	GASKET-SHEET	2	029		2	029
12335784	C	N	B	08/29/88	J66543	1	1088	MC-LISTE-X COPE	2	WLA		2	WLA
12335784	C	N	B	08/29/88	J66543	1	1088	RECTIFIER-SILICON	2	025		2	025

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12335785	D	N	L	07/20/90	J76647	1088	LED MODULE 2/36	2	026
12335786	E	M	P	07/12/90	J76647	2	1088 CIRCUIT CARD ASSEMBLY COMPUTER	2	021
12335786	A	N	P	07/12/90	J76647	5	1088 CCA+COMPUTER BOARD	2	PLA
12335787	E	N	D	06/27/85	J47086	1	1082 SCH-DIAGRAM COMPUTER	2	034
12335788	E	N	H	04/11/89	J68996	2	1088 PHR-COMPUTER	2	059
12335789	E	N	C	09/25/86	J54298	2	1088 STUD	2	025
12335790	C	N	E	10/14/87	J61157	1	1088 INSULATOR	2	029
12335791	C	N	B	03/04/87	J57576	1	1088 INSULATOR	2	029
12335792	C	N	C	06/05/85	J47049	1	1088 MOUNTING BLOCK	2	021
12335793	A	N	C	06/05/85	J47049	1	1088 MOUNTING BLOCK	2	PLA
12335793	E	DN	E	03/19/87	J57595	1	1088 ADAPTER ASSEMBLY	2	021
12335793	A	N	E	03/19/87	J57595	1	1088 ADAPTER ASSEMBLY	2	PLA
12335794	E	DN	D	10/03/86	J57505	2	1088 TRAY ASSEMBLY, INSERT	2	PLA
12335795	A	N	D	10/03/86	J57505	1	1088 FOR MC ONLY-HARD COPY N/A	2	029
12335795	C	N	D	10/02/86	J57512	1	1088 COVER	2	029
12335796	C	N	A	10/11/84	REL-A	1	1088 SPACER PCB	2	021
12335797	D	N	B	06/02/88	J66572	1	1088 STRAP ASSEMBLY	2	PLA
12335797	A	N	B	06/02/88	J66572	1	1088 FOR MC ONLY-HARD COPY N/A	2	021
12335798	C	N	B	06/02/88	J66544	2	1088 STRAP END	2	025
12335799	C	N	A	11/05/84	REL-A	10	1088 PWB-INTERFACE	2	059
12335800	E	N	A	11/05/84	REL-A	2	1088 PWB-MAIN FRAME	2	059
12335801	D	N	D	03/22/88	J61186	1	1088 CCA EXTENDER	2	029
12335801	A	N	D	03/22/88	J61186	2	1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335802	E	N	C	04/19/85	J47009	3	1088 PWB EXTENDER	2	265
12335803	C	N	C	07/29/88	J66545	1	1088 GASKET	2	029
12335804	C	N	B	09/25/86	J54299	2	1088 PWB-CA153	2	029
12335805	C	N	A	01/17/85	REL-A	1	1088 PWA-CA153	2	021
12335806	A	N	A	01/18/85	REL-A	1	1088 FOR MC ONLY-HARD COPY N/A	2	PLA
12335807	E	N	D	03/19/87	J57594	1	1088 SCH-ADAPTER CA153	2	029
12335808	C	N	A	11/21/84	REL-A	3	1088 RESISTOR NETWORK	2	025
12335809	C	N	A	11/21/84	REL-A	3	1088 RESISTOR NETWORK	2	025
12335810	C	N	B	02/08/85	J44950	1	1088 SHIELDING GASKET,EMI/RFI	2	025
12335811	C	N	B	09/25/86	J54299	1	1088 PLATE, IDENTIFICATION	2	029
12335812	C	N	B	09/25/86	J54299	1	1088 PLATE, IDENTIFICATION	2	029
12335813	C	N	C	09/30/86	J57503	1	1088 PLATE CONTENTS TEST UNIT ASSY	2	029
12335814	C	N	D	05/06/87	J61119	1	1088 STIFFENER	2	029
12335815	C	N	B	04/30/85	J47010	1	1088 BACK PLATE	2	029
12335816	C	N	B	03/14/89	J67235	1	1088 PIN/RECEPTACLE	2	025
12335817	C	N	D	02/10/90	J76602	1	1088 ADAPTER	2	029
12335818	C	N	E	07/13/90	J75989	1	1088 GASKET	2	025
12335819	C	N	C	07/29/88	J66547	1	1088 GASKET	2	029
12335820	A	N	E	03/12/90	J76602	17	1088 ATP FOR SET COMMUNICATOR	2	029
12335821	C	N	C	07/29/88	J66548	1	1088 ADAPTER	2	025
12335822	C	N	C	07/29/88	J66548	1	1088 ADAPTER	2	025
12335823	A	N	E	03/04/87	J57577	1	1088 COVER-ASSEMBLY 1/4"	2	029
12335824	D	N	D	06/07/88	J67207	1	1088 RETAINER PWA 1/4"	2	029
12335825	C	N	B	10/03/86	J57504	1	1088 LABEL, PROGRAMMING	2	029
12335826	C	N	B	05/14/86	J49799	1	1088 LABEL, PELTISON	2	029
12335827	C	N	B	05/14/86	J54200	1	1088 LABEL, COMPUTER PWA	2	029

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12335826	C	N	C	04/08/81	J61103	1 1088 LABEL, PROGRAMMING	2 029
12335827	D	N	E	11/19/86	J57552	1 1088 FIRMWARE KIT, SET COMMUNICATOR	2 029
12335828	A	N	C	05/14/86	J54202	1 1088 FOR MC ONLY-HARD COPY N/A	2 PLA
12335829	D	N	E	05/13/88	J67206	1 1088 COVER ASSEMBLY M/F	2 029
12335830	D	N	E	05/13/88	J67206	1 1088 COVER ASSEMBLY	2 PLA
12335831	D	N	E	03/02/88	J61181	1 1088 RETAINER PWA M/F	2 029
12335832	D	N	E	05/31/85	REL-A	1 1088 COVER, BATTERY COMPARTMENT	2 029
12335833	D	N	C	02/01/88	J61146	1 1088 COVER ASSEMBLY	2 029
12335834	C	N	C	02/01/88	J61146	1 1088 COVER, ASSEMBLY	2 PLA
12335835	E	N	B	10/31/85	J49737	1 1088 BRACKET, MOUNTING	2 029
12335836	A	N	B	10/31/85	REL-B	1 1088 CCA EXTENDER	2 PLA
12335837	E	N	B	07/08/87	J61131	1 1088 CCA, EXTENDER	2 021
12335838	E	N	B	07/08/87	J61131	1 1088 COVER ASSEMBLY	2 PLA
12335839	E	N	D	12/31/86	J57555	1 1088 COVER ASSEMBLY	2 021
12335840	A	N	D	12/31/86	J57555	1 1088 TEST UNIT ASSEMBLY	2 PLA
12335841	D	N	C	05/29/87	J60724	1 1088 TEST UNIT ASSEMBLY	2 PLA
12335842	C	N	A	05/30/85	REL-A	1 1088 SILK SCREEN, CHAS ASSY, GUN SIM	2 029
12335843	C	N	A	05/30/85	REL-A	1 1088 ROD WELDING	2 025
12335844	E	N	D	06/06/90	J76616	1 1088 SPACER, FLEXPRINT	2 029
12335845	E	N	D	06/06/90	J76616	1 1088 BASE ASSEMBLY	2 021
12335846	E	N	A	09/25/85	REL-A	1 1088 BASE ASSEMBLY	2 PLA
12335847	A	N	A	09/25/85	REL-A	1 1088 HOUSING ASSEMBLY	2 021
12335848	E	N	A	09/25/85	REL-A	1 1088 HOUSING ASSEMBLY	2 PLA
12335849	E	N	C	10/11/88	J67225	1 1088 COVER	2 021
12335850	A	N	C	10/11/88	J67225	1 1088 COVER	2 PLA
12335851	D	N	B	08/05/85	J48646	1 1088 POWER MODULE ASSEMBLY	2 029
12335852	D	N	B	08/05/85	J48646	1 1088 FOR MC ONLY-HARD COPY N/A	2 PLA
12335853	D	N	B	07/09/85	J47097	1 1088 SUPPORT, FLEX PRINT	2 029
12335854	D	N	B	07/09/85	J47096	1 1088 CLAMP, FLEX PRINT	2 029
12335855	C	N	B	09/25/86	J54299	1 1088 DIODE, VOLTAGE REGULATOR	2 044
12335856	C	N	A	08/30/85	REL-A	1 1088 DIODE, VOLTAGE REGULATOR	2 044
12335857	C	N	A	10/01/85	J49729	1 1088 EPOXY, SILVER	2 025
12335858	C	N	A	08/19/85	REL-A	1 1088 SCREW	2 268
12335859	C	N	A	08/19/85	REL-A	1 1088 GASKET, STRIP	2 044
12335860	C	N	A	08/19/85	REL-A	1 1088 GASKET, SHEET	2 044
12335861	C	N	A	08/19/85	REL-A	1 1088 GASKET, SHEET	2 044
12335862	D	N	B	09/16/85	J49717	1 1088 GASKET ASSEMBLY	2 029
12335863	D	N	B	09/16/85	J49717	1 1088 GASKET ASSEMBLY	2 PLA
12335864	C	N	A	08/30/85	REL-A	1 1088 BRACKET	2 029
12335865	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335866	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335867	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335868	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335869	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335870	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335871	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335872	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335873	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335874	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335875	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335876	C	N	A	09/12/85	REL-A	1 1088 GASKET, M/F	2 044
12335877	C	N	B	09/30/86	J57503	1 1088 COVER, CONNECTOR PINS	2 029
12335878	C	N	B	10/30/86	J57536	1 1088 VARISTOR	2 029
12335879	C	N	B	10/31/86	J57537	1 1088 DIODE, POWER ZENER	2 029
12335880	C	N	B	11/05/86	J57542	1 1088 VARISTOR	2 029
12335881	C	N	A	10/10/85	REL-A	1 1088 INSULATOR, MYLAR	2 029
12335882	C	N	A	01/06/86	REL-A	1 1088 SPACER	2 029

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PL 12335889	D	N	B	09/12/86	J54292	1	1088	FRAME ASSEMBLY	2	021
12335889	A	N	B	09/12/86	J54292	1	1088	FRAME ASSEMBLY	2	PLA
12335900	C	N	A	03/13/86	REL-A	1	1088	SCREW, ALTERED	2	029
12335891	C	N	A	03/13/86	REL-A	1	1088	WASHER, RETAINING	2	029
12335902	C	N	A	03/13/86	REL-A	1	1088	SCREW, ALTERED	2	029
12335893	C	N	D	06/06/90	J67295	1	1088	CONN ELECT (DAUGHTER BOARD)	2	025
12335894	C	N	B	02/11/88	J61175	2	1088	CONN ELECT (PC CONNECTOR)	2	025
12335895	E	N	D	04/08/88	J61194	0	1088	FLEXPRINT MAIN FRAME	2	025
12335897	E	N	A	06/25/86	REL-A	1	1088	PANEL ASSEMBLY FRONT	2	029
12335898	E	N	E	03/24/87	J57575	1	1088	CHASSIS ASSY, MEMORY MODULE	2	029
PL 12335898	A	N	E	03/24/87	J57575	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
12335899	E	N	C	02/19/87	J57573	1	1088	GUIDE ASSEMBLY, MEMORY MODULE	2	029
PL 12335899	A	N	C	02/19/87	J57573	2	1088	GUIDE ASSEMBLY, MEMORY MODULE	2	PLA
12335900	E	N	A	06/25/86	REL-A	3	1088	TOP PANEL ASSEMBLY	2	029
12335901	C	N	C	04/22/88	J61199	1	1088	SCREW	2	029
12335902	C	N	A	06/25/86	REL-A	1	1088	MARKING, SILK SCREEN	2	029
12335903	E	N	F	10/11/88	J67223	2	1088	TRANSIT CASE/HOUSING TSC (MD)	2	044
12335904	E	N	F	06/06/90	J76015	1	1088	BASE ASSEMBLY	2	029
PL 12335905	A	N	F	06/06/90	J76015	1	1088	TRANSIT CASE ASSEMBLY	2	PLA
12335906	D	N	A	07/30/86	REL-A	1	1088	GASKET MAIN FRAME	2	029
12335907	D	N	A	06/17/86	REL-A	1	1088	GASKET	2	029
12335908	C	N	A	06/17/86	REL-A	1	1088	GASKET MEMORY MODULE	2	029
12335909	C	N	D	02/01/80	J61152	1	1088	LCD MODULE	2	025
12335910	C	N	A	06/24/86	REL-A	1	1088	MARKING, SILK SCREEN	2	029
12335911	C	N	D	06/06/90	J76034	1	1088	WASHER, RETAINING	2	029
12335912	C	N	A	08/12/86	REL-A	2	1088	ONE NEGATIVE BUBBLE MEMORY	2	044
PL 12335913	D	N	C	04/22/88	J61198	2	1088	COVER ASSEMBLY, MEMORY MODULE	2	PLA
12335914	A	N	C	04/22/88	J61198	1	1088	FOR MC ONLY-HARD COPY N/A	2	029
12335915	E	N	A	07/22/86	REL-A	1	1088	PANEL ASSEMBLY FRONT	2	029
12335916	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	044
12335917	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335918	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335919	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335920	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335921	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335922	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335923	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335924	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335925	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335926	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335927	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335928	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335929	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335930	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335931	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335932	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335933	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335934	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335935	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335936	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335937	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335938	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335939	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335940	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335941	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335942	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335943	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335944	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335945	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335946	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335947	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335948	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335949	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335950	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335951	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335952	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335953	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335954	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335955	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335956	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335957	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335958	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335959	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335960	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335961	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335962	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335963	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335964	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335965	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335966	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335967	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335968	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335969	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335970	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335971	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335972	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335973	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335974	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335975	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335976	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335977	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335978	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335979	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335980	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335981	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335982	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335983	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335984	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335985	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335986	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335987	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335988	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335989	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335990	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335991	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335992	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335993	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335994	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335995	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335996	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335997	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335998	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12335999	C	N	B	03/25/87	J58520	3	1088	TECHNICAL VULNERABILITY	2	021
12336000	C	N	B							

PROGRAM HC0301-V029
SUBSET OF ENGINEERING DATALIST

OUTSTANDING ECNS

DATE : 08/03/90

#SH RESP DESCRIPTION

ECN

ISS

REV

DATE

SIZE

DWGS

NUMBER

PREFIX

L TYPE

PLA

REL-A

REL-B

REL-C

REL-D

REL-E

REL-F

REL-G

REL-H

REL-I

REL-J

REL-K

REL-L

REL-M

REL-N

REL-O

REL-P

REL-Q

REL-R

REL-S

REL-T

REL-U

REL-V

REL-W

REL-X

REL-Y

REL-Z

REL-AA

REL-AB

REL-AC

REL-AD

REL-AE

REL-AF

REL-AG

REL-AH

REL-AI

REL-AJ

REL-AK

REL-AL

REL-AM

REL-AN

REL-AO

REL-AP

REL-AQ

REL-AR

REL-AS

REL-AT

REL-AU

REL-AV

REL-AW

REL-AX

REL-AY

REL-AZ

REL-BB

REL-BC

REL-BD

REL-BE

REL-BF

REL-BG

REL-BH

REL-BI

REL-BJ

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REL-BQ

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REL-BT

REL-BU

REL-BV

REL-BW

REL-BX

REL-BY

REL-BZ

REL-CC

REL-CD

REL-CE

REL-CF

REL-CG

REL-CH

REL-CI

REL-CJ

REL-CK

REL-CL

REL-CM

REL-CN

REL-CO

REL-CP

REL-CQ

REL-CR

REL-CS

REL-CT

REL-CU

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REL-CW

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REL-EJ

REL-EK

REL-EL

REL-EM

REL-EN

REL-EO

REL-EP

REL-EQ

REL-ER

REL-ES

REL-ET

REL-EU

REL-EV

REL-EW

REL-EX

REL-EY

REL-EZ

REL-FF

REL-FG

REL-FH

REL-FI

REL-FJ

REL-FK

REL-FL

REL-FM

REL-FN

REL-FO

REL-FP

REL-FQ

REL-FR

REL-FS

REL-FT

REL-FU

REL-FV

REL-FW

REL-FX

REL-FY

REL-FZ

REL-GG

REL-GH

REL-GI

REL-GJ

REL-GK

REL-GL

REL-GM

REL-GN

REL-GO

REL-GP

REL-GQ

REL-GR

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REL-GZ

REL-HH

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REL-HQ

REL-HR

REL-HS

REL-HT

REL-HU

REL-HV

REL-HW

REL-HX

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REL-HZ

REL-II

REL-IJ

REL-IL

REL-IM

REL-IN

REL-IO

REL-IP

REL-IQ

REL-IR

REL-IS

REL-IT

REL-IU

REL-IV

REL-IW

REL-IX

REL-IY

REL-IZ

REL-JJ

REL-JK

REL-JL

REL-JM

REL-JN

REL-JO

REL-JP

REL-JQ

REL-JR

REL-JS

REL-JT

REL-JU

REL-JV

REL-JW

REL-JX

REL-JY

REL-JZ

REL-KK

REL-KL

REL-KM

REL-KN

REL-KO

REL-KP

REL-KQ

REL-KR

REL-KS

REL-KT

REL-KU

REL-KV

REL-KW

REL-KX

REL-KY

REL-KZ

REL-LL

REL-LM

REL-LN

REL-LO

REL-LP

REL-LQ

REL-LR

REL-LS

REL-LT

REL-LU

REL-LV

REL-LW

REL-LX

REL-LY

REL-LZ

REL-MM

REL-MN

REL-MO

REL-MP

REL-MQ

REL-MR

REL-MS

REL-MT

REL-MU

REL-MV

REL-MW

REL-MX

REL-MY

REL-MZ

REL-NN

REL-NO

REL-NP

REL-NQ

REL-NR

REL-NS

REL-NT

REL-NU

REL-NV

REL-NW

REL-NX

DATE : 08/03/90

PROGRAM MC0301-V029
SUBSET OF ENGINEERING DATALIST

OUTSTANDING ECNS

L TYPE

PREFIX DRAWING NUMBER SIZE DWGS REV DATE-ISS ECN #SH RESP DESCRIPTION

ITEM	QTY	UNIT	REV	DATE	ISS	ECN	#SH	RESP	DESCRIPTION
2412683	1	1088	A	08/10/81	REL-A				PROGRAM PLANNING DIAGRAM
2415110	2	029	B	09/28/82	J26936				BOARD THERMAL ANALYSIS
2415151	2	034	C	01/13/83	J26999				SCH-LCD DRIVER
2415166	2	029	D	10/30/86	J57530				PLANNING DIAG-SET COMMUNICATOR
2416263	2	029	A	08/17/83	REL-A				SET COMMUNICATOR 2/36 MDL PCI
2416264	2	029	B	07/28/83	J37205				PLANNING DIAGRAM
2721340	2	029	A	11/01/85	REL-A				PLANNING DIAGRAM STE-X
2721341	2	021	A	11/01/85	REL-A				PRODUCTION DESIGN
	2	029	A	11/01/85	REL-A				FLOPPY DISK 5-25 DIA
	2	021	A	11/01/85	REL-A				FLOPPY DISK ASSEMBLY

ITEM	QTY	UNIT	REV	DATE	ISS	ECN	#SH	RESP	DESCRIPTION
12335910	1	1088	A	08/17/83	REL-A				GASKET, CONNECTOR
12335911	1	1088	B	07/28/83	J37205				GASKET, CONNECTOR
12335912	1	1088	C	11/01/85	REL-A				GASKET, CONNECTOR
12335913	1	1088	D	10/30/86	J57530				GASKET, CONNECTOR
12335914	1	1088	A	08/17/83	REL-A				TAPPING PLATE
12335915	1	1088	B	07/28/83	J37205				TOP PANEL ASSY
12335916	1	1088	C	11/01/85	REL-A				MCL, PANEL/NEST ASSY. STE-X CORE
12335917	1	1088	D	10/30/86	J57530				IDENTIFICATION
12335918	1	1088	A	08/17/83	REL-A				PLATE, CONTENTS TEST UNIT ASSY.
12335919	1	1088	B	07/28/83	J37205				LABEL, FIRMWARE
12335920	1	1088	C	11/01/85	REL-A				

APPENDIX E

STE-X DEVELOPMENT SUPPORT TOOLS

[illegible]

APPENDIX F

FINANCIAL DATA

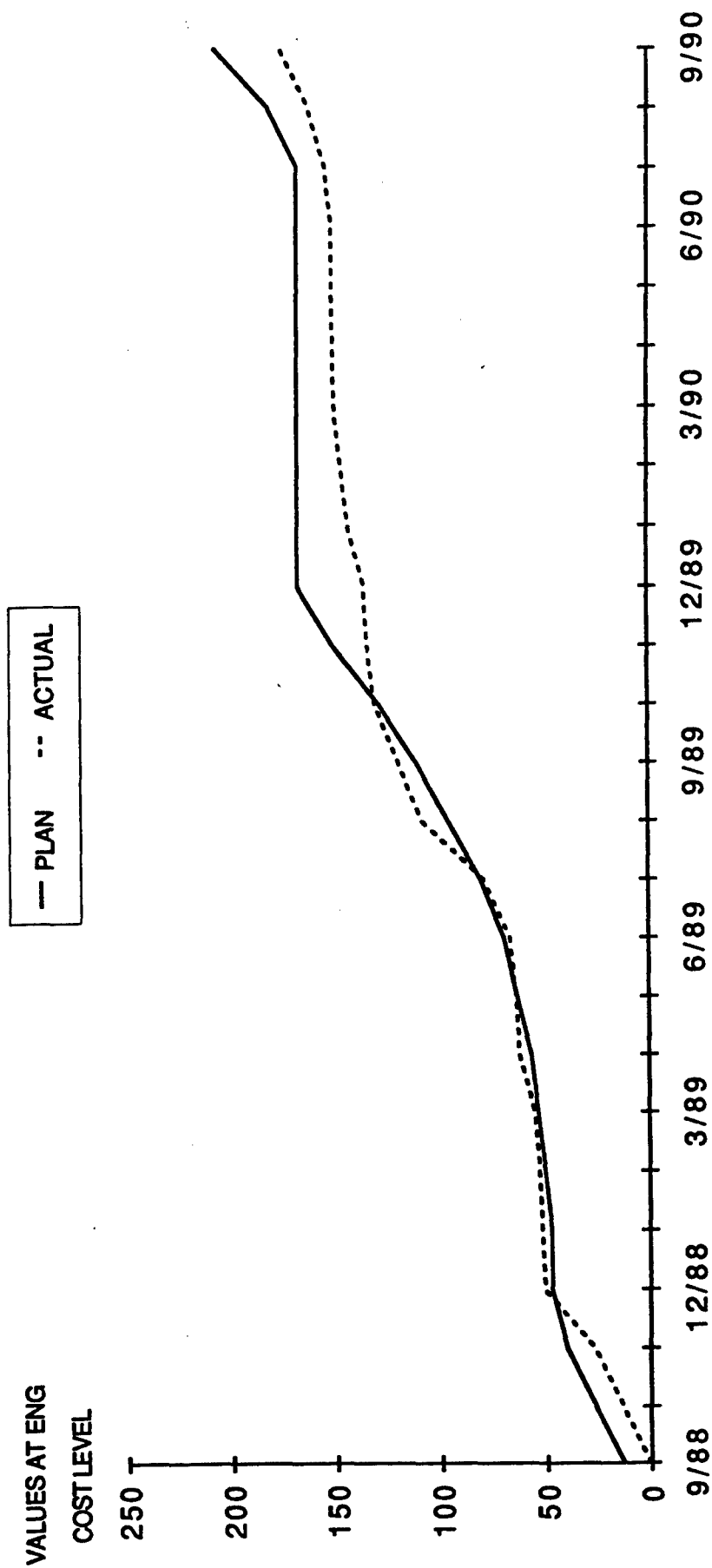
DAAE07-88-C-R133

S/M E87

PERFORMANCE REPORT (K\$)

BASELINE		PERFORMANCE THRU SEPTEMBER 1990	
		ACTUALS TO DATE	
ALLOCATED S.O.BUDGET	199.3	ETC (CONTRACT CLOSEOUT)	175.3
RESERVE	0.0	TOTAL S.O. COST	4.0
SHOP ORDER STANDARD	199.3		179.3
RATE RESERVE	7.4	RESERVES	0.0
TOTAL ECL	206.7	TOTAL IFC	179.3
G&A/IR&D/B&P	26.8		0.0
TOTAL COST (B/E)	233.5		
FEE \$	22.7		179.3
CONTRACT VALUE	256.2		34.3
MARGIN %	9.72%		213.6
			22.7
			236.3
			10.63%

SET-X OT SUPPORT S/M E87



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