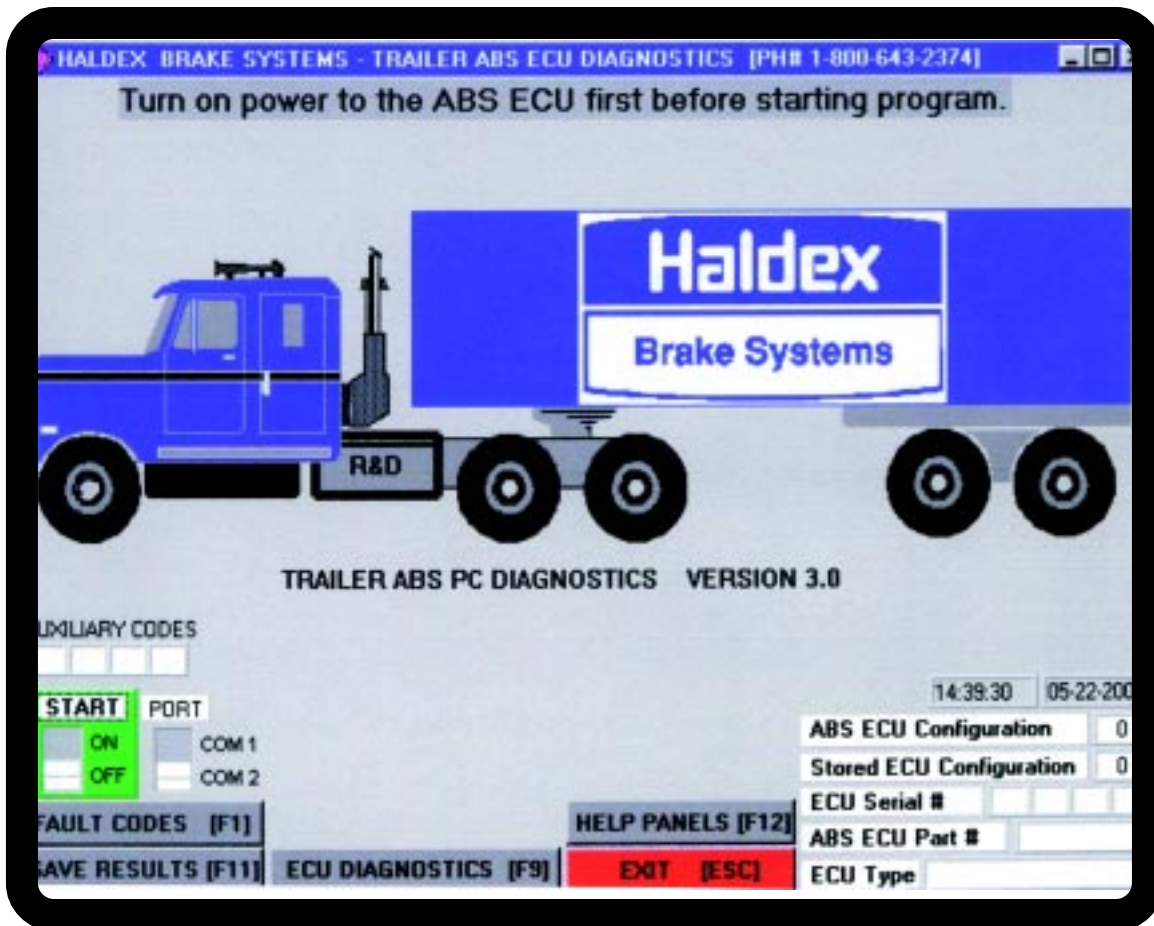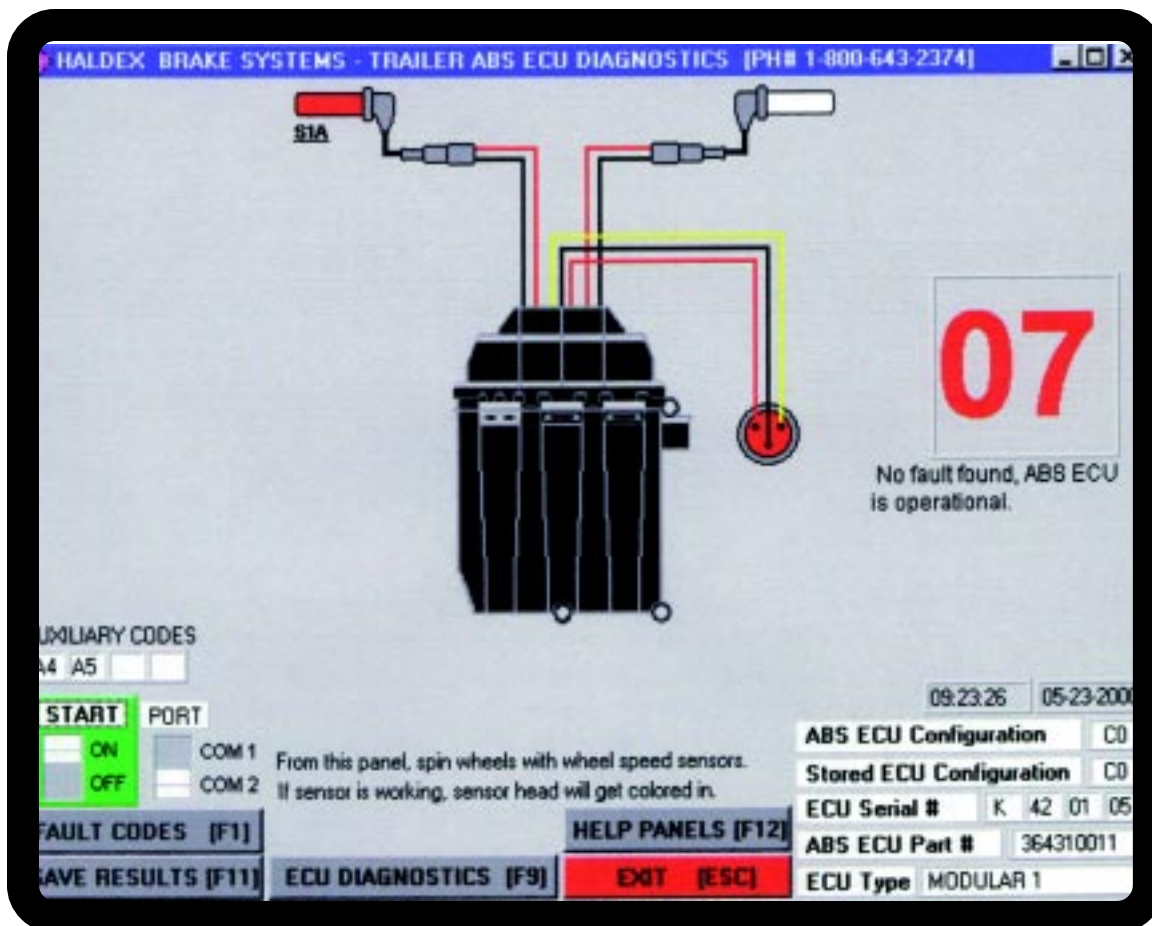**Haldex**

ABS DIAGNOSTICS
Trailer PC Program

$3.00

START PANEL

Welcome to Haldex Brake Systems' PC Based ABS Diagnostic Program. From this Panel you can:

       ❧ Change the communications port you are using on the PC.

       ❧ Note Date and Time in your maintenance records.

       ❧ Start the program by:

          -- selecting or clicking the "ON" Button, or

          -- using the TAB Key to highlight and hit the ENTER Key.

       ❧ Save results of the ABS Electronic Control Unit (ECU) diagnostic test
         to the "C" drive on your PC's hard drive.

MAIN AND SENSOR DIAGNOSTIC PANEL

This panel is activated by the "START" switch from the first screen. Advance to other panels by using the noted "F KEYS" or "ESC" to end program.

Your ABS system configuration will be displayed. The "07" diagnostic code means the system is normal and fully operational. If faults are detected, a different code will appear. Advance to Fault Code Panel by pressing "F1" to view.

With vehicle safely placed on jack stands, wheels can be spun to test sensors.

**Press HELP PANEL "F12" At Any Time For
Detailed Instructions.**

ABS ECU FAULT CODE DIAGNOSTICS

ACTIVE FAULT CODES

NO ACTIVE FAULT CODES.

STORED FAULT CODES

| 69 | 68 | 63 | 62 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Clearing fault codes- Repair active fault(s) first then reapply power to ABS ECU, then press CLEAR FAULT CODES.
The order in which fault codes appear on the screen do not represent the latest fault that has occurred.
The fault codes are displayed in numerical order, highest number to the lowest number.

   are not close to stated values, solenoid is defective, replace as required.

69 Dump solenoid open circuit on yellow valve channel. Check cable and all connections.
    Go to HELP panels for correct solenoid pin resistance levels. If pin resistance levels
    are not close to stated values, solenoid is defective, replace as required.

71 Hold solenoid short circuit to ground on red valve channel. Check cable and all connections.
    Solenoid on valve may be defective, replace as required.

72 Hold solenoid short circuit to ground on blue valve channel. Check cable and all connections.
    Solenoid on valve may be defective, replace as required.

73 Hold solenoid short circuit to ground on yellow valve channel. Check cable and all connections.
    Solenoid on valve may be defective, replace as required.

77 Dump solenoid short circuit to ground on red valve channel. Check cable and all connections.
    Solenoid on valve may be defective, replace as required.

VIEW FAULT CODES [F1]   **CLEAR FAULT CODES [F3]**   **<< BACK [ESC]**

FAULT CODE PANEL
(F1 From Main Panel)

Press "F1" to view active or stored fault codes displayed in the top screen bars. Use the scroll bar in the lower section to find the fault description and repair instructions. If any fault codes exist, make the correction(s) indicated, reapply power to the ECU, and clear the codes from the ECU's memory by pressing "F3."

If the problem continues, the fault code will not clear from memory and will continue to be displayed. Make further corrections or consult the Haldex Brake Systems Installation/ Service Manual.

Press BACK "ESC" when finished to go back to the Main Panel.

EDIT FIELDS FOR SAVING TEST DATA TO A FILE

USER NAME

STEVE MORRIS

COMPANY NAME
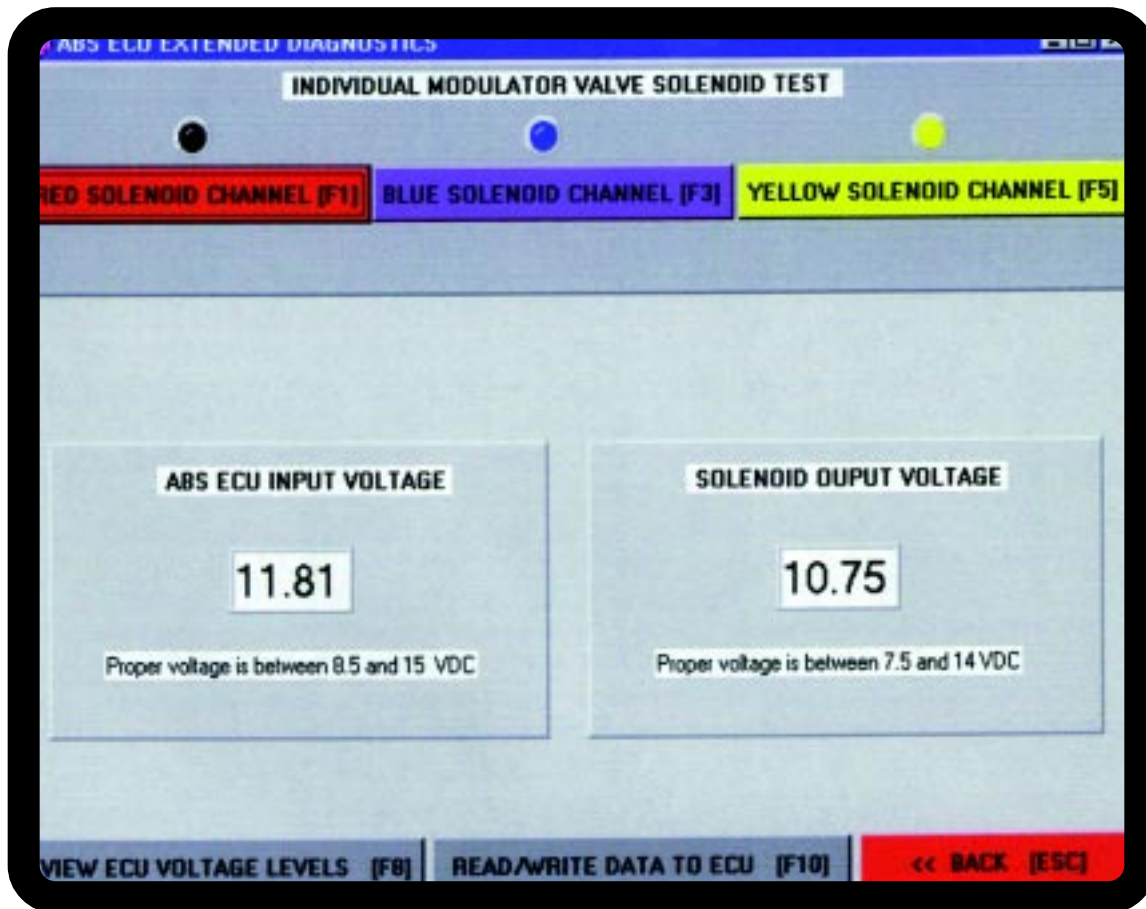
HALDEX BRAKE SYSTEMS

PRINT TEST RESULTS [F2]   SAVE TEST RESULTS [F5]   << BACK [ESC]

SAVE   RESULTS   PANEL

Press "F2" for an immediate printout of test results. Dedicated printer must be connected to the printer port of the PC.

Press "F5" to save results of diagnostic test to a floppy disk or to the computer hard drive. Store test results for maintenance and tracking purposes.

Press BACK "ESC" when finished to go back to the Main Panel.

ECU DIAGNOSTIC PANEL
(F9 From The Main Panel)

This panel will allow you to perform valve solenoid operational testing by clicking on the appropriate bar at the top of the screen. When air pressure is available you will hear a brief valve exhaust, or clicking of the solenoid as the valve cycles. This indicates the solenoid on valve is operating properly.

System voltage can be viewed by pressing "F8." To ensure proper voltage is available, it is recommended that the test be performed on equipment set-up to operate. When performing this test on doubles or triples, all of the trailers should be coupled to a representative tractor for best results.

Press "F10" To Advance To Read/Write Data Entry Panel
And Follow Screen Instructions.

Press BACK "ESC" when finished to go back to the Main Panel.

READ/WRITE DATA ENTRY PANEL

Follow screen instructions to add your information into the three EDIT FIELDS. Conveniently labeled, the fields will accept all alpha-numeric characters. Entries are displayed in ECU Data Fields.

Press BACK "ESC" to go back to the ECU Diagnostic Panel.

Press BACK "ESC" [again] when finished to go back to the Main Panel.

HELP

························· **BUTTON DEFINITIONS** ·························

FAULT CODES - view active and stored fault codes with fault explanations and solutions.
 - clear out fault codes that have been stored in the ABS ECU.

ECU DIAGNOSTICS - check for proper operation of modulator valve(s) and solenoid voltage level.
 - read and write to ABS ECU memory. View build date and catalog number of ABS.

note: All buttons that are pressed inside of ECU DIAGNOSTICS will cause a continuous flashing
 of the ABS malfunction lamp (extended diagnostic mode). When extended diagnostics
 mode functions are completed, reapply power to the ECU to return to normal operation

SAVE RESULTS - store ECU diagnostic test results to floppy or to computer's hard drive.
 - immediately print out diagnostic test results to printer that is connected to the PC's
 parallel port.

·························· **ABS WARNING LAMP** ··························

When power (8.5 to 15 volts) is initially applied to the ABS ECU the following will occur:

* For 1998 and above ABS ECU's, the normal ABS lamp flash is (ON-OFF). If lamp stays on
 then there is an active fault with the ABS system.

* For pre- 1998 ABS ECU's, the normal lamp flash is (ON-OFF-ON). Then drive vehicle above
 6 MPH then the lamp should go off for proper operation of ABS. If lamp stays on when
 above 6 MPH then there is an active fault with the ABS system. Pre- 1998 ECU's have
 the following serial numbers:

 Modal types: 364128001, 364128101, 364300208, 364226218
 Modular 1 or FFABS types: 364195001, 364196001, 364265001, 364265101

VIEW HARDWARE CONNECTIONS [F5]   **<< BACK [ESC]**

ON-SCREEN HELP INFORMATION PANEL
(F12 From Main Panel)

This panel provides helpful information about the Haldex Brake Systems Trailer ABS PC Diagnostic Program. If the information you need does not appear on the screen, or is not available in the Haldex Brake Systems ABS Installation/Service Manual, contact theTechnical Services Department during normal business hours for assistance:

TECHNICAL SERVICES DEPARTMENT
(800) 643-2374 - (Prompt #2)

Press BACK "ESC" when finished to go back to the Main Panel.