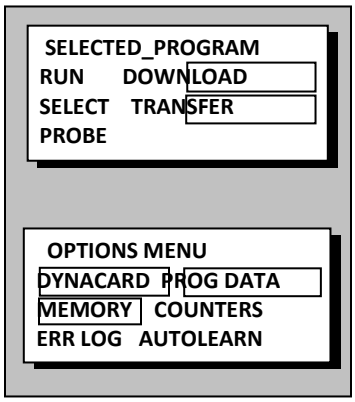
Programs



To access the Options Menu from the Main Menu, insert a DynaCard II program cartridge and press {STOP}.

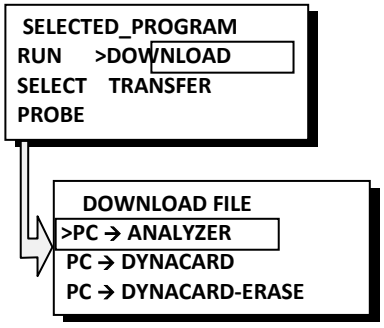
Press {STOP} again to return the Analyzer to the Main Menu.

Programs are either created on a computer with the PASS software or with AUTOLEARN. These PASS created programs are downloaded from the computer and then transferred between the DynaCard and the Analyzer.

This Chapter discusses the how to transfer programs between the computer, DynaCard and the Analyzer. Also, how to manage the DynaCard and Analyzer memory.

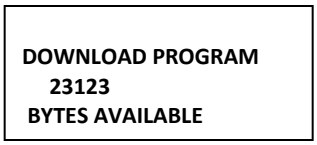
Computer-to-Analyzer Program Transfers

Download to Analyzer

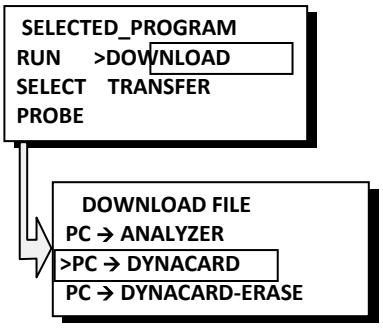


The PC → DOWNLOAD function places the Analyzer into download mode. When downloaded, the program is stored in the Analyzer memory and is selected as the active program.

When PC → DOWNLOAD is selected, the Analyzer will display the message "Confirm? No Yes." Select "Yes" using the {UP} or {DOWN} arrow keys then press {START}. The Analyzer will then display the download screen showing the number of bytes available in memory. The Analyzer will remain in this mode until a program is received or the Analyzer is shut off.



Download to Cartridge

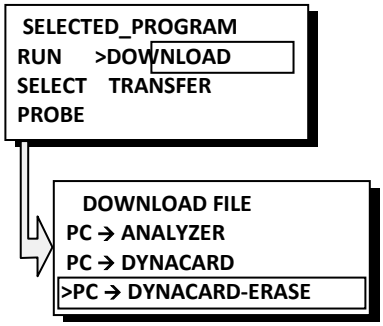


The DOWNLOAD⇨PC → DYNACARD function places the Analyzer in download mode, which allows a program to be downloaded directly from the PC to the DynaCard II program cartridge.

When PC → DYNACARD is selected, the Analyzer will display the message "Confirm? No Yes." Select "Yes" using {UP} or {DOWN} then press {START}. The Analyzer will then display the download screen showing the number of bytes available in memory. The Analyzer will remain in this mode until a program is received or the Analyzer is shut off.

It is important to note that the Analyzer stores the program in internal memory first, then transfers the program to the cartridge, and then erases the program from internal memory. This means that for this function to be used, there must be enough free space in the Analyzer memory for the program being downloaded. If not, the message, "Insufficient Memory" is displayed.

Download to Cartridge and Erase

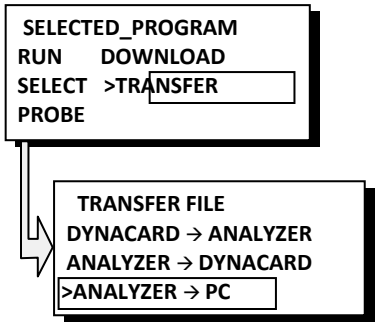


The DOWNLOAD⇨PC → DYNACARD-ERASE function places the Analyzer into download mode. When a program is downloaded, this menu function first erases all programs on the DynaCard II program cartridge. It then transfers the downloaded program onto the clean cartridge. If no program is downloaded, the cartridge will not be erased.

When PC → DYNACARD-ERASE is selected, the Analyzer will display the message "Confirm? No Yes" Select "Yes" using {UP} or {DOWN} then press {START}. The Analyzer will then display the download screen showing the number of bytes available in memory. The Analyzer will remain in this mode until a program is received or the Analyzer is shut off

It is important to note that the Analyzer stores the program in internal memory first, then transfers the program to the cartridge, and then erases the program from internal memory. This means that for this function to be used, there must be enough free space in the Analyzer memory for the program being downloaded. If not, the message, "Insufficient Memory" is displayed.

Uploading Programs to a Computer



It is possible to transfer a program from the Analyzer to a computer. This program however is only a binary file and cannot be loaded into the PASS software. This file can be manually downloaded back to an Analyzer with a special software utility. Contact Dynalab Engineering for more information.

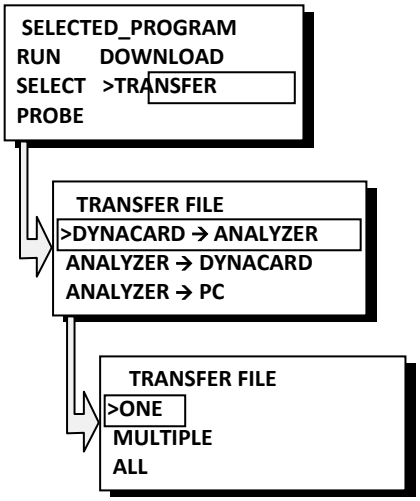
To transfer a file, the computer must be executing a communication program, like HyperTerminal, which needs to be in an Xmodem receive data mode. Then select TRANSFER⇨ANALYZER PC function and select the program to transfer. Press the {START} button, the Analyzer will display "WAITING FOR XMODEM START" until the communication is established.

Analyzer-to-DynaCard Program Transfers

Once a program has been downloaded from the computer or created with Autolearn, these programs can be transferred between the Analyzer and a DynaCard. This is accomplished with functions located in the TRANSFER and OPTIONS Menus.

Transfering from the DynaCard-to-Analyzer

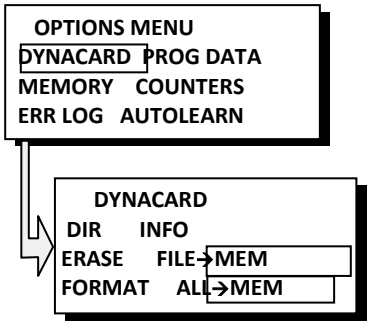
Programs can be transferred from the DynaCard to the Analyzer either with the TRANSFER⇨DYNACARD→ANALYZER function or the OPTIONS MENU⇨DYNACARD⇨FILE→MEM/ALL→MEM.



Transfer Menu

To transfer a program select TRANSFER⇨DYNACARD→ANALYZER, then select if you want to transfer just ONE program, MULTIPLE different programs or ALL programs located on the DynaCard.

After the programs have been selected, the Analyzer will display the message "Confirm? No Yes." Use the arrow keys to select " Yes" then press {START}.



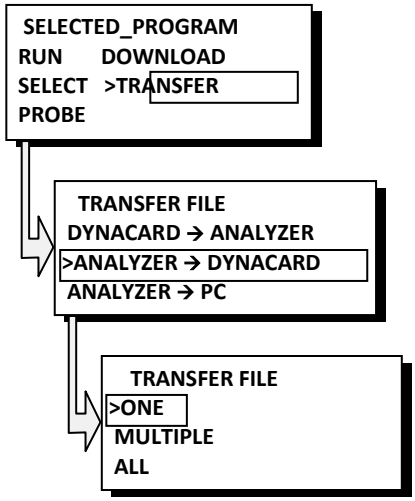
DynaCard Menu

The same file transfer function can also be preformed in the DYNACARD menu in the OPTIONS MENU.

FILE→MEM allows for a single program to be transferred to the Analyzer. ALL→MEM transfers all programs from the DynaCard to the Analyzer.

Transferring from the Analyzer-to-DynaCard

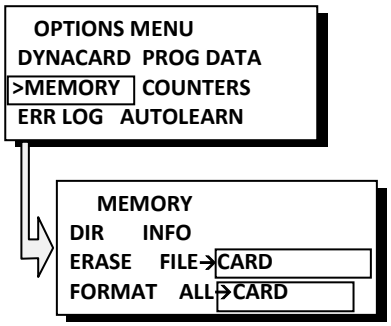
Programs can be transferred from the Analyzer to the DynaCard either with the TRANSFER⇨ANALYZER→DYNACARD function or the OPTIONS MENU⇨MEMORY⇨FILE→CARD/ALL→CARD.



Transfer Menu

To transfer a program select TRANSFER⇨ANALYZER→DYNACARD, then select if you want to transfer just ONE program, MULTIPLE different programs or ALL programs located in the Analyzer.

After the programs have been selected , the Analyzer will display the message "Confirm? No Yes." Use the arrow keys to select " Yes" then press {START}.



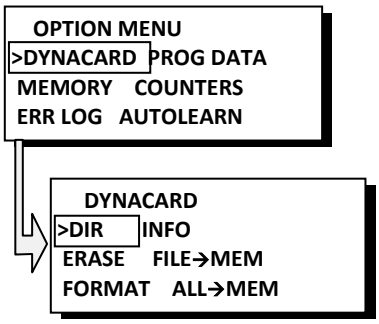
Memory Menu

The same file transfer functions can also be preformed in the MEMORY menu in the OPTIONS MENU.

FILE→CARD allows for a single program to be transferred to the DynaCard. ALL→CARD transfers all programs from the Analyzer to the DynaCard.

DynaCard Utilities

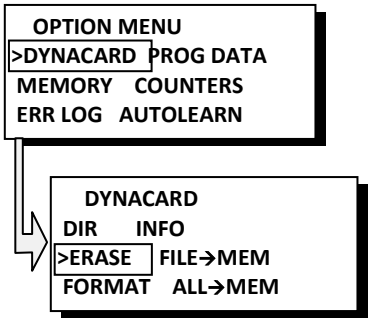
The DynaCard memory is very similar to the memory on a computer hard disk or floppy disk. The memory must be formatted before use, a directory of existing files (programs) can be displayed and individual files can be copied or deleted.



Displaying the DynaCard Directory

The DYNACARD⇨DIR menu displays the programs that are stored on the DynaCard II program cartridge.

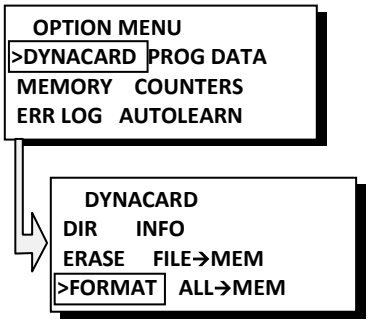
Use {UP} or {DOWN} to advance through each view each program. For each program the Analyzer displays the program number and name, the size of the program in bytes, and the time and date that the program was compiled.



Erasing a Single DynaCard Program

The DYNACARD⇨ERASE function deletes a single file from the DynaCard II program cartridge.

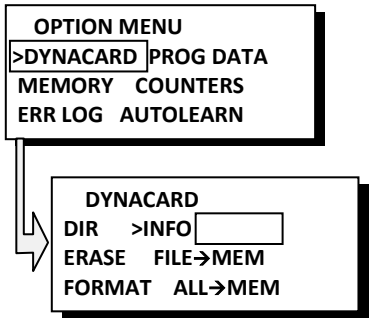
When this function is executed, the Analyzer displays a list of programs on the DynaCard II program cartridge. Use {UP} and {DOWN} to select the correct program then press {START}. The Analyzer will display, "Confirm? No Yes." Use {UP} or {DOWN} to select "Yes" then press {START} to delete the program.



Formatting the DynaCard Memory

The DYNACARD⇨FORMAT function erases all programs on the DynaCard II program cartridge. This function must be executed before a new DynaCard can be utilities.

When this function is executed, the Analyzer will display "Confirm? No Yes." Use {UP} or {DOWN} to select "Yes" then press {START}.



Viewing the DynaCard Memory Status

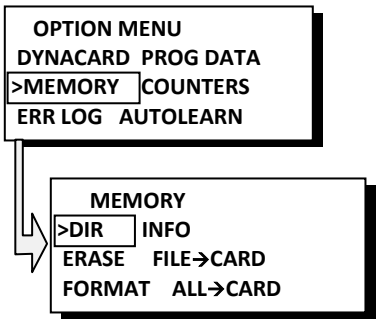
The DYNACARD⇨INFO function displays information about the status of the DynaCard II program cartridge memory. This information includes the number of files present on the cartridge, the number of bytes used, the number of bytes free and the number of segments used.

```
15 FILES
11872 BYTES USED
16112 BYTES FREE
5 SEGMENTS
```

This function is executed by simply pressing {START}. Any key will return the Analyzer to the Cartridge Menu.

Analyzer Memory Utilities

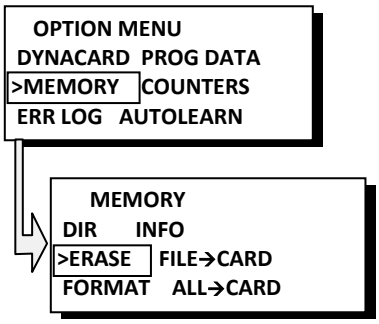
The Analyzer memory is very similar to the memory on a computer hard disk or floppy disk. The memory must be formatted before use, a directory of existing files (programs) can be displayed and individual files can be copied or deleted.



Displaying the Analyzer Memory

The MEMORY⇨DIR menu displays the programs that are stored in the Analyzers memory.

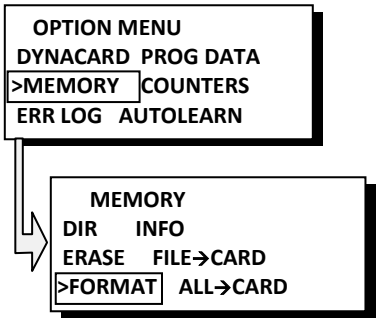
Use {UP} or {DOWN} to advance through each view each program. For each program the Analyzer displays the program number and name, the size of the program in bytes, and the time and date that the program was compiled.



Erasing a Single Analyzer Program

The MEMORY⇨ERASE function deletes a single file from the Analyzers memory.

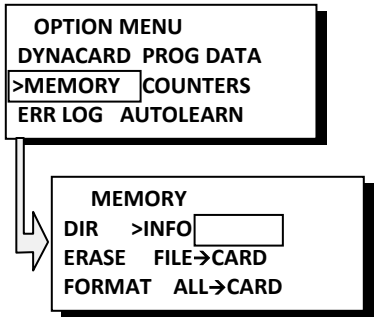
When this function is executed, the Analyzer displays a list of programs in the Analyzer. Use {UP} and {DOWN} to select the correct program then press {START}. The Analyzer will display, "Confirm? No Yes." Use {UP} or {DOWN} to select "Yes" then press {START} to delete the program.



Formatting the Analyzer Memory

The MEMORY⇨FORMAT function erases all programs on the Analyzer.

When this function is executed, the Analyzer will display "Confirm? No Yes." Use {UP} or {DOWN} to select "Yes" then press {START}.



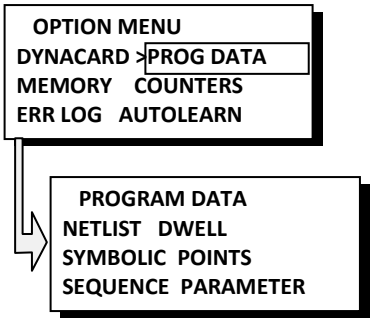
Viewing the Analyzer Memory Status

The MEMORY⇨INFO function displays information about the status of the Analyzers memory. This information includes the number of files present on the cartridge, the number of bytes used, the number of bytes free and the number of segments used.

```
 15 FILES
11872 BYTES USED
16112 BYTES FREE
 5 SEGMENTS
```

This function is executed by simply pressing {START}. Any key will return the Analyzer to the Memory Menu.

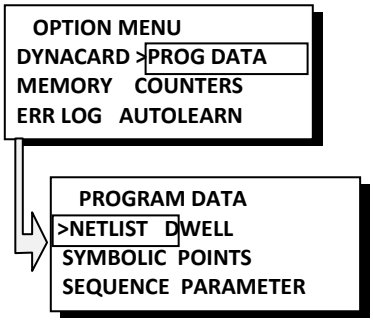
Program Data



The Program Data functions provide access to the detailed data of a program. The data displayed refers to the currently selected program (shown at the top of Main Menu).

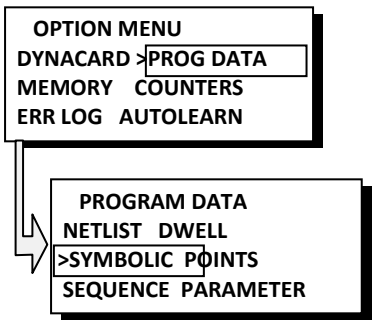
This section is typically used to reference the data that was entered into the PASS software or for a program that was Autolearned. This is done to either validate that the data is correct or to view the programs data if the PASS software file is not available. Since these functions are for reference only, some of the displayed data in encrypted and might difficult to interpret.

The NETLIST, SYMBOLIC and SEQUENCE functions only allow the data to be viewed, while the DWELL, POINTS and PARAMTERS allow the adjustment of the values. Modifying this data is typically only done to see the temporary effects on the program, without the need for changing the PASS software (i.e., what effect would changing the dwell from .1 ms to 5 ms have?). These changes are temporary and cannot be updated to the PASS software.



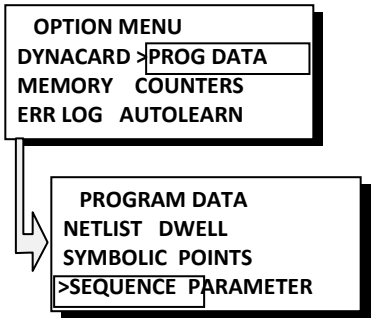
Netlist

This function displays the core level commands used for the actual electrically test. Some of the commands might be apparent, while other commands will be difficult to understand. Since this function is for simple viewing the data, the complete command set and the instruction methodology is not included in this Users Guide.



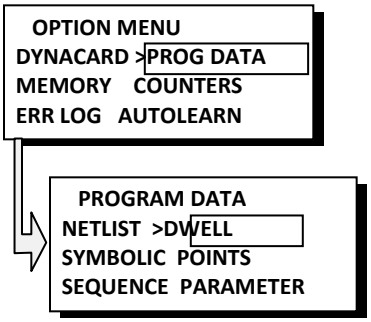
Symbolic

This function displays the information that was entered into the Fixture Connections Table, Color Table and the Message Table.



Sequence

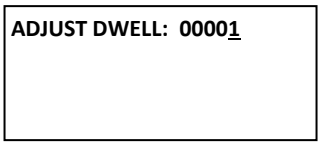
This function displays the information contained in the Sequence Table. Some of the commands displayed may not match exactly the Sequence Table in the PASS software and the Test command parameters are replaced with a numeric netlist value versus the netlist name in the PASS software.

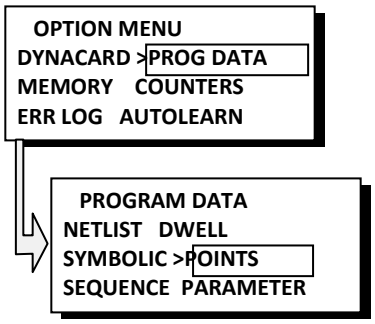


Dwell

This function displays the current value of the dwell setting. The dwell value determines the time interval the Analyzer delays after driving a point before scanning for continuity. The DWELL value is displayed in units of .1milliseconds (i.e., a value of 10 is equal to 1 millisecond).

The value is adjusted by using the {START} button to select the individual numeric character to be modified, then using the {UP} and {DOWN} arrow buttons to change the value. The value currently displayed when the {STOP} button is selected, becomes the new set value.

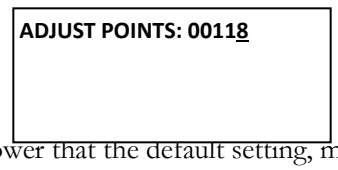




Points

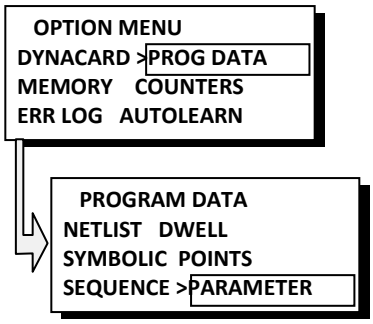
This function displays the current value for the maximum number of points of the currently selected program. For a PASS created program, this value is set from the highest point entered into the Fixture Connections Table. For an AUTOLEARN program, this values is the highest point found to have continuity with another point during the autolearn scan.

The value is adjusted by using the {START} button to select the individual numeric character to be modified, then using the {UP} and {DOWN} arrow buttons to change the value. The value currently displayed when the {STOP} button is selected, becomes the new set value.



Changing this value lower that the default setting, might cause an error during the execution of the test.

Parameters



This function displays the current values for the 16 different drive voltage/current/threshold settings. Parameter "0" contains the test parameters for all continuity/shorts scans and is set in the PASS software in the File Setting dialog box. Parameters 1 through 15 are the settings for component testing and are set in the PASS software in the Test Parameters Table.

A parameter set is selected by using the {UP} and {DOWN} arrow buttons to select the required parameter, then pressing the {START} button.

```
PARAMETER SET 0

 DR  LD  TH1  TH2
1200 400 680  680
```

The different parameters variables are selected by using the {UP} and {DOWN} arrow buttons to select the required parameter variable, then pressing the {START} button.

```
ADJ PARAMETER SET 0
>DR  1200  TH2 0680
 LD  0400
 TH1 0680
```

The value is adjusted by using the {START} button to select the individual numeric character to be modified, then using value. The value currently displayed when the {STOP} button is selected, becomes the new set value.

```
ADJUST SOURCE:  1200
```

The DRIVE and THRESHOLDS are displayed in units of .01volts (i.e., a value of 1200 is equal to 12 volts). The LOAD current is displayed in units of .01amps (i.e., a value of 400 is equal to 4 milliamps).

Quick Reload Feature

From time to time Analyzer programs may become corrupted. (This is especially true in environments with high static and inconsistent power sources). PASS 6.0 created programs add a checksum value to the program. If the program becomes corrupt, this Analyzer will detect it when the program is run. The new Quick Reload Capability makes it easier to replace a corrupted program.

If the Analyzer detects a corrupt program, it will immediately check for the presence of a DynaCard. If detected, the Analyzer will search the DynaCard for a copy of the corrupted program. If the DynaCard contains a copy of the program, the Analyzer will automatically prompt the user to replace the corrupted program in memory with the program found on the DynaCard.