

Toshiba inverter G3-Series Palm Pilot Software Manual

TOSHIBA 3-SERIES DRIVE HANDHELD PROGRAMMER PALM PILOT

Software Installation and Operation Manual

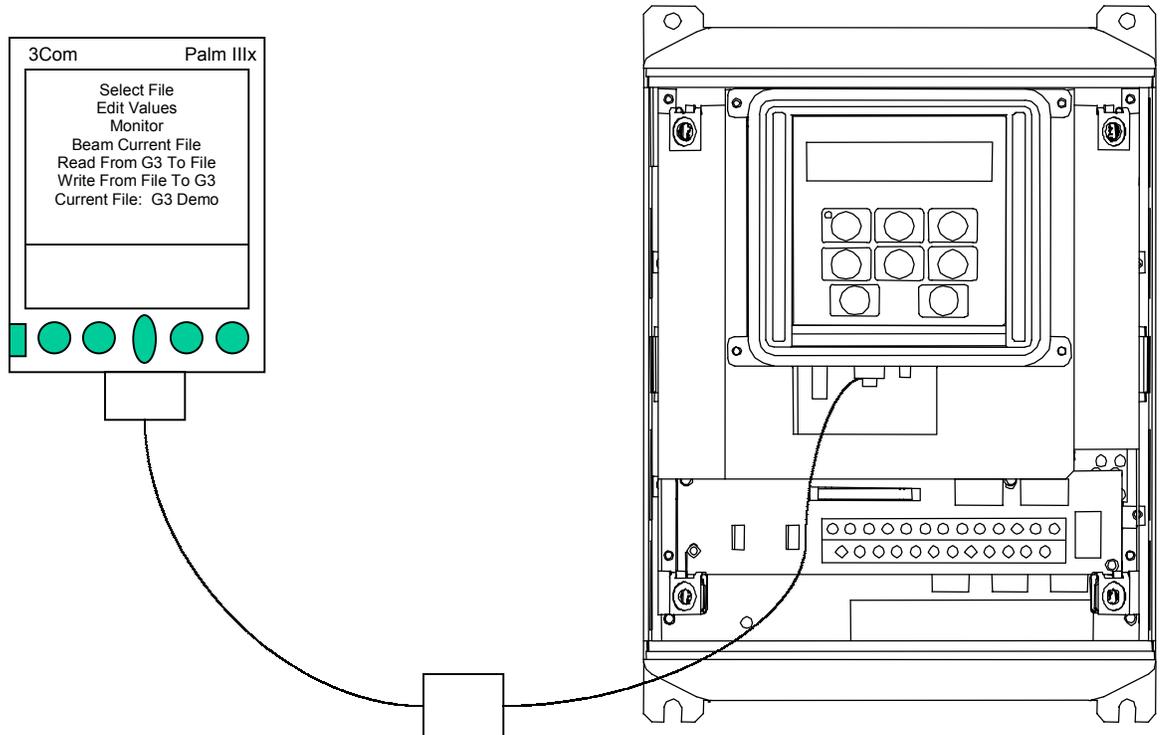


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Safety Issues and Cautions

Always remove power from the drive before connecting or disconnecting the communication cable. Failure to do so can cause damage to the drive's control board or internal low voltage DC power supplies.

Never operate the drive with the cover off. Operating the drive with the cover off presents an electrocution hazard.

Do not depend on the Palm Pilot or PC for safe operation of the drive. Always have safety interlocks in operation separate from the Palm Pilot or PC.

Have a qualified technician wire the drive.

Read the drive's Operations Manual before using the drive.

Introduction

The purpose of this manual is to guide the user through the use and installation of the 3-Series Drive Palm Pilot Software. This software allows changing parameters and monitoring drive performance through the use of a Palm Pilot.

There are a few software utilities which comprise the complete software package:

Palm Applications

Palm G3 Software

Allows editing and monitoring of parameters and data in a G3 drive. This utility installs on the Palm Pilot

Palm E3 Software

Allows editing and monitoring of parameters and data in an E3 drive. This utility installs on the Palm Pilot. Functionality between the Palm E3 Software and Palm G3 Software is almost identical, the only difference being support for some additional parameters in the E3 drive.

PC Applications

G3 File Editor

PC utility which allows the editing, upload, and download of G3 drive parameters on computer.

E3 File Editor

PC utility which allows the editing, upload, and download of E3 drive parameters on computer.

System Requirements

The following are required to load this application:

1. IBM compatible PC, 486 class or better with Win95, Win98, or Win NT 4.0 OS and Internet Explorer 4.0 or later installed.
2. PalmIII or PalmV handheld device. No problems are anticipated with the software running on later devices, but all testing has been done on these two models.
3. PalmDesktop organizer software (ver 3.0 or later) loaded on the PC. This is the software that ships with the Palm device.
4. Installation disks for this application (provided by Toshiba).
5. Palm device must have 120 K free space for application plus 2 K for each set of drive parameters stored.

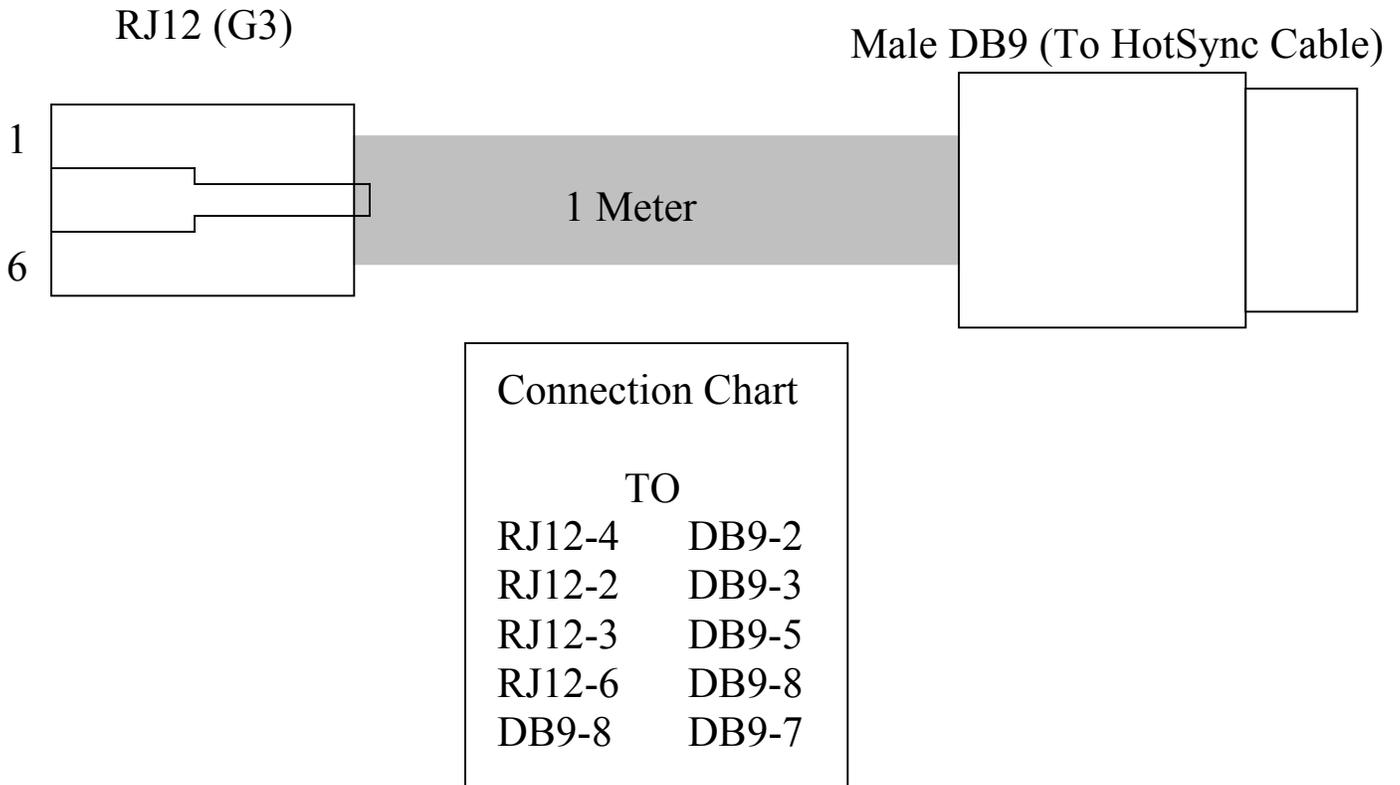
Installation

1. Uninstall any previous version of the configuration managers. This can be done by clicking on 'Add/Remove Programs ', 'Toshiba configuration tool' in the Control Panel –and then click on the Add/Remove button. If you have a previous version installed on your Palm Device, it should be deleted also. From the applications screen, click the menu button, select delete, select Toshiba E3 and click delete.
2. Close all open programs, including the hot sync manager. Insert setup disk 1 into PC. From run dialog box, type a:\setup and click Ok. (Substitute different drive path, if necessary.)
3. Installation program will start and guide you through PC installation process.
4. Restart your PC.
5. Start Palm Desktop organizer software. In the menu select View – Install. This will bring up the Palm Install Tool. Select the appropriate user for the Palm Device you wish to install the E3 or G3 application on to. Click the Add button. Navigate to the C:\E3_Data (or C:\G3_Data) directory (this was created by the setup program). Select the E3_IF.prc (or G3.prc) file. Then select 'Done' in the Palm Install Tool.
6. Hot sync the Palm Device. **This first time it is necessary to hot sync the device TWICE.** Once to install the application and once to build the databases for the file data on the device.

Cable Between Palm HotSync And Drive

It is critical that this cable be made correctly. Making this cable incorrectly can cause damage to the drive.

This cable is included as a part of INV3-PP3X and INV3-PP3KIT, so if you have purchased one of these parts, it is not necessary to assemble the below cable.



The Palm Pilot Application

Starting

To use the Palm application, turn the Palm device on and select ‘applications’. The E3/G3 application is in the unfiled category, so if you don’t see it on your screen, select either the all or the unfiled category. Tap on the E3/G3 icon. This will take you to the application’s splash screen. At the top is the title and version number. Near the bottom is a continue button. Clicking on the continue button will take you to the main screen. The main screen contains six buttons. The functions of these six buttons are explained below:

Select File

This option allows the user to select which ‘file’ to work with. All of the other functions need to know which file to use, so this is typically the first thing a user will do upon starting the E3/G3 application. It should be noted that when a ‘Read From E3/G3 to File’ occurs, the data in the currently selected file is overwritten. When a ‘Write From File To E3/G3’ occurs, the data in the currently selected file is written to the drive. When the SELECT FILE button is tapped, the File screen opens. On it are a list of files and several buttons. To select a file, click on one of the file names. The buttons are explained below.

1. OK button - If you click ok, you will be taken back to the main screen and the file you clicked on (if any) will be the currently selected file.
2. Copy button -If you click on copy, you are prompted to enter a name for the new file. This name must be less than ten characters and should not match the name of an existing file. A copy is made of the current file and given the new name.
3. Delete button – This will delete the current file.
4. Check all for drive transfer. Each parameter has a checkbox (see Edit Values, below) to determine if that parameter is written to or read from the drive. Rather than requiring the user to go through each parameter to check it, this button checks all of the parameters for the current file.
5. Uncheck all for drive transfer. Same as #4 above, but this button will uncheck all of the parameters for the current file.

Edit Values

This option allows the user to change the values of the currently selected file. When ‘Edit Values’ is selected, the user is taken to the Parameter Category screen. When one of the parameter categories is tapped, the user is taken to a list of the parameters in that category. The checkboxes on the left side of the screen allow the user to determine which parameters from the current file are to be uploaded/downloaded. The up/down arrows in the bottom right corner allow the user to move to additional pages (if any) and back. The Ok button will return to the previous screen. When the user taps on one of the parameters, the parameter change screen is shown. This consists of:

1. The parameter title
2. The four digit display
3. The range and units of the value
4. The factory setting
5. The current setting. This is either an input field or a drop-down selection box.

The application attempts to behave as much like the inverter as possible. For example, when a user changes the Acc/Dec time units from 0.1 to 0.01, all of the dependent parameters are appropriately changed. If the user lowers the upper limit frequency, all of the dependent parameters are checked to make sure they don't exceed this new value. The user should verify that the drive parameters are as expected. Also, some ranges that are valid in the Palm Application may not be valid for all drives (i.e. the Voltage rating parameters).

Monitor

This allows the user to monitor the drive's actual values in real-time (approximately 0.3 second lag). Which values are monitored are selectable in the Edit Values – Utilities – Status Monitor 1-4 display. The user should be aware that while in Monitor mode (as with all serial communications), the Palm device uses much more power than normal, and batteries will not last as long as might normally be expected.

Beam Current File

This function allows the current file to be beamed to another Palm device, allowing users to share their files. In order for this to work, the users must have Beam Receive turned on and have the Toshiba application installed on the receiving Palm Device. The Palm Devices must be fairly close to each other with the infrared ports approximately lined up. The Palm Pilot Application cannot be beamed; only drive parameter files.

Read From Drive To File

This function reads the parameters from the E3 and saves them to the **currently selected file**. The values can then be reviewed, changed, downloaded to the same or another drive, etc.

Write From File To Drive

This function behaves like the Read From E3/G3 To File function in reverse. It reads the parameters from the **currently selected file** and writes them to the drive.

Read Only Parameters

The following parameters are **read only** and will not write to the drive or show as errors: CPU Version, ROM Version, EEPROM Version, Drive Typeform, TOSLINE-S20 comm reset, Industrial application parameters selection, Standard setting mode selection.

Use of the PC application

Introduction To The PC Application

The PC program is accessed through the start menu – Programs – E3/G3_File_Editor.

The PC Application is used to setup the drive without a Palm Pilot. To use the PC application, cable the PC directly to the drive.

Cable For PC Application

A cable is included in the parts INV3-PP3X and INV3-PP3KIT for use of the PC application. If you did not purchase one of these two parts, you can use the same cable used for the G3 or E3 RS232 software.

File Management

When it is started, it loads all of the currently available files and displays them. The user can create a copy of a file (with a different name), print a file, delete a file, and select which files are to be loaded onto the palm device. Note that the Palm device overrides the PC application, so if a file is deleted in the PC application but still exists on the Palm device, it is not actually deleted. To truly delete a file, delete it in both the PC app and the Palm Device app.

File Menu

The File menu allows for Printing, Deleting, and Copying of files. The user can also Save Changes or Exit.

Utilities Menu

The Utilities menu has the following functions:

Compare File Menu

Opens a new window allowing the user to compare the currently selected file with another file. The new window lets the user select which file to compare to and will show the differences in red. The user has the option of viewing all parameters or only the ones that are different. Clicking on the parameters allows the user to edit the values for either file.

Select all files for download to Palm Device:

This option checks all of the files for download.

Deselect all files for download to Palm Device

This option unchecks all of the files so that none of them will be downloaded to the Palm.

Deselect all parameters for drive Read/Write

This function unmarks all parameters in the current file for Read/Write to the drive. That is, they will not be read or written.

Select all parameters for drive Read/Write

This function marks all parameters in the current file for Read/Write to the drive. That is, they will be read/written.

Import/Export Menu

The Import/Export menu has the following functions:

Import

This function allows the user to import a .a drive file.

Export

This function allows the user to export the current file. This enables the file to be emailed to another location, put on a disk, etc. When exported, the file is given a .tE3 or .tG3 extension. This should not be changed, as the program recognizes this extension. The exported file can be drag-and-dropped into the file window or can be imported using the import function.

Email Export File

This function exports the current file, then starts the **default MAPI client** and attaches the newly exported file to it. If there is no default MAPI client configured a message stating that the file could not be automatically e-mailed is shown.

Communications Menu

The **Communications** menu has the following functions:

Configure Comm

This function will open the drive's serial communication configuration window. From this window, the user can set up the serial connection to communicate directly with the drive. The Baud Rate, Data Bits, and Parity should match the settings on the drive. The PC COM Port should correspond to the port the serial cable is connected to on the PC. Once you have set these, the Test button will check to see if there is good communication with the drive. Rather than setting the values yourself, you can click the AutoSearch button. AutoSearch tests every combination of values until it finds the right one or has attempted them all. AutoSearch can take up to 3 minutes.

Emergency Off

This function sends an emergency off command to the drive. Note that the drive must be connected to the computer and the communication settings must be properly configured for this to work.

Stop Drive

This function sends a stop command to the drive. Note that the drive must be connected to the computer and the communication settings must be properly configured for this to work.

Reset Drive

This function sends a reset command to the drive. Note that the drive must be connected to the computer and the communication settings must be properly configured for this to work.

Monitor

This menu item opens up the Monitor window. From this window, the current value of certain parameters can be monitored. Click on any of the rows to select that parameter for monitoring (selected parameters turn green). Click on the start button to begin monitoring. Click on the stop button to end monitoring.

Read from drive to current file

This function reads the parameters from the drive and saves them to the **currently selected file**. The values can then be reviewed, changed, downloaded to the same or another drive, etc. When this menu item is selected, the PC attempts to communicate with the drive. If communication is successful, the data transfer begins. This transfer takes approximately 35 seconds at 9600 baud. The mouse changes to an hourglass while communicating with the drive. During the read, the palm device first attempts to identify the typeform of the drive. If the typeform matches, the data transfer proceeds. If the typeform does not match, the user must choose whether to overwrite the typeform for the current file and proceed or cancel the transfer. If some of the parameters are not read correctly, the user is given the option of viewing which ones did not complete by clicking on the 'View Errors' button. It should be noted that only the parameters that are selected for Read/Write will be read. Parameters that are not selected for Read/Write will not be read and will not show as errors.

Write from current file to drive:

This function behaves like the 'Read from drive to current file' function in reverse. It reads the parameters from the **currently selected file** and writes them to the drive. When the transfer is complete, any parameters that failed to write can be viewed. There are several reasons why a parameter would not be written. Some parameters cannot be changed while the drive is running, the value may be out of range for this drive, etc. It should be noted that only the parameters that are selected for Read/Write will be written. When the transfer begins, the typeform of the drive is checked against the file typeform. If the typeforms match, the transfer proceeds normally. If the typeforms do not match, the user must select whether to cancel the transfer, attempt to write all parameters, or attempt to write the non-kVA dependent parameters only.

File Management

These notes address common errors and potentially confusing functionality.

PC File Versus Palm File

The PC and the palm device will normally each have their own copy of a file. During the hot sync, the file with the most recent change date will overwrite the other. This means that if a user reads from an E3 into a file on the Palm Device, then uses the PC app to modify that same file (before doing a hot sync), and then does a hot sync, neither the Palm Device nor the PC app will have the file read from the E3. Instead, both will have the file modified on the PC because the time-date stamp it had will be newer than the time-date stamp on the Palm Device file. For this reason, the time should be set correctly on both the Palm Device and the PC.

"Marked For Download" and "Marked for Read/Write" Properties

It is easy to confuse the File 'marked for download' property and the Parameter 'marked for Read/Write to E3' property. The File marked for download property determines whether or not a specific file will be placed on the Palm Device during a hot sync. The Parameter marked for Read/Write to E3 property determines whether or not that parameter will be read or written to the E3 during an E3 Read/Write.

Creating A New File On The Palm Pilot

To create a new file of a specific typeform, create a copy of a file with that typeform. If there is no file with the typeform you desire, create a new file and then read to that file from a drive with the correct typeform. When doing a read if the typeforms don't match, the file typeform will be overwritten.

Hot-Syncing

Hot syncing occurs as normal. The Hot-Sync Manager will perform the following actions:

1. Read all of the data files from the Palm Device and save them on the PC. If files with that name already exist, the one with the most current change will be the one kept.
2. Delete all of the data files from the Palm Device.
3. Download the data files to the Palm Device that are checked for download.

Obtaining Technical Support

Technical support can be obtained from your local Toshiba salesperson, local Toshiba distributor or manufacturer's representative, or Toshiba Houston.

Contacting Toshiba Houston

Email ron.dawson@tic.toshiba.com

Telephone 800-231-1412 or 713-466-0277

Software Updates

Toshiba web page www.tic.toshiba.com