Basic Operation

In order for the Optimus to operate properly, an application program must be loaded onto the *PDT*. If upon power up the Optimus has no application program loaded, then the following Application Manger menu options will appear on the display:

MENU OPTIONS.	DESCRIPTION
Download	This option allows the user to download application programs (*.SHX), BASIC run-time (bas.ops.shx), BASIC programs (*.SYN) or font files to the terminal. There are 6 resident locations and one Active Memory. A maximum of 7 programs can be downloaded to the terminal. The application program downloaded to the Active Memory will be the only activate program running. In order to activate one of the other programs, immediately after downloading, input a name for the program desired or just press the enter key to keep its current name if one is applicable. This will enable the user to download the program. The application program's type, name, and size will be shown on the list of programs when entering the Download or Activate menu of the Application Manager. The file type is a small letter that follows the program number (01~06), it can be either 'b', 'c' or 'f' which represents BASIC program, C program or font file respectively. The program name is up to 12 characters and the program size is in units of K bytes.
Activate	This option will enable the use to activate one of the residential programs. In order to accomplish this, the use must copy one of the 6 resident programs to the Active Memory. Upon activation of the new program the original program in the Active Memory will be replaced. *Note:* A font file cannot be activated, and a BASIC program cannot be activated either if the BASIC run-time does not exist.
Upload	The *Upload* option gives the user additional method for retrieving an application program. It allows a user to transmit the application programs to a host PC or another terminal. This function also allows a terminal to be cloned without going through a PC.

Selecting and successfully completed one of these three menu options will enable the Optimus *S* to begin functional operation.

Communication and Data collection setup

The Optimus *S* Series has various ways of communicating with a host device. Depending on the model of Optimus, it can communicate via RS232, USB, or via a wireless Bluetooth connection. The two model s available are the, Optimus *S* Batch and Optimus *S* Bluetooth. These two models have various ways of data collection as well. Depending on the model it may store the data on the terminal itself or transmit live data back to a host device.

The Optimus *S* Batch model has the ability to utilize a RS232 or USB connection to communicate to a host device for both application program downloads and data collection. The Optimus *S* Batch model includes either a USB or RS232 cable. In order to begin an application download or data transfer the following steps would need to be followed.

1. Remove the Optimus cradle and either the USB or RS232 cable from the box
2. For the RS232 cable plug the 9 pin serial connector into a serial port on the host device. Plug the opposite end into the communication port of the cradle.

3. For the USB cable plug the USB end of the cable into an appropriate communication port on the host device and the opposite end of the cable into the communication port of the cradle.
4. Power up the Optimus and select the *Utlities* option.
5. This will open additional menu options. Select the *Transfer File*s option.
6. Select *Get Program* on the next menu. The unit is now ready to download an application program.
7. Place unit in cradle and download the appropriate application program.
8. Once the Optimus has received the application program the unit is ready for scanning and collecting data.

Data Collection

1. To transfer the data collected select the *Utilities* option.
2. Select the *Transfer Files* option on the next menu. And then the *Send Files* option.
3. Re-insert the Optimus unit into the cradle and upload the data to the host device.

The Optimus *S* Bluetooth model is similarly connected to the host device and programmed however, there are some key differences in the data collection process. The Optimus *S* Bluetooth supports transmission of data wirelessly and as such has the capability of communicating that data in two distinctive methods. The first of those methods is Network Emulation. The second of is Serial Emulation.

Network Emulation: Because of the wireless capability of the Optimus Bluetooth it has the capability to transmit data wirelessly to a Bluetooth equipped access point. An access point that exists and is connected to a Local Area Network (LAN) allows users to collect and transmit data in real time, minimizing time lost to transfer data to a host device.

Serial Emulation: Serial Emulation is another manner in which the wireless capable Optimus Bluetooth can transmit data and upload an application program. With Serial Emulation the Optimus Bluetooth can transmit wirelessly to any Bluetooth device that supports Serial Port Profile (SPP). The SPP supported device also allows users to download an application program to the Optimus *S* Bluetooth wirelessly.

System Settings and Operation Tests

Depending on the application program that is active on the Optimus, there are number of settings and options that may be selected for both setup and testing. The table shows a number of those settings and their descriptions.

SETTING	DESCRIPTION	DEFAULT
Clock	Set date and time for the system.	N/A
Backlight ON Period	Set the duration for the keyboard/LCD backlight	*the light goes off after 20 seconds*
CPU Speed	Set CPU running speed. There are five speeds available: Full speed, half speed, quarter speed, eighth speed and sixteenth speed.	*Full speed*
Powering Off the Terminal	Set time threshold for automatically power off when no operation is taking place during that specified period. If this value is set to zero, this function will be disabled.	*10 minutes*
Power On Options	There are two possible selections: **Program Resume**, which starts from the program being used during the last session before the last power-off; and **Program Restart**, which starts with a new program.	*Program Resume*
Key Click	Select a tone for the beeper or disable the beeper when the user presses a key button.	*Enable*
System Password	Set a password to protect the user from entering the system menu.	*no password is set*

The Optimus S has numerous tests available to the user for both operation and diagnostics. Depending on the application program that is in the active memory will determine which tests can be performed and are available to the user. The following table provides a description of the available tests.

SETTING	DESCRIPTION	DEFAULTS
Reader	To test the reading performance of the scanner. The following symbologies are enabled for the Reader test. All other symbologies will need to be enabled via programming. *Default Barcodes: Code 39, Industrial 25, Interleave 25,Codabar, Code 93, Code 128, UPCE UPCE with ADDON 2, UPCE with ADDON 5, EAN8, EAN8 with ADDON 2 EAN8 with ADDON 5, EAN13, EAN13 with ADDON 2, EAN13 with ADDON 5*	
Buzzer	To test the buzzer with different Frequency/Duration. Press **ENTER** key to start and then press any key to stop the test.	
LCD & LED	To test LCD display and LED indicator. Press **ENTER** key to start and then press any key to stop the test.	
Keyboard	To test the rubber keys. Press a key and the result will be shown on the LCD display. Note that the **FN** key should be used in conjunction with numeral keys.	
Memory	To test the data memory (SRAM). Note after the test, the contents of the memory space will be wiped out. ⚠ Warning: This test erases any data stored in the terminal.	