

7005AK1

OPERATING INSTRUCTIONS

BLUETOOTH AND HANDHELD TERMINAL UPGRADE KIT

Sept 2009



This kit, 7005AK1 from Soilmoisture Equipment Corporation, updates a MiniTrase system to make wireless Bluetooth RS232 type communication to an existing MiniTrase possible. As shipped this kit's Handheld Terminal contains a new version of TraseTerm: Soilmoisture's software for Bluetooth wireless TDR measurement taking, viewing and recording. One advantage is that the Bluetooth connection simplifies the tangle of wires that can occur and helps to avoid broken connections or cabling. When all instructions, including the MiniTrase instructions are read and taken into account then the functions such as Minitrase soil moisture to Handheld Terminal to personal computer data collection can be made.

First a full battery charge should be assured by using one of the four main universal plug types provided. Then, if the Handheld Terminal data transferring to a personal computer is not needed for initial data taking then this kit can make for data taking right out-of-the-box.

PLEASE NOTE:

- By utilizing the instructions here and in the Palm and MiniTrase manuals (observing the socket and plug types to use, such as connect AC power) then all of your connections, software installations, and operational procedures can be determined.
- Improper antistatic methods such as that causing un-noticed "charge sparks" from a person, cable, or item may damage equipment. To help, please touch the MiniTrase before attaching items to it.
- Soilmoisture Equipment Corp. is not responsible for any damage actual or inferred for misuse or improper handling of this equipment. These items are to be used solely as directed by a prudent individual under normal conditions in the applications intended.

Preparation for Installation

It is important to eventually have the new Palm and TraseTerm software on your computer: Some customers may just want to utilize the simplest of usage for a few days first and others may want to transfer data via HotSync operations right away (HotSync Palm to their Personal Computer (PC)). For the simplest or “try-out” usage, TraseTerm is preloaded on the Palm Handheld Terminal (currently the handheld terminal is the Palm Centro). Other users may desire more function very soon after getting this kit, such as to transfer data from the Centro to their PC and thus need to load the new Palm PC software and TraseTerm now (see last section, “Palm and TraseTerm Load”).

Before attempting a HotSync operation with your PC we have found the following applies:

- It best to remove all existing Palm and TraseTerm software from the PC including that in multiple folders.
- If you have various models of Palm handheld terminals and thus software such as for the PalmIIIxe, then you must use another computer.
- Since it is not operating software provided by Palm, the Soilmoisture software program TraseTerm can be erased accidentally or otherwise.
- Simple Battery exchanges reset but do not cause loss of TraseTerm nor Centro data.

PALM, CENTRO, and MiniTrase Setups and Operations

Palm Centro Airplane Mode and some other functions:

Some of the first things to do are to read the Palm Manual and insert the palm battery into the Palm Centro and to connect it to one of the chargers. Use the AC power plug type compatible for your area (suggestion: also fully charge your MiniTrase battery).

On the front of the Palm Centro there is a green “answer the phone button” and a **red “screen power” button**. The red button (red for phone hang-up and screen off) has several functions:

1. When the unit drops to power save mode, it (or the four function buttons) will wake the unit up.
2. When awake, **if the red button is held for three seconds, it will boot the phone into the Airplane Mode**. (The antenna icon in the upper right hand corner of the screen will disappear.)
3. When in the Airplane Mode, if the button is held three seconds, it will boot the phone into the On Air Mode.
4. In any active mode, tap the red button to black the screen.
5. For the longest battery charge and life it is recommended that you do not use the Palm Centro as a telephone and put it into “airplane mode” (To accomplish this see step 2).

Note: If you feel you must fully power down the Palm Centro unit rather than just typical user needs such as turning off the antenna or blanking the screen with the red button then you must remove the battery. Upon just reinserting the battery then that would perform a soft reset of the Palm.

Optional Centro Hard Reset:

(if wanted this erases “everything loaded” such as TraseTerm, Centro Factory programs remain)

1. Take off battery
2. Hold red screen power button & insert battery... and continue to hold button

PALM, CENTRO, and MiniTrase Setups and Operations (cont.)

3. Palm logo appears, and scroll bar creeps along... keep holding.
4. Screen blanks, palm logo re-appears
5. Let go of screen power button now!
6. Reset instructions are on the screen, press up (yes, oui, ja, etc.) – note: for “up”, push the silver ring nearest screen.

(Hard reset also allows you to change other application languages – while TraseTerm is still only in English)

MiniTrase Output Switch Positions and Port (Bluetooth, Modem, and Serial Port)*

- MiniTrase Output Switch up position is for serial cable output & for Bluetooth module
- Output Switch down position is for connection to a modem (cable with null adapter)
- Output Switch up position (again) can also be used for RS-232 serial cable connection

**Newer MiniTrase's with Serial numbers greater than 1226M have a different output switch.*

PC S/W WinTrase may be able to utilize PC Bluetooth (ports 1-4), consult your computer technician.

Utilizing the External MiniTrase Bluetooth

(TraseTerm 2.10 loaded on Palm)

1. Bluetooth Start-up: If the TraseTerm program on the Palm is not closed, exit the program by clicking on the Palm's home symbol (Exiting the Palm TraseTerm program also allows the MiniTrase to go to sleep, saving battery energy.) (You may also turn off the Palm).
2. Attach Bluetooth module to Serial input. Switches: power on, “output” on. Plug in a Bluetooth power plug cable (use wall plug or MiniTrase “EXT. PWR”). LEDs go on.
3. Turn on Palm and click on the home symbol to select the TraseTerm Icon at one of the Palm's home pages. (may need to scroll down such as by clicking at right on the page).

Note: Our Palms start with TraseTerm preloaded. If not, see “Palm and TraseTerm Load”.

4. TraseTerm: From the Trase Setup page set the connection dropdown arrow to Bluetooth to discover nearby devices. Select the item for the MiniTrase (CAS...). TraseTerm is now ready to communicate.
5. When you first initiate a Bluetooth connection, as necessary, enter the password 1234 (and mark the “add to trusted devices list” check box)
6. When initiating an action or connected, blue will stay on (exit program to save power).

TraseTerm Loading

Note: follow this exactly if you want it to load TraseTerm and not load extra items onto the Centro (such as not loading your personal computer's contacts list):

- 1) Install the palm desktop software first onto your Personal Computer (CD or latest at www.palm.com). If or as required run autorun.exe. (you should remove all existing Palm and TraseTerm software before doing this)
 - a) Use default question suggestions' values as answers (and check the box for accepting user agreement)
 - b) If you are asked to “make up” your Palm user name here, create any name you want.

Palm and TraseTerm Load

- c) In the “Select an application to use for your personal data” choose either Palm or Ms Outlook.
 - d) In Synchronize screen at bottom choose to “skip” synchronize at this time.
 - e) Exit “Getting started” with Smartphone screen
 - f) Eject Palm Centro disk.
- 2) Next Install TraseTerm (CD) onto your Personal Computer. If or as required run TraseTerm .exe.
 - a) Use the default question suggestions’ values as answers and finish the loading of TraseTerm.
 - b) Eject TraseTerm disk.
 - 3) Next you will set up the personal setting for later HotSync operations between the Centro and your Personal Computer:
 - a) Locate a Palm or related HotSync icon at the bottom of the screen.
 - b) Right click on the icon and choose “settings” (or Custom...) and click “applications” if they do not appear
 - c) Uncheck all selections or set as “Do Nothing” all the “Action” section settings except for the following:
 - i) (**repeated:** Uncheck all selections or set as “Do Nothing” to all settings but the rest here)
 - ii) Check the box or set as default Quick Install or Package Installer by setting to Synchronize the files
 - iii) Check the box or set as default Trase Conduit by setting to Synchronize the file
 - iv) Check the box or set as default Install (may need to set “Enabled”)
 - v) Check the box or set as default Install Service Templates (may need to set “Enabled”)
 - vi) Check the box or set as default Install to Card (may need to set “Enabled”)
 - vii) Check the box or set as default Backup (Handheld overwrites Desktop)
 - viii) Save; Check “done” if shown at bottom to close window

(Note: to load TraseTerm on the Palm some of these may not need to be set as stated)
 - 4) Next you will “HotSync” the Centro with your Personal Computer:
 - a) On the Palm Centro turn on with red button and push home symbol key.
 - b) Set top of screen menu choice to All (if it is now Main)
 - c) Attach provided USB to Palm cable to your computer and Palm (choose next available or any USB port)
 - d) Push HotSync button (see it on cable or on “All” home screen)
 - e) For choosing what user name to use, select the existing user name that you created earlier.

Palm and TraseTerm Load (cont.)

- f) After all has loaded follow screen instructions (if exists you can usually ignore any error screens)
 - g) Using the “home symbol key” (with the home menu “All” at the top) and then scrolling down you can confirm the TraseTerm Icon is there.
- 5) For more information on things such as more about Bluetooth communication uses please see other sections of the MiniTrase (CD) and Palm manuals.

PARTS

Part #	Description
0898-7005AK1	INSTRUCTIONS FOR EXTERNAL BLUETOOTH
6910	HAND HELD TERMINAL, PROGRAM AND SHIP
7005-2000C	BLUETOOTH MODULE PROGRAM BEFORE SHIP
7005A-005	BLUETOOTH PLUG UNIVERSAL AC ADAPTER
7005A-006	BLUETOOTH PLUG TO MINITRASE POWER
8008	TRASETERM LATEST VERSION
MEZ051	PALM UNIVERSAL TRAVEL CHARGER
0898-6050X3-CD	MINITRASE INSTRUCTIONS ON CD

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