
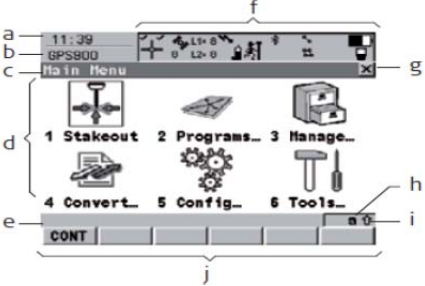














GPS 900 Quick User's Guide (CVEN 303 Civil Engineering Measurement-Fall 2013)





KEY	DESCRIPTION
Function Keys F1-F6	Correspond to the six softkeys that appear on the bottom of the screen when the screen is activated.
Hot keys F7-F12	Easy access to function keys F1-F6 in the reverse order. eg., F1 & F12 have the same functionality, similarly, F2 & F11, F 3 & F 10 etc
Alpha/ Numeric keys	To type letters and numbers.
CE	CLEAR ENTRY • Clears all entry at the beginning of user input. • Clears the last character during input.
ESC	ESCAPE • Leaves the current menu or dialog without storing changes made. • Turns receiver off when held for 2 seconds in the Main Menu screen
USER	Calls the user-defined menu.
PROG (ON)	PROGRAM • If the instrument is off: to turn instrument on. • If the instrument is on: press at any time to select an application program.
ENTER	• Selects the highlighted line and leads to the next logical dialog/menu item. • Starts the edit mode for edit fields • Opens a list box.
SHIFT	Changes between the first and second level of function keys.
Arrow Keys	Move the focus (black highlight) on the screen.
PROG + USER	Turns instrument off. 
SHIFT USER	Calls QUICK SET Change Settings to
SHIFT ▲	Pages up.
SHIFT ▼	Pages down.

SCREEN

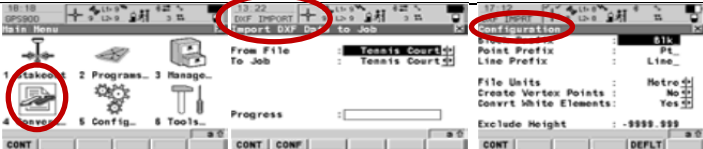

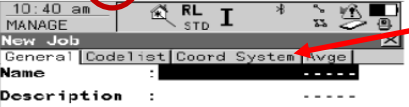
a) Time: Shows current local time	
b) Caption: Shows location in main menu under PROG key or USER key	
c) Title: Shows name of the screen	
d) Screen area: Shows the working area of the screen	
e) Message line: Display the message for 10 seconds	
f) Icons: Shows the current status information of the instrument.	
g) ESC: Same functionality as the ESC key	
h) CAPS: Activated/deactivated by F5(UPPER) or F5(LOWER)	
i) SHIFT icon:  The SHIFT key has been pressed.  Additional softkeys are available in the currently visible screen.	
j) Quick coding icon: Shows the quick coding configuration	

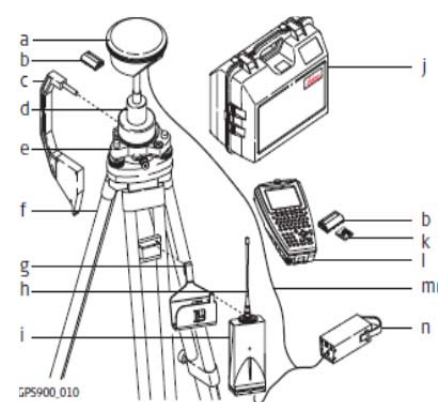
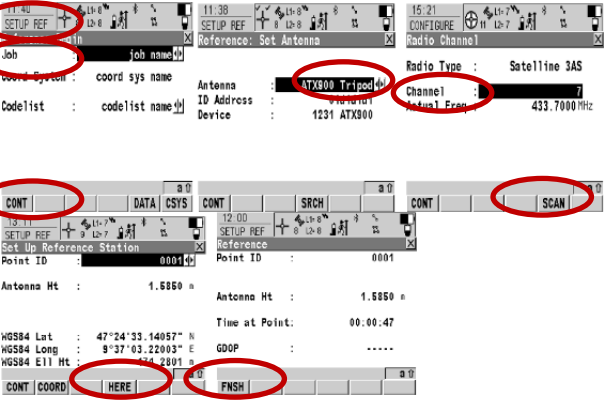
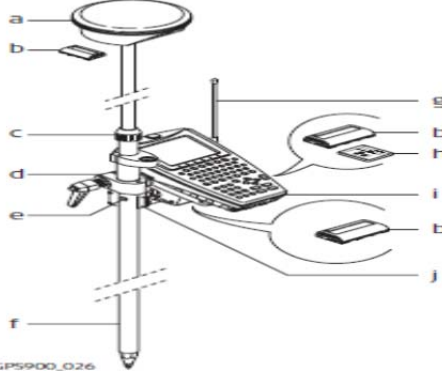


Left/right arrow buttons: More options are available. To access all the choices, put focus and press **ENTER**. To select an item from the list box, put focus and press **ENTER/ F1(CONT)**

a) Position status	10m  <1m  0.01-0.02m. The ticks indicate that an ambiguity check is being made. 
b) Visible satellites: The number of satellites being tracked.	
c) Contributing satellites: no. of satellites used for the position computation	
d) Real-time status: Arrow flashes when data is sent or received.	Radio transmitting   Radio receiving.  
e) Position mode	The active job in Data Management. 
f) Bluetooth	Touch screen: Tapping the icon leads to MANAGE 
g) Battery	Data: Job Name 

Stakeout application 	Programs menu. 	Data management (jobs, data, odelists, coordinate systems, etc.). 	Data conversion (import/export ASCII, GSI or DXF data, copy points between jobs). 
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GENERAL OPERATION

Import data from the memory to a job	Main Menu> Convert> Data>Imp Data> "ASCII/GSI / DXF" import. Press F2(CONF) to access the Configuration. Confirm the configuration & Press F1 (CONT) . Press F1 (CONT) to import data to the active job.	
Create a new job	Press 3 to access " Manage " icon in the Main Menu . Press 1 to access " Job ". Press F2(NEW) to create a new job. (You can also edit/delete a job by pressing F3(EDIT) and F4(DEL) , respectively.) Press ENTER after each entry on the "General" page. Press F6(PAGE) twice to access and manage " Coord System ". Press F1(CONT) when finished. To return to the main menu press F1(CONT) again.	 

<p>Setup a Reference</p>	<ul style="list-style-type: none"> • Set up the tripod, mount, secure and level the tribrach onto the tripod. • Place and lock the carrier into the tribrach. • Insert the battery into base receiver (optional) and screw the base receiver onto the carrier. • Hang the external battery onto a tripod leg. • Hang the tripod bracket onto a tripod leg and attach the radio housing onto the tripod bracket. Make sure that the radio antenna is screwed onto the radio housing. • Attach the Y-cable to base receiver with the 8 pin plug, to the external battery with the 5 pin plug, and to the radio housing without pins (no twisting). • Insert the battery into Data Collector. • Turn on the Base Receiver and Data Collector. 	<p>a) Base Receiver b) Battery c) Height hook d) Base arm/Carrier e) Tribrach f) Tripod g) Tripod bracket h) Radio antenna i) Radio housing j) Transport container k) Flash card l) Data Collector m) Y-cable n) External Battery</p> 
	<p>Select 2. Program from the Main Menu. Select SETUP Reference. Select the job that you created earlier or select job with “control points”, and continue F1(CONT). Select the default Antenna type (tripod) and continue F1 (CONT). Select the default settings, or enter the radio channel, press F5 (SCAN) to scan for the radio at the reference and continue F1 (CONT). Select the Point ID of the known point over which you have setup the tripod and enter the antenna height. You can either select a known stored point from the data collector, or Press F4 (HERE) to use the current navigated random position for the setup and continue F1 (CONT). Finish F1 (FNESH) the setup and return to the Main Menu.</p>	
	<ul style="list-style-type: none"> • Remove the plastic sleeve from the clamp. Slide the clamp onto the bottom part of the pole • Insert the battery into ATX900 GG. • Screw the Base receiver onto the top of the pole. • Fully extend the telescopic pole and ensure that the snap-lock clicks into its position. The snap-lock ensures that there is no slipping of the pole. • Clamp the compression lock to maintain straightness. • Set the radio with the holder. • Fix the holder to the clamp with the tightening screw. Before tightening, ensure that the holder and the bubble are on the same side. <p>Tighten the tightening screw.</p>	<p>a) Base receiver b) battery c) Compression lock of the pole d) holder for data collector e) Snap-lock of the pole f) telescopic pole g) Radio antenna h) Flash card i) Data Collector j) Radio</p> 
<p>Setup a Rover</p>	<p>Select 2. Program from the main menu. Select Survey. Select the Job you created earlier. Select the WGS1984/TxCentral coord system. Press F1 (CONT) to continue.</p> <p>Surveying the Point: Move to the point, enter the point ID. Enter the antenna height. For Leica standard poles = 2.00 m. Press F1 (OCUPY) to start measuring the point. Press F1 (STOP) when enough data is collected for the point. Press F1 (STORE) to store the point. If no more points to be surveyed, repeat the procedure. If no more points to be surveyed, continue with the next point. Continue to press ESC until the Main Menu screen appears.</p> <p>*Before the point is measured, the position mode icon is the moving icon (), indicating that the rover can still be moved around.</p> <p>*As the point is being measured, the position mode icon changes to the static icon (), indicating that the rover should remain stationary.</p> <p>*SHIFT QUIT (F6) always terminates the survey operation. In this case all data collected since pressing OCUPY (F1) is lost.</p>	