

Field Reference Guides GCS900 HEX Version 13.13

Your Construction Technology Provider

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GCS900 HEX Training Display Settings

Version: 13.1

The Control Box must be in Manager's Mode

- 1. Press "Menu"
- 2. Select "GNSS Accuracy" and Press "OK"
- 3. Press and Hold "F6" and Press "F2" Medium Mode
- 4. Change "GPS Horizontal error limit:" to "0.30ft or 0.090m" and Press "Next"
- 5. Change "GPS Vertical error limit:" to "0.30ft or 0.090m" and Press "OK" Twice
- 6. Select "Guidance Method" and Press "OK"
- 7. Use Arrow to change Adjust cut to avoid overcut: to "NO" and Press "OK"
- 8. Select "Text Items" and Press "OK"
- 9. Press "F1" and Uncheck each Item checked
- 10. Press "F1" is to select "Cut/Fill Center", "Offline (3D)" (select in order)
- 11. Press "F3" Split View
- 12. Press "F1" and Uncheck each Item checked
- 13. Press "F1" is to select "Cut/Fill Center", "Offline (3D)" (select in order)
- 14. Press "F4" Text View 1
- 15. Press "F1" and Uncheck each Item checked
- 16. Press "F1" is to select "Design Name", "Design Elev.(3D)", "Design XSlope (3D)", "V. GNSS Err (3D) and GNSS Acc. Mode (select in order)
- 17. Press "F5" Text View 2
- 18. Press "F1" and Uncheck each Item checked
- 19. Press "F1" is to select "Northing (3D)", "Easting (3D)", "Elevation (3D)", "Bucket Slope" and "Offline (3D)" (select in order)



20. Press "OK"

- 21. Select Beeper and Press "OK"
- 22. Press "F1" and Uncheck each Item checked
- 23. Press "F1" 🐷 to select On Grade and Below Grade
- 24. Press "OK"
- 25. Select "Save Settings" and Press "OK"
- 26. Select "Display Settings" and Press "OK"
- 27. Enter Operator's Name such as "Joe G" and Press "OK"
- 28. Press **"ESC"** wice to return to operating screen



GCS900 Check Bucket Wear

Version: 13.1



- 2. Select "Bucket Wear" and Press "OK"
- 3. Measure J to J1
- 4. Enter **Distance** and Press "OK"
- 5. Press **"ESC"** to return to operating screen





GCS900 Load Design

Version: 13.1



2. Select "Select Design" and Press "OK"



3. Use Arrows to highlight **Design** and Press "**OK**"

Road Road		
Slope 3D Lines	New Slope	
Road	New	
SVD SVD	Map	
	3D Lines Road SVD SVD SVD	30 Lines Road SVD SVD SVD

4. Press **"ESC"** to return to the operating screen



GCS900 Verify HEX System Accuracy

Version: 13.1

Verify the system accuracy by checking into Bench Point



- 1. Move machine to **Bench Point**
- 2. Position Bucket Tip over Bench Point
- 3. Press **"Next"** until **Text Screen 2** is displayed
- 4. Verify correct **Bucket Tip** is selected



- 5. Verify Northing, Easting and Elevation are correct (add distance above Bench Point)
- 6. See Supervisor if Northing and Easting do not match
- 7. See Supervisor if **Elevation** does not match and **Press**



GCS900 HEX Sensor Accuracy Test

Version: 13.1

- 1. Place Bucket in vertical position with teeth pointing down on a point on a solid surface
- 2. Record Cut/Fill



- 3. Uncurl Bucket and position Boom and Stick so teeth touch the same point
- 4. Verify Cut/Fill
- 5. Curl Bucket and positon bucket so teeth touch the same point
- 6. Verify Cut/Fill

(See Supervisor if Elevation is off by more than 0.2' or 70mm)







GCS900 HEX Vertical Offset

- 1. Press "F4" ito enter Horizontal and Vertical Offset
- 2. Press "F6" until Vertical Offset is displayed at the top left of screen
- 3. Enter Vertical Offset and Press **"F2"** to select above or below **Design**



- 4. Press "OK" to return to operating screen
- 5. Vertical Offset is displayed at the bottom of the screen





GCS900 HEX Horizontal Offset

Version: 13.1



- 1. Press **"F4"** to enter Horizontal and Vertical Offset
- 2. Press "F6" until Horizontal Offset is displayed at the top left of screen



3. Press "F1" Alignment:



to Select [Plan Line] if list is displayed and Press "OK" 4. Use Arrows



to position cross-hair over Line and Press "F1" Select 5. Use Arrows





6. Press "OK" and enter Offset distance



- 7. Press "F2" Select Offset to be Left or Right of the line (-3.00 is Left)
- 8. Press "OK" to return to operating screen



- 9. Horizontal Offset is highlighted in red
- 10. Press **"F1"** to change **Bucket Left**, **Right or Center**



GCS900 Vertical Guidance

Version: 13.1



- 2. Press "Guidance Method" and Press "OK"
- 3. Change Adjust cut to avoid overcut: to "NO"
- 4. Press "F1" for Change Method
- 5. Select Method from list and Press "OK"
- 6. Press "OK" to accept change
- 7. Press **"ESC"** to return to operating screen



One Point Center is the default setting used for long or wide surfaces. It also allows for shaping crowns by holding the slope past the crown- point.



One Point Focus is used for narrow surfaces such as shoulders or slopes.



GCS900 HEX Cut and Fill Site Map

- 1. Press "Menu" and select "Mapping/Recording Settings" Press "OK"
- 2. Change "Mapping for the main screen views" to "Yes" scroll down list
- 3. Change, "Minimum height mapping "Yes" and "Bucket tip mapping" to "Arm retracting"
- 4. Press "OK"
- 5. Select "Main Screen views" and Press "OK"
- 6. Under Active views select "Terrain "No", "Cut/Fill "Yes", "Pass count "No" and Press "OK"
- 7. Press "Esc" to Main Screen
- 8. Press **"F5"** until Ampling only in **Arm Retracting** is displayed
- 9. Press "Next" until Plan View with Cut/Fill Scale is displayed





GCS900 HEX UTS Set-up

Version: 13.1

- 1. Press "Menu"
- 2. Press **"F4"Mode** select **"3D UTS"** and Press **"ESC"**
- 3. Press **"F6"** to Start UTS
- 4. Verify Auto search: Yes
- 5. Press "F4" to Start UTS
- 6. Verify UTS status: Tracking
- 7. Press **"ESC"** to return to operating screen
- 8. Press and Hold **5** to open **Bench UTS** screen

Follow instructions to position Blade over Bench Point

- 9. Enter Elevation of Bench Point
- 10. Press "F5 Left or F6 Right" to Bench Blade

Drive to end of work area and check Blade Elevation on a Bench Point to verify Setup





GCS900 Lane Guidance

Version: 13.1

1. Move Bucket Tip with Focus over Lane to be Extended



2. Press "F3" for Lane Guidance



3. "F3" turns Lane Guidance Off and On







GCS900 Create New Bucket

- 1. Press "Menu"
- 2. Select **"Select Bucket"** and Press **"OK"**
- 3. Press "F2" Create New
- 4. Enter **Bucket name:** and Press **"F6"**
- 5. Select **Yes** or **No Tilt Bucket** and Press **"F6"**
- 6. Enter **Dimensions** and Press **"F6"**
- 7. **Plumb Bucket** and Press **"F6"** →
- 8. Curl Bucket until Vertical and Press "F6"
- 9. Measure **J to J1** and Press **"F6"**
- 10. Press **"F6" Finish**
- 11. Select Bucket and Press "OK"
- 12. Press **"ESC"** to return to operating screen





Connect to WiFi GCS900



- 2. Press "F2" Installation
- 3. Select "Connectivity Settings" then press "OK"
- 4. Select "Wi-Fi Network" then press "OK"
- 5. Press "F1" New
- 6. Select the Wi-Fi you wish to connect to press "OK"
- 7. Enter "Pass Phrase"
- 8. Press "**F6**"
- 9. Press "F6" Finish
- 10. Select the Wi-Fi to connect to Press "OK"
- 11. Press 2 times to return to the main menu



TCC Settings GCS900

Version: 13.1



- 2. Press "F2" Installation
- 3. Select "Connectivity Settings" then press "OK"
- 4. Select "Connected Community Settings" then press "OK"
- 5. Enter "**Device Password**" then press "**Next**"
- 6. Enter "**Organization**" then press "**Next**"
- 7. "Filespace and Work Group Folder" should be left to default
- 8. Press "OK"
- 9. Press 2 times to return to them main screen



Configure Remote Assistant GCS900

Version: 13.1



- 2. Press "F2" Installation
- 3. Select "Connectivity Settings" then press "OK"
- 4. Select "Remote Assistant Configuration" then press "OK"
- 5. Enter "Support Number"
- 6. Press "F1" Force Upgrade
- 7. Press "OK"
- 8. Press 2 times to return to them main screen



Wireless Data Sync GCS900

Version: 13.1



- 2. Press "F2" Installation
- 3. Select "Connectivity Settings" then press "OK"
- 4. Select "Wireless Data Sync" then press "OK"
- 5. Press "F1" Start
- 6. When synchronization is complete Press "ESC" 3 times to operating screen



Start Remote Assistant GCS900

Version: 13.1



- 2. Select "Remote Assistant" then press "OK"
- 3. Press "F1" Start
- 4. Once icon appears at the bottom of the screen the machine is connected
- 5. Press "**ESC**" 2 times to return to them main screen



Connect to IBSS Base Station GCS900

Version: 13.1

The Control Box must be in Manager's Mode

- 1. Press "Menu"
- 2. Press "F2" Installation
- 3. Select "Connectivity Settings" then press "OK"
- 4. Select "GNSS Base Configuration" then press "OK"
- 5. Select "IBSS-Remote Base"
- 6. Press "F1" Create New
- 7. Device Password and Organization should be populated if not see (TCC Settings Sheet)
- 8. Press "F6"
- 9. Select the Base from list and Press "F6"
- 10. Review IBSS Base Name and Press "F6" Finish
- 11. Select "IBSS Remote Base"
- 12. Use left or right arrow keys to select correct base name and Press "OK"
- 13. Press 2 times to return to operating screen

