

2D

Switching from 3D to 2D

To switch from 3D to 2D mode, press the Power button on the display, then select **Control > 3D/2D Control > 2D** (Figure 8-51).

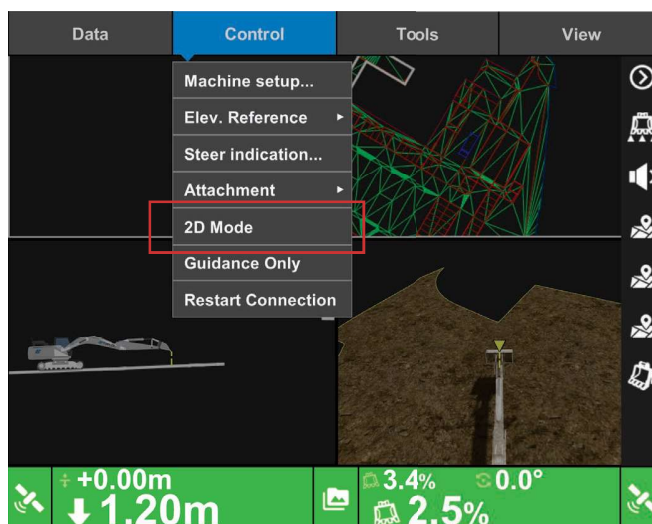


Figure 8-51: Switch Between 2D and 3D Modes

The main screen will change from 3D mode to 2D mode, where on the Profile and Section views are available (Figure 8-52).

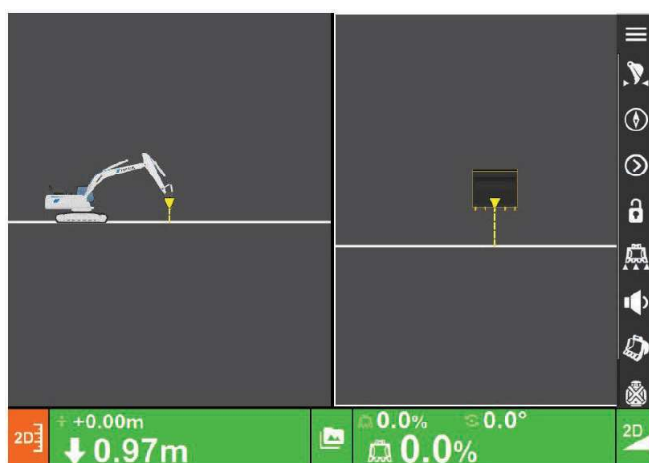


Figure 8-52: 2D Mode Profile and Section Views



NOTE

2D mode is only available if **2D**, **GPS (dual)**, or **Prism** are selected as the **Sensor type** during machine setup.

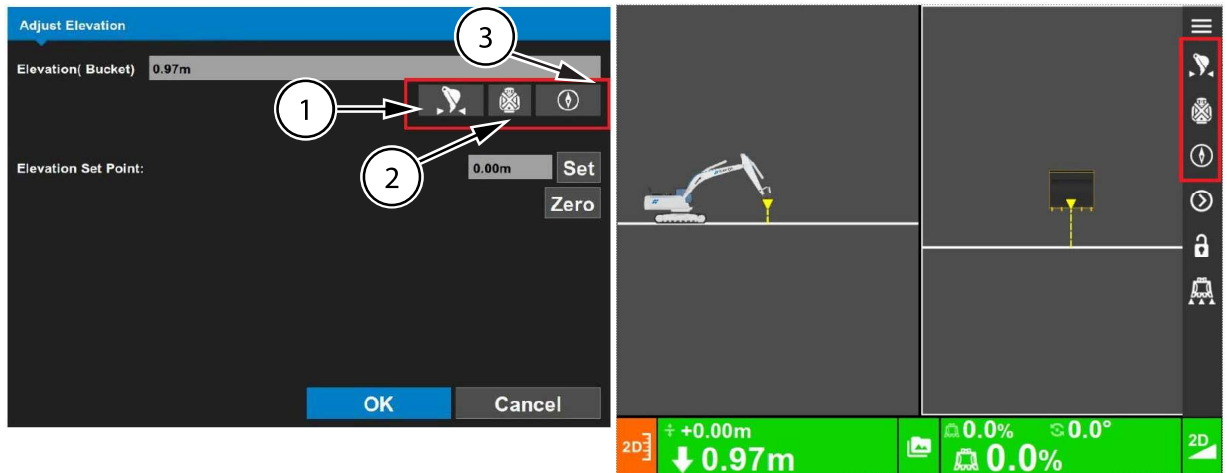
2D Operation

The operator can use a Compass, a 2D laser, a receiver or a reference a bucket elevation to enable 2D operation. These functions are available from the shortcuts in the tool bar, or by tapping on the Elevation Control Button.



NOTICE

To select the shortcut buttons, refer to “Enable/Disable Shortcut Buttons” on page 5-14.



- 1 Zero to Bucket shortcut
- 2 Zero to Laser shortcut
- 3 Zero to Compass shortcut

Figure 8-53: Zero to Bucket, Zero to Laser or Zero to Compass Shortcuts

Zero to Bucket

When the excavator is starting for the day, or moves its tracks to a new location while working, an elevation reference must be established. In the Elevation Control Button menu, select **Zero to Bucket** to set the bucket to a known reference point and set the elevation reference to zero. Elevations are then calculated for the area within the reach of the excavator. If the excavator moves to a different location, repeat the process to follow the elevation or slope.



NOTICE

The operator places the bucket on known good grade and is able to match the existing grade. It's only as accurate as the grade being matched.

Zero to Laser

Set up a laser transmitter over a known point and mount a laser receiver on the stick of the excavator. When the laser receiver is in the path of the transmitted laser beam, select **Zero to Laser** to zero out the elevation so that all elevations within the reach of the excavator are known.



NOTICE

If the excavator moves to a different location, the operator will lower the stick until laser receiver is within the beam and reference the laser. The system will determine the new bucket elevation eliminating elevation errors.

Zero to Compass

The compass functions are mostly used with **complex slope** or **dual slope** surfaces.

The compass will remember the surface slope orientations—even if the machine moves to a different location.



NOTICE

Zero to Laser or **Zero to Bucket** must be performed every time the excavator changes location—this guarantees the correct elevation.

If **Zero to Compass** is performed, the complex slope or dual slope surfaces will reset the slope orientations in regards to the actual machine mainfall position.

If the Excavator is executing work where a minimal amount of Cab rotation is involved (for example, digging a straight trench), it is advised to perform the **Zero to Compass** process more often for optimal performance.

If the Excavator is executing work where a minimal amount of Cab rotation is involved (for example, digging a straight trench), **Zero to Compass** can be performed with accurate results.



NOTICE

The TS-i4 IMU sensor can drift if the Excavator is not in motion. Repetitive cab swinging reduces the TS-i4 IMU drift effect.

Enable Compass Functions

1. From the **Control** menu, select **Compass Enabled** (Figure 8-54).

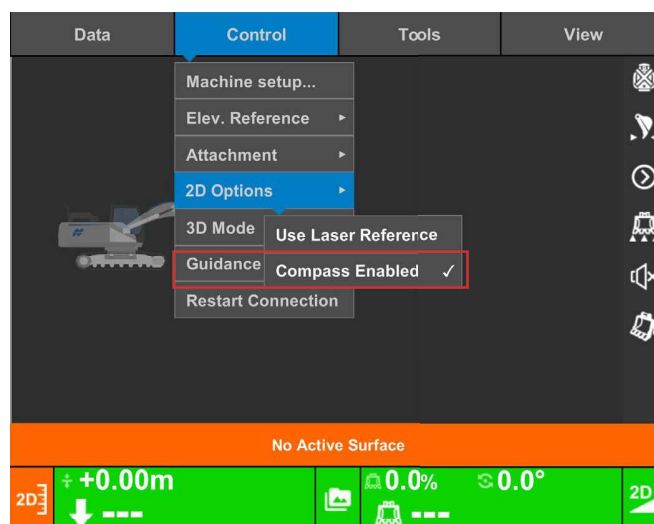


Figure 8-54: Compass Enabled

2. To disable **Compass Functionalities**, repeat step 1.

Create 2D Slopes

2D mode offers the operator the ability of creating simple slopes, dual slopes and complex slopes.

Known Slope

To create a simple sloping surface, press the Power button on the display, then select **Tools > Known Slope**. Enter a slope percentage, or both the rise and run, to create the 2D surface (Figure 8-55).

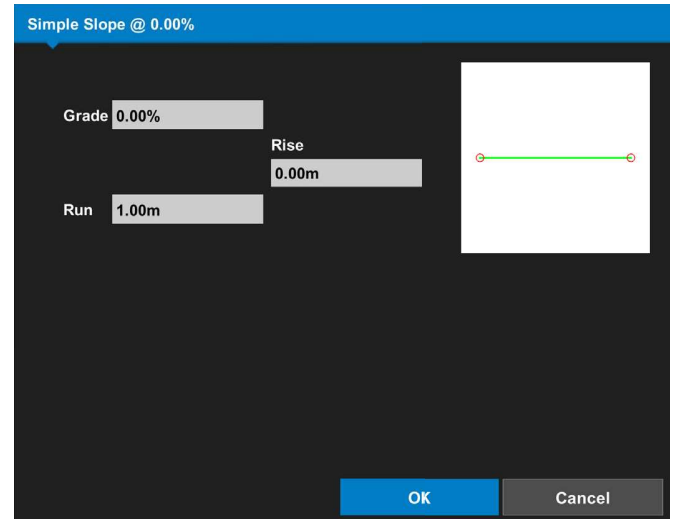


Figure 8-55: Known Slope

Known Dual Slope

Known dual slopes require an installed compass.

1. To create a known dual slope, press the Power button on the display, then select **Tools > Known Dual Slope**.
2. Enter a percentage, or both the **Rise** and **Run** for each slope (Figure 8-56).

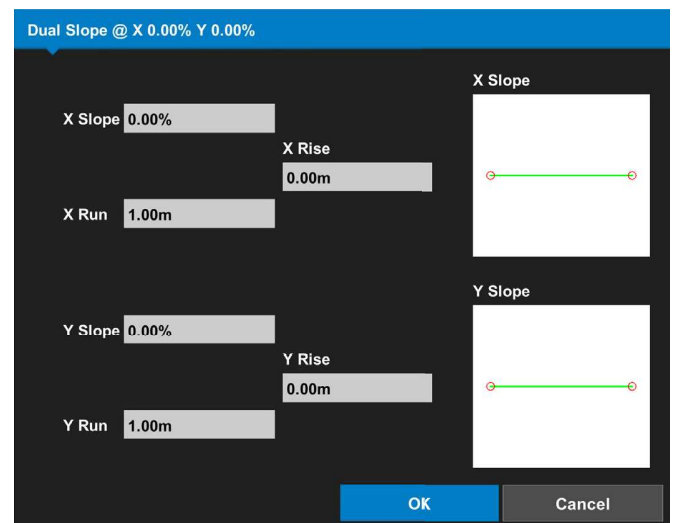


Figure 8-56: Known Dual Slope

Measure Slope

To create a simple sloping surface by measuring two points with the bucket, press the Power button on the display, then select **Tools > Measure Slope**. Follow the on-screen instructions.

Complex Slope

Complex slopes are created in a series of segments. The segments are added and shown from left to right. When adding or editing a segment, any two of the four parameters may be entered to calculate the remaining parameters.

To create a complex slope, do the following.

1. Press the Power button on the display, then select **Tools > Complex Slope**. The **Complex Slope** screen appears (Figure 8-57).
2. To add a **Slope Element**, select **Add** and enter the parameters on the **Edit Slope** screen (Figure 8-57).

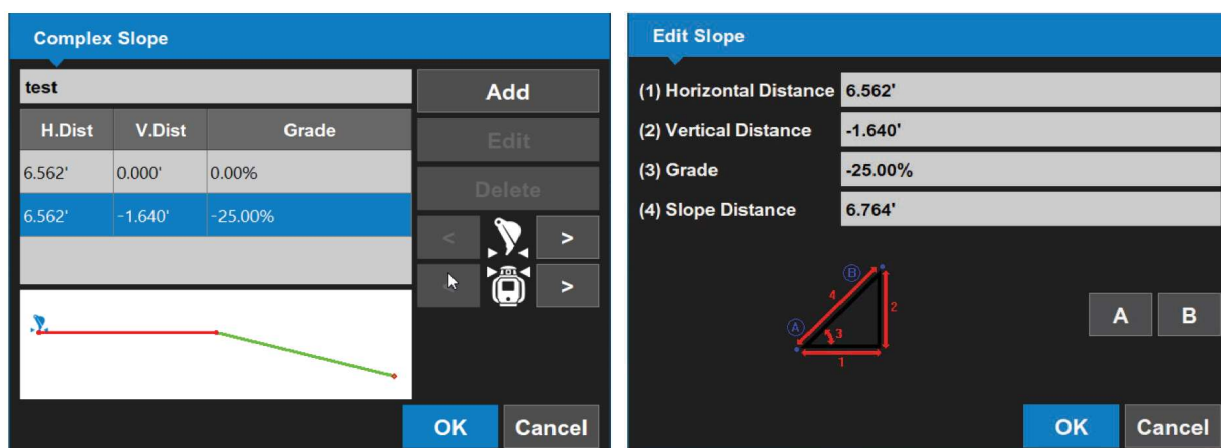


Figure 8-57: Complex Slope and Edit Slope Screens

3. Select **OK** to return to the **Complex Slope** screen (Figure 8-57).
4. On the **Complex Slope** screen, move the bucket or laser transmitter to the desired transition location and select **OK** to return to the main screen.
5. On the main screen, select the Elevation Control Button and reference the elevation with **Zero** to bucket or **Zero** to laser.

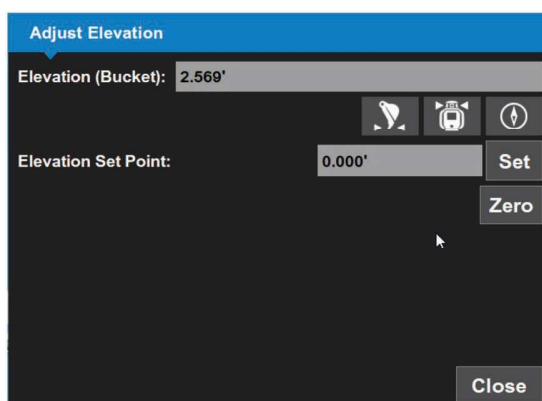


Figure 8-58: Zero to Bucket/Zero to Laser