RUN SCREEN

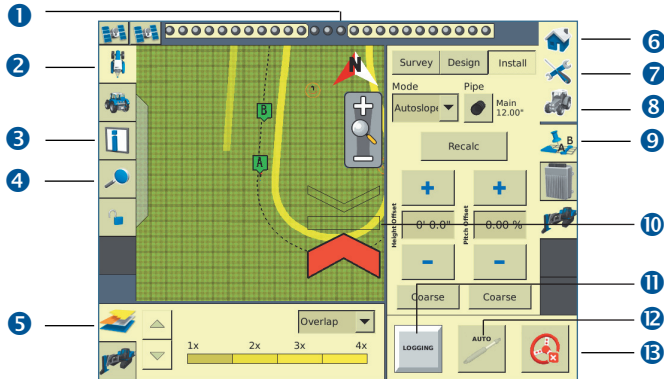|	Item	Description
❶	Offline guidance display	When the vehicle is online, the center indicators are green. When the vehicle moves offline, the indicators change to red and move to either side, depending on the direction to the line.
❷	Vehicle view	Tap to toggle between overhead and trailing views.
❸	Information dialog	Tap to display a larger amount of permanent text for operations relating to the display while viewing the Run dialog in the upper right-hand corner.
❹	Zoom and Pan	Tap to show zoom and pan function buttons. To zoom in and out, tap the magnifying glass; to pan in any direction, tap the arrow buttons. You can also tap the main map window to adjust the zoom level.
❺	Coverage theme	Displays coverage and variety tracking settings - can show height, coverage/overlap, variety, and GPS quality.
❻	Home	Tap to close a field and return to the start window.
❼	Setup and Configuration	Tap to change some setup and display options when the field is open.
❽	Run icon	Tap to take a picture of the current screen.
❾	Active plug-in tab	Show status and control functions for the applications connected to the FmX® integrated display. Tap the Tab icon to change the tab.
❿	Primary Cut / Fill indicator	When the blade is below grade, the up arrow is red (thin is close; thick is a long way off). When the blade is below grade, and cut is requird, the down arrow is red. When the blade is on grade, the center is green.
⓫	Logging	Log the coverage, so that you can see on your map where you have been dependent on the implement width. A shape file is also created with cut / fill and height information.
⓬	Auto	Set Automatics to the hydraulic valve. The blade or boot tile boot will be driven to the design depth, depending on where you are relative to the section line.
⓭	Engage panel	Contains the engage controls for plug-ins such as the Autopilot™ automated steering system, TrueTracker™ implement steering, and the FieldLevel II automated levelling system. Also controls for coverage logging.

USING THE WM-DRAIN FARM DRAINAGE SYSTEM ON THE FmX INTEGRATED DISPLAY

Note: For more information on system calibration and settings, see the WM-Drain section of the FmX Integrated Display User Guide. The FmX integrated display has built-in, context-sensitive Help that lets you quickly find information you need about the current screen. To access the Help from any configuration screen, tap ?.

Benchmarks

Before you can create a survey, you must set a benchmark—a point at a known location. You can use benchmarks to return to a point in the field with known coordinates to re-calibrate your exact position.

The first benchmark you create on a field is called the master benchmark. Field coordinates are calculated from this point. Subsequent benchmarks are called benchmarks. In either plan or perspective view:

• A master benchmark appears as an orange flag labeled MB.
• Benchmarks appear as orange flags, labeled with their corresponding number.

Surveying a Section

1. Drive the vehicle to the start of the line where you want to install tile or clean a ditch (the most efficient way is starting at the high end of the line).
2. Open the *WM-Drain* tab and then tap the *Survey* tab.
3. Define the *Design Type* and *Design Size* of the pipe.
4. Raise the implement to the pre-defined *Survey Height Offset*.
5. Tap **Record** and then drive the line all the way to the end point (the most efficient way if to connect the tile line to a main or outlet at the end point):
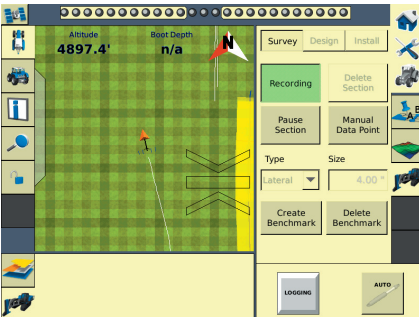
6. To stop the recording, tap **Record** again at the end point.

Note: The Record button turn greens when activated, and turns grey when deactivated.

You have now successfully surveyed the line where the tile is to be installed or the ditch is to be cleaned.
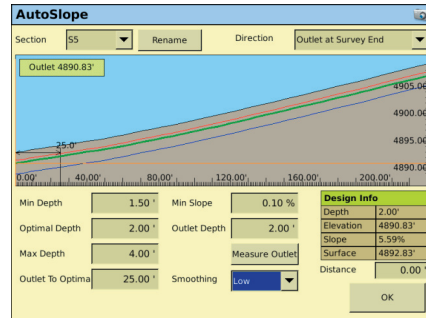
Designing a Section

Tap the *Design* tab to create an Autoslope design based on a set of user-defined criteria.

Note: You do not need to do this if you want to install by defining a uniform slope in Point and Slope (Slope) mode.

To create a design:

1. Select the relative Section Line and then tap *Design*:

2. In the *AutoSlope* screen, edit the constraint fields as required.

Constraint	Description
Section Selection	Auto: The nearest section line is automatically selected. Manual: Manually select a section from the dropdown list.
Section Direction	The direction of the profile is defined by the direction that it was surveyed. If you want your profile displayed in the other direction, switch between **Outlet at Survey Start** and **Outlet at Survey End**.
Min Depth	The minimum depth for the tile or ditch installation. The system will not allow the design profile to be any shallower than the minimum depth. The minimum depth is shown on the profile as a red line.
Optimal Depth	The depth to install the tile or ditch. The design will keep to this depth where it can. It will move off the optional depth to be within the other constraints where it needs to be.
Max Depth	The maximum depth for the tile or ditch installation. The system will not allow the design profile to be any deeper than the maximum depth. The maximum depth is shown on the profile as a bule line.
Min Slope	The minimum slope for the tile or ditch installation. The system will not allow the design slope to be any less than the minimum slope.
Outlet to Optimal	The distance it takes to change the depth of the design from the Outlet Depth to the Optimal Depth. The tile plow will level out over a longer distance, rather than trying to achieve the depth too quickly at the start of a run.

Constraint	Description
Outlet Depth	The depth at which the design profile will be at the outlet. The Outlet Depth can either be entered or measured. To measure the outlet depth, you can drop the tile plow into the ground so that the boot is at the same height as the main or outlet. Tap **Measure**; the outlet depth is entered automatically. When you do this, another point is added onto the section line, provided that you are withing 20 m (65 ft) of the end of the surveyed section line. The height of the outlet is displayed on the profile in a yellow tag.

Note: For ditching applications, the Min Depth and Optimal Depth are set close to the surface.

Installing

Tap the *Install* tab. Select the *Slope* mode if you want to install based on a defined slope percentage or Autoslope if you want to use the design created in the *Design* tab:

### Point and Slope (Slope) mode

Use the plus and minus button to define the installation slope. The slope defined as the percentage vertical drop against horizontal travel.

A positive slope goes upwards and a negative slope goes downward. For example, if the slope is set to -1%, the slope will drop 1 ft for every 100 feet traveled horizontally.

Vertical drop (1 ft)

Actual slope (-1%)

Horizontal travel (100 ft)
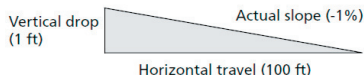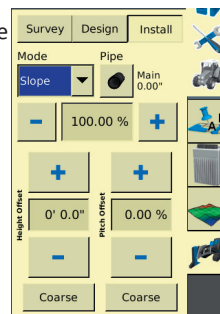
Autoslope mode

In Autoslope mode, tap **Recalc** to readjust the design from the current point if you run into an obstruction. For example, when the tile plow encounters a rock, pull the boot up over the rock and then tap **Recalc**. This will modify the design to ensure that the rest of the tile run stays within the minimum slope requirement, preventing the pipe from diving down to the original design grade.
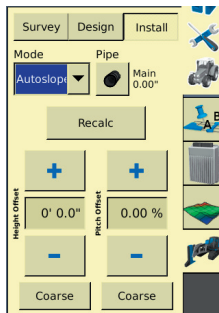
Note: *This feature works only when installing tile in the direction away from the outlet point.*

Install adjustments

In either mode, you can adjust both of the following:

• Height Offset: Raises or lowers the tile boot or blade relative to the design height.
• Pitch Offset (applies only to Pitch and Height mode with the IMD-600 unit): Increases or decreases the blade pitch relative to the design pitch.

The **Coarse** button under the Height and Pitch Offset allows for larger incremental changes as defined in the blade settings.

Trimble