



**HEMISPHERE GRADEMATRIX**  
**Quick reference booklet**



Produced by Red Edge Resources.

Ver 1.0



**To turn on system:** press and hold the orange button until it beeps.

**To turn off System:**



Press this icon in the top right



Press this icon and select shut down.

This will turn off the system safely without damaging the unit.

**TASKBAR ICONS**

**Receiving corrections:**



This is located in the top taskbar and lets you know that your system is reading accurately. If it is not **FIXED** then you will not get cut/fill readings or take Topo points.



Press this icon to get quick information regarding your position with coordinates.

**Press it again to close it.**

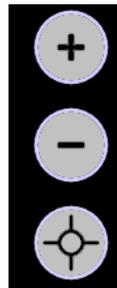


Press this icon to get more detailed information on radio, satellites, sensors etc.

**Press it again to close it.**



Press this icon to change your views—plan, profile, cross section etc.



Zoom in

Zoom out

Centre on vehicle

### CUT/FILL Bar

Your cut/fill bar will be to the left of screen. It will show when to cut or fill in relation to the design surface.



If it has yellow and black stripes it means your either not on the design surface or your sensors are offline.

These arrows will increase or decrease your design offset.



Ensure you check this is correct before work.

**Warning: Putting in an offset changes the design and therefore the potential for you to over/under cut.**

**A design offset can only be approved by a supervisor.**

### Open an existing job/design:



Press this icon in the top left of screen



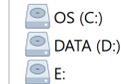
Press this icon

#### Places



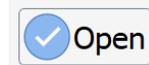
Navigate to the file location where the jobs are saved. This is normally the first screen that comes up.

#### Drives



New Job

Job icon looks like this and will have a design name. Select the one you need.



Press this icon to load that job.



## Create a Job



Press this icon in the top left of screen



Select the man Bottom left



Tick 'Administrator'



Select New Job

## Job Basics:

### Job Basics

Name:

Put in name of design/job and then press Next

Description:



## Job files:

### Load localization file

**\*\*ONLY REQUIRED IF YOUR STE USES LOCAL COORDINATES\*\***

Job Files  
Localisation:

Click in the red circle area to bring up the selection screen

Select your .loc file and press open

### Load linework file

Click in the red circle area to bring up the file selection screen

Linework:

select the USB drive on the left of screen, normally D:

Select your linework file and press open



It should look like this:

The screenshot shows the software interface with two main sections: 'Job Files' and 'Job Mapping'.  
**Job Files:** Localisation: Training localisation.loc; Geoid Separation: (empty); Horizontal Shift: (empty); Linework: DEMO LINEWORK.dxf; Guideline: (empty); Survey Topo: (empty).  
**Surface Options:** Surfaces: DEMO SURFACE; File Path: DEMO SURFACE.dxf; Work Type: Design; Fill Style: Solid Fill; Fill Colour: #FF0000; Line Style: Solid Line; Line Colour: #FFFF00; Alert Method: Not Applicable; Always on Top: (checked); Show in Views: (checked).  
**Job Mapping:** Units of Record: Metres; Transform Method: Similarity; Alignment Method: Align to Grid; Job Scale: 1.0000000000000000; Geo-reference/State Grid: UTM/UPS Standard.

Press next and then upload your surface file

Press 'Add' and upload surface file the same way as the linework

Press next

If you use published coordinates press on 'Geo-reference' tab and select your coordinate system

Press Next and Finish

The job will be created and loaded to the screen for you.



### Change frequency:



Press this icon



Press arrow to next screen



Press 'RTK Source config'

Select the drop down box

Channel: CH 01



CH 1, RX 451.800000 MHz, BW 12.5 kHz

Select the channel number that corresponds to your job site. If it is not there, input the Frequency and Channel width.

Channel	Frequency	Channel Width
Channel 1	451.800000MHz	12.5kHz
Channel 2	469.550000MHz	25.0kHz
Channel 3	464.500000MHz	25.0kHz
Channel 4	462.125000MHz	25.0kHz
Channel 5	464.550000MHz	25.0kHz

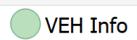
Press ok to apply settings.



### Check current elevation when checking accuracy of machine.



Press this icon top right



VEH Info Open this tab



Press this icon

Box will come up with all the Northings, eastings and elevation for various points of interests. Check these against your bench mark (control point on the ground)

Point-Of-Interest	Northing	Easting	Elevation
Stick	8,207,287.292m	-10,415,088.9...	214.746
Bucket	8,207,287.292m	-10,415,088.9...	211.746
Center	8,207,287.292m	-10,415,088.9...	210.246
Left	8,207,287.600m	-10,415,089.8...	210.246
Right	8,207,286.985m	-10,415,087.9...	210.246
Boom Dist	1.871m		
Stick Dist	6.455m		
Bucket Dist	4.587m		

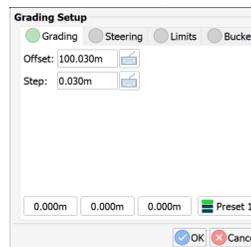
Metres



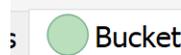
### Change point of interest on the bucket.

(Where the GPS reads to and shows a cut/ fill on your screen).

Hold your finger on the cut/fill indicator to the left of screen.



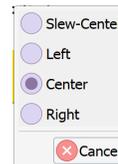
A grading setup box will appear



Select the bucket tab. (Will be blade if in Dozer)



Select dropdown box arrow.



Select the position you want to get GPS guidance from—Left, centre or right bucket tip



### Using Topo to create points and calc inverse

Use Topo to create a topo point file by either manually storing points or auto storing points and then use the calculator to get distances between those points.



Press this icon



Press this icon

#### General settings:

Input name of topo file

Survey Topo:

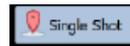
Choose manual or auto top

Save Method:

Fill in other settings as required



Once complete press this icon



Is for manual storing of points



Start auto is for automatic storing of points either by time intervals or distance travelled.

Press either of those icons to start staking points.

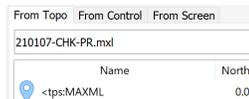
#### To calculate distance between points:



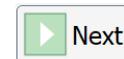
Press this icon



Press this icon



Select the first point from the Topo list



Press next and then select the next point and then press next again

#### Results page will come up

Results page will give you distances between those two points. Select finish to return to the main area.



### Transfer points to USB (.csv file)



Press this icon



Press this icon (File tools)

Export from: Select your current job

#### Export Files

Export from: 16n

Tick only 'Export topo' and select CSV via drop down box

<input type="checkbox"/>	Export grid as:	LandXML	▼
<input type="checkbox"/>	Export tin as:	LandXML	▼
<input checked="" type="checkbox"/>	Export topo as:	CSV	▼



Export to—Select your USB drive

Export to: D:/



Select finish

Your points will be transferred to the drive you selected. It will be in a .csv file format



**Support contact number:**

1300 769 359

