



# TOPCON TIERRA

REMOTE ASSET MANAGEMENT





## Visibility to Remote Assets 24/7 Anywhere in the World

- Reduce fuel costs and emissions
- Improve machine security
- Optimize maintenance
- Manage equipment utilization

### Reduce cost and improve productivity

Telematics has become the decisive factor for the future. Adopting and utilizing the best technology for your business will help you to increase your productivity and profitability like never before.

If you want to be a leader in your market, Topcon Tierra™ should be your first choice. We work everyday to help companies just like yours to achieve tangible and measurable results by using the latest research, the smartest technology and the most secure systems on the planet.

The Topcon Tierra solution has three components.

- Tierra Hardware is the communications device installed on your machine.
- Tierra Subscription Plan enables the features you need, and configures how often the unit communicates.
- Tierra Web is the internet based user interface — where you'll go to configure alerts, generate reports, and more.

### Construction

“At a glance” you can view machine metrics, performance statistics and real time situations.

### Agriculture

Simply track everything with equipment maintenance and custom services.

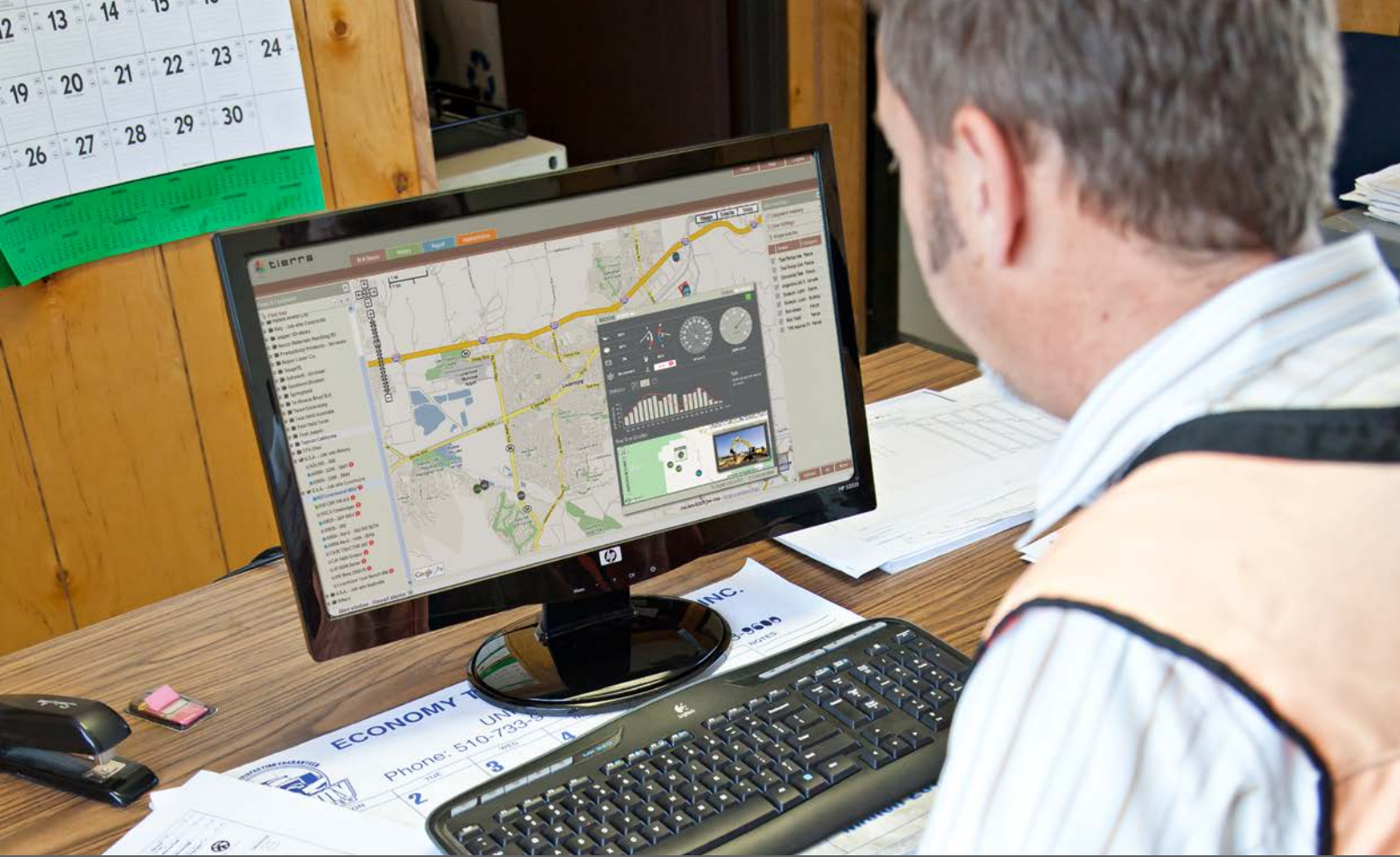
### Fleet management

Tierra provides you with critical data effortlessly, from and to on-board equipment. You will be able to see all of your assets on worldwide maps.

Equipment ID	Team	Hours	Fuel	Miles per gallon		
STK 107 572-0247	Team 1	010710 06 28 42	010710 06 38 42	00 02 20	0 191	
STK 107 572-0247	Team 1	010710 06 33 37	010710 06 35 01	00 01 28	00 01 24	0 193
STK 107 572-0247	Team 1	010710 06 36 46	010710 06 38 28	00 01 42	00 01 52	0 191
STK 107 572-0247	Team 1	010710 06 41 25	010710 06 42 57	00 01 32	00 01 32	0 208
STK 107 572-0247	Team 1	010710 06 44 39	010710 06 46 18	00 01 40	00 01 40	0 199
STK 107 572-0247	Team 1	010710 06 44 39	010710 06 46 18	00 01 40	00 01 40	0 199
STK 107 572-0247	Team 1	010710 06 49 09	010710 06 50 30	00 01 24	00 01 24	0 194
STK 107 572-0247	Team 1	010710 06 49 09	010710 06 51 24	2 hours 00 26 58	07 29 03	06 091
STK 107 572-0247	Team 1	010710 06 52 13	010710 06 53 53	00 01 40	00 01 40	0 188
STK 107 572-0247	Team 1	010710 06 56 20	010710 06 57 58	00 01 20	00 01 20	0 196
STK 107 572-0247	Team 1	010710 06 59 28	010710 07 01 10	00 01 20	00 01 26	0 190
STK 107 572-0247	Team 1	010710 07 04 09	010710 07 05 26	00 01 17	00 01 17	0 195
STK 107 572-0247	Team 1	010710 07 24 42	010710 07 25 19	00 01 36	00 01 36	0 211
STK 107 572-0247	Team 1	010710 07 26 46	010710 07 27 57	00 01 11	00 01 11	0 188
STK 107 572-0247	Team 1	010710 07 31 37	010710 07 34 06	00 02 29	00 02 29	0 209
STK 107 572-0247	Team 1	010710 07 36 30	010710 07 38 14	00 01 16	00 01 16	0 183
STK 107 572-0247	Team 1	010710 07 40 52	010710 07 41 38	00 01 26	00 01 26	0 203
STK 107 572-0247	Team 1	010710 07 44 17	010710 07 45 30	00 01 21	00 01 21	0 199
STK 107 572-0247	Team 1	010710 07 47 53	010710 07 49 18	00 02 00	00 02 00	0 188
STK 107 572-0247	Team 1	010710 07 52 05	010710 07 53 22	00 01 17	00 01 17	0 175
STK 107 572-0247	Team 1	010710 08 00 16	010710 08 01 54	00 01 40	00 01 40	0 206

### Job costing

Most contractors gather machine run time for job costing. The data gathering process is typically expensive, labor intensive, subject to clerical errors, and even more subject to fudging. Tierra provides this information daily, and reports are available with a few simple keystrokes. The data is reliably accurate, and not subject to human error.



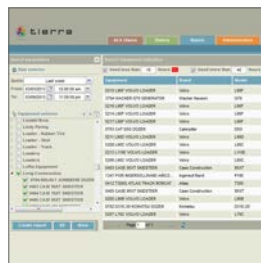
### The Tierra Value Proposition

Tierra is a tool for gathering remote machine locations, operating hours and machine information. The Tierra solution allows managers to make more informed decisions, and eliminates slow, inaccurate, and labor intensive data gathering regimens. Tierra sifts through all that data and provides immediate alerts and useful reports assisting managers to focus on the things that are actionable, with minimal effort required to uncover important pieces of information. Tierra is designed to alert you when a situation is less than ideal, allowing you to take immediate steps to improve the situation.

### AM53

The AM family has a powerful on-board processor with significant memory allowing up to 10 second logging of all parameters when the engine is running. All datum is stored with a UTC timestamp.

AM53 On-board Device	
Micro Processor	ARM Cortex M3
RAM / Flash NAND	32 MB / 256 MB
Ports and Connectors	
Serial Port	1x RS232 <sup>1</sup>
CAN Bus	2
Connector	1x Deutsch 12R pin GPS: SMA GSM: TNC
Components	
Real Time Clock (Internal)	Yes
UMTS Modem (Internal)	800 / 850 / 900 / 1900 / 2100 MHz
GMS Modem (Internal)	850 / 900 / 1800 / 1900 MHz and SMS capable
CDMA Modem (Internal)	BC0/BC1 and BC10 subclass 2+3, 800 / 1900 MHz
Antennas (External)	GPS, GLONASS, and GSM
GNSS Receiver	GPS L1, GLONASS Ready; 20 Channels
Input Device	2x Digital/Analog/Frequency
Output Device	1x Digital
Power	
Power Supply	Ground and battery 9 to 36 V
Batteries (Internal)	NIMH
Remote Capabilities	
Configuration	Yes
Firmware Update <sup>2</sup>	Yes
Physical and Environmental	
Dust/Water Rating	IP67
Operating Temp	-30°C to 85°C
Humidity	5 to 95% RH
Vibration	25 Grms from 20 to 2000 Hz
Shock	45 Grms
Size (l x w x h)	133 x 119 x 36 mm
Weight	285 grams
<sup>1</sup> Debug Software (flash & configuration)	
<sup>2</sup> With the exception of downloading time, updates are performed during normal usage.	



### Productivity

- Productivity measurement
- Utilization of the sensor or CAN Bus capabilities of your Tierra hardware shows which hours are productive and which hours are idle

### Maintenance

- Receive scheduled maintenance alerts

### Utilization

- Determine which machines are not being used
- Re-evaluate machine usage on job sites
- Redeploy machines that are under utilized on different jobsites

### Security

- Multiple security options such as curfew, geofencing and motion detection
- Notification by text message or email
- Easy to track and recover
- Reduce theft related costs



For more information:  
[topconpositioning.com/tierra](http://topconpositioning.com/tierra)

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