

TRIUMPH-LS and J-Field



Hands free operation

RAMS

Remote Assistance & Monitoring Services (RAMS) allows you to connect to your TRIUMPH-LS from anywhere in the world when both your computer and TRIUMPH-LS have access to the Internet. Every function of J-Field that is available to the operator of the TRIUMPH-LS that's in the field, is available to the remote viewer!



There's nothing else on the surveying market like RAMS, that I'm aware of. What an extremely handy tool that works really well and is perfectly integrated into the field software!

*This morning, while on a project 40 miles away, I was re-walking him through setup/ground projections and I was logged on to RAMS watching/helping his setup process. **It's an amazing thing to be able to step in and help out a crew from the office!** It's been incredibly helpful the countless times I've called @Adam for help.*

I have to say, this is excellent work by the Javad team!!

Over the past year I've kept the LS system mostly to myself, learning as much as I could about it and getting comfortable with it before I started training any of my crew leaders to use it. Recently I've started training one of my guys to use it, the most experienced of my field team and an extremely bright guy.

Here's a cool screen grab of him staking to his base point to make sure everything was jiving.

Wes Cole
Asheville, NC

TRIUMPH-LS in use • J-Field features

What Do You Use the TRIUMPH-LS For?

In some ways, I would use the LS for any of the items you list, but my specific work is boundary and topographic. About the only thing I won't use the LS for is precise vertical (hard surface topo for example) that requires better than a centimeter, particularly if I have to collect a lot of points with that accuracy requirement. This is pretty uncommon for my needs though.

I would use it for many types of construction layout. I don't do a lot of construction layout work though. It's the way to layout utility corridors.

Shawn Billings, PLS
Kilgore



The more fitting question for me would be what don't you use the LS for.

I even used it to set the locations for the post holes on my construction project and then drilled them. I did not have to shave out any of the holes. The posts went in perfectly.

The LS is a workhorse when it comes to open sky topo. I finished the field in just a few hours and never cut anything. I was able to crawl around and get to where I needed then let the LS work.

Adam Plumley, PLS



The TRIUMPH-LS and its field software, J-Field,

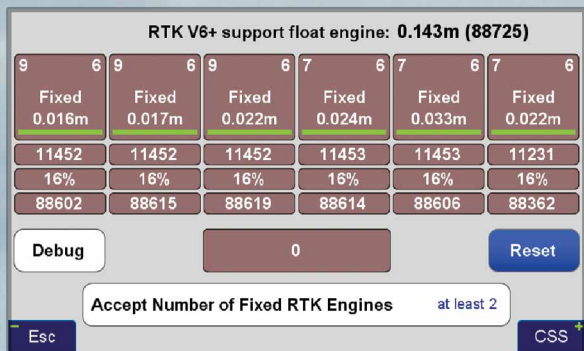
have many revolutionary and innovative features as compared to current GNSS systems:

- The TRIUMPH-LS contains everything needed to function as a **complete RTK rover** in one small, compact, ergonomic and very portable unit: an **864 channel GNSS receiver, a UHF or spread spectrum radio, a GSM modem, a Wi-Fi adapter, two internal cameras, a flashlight, and a bright 800x480 pixel display**. Included with the system is a collapsible monopod rover pole which allows the unit to be quickly folded up to fit in a very small space, **perfect for carrying the system through the woods** or quickly stowing inside a vehicle. The lack of a data collector bracketed to the rover pole increases further increases its portability and the user can **carry the system through the woods** without having to worry about a data collector bracketed to the rover pole getting caught in brush.

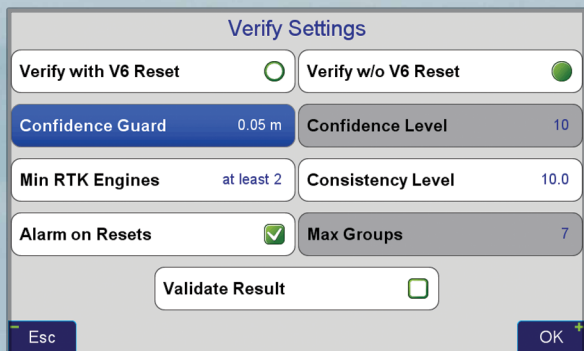


- This system was ergonomically engineered; the head height vertical display allows the user to operate the TRIUMPH-LS while standing in an upright position and looking forward. The user does not need to bend their neck to look down to view the display as is traditionally done with a system having a data collector attached to a rover pole. This feature allows the system to be used **without the neck soreness** that can plague a user bending their head downward to view a data collector for extended periods of time.

- The field software, J-Field, is included **at no extra charge** with the system. There is no need for an external data collector or software. J-Field is constantly being improved and updates will always be available free of charge with the system. The updates can be **downloaded through Wi-Fi** and are very simple to install, requiring only a couple button presses to update the system.



- J-Field, features **6 separate parallel RTK engines** that all run simultaneously with separate assumptions. This allows for fixes to be obtained quicker than if only a single RTK engine was used.



- It has an advanced **RTK verification system** that can be used in difficult RTK environments where there is high multipath and/or tree canopy cover. This process will automatically reset the RTK engines and eliminate points from being collected with bad RTK fixes that often plague other systems in difficult locations.

- J-Field has many **customization** features that can be used to increase productivity as your knowledge of the system grows. The stake and collect screens have **10 white boxes** that are easily customized to display a number of fields which the user may desire.



- Post processing raw data is very simple in J-Field. GNSS raw data files can be configured to be stored **for each RTK point automatically**. After stopping your local JAVAD base station, the raw base station data is downloaded into J-Field where it can then easily be uploaded to JAVAD's post-processing server, **DPOS (Data Processing Online Service)**. Autonomous base station coordinates and all the RTK points collected from the base station session can then be adjusted to a solution obtained from processing the base station data with **NGS CORS data**. Base to rover vectors can also be processed with DPOS. This allows the user to compare the RTK coordinates with the post-processed coordinates and then choose the desired coordinate for that point. This feature is very useful when surveying in areas outside of the base station's radio range as points can still be collected and post-processed in these areas.

DPOS configuration

Sent to DPOS automatically

Apply adjustment automatically

Service request interval 5 Min

Esc OK

What?

Point Line Curve Traj. Shift

Enter the coordinates of the point that you know.

Known Point Kurk6
55°47'55.28563"N
037°31'15.52202"E
362.7199m

ΔN:	-0.0111 m
ΔE:	0.0257 m
ΔU:	-0.1677 m

Then RTK this point to calculate the base shift.
This shift will be applied to all associated shots when "Apply Shift" box is checked.

Cancel Apply Shift Undo Shift OK

Disconnect Start Base Download

6 No Connection! Rover: Triumph-LS 9DT_00281
Base: JAVAD GNSS 35006

Uhf5hznew
Base ID: 0
Ref. Frame: WGS84(ITRF2008)
Format: RTCM 3.0 Min
Period: 0.2 Sec
Frequency: 461.02500 MHz
Mod., Band.: D16QAM, 25.0 KHz
FEC, Scrb.: On, On
Out. Power: 30/15 mW/dBm

[Base] Ref41
55°47'55.34736"N 2D Delta: 2.66 m
037°31'15.53083"E Δ H: 2.67 m
363.0468m Azimuth: ---
WGS84(ITRF2008)
@2005.0000

Ant. Type: JAVTRIUMPH_1MR NONE
Ant. Height: 0.0 m Vertical

From Base To Base Recall Copy As Done

BACK FIX 0.020 m .1 .4 OK Start 19:36
6/1:3 5.0Hz 130 100%

14 Kurk10 Epochs(10), Time HRMS, VRMS, mm RTK Charts Shift
54, 17 3, 3
Conf.(30) + Consist.(30) V.Drift, mm
34.25 + 44 -5(3) 0, 1
0, 0

Page0
1.3
0.012 0.018 2.0cm 5.5cm Accept
UNSET

55°47'55.28496"N 037°31'15.52279"E 362.6792m

Base Rover Settings

Undo

Ref43_165328

Server RU-0
File Name Ref43_165328.jpg (568.28 kB)
Status DPOS result applied
Start Time 2016-11-08 13:53:25
Stop Time 2016-11-08 14:55:13
Points [Proj] 5 (1)

DPOS Coords 55°47'55.28454"N
037°31'15.51832"E
364.2863m
WGS84(ITRF2008)
@2005.0000

Antenna 0.0 m
H. Shift 1.730m
V. Shift 4.388m

Esc OK

Position Shift

Apply Shift Undo Shift

RTK 55°47'55.28532"N
037°31'15.52131"E
362.8468m

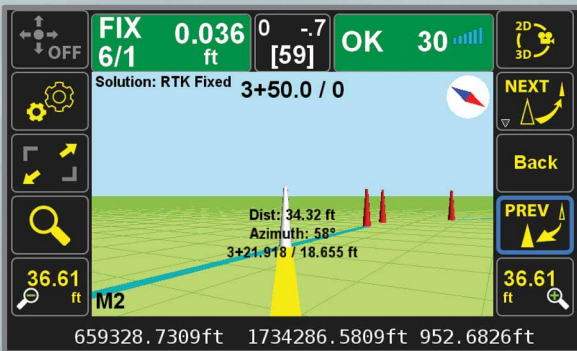
KNW Kurk6
55°47'55.28615"N
037°31'15.52067"E
362.6834m

ΔN:	0.0257 m
ΔE:	-0.0112 m
ΔU:	-0.1634 m

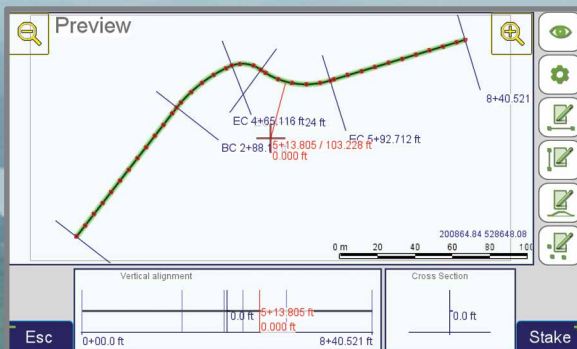
Page Page0
WGS84(ITRF2008)

Back

- It contains a **built-in compass and tilt sensors**. The built in compass allows for the quick and efficient **stake out** of points. Forward/back and left/right offset readings relative to the face of the display show precisely where the stake out point is located. This stakeout method allows **reduces the time** required to stake out a point as compared to using traditional north/south and east/west offsets. The built-in tilt sensors can be used in lieu of having to plumb the rover pole. Taking advantage of the tilt sensors is also a **“Lift & Tilt”** mode that allows for collection of topo points without having to press any buttons. In this mode, when the TRIUMPH-LS is plumbed a point will automatically start collecting and can be programmed to collect a set number of epochs or to stop collection when the unit is tilted. After the point is collected the user tilts the TRIUMPH-LS and walks to the next point which will be collected when the unit is plumbed again.



- With the built in GSM modem, it is very easy to connect to **RTN networks**. Alternatively, it can also be connected through Wi-Fi using a mobile hotspot.



What a beautiful picture!

Have fun guys.



Make lots of money
Twice as much!

And how ugly competition can get!



A competitor's dealer at a state show takes one of our happy TRIUMPH-LS customers to his booth and tells him when Javad dies we will buy his company and close it.

How ugly a person can get! Instead of promoting innovation, he wants to kill it for his personal stupid benefits.

Also the idiot does not know of two things:

1. That I am healthy like a horse and have no intention to die anytime soon.

2. That JAVAD GNSS is not a start up company. Over 130 people working on the TRIUMPH-LS alone. It is a solid deep rooted institution which does not depend on any one person, including myself.

TRIUMPH-1M



864 channel chip, equipped with the internal 4G/LTE/3G card, easy accessible microSD and microSIM cards, includes "Lift & Tilt" technology.

TRIUMPH-2



Total 216 channels: all-in-view (GPS L1/L2, GLONASS L1/L2, SBAS L1) integrated receiver.

The one and the only Digital Radio Transceiver in the world!

Unique adaptive digital signal processing, which has benefits: the full UHF frequency range and all channel bandwidths worldwide • the best sensitivity, dynamic range, and the highest radio link data throughput • embedded interference scanner and analyzer • compatibility with another protocols. Cable free Bluetooth connectivity with GNSS receivers and Internet RTN/VRS access via embedded LAN, Wi-Fi, and 3.5G

And all this with competitive prices!

HPT435BT/HPT135BT/HPT225BT*



\$2,710

35 W UHF/VHF Transceiver

HPT404BT/HPT104BT/HPT204BT*



\$1,640

4 W UHF/VHF Transceiver

HPT401BT/HPT101BT/HPT201BT*



\$2,070

1 W UHF/VHF with internal battery

L-Band/Beacon*



\$1,550

Receivers for multiple applications

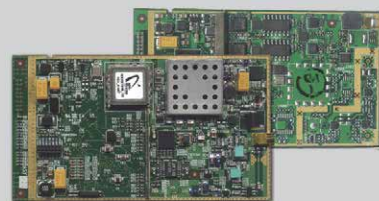
JLink 3G LTE BAT*



\$2,735

Web-interface Wi-Fi, Ethernet, 3.5 G, UHF/VHF/FH915, internal battery

OEM Solutions



\$840

902-928, 360-470, 225-255, 138-174 MHz

*Power, data cables and antenna are included.