

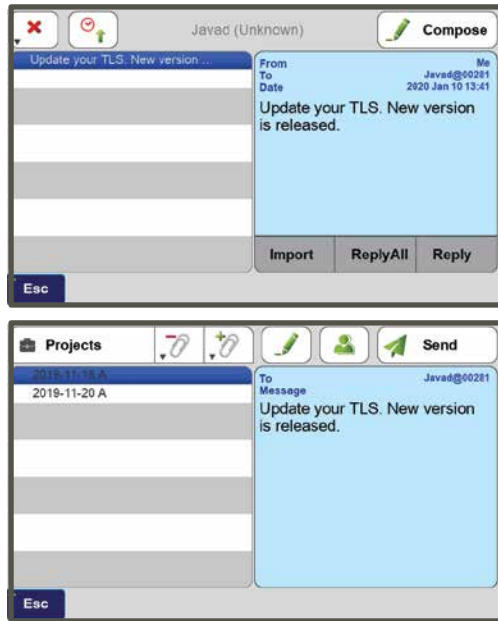
TLS2TLS

You can send and receive text messages and files from and to other TRIUMPH-LS units. In the Main screen click TLS2TLS and then in the "Compose" screen, click and enter names and serial numbers of the TRIUMPH-LS units that you want to communicate with. You can attach Projects, Screenshots, Images, Audio, GNSS RAW files to your text messages and send to the selected TRIUMPH-LS units.

The received messages are shown in the first screen. You can "Import" the attached files, if any, to your local unit. Click "Reply" to reply to a message.

You can reply to received messages by clicking the "Reply" (only to sender) or "ReplyAll" (to all recipients) buttons.

You may receive "Public" messages from JAVAD GNSS team. You do not to reply to them.



Connecting the TRIUMPH-LS to the J-Mate

Let's set the record straight: J-Mate is not a total-station. J-Mate and TRIUMPH-LS together make the "Total Solution" which is a combination of GNSS, RTK, camera, angle encoders and laser range measurements that together do, conveniently and cost-effectively, a lot more than a total station. For long distances, you use GNSS and for short distances (maximum of 300 feet in Direct mode and 100 feet in Remote/Robotic mode), you use the J-Mate along with the TRIUMPH-LS. Together they provide RTK level accuracy (few centimeters) in ranges from zero to infinity.

TRIUMPH-LS communicates with the J-Mate through Wi-Fi. Turn on both the TRIUMPH-LS and the J-Mate.

Click the Setup icon on the TRIUMPH-LS Home screen and click "J-Mate" to connect to J-Mate.

The J-Mate SSID will be in JMatexxxx format, where xxxxx is your J-Mate's serial number. After Wi-Fi connection is established, click the "Collect" or "Stake" icons according to your job.

As with the TRIUMPH-LS, with the J-Mate we also provide software improvement updates regularly and free of charge. Download the J-Mate update in your TRIUMPH-LS and then inject it to the J-Mate.



TRIUMPH-3

The new TRIUMPH-3 receiver inherits the best features of our famous TRIUMPH-1M.

Based on our new third generation TRIUMPH chip enclosed in a rugged magnesium alloy housing.



The TRIUMPH-3 receiver can operate as a portable base station for Real-time Kinematic (RTK) applications or as a receiver for post-processing, and as a scientific station collecting information for individual studies, such as ionosphere monitoring and the like.

It includes options for all of the software and hardware features required to perform a wide variety of tasks.



Ideal as a base station

- UHF/Spread Spectrum Radio
- 4G/LTE module
- Wi-Fi 5 GHz and 2.4 GHz (802.11 a, b, g, n, d, e, i)
- Dual-mode Bluetooth and Bluetooth LE
- Full-duplex 10BASE-T/100Base-TX Ethernet port
- High Speed USB 2.0 Host (480 Mbps)
- High Speed USB 2.0 Device (480 Mbps)
- High Capacity microSD Card (microSDHC) up to 128GB Class 10;
- "Lift & Tilt"
- J-Mobile interface

Where Have You Been with Your TRIUMPH-LS Lately?

Survey statistics		
Averaging	Horizontal Percentiles	Vertical Percentiles
Points 147 100%	0.023H 100%	0.050V
Distance 0.007H 99%	0.020H 99%	0.030V
HWRMS 0.000H 95%	0.015H 95%	0.025V
VRMS 0.007H 90%	0.012H 90%	0.023V
GPS 7.6 85%	0.010H 85%	0.019V
GLNS 6.1 80%	0.008H 80%	0.016V
Per Point 1534.01 sec 75%	0.008H 75%	0.015V
	68%	0.013V
	50%	0.010V

John Evers
"Awesome Precision"
"All shots are comprised of 7 engine resets for phase 1, 180 seconds phase two, no validation. open sky T3 base and LS rover. 85% within 0.01' horizontal, and 0.02' vertical. I have never seen anything like this when using my T2 base."

Darren Clemons
"big ole tree"
"5'+ across white oak - the LS is within about 2" of being flush with the trunk - got a fully validated, verified shot and a check within about 8 minutes...."

The new TLS2TLS and more features see inside >>

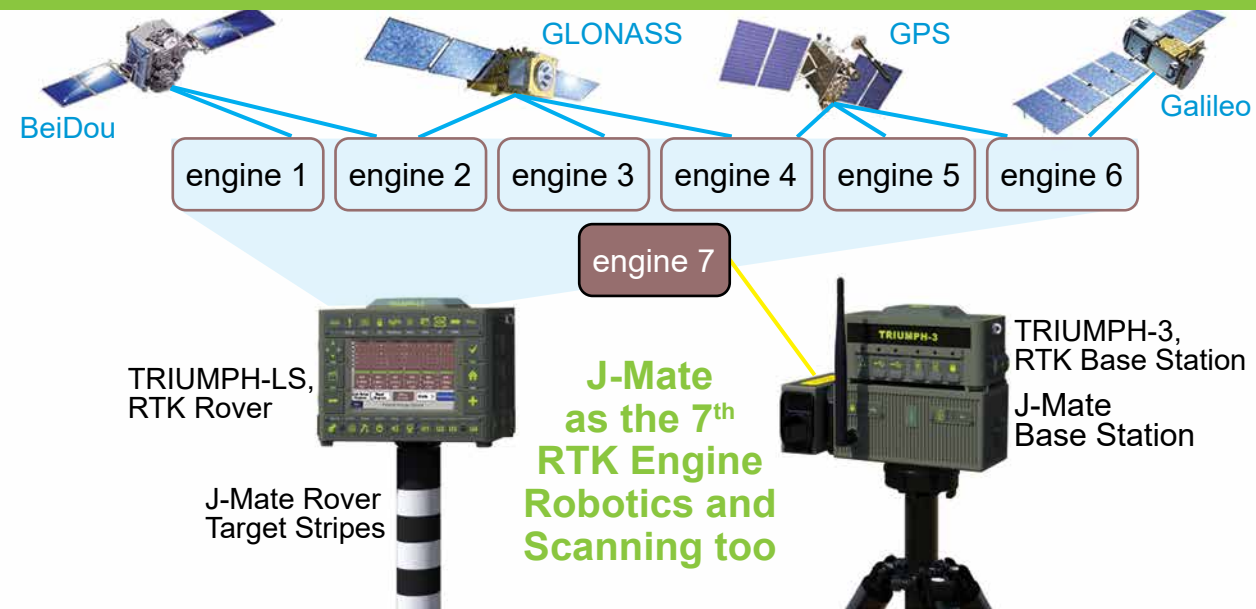
Total Solution Bridge to RTK



J-Mate is a bridge between RTK and areas that GNSS signal is not available.

- Direct up to 300 feet
- Remote (Robotic) up to 150 feet

RTK and Optical United



Your Own Complete RTK & Optical

Setup TRIUMPH-3 on top of J-Mate. Set up TRIUMPH-LS on top of the Zebra rod.

TRIUMPH-3 is the RTK base station and TRIUMPH-LS the RTK rover. J-Mate is the optical base station and the Zebra rod is the optical rover.

Now RTK and optical solutions are available simultaneously and can verify each other's solutions. They also can cover each other, when one is not available.

RTK has six engines. We treat the J-Mate solution as the seventh engine of the system.

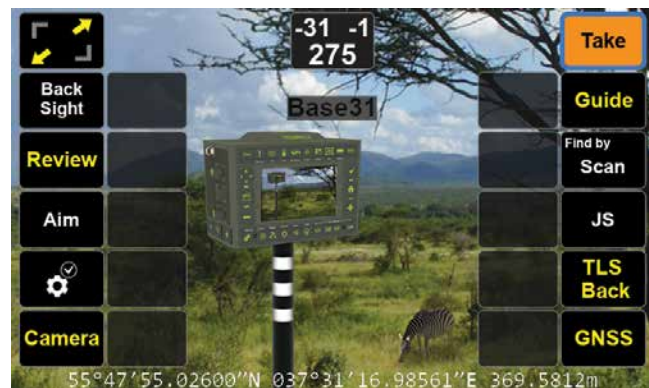
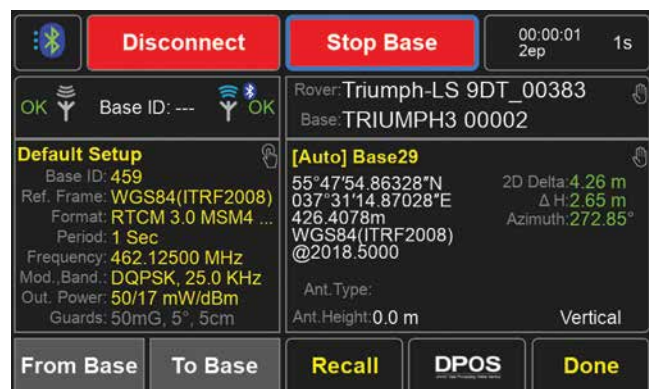
The system is self-sufficient for all jobs. No need to pay RTN service providers for RTK base stations and no need to pay communication service providers. The communications are done via integrated and included Bluetooth, UHF, and Wi-Fi embedded in the system.

Another major advantage is that because your own RTK base station is not far from your rover, RTK solutions will be provided much faster and more reliably.

We added the "Aim" option for stake-out. In this mode J-Mate points to the selected stake point and you follow the laser to reach the intended point. This is in addition to the robotic mode which J-Mate follows your Zebra pole.

At TRIUMPH-LS = 2.13 kg (4.40 lb), TRIUMPH-3 = 1.26 Kg (2.20lb), and J-Mate = 2.17 kg (4.41 lb), the total package of 5.6 kg (11.02 lb), weighs less than one conventional optical total station alone.

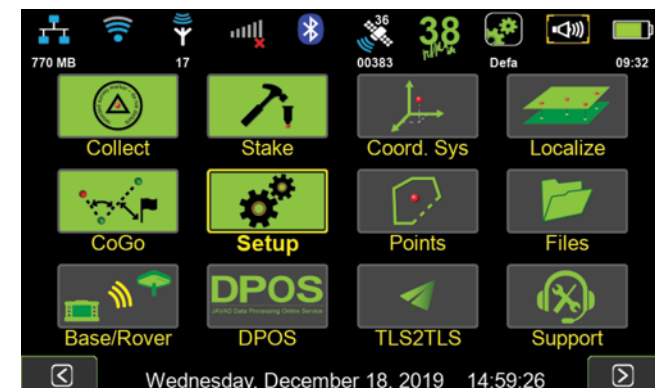
J-Mate does have complete geodetically encoded scanning (3 points per second) and robotic features too.



J-Field, the Embedded Controller

J-Field is the embedded application program of TRIUMPH-LS. It has the following unique features for each point surveyed:

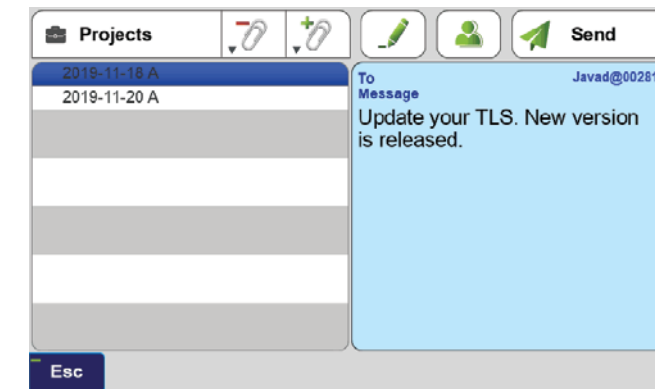
- Six parallel RTK engines to maximize solution availability.
- Automatic Engines Resets, verification and validation strategy.
- Several graphical and numerical confidence reports and documentation.
- Voice-to-text conversion for hands free operation and documentation.
- Lift & Tilt and automatic shots for hands free operation.
- Visual Stakeout (Virtual Reality).
- "DPOS it" or "Reverse Shift it" features. The most advanced RTK verification.
- Photogrammetry and angle measurements with embedded cameras.
- Automatic or manual photo documentation.
- Automatic screen shots documentation.
- Audio files for documentation.
- Automatic tilt correction.
- Scanner feature.
- Find objects by their shape, by laser or optical.
- Comprehensive HTML and PDF reports.
- Comprehensive codes, tags and drawing tools.
- Status of all GNSS signals and their quality.
- Over 3,000 Coordinate Systems.
- Automatic and free software update via Internet.



Take Backsight with a Single Shot



To calibrate the J-Mate, take few seconds of RTK at the Backsight point, and click "Backsight" button. There is no need to locate Occupation Point and the Backsight point, because Occupation point is the RTK Base station and one point is enough to determine the azimuth to calibrate the J-Mate angular encoders.



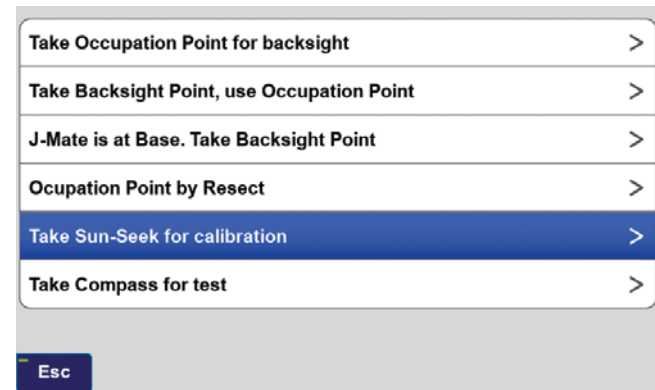
Backsight with Auto SunSeek



Click a button and after a few seconds Backsight will be calibrated with the Sun **AUTOMATICALLY**. Don't forget the Sun filter.



See details at www.javad.com



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Light Weight, Low Cost

Costs 1/2, Weighs 1/2 and works much better than conventional total stations and RTK systems.



Complete RTK Base & Rover.
Complete controller and software.
Complete optical system.
Free updates.
Robotic & Scanner...
...all under \$40K

And it all fits in a small carrying bag.

Six RTK Engines Auto VERIFY



Smart assignment of satellite signals to different engines.

This vigorous, automated approach to verifying the fixed ambiguities determined by TRIUMPH-LS gives the user confidence in his results and saves considerable time compared to the methods required to obtain minimal confidence in the fixed ambiguity solutions of other RTK rovers and data collectors on the market today.

The methods required by other systems are not nearly so automated, often requiring the user to manually reset the single engine of his rover, storing another point representing the original point and then manually comparing the two by inverse, all to achieve a single check on the accuracy of the fixed ambiguities. Acquiring more confidence requires manually storing and manually evaluating more points. Conversely, J-Field automatically performs this test, resetting the multiple engines, multiple times (as defined by user), provides an instant graphic display of the test results, and produces one single point upon completion.

