

With or without LightSquared

This filter is bad



It invites more white noise and other unwanted signals in and degrades performance (with or without LightSquared).

They say they cannot build anything better!

This filter is good



It brings every drop of GNSS signals in undisturbed, protects against unwanted white noise and other interference, and provides better performance.

They say they cannot build this, it is too difficult!

Controller for Field Applications

VICTOR-VS

We complete our receivers with an ultra-rugged Windows CE controller for Field Applications. VICTOR-VS is powerful, waterproof, shockproof and versatile.

- **Loaded with Revolutionary Software**
- **4.3-inch display of 800x480 pixels**
- **Two 24+ hours rechargeable batteries**
- **Integrated camera 3 Mpixels**
- **Rugged, lightweight**



TRIUMPH-VS

Revolutionary new GNSS complex that combines high performance 216-channel GNSS receiver, all-frequency GNSS antenna, and a modern featured handheld.



- Complete RTK rover unit

TRIUMPH-NT

- Where you don't need internal GNSS antenna



Same as TRIUMPH-VS but without internal GNSS antenna, inclinometers, compass and cameras.

VICTOR-VS

- 4.3-inch display of 800x480 pixels
- Integrated camera 3 Mpixels



VICTOR-VS is powerful, waterproof, shockproof and versatile controller for Field Applications.

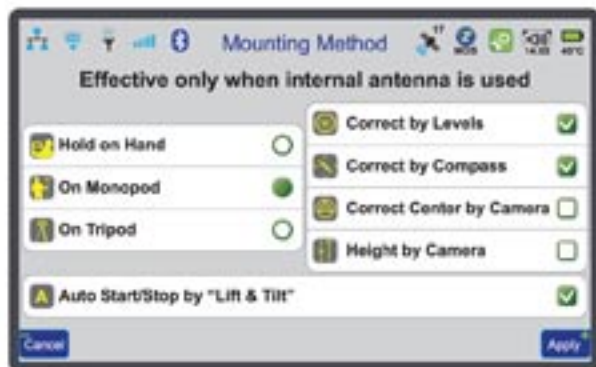
Don't Look! Don't Touch! ... Survey with Lift&Tilt



It seems TRIUMPH-VS reads your mind! Many sensors, intelligence, and innovations inside TRIUMPH-VS bring this new revolution to surveyors.

You don't need to look. You don't need to touch.

First, put TRIUMPH-VS in "Lift & Tilt" mode.



- Then, go to the survey mark, lift TRIUMPH-VS to near vertical (better than 5 degrees). Survey will start automatically and sensors continuously compensate for leveling offsets. Audio tones keep you informed of the survey progress. You can use a headset if you are in noisy area. You can also take notes by talking to TRIUMPH-VS.

- When you are happy with the survey result, just tilt the TRIUMPH-VS (more than 15°) and walk to the next point. TRIUMPH-VS will close files automatically.

- Then go to your next point. Lift it up and do again as you did in the previous survey point: Do Nothing! Just lift it up to near vertical.

- When you are happy again, tilt it again, and walk to the next point. Points and file names will auto-increment. You can over-write names if you like.

- If you are doing a parcel survey (for example) after the last parcel point, push "Parcel End" and see the parcel map, parcel area and parcel perimeter instantly.



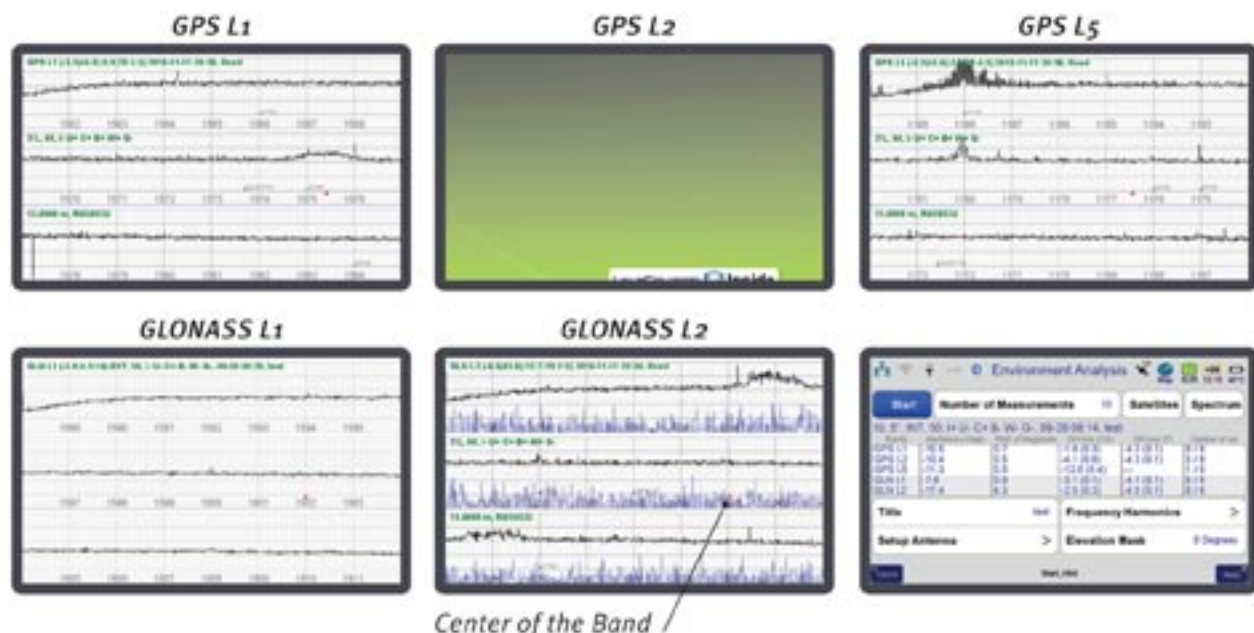
See **who jams** your GPS/GNSS

TRIUMPH-VS

shows interferences in all GNSS bands Including LightSquared possible interferences

Your GNSS receiver sometimes does not track satellites? Sometimes RTK solutions get stuck in "Float", or take longer to converge to "Fixed"? You may have interferences in one or more of your GNSS bands. In addition to harmonics of signals like local TV and radio stations, now there are \$10 GNSS jammers on the market that interfere with GNSS signals as well!

The GNSS interference analyzer feature of TRIUMPH-VS does much more than a generic \$30,000 spectrum analyzer. TRIUMPH-VS shows interferences by analyzing signals before RF and after digital sections and quantifies how much interference is in your neighborhood. See the reverse side for more detail.



TRIUMPH-VS not only scans the GNSS bands and shows the shape and frequencies of the interferences, but it also quantifies the magnitude of the interferences in two distinct and complementary ways: a) by analyzing the analog signal and determining the "Interference Magnitude", and b) by analyzing the S/N (Signal-to-Noise ratio) of all satellites' signals after they are digitized and processed (after code and carrier correlations) and determining the "Satellites S/N loss" due to interferences.

"Interference Magnitude" is determined by analyzing the amount of gain that we can apply to the GNSS signal before digitizing it. The more interference there is, the less we can amplify the signal to avoid saturation. We can determine the "Interference Magnitude" by comparing the actual amplification magnitude with our nominal amplification magnitude (when no interference exists).

"Satellites S/N loss" is determined by comparing the actual measured S/N of each satellite (for each of its signals) with its nominal S/N at that elevation angle and then averaging all such deviations for all satellite signals.

TRIUMPH-VS not only analyzes and shows interferences, it also has In-Band Interference Rejection option that removes in-band interferences.

Try TRIUMPH-VS and Compare!



First visit www.javad.com and view our 21 GNSS Video Lessons (total of about 4.4 hours). It will be a good learning experience, even if you do not proceed with the following offer:

- To experience the **TRIUMPH-VS**, pay **\$2,990** and receive one complete system with all accessories for RTN/VRS RTK, or RTK using your own base station (like a TRIUMPH-1 or another TRIUMPH-VS).
- Experience it for one month. To purchase it, send us three additional monthly payments of \$2,990. Or send it back for a full refund.

Visit our dealer near you or www.javad.com

Complete RTK rover unit

TRIUMPH-VS

3 Products Packaged in One!

- 1** High precision all-frequencies GNSS Antenna
GPS+GLONASS+Galileo
- 2** Revolutionary, compact,
216-channel GNSS Receiver
- 3** Breakthrough, wide-screen,
high-resolution handheld controller



For the latest GNSS news and technical information visit www.javad.com

JAVAD PRODUCTS SUPPORT MENU JAVAD MY

You've come a long way... Survey! View and Order Triumph-V5

Menu Put cursor on the Menu button on the top of the screen to see web directory. >>>

All About LightSquared Latest information about LightSquared >>>

Javad's Letter to FCC/NTIA Javad's letter of Jan 24, 2012 to FCC/NTIA. >>>

GPS/LSQ Confusion Many people confuse two questions regarding GPS & LightSquared issue. >>>

Galileo PRN 11 has been tracked!

Spectrum Management Spectrum policy and management issues and the root of GPS/LSQ controversy. >>>

Bad Filter... Good Filter A technical story of a bad filter and a good filter which turned political! >>>

GPS & GLONASS History How GPS and GLONASS got together - and other recent events. >>>

My GNSS History As requested by a journalist here is my GNSS history. >>>

TRIUMPH-V5 tracks Galileo E5 altBOC signal

Independent Test Results Test of Javad GNSS filter system by an independent lab. >>>

End P-codes encryption Send petition to President Obama to end P-codes encryption. >>>

Spread Spectrum Radio How inside TRIUMPH-V5 >>>

Javad Video Lessons He will personally guide you how to use TRIUMPH-V5. Click the image. >>>

Signal updates on Galileo GIOVE-B and Compass satellites

GyrAnt/IMU Integrated The results of GyrAnt + GPS receiver integration system test. >>>

LIN&TIL Survey Don't Look! Don't Touch! TRIUMPH-V5 reads your mind! >>>

TRIUMPH-V5 Software 1.7 Version 1.7 of TRIUMPH-V5 software is released. >>>

Newsletter Subscribe to receive our electronic Newsletter. >>>

JAVAD GNSS receivers can track Chinese Compass (Beidou-2)

TRIUMPH-V5 How-To's Questions regarding TRIUMPH-V5. >>>

Justin Link Transfer points and attributes from TRIUMPH-V5 to Justin. >>>

Multipath Comparison See test results of German Aerospace on several receivers. >>>

NetView Transfers data from JAVAD GNSS receivers to computer and controls receivers. >>>

All JAVAD GNSS receivers track QZSS Satellite and its New L1C signal

US JMS customers click here for support