



LAND-PAK

- Rugged, reliable land survey solution
- Easy-to-use NavCom FieldGenius or NavCom SurvCE controller software
- Office CAD & GNSS post process software
- Built-in UHF radio link
- Ultra RTK (GPS+GLONASS)
- GSM 3G Network RTK support
- Lifetime StarFire™ license
 - 5cm standalone operation
 - RTK Extend™ through base station outages
- Removable SD card for static survey
- Three year warranty



NAVCOM

A John Deere Company

www.navcomtech.com

LAND-PAK



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The LAND-PAK system provides an unprecedented level of performance and flexibility by including Ultra RTK, StarFire and RTK Extend capabilities as standard. With Ultra RTK users receive centimeter level performance up to 40 km from the base station while StarFire provides five centimeter accuracy anywhere, anytime without the need for a base station. NavCom's patented RTK-Extend feature allows users to work in challenging environments and maintain RTK-level accuracy even during base station radio outages.

Available with the LAND-PAK system are choices in ruggedized controllers, easy to use application software, office and post processing software. The core of the system is the SF-3040 GNSS receiver that includes all needed receiver accessories to complete the job. The rugged, waterproof and shock proof design coupled with hot swappable batteries ensures continuous operation in the harshest of environments.

UHF and GSM communication links with support for multiple RTK formats allows the LAND-PAK rover to work with a variety of base stations and RTK networks. The Sapphire™ GNSS technology with multi-constellation (GPS, GLONASS) support and superior signal sensitivity allows operation even in shaded environments.

Quick setup, ease of use and superb performance allows LAND-PAK to meet the needs of even the most demanding surveyor.

FEATURES

- Integrated UHF and GSM support
- Bluetooth® cable free, all-on-the pole design
- Multi-constellation support (GPS & GLONASS)
- Ultra RTK (up to 40km baseline)
- Single-base network with support for multiple message formats
- Built-in StarFire receiver with lifetime license
- StarFire five centimeter standalone accuracy
- StarFire Over IP delivery Included
- RTK Extend: Coast through base station outages
- Dual hot swappable batteries for continuous operation
- SF-3040 GNSS receiver operates as a base or rover
- Water and shock resistant
- Three year warranty

All The Right Tools



LAND-PAK System

SF-3040 Receivers (Qty 2) Included

- L1, L2, G1, (G2 or L5) Navigation 5Hz
- StarFire Enabled
- Lifetime StarFire License (Including Over IP delivery)
- RTK including Single-base network
- RTK Extend

Receiver Accessories Available

- USB Configuration Flash Drive
- 1 Watt UHF 403-473Mhz (Qty 2)
- UHF Module Antenna
- Li-Ion Batteries (Qty 4)
- SD Memory Cards (Qty 2)
- USB Device Cable, 6ft
- COM1 Serial Cable, 6ft
- Battery Charger, Dual Bay (Qty 2)

Hardware Accessories Available

- Aluminum Rover Pole
- Clamp & Pole Clamp for Controller
- Wood & Fiberglass Tripod
- Fiberglass Extension Rod
- Tribrach w/ optical plummet
- Fixed Tribrach Adapter
- GPS Pocket Rod/Tape Measure
- Hard Shell Transit Case
- Canvas Tripod Bag

LAND-PAK Controller and Software Available

- NavCom Controller Kit

Software Available

- NavCom FieldGenius or NavCom SurvCE
- NavCom SurveyCAD or NavCom Survey
- NavCom StarPoint Post Processing Software

LAND-PAK Network Rover

SF-3040 Receivers (Qty 1) Included

- L1, L2, G1, (G2 or L5) Navigation 5Hz
- StarFire Enabled
- Lifetime StarFire License (Including Over IP delivery)
- RTK including Single-base network
- RTK Extend

Receiver Accessories Available

- USB Configuration Flash Drive
- Li-Ion Batteries (Qty 2)
- SD Memory Cards (Qty 1)
- USB Device Cable, 6ft
- COM1 Serial Cable, 6ft
- Battery Charger, Dual Bay (Qty 1)

Hardware Accessories Available

- Aluminum Rover Pole
- Clamp & Pole Clamp for Controller
- GPS Pocket Rod/Tape Measure
- Hard Shell Transit Case

LAND-PAK Controller and Software Available

- NavCom Controller Kit

Software Available

- NavCom FieldGenius or NavCom SurvCE
- NavCom SurveyCAD or NavCom Survey
- NavCom StarPoint Post Processing Software

LAND-PAK
More
Your Complete Survey System

LAND-PAK TECHNICAL SPECIFICATIONS

PERFORMANCE¹

- Multi-constellation Support
 - Multi-frequency GNSS SBAS
 - Accuracy (RMS)
 - RTK: <40km
 - RTK Extend (<15min) StarFire
 - Static (post processed) Velocity
 - Position & Raw data rates²
- | | |
|-----------------------|-------------------------------------|
| GPS, GLONASS | StarFire, WAAS, EGNOS, MSAS & GAGAN |
| Horizontal / Vertical | 1cm + 0.5ppm / 2cm + 1ppm |
| | 3cm + 1ppm / 6cm + 2ppm |
| | <5cm / <10cm |
| | 5mm + 0.5ppm / 10mm + 0.5ppm |
| | 0.01ms |
| | 1Hz, 5Hz, 10Hz |

COMMUNICATIONS

- Integrated UHF radio
 - GSM 3G
 - Ports
 - Data message formats
 - Differential Correction
 - RTK Correction
 - Memory
- | | |
|---|--|
| 1 watt, 403-473MHz | Integrated in the controller |
| 2 x RS232, USB 2.0 (Host or Device), Bluetooth™ | RTCM 2.3 and 3.1, SBAS, & StarFire (proprietary) |
| | CMR/CMR+, RTCM, NavCom Proprietary UltraRTK™ |
| | Removable 2 GB SD card |

ENVIRONMENTAL

- Power
 - Batteries
 - External Power
 - Temperature (ambient)
 - Operating
 - Storage
 - Enclosure
 - Certifications
- | | |
|----------------------------------|------------------------------------|
| Li-Ion 2.2 Ah 7.4v | Nominal 12v DC, 0.5A (9-32v range) |
| -20° to +45° C (-4° to +113° F) | -40° to +85° C (-40° to +185° F) |
| IP66 (water resistant/dustproof) | Shock resistant (2m pole drop) |
| FCC / CE | |

CONTROLLER

- BAP PRECISION S852A
- Display
 - Operating system
 - Communication
 - Battery
 - Storage
 - Camera
 - Temperature
 - Enclosure
 - Certifications
- | | |
|--|---------------------------------|
| 4.7" FWVGA (854x480); IPS; 600 nits, capacitive multi-touch Asahi Dragon trail chemically strengthened glass | Windows Embedded Handheld 6.5.3 |
| Bluetooth 2.0 | WLAN: Li-Ion, 3.7V |
| 1 GB RAM/4 GB iNAND Flash | |

- Display
- Operating system
- Communication
- WLAN:
- Battery
- Storage
- Camera
- Temperature
- Enclosure
- Certifications

¹Performance dependent on location, satellite geometry atmospheric conditions and GNSS corrections.
²LAND-PAK comes with 5Hz Standard. Contact your dealer for other options.
Technical specifications subject to change at NavCom's discretion.

LAND-PAK DATA COLLECTOR SOFTWARE

NavCom FIELDGENIUS KEY FEATURES

- Windows Interface with Smart Objects, Incredible Graphics
- Real-Time Drawing Generation with Automatic Linework
- Enter, edit and stake points
- Built in COGO – Intersections, Inversing, Traversing
- DXF Import of Background, and lines, arcs, polylines & points
- 3D Data View with Dynamic Zoom, Pan, Scroll
- Import/Export DXF, ASCII or FBK for painless Autodesk import
- RTK network support via GSM
- StarFire support
- Support for total stations

NavCom SURVCE KEY FEATURES

- Easy to use Tab-based Menu Interface with Enhanced Graphics
- Enter, edit, and stake points
- Supports LandXML points
 - DTM, graphics, alignments, profiles & sections
- Hot List lets users jump to the SurvCE 2 routines that previously had shortcuts without having to memorize key strokes.
- Supports several GPS network protocols
 - NTRIP, TCP & UDP
- Allows the user to code in numerous coding styles that may be defined by their office package.
- Automatic Geodetic Transformations
- RTK network support via GSM
- Support for total stations

LAND-PAK DESKTOP SOFTWARE

NavCom SURVEYCAD KEY FEATURES

- Integrated Survey, Design and CAD Functions – Download, calculate, design, draft, check and print
- Powerful Survey Calculations – COGO, coordinate transformations, Multi-point averaging, cluster analysis, right of ways, areas, fixed areas, mass intersections, multiple perpendicular ties and stake computations
- Complete Traverse or Network Adjustments – Angle Balance, Transit, Compass, Crandall's Classical Methods, Vertical Balance, Full 3D Least Squares Adjustment and Reprocessing & pre-analysis
- Active Drawing Technology

NavCom SURVEY KEY FEATURES

- The most popular office survey solution in the U.S. and is now translated into 5 different major languages
- Built on IntelliCAD 7.2
- Project Setup: Flexible data storage methods
- Drawing Cleanup: Fix common drafting errors
- Data Compatibility: Supports industry standard LandXML and scores of specific data conversions

LAND-PAK GNSS POST PROCESSING SOFTWARE

NavCom STARPOINT KEY FEATURES

- Base Station data
 - Utilize data from a dedicated or nearby base station
 - Automatic internet search & download data from a nearby base station(s)
- Coordinate System
 - 62 standard datums and 22 standard ellipsoids predefined
 - 12 map projection templates including US State-Plane
- Rigorous Automated Processing Engine
 - Static/Rapid static
 - Stop and go
 - Kinematic/Semi-kinematic
 - OTF (for single and dual frequency receivers)
- Quality Control
 - Editing of GNSS data file properties
 - Graphical tools to help analyze
 - Common vector analysis
 - Least Squares Adjustment to adjust network of baselines

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