Fact Sheet

Recovery Manager Software

All recovery methods in one software

Your next recovery will be much smoother with SefrinTec. SefrinTec's perfect interaction between the pressure-sensitive sensors inside the SefrinTec Sensor Mat and other load measurement devices enables you to control all pressure and load data as well as to record the entire recovery operation. The recovery manager hardware with its unique software forms the basis for managing, operating and recording your next recovery.

| Bag Lifting | Tethering | Crane Lifting | Debogging | Transport |

Available packages

No. 1: All-in package

Provides basic information on over 300 pre-installed civilian, military and business aircraft. Combines measurement of skin pressure and loads during tethering, debogging, and crane lifting, as well as bag lifting and aircraft transportation.
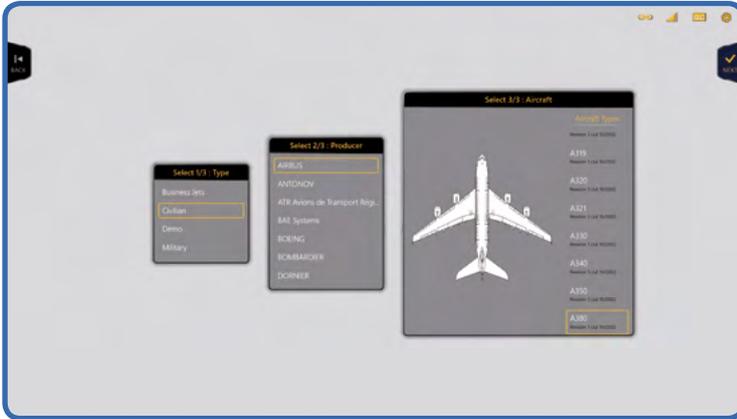
No. 2: Customized package

Provides all the services in the all-in package and combines these with the pre-installation of all recovery information from your aircraft recovery manuals.
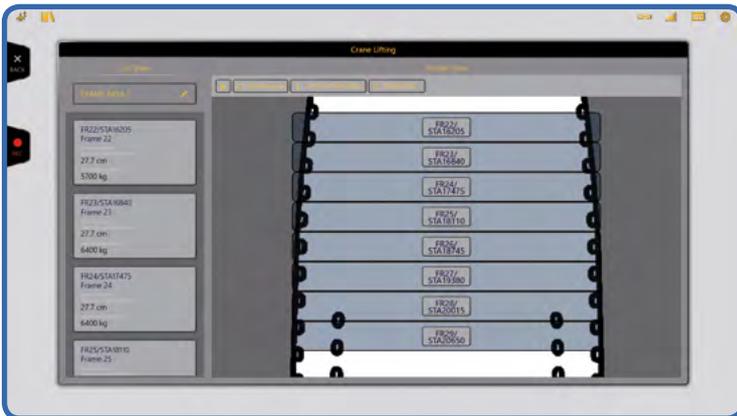
No. 3: Database package

All recovery information from Package No. 2, but without measurement and reporting functions. Fast visual information without a long search through the recovery manuals.

Fact Sheet

Recovery Manager Software

Software is pre-loaded with over 300 civilian, military and business aircrafts. Additional customer aircraft packages with detailed recovery information can be purchased and added to your recovery software at any time.

The pre-installation of various aircraft types and a display of all required recovery information make the SefrinTec Recovery Manager a unique tool for recovery managers.

Features

Clear overview and simple menu guidance
Different zoom-in levels
Pressure and load displays
Gauges similar to lifting bag controller
Max. allowable pressure and load adjusted to aircraft type, bearing area and attachment point
Simplified simultaneous lifting
WARNING before secondary damages occurs
Legal security based on complete documentation
Various detailed and customized recovery reports

Technical Specifications

Language	English, others on request
Measurement units	bar, psi, kg, lbs, N
Zoom levels	4
Data recording	Continuous recording of contact pressure and load
Warning signals	Optical, acoustical and vibration
Reporting	Microsoft Office-compatible, customized report through data selection, visual representation of the measured data, visual representation of equipment placement
	200 m radius of the Server without obstacles higher ranges can be achieved
Output device	Ruggedized 11.6" tablet
Operating range	200 m radius of the server without problems. Wider ranges possible

MADE IN GERMANY

DARS
Disabled Aircraft Recovery Solutions

Fact Sheet

Intelligent Sensor Mat

Discover your new sense of recovery

Your next recovery will be much smoother with SefrinTec. SefrinTec's perfect interaction between the pressure-sensitive sensors on top of your lifting bags and the software enables you to control the pressure and to record the entire lifting operation.

Measuring the real pressure during bag lifting and transportation.

Bag Lifting

Transport

Save time by efficient lifting

The Intelligent Sensor Mat is the basis of the SefrinTec recovery system, measuring the real pressure between aircraft weight and the contacted surface. The mat is used to lift the aircraft with lifting bags and is also deployed in transporting an aircraft without landing gears.

• Increases safety thanks to a higher level of stability
• Prevents secondary damage
• Records the recovery operation

MADE IN GERMANY

DARS
Disabled Aircraft Recovery Solutions

Fact Sheet

Intelligent Sensor Mat and Server

All measurement units such as sensor mats and traction gauges are connected with the recovery server. Inside, an industrial PC compares the incoming measurement data with the data from the recovery manuals and transfers the results to the Recovery Manager (software) via WiFi.

The server has an Outdoor Access Point with a range of around 200 m. Wider ranges are also possible without problems. The sensor mats are cabled and connected with the recovery server.

The traction gauge receiver can be installed in the ruggedized case as an option and is connected with the industrial computer to evaluate the measurement data.

Server specifications

Exterior dimensions	55.5 x 35.0 x 23.0 cm (22.00" x 13.81" x 9.00")
Interior dimensions	50.1 x 27.9 x 19.3 cm (19.75" x 11.00" x 7.60")
Description/Features	- Ruggedized case weight with all installations is currently unknown, but can be carried by one person - Watertight, crush-proof, and dust-proof - Retractable extension handle - Strong polyurethane wheels with stainless steel bearings - Battery operating time: up to 8 hours
Power supply	- This universal charger is designed for use anywhere in the world solely with the SefrinTec recovery server and ensures unlimited operation. - Electrical outlet configurations for the US, the UK, Europe and Australia are included with the charger, as is a 70" (1.77 m) cable. - If required, the vehicle charger for the recovery server can charge the server's battery from your vehicle's 12 or 24 volt battery via its cigarette lighter/utility socket. - Optional remote access to track the recovery operation - Battery status indicator - One external button to switch on the system
Transmission range	200 m radius of the server. Wider ranges are possible without problems.
Operating temperatures	30 to 75°C (-22 to 167°F)
Frequency	2.4 GHz
WiFi	802.11 a/b/g/n compliant
Computer:	Intense PC Pro IPC, Intel Core i7 Dual Core, Windows 8 or higher

Sensor mat specifications

Measurement technology	Pressure sensors with latest technology
Mat thickness	25 mm/ 0.98 in
Pressure measurement range	Up to 1 bar/14 psi
Protective layer	The external protective layer prevents damage to the intelligent core and allows for operation temperatures between -30 °C and +60 °C. The same characteristics as the material of the lifting bags (oil- and dirt-repellent, ozone-resistant, tear-resistant).
Size	Sizes are available for all standard lifting bags. Customized sizes can be provided on request. Our recommended basic sizes are 2 m² (21.52 ft²). Easy handling.
Basic element	500 mm x 500 mm (19.68 in x 19.68 in)
Weight	5.5 kg/m²/ Approx.: 1.1 lb/ft² (under 20 kg and can be handled easily by one person)
Data transmission	Cable link to recovery server
Sensor distance	166 mm/(6.53 in)

Fact Sheet

Recovery Manager Hardware

Perfect clear overview

SefrinTec Recovery Manager software, pre-installed on a ruggedized 11.6" tablet gives you a clear overview of the entire recovery operation.

GETAC F110
FULLY RUGGED 11.6" TABLET

Large 11.6" LumiBond® sunlight readable display 4th generation Intel® CoreTM processor

Dual hot-swappable battery design

Optional integrated 4G LTE broadband wireless 802.11ac next generation WiFi

Optional 1D/2D imager barcode reader

Intel HD graphics 4400

MIL-STD 810G and IP65 certified

Industry-leading bumper-to-bumper warranty

MADE IN GERMANY

Fact Sheet

Recovery Manager Hardware

Technical specifications

Operating System	- Windows® 7 Professional - Windows 8 Professional
CPU	- Intel® CoreTM i7-4600U 2.1 GHz processor with Turbo Boost Technology up to 3.3GHz 4MB L3 Intel Smart Cache - Intel Core i5-4300U 1.9 GHz processor with Turbo Boost Technology up to 2.9 GHz 3MB L3 Intel Smart Cache
Storage and memory	- Solid State 128GB / 256GB[6] - 4GB DDR3 expandable to 8GB[3]
VGA controller	- Intel HD Graphics 4400
Display	- 11.6"TFT LCD HD (1366x768) 800 NITs LumiBond® sunlight readable LED display with multi-touch technology
Rugged features	- MIL-STD 810G and IP65 certified - MIL-STD 461F ready[2] - Optional ANSI/ISA 12.12.01 - Vibration & drop resistant
Interface	- DC in x 1 - USB 3.0 x 1 - Docking port x 1 - Headphone out/Mic-in Combo x 1 HDMI x 1 - Optional RF antenna pass-through for GPS, WLAN and WWAN
Communications	- Intel Dual Band Wireless-AC 7260 (802.11ac) - Bluetooth (v4.0 class 1) - Optional SiRFstarIVTM GPS - Optional 4G LTE mobile broadband
Power	- AC Adapter (65 W, 100-240 VAC, 50/60 Hz) - Hot swappable Dual Li-Ion battery (2160 mAH) x 2 (up to 12.4 hours of battery life)[5]
Warranty	- 3 Year bumper-to-bumper warranty standard[8]
Dimensions and weight	- 12.3" x 8.15" x 0.96" (314 x 207 x 24.5 mm) - 3.08 lbs (1.4 kg)[7]
Temperature	- Operating Temp: -6°F to 140°F / -21°C to 60°C - Storage Temp: -40°F to 160°F / -40°C to 71°C - Humidity: 95 % RH, non-condensing

Technical specifications

Integrated options[4]	- 1D/2D imager barcode reader; - or RS232 Port; or - 10/100/1000 base-T Ethernet; - or MicroSD slot; or - USB 2.0 port - Optional HD webcam x 1 - Optional 5MP auto focus camera
Security	- Intel vProTM technology - TPM 1.2 - Cable lock slot - NIST BIOS compliant - Optional 13.56 MHz RFID - Optional contactless smart card reader
Keyboard	- Six tablet buttons: Power, Menu, Programmable, Camera Capture/Barcode Reader Trigger, Volume Up and Volume Down

Specification subject to change without notice.

[1] Data plan required. Cellular data is available in the US on Verizon Wireless and AT&T networks. LTE is available in select markets. Check with your carrier for details. 4G LTE configuration must be ordered at time of purchase.

[2] Requires MIL-STD 461F 90W AC Adapter sold separately.

[3] Computers configured with a 32-bit operating system can address up to 3GB of system memory. Only computers configured with a 64-bit operating system can address 4 GB or more of system memory.

[4] Expansion slot factory installed and limited to one option. Subject to minimum purchase requirements.

[5] Battery life testing conducted under BatteryMark 4.0.1. Battery performance will vary based on software applications, wireless settings, power management settings, LCD brightness, customized modules and environmental conditions. As with all batteries, maximum capacity decreases with time and use and may eventually need to be replaced by a Getac service provider. Battery life and charge cycles vary by use and settings.

[6] For storage, 1GB = 1 billion bytes; actual formatted capacity less.

[7] Weight varies by configuration and manufacturing process.

[8] 3 year bumper-to-bumper limited warranty standard. For warranty terms and conditions visit www.getac.com