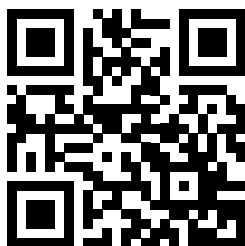


Creating
Innovative
Solutions
Since
1 9 8 2



MICRO-TRAK[®]
SYSTEMS, INC.



PRODUCT GUIDE



MICRO-TRAK[®]
SYSTEMS, INC.

Precision Technology

Micro-Trak[®] Systems, Inc.
P. O. 99 • 111 E. LeRay Ave.
Eagle Lake, MN 56024-0099
800-328-9613

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Agriculture
Snow/Ice
Turf
Roadside

Our Company

Since 1982, Micro-Trak® Systems has created innovative solutions for the farming, turf and highway maintenance industries.

Headquartered in Eagle Lake, MN, Micro-Trak® is committed to the development of electronic monitoring and control equipment that helps promote economic growth, while preserving environmental quality.

We believe that the customer should demand a product that is well-built, reasonably priced, and backed by first-class service. Our objective is to combine your equipment needs with the highest level of quality, service, support and affordability.

Micro-Trak® provides one of the most comprehensive technical support services in the industry. If you have a question or a problem - count on us to be there.

FREE 30 DAY LOANER PROGRAM

If any Micro-Trak component fails to perform, for any reason, we will send you a loaner component to use, free-of-charge, for 30 days while yours is being checked out. Shipping charges **NOT** included.

SALES AND SERVICE SUPPORT

Customers can talk directly to our sales and/or technical staff to get information about products, find local distributors & dealers, and to receive technical assistance for the installation, calibration, or operation of our products.

SAME-DAY SHIPPING OF ORDERS

On in-stock items, if the order is received before 3:00 p.m., central time zone, it will be processed and shipped that same day.

THREE-YEAR WARRANTY

All Micro-Trak products are covered by a standard one-year warranty, with up to three years available at no extra cost (see product warranty statement with product for details).

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Innovations

SafeGuard™ Blockage Monitor

**One System - Two Ways
to monitor blockages**



In-cab Console or ISOmod™ - VT ready

SafeGuard™ electronically detects blockages and alerts you with an **Audible Alarm** and a **Visual Display** of the blocked row's number. Reduce over and under-application, save money, and apply liquid products with confidence without having to watch flow monitors or outlets.

Advantages:

- Instantly detects and alerts the operator of blockages without seeing the sensor
- Audible alarm immediately alerts operator of blockage —HEAR what you've been missing
- Display immediately alerts operator of blockage —SEE what you've been missing
- Monitors all runs continuously
- Blockage is detected while your attention is on other things
- Same performance Day or Night, Rain or Shine
- System is not affected by cloudy or dark liquids
- Blockage notification for a wide variety of product applications, starter fertilizers, herbicides, insecticides, fungicides, fumigants, etc.
- **ISOmod™ user interface:** uses ISOBUS communication standard to integrate into existing virtual terminal system. Features dual networks, sensor enable/disable functions, left/right sensor banks, and central connectivity for reduced cable cost.

**SafeGuard™
Simple, Powerful,
Trusted Protection.**



Automatic Sprayer Controls

SprayMate™ II

Simple Precision

The SprayMate™ II features a self-contained design with built-in controls for up to 3 separate boom sections. It regulates rates of application precisely, regardless of changing field conditions. Spray or apply NH₃ with certainty as the SprayMate™ II applies the right amount — right where you need it.



MT-2405F™ II

5 Section Rate Controller

A perfect way to update manually controlled systems. Gives you the enhanced control you need in a compact, easy-to-operate unit. Specially designed to integrate into systems that already have boom section switches installed.



Field Proven Reliability.

Innovations



Plus Series Controllers

Advanced Liquid Rate Control

Flexible, powerful, automatic liquid rate control solutions for agriculture, grounds, and highway maintenance. Customizable monitoring options and advanced features let you manage your liquid applications with absolute piece-of-mind.

- Flow or Pressure Based Control
- Expanded PWM control capabilities
- Unique Multifunction output to control on/off valve for Master, Relief, Flow Trigger, or Flush functions
- **RateKing Dual Plus** - dual channel design allows application of two products from one controller.



RateKing™ Plus



RateKing™ Dual Plus



SprayMate™ Plus

Innovations

DirectConnect™ Kits

Micro-Trak's Liquid Control kits, NH3 kits and Seed Rate Drives are now COMPLETELY compatible with all major-brand controllers in the industry.

Easily connect your Micro-Trak system to:

- **Topcon®**
- **Trimble®**
- **Raven®**
- **AgLeader®**
- **John Deere®**
- **Case®**



Micro-Trak® is constantly growing our compatibility list. If you do not see your brand, simply give us a call for the latest list available.

Industry Leading Versatility and Connectivity

Speed Sensors

Astro™

GPS Speed Sensors

A highly accurate and affordable replacement for magnetic wheel speed sensors or radar guns.

Connects with ease to most brands of monitors and controllers. Two models to choose from: the economical Astro™ II (1 Hz), or super-fast Astro™ 5 (5 Hz).

- Boost productivity and efficiency by putting powerful GPS technology to work for you
- Flexible mounting options and compact size make the Astro™ a clear choice; easily transfer it from one vehicle to another
- Rugged design consistently performs in tough field conditions; unaffected by dust, vibration, and changes in crop canopy



Speed Sensors

Vansco™ Speed Sensor

Radar Speed Sensor

Combines state-of-the-art electronic design and manufacturing to deliver a reliable and accurate speed signal for mobile equipment. Measures true ground speed to eliminate errors due to wheel slippage.



Magnetic Flowmeters



MM2 - 3/4" FPT



MM238 - 2" MPT

9 models - ranging from .08 to 238 gpm max

Advantages:

- No internal moving parts
- Unaffected by fluid viscosity and density
- Highly accurate
- Saves time and money; very low maintenance



Increased precision = Increased yields

Turbine Flowmeters

Industry-leading innovation meets long-lasting reliability.

Our turbine flowmeters combine fast, accurate flow readings with rugged, dependable quality. Unique two-direction flow design — simply flip the flowmeter around to double its working life — flow measurements are very accurate from either direction. (Does not apply to FM2000 and FM3000).

- Connect our turbine flowmeters to any major-brand control system to enjoy superior performance and maximum accuracy.
- Smart value for your equipment budget - up to 2X the working life compared to other brands.
- Work with confidence as a Micro-Trak flowmeter precisely monitors flow of valuable liquids and NH3.
- An ideal choice for liquid application; several stainless-steel models are also NH3 compatible.

FM500
.50" FPT



.5-5 GPM
500 PSI Max.

FM750 GFN
.75" FPT



2-40 GPM
150 PSI Max.

FM750 LF GFN
.75" FPT



.5-12 GPM
150 PSI Max.

FM750 SS
.75" FPT



2-40 GPM
500 PSI Max.

FM750 LF SS
.75" FPT



1-9 GPM
500 PSI Max.

FM1000 SS
1" FPT



3.5-70 GPM
500 PSI Max.

FM1500 SS
1.5" FPT



10-130 GPM
500 PSI Max.

FM1500 LF SS
1.5" FPT



3.5-70 GPM
500 PSI Max.

FM270
2" flange



3.5-70 GPM
125 PSI Max.

FM10-100
2" flange



10-100 GPM
125 PSI Max.

FM2000 P
2" flange



19-198 GPM
285 PSI Max.

FM3000 P
3" MPT



40-396 GPM
285 PSI Max.

Flow Control

Servo Valves

Superior quality, fast-acting servo valves — ideally suited for responsive rate changes, and accurate section control.

Flanged Servo

12VDC
2" Flange
or 1.5" FPT



Threaded Servo

12VDC
1" FPT



9 servo valve models to fit your flow control needs including high-pressure (300 psi) and NH3 ready versions.

Electric Motor Driver 12 Volt Pump Flow Control

Whether you are using low-rate starter fertilizers, herbicides, insecticides, fungicides, or fumigants, precise rate control is essential. Accurate applications of crop inputs ensure a healthy, high-yielding plant.



The Electric Motor Driver will help make this happen!

- Enables Automatic Rate Controllers to control flow rate by regulating the speed of a 12VDC pump
- Ideal for low-rate applications such as liquid starter fertilizer on drills and planters
- Can be integrated into most major brand control systems
- Controls most 12VDC pumps up to a max of 40 amps
- Standard DC and PWM versions available

Flow Control

Hydraulic Flow Control Valves

Micro-Trak's Flow Control Valves have years of field-proven performance and reliability. Pair one with a Micro-Trak Controller for **PRECISION 12V** control of hydraulic oil flow on hydraulic-driven planters, hydraulic-driven conveyor and spinner applicators and on pull-type and self-propelled sprayers with hydraulic-driven liquid pumps.



- Internally protected, economical, safe, flexible, efficient and easy to use!
- Reduces pump wear
- Ideal for open, closed, or load sense systems
- Available in 12VDC standard or PWM configuration

Information Storage

Trak-Record™ II

The Trak-Record™ II is a TV-remote sized device designed to save and store information from Micro-Trak® controllers.



- Saves critical fieldwork information; helps you to analyze data and make informed decisions for next season
- Simple installation & setup
- Easy data transfer; user interface software includes data sorting tools
- Flash Drive data storage device included
- GPS compatible

12-volt Pump Controllers

Manual Controllers

10 Amp & 25 Amp Models

Applications:

- Controls motor speed on any 12-Volt pump
- Accurate over a wide range of RPMs
- Perfect for low volume application such as starter fertilizer on drills and planters



Twin Pump™ Controller

As the name implies, the Twin Pump Controller can control the output flow of either a single pump system, or if additional flow is needed, it can control a dual pump system. The Twin Pump Controller system controls the application rates of liquid chemicals or fertilizer by controlling the RPM of 12VDC pump(s). No servo is required for this system. Designed for easy installation and operation.



NH3 Application

MT-NH3™ II

Anhydrous Rate Control *Simple and convenient*

The MT-NH3 automatic rate controller provides a complete picture of critical anhydrous application functions and an accurate record of work performed. Knowing how nitrogen impacts yield potential and crop health, along with the rising cost of NH3 — it's never been more important to apply it accurately.



- Designed expressly for anhydrous ammonia
- Eliminates inaccuracies as a result of changing tank pressure and ambient air temperatures when used with Micro-Trak Liquifier kits
- Apply NH3 with confidence knowing **you** control the rate
- Single section control



NH3 Application

The Liquifier™ Series

High-capacity NH3 Heat Exchanger

Leave corrosion and hours of seasonal maintenance behind with The Liquifier's stainless-steel construction — naturally rust-resistant, tough, N-Serve® compatible, and ready for all field conditions. Combine this rugged design with outstanding efficiency and industry-leading flow capacity and the choice becomes clear.

No assembly required — right out of the box it is complete, leak-tested, and ready to bolt on to your toolbar. Versatile and adaptable, it easily connects to all major-brand controllers.

Bring Micro-Trak's tradition of precision engineering to your operation this year.

Liquifier™ Ultra Low-Rate



2800 lbs. NH3/hr.
11 GPM(@100 PSI)

Liquifier™ Junior



6000 lbs. NH3/hr.
23 GPM(@100 PSI)

Liquifier™



12000 lbs. NH3/hr.
40 GPM(@100 PSI)

Liquifier™ Max



21000 lbs. NH3/hr.
70 GPM(@100 PSI)

Speed - Area - Distance

Calc-An-Acre® II

Speed & Area Monitor, Shaft RPMs Display

- The Original Speed, Area, Distance, and RPM Measurement tool with years of field-proven reliability
- Invest in your future by increasing efficiency, enhancing productivity, and tracking your progress
- Best choice for economical, versatile performance; ideal for sprayers, tractors, ATVs, trucks, floaters, etc.
- 3 independent area counters and highly accurate measurement capability makes setting up test plots a snap



Sprayer Monitors

FlowTrak™ II

Speed Monitor

FlowTrak™ II is an electronic monitoring system that can help you achieve maximum yields and operate more cost-effectively. It provides the critical flow information you need to maintain ideal application rates of liquid chemicals and fertilizer.

Features:

- Displayed information includes application rate, flow rate, speed & distance traveled, area per hour **AND** 3 separate sets of area and total flow counters
- Control output that can turn a valve or pump ON/OFF for batch control
- Choose any of our flowmeter or speed sensor options that best fits your specific application



Monitors

FlowMate™

Liquid Flow Monitor



- Displays and records the volume of liquid transferred from bulk tanks for more accurate mixing and inventory control
- Instant verification of ground-drive pump settings
- Simple setup and calibration
- Flexible — shows either English or Metric units
- Easy to integrate into your system; many sizes of flowmeters available

Shaft-Trak™

Shaft & Bin Monitor

The Shaft-Trak simultaneously monitors and indicates the status of up to 6 rotating shafts, 3 shafts and 3 bin level sensors or 6 bin level sensors.



- Immediately alerts the operator of potential machine malfunctions like slipping belts or chains
- Reduces downtime and improves equipment efficiencies
- Proactive indication of potential failures and maintenance issues
- Visual and Audible alarms
- 2 models available - Standard and Low RPM
- Simplest of all Micro-Trak monitors - no settings or calibration required

Seed Rate Controllers

ProPlant™

Seed Rate Controller

Turn your current planter into a precision planting machine.



Say goodbye to the jerky unpredictability of ground-wheel drives; say hello to field proven results. ProPlant™ is an electronic seed-rate control system that can help you maximize yields and operate more cost-effectively by improving seed spacing and placement. Program the system for your crop seed, test it pre-field, and then plant with complete confidence.

The capable ProPlant™ gives you both simple set-up and easy operation while improving your productivity **and** your bottom line.

DrillMaster™

Grain Drill Seed Rate Controller

Accuracy like you've never experienced before.



- Maximize yields by consistently achieving target seed rate with smooth, stable hydraulic drive
- Eliminates erratic ground-wheel drive; no more adjusting chains and sprockets to change seed rate
- Designed to control rate on the go — able to regulate up to 3 separate sections simultaneously
- Plant with assurance as DrillMaster™ monitors your seeding process — notifies you immediately if a drive chain breaks or comes off
- Simple to calibrate, test pre-field, and take right into the fields

Blockage Monitor

Whirlwind™

Seed Tube Monitor

Instant electronic detection of blocked seed and/or fertilizer tubes - eliminating embarrassing and costly skips.



- Designed to work with Air Seeders and Gravity Drop Systems
- Monitors up to 256 seed or fertilizer tubes
- Sensors are non-intrusive and clamp around existing tubes - no effect on product flow
- Scans every run, all the time
- Additional capabilities include: monitoring Shaft and Fan RPMs, tracking Bin levels, and calculating speed, distance & area measurements

Granular Rate Controller

GSC-1000™

Granular Rate Controller

Great things can come in small packages - so don't be fooled by its size. The GSC-1000™ is a compact, power-packed granular rate controller that provides accuracy and reliability, resulting in enhanced uniformity of application.



Whether you're upgrading from a ground-drive system or looking to replace an outdated or obsolete product, the GSC-1000™ gives you complete hydraulic control of your granular applications for years to come.

- Ultra accurate; displays rate down to 1/100th of a lb.
- 3 independent area & volume counters to record your daily, weekly and seasonal totals
- Conveniently controls apron rate or spinner RPMs

Roadway Products Rate Controller

RoadMaster™

Simple & Accurate

RoadMaster™ is a multi-purpose electronic control system with a wide range of applications. Highway maintenance uses include regulating the flow of: liquid de-icer and anti-icers, roadside spray products, and dust-control agents. Also ideal for turf maintenance applications of herbicides, fungicides, insecticides, and fertilizers. Raise your profitability by maintaining exact application rates of these valuable products.

Available in Standard 12VDC or PWM versions.



Sod Harvester Controller

SodPro™ II

SodPro™ II is an electronic monitoring and control system that can help you achieve maximum accuracy and operate more cost-effectively by providing the information you need to maintain accurate and consistent control of your sod cutting operation. No other sod harvester controller lets you cut big rolls, slabs or pallet-sized rolls of sod; you choose the length of cut that fits you best!



Custom/OEM Products

Customer First Strategy



Micro-Trak has a successful and established history of partnering with other OEM companies on custom design and manufacturing projects.

While some projects are as simple as branding an existing Micro-Trak product for the OEM, others involve creating entirely new solutions to resolve specific customer challenges. Micro-Trak's 30+ years of design and manufacturing experience is enhanced by current research into emerging technologies, including the recent addition of development tools for ISOBUS integration.

If you are considering using this strategy for your company, there are substantial benefits to utilizing Micro-Trak's years of engineering experience and genuine commitment to quality.

- No need to invest in expensive manufacturing facilities and equipment or hiring and training additional specialized labor. By letting us take care of those details, you can focus your resources on sales, advertising, and marketing.
- Our firmly established relationships with our equipment and material suppliers saves you time and effort looking for "just the right part" to make your project idea work as imagined.
- Micro-Trak's considerable experience in the areas of precision agriculture, snow/ice, turf, and roadway maintenance instantly positions your company as an expert in those sectors. That translates to significant savings in time and money spent on R&D and engineering.
- Our dedication to open communication throughout the manufacturing process gives you peace of mind and a clear analysis of your investment.