

Positioning Tools & Machine Control Systems

Auto Levels • Theodolites • Total Station • Rotating Lasers
Slope Lasers • Laser Detectors • Pipe Lasers • Auto Control Systems
Cross Slope Systems • MC Receivers • Tripods & Rods Locators

Product Catalog

Positioning Tools and Machine Control Systems

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AL Series

24X / 28X / 32X

Auto Level

The AL Series Auto Level has a magnetically damped compensator designed to ensure high performance and stability and is compact in size.

Features:

- Compact size with durable metal construction
- Large focus and tangent knobs- are easy to operate - even wearing gloves
- Top mounted peep-site for easy target location
- Mirror for simple bubble viewing
- Sealed, weatherproof construction
- Fits standard 5/8 x 11 flat or dome head tripods

Specifications	AL-24	AL-28	AL-32
Magnification	24X	28X	32X
Accuracy	1/16" @ 100'		
Approximate Range	250'/75m	300'/90m	350'/100m
Objective Aperture	30mm	40mm	
Field of View	1' @ 30'		
Minimum Focusing Distance	0.5m		
Stadia Multiplying Constant	1' = 100'		
Circular Vial Accuracy	8' /2mm		
Weight	2.9 lbs / 1.3 kg		
Base Thread	5/8" or M16		
Warranty	1 Year		

DT-5 / DT-10

Digital Transits



LT-10

Laser Transit



Comparison	DT-5	DT-10	LT-10
Accuracy	5"	10"	10"
Vertical Axis Compensator	YES	NO	NO
Minimum Reading	5"	10"	10"
Objective Aperture	45mm		
Magnification	30X		
Field of View	1' @ 30'		
Resolving Power	2.5"		
Shortest Focus Distance	1.3m		
Display	LCD		
Display Panel	2 Sides		
Illumination	Provided		
Telescope	Upright Image		
Telescope Length	155mm		
Optical Plummet	4X		
Electronic Circle	360° or 400gon		
Focusing Range	5°		
Plate Level	30" / 2mm		
Circular Vial	8' / 2mm		
NiCad Battery Life	16 Hours		
Alkaline Battery Life	6 Hours		
Weight	10 lbs. / 4.4kg		

The DT-5, DT-10, and LT-10 are built with a sealed water resistant construction. They have a simple, easy-to-use push button operation with dual LCD panels and a large, easy to read display. It has a built-in crosshair and display illumination. The auto power off option reserves battery life.

The optical plummet offers quick and easy set up over points and also has a removable tribrach and fits a standard 5/8" x 11" tripod head.

Packages Include:

- Theodolite
- Lens Cap
- NiCad Battery
- Charger
- Alkaline Battery Pack
- Adjusting Pin
- Instruction Manual
- Carrying Case

TS-100 Reflectorless Total Station

The TS-100 Total Station provides superior performance at an unbeatable price for survey and construction applications. It's built tough to survive in extreme conditions, yet easy to set up and put to work quickly.

The TS-100 features 200m reflectorless operation and up to 2000m using a single prism. There's even a built in laser pointer to aid in layout work. The TS-100 is the perfect solution for construction layout and surveying.



Specifications	TS-100
Magnification	30X
Image	Erect
Field of View	1°30'
Resolving Power	3.0"
Minimum Focus Distance	1.3m
Display Resolution	1"/5"
Accuracy	2"
Axis Compensator	1 axis, ±3' (Compensation Range)
Measuring Range - Reflectorless	200m
Measuring Range - Prism	2,000m (Single Prism)
Accuracy - Reflectorless	(3+2 ppm x D)mm
Accuracy - Prism	(2+2 ppm x D)mm
Display	Graphic LCD
Keyboard	24 Alpha-Numeric Keys
Control Panel	2 Sides
Data Storage - Internal	24,000 pts
Interface	Serial RS-232C
Levels - Plate	30" / 2mm
Levels - Circular	10' / 2mm
Optical Plummet Magnification	3x
Dust and Water Protection	IP54
Operating Temperature	-20 to 50°C
Weight with Battery & Tribrach	4.9kg
Battery	BT-78Q

Features include:

- 2000m range to a single prism
- 200m reflectorless range
- 2" angular accuracy
- 24,000 point memory capacity
- IP54 environmental rating
- 23-hour battery life
- Full 24-key alphanumeric keypad



LT-800

Level Laser



Specifications	LT-800
Range (Diameter)	1,000 ft. (300m)
Accuracy	± 1/8" @ 100'
Self-Leveling Range	3 degrees
Rotation Speed	600 RPM
Power	4 "C" Alkaline Batteries
Battery Life	Approx. 60 Hrs
Dimensions	6.5"L x 7.1"W x 7.4"H
Operating Temp	-4° F to 122° F
Weight	4.1 lbs w/ Batteries
Warranty	1 Year

The Futura LT-800 has a host of world-leading features at an unbeatable price; it's the perfect general construction laser for any contractor's needs.

Once you see the LT-800 for yourself, you'll know right away it's the best value in general construction lasers today. With impressive technology and an affordable price, you'll definitely want to put it to work for you!

Standard features include fast self-leveling and HI "laser disturbed" alert. Standard package includes CR3 laser sensor and rod clamp.

Features:

- Fully automatic self-leveling
- Height of instrument alert (HI alert)
- Long 500 feet operating radius
- Machine control compatible
- 20 arc second accuracy
- 635nm visible red beam



Futura CR3 Laser Detector

The full-featured CR3 laser detector has dual-sided LCD displays and audible signal to guide you to grade. Attach the laser sensor to a grade rod and you have fast, accurate grade-setting and checking.

Specifications	CR3
Beam Window	1.73 in (45mm)
Beam Precision	High Precision: 1mm / Normal Precision: 2mm
Beam Indication	Liquid Crystal (Both Sides) & Buzzer
Power Supply	9v Battery x1
Operating Time	Approx. 35 Hours
Auto Shut-Off Delay	Approx. 20 min without Beam Detection
Water/Dust Resistant	IP65
Operating Temp	-20° C / -4° F to +50° C / 122° F
Weight	6.91oz (196g)

LT-810

Self-Leveling Single Slope Laser



Specifications	LT-810
Range (Diameter)	2,000 ft. (700m)
Accuracy	± 1/16" @ 100'
Self-Leveling Range	±3°
Rotation Speed	60, 300, 600, 750 RPM
Grade Range	-10% to 15%
Battery Life (Alkaline)	Approx 60 Hours
Battery Life (NiCad)	Approx 40 Hours
Operating Temp	-4° F to 122° F
Weight	4.1 lbs
Warranty	2 Years

The Futura LT-810 is an affordable, automatic true self-leveling single slope laser. Rugged, reliable, and accurate, the LT-810 is designed for any level or sloped application such as:

- Concrete forms and footers
- Grading and excavating
- Sloped concrete pours required for runoff
- Parking garages and ramps
- Site preparation and dirt grade
- Drainage and ditch work.



Standard package includes CR3 laser sensor and rod clamp

Specifications	CR3
Beam Window	45mm / 1.73 in
Beam Precision	High Precision: 1mm / Normal Precision: 2mm
Beam Indication	Liquid Crystal (Both Sides) & Buzzer
Power Supply	9v Battery x1
Operating Time	Approx. 35 Hours
Auto Shut-Off Delay	Approx. 20 min without Beam Detection
Water/Dust Resistant	IP65
Operating Temp	-20° C / -4° F to +50° C / 122° F
Weight	196g / 6.91oz

LT-810 Features Include:

- Automatic self-leveling in level & slope mode
- Height of instrument alert (HI alert)
- Long 2,000 foot operating diameter
- Machine control compatible
- 635nm visible red beam
- Optional recharge kit
- Wide temperature range thermal compensation



CR2+

Laser Receiver

Features:

- Strobe rejection filter
- Bright, multi-color LED's provide easier grade readings in low light conditions or over long distances
- Totally waterproof and dustproof (IP67)
- LCD's back & front
- Strong, durable clamp
- Reception Range: 2,000' (600 m)
- Selectable On-Grade Accuracy: $\pm 1/32"$ ($\pm 1.0\text{mm}$), $\pm 1/16"$ (2mm), $\pm 1/8"$ (3mm)
- Detection Height 2.0" (50mm)
- Adjustable Beeper Volume
- Display Channels: 5
- Battery Life: Normal 150 hrs, Continuous 50 hrs
- Warranty: 2 Years



CR4

Laser Receiver

Features:

- Huge 5" vertical reception height for easy laser beam acquisition
- SuperCell patented laser reception technology eliminates traditional photocell breakage reducing downtime
- Digital readout displays distance to on-grade for quick grade checking
- True proportional arrows displayed on large front and back LCD make finding on-grade fast
- LED's on front, 5 accuracy levels, loud beeper
- Warranty: 3 Years

PL-100 / PL-300 AT

Pipe Laser



Futura’s PL-100 Pipe Laser is the perfect laser for all your underground applications. Its compact size makes the PL-100 easy to handle and set up whether you work “over the top” or “through the pipe.” The +40% to -10% grade range make it a very versatile pipe laser and it comes with a 2 year warranty.

The Futura PL-300 AT has all the features of the PL-100 plus the AutoTarget System. The unique AutoTarget

allows the user to align the pipe on second day set-up with ease and accuracy. Place the AutoTarget at the end of the last joint laid. Place the Pipe Laser in the pipe with the correct grade and press the red align key on the AutoTarget. The laser will scan and then find the center of the target.

Specifications	PL-100	PL-300 AT
Self-Leveling Range	+45% to -15%	
Grade Range	+40% to -10%	
Grade Display	0.001%	
Accuracy	± 10 Arc Seconds	
Operating Temperature	-4° to 122° F (-20° to +50° C)	
Beam Type/Output	Visible Laser Diode, 635nm, <5mW, Class 3	
Environmental	IP68; Nitrogen Purged	
Power Supply	1) Rechargeable Lithium Ion Battery Pack (40hr life)	
	2) 110/230V AC Converter	
	3) Battery Compartment for 4 “D” Alkaline Batteries	
	4) Opt. 12V Power Cord	Std. 12V PowerCord
Size	Diameter: 5.5” (140mm). Length: <10.5” (265mm)	
Weight	7.6 lbs (3.5 kg) with alkaline battery	
Warranty	2-Year	
Remote Control		
Operating Range	600’ (190m) with handheld receiver; 500’ (150m) with AutoTarget	
Batteries	3 AA alkaline	
Battery Life	2,000 hrs (1 Year)	
Dimensions	4.7” x 2.35” x 1.2” (119 x 60 x 30mm)	

Standard Features:

- Large Easy to read display
- Grade reference points on both sides for easy elevation setup
- High visibility LED line pivot point
- Li-Ion rechargeable battery pack
- Alkaline battery compartment
- Broad range of set-up accessories, include trivet, special transit, and rod and cross brace
- One set of slide legs that covers multiple pipe sizes and a unique target design
- High quality materials ensure reliability, precision, and durability. Manufactured in the US.
- 2 year warranty period.



CR5
Laser Receiver

Features:

- Rugged & durable 100% waterproof housing
- Bright LED's with green on-grade
- Strobe light rejection
- Adjustable volume control
- 240° angular reception
- 5" laser capture height
- 3 accuracy settings
- Reception Range: 1,000' (300 m)
- Detection Height 5.0" (127mm)
- Adjustable Beeper Volume
- Display Channels: 9
- Battery Life: Normal 160 hrs
- Warranty: 2 years

The World's Most Versatile Premium Laser Receiver.

The CR5 combination receiver is designed for all rotating lasers and can be hand-held, rod-mounted, or magnetically attached to your machine, making it the most versatile laser receiver in the industry.

CR5-WD5
Laser Receiver with Wireless Remote



CR5-RD
Wired Remote

Ideal for situations where the receiver is out of sight of the operator, such as trenchers, scrapers and excavators.



MP2
Magna Plumb Vertical Tilt Indicator

Enjoy the convenience of wireless technology - now available for the CR5 Receiver. Because it's wireless, the setup is easy, with no cables to worry about.

Features:

- Cable-Free Flexibility
- 100 ft. (30 m) Working Range
- Low Battery Indicator



Magna Plumb is the only magnetic vertical tilt indicator system designed to allow backhoe, excavator and even dozer operators a fast and efficient method to position the booms to true vertical position.

Features:

- LED's visible from both front and side
- Strong magnetic attachment
- Level indication through 2°
- 200 hours battery life ("AA" batteries)

MCR1 / MCR2 / MCR3

Machine Control Receivers



Features:

- Completely Self-Contained
- 360° Reception
- Selectable Accuracy
- Waterproof Design
- Heavy Duty Construction
- Low Battery Indicator / Auto Shut-Off
- Selectable Bright / Dim Display
- Selectable Excavator Offset Grade
- Display and Dipper Stick Plumb Indicator (MCR2+ & 3)

Specifications	MCR1	MCR2	MCR3
Vertical Reception	170mm (6.5")	170mm (6.75")	220mm (8.75")
Accuracy On Set-Up			Grade: 5mm (3/16")
			Excavate 6mm (1/4")
Fine	5mm (3/16")	5mm (3/16")	Grade 10mm (7/16")
			Excavate 12mm (1/2")
Standard	12mm (1/2")	12mm (1/2")	Grade 20mm (7/8")
			Excavate 25mm (1")
Wide	34mm (1 1/4")	25mm (1")	Grade 40mm (1 5/8")
			Excavate 50mm (2")
ACE - Angle Compensation			Fine 12mm (1/2")
			Standard 25mm (1")
Power Options	Alkaline - 4 x "C" cell or NiMH "C" cell Power Cable - 10-30 VDC		
Battery Life (Alkaline)	Up to 75 Hours	Up to 60 Hours	Up to 60 Hours
Battery Life (NiMH)	Up to 50 Hours	Up to 45 Hours	Up to 45 Hours
Dimensions	13.5" x 5.6" x 5.9"		15.5" x 5.6" x 5.9"
Operating Temp	-20° C to Plus 60° C - (-4° F to 140° F)		

MCB1 / MCB2 / MCB3

Machine Control Boxes



MCB1



MCB2



MCB3

Specifications	MCB1	MCB2	MCB3
Operating Voltage	10 to 30 Volts DC - reverse polarity protected		
Electrical Connection	Standard Military Type		
Valve Compatibility	Proportional Time (On/Off)	Proportional Time (On/Off), Proportional Current, Proportional Voltage	Proportional Time (On/Off), Proportional Current, Proportional Voltage
Maximum Current	5 Amps per Coil		
Remote Switch Option	Auto/Manual - Raise/Lower Switches		
Weight	5 lbs. (2.25 kg)		
Dimensions (LxWxD)	7.0 x 5.3 x 4.8 in. - (178 x 134 x 120 mm)		
Operating Temp	-4° F to 140° F - (-20° C to +60° C)		

Futtura MCB1 or MCB2 control boxes and MCB3 dual control box offer automatic hydraulic control versatility.

The entry-level model MCB1 control box works with proportional time (bang-bang) valves only and is designed to work with the MCR1 receiver for slower moving applications such as trenchers and tile plows.

The MCB2 works with proportional time, proportional current and proportional voltage hydraulic valves and is designed to be used with the MCR2E, MCR2 and MCR3 receivers.

The MCB3 Dual Control box is designed to control both the lift and tilt of a dozer blade or two independent lift cylinders of a motorgrader blade for precise slope control applications. It is designed to be used with the MCR2E, MCR2 and MCR3 receivers.

EG2-7 Automatic Control System



Specifications	EG2-7
Receiver Weight	2 lbs. (908g)
Receiver Size	7" H x 2.5" Diameter
Control Box Weight	1 lb. (454g)
Control Box Size	7.5" W x 5.25" H x 2" D
Accuracy	2-3 mm
Receiver Capture Height	7"
Adjustable Ongrade Offset	Yes
LCD Display Screen	Yes
LED Valve Indicator Lights	Yes
LED Receiver Indicator Lights	Yes
Remote Switch	Raise/Lower
Operation Voltage Range	9-30 V DC
Valve Drive	Proportional Current 50Hz
	Proportional Current 100Hz
	Proportional Current 200Hz
	Proportional Time
	Danfoss
	Actuators



On Grade - Every Time... Easy. Versatile. Convenient.

The EG2-7 Laser Grade Control System provides accurate grading results in less time with less labor. With cutting edge features, the EG2-7 will put you in the driver's seat.

The system is versatile, efficient, economical & durable with easy to use controls! The EG2-7 includes Automatic Control Box, 360° receiver for rigid mast mount and 12/24V wire harness.

Must Have For	Applications
Box Blades	Building Pads
Box Scrapers	Land Leveling
Bull Dozers	Parking Lots
Graders	Sport Fields
Skid Steers	Horse Arenas

LevelMaster LM2-CM

Cross Slope System



Efficient:

For graders and dozers, the LevelMaster II monitors blade cross axis slope when grading roads, shoulders and embankments ensuring more accurate grade control.

Versatile:

LevelMaster II displays and hydraulically controls the slope for graders, dozers, box blades and even drainage plows. It can be easily moved from your motor grader blade to your dozer.

Ideal for:

- Road Graders
- Dozers
- Drainage Plows
- Box Blades



Specifications	LevelMaster II
LCD Display and Offset Input	
Indicates Grade	+3% to -3% @ 0.05% Steps
Control Grade	+3% to -3% @ 0.10% Steps
Control Grade	+25% to -25% @ 0.50% Steps
Rugged Waterproof Enclosures	Yes
Software Adjustable Sensor Filtering & Valve Gains	Yes
Power Operation	12v or 24V DC

LevelMaster LM-5

Electronic Slope Meter



Applications:

- Fork Lifts
- Motor Graders
- Scrapers
- Concrete Screeds
- Dozers
- Drainage Plows

Features:

- 25% ± numeric readout slope display
- 6.0% ± LED bar graph
- Set slope functionality
- Real-time slope display
- Internal sensor

The Futtura LM-5 electronic slope meter brings the slope meter into the new millennium. Completely sealed and ruggedized for machines, the LM-5 allows you to do things your old slope meter can't. Simple to set up and to use, you'll wonder why this product has not been around for years.



LevelMaster LM-5S / LM-5SS

Electronic Slope Meter

LM-5S Features: ±25% digital readout at 0.1% increments, ±6.0% LED Bar Graph readout at 0.5% increments, external sensor, internal battery power or external hard wired.

Includes: in-cab display, blade slope sensor, cable set

LM-5SS Features: Same as above but with steep slope capability measures steep slopes 4:1, 3:1, 2:1

Tripods



- 60-ALQCI20 Standard Weight Aluminum Flat Head Tripod w/Quick Clamps, 5/8-11
- 60-ALQRI20 Heavy Duty Aluminum Flat Head Tripod w/Quick Clamps, 5/8-11
- 60-WDF20 Wood/Fiberglass Flat Head Tripod w/Quick Clamps, 5/8-11

Rods



- 06-808A 8 ft. Aluminum, 3 Section Rod - ft./10ths/100ths
- 06-808C 8 ft. Aluminum, 3 Section Rod - ft./inches/8ths
- 06-816A 16 ft. Aluminum, 5 Section rod - ft/10ths/100ths
- 06-816C 16 ft. Aluminum, 5 Section rod - ft/inches/8ths
- 06-913A 13 ft. Fiberglass, 4 Section Rod - ft/10ths/100ths
- 06-913C 13 ft. Fiberglass, 4 Section Rod - ft/8ths rod
- 06-916A 16 ft. Fiberglass, 5 Section Rod - ft/10ths/100ths
- 06-916C 16 ft. Fiberglass, 5 Section Rod - ft/inches/8ths
- 06-925A 25 ft. Fiberglass, 6 Section Rod - ft/10ths/100ths
- 06-925C 25 ft. Fiberglass, 6 Section Rod- ft/inches/8ths
- 98010 25 ft. Fiberglass, Crain SVR-25, ft/10th/100ths, surveyors grade

Locators



Futura BL-100 Bar Locator

The Futura BL-100's LCD indicator offers a digital bar graph display, in addition to a standard audio tone, to precisely identify the target object, especially in noisy, congested areas. An additional feature is a visual reminder when batteries are low.

The lightweight Futura BL-100 features simple, waterproof bottom, push-button membrane pad operation with an ergonomic design. The Futura BL-100 offers easy battery access and outstanding battery life.

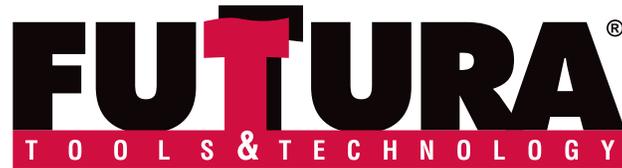


Futura BL-102 Bar Locator

Feature-Packed for Versatility! The BL-102 provides the same basic performance features as the Futura BL-100. However, with the addition of our push-button "erase" feature, greater flexibility is achieved and performance is enhanced.

When a magnetic disturbance, such as a metal fence, is confronted, simply press the "erase" button and the disturbance is erased for continued searching without interference. The BL-102 also includes a power line indicator feature. The LCD panel visually indicates that a power line is present.

US Distributor



www.futturaus.com

Toll Free: 1-877-399-9900

Fax: 405-495-9305

Canada Distributor



www.inteqdistributors.com

Toll Free: 1-877-327-5788

Fax: 519-235-3424