



# Evolution

SPRING 2008

A MAGNETEK MATERIAL HANDLING PUBLICATION

## Inside this issue:

- > Magnetek Wireless Radio Controls Product Portfolio
- > Check Out Our New Website!

## HAVE YOU USED OUR CONFIGURATOR FOR FESTOON AND CONDUCTOR BAR SYSTEMS YET?

You can get a quotation online with no wait - any time of the day, any day of the week. Simply enter the specs, and you'll receive a detailed quote, complete with quote number, an itemized bill of materials, and a system overview drawing based on your specifications.

Our Configurator simplifies the entire purchasing process. When you are ready to place an order, there's no need to list every item number on the purchase order. Just enter the Quote Number, and we'll do the rest. Each time you access the Configurator for a quote, it will automatically load your discount pricing, providing an accurate and up-to-date quotation.

### Current Online Price Book Holders can use the Magnetek Configurator right now!

- Go to [www.magnetekmh.com](http://www.magnetekmh.com) and press the "Dealer Pricing" button.
- Click on the Returning User button to enter the Material Handling Pricing Extranet. (If you haven't already registered for access to Online Pricing, click on the New User button to request access.)
- Navigate to the main Power Control Delivery Systems and Pendant Stations page.
- Click on the Magnetek Configurator button to access the "Lobby"

What could be easier!

## ENRANGE ACQUISITION

### Our expanded product line can meet all your radio control needs.

In February, we announced that Magnetek acquired the business and assets of Enrange LLC of Canonsburg, PA. Enrange is a wireless control manufacturer providing radio remote controls for the material handling, industrial, hydraulic and rock mining industries. Current Enrange product applications include overhead cranes, monorails, automatic guided vehicles, gates, doors, mobile equipment, conveyors and more.

The acquisition of Enrange allows Magnetek to offer our material handling customers a broader wireless control product portfolio, including two-way signaling products, multi-functional control designs, new transmitter designs, modular receivers and more economical radio control options. We can marry many transmitter and receiver options.

Enrange has a proven track record of developing state-of-the-art wireless control products, augmenting Magnetek's

## THE CONFIGURATOR IS NOW EVEN BETTER

- The user interface has been enhanced to provide an easier, more consistent and intuitive navigation.
- Customers can quickly configure and compare different systems.
- Improved visual aids and enhanced pictures help explain components and options.
- Redesigned quotation document is easier to read and understand.
- The 125 Amp conductor bar has been added to the Electrobar FS product line section.
- The option to use the smallest rated bar in each conductor bar system as the ground conductor has been added to allow more versatility in the configuration.
- The overall system is more robust, virtually eliminating any possibility of error, with information presented in a clear, concise manner.

Look for our Mondel brake product line to be available on the Configurator in May! You'll be able to create a detailed quote for our entire line of shoe brakes.

wireless controls research and development efforts and allowing us to expedite the availability of exceptional products to our customers. Now we have even more capability to provide custom options to meet diverse requirements within a variety of industries. Please feel free to contact us with any questions about customizing a solution to improve the performance of your material handling system.

We at Magnetek are excited about the opportunity to bring you a wider selection of wireless controls. This acquisition - coupled with our Electromotive Systems Drives and Electrification products, Mondel Brakes, and Telemotive and PulseStar® Radio Control product lines - further strengthens our ability to be "your one-stop source for material handling control solutions."

This Product Guide provides more information on our expanded line of transmitters and receivers. Over the next few months, Magnetek and Enrange personnel will be cross-trained on Telemotive, PulseStar and Enrange product lines. The Enrange product line will be integrated into Magnetek's operating system and online pricing over time as well.

In the meantime, orders for products marked Enrange should be placed directly with Enrange inside sales personnel at 724-746-3313. To place an order for the Magnetek products, please contact your area sales representative or Magnetek Material Handling Inside Sales at 800-288-8178.

## BELLY BOX TRANSMITTERS



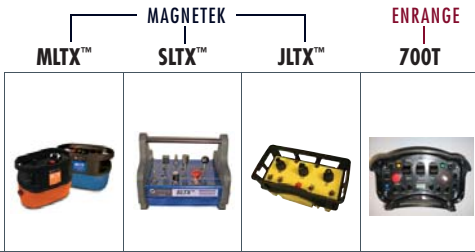
	MLTX™	SLTX™	JLTX™	700T
<b>Temperature Range</b>	-22°F to 158°F (-30°C to 70°C)	-22°F to 158°F (-30°C to 70°C)	-22°F to 158°F (-30°C to 70°C)	14°F to 158°F (-10°C to 70°C)
<b>Operation Range</b>	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) to 500 feet (152.4 M)
<b>Environmental Protection</b>	NEMA 4 (IP66)	IP6, NEMA 1	IP66*, NEMA 4*	Gasketed - NEMA 4 (IP65)
<b>FREQUENCY RANGE</b>				
<b>Non-Licensed (Part 15)</b>	430 to 439.8 MHz	430 to 439.8 MHz	430 to 439.8 MHz	433 ~ 434 MHz 903 ~ 928 MHz
<b>Licensed VHF (Part 90)</b>	72 to 76 MHz	72 to 76 MHz	72 to 76 MHz	NA
<b>Licensed UHF (Part 90)</b>	450 to 470 MHz	450 to 470 MHz	450 to 470 MHz	NA
<b>Modulation</b>	FSK	FSK	FSK	FSK
<b>SELECT CHANNELS</b>				
<b>Part 15</b>	31	31	1	8 at 434 MHz 96 at 900 MHz
<b>Part 90 VHF</b>	4	1	1	NA
<b>Part 90 UHF</b>	1	1	1	NA
<b>Security</b>	16 bit access code	16 bit access code	16 bit access code	20 bit access code
<b>Diagnostics</b>	On-board diagnostic system with LED indicator, transmitter and receiver power status	On-board diagnostic system with LED indicator, transmitter and receiver power status	On-board diagnostic system with LED indicator, transmitter and receiver power status	On-board diagnostic system with LCD indicator, transmitter and receiver power status
<b>BATTERY TYPE</b>				
<b>Rechargeable</b>	7.2 V NiMH, 12 V NiMH	7.2 V NiMH, 12 V NiMH	7.2 V NiMH	NA
<b>Non-Rechargeable</b>	9V Alkaline	9V Alkaline	9V Alkaline	(6) "AA" Alkaline
<b>Rechargeable Battery Capacity</b>	1900 mAh	1900 mAh	1400 mAh NiMH or 2800 mAh Alkaline	NA
<b>Service Life</b>				
<b>Rechargeable</b>	500 cycles	500 cycles	500 cycles	NA
<b>Battery Chargers</b>	Maximum 3 chargers per power supply	Maximum 3 chargers per power supply	1 charger per power supply	NA
<b>Battery Contacts</b>	Gold plated	Gold plated	Nickel plated brass	Gold plated
<b>Battery Charge Time</b>	Fast charge: 1 hour trickle charge: 12 hrs	Fast charge: 1 hour trickle charge: 12 hrs	Trickle charge: 12 hrs	NA

## HANDHELD TRANSMITTERS



	telePilot™	telePendant™	Flex 4ES/4EX 8ES/8EX 12ES/12EX	100T	300T	PGT	DTX
<b>Temperature Range</b>	-22°F to 158°F (-30°C to 70°C)	-22°F to 158°F (-30°C to 70°C)	-13°F to 167°F (-25°C to 70°C)	14°F to 158°F (-10°C to 70°C)	-18°F to 158°F (-20°C to 70°C)	-18°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
<b>Operation Range</b>	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) to 500 feet (152.4 M)	300 feet (91.44 M) +	300 feet (91.44 M) +	350 feet (106.68 M) +
<b>Environmental Protection</b>	IP6	IP 65	Nema 4X IP66	Gasketed - NEMA 4 (IP65)	Gasketed - NEMA 4 (IP65)	Gasketed - NEMA 12 (IP65)	IP67
<b>FREQUENCY RANGE</b>							
<b>Non-Licensed (Part 15)</b>	430 to 439.8 MHz	430 to 439.8 MHz	433 ~ 434 MHz	433 ~ 434 MHz 903 ~ 928 MHz	433 ~ 434 MHz 903 ~ 928 MHz	433 ~ 434 MHz 903 ~ 928 MHz	2.4 GHz Spread Spectrum
<b>Licensed VHF (Part 90)</b>	NA	NA	NA	NA	NA	NA	NA
<b>Licensed UHF (Part 90)</b>	NA	NA	NA	NA	NA	NA	NA
<b>Modulation</b>	FSK	FSK	FSK	FSK	FSK	FSK	FSK
<b>SELECT CHANNELS</b>							
<b>Part 15</b>	31	31	62	8 at 434 MHz 96 at 900 MHz	8 at 434 MHz 96 at 900 MHz	8 at 434 MHz 96 at 900 MHz	16
<b>Part 90 VHF</b>	NA	NA	NA	NA	NA	NA	NA
<b>Part 90 UHF</b>	NA	NA	NA	NA	NA	NA	NA
<b>Security</b>	16 bit access code	16 bit access code	20 bit access code	20 bit access code	20 bit access code	20 bit access code	20 bit access code
<b>Diagnostics</b>	On-board diagnostic system with LED indicator, transmitter and receiver power status	On-board diagnostic system with LED indicator, transmitter and receiver power status	On-board diagnostic system with LCD indicator, transmitter and receiver power status	On-board diagnostic system with LCD indicator, transmitter and receiver power status	On-board diagnostic system with LCD indicator, transmitter and receiver power status	On-board diagnostic system with LCD indicator, transmitter and receiver power status	On-board diagnostic system with LCD indicator, transmitter and receiver power status
<b>BATTERY TYPE</b>							
<b>Rechargeable</b>	3.7V Li-Ion	3.7V Li-Ion	(3) "AAA" NiMH	NA	NA	NA	(4) "AA" NiMH
<b>Non-Rechargeable</b>	(2) "AA" Alkaline	(2) "AA" Alkaline	(2) "AA" Alkaline	(2) NEDA 1604 Alkaline 9V batteries	(4) Alkaline "AAA"	(2) "AA" Alkaline	(4) Alkaline "AA"
<b>Rechargeable Battery Capacity</b>	700mAh	700mAh	700mAh	NA	NA	NA	700mAh
<b>Service Life</b>							
<b>Rechargeable</b>	1000 cycles	1000 cycles	1000 cycles	NA	NA	NA	1000 cycles
<b>Battery Chargers</b>	One per battery	One per battery	Wall Mount Car adaptor TX plug in	NA	NA	NA	Charger built-in
<b>Battery Contacts</b>	Nickel plated brass	Nickel plated brass	Gold plated	Nickel plated brass	Nickel plated brass	Nickel plated brass	Gold plated
<b>Battery Charge Time</b>	2 to 2.5 hrs	3 to 2.5 hrs	1.5 to 2 hrs	NA	NA	NA	NA

**BELLY BOX TRANSMITTERS**



PHYSICAL CHARACTERISTICS	Type	Belly box with levers or joysticks	Belly box with levers	Belly box with levers or joysticks	Belly box with levers or joysticks
	Material	Super tough nylon	Super tough nylon	Polycarbonate (PC)	Molded Kydex T
	Weight	Dependent on configuration. Approx. 3.2 lbs.	Dependent on configuration. Approx. 5 lbs.	Dependent on configuration. Approx. 3.5 lbs.	Dependent on configuration. Approx. 5 lbs.
	Dimensions LxWxH	Approx. 10" x 4.95" x 6.8"	From 8.5" x 6.8" x 6.7" (dependent on configuration)	Approx. 11.25" x 5.75" x 5.75"	Approx. 11.25" x 7" x 7"
	Antenna	Internal	Internal and External	Internal	Internal
	Functions	Up to a maximum of 7 levers or two joysticks with 8 auxiliaries	Up to a maximum of 7 levers with 8 auxiliaries	Up to a maximum of 7 levers with 8 auxiliaries	Up to a maximum of 7 levers with 6 auxiliaries
	Unlicensed	Part 15 compliant	Part 15 compliant	Part 15 compliant	Part 15 compliant
Operating Time	Up to 40 hrs of continuous operation at 70°F with TMS programming	Up to 40 hrs of continuous operation at 70°F with TMS programming	Up to 40 hrs of continuous operation at 70°F with TMS programming	Approx. 350 hrs	
Security	Removable key switch and code plug	Removable key switch and code plug	Removable key switch and code plug	Removable key switch and I-Chip	
Levers	Stepless	Stepless and stepped	Stepless and stepped	Stepless	
# of Levers	Up to 7	Up to 7	Up to 7	Up to 8	

**HANDHELD TRANSMITTERS**

MAGNETEK		Flex 4ES/4EX 8ES/8EX 12ES/12EX		ENRANGE			
telePilot™	telePendant™			100T	300T	PGT	DTX
Handheld with detented pushbuttons	Handheld with detented pushbuttons	Handheld with detented pushbuttons	Handheld with detented pushbuttons	Handheld with detented pushbuttons	Handheld with detented pushbuttons	Handheld with pushbuttons	Handheld with detented pushbuttons
Super tough nylon	Super tough nylon	Nylon & Fiberglass	Nylon & Fiberglass	Polycarbonate / ABS Alloy	Xyron	Polyamide / Polyester	Polyamid
1.3 lbs	1.3 lbs	6.8 oz 8.5 oz 10.4 oz	6.8 oz 8.5 oz 10.4 oz	<1 lbs	~ 2 lbs	1.25 lbs	3 lbs
8.25"x3.25"x1.33"	11"x3"x2.25"	5.4"x2.7"x1.34" 7.2"x2.7"x1.34" 9.1"x2.7"x1.34"	5.4"x2.7"x1.34" 7.2"x2.7"x1.34" 9.1"x2.7"x1.34"	9.3"x3.3"x1.5"	300T-8 = 13"x3.1"x1.8"	8.7"x6.3"x3.4" (irregular shape)	8.6"x4.5"x3.3"
Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal
6 2-speed buttons & up to 3 auxiliaries or 12 buttons	6 pushbuttons & 7 membrane buttons	4 pushbuttons 8 pushbuttons 12 pushbuttons	4 pushbuttons 8 pushbuttons 12 pushbuttons	9 to 18 buttons	6, 8, or 10 buttons	Up to 11	15 buttons
Part 15 compliant	Part 15 compliant	Part 15 compliant	Part 15 compliant	Part 15 compliant	Part 15 compliant	Part 15 compliant	Part 15 compliant
60 to 80 continuous hrs	60 to 80 continuous hrs	80 to 100 continuous hrs	80 to 100 continuous hrs	180 to 200 hrs	180 to 200 hrs	180 to 200 hrs	15 hrs
Password and Palm Pilot	Password and Palm Pilot	Password and I-Chip	Password and I-Chip	Password and factory	Password and factory	Password and factory	Password and factory
1 or 2 step buttons	2 or 3 step buttons	2 step buttons	2 step buttons	1, 2 step or stepless	1, 2 step or stepless	1-step or stepless	1 step
8 to 12 buttons	6 pushbuttons 7 membranes	Up to 12	Up to 12	Up to 18	Up to 10	Up to 15	Up to 15

**ENRANGE RECEIVERS**

**CAN-4/2.4 AND CAN-6**

The CAN-4/2.4 and CAN-6 receivers make adding remote control to hydraulically "can-bus" controlled machinery simple and easy. These receivers allow you to tap onto most CAN-bus systems, especially a standard J1939 communication CAN-bus system. The quick response allows for precise control, without the latency found in other radio control systems.

**CAN-4/2.4 Features**

- Compact, rugged design (1PbT)
- 2.4GHz FHSS RF - 10mW, 100mW, and 200mW (FCC approved, license free) – better security and more interference-free operation
- Easily integrated into CAN based products, especially J1939 systems
- Compatible with most CAN Bus 2.0 interfaces
- Compatible with Parker's IQAN, High Country Tek, and OEM Controls modules
- Designed for outdoor use, sealed to IP67 specifications
- Wide operating voltage range 12-48VDC
- LED lights for diagnostics and feedback
- 4 and 8 digital (on/off) output versions



**CAN-4/2.4 Options**

- Custom CAN bus protocols available upon request
- Pre-wired wire harness
- CAN bus bridge (WIC-2400)
- Selectable baud rates 50k, 125k, 250k, 500k

**CAN-6 Features**

- 900 MHz and 400 MHz Direct Sequence Synthesized RF (FCC approved, license free)
- Easily integrated into CAN based products, especially J1939 systems
- Compatible with most CAN Bus 2.0 interfaces
- Can be interfaced with Parker TOC2 units, or other devices that require an analog voltage input.
- 8 analog outputs (0-5-VDC, 0-10VDC, or 3-6-9VDC)
- 8 digital (on/off) outputs
- Designed for outdoor use, sealed to IP67 specifications

- Wide operating voltage range 12-48VDC
- LED lights for diagnostics and feedback
- Internal or external antenna.

**CAN-6 Options**

- Custom CAN bus protocols available upon request
- Pre-wired wire harness
- Selectable baud rates 50k, 125k, 250k, 500k



**FLEX M RECEIVER**

Our most versatile radio receiver, the Flex M's modular design (similar to a PLC) allows one plant to standardize on one receiver style, no matter how big or small the application. Each din rail mounted module is connected by an integral side connector to make up a system. The first module, or the brains of the system, is the RF/CPU module, next is the power module, then output (relay or other) or input modules are added required by the application.

**Features**

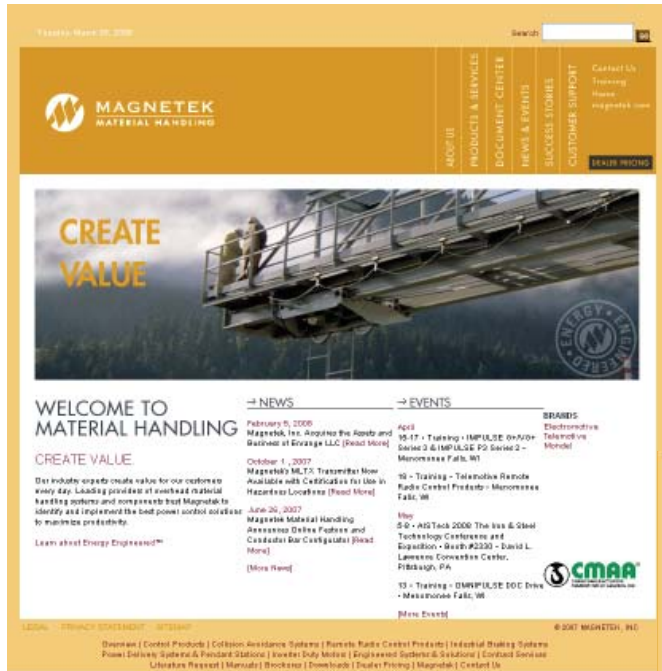
- Very flexible engineered system, choice of I/O and RF power
- System can expand for different applications, ideal for plant-wide use
- Small compact design, true modular bus connection
- 35mm din-rail mountable modules
- Several specialized I/O modules available including serial communications (RS232, RS485, and CAN bus)
- "First Come First Serve" communications
- LED lights provide diagnostics for each individual module
- Up to four removable connectors for easy wiring and replacement of any modules



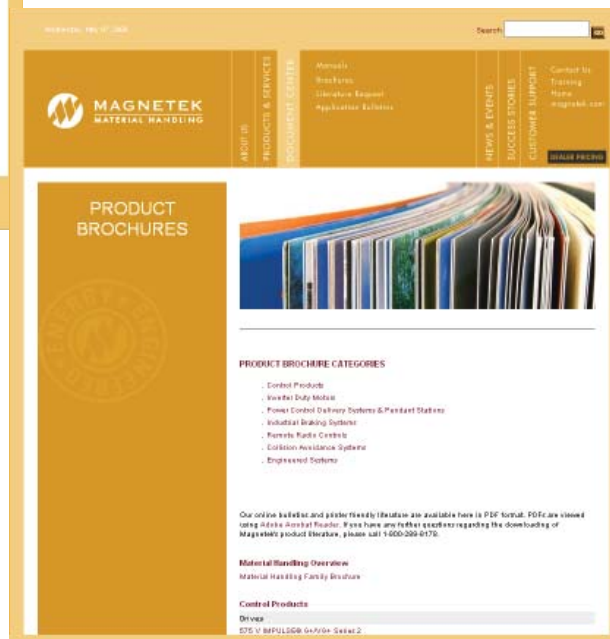
**Options**

- 12VDC, 24-48VDC or 24VAC power supply
- Feedback option to transmitter display (machine data)
- High power 1W systems available +2500ft. distances
- Transceiver feature, receive and transmit information for wireless I/O
- Accepts digital inputs, analog (0-10VDC) and serial communication inputs.
- Provides both digital and analog outputs (0 to +/- 10VDC)
- Custom programming available

# CHECK OUT OUR NEW WEBSITE!



Magnetek Material Handling is pleased to announce the launch of our redesigned website. The new site is easier to navigate, with more easily accessible information. Take a look at [www.magnetekmh.com](http://www.magnetekmh.com).



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