Third Millennium TM5 Series

Programming Instructions

December 2006

ENTERING PROGRAMMING MODE *00nnnn#	Before you can configure the reader you must enter programming mode by using this command. You must enter the correct four-digit security PIN for the reader. The factory default is 1234. For example, to place a factory-configured reader into programming mode you should enter *001234#. If no keys are pressed, programming mode will timeout after 30 seconds without saving the changes you have made.
SET PIN MODE *01n#	This programming command allows you to set up how the reader handles keypad data. The reader is capable of outputting keypad data in a number of industry-standard formats. The following modes are supported: 0 – Disabled (i.e. no keypad output). 1 – HID 4-Bit Wiegand Burst (Factory Default) 2 – Dorado 8-Bit Wiegand Burst (also compatible with Indala) 3 – Mercury 8-Bit Wiegand Burst 4 – 1 Digit Clock & Data 5 – Dorado 8-Bit Burst 6 – 8 Digit Clock & Data 7 – 5 Digit Buffered to 26-Bit Wiegand Output (Sensor-26, Site Code = 0..255, Card No. = 0..65535) 8 – HID 32-Bit Wiegand Output (Site Code = 0..65535,Card No. = 0..65535) 9 – 7-Digit Buffered to 34-Bit Wiegand Output (Sensor-34, Site Code = 0..4095,Card No. = 0..1048575) For example, to set the reader to buffer keystrokes and output them in the industry-standard 26-bit format you should enter *017# once the reader has been placed into programming mode.
SET AUDIBLE TONE ON CODE *02n#	During the entry of a buffered PIN (PIN modes 7,8 and 9), you have the option of allowing the reader to issue a confirmation beep or an error triple-beep on entering the PIN. Once the reader has been placed into programming mode, enter *021# to enable the audible tone, *020# to disable the audible tone on PIN entry. By default, the audible tone is disabled.
SET AUDIBLE TONE ON CARD *03n#	During the entry of a buffered PIN (PIN modes 7,8 and 9), you have the option of allowing the reader to issue a confirmation beep or an error triple-beep on presenting the card. Once the reader has been placed into programming mode, enter *031# to enable the audible tone, *030# to disable the audible tone on PIN entry. By default, the audible tone is disabled.
SET PROXIMITY READING *04n#	This programming command allows you to disable transmission of the proximity card data by the reader. The reader will still beep to indicate that it has read the card. To disable transmission of the card data, enter *040# once the reader has been placed into programming mode. To enable transmission, enter *041#. By default, transmission is enabled.
SET LED CONFIGURATION *05n#	LED's may be configured for the following modes. 0 – TM5 Standard LED Configuration 1 – Traffic Light, Plus Buzzer 2 – Mon LED, Plus Buzzer 3 – TM4 Standard LED Configuration 4 – TM4, Plus Buzzer
SET SITE CODE *06nnnnn#	Set the site code number that is combined with the card number read from the card and sent out as the complete card info message. The unit accepts site codes from zero to 65535 although the maximum valid value depends on the output format.
SET SECURITY PIN *98oooonnnn#	To ensure the security of the reader, it is important that a new security PIN is entered during installation to prevent unauthorised individual from reconfiguring the reader. For example, to change the factory default PIN of 1234 to 6767 you should enter *9812346767# one the reader has been placed into programming mode.
SAVE CHANGES AND EXIT *99#	Once you have set the configuration options you require for the reader, you must save them by entering this programming command. You must enter *99# to save the changes you have made to the reader's configuration.

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Introduction:

The TM5 proximity keypad reader provides a convenient and easy-to-use means of transmitting RFID proximity card data and PIN data to an access control panel. The TM5 is quick and easy to install on any flat surface using the stainless steel fixing screws and wall plugs supplied, it can even be mounted direct to metal surfaces with no significant loss of read range. The durable push button keypad is back-lit to allow for operation at night, and a beep is emitted on every button press.

A back-box is also available if surface-mount conduit cable entry is required. An optional buzzer (110+ dB) can be fitted in the back-box for applications where there are high levels of background noise.

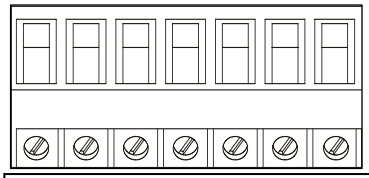
TM5 proximity keypad readers are available in many different output formats allowing interface with virtually all access control systems. Please ensure that the correct format is requested at time of order.

Installation:

The TM5 is designed to be mounted flush to the wall surface. Use the reader housing to mark out the position of the fixing screws, drill two holes suitable for the fixing screws and wall material. When drilling standard brick material a 6 mm drill should be used. If mounting on sheet material, glass, metal etc. the mounting arrangements will need to be modified to suit. Drill a hole roughly mid-way between the two mounting holes for the connection cable.

Operation:

When power is applied to the reader, the red LED will light and the beeper will sound to indicate the reader is fully functional. For optimum read range the card should be presented face-on to the reader. Typical read ranges are 15 cm when used with ISO proximity cards, and 8 cm with proximity keyfobs.



1 2 3 4 5 6 7

Wiring Connections

1	5 – 16 Vdc Supply
2	Data 1 / Clock
3	Data 0 / Data
4	Green LED
5	Red LED
6	Card Present (C&D Only)
7	0V / Ground

Cabling:

It is recommended that Belden 9536 screened cable, or equivalent, is used between reader and control panel. The recommended maximum distance between reader and control panel is 100 metres. This is dependant upon type of cable used and the electrical environment present. ALWAYS VERIFY THAT THE CABLING DISTANCE AND ROUTING IS SUITABLE.

Current:

120mA – 250mA Typical, dependant on mode of operation.

Environmental:

TM5 Series proximity keypad readers have been designed for both internal and external applications in severe weather conditions. The electronics are fully encapsulated in the UV stable compound polycarbonate housing, ensuring that the readers are both weather proof and virtually unbreakable.

Temperature	-20 C to + 60 C
Humidity	100% RHNC

Optional back-box buzzer connections:

Red	5 – 16 Vdc
Black	0 V / Ground

Note – with the optional buzzer fitted in the back box, the rear conduit entry cannot be used.
Caution – the back-box buzzer emits 110+ dB and may be harmful to hearing if used without ear protection.

Grounding:

It is recommended that the proximity reader, control panel and power supply unit have a common ground. The screen of the Belden 9536 cable should be firmly connected to the power supply grounded chassis to prevent ground loops.

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