



impro®

ImproX TA

Product Specifications Catalogue

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## ImproX (TA) Time Attendance Terminal



### Overview

### Introduction

The **ImproX (TA) Time Attendance Terminal** is designed for a wide variety of uses. It not only supports the standard range of ImproX Remote Readers but can also be used to interface Third-party Devices such as Barcode, Magstripe and Wiegand Readers.

The ImproX TA Terminals applications include:

- Time and attendance Terminal.
- Access control Terminal.
- OEM custom requirements.
- Interfacing Third-party Devices such as Barcode, Magstripe and Wiegand Readers into IXP200/300/400 Systems.

The ImproX TA includes a Liquid Crystal Display (LCD) and a four button keypad. The Terminal is able to interface with a number of different Remote Reader-head types including the ImproX (MR) Micro Remote Reader, ImproX (KR) Keypad Remote Reader, ImproX (MHR) Harsh Environment Micro Remote Reader and ImproX (KHR) Harsh Environment Keypad Remote Reader.

The ImproX TA is also able to interface with the ImproX IR Infrared Receiver, ImproX RF 4-Channel UHF Receiver where extended range is required, as well as Third-party Barcode, Magstripe and Wiegand-26, 37, 40 and 44 types. In addition, the TA has the facility to read from or write to WriTag 128 and WriTag 2048 Tags. Each ImproX TA is designed to be used with one Remote Reader, or Receiver.

Besides all the standard lock types, the ImproX TA is capable of controlling motor locks that use reverse polarity for opening and closing. Suitable locks are manufactured by, for example, MIWA and Goal. The ImproX TA can also control pulse-operated solenoid locks.

The ImproX TA is designed for indoor use only, and is able to interface with a Controller in an IXP200 or IXP300/400 System via an RS485 Terminal Bus connection.

## Key Features

- Tag Read function for the following read-only Tags: Slim Tags, Omega Tags.
- Tag Read/Write function for the WriTag 128 and WriTag 2048 Read/Write Tags.
- TTL interface to the ImproX IR, ImproX RF, and Third-party Readers.
- A 16-character, single-line Liquid Crystal Display (LCD).
- A 4-button keypad.
- A single bi-coloured Red or Green Status LED. The Status LED is software-configurable via the communications protocol.
- Two Relay Outputs.
- Four Digital Inputs.
- A single-tone, 4-level volume (including off) adjustable Buzzer.
- Operation from power inputs in the range 10 V to 30 V DC.
- The ability to upgrade firmware whilst installed on site, without removal of the Terminal.

## Terminal Tag Read/Write Ranges

The range that the Terminal can read from or write to a Tag is dependent on the type of Tag and on the type of material on which Terminal is mounted.

Typical ranges are shown in Table 1.

Tag Type	Typical Range (Minimum) (Terminal mounted on non-metallic surface)	
	(mm)	(in)
ImproX Credit Card Tag	80	3.14
ISO Credit Card (Slim)	80	3.14
ISO Credit Card WriTag 128	80	3.14
ISO Credit Card WriTag 2048	80	3.14
Teardrop Tag	50	2.36
Ring Tag	50	2.36
NOTE: Mounting the Terminal on a metallic surface will reduce the Tag Read/Write range slightly.		

**Table 1: Typical Read/Write Ranges**



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Part Number: XTA902-1-0-GB-XX

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## Approvals

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- CE Approved.
  - FCC Approval Pending.
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# Specifications

## Physical

<b>Dimensions</b>	
Length	: 163 mm (6.41 in).
Width	: 71 mm (2.79 in).
Height	: 46.50 mm (1.83 in).
<b>Approximate Weight</b>	: 250 g (8.81 oz).
<b>Housing Material</b>	
Material	: ABS Plastic.
Colour	: Dark Grey.

## Environmental

<b>Temperature</b>	
Operating	: -25°C to +60°C (-13°F to +140°F).
Storage	: -40°C to +80°C (-40°F to +176°F).
<b>Humidity Range</b>	: 0 to 95% relative humidity at +40°C (+104°F) non-condensing.
<b>Approvals (Test Information)</b>	
EMC	: EN 55022: Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment. EN 55024: Immunity Characteristics, Limits and Methods of Measurement.
Electrostatic Discharge	: IEC 61000-4-2: Electromagnetic Compatibility (EMC). Part 4: Testing and Measurement Techniques. Section 2: Electrostatic Discharge Immunity Test. Basic EMC Publication.
Radiated Susceptibility	: IEC 61000-4-3: Electromagnetic Compatibility (EMC). Part 4: Testing and Measurement Techniques. Section 3: Radiated, Radio-Frequency, Electromagnetic Field Immunity Test.
Electrical Fast Transients	: IEC 61000-4-4: Electromagnetic Compatibility (EMC). Part 4: Testing and Measurement Techniques. Section 4: Electrical Fast Transients / Bursts. Basic EMC Publication.
Surge Immunity	: IEC 61000-4-5: Surge Immunity.
Conducted Susceptibility	: IEC 61000-4-6: Conducted Susceptibility.
Power Frequency Magnetic Field	: IEC 61000-4-8: Electromagnetic Compatibility (EMC). Part 4: Testing and Measurement Techniques. Section 8: Frequency Magnetic Field Immunity Test.

<b>Dust and Splash Resistance</b>	:	The Terminal is designed to work in an indoor (dry) environment, similar to IP50. The Terminal is, therefore, not sealed against water.
<b>Drop Endurance</b>	:	1 m (3.28 ft) drop (in packaging).

## Electrical

### Power Requirements

Input Voltage	:	10 V DC to 30 V DC.	
Power Requirements		<b>Current (mA)</b>	<b>Power (W)</b>
Supply Voltage = 10 V DC Relays all on, Third-party Reader Connected, Remote Reader Connected	:	250	2.5
Supply Voltage = 30 V DC Relays all on, Third-party Reader Connected, Remote Reader Connected	:	83	2.5
Permissible Input Supply Ripple Voltage (Max)	:	1 V <sub>pp</sub> at 50 Hz.	
Power Input Protection	:	Reverse polarity, over-voltage and over-current protection.	

### Power Output

Remote Reader Port	:	5 V DC $\pm$ 0.1 V is supplied to power the single Remote Reader connected. A maximum of 150 mA can be supplied from this port.
Third-party Reader Port	:	5 V DC $\pm$ 0.1 V is supplied to power the single reader connected to this port. A maximum of 50 mA can be supplied from this port.

### Terminal Bus Port

Electrical Interface	:	RS485, ASCII with 16-bit CRC checking.
Baud Rates	:	1 200, 2 400, 4 800, 9 600, 19 200, 38 400 and 76 800 selectable via the communications protocol.
Data Format	:	8 data bits, no parity, 1 stop bit.
Communications Protocol	:	ImproX Secure Communications Protocol.

### Remote Bus Port

Electrical Interface	:	TTL.
Baud Rate	:	9 600 (fixed).
Data Format	:	8 data bits, no parity, 1 start and 1 stop bit.
Communications Protocol	:	ImproX Proprietary Protocol.

### Third-party Port

Electrical Interface	:	TTL.
Function	:	The function of this port is selected via the terminal DIP-switch.

### Relays

Relay Output	:	2 x Relays, each with NO, COM and NC contacts.
Contact Rating	:	3 A at 24 V DC. 3 A at 125 V AC.

<b>Digital Inputs</b>	
Input Type	: 4 x Dry-contact Inputs.
Protection	: + 50 V to – 50 V continuous, + 80 V to – 80 V surge.
<b>Processor</b>	
Type	: 16-bit Micro-controller operating at 16 MHz.
Ram Memory	: 2 Kbytes.
Flash Memory	: 64 Kbytes.
<b>Anti-tamper Switch</b>	: An anti-tamper switch inside the housing indicates an alarm if the Front Cover is removed from the Base.
<b>Data Format</b>	
Barcode	: Single data stream.
ImproX IR	: Single data stream.
ImproX RF	: Single data stream.
Magstripe	: Clock and data.
Wiegand	: '0' and '1' streams.
<b>Communications Protocol</b>	
Barcode	: Code 39.
ImproX IR	: Proprietary.
ImproX RF	: Proprietary.
Magstripe	: ABA Track 2.
Wiegand	: 26-bit, 37-bit, 40-bit and 44-bit.

## Factory Default Settings

<b>Default Baud Rate</b>	: Factory-set to 38 400.
<b>Buzzer Volume</b>	: Level 3 (maximum).

## Operator or Installer Interfaces

<b>Buzzer</b>	
Volume	: Software adjustable in four discrete steps (including off).
Tones	: Single tone.
<b>Status Indicators</b>	
Status LED	: Bi-colour Red or Green LED (externally visible). The functions are application specific.
Incoming RS485 Data LED	: Green LED (flashing) (internally visible).
Outgoing RS485 Data LED	: Red LED (flashing) (internally visible).

<b>Liquid Crystal Display (LCD)</b>		
Characters	:	16 Characters by 1 line.
Character Set	:	English, Katakana.
Contrast	:	Software adjustable in 8 discrete steps via the Communications Protocol.
Back-lighting	:	Permanently on.
<b>Keypad</b>		
Buttons	:	4 Buttons, used for entering Reason Codes.
Back-lighting	:	Permanently on.

## Interface Details

### RS485 Terminal Bus Port

The RS485 Terminal Bus Port lets you connect the ImproX TA Terminal to other ImproX Terminals and the Controller in your chosen IXP System. The interface is made by connecting the “A” and “B” terminals on the ImproX TA to the “A” and “B” lines on the other ImproX units.

To indicate incoming and outgoing data on this port the Terminal has two low intensity LED Indicators. The Red Indicator illuminates for all outgoing data and the Green Indicator illuminates for all incoming data.

### Remote Bus Port

The ImproX TA Terminal is connected to an ImproX Remote Reader via the Remote Port of the TA. Four wires are used to interface with the Remote Reader, two wires for power and two for communications.

The 5 V DC (+V) and ground (GND) terminals are connected directly from the TA Terminal to the Remote Reader. The Transmit (TX) terminal on the TA Terminal must be connected to the Receive (RX) terminal on the Remote Reader, and the Receive (RX) terminal on the TA Terminal must be connected to the Transmit (TX) terminal on the Remote Reader.

### Third-party Port

Connection to a Third-Party Reader, or to either the ImproX IR or RF Receiver, is via the Third-party Port on the ImproX TA.

#### TA Connection to a Third-party Reader

The 5 V DC (+V) Power and Ground (GND) for a Third-party Reader is supplied from the TA Terminal's Third-party Port, however, the current consumption must be restricted to 50 mA continuous.

#### Connection to an ImproX IR or an ImproX RF Receiver

Three wires are used to interface to either of these Receivers, two for power and one for data input.

The 5 V DC (+V) and Ground (GND) connections are connected directly from the TA Terminal to the Receiver. The ‘B’ terminal on the ImproX TA Terminal must be connected to the Data Output Terminal on the Receiver concerned.

The format selection for each type of device that can be connected to the Third-party Port is made by setting the internal DIP-switches.

## Relays

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The ImproX TA has two independent single-pole, double-throw (SPDT) Relay Outputs with NO, NC and COM contacts available.

It is critical that some form of arc suppression is used when using inductive loads in conjunction with the Relay.

## External Digital Inputs

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The TA Terminal provides four general purpose dry contact inputs. These inputs can be configured by the IXP200 System Software, and the ImproNet IXP300/400 System Software, to perform specific tasks such as:

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- Door Opening Sensing.
  - Request to Enter/Exit.
  - Scanner Inhibit.
  - Alarm Input.
  - Action Request.
  - Mains Failure sensing when connected to various Impro Power Supplies.
  - Battery Voltage Low sensing when connected to various Impro Power Supplies.
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## LCD Display

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The ImproX TA provides a 16-character by 1-line large character LCD Display. The standard display data is "Date" and "Time".

When a Tag is presented, the LCD will prompt the Tagholder to enter a Reason Code if applicable. The requirement for a Reason Code for a given Tagholder is configured in the System Software.

The LCD can also be used for displaying Messages when set up in the System Software.

## Reason Code Buttons

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The ImproX TA provides four pushbuttons for use in entering Reason Codes. These buttons are labelled 1 to 4.

Reason Codes in the ranges 1 – 4, 11 – 14, 21 – 24, 31 – 34, and 41 – 44 can be entered.

## Buzzer Volume Control

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The Buzzer volume is adjustable in four discrete steps (off, low, medium and high) via the communications protocol (e.g. in the associated IXP200, 300 or 400 System Software).



## Status Indicator

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The TA Terminal provides a single Red or Green Status LED that indicates the status of the Terminal and the access status of a Tag presented. The following are the various states that can be configured using the communication protocol, (e.g. in the associated IXP200, 300 or 400 System Software).

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- Solid Red.
  - Solid Green.
  - Flashing Red.
  - Flashing Green.
  - Alternating Red/Green (this condition is preset and indicates Upgrade Mode).
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# Installation Information

## Accessories

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You will find the following when unpacking your ImproX TA Terminal:

- An ImproX (TA) Time Attendance Terminal (The Terminal is supplied in a Dark Grey ABS Plastic housing. The housing consists of the Front Cover and the Base (Backing Plate). The Front Cover and Base are held together with two lugs, one at each end).
- Two (black) Polymate Screws, 2.2 mm x 7.4 mm, Countersunk. (These are supplied to firmly attach the Terminals Front Cover to the Base).

**CAUTION: DO NOT use the Metal-oxide Varistors (14 Vrms, 500 A, 43 V max clamping) with mains power applications.**

- Two Metal-Oxide Varistors, 14 Vrms, 500 A, 43 V max clamping.
  - Four Brass Wood Screws, 3.5 mm x 25 mm, Pan-head, Slotted.
  - Four Wall Plugs, 7 mm, Plastic.
  - An extra Fixed Address Label.
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## General

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Remember the following when installing the ImproX TA Terminal:

### Communications Distance

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The RS485 communications distance between the ImproX TA and the ImproX Controller or Terminal, MUST NOT exceed 1 km (1 090 yd). Achieve this by using good quality screened twisted pair cable, with the screen EARTHED at one end.

### Power Requirements

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The maximum distance between the ImproX TA Terminal and its associated power supply depends on the output voltage and the type of cable used. When power is supplied to the Terminal, ensure that a minimum of 10 V DC is present at the Input Power Terminals of the ImproX TA. A higher output voltage from the power supply permits a longer power cable to be used. It is not advisable to use a cable with a conductor cross sectional area of less than 0.5 mm<sup>2</sup> (0.0008 in<sup>2</sup>).

The maximum recommended distance between the Power Supply and the ImproX TA must not exceed 10 m (32.80 ft).

## Distance between the ImproX TA and its Remote

The maximum cable distance between the ImproX TA and its Remote MUST NOT exceed 10 m (33 ft). Achieve this by using good quality screened, twisted pair cable.

## Distance between ImproX Units

To avoid mutual interference, install the ImproX units alongside each other at least 500 mm (20 in) apart.

## Jumper Links

Long transmission lines or multiple “star” connections, may cause communication problems. Placing a Jumper Link across the jumper [TR1] in the LAST UNIT AT THE END OF THE CABLE RUN should solve the problem.

## EARTH Connections

### Communication Line

In electrically noisy environments it is necessary for the RS485 cable run to be EARTHED. This can be achieved by connecting the screen on the cable to the EARTH (ETH) connection terminal block on the RS485 Terminal Bus Port of the ImproX TA. Only one end of the cable must be connected to the ETH. See the TA Electrical Connections diagram (Figure 3) for further information.

### Power

It is good practice to EARTH the TA Terminal to a good EARTH point. Use a cable with a conductor cross sectional area of at least 0.5 mm<sup>2</sup> (0.0008 in<sup>2</sup>). Keep the EARTH line as short as possible. The EARTH line must be connected to the negative (-) terminal of the Power Input Terminal on the ImproX TA.

## Arc Suppression

Snubber devices are recommended for EMF Flyback and Arc Suppression when driving an inductive load (for example, a Door Strike or Magnetic Lock) with the Relay, see Figure 1.

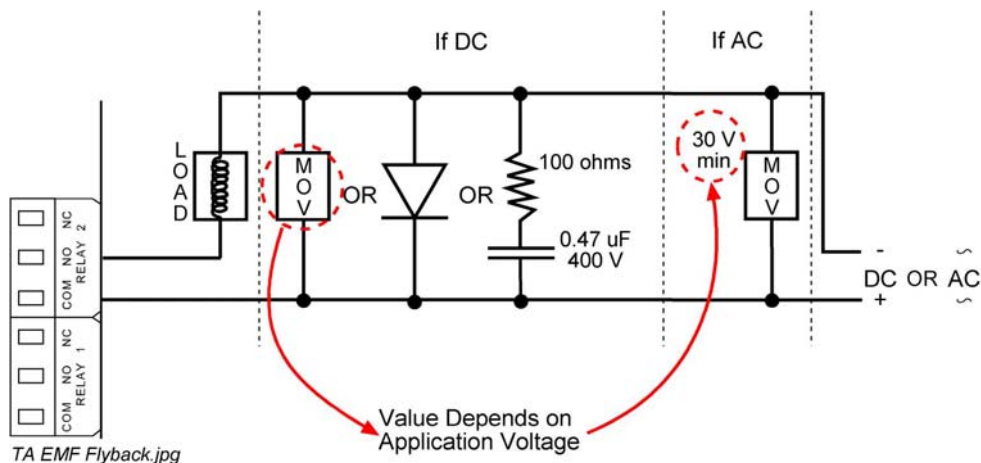
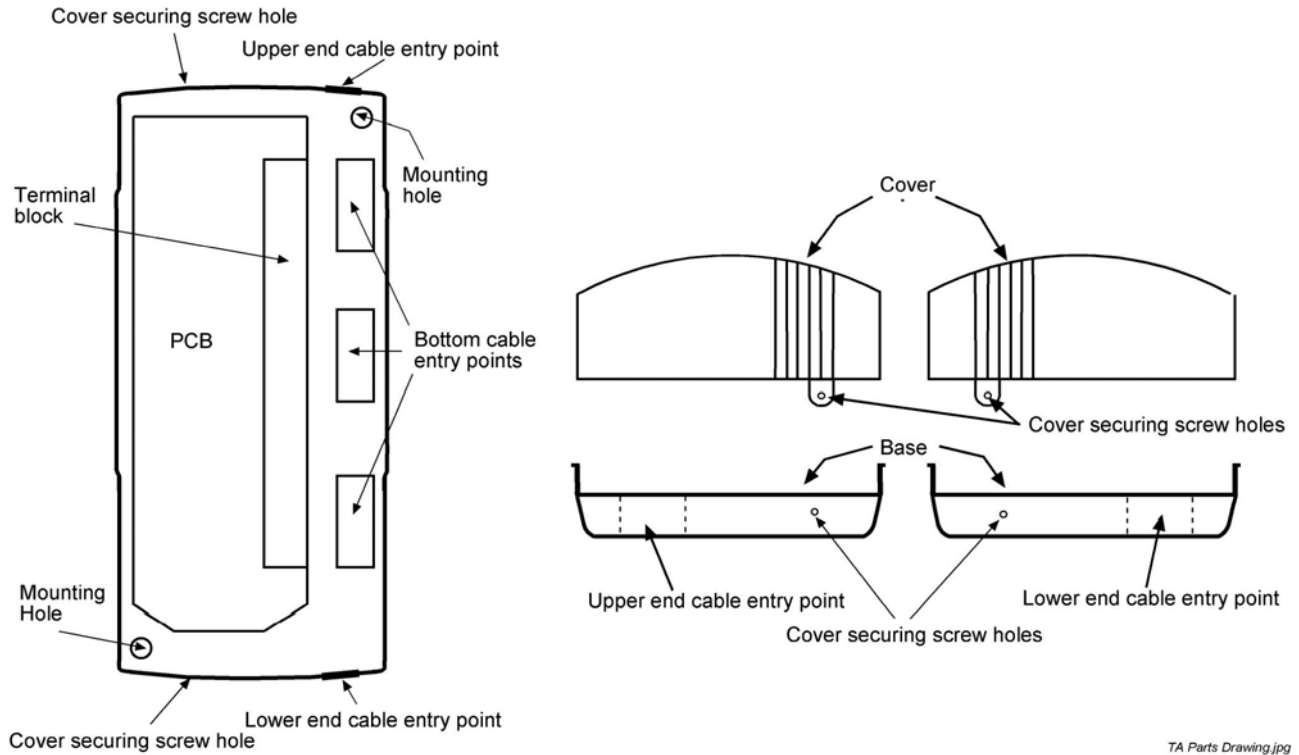


Figure 1: EMF Flyback and Arc Suppression

## Mounting the Enclosure



**Figure 2: Enclosure Parts Breakdown**













Select the mounting position of the ImproX TA Terminal, considering accessibility, routing of wires and visibility of the Reason Code Buttons, the externally visible Status LED and Liquid Crystal Display (LCD).

Secure the enclosure to the mounting surface, using two suitable screws and wall plugs (supplied), nuts and bolts or rivets.

## DIP-switch Settings

The format selection for each type of device that can be connected to the Third-party Port is made by setting the internal DIP-switches as indicated in Table 2.

**NOTE:** Terminals 'A' and 'B' in Table 1 are on the Third-party Port Terminal Block.

DIP-switch Position	Format	Connections
0  DIP-switch 0 shows all the switches in the OFF position	No peripheral	N/A
1  DIP-switch 1 shows switches 2, 3 and 4 in the OFF position	ImproX RF 4-channel UHF Receiver	Data line to terminal 'B'
2 	Magstripe ABA Track 2	Clock line to terminal 'B' Data line to terminal 'A'
3 	Barcode Code-39 with checksum	Data line to terminal 'B'
4 	Wiegand-26/37/40 and 44	"0" Data line to terminal 'B' "1" Data line to terminal 'A'
5 	ImproX IR Infrared Receiver	Data line to terminal 'B'
6 	Barcode Code-39 without checksum	Data line to terminal 'B' (on the Third-party Port)
7 	Reserved	
8 	Motor Lock	
9 	Repeating (Pulse) Lock	
10 	Fail Safe/Fail Secure Solenoid Lock	
11 Reserved	<b>NOTE:</b> Unused positions are reserved.	
12 Reserved		
13 	Emergency/Unlock Mode Door Reporting Suppressed	Inputs 1 and 3 are allocated to the Door Open Sensor

**Table 2: DIP-switch Settings**

**NOTE:** Once the DIP-switch setting is modified reset the ImproX TA to acknowledge the new settings.

# Electrical Connections

## Connecting the ImproX TA Terminal

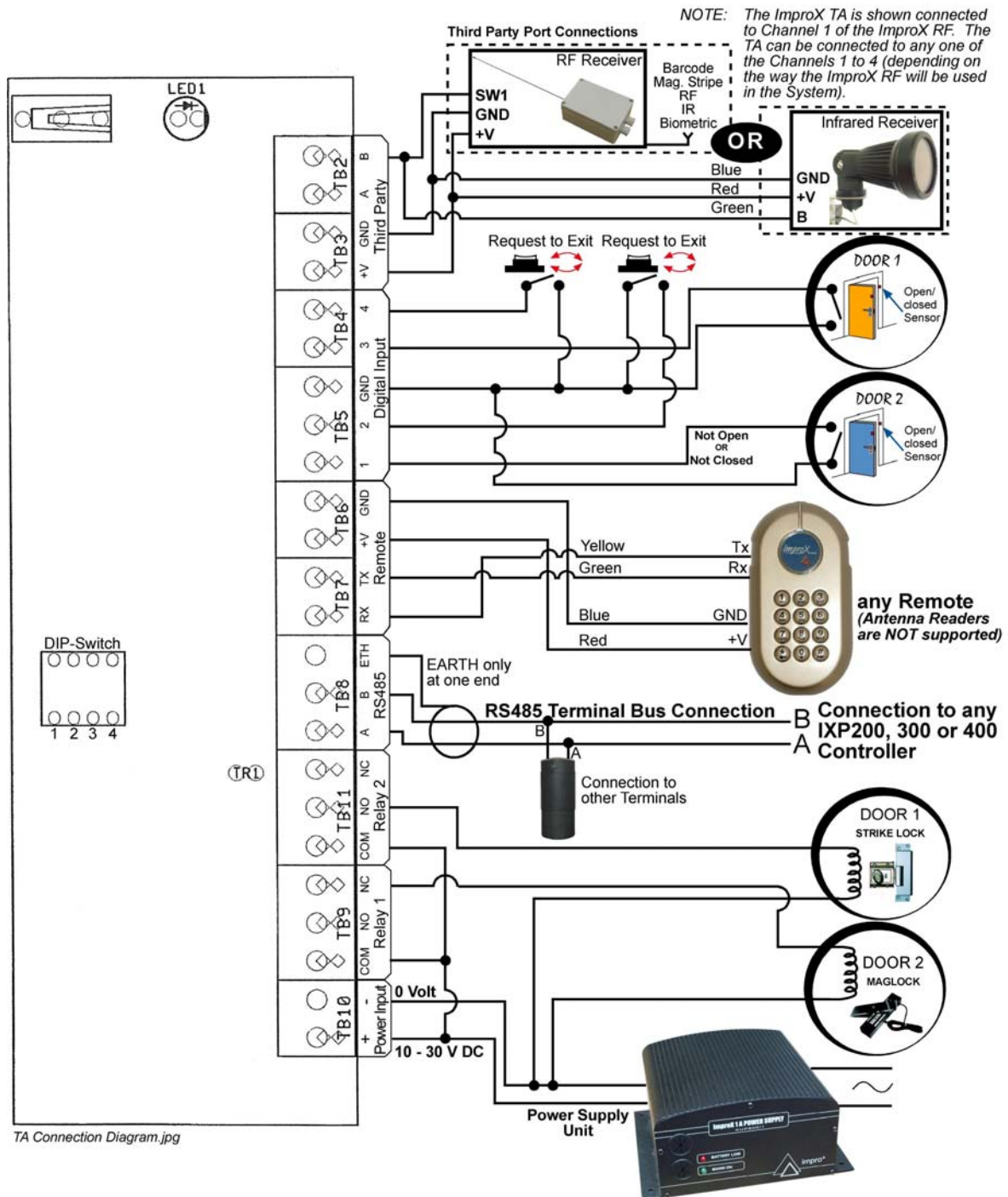


Figure 3: Typical ImproX TA Electrical Connections

## Connecting the TA to a Motor Lock

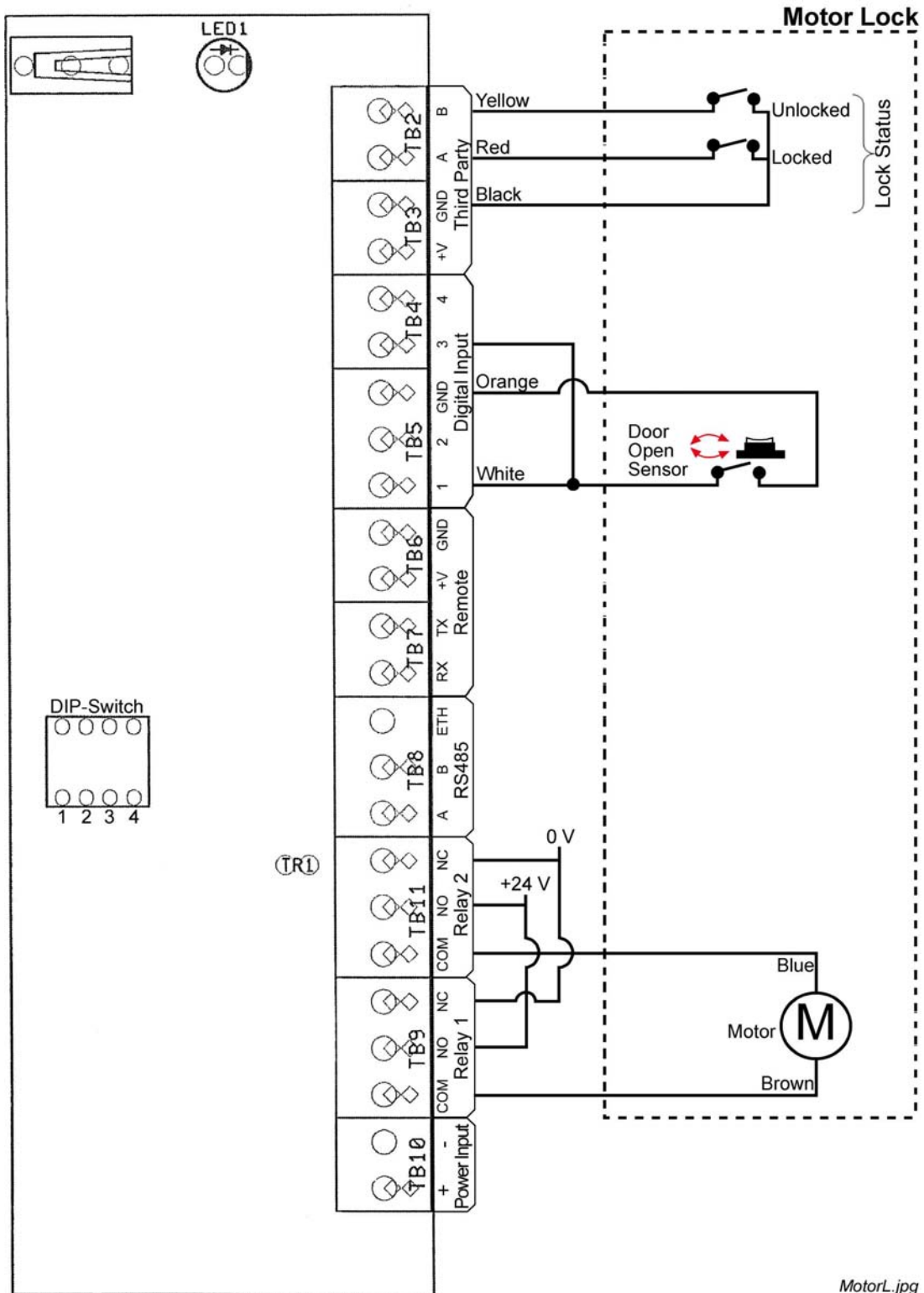


Figure 4: ImproX TA Terminal Connected to the MIWA AL3M Motor Lock

## Motor Lock Interface to an ImproX TA

### Connections

The connections between an ImproX TA and a Motor Lock are shown in Figure 4.

The positive supply is connected to the Normally Closed (NC) contacts of Relays 1 and 2 (in the ImproX TA) and the negative to the Normally Open (NO) contacts of Relays 1 and 2.

The lock motor must be connected to the common (COM) terminals of Relays 1 and 2 in such a way as to take the operation of Relays 1 and 2 into account.

RELAY 1	RELAY 2	POLARITY of Supply to the Motor Lock		ACTION
		Relay 1 COM (Brown)	Relay 2 COM (Blue)	
Not Energised	Energised	+ve	-ve	Motor Driven to Unlocked Position
Energised	Not Energised	-ve	+ve	Motor Driven to Locked Position
Energised	Energised	-ve	-ve	<i>No Action</i>
Not Energised	Not Energised	+ve	+ve	<i>No Action</i>

**Table 3: Change of Polarity of Supply to Motor Lock**

A dry contact closure to Ground from the Lock, indicating the Lock has reached the Locked position, is connected to terminal A of the Third-party Port.

A dry contact closure to Ground from the Lock, indicating the Lock has reached the Unlocked position, is connected to terminal B of the Third-party Port.

A dry contact closure to Ground from the Lock, indicating the door is closed, is connected to Digital Input 1 and Digital Input 3.

### DIP-Switch

The DIP-switch on the TA must be set as in Table 2 for a Motor Lock.

### System Configuration for a Motor Lock

The following must be configured in the associated IXP200 or ImproNet System Software:

Relays 1 and 2 need to be configured. The maximum drive time for the Relays must be specified.

Digital Input 1 needs to be configured as a Door Open Sensor. This allows the Door Open Delay to be specified; if the door is not opened during this time after being unlocked, the Lock will drive again to the Locked position.

The Lock will drive to the Locked position 1 second after the door has been closed provided that an Emergency Unlock condition is not currently active in the System Software.

The Lock will not drive to the Locked position while the door is open.

## Connecting the TA to a Solenoid Lock

NOTE: For ease of reference, the Repeating (Pulse) Lock is referred to as a Pulse Lock, and the Fail Safe/Fail Secure Solenoid Lock is referred to as a Solenoid Lock.

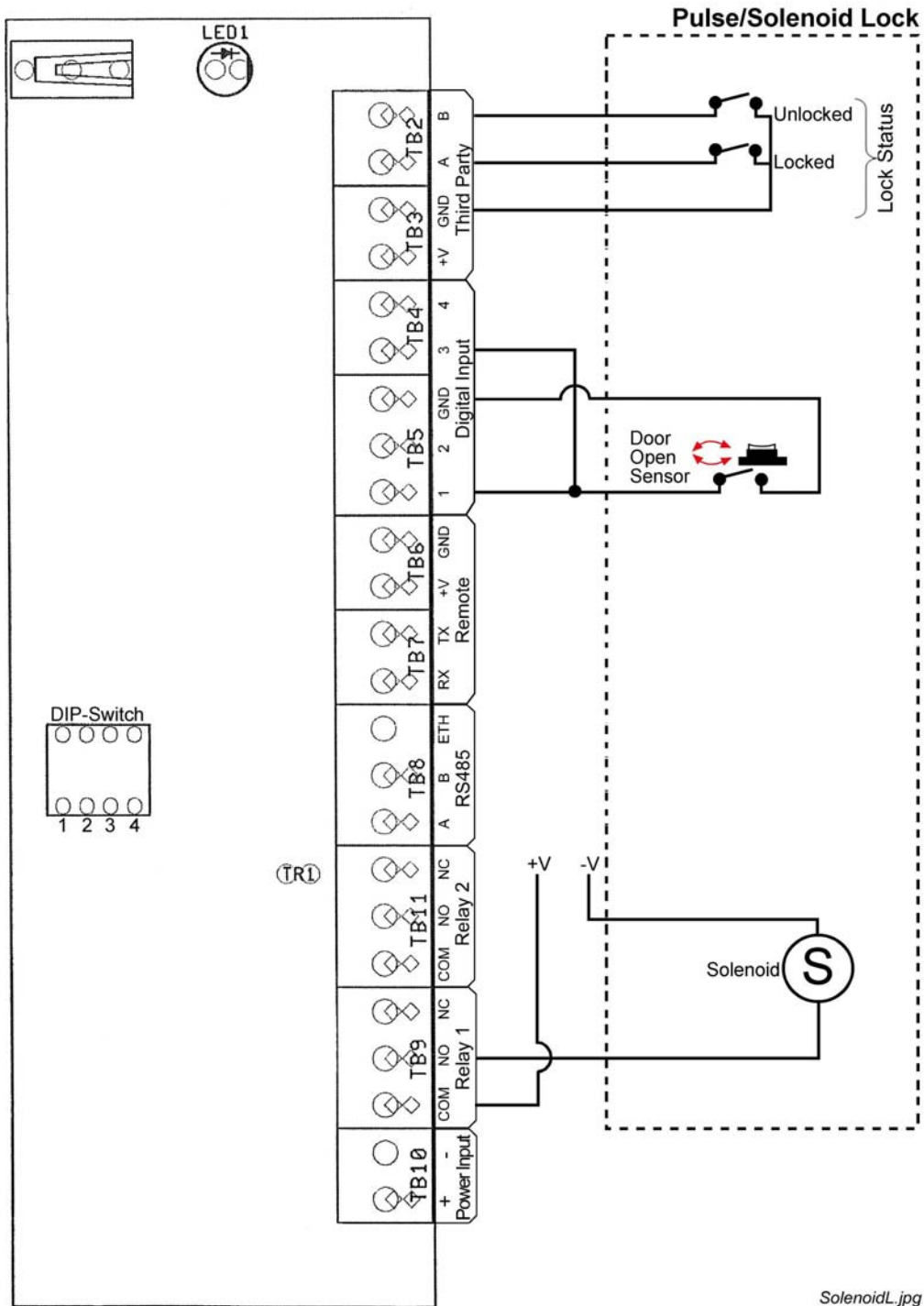


Figure 5: ImproX TA Terminal Connected to a Pulse or Solenoid Lock

## Solenoid Lock Interface to an ImproX TA

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### Connections

The ImproX TA is able to interface to two types of Solenoid-operated Locks, either a Repeating (Pulse) Lock or a Fail Safe/Fail Secure Solenoid Lock.

For either type, the solenoid is connected to the power supply via the Normally Open (NO) contact of Relay 1. The solenoid must be connected such that when Relay 1 is energised, the Solenoid Lock will move to the Unlocked position.

A dry contact closure to Ground, indicating that the Lock has reached the Locked position, is connected to terminal A of the Third-party Port.

A dry contact closure to Ground, indicating that the Lock has reached the Unlocked position, is connected to terminal B of the Third-party Port.

A dry contact closure to Ground, indicating that the door is closed is connected to Digital Input 1 and Digital Input 3.

### DIP-Switch

The DIP-switch on the ImproX TA must be set as shown in Table 2 for either a Repeating (Pulse) Lock or a Fail Safe/Fail Secure Solenoid Lock.

### System Configuration for a Pulse or Solenoid Lock

The following must be configured in the associated IXP200 or ImproNet System Software:

Relay 1 must be configured for the maximum required solenoid drive time.

Digital Input 1 must be configured as a Door Open Sensor. This allows the Door Open Delay to be specified; if the door is not opened during this time after being unlocked, the Lock will drive to the Locked position.

The Lock will drive to the Locked position 1 second after the door has been closed, provided that an Emergency Unlock condition is not currently active.

The Lock will not drive to the Locked position while the door is open.

## Power-on Self-test

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The Power-on Self-test tests the RAM and Flash Checksums and the Read/Write Circuitry. The results of the Self-test are available as diagnostic information from the Controller or PC.

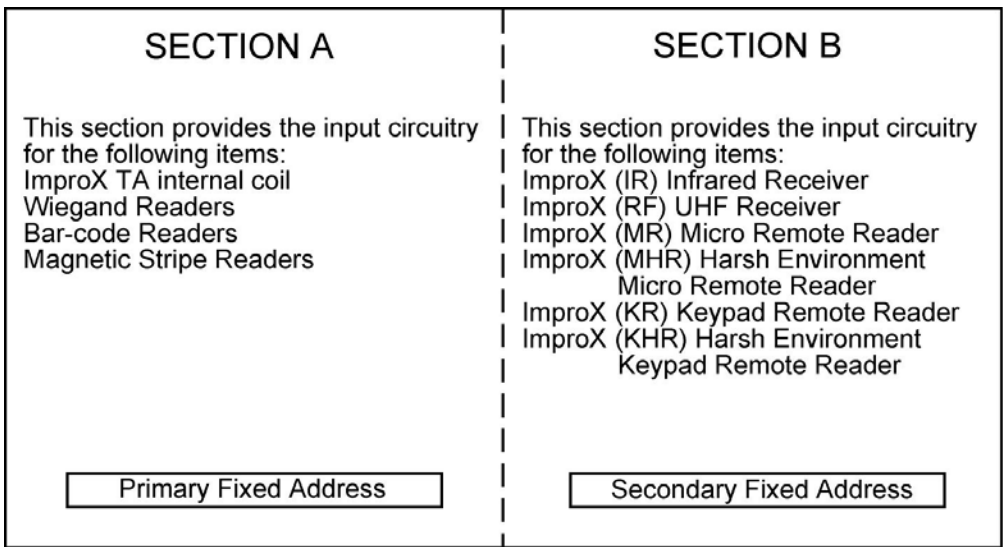
If any parameter in the Self-test fails, the Terminal emits a continuous beep for 2 seconds.

When the Terminal passes the Self-test, it emits two short beeps, each 200 ms in duration, separated by a 200 ms inter-beep pause.

# ImproX TA Address Information

## Internal Structure

The internal structure of the ImproX TA is different from that of most ImproX Terminals. The TA Terminal is, in effect, two Terminals in one. For clarity, these “Terminals” are referred to in this description as Section A and Section B (see Figure 6).



TA Internal Division.jpg

Figure 6: TA Internal Division

### Input Sections “A” and “B”

The two input sections are **independent** of each other, and can even be allocated to the same direction of access on separate doors.

#### Section A

Section A of the Terminal controls units allocated to the Primary Fixed Address, i.e. Wiegand Readers, Barcode Readers and Magnetic Stripe Readers, as well as the internal coil.

#### Section B

Section B of the Terminal controls units allocated to the Secondary Fixed Address, i.e. either an ImproX IR Receiver, or an ImproX RF UHF Receiver, or one of the ImproX Remote Readers listed in Figure 6.

#### Third-party or Remote Reader

The ImproX TA Terminal may be connected to either a Third-party Reader **OR** to an ImproX Remote Reader **OR** to an ImproX RF Receiver or ImproX IR Receiver.

The ImproX TA is able to interface with a number of different ImproX Remote Readers and Third-party Reader types, however, **only one type** can be used at a time.

When a Third-party Reader is used, it must be connected to the Third-party Port.

If used, the ImproX RF Receiver or the ImproX IR Receiver must be connected to the Third-party Port in place of a Third-party Reader.

If used, the ImproX Remote Reader must be connected to the Remote Port.

### **Fixed Addresses**

The ImproX TA reports one or two fixed addresses, called the Primary and Secondary Fixed Addresses, to the associated Controller. Logical Addresses are allocated to each of these (by the System Software) to allow communication to take place. The Logical Address allocated to the Primary Fixed Address is called the "Primary Address".

The Primary Fixed Address applies to Section A and the Secondary Fixed Address to Section B. The Secondary Fixed Address will only be reported if the DIP-switch settings indicate that a Remote Reader, IR Receiver or RF Receiver is connected to the ImproX TA, or if the Remote Reader is of a type that can be automatically detected, such as the ImproX MR Remote Reader.

This means that Wiegand, Barcode or Magstripe (or TA coil) data will be reported from the Primary Address, while data from IR, RF or Remote Readers will be reported from the Secondary Address.

### **Allocation of Relays and Digital Inputs to a Fixed Address**

#### *Relay Allocation*

Both Relays will normally respond only on the Primary Address. However, when used in an IXP200 System, Relay 1 is allocated to respond on the Primary Address, and Relay 2 on the Secondary Address.

#### *Digital Input Allocation*

All four Inputs will normally respond on both Fixed Addresses. However, when used in an IXP200 System, Inputs 1 and 2 are allocated to respond from the Primary Address, and Inputs 3 and 4 from the Secondary Address.

## **Fixed Address Label**

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Once the ImproX TA is installed, sketch a rough site plan. Attach the loose (additional Fixed Address Label packaged with the Terminal) Fixed Address Label in the position of the Terminal on the sketched site plan. When the system installation is complete and all the units are represented on the site plan by their Fixed Address Labels, file the site plan for future reference.



www.impro.net

Part Number: XTA902-1-0-GB-XX

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## Guarantee or Warranty

This product conforms to our Guarantee or Warranty details placed on our Web Site, to read further please go to [www.impro.net](http://www.impro.net).

## Ordering Information

Order the ImproX (TA) Time Attendance Terminal using the XTA902-1-0-GB-XX Impro product code.

This manual applies to the ImproX (TA) Time Attendance Terminal, XTA902-1-0-GB-00. (The last two digits of the Impro stock code point to the issue status of the product).			
XTA350-0-0-GB-01	Issue 02	August 2004	ImproX TA\Product Specification Catalogue\LATEST ISSUE \ImprX TA-psc-en-02.doc