impro technologies®

Impro MDTA

Impro (MDTA) Multi-discipline Time Attendance Terminal INSTALLATION MANUAL

SPECIFICATIONS

Working Environment

Working Environment .... Designed to work in an indoor and outdoor (dry) environment similar to IP54. The Terminal is, therefore, sealed against water.

Power

Input Voltage .... 8 V DC to 14 V DC.

Power Requirements	**Current (mA)**	**Power (W)**
Input Voltage 12 V DC	110	1.32

Terminal Communication

RS485 Terminal Port

Electrical Interface.................. RS485.

Baud Rate .... 38 400.

Data Format .... 8 data bits, no parity, 1 stop bit.

Communications Protocol ...... Impro Secure Communications Protocol.

General

Frequency .... 125 kHz and 13.56 MHz.

CSN Read Capability .... Slim Tags, Omega Tags, Impro Trinary Tags (1074 and 2074), Philips HITAG™ 1, Philips HITAG™ 2, HID Tags (H10301, H10302 and H10304), ISO 15693-2 iClass Tags, ISO 18092 Felica Tags and ISO 14443A MIFARE® Tags.

CAUTION: **The Impro MDTA Terminal does not support the use of HID 1346 Proxkey II Tags.**

CSN Read Capability (Continued)…

NOTE: HID, FeliCa and MIFARE® are registered trademarks of HID Global Corporation (an ASSA ABLOY Group Brand), The Sony Corporation and Koninklijke Phillips Electronics N.V. respectively.

Display

Type	Thin Film Transistor Liquid Crystal Display (TFT-LCD).
Touch Screen Technology	Resistive (Touch Screen not enabled).
Resolution	240 x 320 Pixels.
Colour	65 K Colour Screen.
Back-lighting...........................	Permanently on.

Buzzer

Volume and Tone...................	Single tone, with a 4-step adjustable volume.

Keypad

Buttons...................................	12 Buttons, used for entering Reason Codes.
Reason Code Range..............	00-99.

INSTALLATION INFORMATION

Accessories

Find the following when unpacking the Impro MDTA Terminal:

- An Impro (MDTA) Multi-discipline Time Attendance Keypad Terminal (HRT900 / XTA921), supplied in a Black ABS Plastic housing. The housing consists of the Front Cover Assembly and the Backing Plate. The Front Cover and Backing Plate are held together with two Combi Screws (6 mm x 2.2 mm) at the bottom of the housing.
- A Combi Screw (4 mm x 10 mm).
- An extra Fixed Address Label.

General

Remember the following when installing the Impro MDTA Terminal:

Communications Distance

RS485 Terminal Port

- The RS485 communications distance between the Impro MDTA and the Impro Controller 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.
- When used with the Impro (iTHT) Intelligent High-speed Module, the distance between the Impro MDTA and the Impro iTHT must not exceed 150 m (164 yd).

Distance between Impro Units

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

Mounting the Enclosure

CAUTION: **Make certain that you mount the Terminal on a vibration-free surface.**

Select the mounting position of the Impro MDTA Terminal, considering accessibility, routing of wires and visibility of the Thin Film Transistor Liquid Crystal Display (TFT-LCD) and accessibility of the Keypad.

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

Blank Space

CONNECTING THE IMPROX MDTA TERMINAL

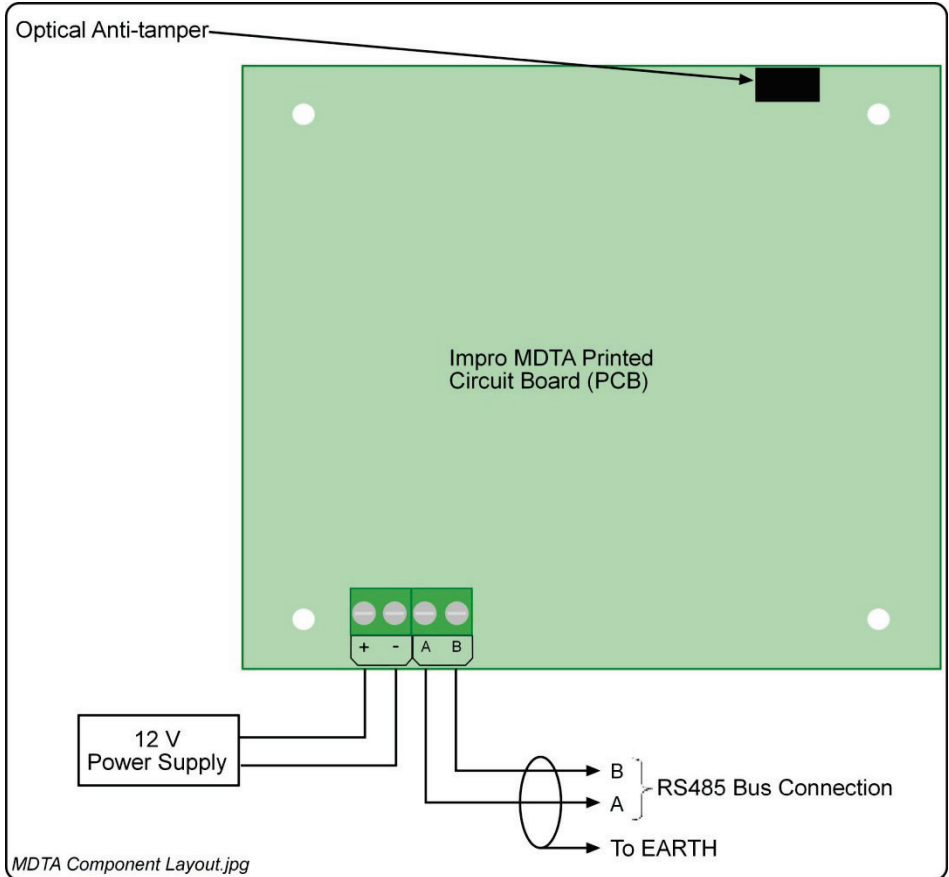Figure 1 shows the positions of various key components and typical electrical connections for the Impro MDTA.

Figure 1: Impro MDTA Component Layout and Typical Electrical Connections

Power-on Self-test

The Power-on Self-test tests the RAM and Flash Checksums.

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.

Fixed Address Label

Once the Impro MDTA 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.

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.

USER NOTES

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This manual is applicable to the Impro (MDTA) Multi-discipline Time Attendance Terminal, XTA921-5-0-GB-XX, HRT900-5-0-GB-XX. (The last two digits of the Impro stock code indicate the issue status of the product).			
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