MindWare Wireless Data Center Hardware

50-6030-00

User Reference Guide

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Safety

Warning Regarding Medical and Clinical Use of MindWare Technologies LTD Products.

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Section 1: Technical Specifications

Range of environmental conditions for which the unit is designed:

- Indoor use
- Altitude to 2000 m
- Temperature for safe operation: 5°C to 40°C
- Maximum relative humidity: 80% for temperature up to 31°C decreasing linearly to 50% at 40°C
- Power supply voltage fluctuations not to exceed ±10% of the nominal voltage
- Over voltage category II
- Pollution degree 2

Input Voltage Range:

- AC Input: 100-240VAC, 50-60Hz, 1A @ 115VAC

Fuse Characteristics:

- 2A T 250V 5X20mm

Analog Inputs:

- 2 Channels
- 12-Bit
- 10 kS/s
- +/- 10V

Digital Inputs:

- 4 Asynchronous Inputs
- ~500 S/s +/- 10%
- 0.8V Input Low Voltage
- 2.0V Input High Voltage

Trigger

- 1 Trigger Input
- 0.8V Input Low Voltage
- 2.0V Input High Voltage

Ethernet
- Optimized for MindWare Mobile WiFi data
- 9 RJ45 Ethernet Ports
- 10/100 Auto MDI/X
- 7 Front LAN + 1 Rear LAN
    - DHCP enabled
- 1 Front WAN
    - NAT + DHCP Client

Wireless
- 802.11g - 2.4GHz
- Automatic channel selection
- Bridged to LAN

Audio and Video
- Up to 4 A/V channels
- 75ohm BNC video
- 30fps NTSC, 25fps PAL
- Stereo RCA line level audio

Section 2: Instructions For Use

Warnings

Review the following safety precautions to avoid injury and prevent damage to the Wireless Data Center hardware and any products connected to it. To avoid potential hazards, use this equipment only as specified.

⚠ This symbol indicates the equipment is to be serviced by trained personnel only. Failure to comply risks electric shock.

⚠**WARNING**: This symbol on the equipment indicates that more detailed information will be found in the instruction manual.

⚠**WARNING:** The ground pin on the Power Cable must remain intact. Failure to comply risks electric shock.

If any equipment is used in a manner not specified by the manufacturer the protection provided by the equipment may be impaired.

Hardware Setup

Connect the provided Ethernet cable to any of the numbered ports on the Wireless Data Center and the Ethernet port on the PC. Connect the provided USB cable between the USB port on the Wireless Data Center and a USB 2.0 port on the PC. Attach the provided power cord to the Wireless Data Center and a surge protected outlet. Power on the Wireless Data Center and open the BioLab software on the PC to begin software configuration.

Identification of Operating Controls

The operating controls for this hardware are located in the BioLab software. See the BioLab manual for configuration options and operation and the manuals associated with your wireless data acquisition devices.

Accessories and Consumables

2-Slot E-Prime Trigger Cable

Part #45-0030-00

Instructions:
- Turn power to the Wireless Datacenter hardware off
- Connect the DB9 with the pigtail RCA connector to the Digital port
- Connect the RCA connector to the Trigger jack
- With a small slotted screwdriver, gently screw the DB9 connector into place
- Connect the DB25 connector to the parallel port of the computer with E-Prime installed

Desktop Kit

Part #50-6032-00

Instructions:
- Turn power to the Wireless Datacenter hardware off
- Unplug the power cable from the Wireless Datacenter
- Attach feet to embedded nuts on bottom of unit using provided screws. Do not over-tighten

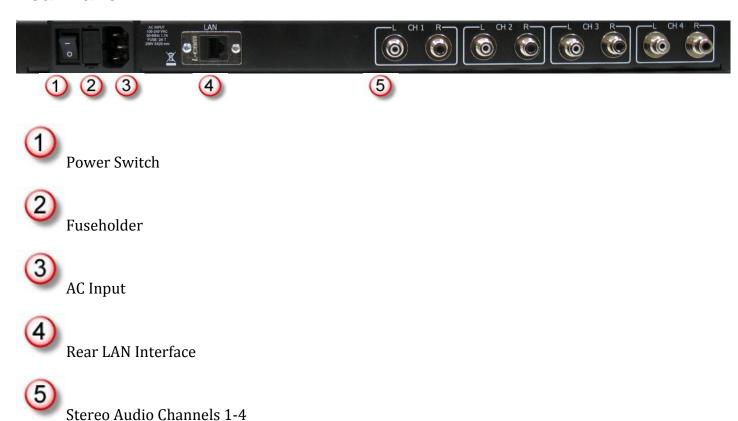2A T 250 V 5X20 mm Slow Blow Fuse

Part #55-0834-00

Instructions:
- Turn power to the Wireless Datacenter hardware off
- Unplug the power cable from the Wireless Datacenter
- With a slotted screwdriver, turn the fuse holder and remove the fuse from the chassis
- Replace fuse and re-insert the fuse in to the fuse holder

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Section 3: Rear Panel

Rear Panel

① Power Switch

② Fuseholder

③ AC Input

④ Rear LAN Interface

⑤ Stereo Audio Channels 1-4

Front Panel

①   Antenna

②   Analog Input – 3.5mm

- Tip: Channel 1

- Shaft: Channel 2

- Base: Ground

③   Digital – DB9

- Pins 1-4: Digital Channels 1-4

- Pins 5-7: Unconnected

- Pin 8: +5V 100mA max output

- Pin 9: Ground

④   Trigger – RCA

- 0-5V range

- Software configured behavior

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5 USB 2.0

- Data collection computer interface

6 Video 1-4 – BNC

- 75 Ohm, NTSC or PAL

7 LAN 1-7 – RJ45

- Data collection computer and network camera interface

- 100Mbit Auto MDI/X Ethernet

- DHCP enabled

8 WAN – RJ45

- Connection to external network

- 100Mbit Auto MDI/X Ethernet

- DHCP client

- NAT connection to LAN

- WARNING: Excess network traffic can interfere with research data collection. Not recommended for use during data collection.

9 Antenna

Section 4: Cleaning Instructions

To remove scratches on surfaces:

- With an eraser gently rub across the scratch

- Clean off any debris before using

Cleaning Hardware:

- Turn the power to the Wireless Data Center off

- Disconnect the power and all other cables connected to the device

- With a slightly damp cloth, wipe off hardware

    - Avoid getting moisture in exposed connectors

- Allow to dry thoroughly before reconnecting power

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