X2 Club
Installation Manual

	Date	Amendments
Revision 3.00	20/06/14	This is the first version of this manual
Revision 3.01	22/07/14	Updated the manuals to the 3.0HF1 firmware version
Revision 3.02	10/10/14	Added noise conversion table to Appendix

REVISION HISTORY

1 Introduction

X2 Club is the all-in-one solution for selecting track loops to manage race data and assign the results to a database. It is an intuitive, quick and easy to install system.

A flexible component structure makes X2 Club suitable for all types of races, and the user-friendly interface allows you to quickly configure and monitor the system.

1.1 Scope of this manual

This manual is intended for operating and supervisory personnel and provides information on installing the X2 Club hardware and software.

The manual is divided into the following sections:

- ***Safety*** (page 4): Important safety aspects when installing and operating X2 Club
- ***Description*** (page 7): physical description of X2 Club components
- ***Installation*** (page 11): initial installation of the equipment (and removal if required)
- ***Troubleshooting*** (page 17): tables with potential problems, causes and solutions
- ***Appendices*** (page 19): decoder menu selections, system specifications and signal strength/noise conversion table

1.2 Short information

More information

For more information please contact the nearest MYLAPS location or visit www.MYLAPS.com

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2 Safety

2.1 Safety message explanation

This manual uses icons (see following examples) to highlight safety aspects during operating and maintenance steps (similar icons are physically attached on the Apex equipment where applicable)The following safety icons are used in this manual.

WARNING

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury

CAUTION

For conditions that may cause damage to the equipment or interfere with the normal processing

i

NOTICE

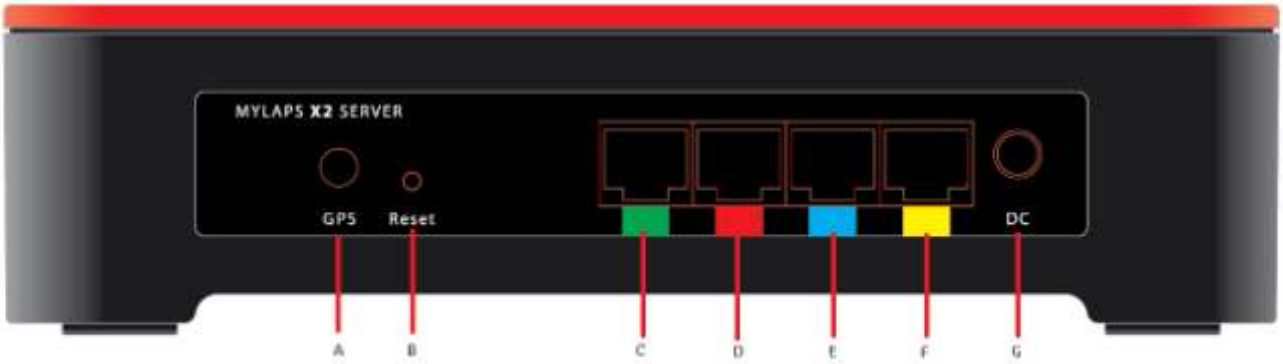
Indicates a situation which, if not avoided, could result in damage to the equipment or environment, or data loss

In addition the following icon is used on some equipment as an environmental warning:

DISPOSAL

Disposal - Your MYLAPS products and accessories were developed and manufactured with high-quality material and components that can be recycled and reused. This symbol means that electronic and electrical appliances, which have reached the end of their working life, must be collected and disposed of separately from household waste material. Separate collecting systems are usually in place for disused electronic and electrical products. Please dispose of these units at an environmentally compatible recycling facility, per European Directive 2002/96/EC.

f) Rear Connections



A) Connection for GPS antenna cable
B) Reset button; to reset software to factory defaults; network settings will be set to DHCP and the admin login account will be set to 'admin'
C) Network connection between Server and Decoder or Timing network
D) Network connection between Server and Decoder or Timing network
E) Network connection between Server and Decoder or Timing network
F) Network connection between Server and Decoder or Timing network
G) Power connection for 12VDC power supply

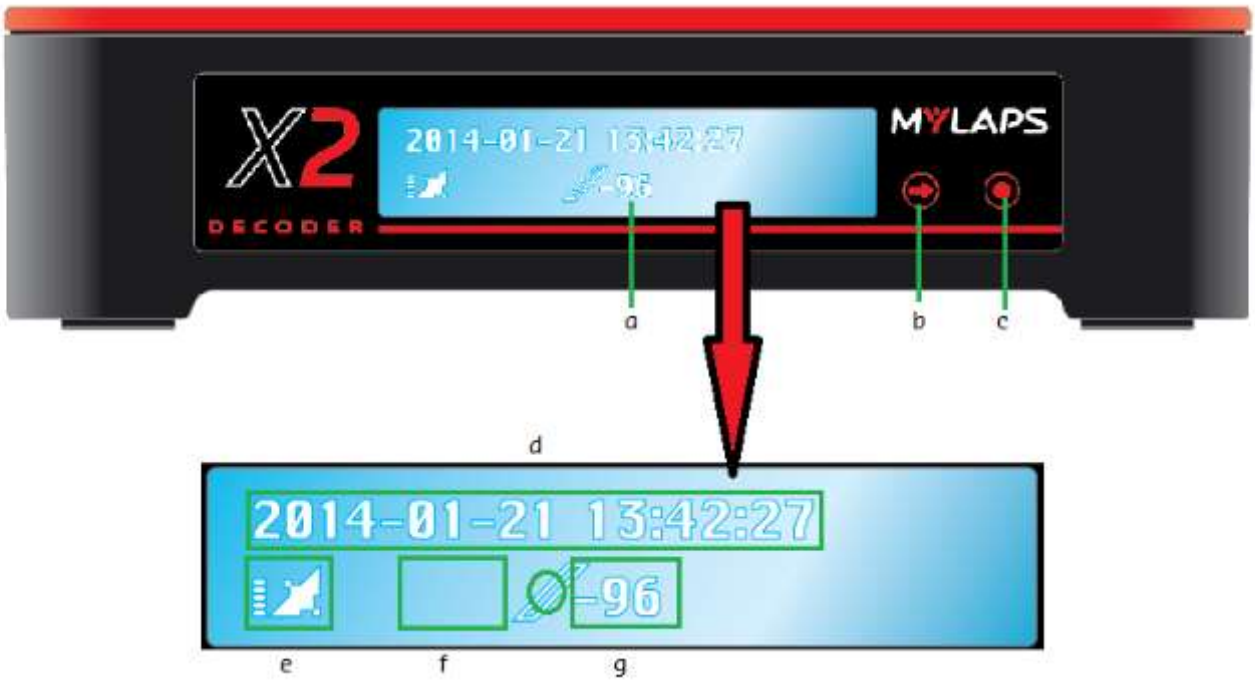
Note: The LEDs on the UTP ports will show if a physical network connection is available.

Note: A PoE(+) switch can be used to power the Server over a single UTP port. In this case, any of the four ports can be used to supply the power and the display will show a PoE or PoE+ icon.

Note: The four UTP ports are color-coded for examples on how the Server can be connected. There are no dedicated ports and all the ports have the same configuration.

3.2 Decoder

Front panel

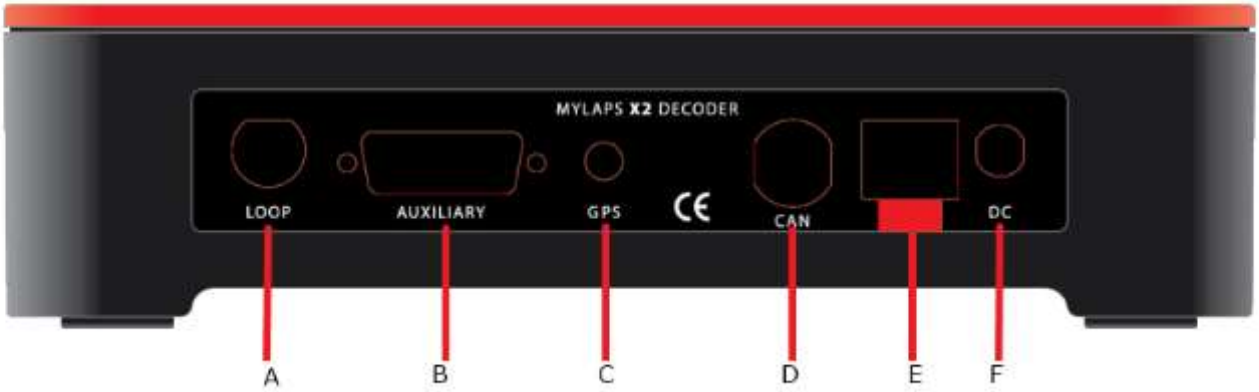


a) Decoder display
b) Select button
c) Acknowledge button

d) Date and time, UTC when synchronized to GPS or NTP
e) Time source indication:
   A)  GPS: time displayed in UTC
   B)  NTP: Time displayed as received by time sync source
   C)  RTC: decoder time (not synced to a time source)
f) Strength of the last received transponder
g) Indication that hits are being received by the detection loop. When hits are received the icon will be solid.

Use  (select button) to scroll through menus; use  (Acknowledge button) to select a sub-menu or highlighted option.

Rear connections



A) The detection loop: Connect the coax cable coming from the loop to the X2 Decoder.
B) The Auxiliary port: This port can be used to connect a photocell, external start pulse or a sync pulse. For more information on how to connect these devices, see the decoder manual Appendix D.
C) The GPS antenna: Connect the GPS antenna cable and place the antenna where it has a clear view of the sky overhead to be able to make connections to satellites.
D) CAN Connector: for future use
E) Network connection: Use a UTP cable to connect the Decoder to the server.
F) Power: Connect the supplied VDC adapter to the decoder and the mains. It is recommended to connect the VDC adapter to the mains through an uninterruptable power supply (UPS) to avoid any interruption of power supply to the decoder.

4 Installation

4.1 Packing list

Unpack the equipment carefully and handle it with care. If equipment has been damaged during shipment, repack it in the original packaging and notify the shipping agent or supplier.

The **server** packaging contains:

- Server
- 110-230 VAC power cable with local connector (2.5m; 8ft)
- 12 VDC switching adapter (2.7A)
- GPS antenna with cable (5m; 16ft)
- Cat 5E UTP Ethernet cable (2m; 6ft)
- Quick Start Guide

The **Decoder** packaging contains:

- Decoder
- 110-230 VAC power cable with local connector (2.5m; 8ft)
- 12 VDC switching adapter (2.7A)
- GPS antenna with cable (5m; 16ft)
- Cat 5E UTP Ethernet cable (2m; 6ft)
- Quick Start Guide

If components are missing, contact MYLAPS or your supplier.

4.2 Install system[HS1][HS2][HS3][HS4]

1.	Use the coax cable to connect the (Start/Finish) track loop to the (S/F) decoder.	
2.	Attach the GPS antenna to the decoder and position the antenna in a location where it can receive a satellite signal. Note: The real time clock (RTC) in the decoder is pre-set with the correct UTC time. This will be displayed on the main decoder display with a clock icon. The GPS signal helps synchronize the decoder clock to UTC time at power down.	
3.	If required, use the auxiliary port to attach auxiliary equipment to the decoder: • Photocell • External Start pulse • Sync pulse	

4.	Use the UTP cable to connect the red port on the server to the decoder: • If required, use the green UTP port to attach an additional decoder to the server (use an optional switch if more decoders are used)	
5.	Attach the GPS antenna to the server: • Position the GPS antenna in a location where it can receive a satellite signal • When power is applied, the server clock will synchronize to the satellite UTC time* *when no GPS signal is available, the server will always sync to the main decoder	
6.	Attach the 12 VDC power adapter to the decoder and to the AC mains power supply: • The decoder has no on/off button and will start working immediately • The display will show the date and time, plus a small clock icon Note: The real time clock (RTC) in the decoder is pre-set with the correct UTC time. This will be displayed on the decoder display together with a small clock icon. Any extra connected decoders and the server (with no GPS) will synchronize to this main (S/F) decoder time and display the same time together with the network time protocol (NTP) icon