

TEAMBEATS

PRE-INSTALLATION REQUIREMENTS

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The information in this manual is intended for QUALIFIED TECHNICAL PERSONNEL - designated by the customer - who are in charge of preparing the electrical and network line, to guarantee the correct functioning of equipment.

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1. GENERAL WARNINGS

1.1 INTRODUCTION

This document has been prepared specifically for Technogym After Sales Service, with the aim of providing authorised personnel with the information for carrying out maintenance and repair operations in the correct manner.

A thorough understanding of the technical data contained herein is absolutely fundamental in order for the operator to achieve the highest level in professional training.

This manual includes informative notes with specific meanings:

Safety signs classified according to the relative seriousness of the potential hazards:



DANGER: INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY. THIS SIGNAL WORD IS TO BE LIMITED TO THE MOST EXTREME SITUATIONS.



WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



CAUTION: *Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.*

Signs applicable to equipment:



ATTENTION: REGULATION THAT MAY LEAD TO DAMAGE TO THE EQUIPMENT IF NOT COMPLIED WITH



Detail regarding the operation in progress.

1.2 USEFUL ADVICE

Technogym advises you to plan your technical assistance task in the following way:

Carefully assess the impressions reported by the Customer regarding the equipment's operating faults and ask questions suitable to clarify the signs of the defect.

Clearly diagnose the causes of the problem. This manual provides the fundamental theoretical basis, which must then be integrated by personal experience and attendance at the training courses periodically offered by Technogym.

Plan the repair work in a rational manner so as to avoid wasting any time, e.g. collecting spare parts, preparing tools and equipment etc.

Access the component to be repaired, avoiding any unnecessary operations. On this point, it will be extremely helpful if you consult the disassembling sequences shown in this manual.

1.3 GENERAL REGULATIONS REGARDING SERVICE WORK

1. Check the serial number of the equipment, comparing it with the one on the work order.
2. Always mark any parts or positions which may be confused with each other at the time of reassembly.
3. Use original Technogym spare parts and lubricants of the recommended brands.
4. Use special tools where specified.
5. Consult the Technical Newsletters and News Flashes, which may contain more up-to-date information on adjustments and maintenance than those contained in this manual.
6. Before starting the repair procedure, make sure that the recommended tools are available and in good condition.
7. For the procedures described in this manual, use only the specified tools.



WARNING: it is the responsibility of the technician delimit the areas of intervention and safe operation.

1.3.1 PERSONAL PROTECTIVE EQUIPMENT

For details, refer to the Health&Safety After Sales procedure, available on Technogym Direct.

2. UNITY SELF INSTALLATION REQUIREMENTS AND UNITY SELF CONNECTION TO AN EXTERNAL MONITOR / VIDEO PROJECTOR

2.1 UNITY SELF REQUIREMENTS



For details regarding the UNITY SELF installation requirements, refer to the UNITY SELF pre-installation requirements document, available on Technogym Direct.

UNITY SELF 2016 EXCITE+ OR LATER VERSIONS must be used for EXCITE+ equipment, and **UNITY SELF 2016 ARTIS OR LATER VERSIONS** must be used for ARTIS equipment. An HDMI outlet is required.

UNITY SELF **must be installed in the same network as the antenna** (WASP-POE / WASP-N).

UNITY SELF can be in the Wi-Fi network or wired.

Set the **static IP** address mode.

The locally installed firewall/router must be configured with **ports 80, 443 open** (UDP and TCP traffic) to access the MW Cloud services. In addition, also **port 2406 must be open for TEAMBEATS** (only UDP traffic).

2.2 UNITY SELF CONNECTION TO AN EXTERNAL MONITOR/VIDEO PROJECTOR

For operation of the TEAMBEATS application, the customer must have a 16:9 external monitor/16:9 video projector available to connect via HDMI cable to UNITY SELF.



For details regarding the MINIMUM HDMI CONNECTION REQUIREMENTS BETWEEN THE UNITY SELF AND THE EXTERNAL MONITOR/VIDEO PROJECTOR refer to the UNITY SELF pre-installation requirements document, available on Technogym Direct.



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3. WASP-POE (LAN) INSTALLATION REQUIREMENTS

i **ATTENTION:** If the WASP is fastened on the wall with screws, the customer's trusted technician must be present during installation in order to drill and fasten the WASP to the wall. The Technogym technician can fasten the WASP to the wall, but only using the biadheseive included in the kit, upon expressed request and indication of the customer.

3.1 NETWORK REQUIREMENTS FOR WASP-POE USE

To use WASP-POE, the customer Ethernet network **must respect** the following requirements:

1. The type of LAN must be POE (Power over Ethernet).

i If the type of LAN is not POE, the following must be purchased:

1a - a POE injector that powers the WASP-POE unit (for details, see ["3.1.1 compatible poe injector to be purchased if the lan is not the poe type"](#)), e

1b - CAT5e/6 patch cable.

If you are using multiple WASP-POE units, a multi-port power switch or multiple POE injectors are necessary, one for each WASP-POE used.

2. The Ethernet network must support a communication speed of 10/100 Mbps or higher.

3. The Ethernet network must be connected to a DHCP server that manages the network addresses.

3.1.1 COMPATIBLE POE INJECTOR TO BE PURCHASED IF THE LAN IS NOT THE POE TYPE

The characteristics of the POE injector must be as follows:

- POE injector of type **MODE B:**

The MODE B type POE injector has the following characteristics:

Pin 7,8-

Pin 4,5+

Technogym requires the use of the following POE injectors that are already tested and that guarantee that Teambeats will function correctly:

- Intellinet 1-Port Power over Ethernet Injector: <https://www.amazon.com/gp/product/B001RAZKZC/>.



Figure 1 - EXAMPLE OF POE INJECTOR OK - INTELLINET

- Cisco Gigabit Power over Ethernet Injector: https://www.amazon.it/Cisco-SB-PWR-INJ2-EU-Gigabit-Ethernet-adapter/dp/B00KIEGSRG/ref=sr_1_2?s=electronics&ie=UTF8&qid=1518440868&sr=1-2&keywords=cisco+power+injector.



Figure 2 - EXAMPLE OF POE INJECTOR OK - CISCO -30W

Technogym has tested that the following POE injector does not guarantee TEAMBEATS operation:

- Cisco Power Injector For 1100 1130Ag 12: https://www.amazon.it/Cisco-Power-Injector-1100-1130Ag/dp/B00015FLMQ/ref=sr_1_3?s=electronics&ie=UTF8&qid=1518770658&sr=1-3&keywords=cisco+power+injector.



Figure 3 - EXAMPLE OF POE INJECTOR NOT OK - CISCO

3.2 WASP-POE POSITIONING

The WASP-POE functions satisfactorily in a 37m². (400 square feet) room. This limitation is due to ANT+ devices. In order to cover a room measuring approx. 6.1m x 6.1m (20-by-20 feet), the WASP, must be placed in the middle of the room. The following figure shows the ideal position of the WASP-POE inside the room:

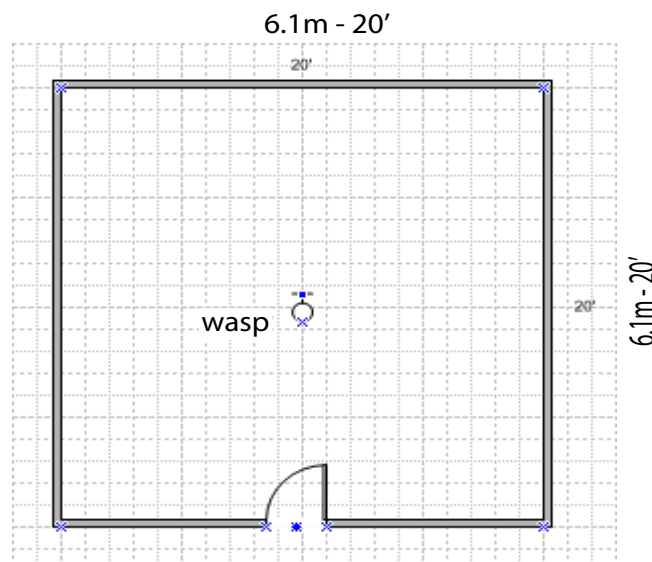


Figure 4 - Standard room size

In very large rooms, it is difficult to receive ANT+ data from devices located far away from the WASP-POE. This problem can be resolved by adding a WASP-POE in the room. Divide the room virtually into two equal sections. Position the WASP-POE in the centre of each of the two sections. The following figure shows the suggested position for two WASP-POE devices in the room:

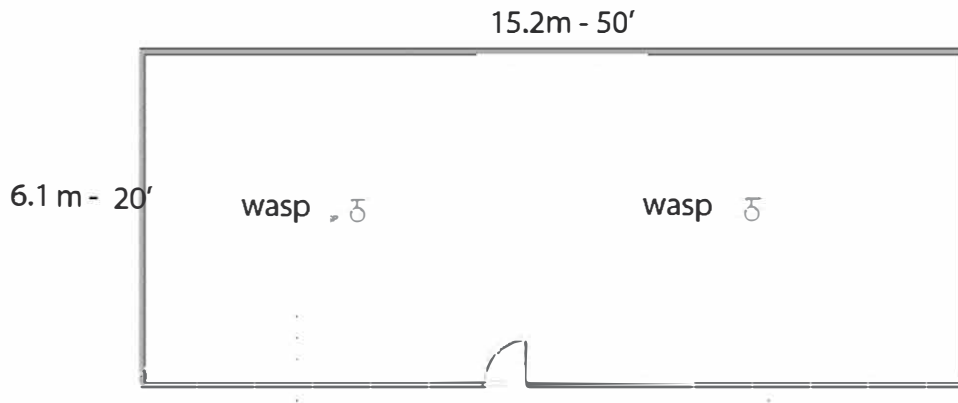


Figure 5 - Example for a 15.2mx6.1m (50'x20') room



STRONGLY RECOMMENDED: Place the WASP_POE as high as possible in the room, in the positions indicated above.

Technogym does not guarantee the correct operation of TEAMBEATS if the WASP-POE:

- Is placed near audio systems/external monitors/video projectors/sources (e.g. routers, access points) that can cause interference.



A WASP is able to manage 50 ANT+/BT belts.

3.3 LAN - WASP-POE CONNECTION

If there is a LAN wall socket **it is necessary to purchase: a CAT5e/6 patch cable** to connect the WASP-POE to the LAN.

if there is a LAN patch cable, the above indicated patch cable does not need to be purchased.

4. WASP-N (WI-FI) INSTALLATION REQUIREMENTS

i **ATTENTION:** If the WASP is fastened on the wall with screws, the customer's trusted technician must be present during installation in order to drill and fasten the WASP to the wall. The Technogym technician can fasten the WASP to the wall, but only using the biadhesive included in the kit, upon expressed request and indication of the customer.

4.1 WI-FI CHARACTERISTICS

- Frequency: 2.4 GHz.

i *The 5 GHz frequency must not be used.*

- Standard: IEEE 802.11 b/g/n (11n - 2009);

- Advanced security: WEP128, WPA-PSK and WPA2-PSK (TKIP/AES);

4.2 WASP-N POSITIONING

The WASP-N functions satisfactorily in a 37m² (400 square feet) room. This limitation is due to ANT+ devices. In order to cover a room measuring approx. 6.1m x 6.1m (20-by-20 feet), the WASP, must be placed in the middle of the room. The following figure shows the ideal position of the WASP-N inside the room:

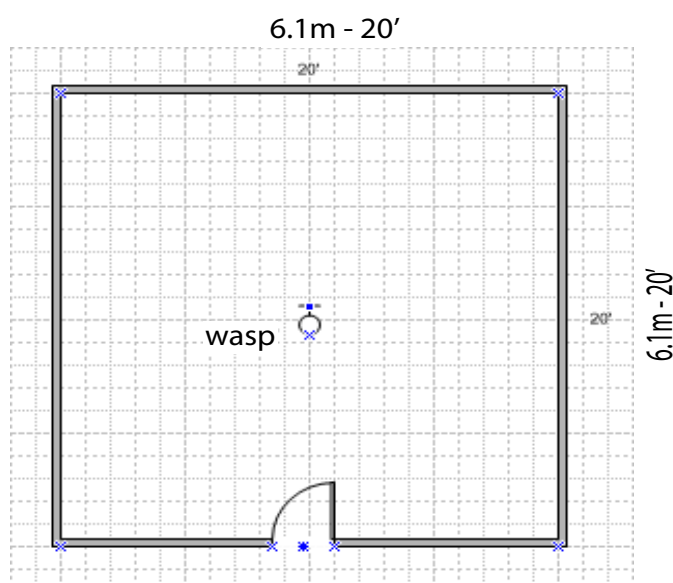


Figure 6 - Standard room size

In very large rooms, it is difficult to receive ANT+ data from devices located far away from the

WASP-N. This problem can be resolved by adding a WASP-N in the room. Divide the room virtually into two equal sections. Position the WASP-N in the centre of each of the two sections. The following figure shows the suggested position for two WASP-N devices in the room:

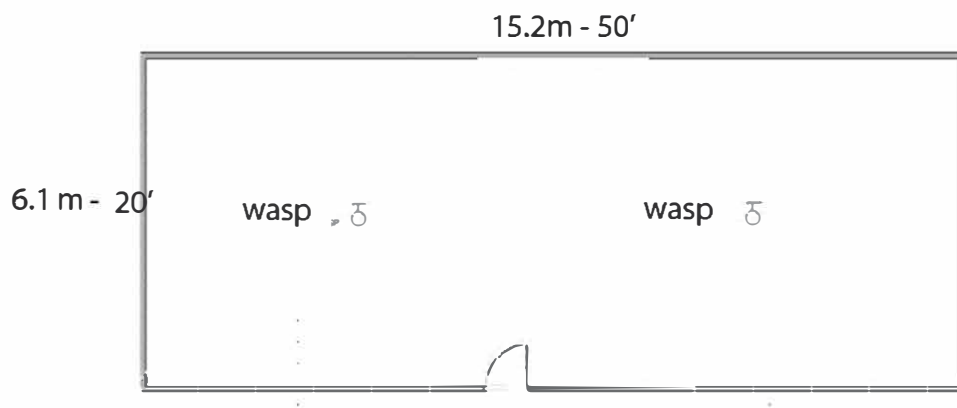


Figure 7- Example for a 15.2mx6.1m (50'x20') room



STRONGLY RECOMMENDED: Place the WASP_N as high as possible in the room, in the positions indicated above.



Technogym does not guarantee the correct operation of TEAMBEATS if the WASP-N:

- Is connected to Unity Self;
- Is placed near audio systems/external monitors/video projectors/sources (e.g. routers, access points) that can cause interference.



A WASP-N is able to manage 50 ANT+/BT belts.

4.3 WASP-N BATTERY

-  The customer must purchase a USB 5V power supply to power the WASP-N.
-  The WASP-N must always be powered by the USB 5V power supply.

WASP-N has a battery life of 12h when accessing an existing network.

The battery duration depends on the quantity of local ANT traffic towards the WASP-N.



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5. NETWORK INSTALLATION

5.1 NETWORK DESIGN AND INSTALLATION

During the network design and installation phases, Technogym must be in contact with the technicians of the company performing the work in order to obtain and provide technical information, to make sure that the network is installed and configured according to the required technical characteristics.

5.2 CONFIGURATION AND INSTALLATION

The authorised Technogym technician can perform the installation and relative testing of the devices after the customer provides confirmation to have prepared and installed all the required components and that they are functioning correctly.

For this purpose, Technogym will request the customer to fill in an information form regarding the status of the club (check list) and send it to technical support, which will be sent by Technogym a few days prior to the scheduled installation date.

The information form regarding the status of the club (check list) provides Technogym with the information relative to the installation status of the network for the devices in order to make sure that everything required for the installation is present and functioning with the installation.

The customer is responsible for the installation and configuration of the network infrastructure (cables) of the network hardware (switch, router, firewall) and of the Wireless network, if applicable.

TECHNOGYM warns that the efficiency and proper operation of the system depend on the technical characteristics of the installed hardware.

6. ACKNOWLEDGEMENT AND ACCEPTANCE

Date: _____

Acknowledgement and acceptance: _____



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7. LIST OF CHANGES FOR MANUAL REVISION

The changes made to this manual, are listed below in chronological order, for each version compared to the previous one.

7.1 REVISION 2.0

Added new paragraph 2.2 UNITY SELF CONNECTION TO AN EXTERNAL MONITOR/VIDEO PROJECTOR: stressed the need to have an external monitor/video projector available that permits the operation of the TEAMBEATS application.

Changed paragraph 3.1 NETWORK REQUIREMENTS FOR WASP-POE USE: indicated the type of POE injector compatible with the WASP-POE.

7.2 REVISION 3.0

Added new paragraph 3.1.1 COMPATIBLE POE INJECTOR TO BE PURCHASED IF THE LAN IS NOT THE POE TYPE: inserted an example of a CISCO POE injector that guarantees TEAMBEATS operation. Added an example of a CISCO POE injector that does not guarantee TEAMBEATS operation.

Changed paragraph 3.2 WASP-POE POSITIONING; 4.2 WASP-N POSITIONING: added the positioning of the WASPs for which Technogym does not guarantee the correct operation of TEAMBEATS.

7.3 REVISION 4.0

Modified § 3.1.1 COMPATIBLE POE INJECTOR TO BE PURCHASED IF THE LAN IS NOT THE POE TYPE: corrected the voltage (positive / negative) to pins 4-5-7-8.

7.4 REVISION 5.0

Modified § 3.1.1 COMPATIBLE POE INJECTOR TO BE PURCHASED IF THE LAN IS NOT THE POE TYPE: Eliminated the reference to the output voltage range for the POE injector. Modified the sentence in which Technogym indicates the type of POE injectors that guarantee that Teambeats functions correctly.



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