

USER MANUAL

IRRICOM WR WIRELESS RECEIVER

The IRRICOM WR is a device designed to receive and translate the wireless signal of Horta's probes into standard RS-232 communication protocol.

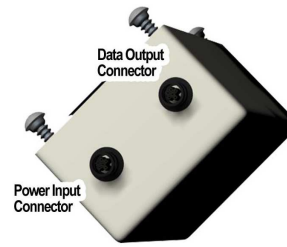


FOR SERVICE PLEASE CALL
1-888-5-HORTAU

1 IRRICOM WR



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Horta's probes (wireless models) are linked to the IRRICOM WR through wireless signal. The IRRICOM WR translates the signal received into a RS-232 signal that can be used by your PC computer using the Irolis Light Software by Horta.

The following points should be considered prior to setting up any network.

2 IMPORTANT NOTICE

MAXIMUM PROBES PER IRRICOM WR

The IRRICOM WR can acknowledge the signals from up to 24 probes. Above that number, the occurrence of data collision is too high.

MAXIMUM DISTANCE BETWEEN PROBES AND IRRICOM WR

The IRRICOM WR can reach a maximum distance of 150 m (500 feet) in a normal outdoor environment.

INSTALLATION HEIGHT OF THE IRRICOM WR

The IRRICOM WR should be installed at a minimum height of 4.5 m (15 feet). In some situations, it might be necessary to raise the IRRICOM WR higher to improve the quality of signal reception.

WIRELESS RANGE IS GIVEN AS AN INDICATION ONLY. ENVIRONMENTAL CONDITIONS, SURROUNDING STRUCTURES AND MAGNETIC FIELDS, AMONG OTHERS, CAN GREATLY AFFECT THE RANGE AT WHICH THE IRRICOM WR CAN OPERATE.

2 IMPORTANT NOTICE

The user manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication. This equipment has been tested and found to comply with the limits for Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. This device has been designed to operate with an antenna having a maximum gain of 2.2 dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

3 GETTING STARTED

INSTALLING THE IRRICOM WR

As previously stated, the IRRICOM WR must be installed within a radius of 150 m (500 feet) or less from the probes. For good reception, it must be installed at a minimum height of 4.5 m (15 feet). Ideally, it should be installed on a post without any obstacle within four feet around.

A useful tip for easy installation would be to drive a stake into the ground, at the desired place, and to fix a post, with the IRRICOM WR attached to it, to the stake. The four brackets provided with the IRRICOM WR can be used to screw it to the post.

For better range, the IRRICOM WR must be within sight of the probes. For example, installing the IRRICOM WR inside an office, while the probes are outside, will reduce the range significantly. For outside probes, it is recommended to install the IRRICOM WR outside, high enough and far enough from obstacles to improve the signal quality, as previously stated.

A connector is present on the Irolis Com WR for grounding the metal enclosure. Ensure to ground properly the device.

3 GETTING STARTED

ACQUIRING DATA FROM IRRICOM WR

The output data of the IRRICOM WR can be acquired and monitored on a PC computer using the Irolis Light Software (P/N 5001) and the Iricom-PC cable (P/N 6310) provided with every new IRRICOM WR. Please check that you have these two items at hand and in good working condition before getting started.

Short Range: IRRICOM WR connected directly to a PC computer

If the probes to be monitored are located nearby your office, you can connect the IRRICOM WR directly to your PC computer. To do so, you must use the Iricom-PC cable. The Iricom-PC cable is a 15 m (50 feet) cable with an IRRICOM WR compatible connector at one end and a DB9 connector (PC computer serial port connector) and a power supply at the other end. Connect the compatible connector in the Data Output Connector of your IRRICOM WR and the other end of the Iricom-PC Cable to the serial port of your PC computer. The PC computer must have a serial port. If it doesn't, you can use the USB to Serial Cable (P/N 6301, NOT included in the IRRICOM WR package).

3 GETTING STARTED

Using this latter cable, you can connect the IRRICOM WR to any available USB port of your PC computer. The data generated by your probes can now be logged and monitored on your PC computer using the Irolis Light Software. The IRRICOM WR can be wired to a PC computer using communication cable over a distance up to 1,000 feet. Cable extensions are available from your local distributor in lengths of 30 m (100 feet, P/N 6312), 75 m (250 feet, P/N 6314), 150 m (500 feet, P/N 6316) and 300 m (1000 feet, P/N 6318).

Long Range: IRRICOM WR to a PC computer using Iricom Satellite and Iricom Base

Long range communication between the IRRICOM WR and a PC computer can be achieved by using the Iricom Satellite (P/N 6030) and Iricom Base (P/N 6040), two long range RF modems. For installation and use, please refer to the User Guide of the Iricom Base and Iricom Satellite provided with these devices.

4 DISPLAY

The IRRICOM WR displays key information using the following pictograms :



Power ON

Power is "on" when the green LED is pulsing.



Data Collision

When the orange LED is flashing, the IRRICOM WR detects data collision or interference. Most of these events are not important and can be neglected.

Signal Quality

When the signal of a probe is received, the device shows the signal quality :



Poor signal quality



Acceptable signal quality



Ideal signal quality

5 TROUBLESHOOTING

No "Power ON" display

1. Verify your IRRICOM WR power source.

Non-stop "ON" state (green light steadily ON)

1. Cut off the power by disconnecting the power source for a short period (10 seconds).
2. Reconnect the power source. The IRRICOM WR should be working properly.

No signal (the signal of a probe is not received)

1. The IRRICOM WR might be too far away from the probe. Move the IRRICOM WR closer to the probe.
2. The probe might be out of power. Replace the probe batteries by new ones or verify that the probe's power source is working properly.

6 PERIPHERALS

IRRICOM SATELLITE (P/N 6030)

The Iricom Satellite is a long range RF Modem compatible with the IRRICOM WR. It enables an instant communication from an IRRICOM WR to a PC computer located over up to a 25,000 feet distance. NOT included in the IRRICOM WR package.

IRRICOM BASE (P/N 6040)

The Iricom Base is a long range RF Modem dedicated to the reception of Iricom Satellite signal. It can be connected to a PC computer using the Iricom-PC cable. NOT included in the IRRICOM WR package.

7 TECHNICAL INFO

Power Supply	5 - 30 Volt DC
Data Output	RS-232,9600,N,8,1
RF Frequency	418 MHz
Dimensions	90 mm x 115 mm x 55 mm (3.543" x 4.528" x 2.165")
Weight	265 g (9.35 oz)
Operating temperatures	Min: -30°C Max: 50 °C

HORTAU INC.
735, rue de l'Église
St-Romuald, QC G6W 5M6
CANADA
1-888-5-HORTAU
info@hortau.com
www.hortau.com



