OJ Waterline™

ROOM SENSORS & CONTROLLERS

WLTA

WLCT2

WLTD / WLTM

WLTP

GREEN COMFORT

Intelligent Control
Maximum comfort with
low energy consumption

Save up to 55% CO$_2$

HYDRONIC UNDERFLOOR HEATING & COOLING

OJ Waterline™
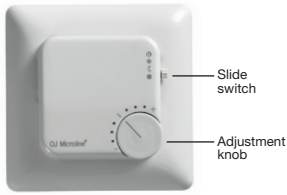
Room Sensors & Controllers
Intelligent Temperature Control

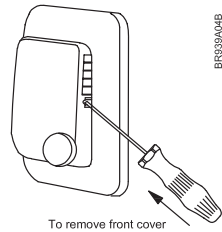**Maximum comfort with minimum energy consumption.**

Room sensors and room controllers for the OJ waterline™ system from OJ Electronics have been designed to ensure easy installation, high comfort, energy & cost efficiency operation with a high level of flexibility.
To ensure maximum installer flexibility all of our heating sensors are available in both hard wired and 868 MHz wireless versions. The unique flexibility of the OJ design means that both hard wired and wireless sensors can be attached to the same system. This feature is also enhanced by the fact that all the wireless sensors share the same receiver – thus reducing cost and installer time.
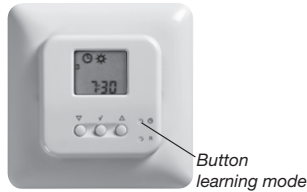
Features
- Classic design.
- PI controlled room temperatures for true comfort.
- Safe low voltage connection, to all hard wired room sensors/controllers.
- Can be wired in a combination of 'Star' and/or 'Daisy chain' to suit the installation.
- Flexible installation combining hard wired and wireless connection.
- Surface wall mounting or to standard wall box.
- Energy saving comfort with adaptive function (early start) - ensuring comfort at the "right" time.
- Wireless sensors use standard AAA batteries (2 year battery life), 28 day minimum alarm for battery replacement.
- Min. 20% heat in areas should the battery loose all charge.
- Two or more sensors/controllers in large rooms for average temperature measuring.
- Attachment of floor sensor for min. or max. limitation.
- Switch between automatic, manual setback temperature and frost protection.(WLTD, WLTM models)
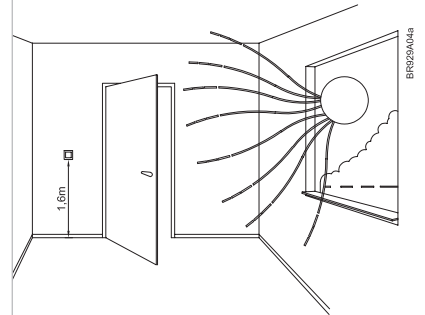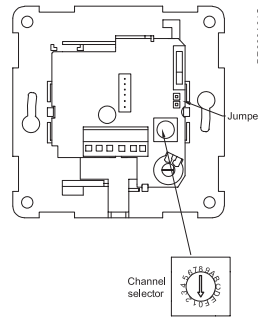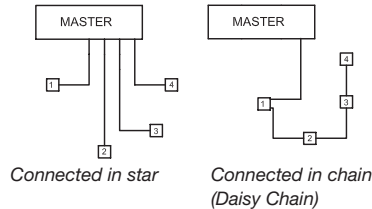- WLCT2, 4-event driven automatically setback temperatures.

Mounting position

Slide switch

Adjustment knob

To remove front cover

Mounting position

Button learning mode

MASTER

Connected in star

MASTER

Connected in chain (Daisy Chain)

Jumper

Channel selector

Mounting position

CE

Room Sensors

The Room sensors are used for comfort temperature control in rooms. They are mounted on internal walls with free air circulation about 1.2 m above the floor level and should be away from and influencing factors such as doors or windows introducing heating or cooling from drafts of sunlight. The room temperature is based on the setpoint in the Master, or in a Room Controller, but can be adjusted +/- 4°C depending on type.

Also depending on type, it is possible to attach a floor limitation sensor for either maximum limitation as protection of wood floors or minimum limitation for comfort reasons.

On the mode switch it is possible to override automatic temperature changes, and set it to fixed comfort, fixed night setback or to fixed OFF (frost protection).

Room Controllers

The WLCT2 room controllers are used to add programmable changes of temperatures in a OJ Waterline™ system.

A single room controller can be set up to send room temperature set points to one or more Room Sensors in the system, also referred to as Area control.

If the system needs to be divided into more areas, more room controllers can be added.

A room controller also offers full control over min and max limit setpoint.

A room controller overrides the settings in the master. Special versions are available for radiator zones, hot water control and 2 stage control zones.

Product

OJ WATERLINE™	UNITS PRODUCT INFORMATION
WLTP-x9	Non adjustable room sensor
WLTA-x9	Room sensor with +/- 4°C adjust button,
WLTM-x9	Room sensor with +/- 4°C adjust button, function selector and external sensor input
WLTD-x9	Room sensor with +/- 4°C adjust button, function selector and floor limit sensor
WLCT2-x9	Room Controller with built-in 4-event timer and area control
WLCT2-x9/HW	Special versions of the Room Controller to
WLCT2-x9/R	Control Hot Water cylinders, Radiator zones or
WLCT2-x9/2	Two stages heating
WLRC2-19	Receiver for wireless room sensors/controllers

4-event time and temperature					
		Standard WLCT2-x9	Special WLCT2-x9/R	Special WLCT2-x9/2	Special WLCT2-9/HW
	Time	Temperature	Temperature	Temperature	Temperature
Day 1-5					
	06:00	21℃	21℃	21℃	50℃
	08:00	19℃	19℃	19℃	30℃
	16:00	22℃	22℃	22℃	50℃
	22:30	17℃	17℃	17℃	30℃
Day 6-7					
	08:00	22℃	22℃	22℃	50℃
	23:00	17℃	17℃	17℃	30℃
Other settings					
4-event sequence	-	4:52	4:52	4:52	4:52
High floor limit temperature	-	27℃	-	27℃	-
Low floor limit temperature	17℃	17℃	-	17℃	-
Special settings					
2-step time	-	-	-	60 min	-
2-step temperature difference	-	-	-	2℃	-

Technical data

Hard wired:

Connection type	2-wire, 5V
Cable type	Standard installation cable CAT5
Distance	100 meters between, 300 in total

Wireless:

Batteries	2 x AAA Alkaline 1,5 V
Battery lifetime	Typically 2 years
Communication frequency	868 MHz
Communication distance	Up to 30 m inside
	Up to 100 m outside

All types:

Regulation type	PI (4°C P-Band)
Limit sensor type ETF	Max 50 meters
Enclosure	IP 21
Ambient temperature range	0 to 40°C

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