Wireless Communicating Energy Management Syste

WEB
COMFORT™

The Web Comfort product line from Jackson Systems integrates lighting, climate control, fans, metering and plug loads to provide a powerful integrated energy management solution. The lighting, thermostat, fan control and metering software share the Web Comfort Energy Manager and operate as an integrated application.

Web Comfort software communicates via the Web Comfort Energy Manager to lighting controllers, motion sensors, thermostats, fans, meters and plugs using a secure wireless 2.4GHz ZigBee communications network.

Web Comfort's Portfolio Manager is a hosted software solution for managing the temperature, lighting and energy consumption of multi-site facilities. Using a secure, web-based interface that connects two or more Web Comfort systems, Portfolio Manager directs schedules, alerts and demand response events across multiple premises.

Features

- Remote monitoring and control of HVAC, lighting, fans, networked PCs and plug devices
- Metering and demand response
- Easy to install and configure
- Optional connectivity to Modbus® and BACnet®
- Secure wireless 2.4GHz ZigBee® communications with other networked devices
- Data storage retains all system events for over one year. Event data can be analyzed to optimize energy usage and savings.
- Graphical views of real-time and historical energy usage provide comprehensive and actionable information to users.
- Scalable to manage a single building or an entire campus
- Web Comfort products operate independently or as an integrated solution.
- Made in the USA (ARRA Compliant)

Web Comfort Energy Manager (WEB-TM)

The Web Comfort Energy Manager is a rugged, industrial control processor that is the heart of the innovative integrated energy management system powered by Web Comfort software. The Energy Manager coordinates all energy management functions utilizing the Web Comfort wireless network.

The compact Web Comfort Energy Manager receives input from environmental sensors, local controls and metering devices throughout a facility. Based upon sensor input, schedule, local input, curtailment and event information, adjustments to lighting, HVAC, fans, networked PCs and plug devices are implemented in real time to minimize energy waste.

The WEB-TM can control up to 100 devices.
The WEB-TM-PLUS can control up to 400 devices.
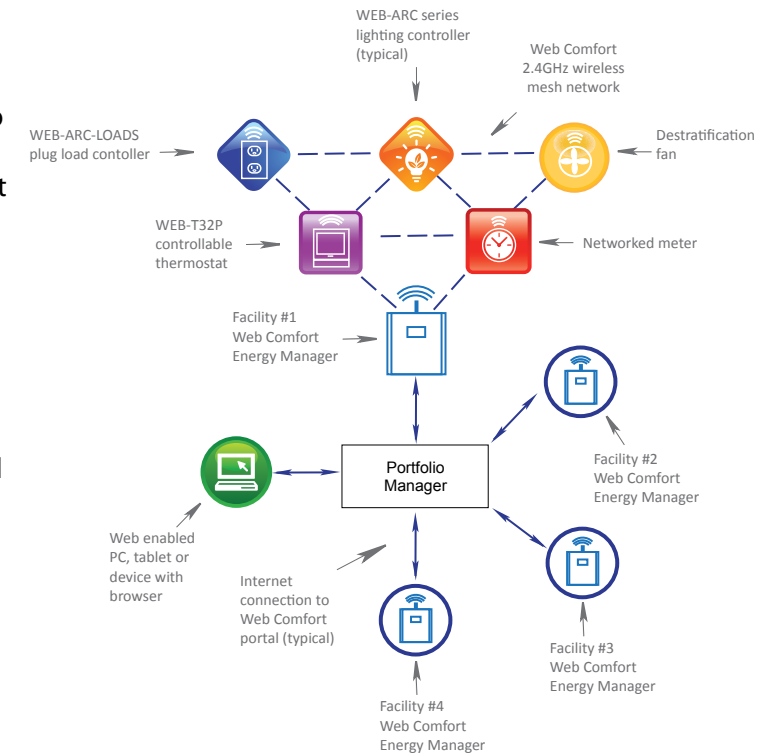
Web Comfort Wirelessly Communicating Thermostat (WEB-T32P)

The Web Comfort Thermostat is an industrial control that communications with the Web Comfort Energy Manager. This universal thermostat features an integrated Modbus transceiver that connects to the Web Comfort Energy Manager through a secure mesh network. This design allows each thermostat to communicate with other thermostats, extending the range and ensuring a strong and reliable signal.

The integrated transceiver with factory wiring harness reduces installation time and eliminates miss-wiring. Additionally, it provides easy access for transceiver diagnostics without having to remove the thermostat sub base.
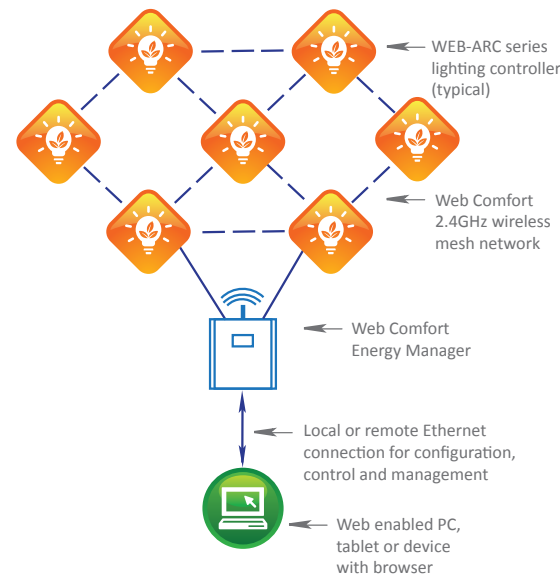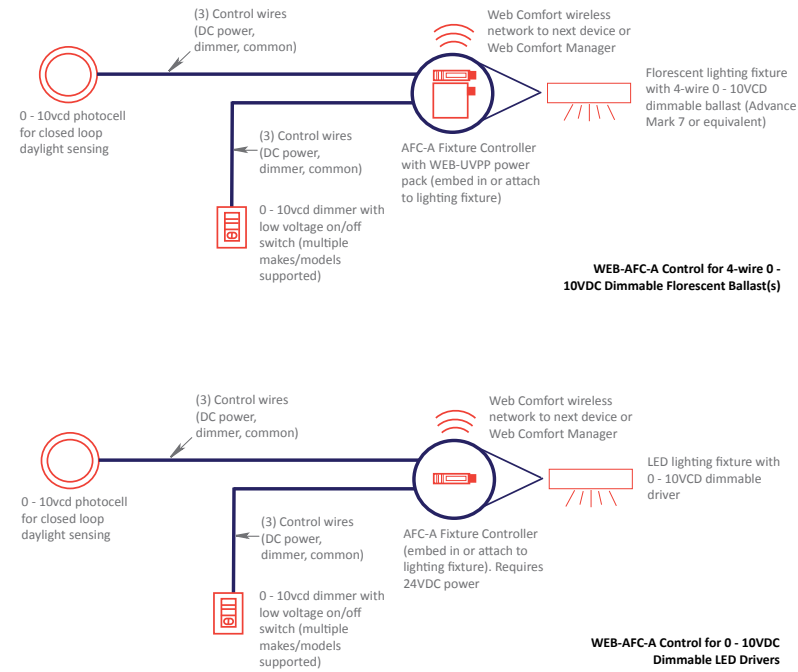
Signal Range Extender (WEB-REP)

The Web Comfort Range Extender is a wirelessly connected 120VAC plenum rated repeater used to extend the range of the Web Comfort Energy Manager signal within or between structures. Up to 100 range extenders can be used with a Web Comfort Energy Management System. The WEB-REP is recognized as a device by the Web Comfort Manager.

Wireless Lighting Controller (WEB-AFC-A)

The Web Comfort Dimming Fixture Controller is a wirelessly managed 120/277/347VAC plenum rated lighting controller with integrated daylight harvesting support. In addition to schedules and demand response events enacted by Web Comfort software, the WEB-AFC-A can be deployed with local control, daylight harvesting control or both. A standard power pack such as the Web Comfort UVPP powers the Fixture Controller and provides a low end cutoff relay for connected loads.

Using Web Comfort, occupancy detected by sensors connected to networked Room Controllers can be used to determine light level, daylight harvesting setpoints or maximum light level. Web Comfort's dimming records actual light levels as they are set, providing flawless, repeatable performance even if the light source degrades.

(3) Control wires (DC power, dimmer, common)

Web Comfort wireless network to next device or Web Comfort Manager

0 - 10vcd photocell for closed loop daylight sensing

(3) Control wires (DC power, dimmer, common)

AFC-A Fixture Controller with WEB-UVPP power pack (embed in or attach to lighting fixture)

Florescent lighting fixture with 4-wire 0 - 10VCD dimmable ballast (Advance Mark 7 or equivalent)

0 - 10vcd dimmer with low voltage on/off switch (multiple makes/models supported)

WEB-AFC-A Control for 4-wire 0 - 10VDC Dimmable Florescent Ballast(s)

(3) Control wires (DC power, dimmer, common)

Web Comfort wireless network to next device or Web Comfort Manager

0 - 10vcd photocell for closed loop daylight sensing

(3) Control wires (DC power, dimmer, common)

AFC-A Fixture Controller (embed in or attach to lighting fixture). Requires 24VDC power

LED lighting fixture with 0 - 10VCD dimmable driver

0 - 10vcd dimmer with low voltage on/off switch (multiple makes/models supported)

WEB-AFC-A Control for 0 - 10VDC Dimmable LED Drivers

WEB-ARC series lighting controller (typical)

Web Comfort 2.4GHz wireless mesh network

Web Comfort Energy Manager

Local or remote Ethernet connection for configuration, control and management

Web enabled PC, tablet or device with browser

Wireless Lighting and Load Controllers (WEB-ARC)

The Web Comfort Switched Lighting and Load Controllers are wirelessly managed 120/277VAC plenum-rated controllers. The WEB-ARC provides managed control of up to two independent switched circuits, supporting the second circuit via an external power pack.

Compatible with the Web Comfort range of wired and wireless occupancy sensors, the WEB-ARC also provides connectivity for door and window contacts. The room controller can be operated in standalone mode (as a standard switched power pack) or as part of a Web Comfort Integrated Lighting Management System using the Web Comfort wireless mesh network.

Web Comfort Wireless Contact Sensor (WEB-CS)

The Web Comfort Contact Sensor is an easy to install, compact, high performance dry contact sensor with an integrated wireless transceiver that uses the Web Comfort wireless mesh network to connect to a Web Comfort Energy Manager and other Web Comfort devices.

The low voltage Contact Sensor provides two channels of contact input used to detect the open and closed status of a pair of isolated contacts, such as a relay or switch. Wire leads can be connected to contacts and switches to sense momentary or maintained position.

Web Comfort Wireless Door/Window Contact Sensor (WEB-DWCS)

The Web Comfort Wireless Door/Window Sensor is an easy to install, compact, high performance door and window contact sensor with an integrated wireless transceiver that uses a wireless mesh network to connect to the Web Comfort Energy Manager and other Web Comfort devices.

The Web Comfort Wireless Door/Window Sensor quickly mounts to doors and windows. As a door or window is opened, the contact sensor detects changes in proximity to the remote magnetic sensor and will automatically set back HVAC using user-defined rules. When the contact sensor detects that doors and windows are closed, HVAC will resume with the previously set schedule.

Web Comfort wireless network to next device or Web Comfort Energy Manager

Web Comfort Wireless Contact Sensor

Door/Window Contact Sensor is to be associated with a local Web Comfort Thermostat

Web Comfort Wired Occupancy Sensor (WEB-OS)

The Web Comfort Wired Sensor is an easy to install, compact, high performance motion sensor that connects directly to the Web Comfort series of room controllers. The WEB-OS detects changes in infrared radiation that occur when there is movement by a person or object which is different in temperature from the surroundings.

Web Comfort Motion Sensors are available with Standard, Slight, Spot and 10m detection patterns. Multiple WEB-OS Sensors may be connected in parallel to a single WEB-ARC for increased coverage in larger rooms. The WEB-OS quickly mounts to a wall or ceiling using included hardware kit and connects to the Web Comfort WEB-ARC range of room controllers using standard RJ-11 connectors and cabling.

Web Comfort Wireless Occupancy Sensor (WEB-OSB)

The Web Comfort Wireless Motion Sensor is an easy to install, compact, high-performance motion sensor with integrated wireless transceiver that uses the Web Comfort wireless mesh network to connect to a Web Comfort Energy Manager.

The WEB-OSB detects changes in infrared radiation that occur when there is movement by a person (or object) which is different in temperature from the surroundings.

The Web Comfort Wireless Motion Sensors are available with Standard, Slight, Spot and 10m detection patterns. The WEB-OSB quickly mounts to a wall or ceiling using included hardware kit.
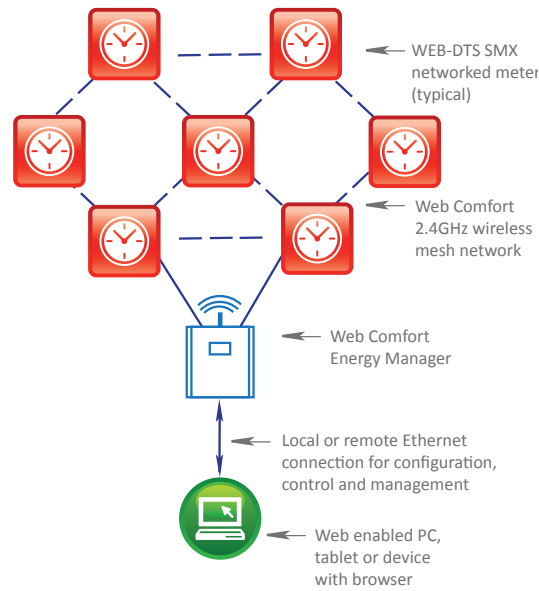

Web Comfort Wireless Relay (WEB-RELAY)

The Web Comfort Relay is an easy to install, compact, high performance switching relay with an integrated wireless transceiver that uses the Web Comfort wireless mesh network to connect to a Web Comfort Energy Manager and other Web Comfort devices. The low voltage Relay provides a method to switch a 24VAC load ON or OFF.

Web Comfort Wireless Metering and Verification (WEB-DTS-SMX)

WEB-DTS SMX networked meter (typical)

Web Comfort 2.4GHz wireless mesh network

Web Comfort Energy Manager

Local or remote Ethernet connection for configuration, control and management

Web enabled PC, tablet or device with browser

The Web Comfort Meter is a power monitoring device featuring revenue grade measurement and wireless communication. The meter is for use with the Web Comfort metering measurement and verification software and can add real-time energy monitoring to a Web Comfort Integrated Energy Management solution that includes lighting and HVAC.

The WEB-DTS-SMX is compatible with voltage ranges from 120-480VAC and features load sensing from 50A to 3,000A. The meter is provided as a self-contained unit in a NEMA 4x enclosure with locking door. Featuring accurate revenue grade measurement, the WEB-DTS-SMX is used in conjunction with metering software to measure and track energy use for a specific area, load type or building.

Web Comfort Destratification Fan (WEB-FAN)

The Airius Air Pear fan is a wirelessly managed destratification fan. These fans form the foundation of a Web Comfort Thermal Equalizer System that reduces energy consumption by increasing the efficiency of heating and cooling systems.

Stratification, or temperature layering, occurs when there is minimal air movement within an enclosed building space. Heat (naturally or artificially generated) rises to the ceiling while cold air sinks to the floor. Temperatures can increase up to 1°F per foot of building elevation.
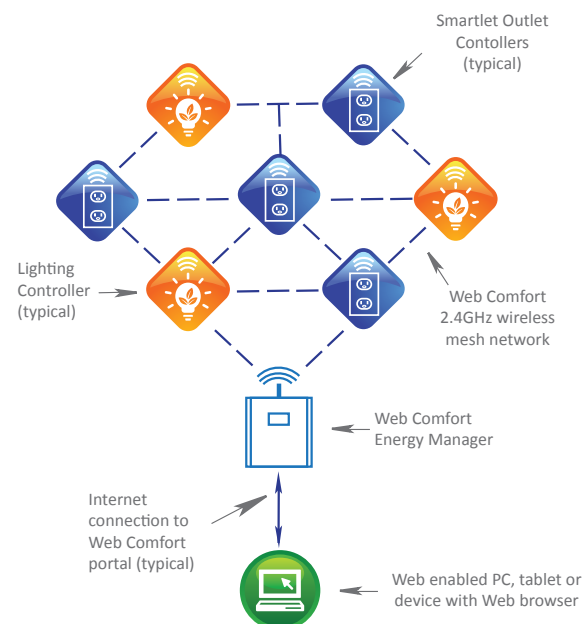
In cold weather, destratification redirects hot air from the ceiling to the floor, recycling existing heat and reducing energy consumption. In moderate or warm weather, destratification reduces temperature differentials within the space and increases the efficiency of HVAC systems.

Web Comfort Wireless Outlet Controller (WEB-ARC-LOADS)

The Web Comfort Smartlet integrates automatic receptacle control with switching systems. The Outlet Controller switches 120VAC receptacles ON or OFF based upon occupancy, schedules, and demand response events. The Web Comfort Smartlet is attached to 15A/120VAC duplex receptacles which power the device.

Dynamic scheduling allows the user to define ON and OFF events for receptacles, as well as periods governed by occupancy rules. Timeouts to switch off loads in unoccupied spaces are easily set per schedule or event, and can vary throughout the day.

Smartlet Outlet Contollers (typical)

Lighting Controller (typical)

Web Comfort 2.4GHz wireless mesh network

Web Comfort Energy Manager

Internet connection to Web Comfort portal (typical)

Web enabled PC, tablet or device with Web browser

The Z-2000 zoning system now integrates with the Web Comfort Energy Management System.

The Z-2000 system is now compatible with the Web Comfort Energy Management System, allowing control and monitoring of the zoning system through the Web Comfort portal. The Comfort System Z-2000 is a commercial zone control system that allows a single HVAC unit to have up to 20 individual zones. Each zone is controlled by its own space thermostat and a modulating zone damper or diffuser.

The Z-2000 works with single-stage, multi-stage or heat pump systems and has an auxiliary heat control option for each zone. The Comfort System Z-2000 is an affordable alternative to higher cost VAV systems and there is no programming required.

Features and Benefits

- Integrates with the Web Comfort Energy Management System for remote control, monitoring and reporting via the Internet
- Fully modulating
- Up to 20 zones
- Auto changeover
- Works with single-stage, multi-stage and heat pump systems
- No programming required
- Auxiliary heat control option for each zone
- Night setback option
- All low voltage wiring
- LED status indication of equipment and zones
- Fused inputs and outputs
- 5-year warranty

JACKSON SYSTEMS
Controls Done Right ™