

# COMPLETE ROOM CONTROLLER

## F SERIES

# ERDRC-FCU

### Overview

Echoflex's complete room controller uses wireless technology to monitor and control a room's lighting environment. As a lighting controller with an integrated 20 amp dry-contact relay (15 A for 347V installations) and low voltage dimming output, it provides: fade to ON/OFF lighting, timed light switch, daylight harvesting, photo inhibit, occupancy based or vacancy based lighting control.

The controller operates lights based on:

- ambient light levels monitored by a wireless photo sensor
- occupancy/vacancy state monitored by a wireless or a wired occupancy/vacancy sensor
- switch action from a wireless single or dual paddle wall switch
- gateway control implementing schedules or other events

Daylight harvesting mode monitors room light levels and adjusts the dimming output to maintain the configured light level. This mode can be used in closed or open loop light control scenarios.

The photo-inhibit feature monitors room light levels and can disable Auto-ON lighting when sufficient natural light is available.

When only occupancy sensors are linked to the controller, the sensor will automate the lights both ON and OFF. When configured in Vacancy Sensor mode, the controller will assume manual-ON, auto-OFF operation.

The daylight harvesting, photo-inhibit and occupancy/vacancy sensor operating modes are energy saving features that present a return on the investment into lighting control.

Other features include telegram repeating and BEMS system integration allowing the controller to be used both in distributed control applications or as a component of a centralized system.

The controller supports radio range confirmation, a feature that allows installers to test signal strength for optimal sensor placement and system integrity. This feature is supported with the Echoflex Resonate and 21-series of sensors.

Echoflex offers three methods of configuring the controller:

1. Use the linked sensors and Simple Tap to make quick changes to individual controllers.
2. Use Smart Click to access more configuration parameters using a linked switch.
3. To access the full menu of configuration parameters, Echoflex's Garibaldi software is a PC based tool that includes hands-free commissioning.



### Features

- Complete lighting circuit and dimming control
- Daylight harvesting or photo inhibit mode
- Occupancy/Vacancy based lighting control with auto-ON or manual ON, auto-OFF using wireless or wired occupancy sensors
- Monitors linked battery-free wall switches, photo sensors and occupancy sensors
- Range Confirmation (patent pending) allows optimal placement of linked sensors - (Resonate and 21 series sensors only)
- Central Command support for BEMS gateway control
- Supports commissioning via Smart Click, Simple Tap or Garibaldi (remote management) software
- Assign up to 20 battery-free wireless wall switches or sensors to one controller
- Reliable radio reception range of 24 m (80 ft) in most common indoor applications
- Low-cost alternative to running wires and conduit - ideal for retrofit projects
- Easy installation on electrical junction boxes with 1/2 " mounting nipple
- Doubles as a telegram repeater
- CEC - Title 24 Compliant

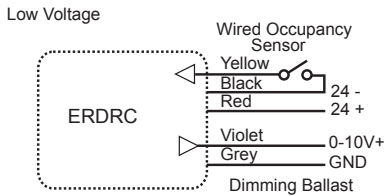
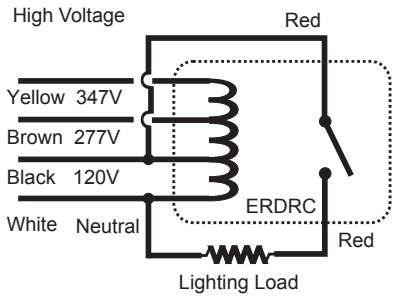
### Ordering Information

Model	Description	Part # - 902 MHz
ERDRC-FCU 120/277/347	120/277/347 VAC Complete Room Controller	001-8280

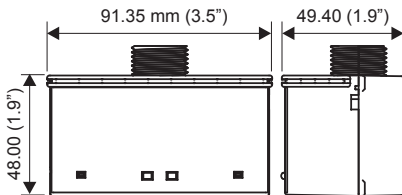


# ERDRC-FCU

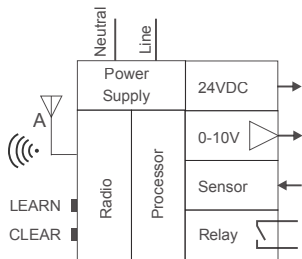
## Wiring Diagram



## Dimensional Diagram



## Block Diagram



## Equipment Profiles - remote devices supported

EEP: F6-02-02  
EEP: A5-06-02  
EEP: A5-07-01

Light and Blinds Control - US/Canada application  
Light Sensor [range 0 - 1024 lux (0 - 102 fc)]  
Occupancy Sensor

## Hardware Specifications

<b>Power Supply</b>	120/277/347 VAC, 60 Hz
Power Consumption	5.0 W max. full load
Power Output	24 VDC @ 35 mA
Input	24 VDC input
Outputs	N.O. Relay rating 20A@120 or 277 VAC, 15A@347VAC; 0-10 VDC @ 25mA maximum

## Communications

Radio Frequency	902 MHz
Antenna	Integrated whip
Transmission Range	24 m (80 ft) - commercial office space (typical)
Inputs	LEARN and CLEAR buttons for sensor assignment

## Mechanical Specifications

Operating Temperature	-10 ° C to 45 ° C (14 ° F to 113 ° F) ambient
Relative Humidity	5% to 95% RH (non-condensing)
Weight	385 g (13.5 oz)
Dimensions	91 x 48 x 49 mm (3.5 x 1.9 x 1.9")
Mounting	½" nipple

## Listings

CEC Title 24 Compliant

Safety

ETL Listed Component  
Conforms to UL Standard 508  
Certified to CAN/CSA Std. C22.2 No.14  
UL 2043 Plenum rated

Radio Frequency (902 MHz)

FCC Part 15.231 -Remote Control Transmitter  
IC RSS-210



## Echoflex Solutions, Inc.

#1, 38924 Queens Way | Squamish | BC | Canada | V8B 0K8  
Toll Free: 888-324-6359 | Phone: (778) 733-0111 | Fax: (604) 815-0078  
email: [info@echoflexsolutions.com](mailto:info@echoflexsolutions.com) | [www.echoflexsolutions.com](http://www.echoflexsolutions.com)

Specifications are subject to change without notification.  
Smart Click and Simple Tap are trademarks of Echoflex Solutions, Inc.  
Range Confirmation Technology - Patent pending  
Document 8DC-0442 | Revision 1.0

