

SPECIFICATION:

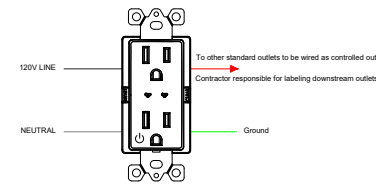
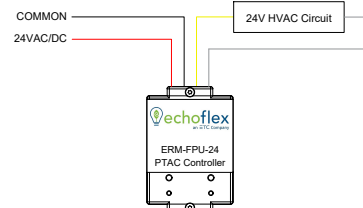
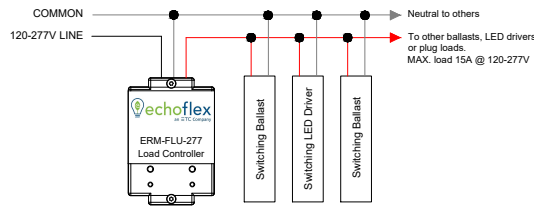
1. LIGHTING CONTROL SYSTEM TO BE MANUFACTURED BY ECHOFLEX SOLUTIONS INC.
2. ECHOFLEX LIGHTING CONTROL SYSTEM SHALL HAVE THE ABILITY TO BE FACTORY PRE-LINKED AND PRE-CONFIGURED OR PROGRAMMED ON SITE USING SIMPLE TAP, SMART CLICK OR GARIBALDI SOFTWARE.
3. CONTROLLERS SHALL BE ABLE TO FUNCTION AS A STAND ALONE SYSTEM ALONG WITH THEIR OPTIONAL PERIPHERAL WIRELESS DEVICES INCLUDING A WALL SWITCH, SPLIT CONTROLLED RECEPTACLE, AND OCCUPANCY SENSOR.
4. CONTROLLERS SHALL BE ABLE TO BE NETWORKED TOGETHER TO FORM AN INTEGRATED BUILDING SOLUTION.
5. ECHOFLEX ERM: LOAD CONTROLLER SHALL BE ETL RECOGNIZED, CONFORMING TO UL508 STANDARDS. ALL SYSTEM CONTROL ELECTRONICS SHALL STORE PROGRAMMING IN NON-VOLATILE MEMORY. THE CONTROLLER SHALL BE CAPABLE OF REPEATING SIGNALS AND TRANSMITTING STATUS.
6. OCCUPANCY SENSORS (OS): OCCUPANCY SENSOR SHALL BE SOLAR POWERED WIRELESS SENSOR WITH AN OPTIONAL BATTERY. SENSOR SHALL BE COMPATIBLE WITH OCCUPANCY AND VACANCY MODES WHEN USED IN CONJUNCTION WITH THE DIMMING ROOM CONTROLLER. SENSOR SHALL PROVIDE LED INDICATION FOR RF RANGE CONFIRMATION. SENSOR SHALL WIRELESSLY COMMUNICATE WITH THE SPLIT CONTROLLED RECEPTACLE. SENSOR SHALL HAVE ABILITY TO FUNCTION UP TO 9 DAYS IN COMPLETE DARKNESS.
7. RF SYSTEM SHALL NETWORK WIRELESSLY. INTEGRATION WITH BMS/DEMAND RESPONSE VIA THE USE OF GATEWAYS AND WIRELESS/WIRED I/O INTERFACES. VERIFY AND INSTALL ONLY THOSE INTERFACES INDICATED ON THE PLANS.
8. EC SHALL INSTALL ECHOFLEX SYSTEM AS INDICATED PER MANUFACTURER'S FINAL DRAWINGS AND INSTALLATION DOCUMENTS IN ACCORDANCE TO ALL LOCAL AND NATIONAL CODES. FACTORY ONSITE START UP AND TRAINING IS OPTIONAL. ECHOFLEX REQUIRES 3 WEEKS ADVANCED NOTICE TO SCHEDULE ONSITE START UP IF REQUESTED. ECHOFLEX WILL PROVIDE SYSTEM VERIFICATION AND ADJUST PROGRAMMING IF REQUIRED TO CUSTOMER REQUIREMENTS.

Sequence of Operation

Upon entering the room the door switch will sense the door opening and closing and when the occupancy sensor detects motion this will send an occupied signal to the controllers in the room. The ERM-FLU will close its relay enabling power to flow to the lights in the room. The ERM-FPU will close (or open) its relay enabling the HVAC system to function normally. The ERNR/s will close the relay allowing power to flow to the controlled receptacle/s. Each time the door is opened and closed and the sensor sees motion, the room will lock into occupied state. Each time the door is open and closed, the sensor will communicate to the controllers if the space is occupied or not. If no motion is sensed after 15 minutes (adjustable) of the door closing the room will go into the unoccupied mode. For the lighting this will stop the flow of power to the lights and the HVAC will go into setback mode or turn off, depending on the mechanical equipment. If needed, an RTS temperature sensor may be added to the space for setback control of the HVAC system. For added energy efficiency, a window switch may be used to put the HVAC system into setback mode as well when the window is opened.

| Typical Material List | | |
|-----------------------|-------------|------------------------------------------|
| Qty | Part # | Description |
| 1 | ERM-FLU-277 | Power Load Controller 120-277V |
| 1 | ERM-FPU-24 | PTAC Controller Single channel 24V AC/DC |
| 1 | MC-21U | Window/Door Switch |
| 1 | MOS-IR | Occupancy Sensor |
| 2 | ERNR-AIU | Split Duplex Controller 120V @ 15 A |

9. THIS DRAWING REPRESENTS DESIGN CONCEPT AND INTENT ONLY. WE DO NOT GUARANTEE THE INFORMATION IN THIS DOCUMENT IS SUITABLE FOR YOUR PARTICULAR APPLICATION, NOR DO WE ASSUME ANY RESPONSIBILITY FOR YOUR SYSTEM DESIGN, INSTALLATION OR OPERATION. WE RESERVE THE RIGHT TO MAKE CHANGES TO THE PRODUCTS DESCRIBED OR INFORMATION HEREIN AT ANY TIME WITHOUT NOTICE AND WITHOUT ANY OBLIGATION.



10. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

11. TELEPHONE FACTORY SUPPORT SHALL BE AVAILABLE AT NO ADDITIONAL COST TO THE EC OR OWNER.

12. CONTACT ECHOFLEX SOLUTIONS

HEAD OFFICE - 1.778.733.0111
TOLL FREE - 1.888.324.6359
QUOTES@ECHOFLEXSOLUTIONS.COM
ECHOFLEXSOLUTIONS.COM

- Echoflex ERM-FLU-277**
- Communicates on 902 MHz frequency
 - Configurable through software or other mechanical means
 - Transmission range of 24m (80ft) up to 100m (330ft) line of sight
 - Dry contact Relay, 15A @ 120/277V
 - Additional functionality as radio repeater

- Echoflex ERM-FPU-24**
- Communicates on 902 MHz frequency
 - Configurable through software or other mechanical means
 - Transmission range of 24m (80ft) up to 100m (330ft) line of sight
 - Dry contact Relay, 3A @ 30V DC
 - Additional functionality as radio repeater

- Echoflex ERNR-AIU**
- Mounts in a standard wall box
 - Communicates on 902 MHz frequency
 - Top half of duplex is uncontrolled, bottom half controlled
 - Has arrows that light up and point to the controlled half
 - Controls up to 15A of plug load
 - Configurable through software or other mechanical means
 - Transmission range of 24m (80ft) up to 100m (330ft) line of sight

Typical Hotel Room with HVAC Interface

Echoflex Solutions, Inc.
38924 Queens Way Unit #1
Squamish, British Columbia
Canada V8B 0K8
Phone: 1 (778) 733-0111
Toll Free: 1 (888) 324-6359
Fax: 1 (604) 815-0078
echoflexsolutions.com