

# ENR WALL PACK

New Dimming Technology . . .  
Smaller, Quieter and more efficient.

- ENR Wall Pack contains six plug-in dimmer modules available in 120 volt dual 1.8kW and 2.4kW capacities, and 240 volt dual 2.5kW capacity
- Plug-in dimmer and control modules make the ENR Wall Pack fully servicable.
- Top and bottom panels pre-punched with knockouts for line and load runs. Quickly and easily installed.
- ENR Wall Pack design allows for adjacent mounting of multiple racks.
- Locking door to prevent unwarranted access to ENR Wall Pack.
- Ambient air is drawn in through the dimmers and exhausted through the pack. The airflow is not drawn over any electrical connections. No filter is required.
- Designed to operate on single or three phase power, 120 or 240 volts.
- Twelve user-programmable panic switches are located inside the ENR Wall Pack.
- Maintenance - fully front accessible - no side or back access required.
- Kit available for semi-recessed mounting, making it possible to hide conduit runs.
- UL Listed.
- CSA Certified.

Wall Mounted dimmer pack: 14-1/4"H x 14"W x 9"D  
Lightweight: 22 lbs, 40 lbs including control and dimmer modules.



ENR Universal Dimmer Module operates with incandescent, fluorescent, low-voltage, neon, cold-cathode and non-dim loads.\*

Each module consists of a fully enclosed two piece "engineering grade" plastic chassis.

**Compact design** – Each module is 1.25"H x 12.0"W x 4.0"D.

**Lightweight** – Total dimmer module weight: 2.5 lbs.

\*Note: Fluorescent, cold-cathode and neon dimming capability requires the use of a Viewpoint Control Module.

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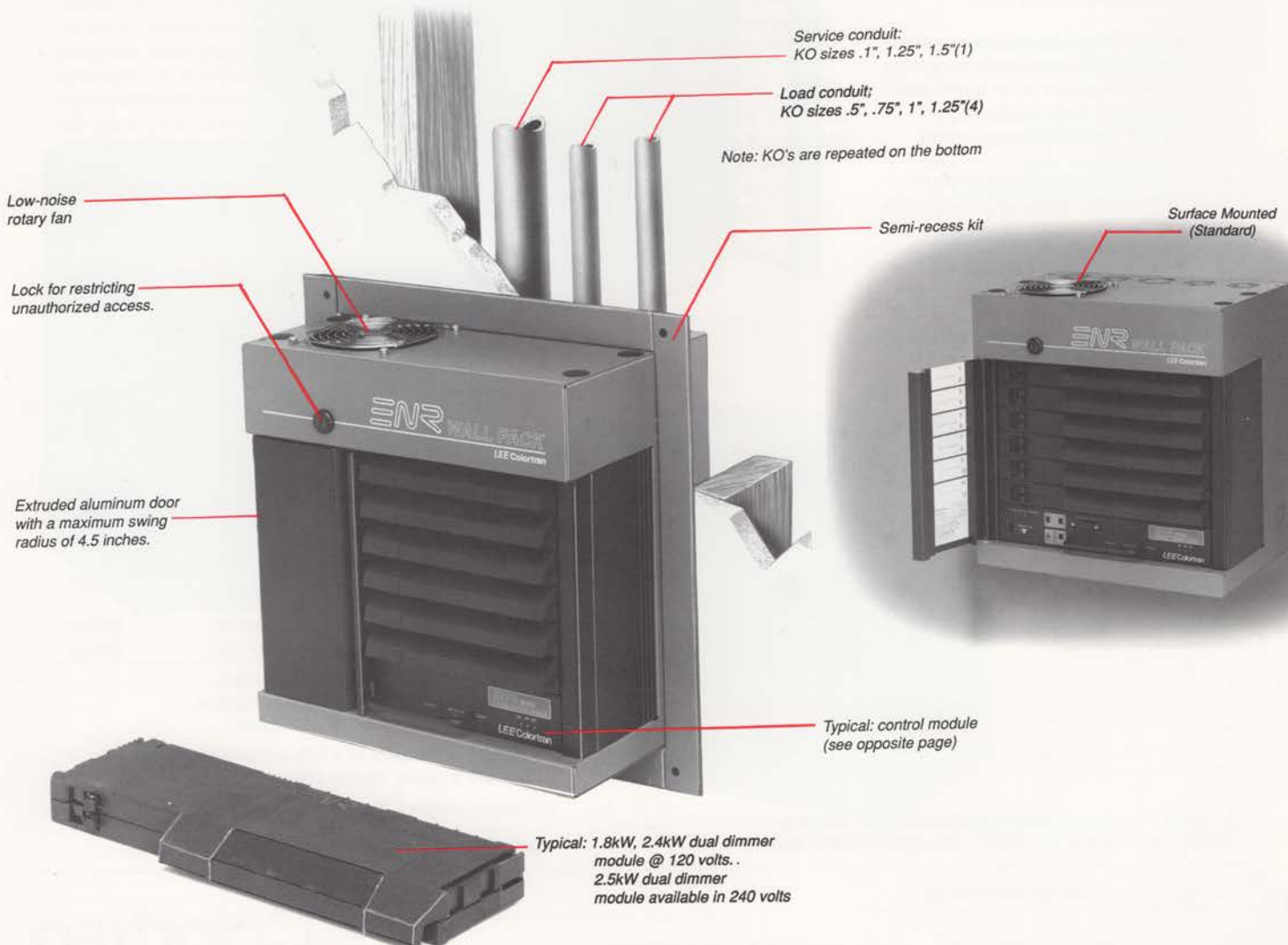
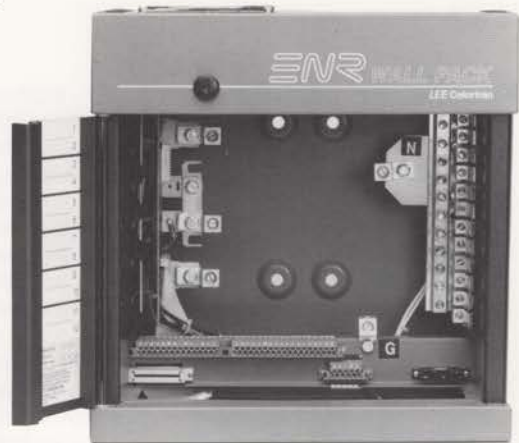
# Power bussing for simplified single-phase/three-phase conversion, and greater access for all contractor wiring.

**ENR WALL PACK**

Dimmer bussing is arranged to allow simple conversion from 3Ø to 1Ø. Each dimmer neutral terminal is located in an easily accessible area adjacent to the load terminal.

A label is provided on the inside of the door and is adjacent to each dimmer for easy identification of each circuit.

All power contacts are nickel-plated for protection against wear and corrosion. All signal contacts are gold-plated (minimum of 15 microns) for protection against wear and corrosion.



## Choose the control module that meets your needs . . .

Comprised of completely digital electronic circuitry including a high-speed microprocessor. Indicator LED's show that power is present and the system is functioning properly. If any phase is missing or improperly wired, the indicator will blink. Each Control Module also has a user-selectable rack number thumbwheel.

The Standard or Expanded Control Modules act as the brain of the Viewpoint control system. The Expanded Control Module allows for remote

programming and downloading of the Viewpoint system features with a PC AT/XT computer. Both the Standard and Expanded Control Modules are equipped with EEPROM memory storage facility.

The ENR Universal Control Module will accept USITT AMX-192 and 0-10V analog control signals in addition to LEE Colortran and DMX-512 dimmer protocols. This module also features non-dim select switches per each dimmer.

## Specifications

### CONTROL MODULES

#### MECHANICAL

- A. The control module shall be a plug-in assembly containing all the active electronics in the pack and consisting of a formed steel chassis, up to two glass-epoxy printed-circuit boards, and a handle for easy insertion and removal. The chassis shall be finished in black polyurethane paint with a silkscreened polycarbonate overlay attached to the front of the module. Packs using non plug-in control modules or electronics requiring the removal of panels for servicing shall not be acceptable.

#### ELECTRICAL ARCHITECTURAL ANALOG CONTROL MODULE

- A. The Architectural Analog Control Module shall be used in an ENR wall pack or ENR environment where individual analog control of each dimmer module is desired. Up to 8 "branches" of take-control shall be selectable by a rotary switch located inside the control module. DMX, CMX, and VMX input shall be provided to allow "pile-on" operation. Analog inputs may be connected to diode-isolated devices which provide control signals to operate dimmers or wall stations. A safety panic circuit shall be integral to this control module to provide independent bypassed control of selected dimmers in the event of microprocessor failure. An adjustment potentiometer shall be located on the front panel to allow calibration of external inputs.
- B. The Architectural Analog Control Module shall have signal, airflow and power indicators visible from the front of the pack. The signal indicator shall blink if any phases are missing or incorrectly wired. A thumbwheel shall be accessible from the front of the module to set the digital input pile-on offset number. A test switch shall be provided to allow dimmers to be activated without a control system attached to the module. Three phase trimpots and a reset switch shall also be located on the internal PC board enabling each dimmer to be changed individually to a non-dim.

#### Architectural Control Module LEC2106



240 Volt Control Modules also available. Contact factory for ordering information.

#### ENR Remote Control Module LEC2102



#### Viewpoint Standard Control Module LEC2100



#### Viewpoint Expanded Control Module LEC2101



#### ELECTRICAL VIEWPOINT CONTROL MODULE (Standard or Expanded)

- A. The Viewpoint Control Module shall be used in the first pack of architectural systems. The module shall utilize completely digital electronic circuitry including a high-speed microprocessor for performing all dimmer control calculations and for handling external serial communications, and a high-speed A/D converter for analyzing AC power waveforms. Control Modules utilizing complex analog circuitry with greater than 1% component tolerances shall not be acceptable. The expanded control module shall have provisions for an external pile-on signal and shall automatically accept either LEE Colortran protocol (156K baud) or DMX512 protocol (250K baud). Control Modules requiring switch selection of various protocols shall not be acceptable.
- B. The Control Module shall have signal, airflow, and power indicators visible from the front of the pack. The power indicator shall blink if any phases are missing or incorrectly wired. A thumbwheel shall be accessible from the front of the module to set the pile-on offset number. A test switch shall be provided to allow dimmers to be activated without a control system attached to the pack. Three phase trimpots and a reset switch shall also be accessible from the front of the module. A memory card slot, read/write switch, configure switch, and PC interface connector (expanded only) shall also be provided.

#### ELECTRICAL ENR REMOTE CONTROL MODULE

- A. The ENR Remote Control Module shall be used in all ENR Wall Packs except the first pack of architectural systems. The module shall utilize completely digital electronic circuitry including a high-speed microprocessor for performing all dimmer control calculations and for handling external serial communications, and a high-speed A/D converter for analyzing AC power waveforms. Control Modules utilizing complex analog circuitry with greater than 1% component tolerances shall not be acceptable. The control module shall automatically accept either LEE Colortran protocol (156K baud) or DMX512 protocol (250K baud). Control Modules requiring switch selection of various digital protocols shall not be acceptable.
- B. The Control Module shall have signal, airflow, and power indicators visible from the front of the pack. The power indicator shall blink if any phases are missing or incorrectly wired. A thumbwheel shall be accessible from the front of the module to set the pack number. A test switch shall be provided to allow dimmers to be activated without a control system attached to the pack. Three phase trimpots and a reset switch shall also be accessible from the front of the module.

Note Specification subject to change without notice.

# Specifications

## ENR WALL PACK

### MECHANICAL

- A. The dimmer pack shall be a wall-mounted dead front switchboard no larger than 14-1/4"H x 14"W x 9"D and shall house all specified equipment. It shall be constructed of code-gauge formed steel and aluminum structural members. All bus bars, lugs, and terminals shall be tin or nickel-plated. All exterior surfaces shall be finished in grey or black polyurethane paint. The pack shall weigh no more than 22 lbs. (40 lbs. including dimmers and control modules).

Packs shall be designed to allow for adjacent mounting of multiple packs. The rear section of the pack shall be utilized as a contractor's wireway with a minimum of 5" of wiring space behind the dimmer module. The following knockouts shall be provided on both the top and bottom of the pack for contractor entry: four 1/2", 3/4", 1", 1-1/4" knockouts and one 1", 1-1/4", 1-1/2" knockout.

- B. The pack shall be constructed to permit insertion and removal of dimmers and control modules without the use of tools. Positive, interlocking guides shall be provided for precise alignment of the dimmers to the signal and power connectors in the pack. Dimmer supports shall be incorporated into the sides of the pack, allowing clear access to the power, load, and neutral terminals, and the wireway. Packs requiring disassembly to access the terminals and wireway, or requiring the use of tools for replacement of dimmers and control modules shall not be acceptable.

- C. The pack shall be designed to contain six plug-in dimmer modules (either dual 1.8kW, 2.4kW, or 2.5kW dimmers). Each dual module position shall have a mating power bus, two load connectors, and three gold-plated PC signal contacts, and shall be mechanically keyed to accept only the dimmer module specified for that position. The control module position shall include appropriate contractor control signal terminal blocks and a signal distribution connector.

- D. The pack shall contain one continuous-duty low-noise fan with a maximum NC rating of 33 to maintain temperatures at proper operating levels with all dual dimmers under full load at ambient temperatures up to 40°C. The pack shall be provided with an airflow sensor to shut off dimmers in the pack should safe operating temperatures be exceeded. A signal shall be provided to operate a remote over-temperature LED if the airflow sensor has been activated. Cooling air shall be drawn through the dimmers and exhausted through the top of the pack. Since there is no air flow over any electrical connections in the dimmer, no filtration shall be required. Packs not using dimmer airflow channels and therefore requiring filters shall not be acceptable.

- E. The pack shall have 12 user-selectable control panic switches located on the signal distribution card in the pack. Packs without a panic feature or using non-reprogrammable panic selection devices such as clippable diodes shall not be acceptable.

- F. The pack shall have a lockable door with a maximum swing radius of 4-1/2" to prevent unauthorized access to dimmer and control modules. A blank label shall be provided inside the door and directly adjacent to each dimmer for user identification of each circuit.

- G. Both load and neutral terminals shall accept up to #2 AWG wire. Neutral terminals shall be located directly adjacent to load terminals for ease of contractor wiring.

- H. The rear of pack shall contain holes for 3/8" diameter bolts for simple contractor installation onto a wall. The location of holes shall be on 16" centers for two pack assemblies. Unistrut shall be used for assemblies with more than two racks.

- I. (Optional) The Pack shall be suitable for semi-recessed installation between studs on 16" centers. Mounting brackets and a trim frame shall be supplied.

### ELECTRICAL

- A. The pack shall be designed to operate from either 120 or 240 volts and either single or three phase power.

- B. The pack shall be factory-tested and control modules shall be burned in at elevated temperatures for a minimum of 4 hours. The pack shall be UL listed for 120V applications and shall have an interrupting capacity of 10,000 A.

Note: Specifications subject to change without notice.

## ENR WALL PACK

### Ordering Information

Catalog No.	Description
600-000	ENR Wall Pack, Configured Pack
600-003	ENR Wall Pack, 1.8kW/2.4kW, 120V, Standard Pack
600-013	ENR Wall Pack, 2.5kW, 240V Pack
600-906	Semi-Recessed Mounting Kit



Printed in U.S.A.

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1015 Chestnut St., Burbank, CA 91506-9983 • (818) 843-1200 • FAX: (818) 954-8520

40 B Commerce Way, Totowa, N.J. 07512 • (201) 256-7666 • FAX: (201) 256-0889

A Division of LEE Colortran, Inc. 400 Matheson Blvd. East, Unit 1, Mississauga, Ontario L4Z 1N8 • (416) 890-0935 • FAX: (416) 890-6261