

Automatic Receptacle Control Product Guide

Power
when you need it

Energy savings
when you don't



Load:Logic® Automatic Receptacle Control (ARC)



2017 National Electrical Code® Change

2017 section 406.3(E) requires that all nonlocking type 125-volt, 15- and 20-ampere receptacles, that are controlled by an automatic control device, or that incorporate control features that remove power from the receptacle for the purpose of energy management or building automation, shall be permanently marked with the following symbol (⏻) and the word “controlled.”

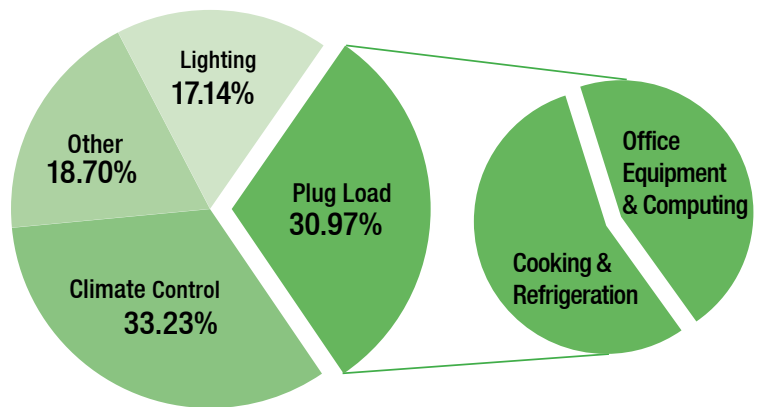
For receptacles controlled by an automatic control device, the marking shall be located on the receptacle face and visible after installation.

In both cases where a multiple receptacle device is used, the required marking of the word “controlled” and symbol shall denote which contact device(s) are controlled.

Advances in building construction and product technology have enabled building design to be more energy efficient than ever before. Until recently, HVAC systems and lighting presented the greatest opportunities for energy conservation. Designers and manufacturers have been implementing solutions to reduce the power consumption of these systems for decades. Office equipment, appliances and plug-in lighting loads are the next major area for potential reduction of energy consumption.

A 2002 study published by the Energy Information Administration (EIA) credits almost 40% of all energy consumption in commercial buildings to lighting. Today, that number is less than 17%. As plug load control occurs in the same space as lighting control, it is reasonable to use the same approach to manage both loads. While the space is in use, the receptacles need to remain ON and the lights need to be controlled per the occupant’s requirements.

Figure 1. Commercial Buildings Electricity Consumption



Electrical bill impact for a typical office building circa December 2013.



Controlling plug loads is the next logical step towards reducing energy consumption. Currently, roughly 31% of commercial electricity is attributed to plug loads. When devices such as lights, TVs, monitors, or computers are left ON and plugged in when not in use, they still use energy. Therefore, new codes and standards mandate certain electrical receptacles to be automatically controlled. This minimizes the risk associated with users who may forget to unplug or turn OFF equipment, resulting in reduced total energy consumption.

It is important to understand the requirements for automatic receptacle control applicable to a specific space. The overall intent of the codes and standards is to minimize wasted energy and to maximize efficiency. The objective is to control plug loads in specific spaces through the management of selected receptacles.

Tamper-Resistant Permanently Marked Receptacles for Automatic Receptacle Control

Hubbell permanently marked receptacles for automatic receptacle control are embossed with the universally recognized power symbol (⏻) and the word “controlled.” These markings clearly identify which convenience receptacles are turned OFF when the space is vacant. Print orientation allows “controlled” to be easily identified, regardless of the installation orientation.

The patented Hubbell Tamper-Resistant Mechanism eliminates the frustration and difficulty experienced using TR receptacles with plugs that have sharp, or bent blades. Hubbell TR receptacles work so well there is virtually no perceptible difference in the feel between the TR receptacles and our conventional non-TR receptacles. Trust Hubbell to deliver Tamper-Resistant protection that feels like it's not even there.



- *Patented design promotes easy plug insertion and minimizes TR issues*
- *Fed-Spec UL listing ensures proven performance in demanding applications*
- *Perfect for universities, schools and other institutional applications where safety and performance are critical*



Features

- » For use in NEC® locations requiring Tamper-Resistant receptacles
- » Best-in-class TR mechanism
- » Fed-Spec UL listed
- » Engineered, Designed, and Assembled in USA
- » Tested to UL Hospital Grade test standards for impact resistance and abrupt plug pull-out

Applications

- » Schools and Universities
- » Hotels and Convention Centers
- » Assisted Living Facilities
- » Transportation Centers
- » Military Barracks



2017 National Electrical Code® Change

2017 section 406.12 requires all non-locking 15- and 20-ampere, 125- and 250-volt receptacles in the areas specified in 406.12(1) through (7) shall be listed tamper-resistant receptacles.

- (1) Dwelling units in all areas specified in 210.52 and 550.13
- (2) Guestrooms and guest suites of hotels and motels
- (3) Child care facilities
- (4) Preschools and elementary education facilities
- (5) Business offices, corridors, waiting rooms and the like in clinics, medical and dental offices and outpatient facilities
- (6) Subset of assembly occupancies described in 518.2 to include places of waiting transportation, gymnasiums, skating rinks, and auditoriums
- (7) Dormitories.

Tamper-Resistant...**NOT** Plug Resistant™

Codes, Standards and Configurations

There are a number of key factors to consider before selecting the most cost effective solution:

- » Upgrading the existing control infrastructure vs. investing in a new one
- » Troubleshooting and maintenance concerns
- » Code compliance
- » The right technology (wired vs. wireless, or a combination)
- » Most importantly: the building, its occupants and its use.

Evaluating, setting clear expectations and selecting the most appropriate design strategy based on the above factors is paramount to a successful automatic receptacle control solution.

Hubbell provides occupancy and time based solutions that comply with these requirements, are cost effective and installer friendly. Our solutions are compatible with most third party control systems and can be mounted in the ceiling, in the wall, furniture feed, and are also offered in wired or wireless formats to accommodate every need.

ANSI/ASHRAE/IES Standard 90.1

Section 8.4.2, ASHRAE 90.1-2010 requires that in certain commercial spaces at least 50% of all 15- and 20-ampere 120V AC receptacles are to be controlled by either an occupancy sensor, a time of day control device, or by an automated signal from another control or alarm system.

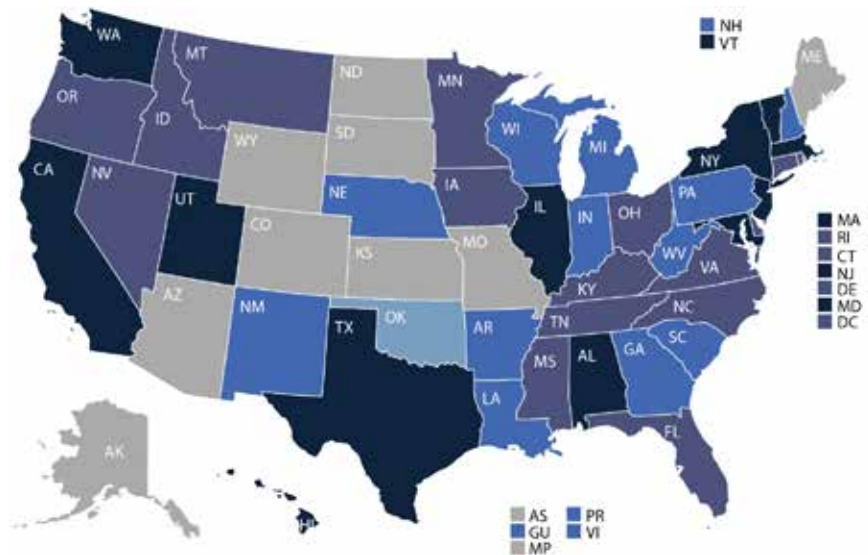
Certain requirements for ARC were updated in ASHRAE 90.1-2013. For example, the controlled receptacles must be distributed uniformly throughout the space.

California Energy Commission (CEC) Title 24, Part 6

Section 130.5(d) of the 2016 Building Efficiency Standards of the California Energy Commission Title 24, Part 6 requires at least one 15- or 20-ampere 120V AC controlled receptacle, or a split wired receptacle with at least one controlled and one uncontrolled receptacle, to be installed within 6 feet of each uncontrolled receptacle.

Where receptacles are installed in modular furniture in open office areas, at least one controlled receptacle shall be installed at each workstation. In the case of hotel and motel guest rooms, at least 50% of the receptacles must be controlled.

Figure 2. State-by-State ASHRAE 90.1 Revisions Adoption



As of April 2017, 29 states have adopted the 2010 or newer edition of the standard that requires ARC.

- Meets or exceeds ASHRAE Standard 90.1-2013 or equivalent (12)
- Meets or exceeds ASHRAE Standard 90.1-2007 or equivalent (15)
- No statewide code or predates ASHRAE Standard 90.1-2004 (11)
- Meets or exceeds ASHRAE Standard 90.1-2010 or equivalent (17)
- Meets or exceeds ASHRAE Standard 90.1-2004 or equivalent (1)

Figure 3. Ceiling Mounted Receptacle Controller

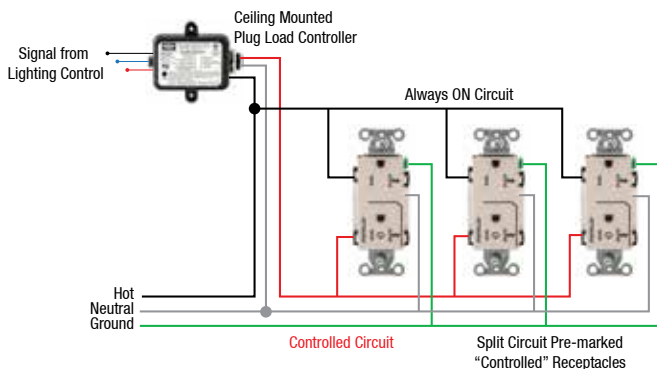
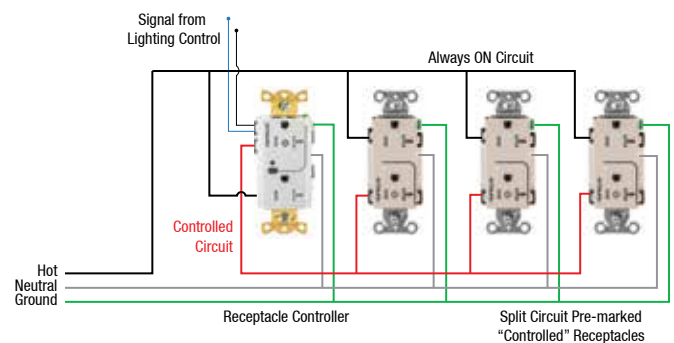


Figure 4. In-Box Wall Mounted Receptacle Controller



Wired

Switched Tamper-Resistant Receptacles for Automatic Receptacle Control

Description	Color	15A		20A	
		Split Circuit	Fully Controlled	Split Circuit	Fully Controlled
Auto ON/Auto OFF control. Capable of controlling additional receptacles downstream.	Black	HBL5262LC1BK	HBL5262LC2BK	HBL5362LC1BK	HBL5362LC2BK
	Brown	HBL5262LC1	HBL5262LC2	HBL5362LC1	HBL5362LC2
	Gray	HBL5262LC1GY	HBL5262LC2GY	HBL5362LC1GY	HBL5362LC2GY
	Green	HBL5262LC1GN	HBL5262LC2GN	HBL5362LC1GN	HBL5362LC2GN
	Ivory	HBL5262LC1I	HBL5262LC2I	HBL5362LC1I	HBL5362LC2I
	Lt. Almond	HBL5262LC1LA	HBL5262LC2LA	HBL5362LC1LA	HBL5362LC2LA
	White	HBL5262LC1W	HBL5262LC2W	HBL5362LC1W	HBL5362LC2W

Note: Special order for hospital grade devices.



HBL5362LC2W

Heavy Duty Control Unit

The CU300 series provides 24V DC power supply for sensors or sensor/Add-A-Relay combinations. The control units contain an internal relay for the control of an external load. Control units are plenum rated cULus Listed.

Description	Catalog Number
Auto or manual ON operation, 100-277V AC, 50/60Hz for use with 1 to 6 ATD, ATU, ATP, AHP and AD2240 series sensors, heavy duty latching relay for reactive loads and automatic receptacle control.	CU300HD
Auto or Manual ON operation, 100-277V AC 50/60Hz. Requires a CU300 series, heavy duty latching relay; suitable for automatic receptacle control applications.	AAR20P



CU300HD

Wireless

Switched Tamper-Resistant Receptacles for Automatic Receptacle Control

Description	Color	15A		20A	
		Split Circuit	Fully Controlled	Split Circuit	Fully Controlled
Wireless receiver Auto ON/Auto OFF. Capable of controlling additional receptacles downstream.	Black	HBL5262RFC1BK	HBL5262RFC2BK	HBL5362RFC1BK	HBL5362RFC2BK
	Brown	HBL5262RFC1	HBL5262RFC2	HBL5362RFC1	HBL5362RFC2
	Gray	HBL5262RFC1GY	HBL5262RFC2GY	HBL5362RFC1GY	HBL5362RFC2GY
	Green	HBL5262RFC1GN	HBL5262RFC2GN	HBL5362RFC1GN	HBL5362RFC2GN
	Ivory	HBL5262RFC1I	HBL5262RFC2I	HBL5362RFC1I	HBL5362RFC2I
	Lt. Almond	HBL5262RFC1LA	HBL5262RFC2LA	HBL5362RFC1LA	HBL5362RFC2LA
	White	HBL5262RFC1W	HBL5262RFC2W	HBL5362RFC1W	HBL5362RFC2W

Note: Special order for hospital grade devices.



HBL5262RFC1W

Heavy Duty Receptacle Load Controller with Wireless Transmitter

Transmits an occupancy status to a wireless receiver such as a switched receptacle or a control unit. Auto or Manual ON operation. Powers up to six low voltage sensors.

Description	Voltage	Catalog Number
Heavy duty control unit with Clear Connect®	100-277V AC	WLCU301



WLCU301

Heavy Duty Receptacle Load Controller with Wireless Receiver

Receive an occupancy status from a sensor or a transmitter and energize connected loads such as lighting or receptacles loads.

Description	Voltage	Catalog Number
Single (1) circuit heavy duty control unit with Clear Connect®	100-277V AC	WLC301
Dual (2) circuit heavy duty control unit with Clear Connect®	100-277V AC	WLC302



WLC301

Receptacle Load Controller for Furniture Feed Box and Wireless Receiver

Receive an occupancy status from a sensor or a transmitter and energize the connected receptacles loads. Mounts on an existing electrical junction box. Dual relay control excellent for office furniture partitions.

Description	Voltage	Catalog Number
Dual (2) circuit heavy duty furniture feed box with Clear Connect®	100-277V AC	WLC402W



WLC402W


Clear Connect® is a registered trademark of Lutron Electronics Co., Inc.



- ⏻ Permanent power symbol remains clearly visible after installation
- ⏻ Control both outlets per device for 100% controlled applications or one outlet for 50% controlled applications
- ⏻ Ideal for commercial buildings, retail, schools, hotel rooms
- ⏻ Part of the Hubbell Load:Logic® Load Control System

15 and 20 Ampere, 125 Volts


SNAPConnect® Permanently Marked Receptacles

Duplex	Color	One Controlled Face Split Circuit Hot Tab		Two Controlled Faces	
		15 Amp	20 Amp	15 Amp	20 Amp
SNAPConnect® standard duplex	Black	SNAP5262C1BK	SNAP5362C1BK	SNAP5262C2BK	SNAP5362C2BK
	Blue	SNAP5262C1BL	SNAP5362C1BL	SNAP5262C2BL	SNAP5362C2BL
	Brown	SNAP5262C1	SNAP5362C1	SNAP5262C2	SNAP5362C2
	Gray	SNAP5262C1GY	SNAP5362C1GY	SNAP5262C2GY	SNAP5362C2GY
	Green	SNAP5262C1GN	SNAP5362C1GN	SNAP5262C2GN	SNAP5362C2GN
	Ivory	SNAP5262C1I	SNAP5362C1I	SNAP5262C2I	SNAP5362C2I
	Lt. Almond	SNAP5262C1LA	SNAP5362C1LA	SNAP5262C2LA	SNAP5362C2LA
	Red	SNAP5262C1R	SNAP5362C1R	SNAP5262C2R	SNAP5362C2R
	White	SNAP5262C1W	SNAP5362C1W	SNAP5262C2W	SNAP5362C2W
SNAPConnect® Tamper-Resistant, standard duplex	Black	SNAP5262C1BKTRA	SNAP5362C1BKTRA	SNAP5262C2BKTRA	SNAP5362C2BKTRA
	Brown	SNAP5262C1TRA	SNAP5362C1TRA	SNAP5262C2TRA	SNAP5362C2TRA
	Gray	SNAP5262C1GYTRA	SNAP5362C1GYTRA	SNAP5262C2GYTRA	SNAP5362C2GYTRA
	Green	SNAP5262C1GNTRA	SNAP5362C1GNTRA	SNAP5262C2GNTRA	SNAP5362C2GNTRA
	Ivory	SNAP5262C1ITRA	SNAP5362C1ITRA	SNAP5262C2ITRA	SNAP5362C2ITRA
	Lt. Almond	SNAP5262C1LATRA	SNAP5362C1LATRA	SNAP5262C2LATRA	SNAP5362C2LATRA
	White	SNAP5262C1WTRA	SNAP5362C1WTRA	SNAP5262C2WTRA	SNAP5362C2WTRA



SNAP5262C2LATRA

Style Line® Decorator

Style Line® Decorator	Color	One Controlled Face Split Circuit Hot Tab		Two Controlled Faces	
		15 Amp	20 Amp	15 Amp	20 Amp
SNAPConnect® decorator duplex	Black	SNAP2152C1BK	SNAP2162C1BK	SNAP2152C2BK	SNAP2162C2BK
	Blue	SNAP2152C1BL	SNAP2162C1BL	SNAP2152C2BL	SNAP2162C2BL
	Brown	SNAP2152C1	SNAP2162C1	SNAP2152C2	SNAP2162C2
	Gray	SNAP2152C1GY	SNAP2162C1GY	SNAP2152C2GY	SNAP2162C2GY
	Green	SNAP2152C1GN	SNAP2162C1GN	SNAP2152C2GN	SNAP2162C2GN
	Ivory	SNAP2152C1I	SNAP2162C1I	SNAP2152C2I	SNAP2162C2I
	Lt. Almond	SNAP2152C1LA	SNAP2162C1LA	SNAP2152C2LA	SNAP2162C2LA
	Red	SNAP2152C1R	SNAP2162C1R	SNAP2152C2R	SNAP2162C2R
	White	SNAP2152C1W	SNAP2162C1W	SNAP2152C2W	SNAP2162C2W
SNAPConnect® Tamper-Resistant, decorator duplex	Black	SNAP2152C1BKTRA	SNAP2162C1BKTRA	SNAP2152C2BKTRA	SNAP2162C2BKTRA
	Brown	SNAP2152C1TRA	SNAP2162C1TRA	SNAP2152C2TRA	SNAP2162C2TRA
	Gray	SNAP2152C1GYTRA	SNAP2162C1GYTRA	SNAP2152C2GYTRA	SNAP2162C2GYTRA
	Green	SNAP2152C1GNTRA	SNAP2162C1GNTRA	SNAP2152C2GNTRA	SNAP2162C2GNTRA
	Ivory	SNAP2152C1ITRA	SNAP2162C1ITRA	SNAP2152C2ITRA	SNAP2162C2ITRA
	Lt. Almond	SNAP2152C1LATRA	SNAP2162C1LATRA	SNAP2152C2LATRA	SNAP2162C2LATRA
	White	SNAP2152C1WTRA	SNAP2162C1WTRA	SNAP2152C2WTRA	SNAP2162C2WTRA



SNAP2162C1W

SNAPConnect® Right Angle Pigtailed Connector

Description	Solid Wire	Stranded Wire
Clear right angle terminal with 6 inch leads, 600V, #12 AWG THHN/THWN-2; Polycarbonate housing material.	SNAP1RA	SNAP2RA



SNAP1RA

15 and 20 Ampere, 125 Volts

Industrial Grade, Permanently Marked Tamper-Resistant Receptacles

Duplex	Color	One Controlled Face Split Circuit Hot Tab		Two Controlled Faces	
		15 Amp	20 Amp	15 Amp	20 Amp
Smooth nylon face, duplex, back and side wired.	Black	HBL5262C1BLKTR	HBL5362C1BLKTR	HBL5262C2BLKTR	HBL5362C2BLKTR
	Blue	HBL5262C1BLTR	HBL5362C1BLTR	HBL5262C2BLTR	HBL5362C2BLTR
	Brown	HBL5262C1TR	HBL5362C1TR	HBL5262C2TR	HBL5362C2TR
	Gray	HBL5262C1GRYTR	HBL5362C1GRYTR	HBL5262C2GRYTR	HBL5362C2GRYTR
	Ivory	HBL5262C1ITR	HBL5362C1ITR	HBL5262C2ITR	HBL5362C2ITR
	Lt. Almond	HBL5262C1LATR	HBL5362C1LATR	HBL5262C2LATR	HBL5362C2LATR
	Red	HBL5262C1RTR	HBL5362C1RTR	HBL5262C2RTR	HBL5362C2RTR
	White	HBL5262C1WHITR	HBL5362C1WHITR	HBL5262C2WHITR	HBL5362C2WHITR



HBL5362C2LATR

Permanently Marked Receptacles

Duplex	Color	One Controlled Face Split Circuit Hot Tab		Two Controlled Faces	
		15 Amp	20 Amp	15 Amp	20 Amp
Smooth nylon face, duplex, back and side wired.	Black	BR15C1BLK	BR20C1BLK	BR15C2BLK	BR20C2BLK
	Blue	BR15C1BL	BR20C1BL	BR15C2BL	BR20C2BL
	Brown	BR15C1	BR20C1	BR15C2	BR20C2
	Gray	BR15C1GRY	BR20C1GRY	BR15C2GRY	BR20C2GRY
	Green	BR15C1GN	BR20C1GN	BR15C2GN	BR20C2GN
	Ivory	BR15C1I	BR20C1I	BR15C2I	BR20C2I
	Lt. Almond	BR15C1LA	BR20C1LA	BR15C2LA	BR20C2LA
	Red	BR15C1R	BR20C1R	BR15C2R	BR20C2R
Smooth nylon face, Tamper-Resistant, duplex, back and side wired.	White	BR15C1WHI	BR20C1WHI	BR15C2WHI	BR20C2WHI
	Black	BR15C1BLKTR	BR20C1BLKTR	BR15C2BLKTR	BR20C2BLKTR
	Blue	BR15C1BLTR	BR20C1BLTR	BR15C2BLTR	BR20C2BLTR
	Brown	BR15C1TR	BR20C1TR	BR15C2TR	BR20C2TR
	Gray	BR15C1GRYTR	BR20C1GRYTR	BR15C2GRYTR	BR20C2GRYTR
	Green	BR15C1GNTR	BR20C1GNTR	BR15C2GNTR	BR20C2GNTR
	Ivory	BR15C1ITR	BR20C1ITR	BR15C2ITR	BR20C2ITR
	Lt. Almond	BR15C1LATR	BR20C1LATR	BR15C2LATR	BR20C2LATR
	Red	BR15C1RTR	BR20C1RTR	BR15C2RTR	BR20C2RTR
	White	BR15C1WHITR	BR20C1WHITR	BR15C2WHITR	BR20C2WHITR



BR15C1WHI

Style Line® Decorator

Smooth nylon face, decorator duplex, back and side wired.	Black	DR15C1BLK	DR20C1BLK	DR15C2BLK	DR20C2BLK
	Blue	DR15C1BL	DR20C1BL	DR15C2BL	DR20C2BL
	Brown	DR15C1	DR20C1	DR15C2	DR20C2
	Gray	DR15C1GRY	DR20C1GRY	DR15C2GRY	DR20C2GRY
	Green	DR15C1GN	DR20C1GN	DR15C2GN	DR20C2GN
	Ivory	DR15C1I	DR20C1I	DR15C2I	DR20C2I
	Lt. Almond	DR15C1LA	DR20C1LA	DR15C2LA	DR20C2LA
	Red	DR15C1R	DR20C1R	DR15C2R	DR20C2R
Smooth nylon face, Tamper-Resistant, decorator duplex, back and side wired.	White	DR15C1WHI	DR20C1WHI	DR15C2WHI	DR20C2WHI
	Black	DR15C1BLKTR	DR20C1BLKTR	DR15C2BLKTR	DR20C2BLKTR
	Blue	DR15C1BLTR	DR20C1BLTR	DR15C2BLTR	DR20C2BLTR
	Brown	DR15C1TR	DR20C1TR	DR15C2TR	DR20C2TR
	Gray	DR15C1GRYTR	DR20C1GRYTR	DR15C2GRYTR	DR20C2GRYTR
	Green	DR15C1GNTR	DR20C1GNTR	DR15C2GNTR	DR20C2GNTR
	Ivory	DR15C1ITR	DR20C1ITR	DR15C2ITR	DR20C2ITR
	Lt. Almond	DR15C1LATR	DR20C1LATR	DR15C2LATR	DR20C2LATR
	Red	DR15C1RTR	DR20C1RTR	DR15C2RTR	DR20C2RTR
	White	DR15C1WHITR	DR20C1WHITR	DR15C2WHITR	DR20C2WHITR



DR15C2GRYTR

Permanent Controlled Receptacle Label

Description	Catalog Number
For use in retrofit applications where indication of a controlled receptacle is required. This label is UL approved for marking and labeling. 60 labels of each per pack.*	CL60

*Note: Complies with 2014 NEC®

Automatic Receptacle Control

Product Guide

Online Resources

The Hubbell Wiring Device-Kellems website offers fast and convenient information through our online catalog, technical support, videos and more. The website also features a landing page on energy savings. Visit www.hubbell.com.

Literature Support

Hubbell offers an extensive literature library for product support. Downloadable PDFs are available online.



Hubbell Wiring Device-Kellems
Full Line Catalog



Tamper-Resistant Receptacles



Hubbell Load:Logic®
Control Panels



Hubbell Load:Logic®
Room Controller