

HUBBELL® HEALTHCARE Application Guide

When Safety, Reliability and Performance Matter

EMERGENCY

Emergency
Patient Parking
in Entrance
Physician
Parking



Think Healthcare.
Think HUBBELL.



Hubbell Healthcare Application Guide

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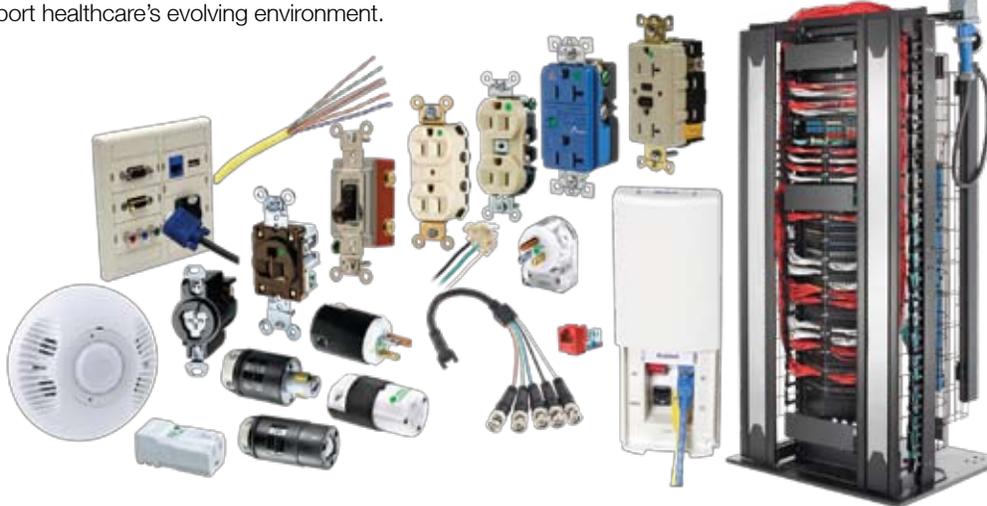
The Hubbell Healthcare Story

When reliability and performance matter

Our Ongoing Commitment

A lot has changed since Hubbell conceptualized the “Hospital Grade” standard back in the early 1970s to identify and ensure product performance for the hospital environment. The healthcare industry has experienced an evolution with several breakthroughs in sophisticated medical technologies and digital initiatives that are improving the quality of healthcare.

The environment may have changed, but Hubbell’s commitment has not. Whether it’s new digital diagnostic imaging equipment, mobile monitoring devices, state-of-the-art robotic surgery, or network communications, Hubbell understands that healthcare is where safety, reliability and performance matters most. That’s why we remain committed to developing superior products designed to support healthcare’s evolving environment.



Ensuring Maximum Sustainability

Hubbell recognizes that today’s healthcare facilities also have a need to improve efficiency and cut costs for maximum sustainability. These facilities have a long building lifespan, often expected to last for decades. At the same time, changes and upgrades in the healthcare environment are complex due to their 24/7 operation and strict regulations and codes. To ensure maximum sustainability, Hubbell devices and networking products support today’s more efficient healthcare operations while providing value, unmatched performance and extended lifespan to better match the building’s infrastructure lifecycle.

From the ICU to the Datacenter

With operating rooms, intensive care units, patient rooms and diagnostic centers, healthcare facilities include a wide range of complex spaces and applications for treating patients. These facilities also must serve a variety of visitors, care givers, administration and maintenance staff. Common areas, nurse stations, offices, conference rooms, kitchens and maintenance areas also all have their own unique needs. Whether it’s in a hospital or outpatient facility, Hubbell understands the equipment, applications and challenges of delivering power and communications in every healthcare environment—and we have the breadth of products to ensure safety, reliability and performance.



Durability



Energy Savings



Convergence



Bandwidth



Safety

More than Just a “Green Dot”



Hospital Grade is the receptacle of choice when specifying devices for healthcare. But while the little green dot signifies UL compliance, hospital grade devices are not all the same. Hubbell created the green dot and has been providing maximum value for healthcare facilities ever since.

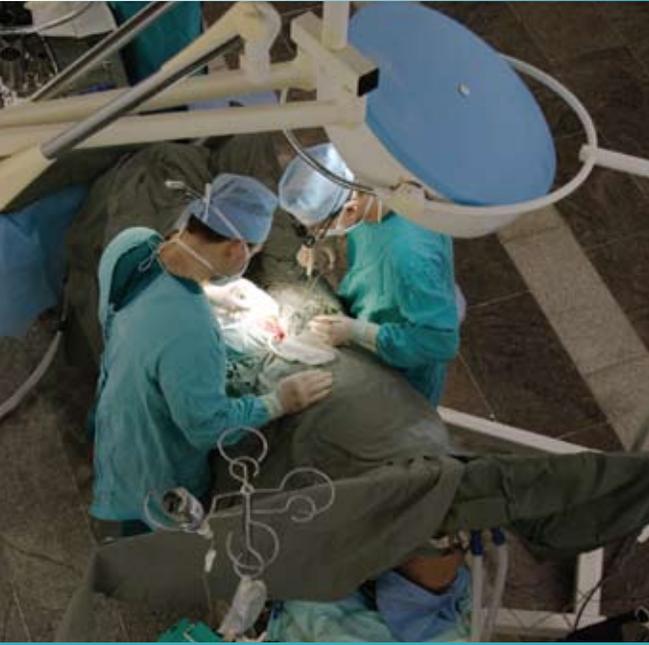
The TIA proposed healthcare standard



The TIA (Telecommunications Industry Association) recommends the following work area port count for each designated space. Each space has a low, medium and high range for the number of connections recommended for each work area (WA). When designing for specific areas, it is recommended to select a number between the mid point and the upper range to satisfy the application specific data and bandwidth requirements.

- L = Low: 2 to 6 outlets
- M = Medium: 6 to 14 outlets
- H = High: > 14 outlets

HOSPITAL FACILITIES



Durability

Through years of innovation and a commitment to superior quality, Hubbell devices maintain their performance regardless of how many times equipment is connected or disconnected.



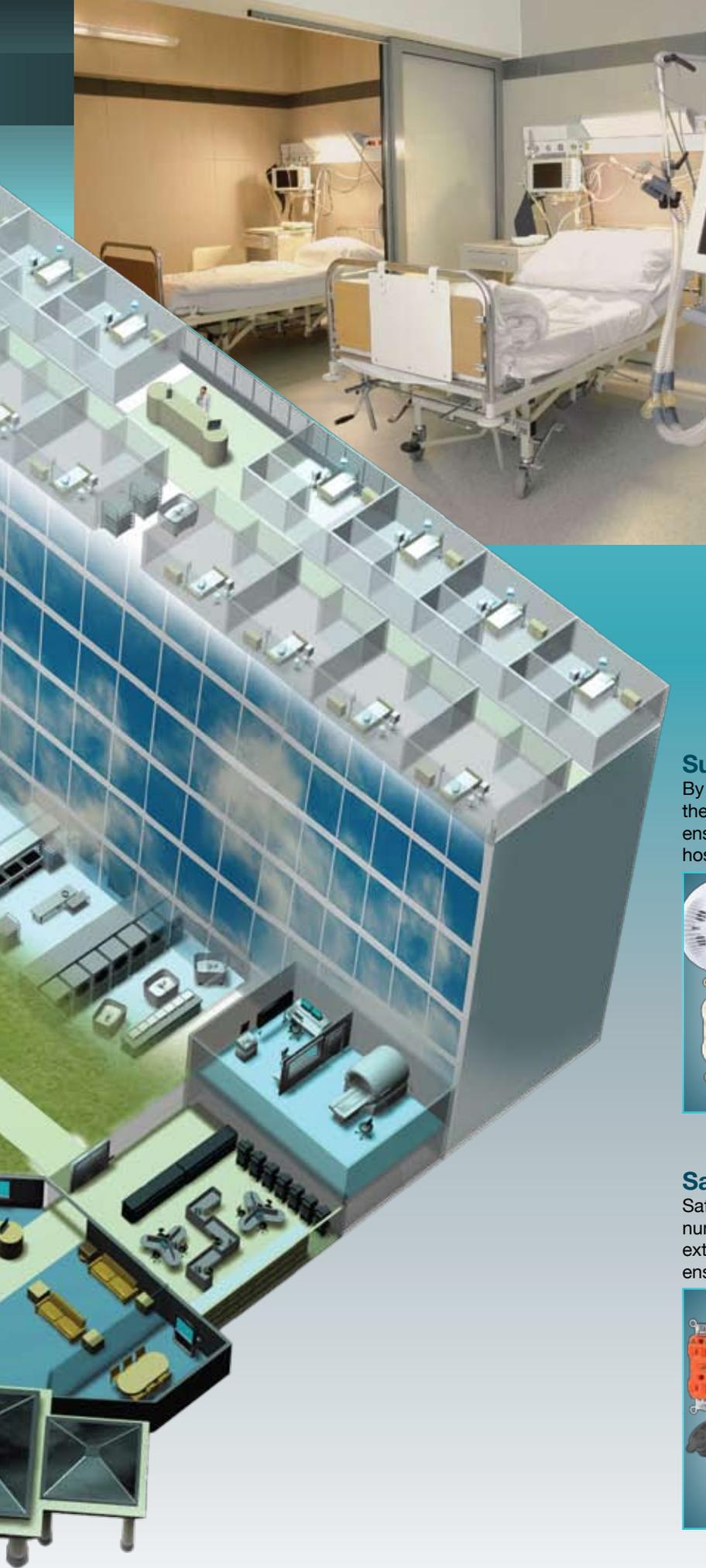
- Hospital Grade Receptacles
- Switches
- Hubbell Insulgrip® Plugs and Connectors
- Pin and Sleeve Devices
- NextSpeed® Copper Systems
- OptiChannel™ Fiber Systems

Performance

Hospitals are depended on for the reliability of their services, procedures and patient care. Hubbell devices ensure the reliability that hospitals and healthcare workers need for complete peace of mind.



- iFRAME® Data Center Solutions
- NextSpeed® Ascent Category 6A
- OptiChannel™ Keyed LC Solutions
- Hubbellock® Plugs and Receptacles
- Twist-Lock® Devices
- Watertight Plugs and Connectors



Sustainability

By providing energy savings, ease of installation and the ability to reuse and reconfigure systems, Hubbell ensures maximum value and sustainability for today's hospital facilities.



- Occupancy and Daylight Sensors
- Hubbell SNAPConnect™ Receptacles
- Hubbell SystemOne Floor Boxes and Fire-Rated Poke-Throughs
- Surface Raceway
- BIDnet™ Copper and Fiber Pre-Terminated Assemblies
- iSTATION™ Audio/Video Connections

Safety

Safety of patients, visitors and healthcare workers is a number one concern for hospitals. Hubbell takes safety extremely seriously, providing a variety of products that ensure superior protection of people and property.



- Tamper-Resistant Receptacles
- GFCI and Isolated Ground Receptacles
- Motor Disconnects
- TredTrak® and AccessTrak®
- Watertight Plugs and Connectors

HEALTHCARE FACILITIES



Durability

Outpatient healthcare facilities require the same level of performance as hospitals. Hubbell products provide that performance.



- Hospital Grade Receptacles
- Switches
- Insulgrip® Plugs and Connectors
- NextSpeed® Jacks and Panels
- RE-Box® and Wall Mount Cabinets

Performance

Large healthcare networks depend on the reliability of the infrastructure in their outpatient facilities to accomplish diagnostics and testing. Hubbell products are designed to ensure application assurance and provide maximum reliability inside these critical environments.



- Hubbellock® Plugs and Receptacles
- Twist-Lock® Devices
- Hospital Grade Surge Receptacles
- 50A Straight Blade Devices
- NextSpeed® Ascent Category 6A
- OptiChannel™ Keyed LC Connectivity Systems



Sustainability

There are many opportunities to maximize energy efficiency and control cost in outpatient healthcare facilities. Hubbell provides several sustainable solutions that ensure maximum value.



- Occupancy and Daylight Sensors
- Hubbell SNAPConnect™
- Hubbell SystemOne Floor Boxes and Fire-Rated Poke-Throughs
- Surface Raceway
- BIDnet™ Copper and Fiber Assemblies
- iSTATION™ Audio Video Products

Safety

Different outpatient facilities serve different types of patients. Pediatric and psychiatric clinics benefit from tamper-resistant receptacles and datacom plates while bathrooms and other wet locations must be GFCI protected. Hubbell products ensure maximum safety to meet these requirements.



- Tamper-Resistant Receptacles
- GFCI Receptacles
- Illuminated Switches
- TrukTrak® and AccessTrak®
- RE-Box® Equipment Cabinets
- Secure-IT™ Tamper-Resistant Face Plates



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Critical Care

Critical care spaces in a healthcare facility require 100% reliable power and data connections without interruptions. These demanding 24/7 environments encounter significant abuse such as abrupt plug removal and numerous insertions, being impacted with carts, beds and gurneys, exposure to harsh cleaning disinfectants—all of which can contribute to damage.

Hubbell products are put through comprehensive rigorous UL, TIA, IEEE and ETL testing, to meet requirements above and beyond the standards providing the industry with one of the highest performing most reliable devices.

Emergency Power Circuits

Emergency systems that supply power in the event of an outage must be identified according to the National Electric Code (NEC®) Article 517.30(E). Hubbell offers receptacles and wall plates in a distinct color red and a selection of wall plates clearly marked “EMERGENCY” to meet this requirement.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Critical Care**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
ICU	High Station	>14 in each WA
Neonatal ICU	High Station	>14 in each WA
Recovery	High Station	>14 in each WA

HBL8200 Series Hospital Grade Receptacles



- Exclusive nickel-plated bypass power contact design ensures uninterrupted power
- Four-point grounding system provides redundant grounding for low resistance to fault currents
- Deep body design and one-piece nickel plated brass ground strap provide impact and corrosion resistance

NEXTSPEED® Ascent Category 6A Jacks



- TIA and ISO category 6A component compliance
- Labor savings: exclusive 1-punch termination reduces termination time by 75%
- Mating cycles exceed industry standard by two times

NEC® is a registered trademark of the National Fire Protection Association (NFPA).

Ordering Information



HBL8200 Series Hospital Grade Receptacles

NEMA	Rating	Color	Duplex Receptacle		Illuminated Duplex Receptacle		Single Receptacle	
			Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Grainger #
	15A 125V	Ivory	HBL8200I	5A078	HBL8200ILI	3D283	HBL8210I	3D286
		Red	HBL8200R	5Z823	HBL8200ILR	3D284	HBL8210R	4D045
		White	HBL8200W	3D285	HBL8200ILW	2LBX3	HBL8210W	2LBX5
		Brown	HBL8200	1XC01	—	—	HBL8210	5Z821
		Gray	HBL8200GY	5Z825	HBL8200ILGY	2LBX2	HBL8210GY	2LBX4
	20A 125V	Ivory	HBL8300I	5A084	HBL8300ILI	3D289	HBL8310I	3D292
		Red	HBL8300R	5Z824	HBL8300ILR	3D290	HBL8310R	3D293
		White	HBL8300W	3D291	HBL8300ILW	2LBX8	HBL8310W	4D065
		Blue	HBL8300BL	—	—	—	—	—
		Brown	HBL8300	1XC02	—	—	HBL8310	5Z822
Gray	HBL8300GY	5Z826	HBL8300ILGY	2LBX7	HBL8310GY	2LBX9		

The NEXTSPEED® Ascent Category 6A jack

Description	Hubbell #
1 per Bag/Carton of 25.	HJ6Axx
25 per Bag/Carton of 1	HJ6Axx25

xx=color: AL (Almond), BK (Black), B (Blue), EI (Electric Ivory), GL (Gold), GY (Gray), GN (Green), OW (Office White), OR (Orange), P (Purple), R (Red), TI (Telco Ivory), W (White) and Y (Yellow)

Hubbell Healthcare Application Guide

ICU and Operating Rooms

Like critical care areas, the ICU and operating rooms in a healthcare facility require 100% reliable connections for the highly advanced electronic equipment, like monitoring devices, portable imaging equipment, and various networking connections—all of which require safe, reliable power, and extended bandwidth to ensure uninterrupted performance.

These sterile environments are also subject to strong disinfectants and harsh cleaners that can degrade some plastics and cause corrosion. Hubbell Hospital Grade devices are engineered to provide the highest degree of durability.

Insulgrip® Hospital Grade Plugs and Connectors



- Ribbed nylon housing is impact and chemical resistant
- Powerful cord grip prevent conductor slippage and strain on terminals
- Integral VARI-SIZE® insert adjusts to a wide range of cord sizes

SSF Stainless Steel Plates



- Superior corrosion resistance
- Designed to fit iSTATION™ modules and AV connectors
- Ease of use: front and rear-loading capabilities improves tamper resistance



Power and Communication

New advances in healthcare technology require reliable network and communications systems for surgeons and healthcare workers to quickly access the information they need and contact their peers in an emergency situation.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Surgery/Procedure/Operating Rooms**
Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Operating Room	High Station	>14 in each WA
ICU	High Station	>14 in each WA

Ordering Information

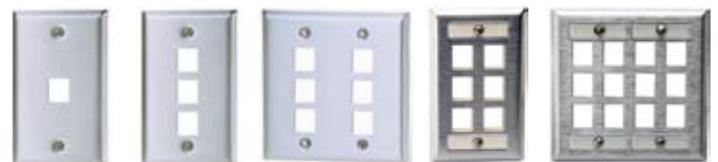


Straight Blade Plugs and Connectors

Amps	NEMA Rating	Poles/Wires	Description	Plug		Angled Plug		Connector	
				Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Grainger #
15A 125V	5-15	2-Pole	Black/White	HBL8215C	5A076	—	—	HBL8219C	5A077
			Transparent Valise; white	HBL8215CT	6C627	HBL8215CAT	5Z869	HBL8219CT	6C628
			HBL8115V	5Z871	—	—	HBL8119V	5Z874	
20A 125V	5-20	2-Pole	Black/White	HBL8315C	5Z868	—	—	HBL8319C	5Z873
			Transparent Valise; white	HBL8315CT	6C629	HBL8315CAT	5Z870	HBL8319CT	2LBY1
			HBL8364V	2LBY2	—	—	—	—	

SSF Stainless Steel Plate

Gang	Ports	Hubbell #	Grainger #	With Label Field Hubbell #
Single Gang	1	SSF11	6MK51	SSFL11
	2	SSF12	6MK52	SSFL12
	3	SSF13	6MK53	SSFL13
	4	SSF14	6MK54	SSFL14
	6	SSF16	—	SSFL16
Two Gang	4	SSF204	—	SSFL204
	6	SSF206	6MK56	SSFL206
	9	SSF209	—	SSFL209
	12	SSF212	—	SSFL212



All SSF plates will accept AV keystone connectors and XCELERATOR™ jacks.

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Patient Rooms



Patient rooms are now filled with many electronic devices that need various styles of Audio, Video, LAN, PoE and power connections. While the reliability of monitoring care equipment is the primary concern, functionality, safety and aesthetics are also needed. Hubbell's tamper-resistant receptacles protect people, illuminated devices help patients and staff locate switches and receptacles, and Style Line® Decorator devices match room décor.

To help healthcare facilities get spaces up and running faster or facilitating moves, adds and changes, Hubbell's SNAPConnect™ receptacles and iSTATION™ work area solutions save significant termination time while providing a fast and consistent installation every time.

The Digital Age

Patient rooms require more Data and AV connections than ever before. Everything from video distribution, specialty equipment connections to wireless access points and multiple LAN connections are being integrated into these spaces. Also ensures healthcare workers have immediate access to electronic health records and effective means of communicating.

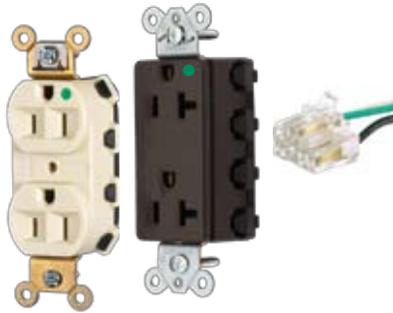
TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Patient Rooms**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Patient Room	High Station	>14 in each WA

SNAPConnect™ Hospital Grade Receptacles



- Fast, easy installation with SNAPConnect™ modular terminal instead of pigtails
- Clear terminal housing with no exposed live parts
- Compact size with a clean finished look

iSTATION™ Plates and Modules



- High density capabilities
- Pre-terminated X-END™ assemblies eliminate field termination on job site
- Supports multiple applications and connector configurations

Ordering Information



SNAPConnect™ Receptacles

Rating	NEMA	Color	Duplex Receptacle		Style Line® Decorator Hubbell #
			Hubbell #	Grainger #	
	15A 125V	Ivory	SNAP8200I	1TFZ9	SNAP2172I
		Red	SNAP8200R	1TGA2	SNAP2172R
		White	SNAP8200W	1TGA3	SNAP2172W
	20A 125V	Ivory	SNAP8300I	1TGA8	SNAP2182I
		Red	SNAP8300R	1TGB1	SNAP2182R
		White	SNAP8300W	1TGB2	SNAP2182W

Pigtail Terminals



Description	Straight		Right Angle Hubbell #
	Hubbell #	Grainger #	
Clear terminal w/ 6-inch leads solid wire	SNAP6R1	1TFZ6	SNAP1R
Clear terminal w/ 6 inch leads stranded wire	SNAP6R2	1TFZ7	SNAP2R

iSTATION™ Modular Face Plate Frames

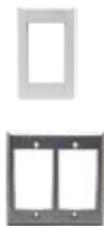
Description	Gang	Hubbell #
Front loading frame	1	IMF1xx
	2	IMF2xx

iSTATION™ Stainless Steel Plates

Description	Gang	Catalog No.
Front loading frame; stainless steel	1	IMS1
	2	IMS2
	3	IMS3
	4	IMS4

The IMF/IMS series accept any modules in 3 unit combinations for 1-gang; and 6 unit combinations for 2-gang applications.

xx=color: AL (Almond), BK (Black), EI (Electric Ivory), GY (Gray), LA (LightAlmond), OW (Office White) and W (White)



iSTATION™ Unloaded Modules

Description	Hubbell #
Keystone; 1-port; 1 Unit	IM1K1xx
Keystone; 2-port; 1 Unit	IM2K1xx
SC Angled; 1-duplex; 1.5 unit	IM1SCA15xx
SC Angled; 2-duplex; 2 unit	IM2SCA2xx

iSTATION™ Modules Blank 15-pin/9-pin HDMI

Description	Hubbell #
HD15/9-pin or HDMI; 1 unit	IMBDS1xx
w/ 3.5mm Stereo Jack; 1.5 unit	IMBDSA15xx
w/ 3.5mm SJ+AV Conn; 2 unit	IMB153X2xx

xx=color: AL (Almond), BK (Black), EI (Electric Ivory), GY (Gray), LA (LightAlmond), OW (Office White) and W (White)



Restroom Areas

With a restroom in every patient room and throughout staff and public areas, hospitals and healthcare facilities can contain hundreds of restrooms. Required by code, receptacles in any wet area must be a ground fault circuit interrupter. Many healthcare restrooms require hospital grade GFCIs while others can use commercial-grade GFCIs. From extra heavy duty hospital grade and commercial receptacles to tamper-resistant, auto grounding and self test units, Hubbell has the GFCIs needed for restrooms and any other potentially wet areas in healthcare facilities.

In addition restrooms are an ideal area for motion sensing lighting controls. Hubbell has a complete offering of ultrasonic ceiling and wall sensors for turning lights off when restrooms are unoccupied.

Hospital Grade GFCI Receptacles



- Ground fault indicator flashes red when device has lost capability to provide protection
- Test button functionally tests both electronic components and trip mechanism
- No power at device face if reverse wired, eliminating false assumption of protection

Ultrasonic Occupancy Sensors



- Active ultrasonic sensing provides superior minor motion sensitivity, even in stalls
- Adaptive Technology automatically adjusts sensor settings for optimum performance
- Use optional isolated relay to integrate with building automation and HVAC systems



GFCI Safety Code

The combination of GFCI protection and tamper-resistant safety provides an ideal “one-stop” Hubbell solution. Hubbell tamper-resistant GFCI devices also include a weather resistant rating per NEC® 406.8, providing UV and corrosion resistance for harsh, damp applications.

While GFCIs protect people in bathrooms, scrub rooms, kitchenettes and other potentially wet locations throughout healthcare facilities, they should not be used in critical care patient areas or for electrical life support equipment in ICUs and operating rooms because of the possibility of power interruption.

NEC® is a registered trademark of the National Fire Protection Association (NFPA).

Ordering Information

GFCI Receptacles



Rating	NEMA	Color	Tamper-Resistant/Weather Resistant				
			AUTOGUARD™ Self Test		Circuit Guard®		
			Hubbell #	Grainger #	Hubbell #	Hubbell #	Grainger #
	15A 125V	Ivory	GFR8200SGI	2GLY9	GFR8200HITR	GFR8200HILA	2XB87
		Red	GFR8200SGR	2GLZ3	GFR8200HRTR	GFR8200HRLA	1GDL4
		White	GFR8200SGW	2GLZ1	GFR8200HWTR	GFR8200HWLA	2XB88
	20A 125V	Ivory	GFR8300SGI	2GLZ6	GFR8300HITR	GFR8300HILA	2XB90
		Red	GFR8300SGR	2GLZ9	GFR8300HRTR	GFR8300HRLA	1GDL6
		White	GFR8300SGW	2GLZ7	GFR8300HWTR	GFR8300HWLA	2XB91

Style Line® Decorator Receptacles

Rating	NEMA	Color*	Duplex Receptacle		Isolated Ground Receptacle	
			Hubbell #	Grainger #	Hubbell #	Grainger #
	15A 125V	Ivory	HBL2172I	5Z853	—	—
		Red	HBL2172R	3D531	—	—
		White	HBL2172WA	5Z854	—	—
	20A 125V	Ivory	HBL2182I	5Z855	IG2182I	—
		Red	HBL2182R	3D535	—	—
		White	HBL2182WA	5Z856	IG2182WA	4D314
		Orange	—	—	IG2182	—

Occupancy Sensor

Description	Color	Hubbell #	Grainger #
Ultrasonic Adaptive Technology, Ivory wall switch w/o button, 400 sq. ft.	Ivory	AU127711N	1MEA3
	White	AU1277W1N	1MEA4
Ultrasonic Adaptive Technology, White ceiling sensor, 2000 sq. ft.	White	ATU2000C	1ND62
Control unit; 120/277V AC, 50/60 Hz; for use with ceiling sensors		CU300A	2YCJ4

Hubbell Healthcare Application Guide

Nurse's Station



Nurse's stations are the command center for each patient care area within a healthcare facility. Here it is crucial to maintain accurate and timely records, pharmacy requests, wireless nurse call systems and intra-hospital communication. This requires a high level of network connectivity and power reliability.

As more computers are deployed, the need to protect them against transient voltage surges is critical. Hubbell carries a complete line of the latest copper and fiber datacom network solutions as well as an entire line of surge protective devices that provide superior point-of-use protection from voltage surges where sensitive electronic equipment is deployed.

Electronic Health Records

More and more, healthcare is moving toward electronic communication and records. All patient records, test results, pharmacy requests and doctors' care orders are being logged and transferred electronically, requiring both high-performance network transmission and data protection. Hubbell offers the very latest network solutions that provide the highest bandwidth and reliability available.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Patient Rooms**

Area	Workstation	LAN Connections
Nurses Stations	High Station	>14 in each WA
Registration	Medium Station	6-14 in each WA

Surge Protection and Isolated Ground Hospital Grade Devices



Isolated Ground

- Isolates ground contacts from the mounting strap
- Green grounding screw connected directly to grounding contacts

Surge Protection Receptacles

- Green LED on surge protection receptacle indicates power is "on" and device is actively protecting against voltage surges

NEXTSPEED® and SPEEDGAIN® Category 6, 5e, 3, and USOC Jacks



- Industry's first tested Category 6 component compliant jack
- Labor savings: exclusive 1-punch termination reduces termination time by 75%
- Mating cycles exceed industry standards by two times
- Bulk packaged to eliminate excess packing waste

Ordering Information



Surge Protection Receptacles

NEMA	Rating	Color*	Duplex		Isolated Ground		4-PLEX®	Duplex		Style Line® Decorator	
			Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Hubbell #	Grainger #	Hubbell #	Grainger #
	15A 125V	Blue	HBL8262SA	—	IG8262SA	—	—	—	—	—	—
		Ivory	HBL8262ISA	—	IG8262ISA	—	—	—	—	—	—
		Red	HBL8262RSA	—	IG8262RSA	—	—	IG8200R	2LBY5	—	—
		Orange	—	—	IG8262OSA	—	—	IG8200	5Z827	—	—
		White	HBL8262WSA	—	IG8262WSA	—	—	—	—	—	—
	20A 125V	Blue	HBL8362SA	6C136	IG8362SA	3D407	HBL420HS	IG8300	5Z828	—	—
		Ivory	HBL8362ISA	3D287	IG8362ISA	4D331	HBL420HIS	—	—	IG2182I	—
		Red	HBL8362RSA	—	IG8362RSA	—	—	IG8300R	2LBY6	—	—
		Orange	—	—	IG8362OSA	—	—	—	—	IG2182	—
		White	HBL8362WSA	—	IG8362WSA	—	—	—	—	IG2182WA	4D314

XCELERATOR™ Jacks



Color	Category 6		Category 5e		Category 3	6-Position USOC	
	Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Hubbell #	Grainger #
Black	HXJ6BK	3TY63	HXJ5EBK	5LV60	HXJ3BK	HXJUBK	5LV40
Blue	HXJ6B	3TY64	HXJ5EB	5LV63	HXJ3B	HXJUB	—
Electric Ivory	HXJ6EI	3TY65	HXJ5EEI	5LV58	HXJ3EI	HXJUEI	5LV37
Green	HXJ6GN	4TY67	HXJ5EGN	6MJ31	HXJ3GN	HXJUGN	—
Orange	HXJ6OR	3TY69	HXJ5EOR	5LV62	HXJ3OR	HXJUOR	5LV42
Red	HXJ6R	3TY70	HXJ5ER	5LV64	HXJ3R	HXJUR	—
White	HXJ6W	3TY72	HXJ5EW	6MJ30	HXJ3W	HXJUW	5LV38
Yellow	HXJ6Y	3TY73	HXJ5EY	5LV65	HXJ3Y	HXJUY	—



Diagnostics

Today's medical diagnostics are a far cry from the traditional X-ray film of the past. Healthcare facilities contain a variety of high-tech imaging and diagnostic equipment that more accurately determine a patient's condition. Many of these require higher capacity power and data connections than traditional conventional outlets and connectors can provide.

The Hubbelock® mobile x-ray devices are specifically designed to support unique connection points for diagnostic equipment, providing an extra margin of safety and maintaining their connection even if they are pulled and tugged.

Hubbelock® Receptacles, Plugs and Connectors



- Prevents accidental disconnects
- Molded plug contacts prevent distortion
- Connections are made internal to the device

NEXTSPEED® Shielded Jacks



- Quick and easy terminal grounding connection
- Tool less termination
- Third-party tested and verified



Larger File Sizes

Diagnostic imaging equipment like digital X-ray, MRI and ultrasound need to capture and send images quickly and reliably. Many of these images are contained within large size file, requiring Gigabit and 10 Gigabit networks to deliver and store these files in the data centers. In addition to ensuring power continuity, Hubbell offers a full line of high performance shielded connectivity for those certain areas where EMI noise may be present.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Diagnostic and Treatment**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
MRI & CT Scanner	High Station	>14 in each WA
Simulator Room	High Station	>14 in each WA
Linear Accelerator	High Station	>14 in each WA

Ordering Information

Hubbelock®

Rating	NEMA	Description	Hubbell #	Grainger #
	20A 125V	Plug, nylon cover, thermoset interior	HBL23014HGB	3D033
		Plug, armored, epoxy filled, rubber cord grip	HBL23004HG	3D030
		Connector, cover, thermoset interior	HBL23001HGB	3D028
		Receptacle, black, back wired	HBL23000HG	3D027



NEXTSPEED® Shielded Jacks

Category 6/10GbE			
Category	Package Quantity	B-Wired Hubbell #	A-Wired Hubbell #
6	2	SJ62B	SJ62A
6	24	SJ624B	SJ624A
5e	2	SJ5EB	SJ5EA
5e	24	SJ5EB24	SJ5EA24



Hubbelock® Mobile X-Ray Devices

Rating	NEMA	Description	Hubbell #	Grainger #
	50A 250V	Receptacle with stainless steel plate assembly	HBL25505	—
		Receptacle with cast aluminum plate assembly	HBL25503	3D061
		Plug, with epoxy kit, less cord clamp	HBL25515	—
		Plug, with cord clamp, less epoxy kit	HBL25525	3D062
		60A 250V	Receptacle with stainless steel plate assembly	HBL25605
Receptacle with cast aluminum plate assembly	HBL25603		—	
Plug, with epoxy kit, less cord clamp	HBL25615		—	
Plug, with cord clamp, less epoxy kit	HBL25625		—	



Shield Colored Dust Covers

Description	Color	Hubbell #
100 per package	Blue	IDCSB
	Black	IDCSBK
	Green	IDCSGN
	Orange	IDCSOR
	Yellow	IDCSY

Hubbell Healthcare Application Guide

Examination Rooms

Patient exam rooms in hospitals and outpatient healthcare facilities have a need for safe, reliable power connections. Pediatric exam rooms require tamper-resistant receptacles while any outlet near a sink, even a small exam room sink, must be GFCI protected.

The ample lighting needed in exam rooms are often left on when doctors and patients leave the exam room, wasting significant energy. By simply outfitting these spaces with occupancy sensors, the lights will turn off when the room is vacant, providing immediate energy savings.



Dual Technology

Hubbell H-MOSS® Occupancy Sensors are available with dual technology, that uses both passive infrared and ultrasonic sensing technology. Because both technologies are used to detect occupancy, these sensors minimize the risk of false triggering and provide the best performing sensor for most applications.

Occupancy Wall Switch Sensors



- No neutral required for fast switch replacement
- Optional Hubbell patented adaptive technology eliminates manual adjustments
- No minimum load requirements

Secure-IT™ Plates



- The sliding cover provides better protection and longer life
- Multiple labeling options for easy station identification
- Fiber and multimedia capabilities

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Patient Rooms**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Nurses Stations	High Station	>14 in each WA
Registration	Medium Station	6-14 in each WA

Ordering Information



Slender/Compact Receptacle

NEMA	Rating	Color	Hubbell #	Grainger #
	15A 125V	Ivory	HBL8200HI	4D036
		Red	HBL8200HR	4D038
		White	HBL8200HW	4D040
	20A 125V	Ivory	HBL8300HI	4D058
		Red	HBL8300HR	4D059
		White	HBL8300HW	3D288

Occupancy Sensor

Description	Color	Hubbell #	Grainger #
Adaptive Technology, Dual (Ultrasonic and Passive Infrared) wall switch with one button for manual/auto control, 1,000 sq. ft.	Ivory	AD12771I	1MEA9
	White	AD1277W1	1MEB1
Passive Infrared, wall switch, 1,200 sq. ft.	Ivory	WS1277I	1VD96
	White	WS1277W	1VD98



Tamper-Resistant Face Plates

Size	Color	Face Plate		Replacement Cover Hubbell #	Cable-Thru Plate Hubbell #
		Hubbell #	Grainger #		
1-gang/4-port	Black	TPF1BK	—	TPFCLBK	TPCP1BK
1-gang/4-port	Gray	TPF1GY	—	TPFCLGY	TPCP1GY
1-gang/4-port	Office White	TPF1OW	6KB11	TPFCLOW	TPCP1OW
1-gang/4-port	White	TPF1WH	—	TPFCLWH	TPCP1WH



Weatherproof Face Plates

Size	Color	Face Plate		Replacement Cover Hubbell #
		Hubbell #	Grainger #	
1-gang/4-port	Gray	TWPF1GY	6KB12	ERFCLGY



Hubbell Healthcare Application Guide

Physical Therapy Areas

Physical therapy centers and spaces provide a variety of treatment options to help patients develop, maintain and restore movement and function. These areas can be a typical gym type or they can be hydrotherapy areas where water is present.

Hubbell has delivery system products including non-metallic multi-service floor boxes that deliver both power and datacom to any point in the room.



Floor Boxes



- An economical solution for electrical power or a combination of power and voice/data applications
- Designed specifically for slab-on-grade installation
- Quick and easy installation is assured using a push in place leveling system

HI-IMPACT RJ45 Connectors



- IP67 and IP66 rated for ingress protection against dust and liquids
- Durable, rugged construction for harsh environments
- Verified to Category 6 and 5e and supports power over Ethernet (PoE and PoE+)

JLOAD™ Multimedia Outlet

Install receptacles and voice/data devices exactly where they are needed, in the smallest space possible. JLOAD™ multimedia outlet; specifically designed to provide power, cat. 5e and coaxial in a single gang box; requires JLOAD™ multimedia box RJ600; perfect for HDTV and computer use where a combination of power and data are needed; includes decorator frame; one cat. 5e; one F-connector and one power receptacle 125V with voltage divider.

Ordering Information

Floor Boxes For Concrete Floors

Description	Rating	Color	Hubbell #
Flange and Hinged Door Cover Assembly	15A 125V	Solid Brass	RF406BR
Includes (1) duplex receptacle, gasket, floor leveling PVC ring, high impact and chemically resistant nylon.		Almond	RF406AL
		Black	RF406BK
PVC Floor Box with Concrete Protective Cover		Gray	RF400
Low Voltage Divider; for use in PVC box RF400, when JLOAD™ Multimedia Outlet is used.		Gray	RF408



JLOAD™ Multimedia Outlet

Description	Rating	Color	Standard		Tamper-Resistant Hubbell #
			Hubbell #	Grainger #	
JLOAD™ Multimedia Outlet; Includes decorator frame, (1) Cat. 5e, (1) F-connector and (1) receptacle with voltage divider.	15A 125V	See below	RJ620xx	—	RJ650xxTR
	20A 125V	Black	RJ650BK	3EAD4	RJ620xxTR
	20A 125V	See below	RJ650xx	—	
Includes decorator frame with (2) open ports for custom configuration and (1) power receptacle with voltage divider.	15A 125V	See below	RJ65xx	—	RJ65xxTR
	20A 125V	See below	RJ62xx	—	RJ62xxTR

xx=color: AL (Almond), BK (Black), GY (Gray), I (Ivory), LA (Light Almond) and W (White)



HI-IMPACT Datacom Connectors

Description	Hubbell #	Grainger #
Category 6 Connector (UTP)	HI6	—
Category 5e Connector	HI5E	6KB17
Inline Coupler, Category 5e	HI5EC	—
Protective Cap	HIC	6KB18





The Right Image

Having the very latest AV applications along with power and data at the point of use is not only critical to supporting converging applications, it takes full advantage of today's technological advancements.

Hubbell Healthcare Application Guide

Auditorium and Conference Rooms

Large healthcare facilities include auditoriums and conference rooms where medical seminars, continuing education and meetings are held. These spaces are critical for communicating information. To better facilitate these meetings, auditoriums and conference rooms must also accommodate the latest AV technology that include display devices, sound systems, video conferencing and more.

Hubbell's iSTATION™ and delivery system products provide the broadest range of AV, data connectors, floor boxes and fire-rated poke-throughs for the multimedia experience needed.

Table Top Boxes



- Pre-wired receptacles with corded plug for easy installation
- Ready to integrate with X-END™ plug-n-play system
- Solid aluminum and brass construction for durability and aesthetic finish

Hubbell Multimedia Connectivity



- X-END™ plug-n-play multi-media system allows for higher capacity applications in a smaller footprint
- X-END™ system allows multiple applications to run over the same horizontal run – increasing flexibility and reducing cost
- AV Ceiling enclosure is designed for power, data and active AV devices in the ceiling (Cat. No. AVCE1H)

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Operations**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Auditorium	High Station	>14 in each WA
Conference Room	Medium Station	6-14 in each WA

Ordering Information



Tabletop Box

Description	Catalog Number
Low Voltage; (1) keystone opening	TTBKSxx*
Low Voltage; (1) XLR mic. jack installed	TTBXLRx
Dual Service; (1) pre-wired 15A outlet with 9 foot power supply cord; (1) 3.5mm audio; (1) 15-pin gender changer F/F; (2) keystone openings	TTBDS1xx*
Dual Service; (2) pre-wired 15A outlets w/ 9 ft. power supply cord; (2) keystone openings	TTBDS2xx*

* Keystone modules sold separately

xx=color: BK (Black anodized alum), AL (Clear anodized alum.) or BR (solid brass)

Hubbell Multimedia Connectivity

Description	Catalog Number
HDMI decorator frame, 1 port	NS801xx
HDMI decorator frame, 2 port	NS802xx
HXJ Series Jack, 10GbE	HXJ6Axx
HXJ Series Jack, Cat 6	HXJ6xx
HXJ Series Jack, Cat 5e	HXJ5Exx
Data Coupler, Cat 6	SFC6BK
Data Coupler, Cat 5e	SFC5EBK
USB Coupler, A to B, Blue	SFUSBAB
USB Coupler, A to A, Blue	SFUSBAAB
S-Video, 110 Termination	SFSV110BK
S-Video, Pass-through	SFSVBK

xx=color: AL (Almond), BK (Black), GY (Gray), I (Ivory), LA (Light Almond) or W (White)

X-End™ Patch Cords

Description	Catalog Number
S-Video & 3.5mm	AVS35xx
S-Video & 2 RCA	AVSRAxx
3 RCA w/ L/R Audio	AVRCxx
3 RCA Video	AVCRxx
3 RCA w/ S/PDIF	AVCRDxx
5 RCA w/ L/R Audio	AVCARxx
3 RCA & S-Video	AVSCRxx
S-Video, 3 RCA w/ L/R Audio	AVSRCxx
3 RCA & 3.5mm	AVC35xx
5-BNC RGBHV	AVBxx



xx=length: 5 ft. (05), 10 ft. (10) or T1 (1" Tail)

X-End™ Coupler (8-Pin)

Description	Catalog Number
4 Inch Tail	SFAVCT
90 Degree	SFAVCN
Straight	SFAVCS



AV Horizontal Run

Description	Catalog Number
Non-Plenum, 8-Pin	VGA6xxBK
Plenum, 8-Pin	VGA6PxxBK

xx=length: 5 ft. (05) to 100 ft. (100)
Order in multiples of 5 ft.



Hubbell Healthcare Application Guide

Common Areas

Hospitals and healthcare facilities include many common areas like waiting rooms, receptionist areas, corridors and more. These spaces require products able to withstand day-to-day punishment while also ensuring the safety and convenience for all staff and visitors.

Hubbell wiring devices such as switches, receptacles and wireless access boxes are designed to last in healthcare common areas. These products support sustainability and better match a building's lifecycle.

Hubbell Switches and Illuminated Switches



- Heavy duty nylon toggle resists abuse
- Thermoplastic elastomer rocker assures quiet operation and precise timing
- One piece rivetless copper alloy spring contact arm and terminal plate provides long life

Tamper-Resistant Hospital Grade Receptacles



- Deep face design delivers increased impact resistance
- Wire leads for fast installation and no exposed metal
- ID marking surface provides quick sure circuit identification



Tamper-Resistant

The NEC® Article 517-18 requires the use of tamper-resistant receptacles in common areas where children are present, as well as all pediatric areas. Hubbell offers the industry's best-in-class hospital grade tamper-resistant receptacle along with a line of GFCI and specification grade devices that include tamper resistant shutters designed for common areas. Hubbell tamper-resistant receptacles restrict access of single-pronged items like paper clips, pens or keys.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Diagnostic and Treatment**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Family Lounge	Low Station	2 – 6 in each WA
Waiting Room	Low Station	2 – 6 in each WA

NEC® is a registered trademark of the National Fire Protection Association (NFPA)

Ordering Information

HBL® Extra Heavy Duty Switches

Back and Side Wired



Rating	Description	Poles	Color	15A 120-277V AC		20A 120-277V AC	
				Hubbell #	Grainger #	Hubbell #	Grainger #
15A	Nylon toggle	Single	Ivory	HBL1201I	6A699	HBL1221I	6A700
			Red	HBL1201R	4D264	HBL1221R	3D362
			White	HBL1201W	4D265	HBL1221W	6C541
	3-Way	Ivory	HBL1203I	5Z722	HBL1223I	1X974	
		Red	HBL1203R	—	HBL1223R	3D365	
		White	HBL1203W	—	HBL1223W	6C543	
Lighted, nylon toggle*	Single	Ivory	HBL1201IL	5Z731	HBL1221IL	5Z733	
		Clear	—	—	HBL1221ILC	4D272	
		3-Way	HBL1203IL	5Z732	—	—	

Style Line® Decorator Switches

Back and Side Wired



Rating	Description	Color	15A 120-277V AC		20A 120-277V AC		
			Hubbell #	Grainger #	Hubbell #	Grainger #	
15A	Nylon rocker	Single	Ivory	DS115I	5Z779	DS120I	5Z787
			White	DS115W	5Z780	DS120W	5Z788
			3-Way	DS315I	5Z783	DS320I	5Z791
	Lighted, nylon rocker*	Single	Ivory	—	—	DS120IL	5Z794
			White	DS315W	5Z784	DS320W	5Z792
			3-Way	—	—	DS320IL	5Z796

Tamper-Resistant Receptacles



NEMA	Rating	Color	Hubbell #	Grainger #
15A 125V	Ivory	Ivory	HBL8200SGIA	5Z829
		Red	HBL8200SGRA	3D454
		White	HBL8200SGWA	3D455
20A 125V	Ivory	Ivory	HBL8300SGIA	4CV79
		Red	HBL8300SGRA	4CV80
		White	HBL8300SGWA	4CV81

Wireless Access Point Ceiling Box

Description	Hubbell #
Universal WAP Enclosure	WBC1
CISCO Aironet 1200 Series	WBC12
WBC1 uses key no. 2233	
WBC12 uses key no. C346A	



Wireless Access Point Wall Box

Description	Hubbell #
Wall Box; Office White	WBW1OW
Wall Box; Black	WBW1BK
Spare Wall Box Lock Key	KEY333
WBW1OW and WBW1BK uses key no. 333	





Hubbell Healthcare Application Guide

Administration

From billing and reception to program coordination and human resources, a healthcare facility is also a business and includes many administrative areas that do not require Hospital Grade receptacles.

Fortunately, Hubbell is also a leading manufacturer of high performance commercial grade devices and delivery systems. Our SystemOne floor boxes and fire-rated poke-throughs provide cable management and flexibility to deliver the right mix of power, data and AV connections to the point of use.

Modularity and Aesthetics

SystemOne is a unique, in-floor delivery system that can be installed in either floor boxes or fire-rated poke-throughs. The system uses a modular approach with over twenty subplates that allow various voice, data and AV connector configurations to fit into each. They can be customized to meet virtually every power and communications application and are easily replaced to accommodate future technology expansion.

Hubbell SystemOne Floor Boxes and Fire-Rated Poke-Throughs for Concrete Floors



- Multi-service, multimedia and 4x4 applications
- Cast iron, stamped steel and non-metallic floor boxes
- Easily installed and configurable

Hubbell SystemOne Subplates and Covers



- Over twenty applications of subplates to accommodate various power and data configurations
- Can be used with both floor boxes and poke-throughs, maintaining a uniform look throughout the facility
- Durable black, gray, brass, aluminum and ivory powder coat finishes

Ordering Information



Floor Boxes

Description	Hubbell #	Grainger #
Cast Iron	S1CFB	5GTL8
Steel	S1SFB	5GTL9
Steel AV	S1SFB AV	—
Non-Metallic	S1PFB	2DZL7

Floor Box

Cast aluminum construction with a durable powder coat finish

Type	Color	Hubbell #	Grainger #
Carpet	Aluminum	S1FCAL	2DZL4
	Black	S1FCBL	2DZL5
	Brass	S1FCBRS	2DZL6
	Gray	S1FCGY	—
Tile	Aluminum	S1TFCAL	2DZP2
	Black	S1TFCBL	2DZP3
	Brass	S1TFCBRS	2DZP4
	Gray	S1TFCGY	—

Fire-Rated Poke-Throughs

Description	Color**	Assembled Units*		Through Floor Fittings Hubbell #
		Hubbell #	Grainger #	
(4) 20A; (4) keystone	Aluminum	S1PT4X4AL	2DZL8	S1PT4X4FIT
	Black	S1PT4X4BL	2DZL9	—
	Brass	S1PT4X4BRS	2DZN1	—
	Gray	S1PT4X4GY	—	—
Dual Style Line®	see color chart	S1PTxx	2DZN2	S1PTFIT
Modular AV	see color chart	S1PT3IMxx	—	S1PTAVFIT
Furniture Feed	see color chart	S1PTFFxx	—	—

* Factory assembled units include through floor fitting, cover and sub-plate

** Applies to assembled units

Subplates

Description	Description	Description
Style Line® Decorator/GFCI for power and/or datacom applications	(4) 20A and (4) keystone openings. Power can be wired as 1 or 2 circuit and isolated ground.	Single Receptacle Opening for 20A-30A Twist-Lock® recep. (1.56" OD) and (2) Keystone openings
Hubbell # S1SP Grainger # 2DZN5	Hubbell # S1SP4X4 Grainger # 2DZN6	Hubbell # S1SPTL Grainger # 2DZP1
Duplex/Duplex for power and/or datacom applications	Duplex/Style Line® Decorator for power and/or datacom applications	Hubbell AV + Power (1) 20A, 125V receptacle and 3 unit recessed iSTATION™ opening for Data
Hubbell # S1SPDU	Hubbell # S1SPTL	Hubbell # S1SP3IM

For full offering of SystemOne sub-plates and accessories, please visit our online catalog at hubbell-wiring.com.



xx=Color:



Hubbell Healthcare Application Guide

Data Centers

Data centers are the very core of modern healthcare facilities, supporting all the applications needed to maintain daily communications, electronic health records, and critical storage and transmission of medical information. Data centers also must support all satellite operations within the healthcare network. Healthcare facilities need data center solution that can address both power and data while supporting sustainability through energy savings, space efficiency, reliability, and uptime.

Hubbell offers a complete solution for datacenter power and datacom. From it's network cabinets, data racks and patch cords to it's broad offering of power connections, Hubbell has the complete solution.



Data Racks and Patch Cords



- Cabinets, racks and cable management for efficient cooling and use of space
- Optical fiber and copper connections, assemblies, and patch panels
- Hubbell BIDnet™ pre-terminated copper trunk assemblies are factory tested and terminated for maximum performance and reduced installation time

H2 Series Network Cabinets



- Large open base for cable entry and exit
- Perforated front and rear doors provide enhanced airflow, minimizing power consumption
- 180 degree door swing provides complete equipment access

Critical Power

Providing clean uninterrupted primary and backup power in the data center is mission critical to ensuring that all network applications remain running. In the data center, Hubbell's Twist-Lock® Power Devices, IEC Pin and Sleeve connections and customized power distribution products prevent unintentional disconnects. Hubbell's iFRAME® cabinets and NEXTFRAME® cable management systems provide for maximum airflow and space utilization supporting efficiency and sustainability in the datacenter.

Ordering Information

XXL Series Vertical Organizers

Door Insert	Channel Depth	6" Wide	10" Wide	15" Wide
Silver	14 1/8"	XS0610	XS1010	XS1510
Silver	18 7/8"	XS0615	XS1515	XS1515
Black	14 1/8"	XS0610BK	XS1010BK	XS1510BK
Black	18 7/8"	XS0615BK	XS1515BK	XS1515BK

Channel Depth does not include rear cable organizer. Rear cable organizer depth is 7 3/4"



H2 Series Network Cabinets

Height	Depth	Color	Rack Units	Catalog No.
84.00"	36.00"	Black	45	H2N8436
84.00"	32.00"	Black	45	H2N8432
80.00"	36.00"	Black	43	H2N8036
80.00"	32.00"	Black	43	H2N8032



Integrated Solutions

- NEXTFRAME® 3" and 6" Racks
- NEXTFRAME® Ladder Rack System
- Velcro One-Wrap Ties
- Hubbell Grounding and Bonding Solutions
- Vertical and Horizontal Power Strips



BIDnet™

All BIDnet pre-terminated cable assemblies are made-to-order items. Please call out inside sales team at (800) 626-0005 for lead-time and availability



Hubbell Healthcare Application Guide

Laboratories



Medical labs require an array of power, data and AV configurations and the means to deliver connection points precisely where needed. They can also be exposed to corrosive chemicals and wash downs. In addition, labs typically undergo reconfiguration to accommodate changing medical needs, testing and new equipment.

Hubbell's complete line of metal and non-metallic raceways are optimal for delivering power and data to the point of use in medical laboratories. In addition to field installed raceway systems, Hubbell also offers factory pre-wired raceways which are pallet delivered right to the jobsite, labeled by room, floor area and/or building and ready to unpack and install.

Hubbell Aluminum Pre-Wired Raceway



- Save time and money, completing the job quicker and on schedule with Hubbell pre-wired raceway
- Resists oxidation, corrosion and fading
- Available in single, dual and three channel with a wide selection of fittings and boxes

Ultimate Flexibility

Hubbell raceway accommodates the changing needs of research facilities, medical test labs and pharmacies. Raceway offers the ability to provide standard convenience receptacles and datacomm connections, as well as serve the power requirements of larger equipment. Receptacles or datacomm ports can also be easily added where needed.

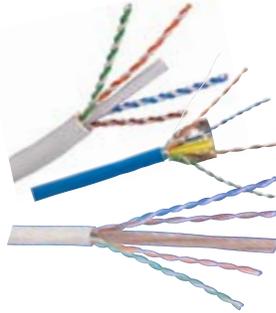
TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Diagnostic and Treatment**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Laboratory	High Station	>14 in each WA

NEXTSPEED® UTP and FTP Cable



- Specifically designed to operate as a high-performance balanced solution
- Supports the latest ratified industry standards for component compliance
- Typical round design allows for ease of installation

Ordering Information

Aluminum Raceway

Description	HBLALU3800	HBLALU4800	HBLALU5000	HBLALU7620
Base 10ft	HBLALU3800B10	HBLALU4800B10	HBLALU5000B10	HBLALU7620B10
5 ft. cover 1 channel	HBLALUC5	HBLALUC5	HBLALUC57	HBLALUC57
5 ft. cover 2 channel	—	—	HBLALU2C57	HBLALU2C57

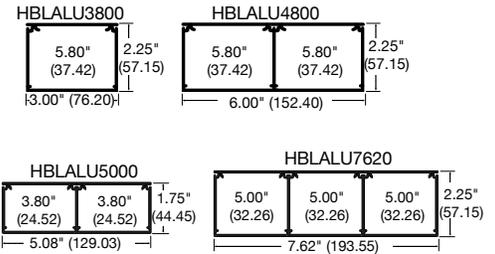
Covers

	HBLALUDR	HBLALUDR	HBLALU57DR	HBLALU57DR
Duplex	HBLALUDR	HBLALUDR	HBLALU57DR	HBLALU57DR
Rectangular	HBLALUG	HBLALUG	HBLALU57G	HBLALU57G

Fittings

	HBLALU3817	HBLALU4817	HBLALU5017	HBLALU7617
Internal Elbow	HBLALU3817	HBLALU4817	HBLALU5017	HBLALU7617
Tee	HBLALU3815	HBLALU4815	HBLALU5015	HBLALU7615

For full offering of Raceways and fittings, please visit our online catalog at hubbell-wiring.com.



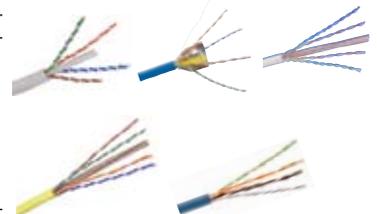
NEXTSPEED® UTP and FTP Cable

Description	Plenum Spool	Plenum REELEX*	Riser Spool	Riser REELEX*
UTP Cable, Cat. 6A, 4-Pair*	C6ASPxx	C6ASRxx	C6ASRxx	—
10GbE FTP Cable, 4-Pair, 1000' length*	C6FTPSPx	C6FTPSRx	C6FTPSRx	—
UTP Cable, Cat. 6 Enhanced, 4-Pair*	C6ESPxx	C6ESRxx	C6ESRxx	—
UTP Cable, Cat. 6, 4-Pair*	C6SPxx	C6RPxx	C6SRxx	C6RRxx
Link 6 UTP Cable	—	C6RPEXX	—	C6RRxx
Category 5E UTP Cable, 4-Pair	C5EPSPxx	C5EPRPxx	C5EPSRxx	C5EPRRxx
UTP Cable, Category 5e, 4-Pair	C5ESPxx	C5ERPxx	C5ESRxx	C5ERRxx

xx= color: B (blue), GY (Gray), W (White) and Y (Yellow).

x= color: B (blue), GY (Gray) and W (White)

* **10G**



Hubbell Healthcare Application Guide

Kitchen and Food Service

Hospital, rehabilitation, long term care and hospice facilities include kitchens and food service areas to feed patients, staff and visitors. These food preparation spaces have a wide variety of power requirements. They require modularity to move in various types of appliances as meals and menus change. Hygiene is also a critical component of food preparation areas. Equipment and appliances often need to be disconnected and moved for cleaning. With so many meals to prepare, package and distribute throughout a facility, power connections need to be easy to use, safe and durable.

Hubbell offers an array of water-tight devices and data connections that meet the durability and safety requirements that are needed in healthcare kitchens and food service areas.

Watertight Safety-Shroud® Twist-Lock®



- Maintains UL Type 4X watertight seal when in use and when disconnected
- Recessed blades provide protection against bending and breaking
- Neoprene sealing gland and thermoplastic guard assure sealing when fully connected

Watertight Twist-Lock®



- Double insulated elastomeric cover and thermoplastic body for extra safety and water resistance
- Easy-clean body styling
- Closure cap seals out water and dirt when not in use



Watertight Safety

Hubbell offers a variety of watertight electrical connections. Hubbell's Watertight Safety-Shroud® Twist-Lock® devices are another example of Hubbell innovation making devices better. The safety shroud prevents unintentional contact with plug blades as it is connected. Hubbell's pin and sleeve devices offer durable watertight housings and higher amperage configurations up to 200 amps. Hubbell watertight devices are available in straight blade and Twist-Lock® configurations.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: **Operations**

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Food Service Cafeteria	Medium Station Low Station	6-14 in each WA 2 -6 in each WA

Ordering Information



NEMA Rating Color Coded by Voltage	Poles/ Wires	Watertight Safety-Shroud®				Watertight			
		Plug		Connector		Plug		Connector	
		Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Grainger #
15A 125V	L5-15 2P/3W	—	—	—	—	24W47H	5RVX4	25W47H	5RVX7
15A 277V AC	L7-15 2P/3W	—	—	—	—	24W34H	5RVX6	25W34H	5RVX9
20A 125V	L5-20 2P/3W	HBL2311SW	4CT65	HBL2313SW	4CT66	26W47H	5RVY0	27W47H	5RVY7
20A 250V	L6-20 2P/3W	HBL2321SW	4CT73	HBL2323SW	4CT74	26W48H	5RVY1	27W48H	5RVY8
20A 277V AC	L7-20 2P/3W	HBL2331SW	4CT81	HBL2333SW	4CT82	26W49H	5RVY2	27W49H	5RVY9
20A 3Ø 250V	L15-20 3P/4W	HBL2421SW	4CT97	HBL2423SW	4CT98	26W75H	5RVY4	27W75H	5RVZ1
30A 3Ø 250V AC	L15-30 3P/4W	HBL2721SW	4CV45	HBL2723SW	4CV46	28W75H	5RVZ8	29W75H	5RWA5
30A 3Ø 480V AC	L16-30 3P/4W	HBL2731SW	4CV53	HBL2733SW	4CV54	28W76H	5RVZ9	29W76H	5RWA6

Hubbell Healthcare Application Guide

Maintenance and Plant Engineering

Every healthcare facility includes maintenance and plant areas that are similar to an industrial facility. Large equipment like back-up generators, compactors, loading dock equipment, HVAC units and air handlers all need high-capacity, safe and reliable power. Without it, an entire healthcare facility can shut down, compromising patient care.

Hubbell Twist-Lock® plugs, connectors and receptacles and CIRCUIT-LOCK® Manual Motor Disconnects offer a variety of devices to effectively provide dependable and safe power and control motor loads for healthcare maintenance areas.



Motor Load Safety

The 2008 NEC® requires motor controllers on equipment like HVAC units and compactors to have a disconnect within line of sight (Article 430.102) and allows a controller and disconnect to be the same device (Article 430.109) combining both functions in one device.

Hubbell CIRCUIT-LOCK® devices save space, time and money. The dual rating means installing one device instead of two for reduced complexity and faster deployments to get up and running sooner.

TIA Healthcare Standard TIA-1179 (Proposed)

Area: Facilities

Communication recommendations for outlet densities

Area	Workstation	LAN Connections
Electrical/Mechanical	Low Station	2-6 in each WA
Elevator/Machine	Low Station	2-6 in each WA

NEC® is a registered trademark of the National Fire Protection Association (NFPA). Valox® is a registered trademark of SABIC Innovative Plastics acquired from GE.

Twist-Lock® Plugs, Connectors and Receptacles



- Thermoplastic construction is heat and corrosion resistant for harsh environments
- Ribbed nylon housing provides a secure grip and impact and chemical resistance
- Thermoplastic high heat resistant interior construction is ideal for high-temperature environments

Enclosures and Motor Disconnects



Enclosures

- UL listed as a manual motor controller as well as "suitable as a motor disconnect"
- Type 4X non-metallic enclosure is molded of rugged Valox® to resist abuse, corrosion and enhance safety

Motor Disconnects

- Ensures reliable operation and maximum safety

Ordering Information



Twist-Lock® Locking Devices

NEMA Rating Color Coded by Voltage	Poles/ Wires	Plug		Connector		Receptacle	
		Hubbell #	Grainger #	Hubbell #	Grainger #	Hubbell #	Grainger #
15A 125V	L5-15	HBL4720C	5A073	HBL4729C	5A074	HBL4710	5A072
20A 125V	L5-20	HBL2311	4A259	HBL2313	4A260	HBL2310	4A258
20A 250V	L6-20	HBL2321	5A081	HBL2323	5A082	HBL2320	5A080
20A 3Ø 250V	L15-20	HBL2421	4A268	HBL2423	4A269	HBL2420	4A267
20A 3Ø 480V	L16-20	HBL2431	6A662	HBL2433	6A663	HBL2430	6A661
30A 3Ø 250V	L15-30	HBL2721	4A271	HBL2723	4A272	HBL2720	4A270
30A 3Ø 480V	L16-30	HBL2731	6A659	HBL2733	6A660	HBL2730	6A658

Unfused Disconnect Switches

Description	Hubbell #	Grainger #
30A disconnect switch	HBLDS3	3D383
30A w/ (1) HBLAC1	HBLDS3AC	2EAV9
60A disconnect switch	HBLDS6	4CV74
60A w/ (1) HBLAC1	HBLDS6AC	2EAW3
100A disconnect switch	HBLDS10	2EAV6
100A w/ (1) HBLAC1	HBLDS10AC	4CV73
Auxiliary contacts, "break after main break"	HBLAC1	2EAV4
1 set of n/o & n/c contacts		
Auxiliary contacts, "break before main break"	HBLAC2	2EAV5
1 set of n/o contacts		

Manual Motor Controller

Description	Double Pole		Three Pole	
	Hubbell #	Grainger #	Hubbell #	Grainger #
30A 600V AC motor controller	HBL7832D	2EAV3	HBL7810D	5HA30
In Type 1 enclosure; non-metallic cover	HBL1392D	1MTD5	HBL1389D	1MTD7
In metal Type 1 enclosure	HBL1372D	1MTD4	HBL1379D	1MTD6
In NEMA 3R non-metallic enclosure	HBL13R22D	1MTD8	HBL13R23D	1MTD9
In NEMA 3R flip lid enclosure	HBL13R12D	—	HBL13R13D	—
60A 600V AC motor controller	HBL7862D	1MTE5	HBL7863D	1MTE6



Hubbell Healthcare Application Guide

Outdoor Areas

From air handling equipment to ambulance bays, healthcare facilities have multiple outdoor areas that require power and cable protection. These spaces must maintain a high level of safety for patients, staff and visitors entering and exiting a healthcare facility.

Hubbell mechanical interlock devices provide the safety method for connecting and disconnecting power and AccessTrak® ramping systems cover cables.

Mechanical Interlocks



- Incorporates a disconnect switch and receptacle in one compact economical unit
- Patented Plug-Check™ eliminates mating or breaking the circuit under load for maximum safety
- Non-metallic Valox® housing meets UL50 Type 4X, 12X, and IP67 for harsh environments

Hose and Cable Protection



- AccessTrak®: expanable five channel system is a modular cable protection for compliance with ADA accessibility guidelines
- TredTrak®: five channel system designed to support pedestrian and light vehicle traffic
- TrukTrak®: two, three and five channel system designed to support heavy trucks and fork lifts

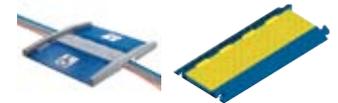


Disaster Preparedness Areas

In recent years, disaster preparedness areas have expanded from coping with natural disasters to accidents involving hazardous materials and outside decontamination. Many healthcare facilities have developed systems and protocols that enable decontamination of people outside of the building, including outdoor decontamination showers. All of these outdoor areas must be safe and any outdoor equipment must have power that is both reliable and ready in the event of a disaster.

Valox® is a registered trademark of SABIC Innovative Plastics

Ordering Information



IEC Mechanical Interlocks

Rating by Voltage	Color Coded	Poles/Wires	Mechanical Interlock		Mating Plug	
			Hubbell #	Grainger #	Hubbell #	Grainger #
20A 120/240V		3P/4W	HBL420MI12W	1TJZ6	HBL420P12W	6C152
20A 3Ø 480V		3P/4W	HBL420MI7W	1TJZ3	HBL420P7W	6C125
30A 120/240V		3P/4W	HBL430MI12W	—	HBL430P12W	3D149
30A 3Ø 480V		3P/4W	HBL430MI7W	6C573	HBL430P7W	5Z941
30A 3Ø 600V		3P/4W	HBL430MI5W	6C572	HBL430P5W	3D150
60A 120/240V		3P/4W	HBL460MI12W	—	HBL460P12W	6C584
60A 3Ø 480V		3P/4W	HBL460MI7W	6C582	HBL460P7W	5Z917
60A 3Ø 600V		3P/4W	HBL460MI5W	6C581	HBL460P5W	3D162
100A 120/240V		3P/4W	HBL4100MI12W	—	HBL4100P12W	6C555
100A 3Ø 480V		3P/4W	HBL4100MI7W	4CT27	HBL4100P7W	5Z926
100A 3Ø 600V		3P/4W	HBL4100MI5W	—	HBL4100P5W	3D132

Hose and Cable Protection Systems

Description	Hubbell #	Grainger #
TrukTrak® kit	HBLTT5B	4CV89
TredTrak® kit	HBLTRED5B	4HD47
AccessTrak® kit	HBLAT5KITA	3BY36

Outdoor Loose Tube Fiber Cable

Description
Hubbell's OptiChannel® HFC3 Series Outdoor Loose Tube Fiber Cable provides a rugged and versatile high bandwidth optical cabling solution, with easy field termination and compact water resistant design for space-saving installations.



HUBBELL® HEALTHCARE Application Guide

Hubbell Supports Green

All around the globe, there is a powerful shift towards “green” thinking. Now increased interest in energy efficiency and waste reduction has put sustainable building design at the very forefront of the industrial, commercial and residential construction industries.

As a leader in the industry, Hubbell Wiring Systems recognizes its role and responsibility in safeguarding the environment. Through its GreenWise™ Sustainability Initiative, Hubbell designs and develops innovative products that optimize sustainable building design by saving energy, supporting space efficiency and reducing waste. Hubbell Wiring Systems is committed to maintaining environmental stewardship in our own manufacturing and corporate facilities through restricting the use of hazardous materials, implementing comprehensive recycling programs and improving energy efficiency.

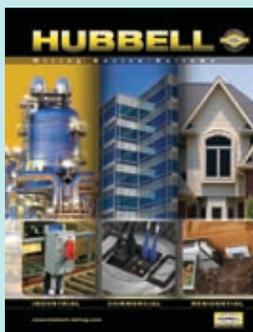
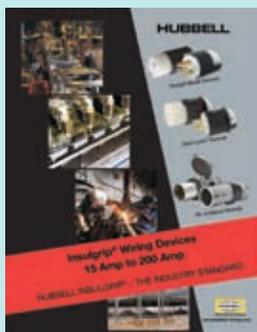
Website Support

The Hubbell Wiring Systems website features a landing page dedicated to the GreenWise™ Initiative. Here you can find quick links to Hubbell Green products, Green Resources and Councils, Financial Incentives per state and support literature.



Available Literature

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



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