

# The American Cable Systems Solution – The Intelligent Choice



ACS provides schools and other institutions with flexible wiring systems that handle power, voice and data.



The Intelligent Ceiling® is used in various applications such as the wiring of retail checkouts.

For building owners, architects, construction managers, facilities engineers, and network administrators alike, ACS modular zone distribution systems are the intelligent choice. ACS takes the basic idea of zone wiring and combines it with pre-cut, pre-tested cable and plug-in connectors, to provide power and telecommunication systems that can be installed under raised floors (The Intelligent Floor®), or in accessible ceilings (The Intelligent Ceiling®).

ACS systems meet the challenges posed by new construction and renovation in offices, retail outlets, and institutional facilities by improving cable management, enhancing flexibility, reducing installation costs and showing dramatic cost savings throughout the life-cycle due to adds, moves and changes. Here's how...

# Modular Wiring + Zone Distribution = Modular Zone Distribution

Zone distribution is not a new concept; it has been applied for years in open office power and telephone service. And as cabling standards have evolved, it has been applied to data communication wiring as well.

A typical zone might include 4 to 6 work stations — cubicles in an office, or retail checkout stands. Power and telecommunication home run cables are routed from the wiring closet to a distribution point in each zone, where they connect to individual cables that fan out to each workstation.

Add the benefits of modular wiring; pre-cut cabling, connector-to-connector coupling, and pre-installation testing and you have a system that allows easy installation, reliability, and flexibility, eliminating the laborious process of hanging conduit, pulling wire and hand terminating connectors.

The installer simply refers to CAD drawings developed by the ACS engineering staff to lay out the components and snap them together. This planning saves time and money on the jobsite.

The Intelligent Floor® and The Intelligent Ceiling® can be configured to provide power, telecommunications, or both services combined, giving you the flexibility to select the system that best fits your application.

# The Advantages of Modular Zone Distribution

### **The Cost Advantage**

Due to their "plug and play" nature, total installed costs can be reduced 30% or more by using ACS Modular Zone Distribution Systems. And there are potential tax benefits to the system. Because it can be moved and relocated, the system may qualify as personal property, which can be depreciated over five to seven years.

The connections into the floor access box are all pre-connectorized, so you just unplug them and replug them.

David Salak, Senior Information Officer, Information and Technology Services, The World Bank



With The Intelligent Ceiling® changes are made at the local distribution box rather than the power or telecommunication closet



The modularity offered by ACS eliminates all field terminations and on-site measuring, cutting and pulling of cable

With churn rates of over 40% common in today's office environment, moves, adds and changes are simple and economical with ACS systems. In-house facilities staff can add new users or re-configure open areas quickly with existing components by simply unplugging the connections, moving the components, and reconnecting them. The result? Lower cost throughout the life-cycle of the building.



Today's constantly changing office requires a system that is easy to upgrade and relocate

You get a blueprint from ACS that shows where everything goes. It probably saves about 50 to 75 percent on installation time which means labor savings are tremendous!

Fred Cooper, Construction Maintenance Manager, Bernard Kilgore Center, Dow Jones & Company

### The Quality Advantage

As an ISO 9001 certified facility, ACS designs and manufactures modular zone distribution systems to exacting standards. ACS systems, constructed from high quality materials, are recognized throughout the industry for their durability. All distribution boxes are constructed of heavy gauge steel. Both the power connector housing and its latch and strike connecting mechanism is steel too - not plastic. Connector pins and sleeves are made of high performance, highly conductive copper alloy, and are enclosed in tough GE Lexan®. Our telecommunication cables are manufactured using high quality, industry standard components from the vendor of your choice. The entire assembly of each power and telecommunication system is 100% factory tested prior to shipment, assuring a high quality, reliable product.

### The Capacity Advantage

Growth capacity is designed into ACS modular zone distribution systems to allow for easy expansion. Distribution boxes are designed with sufficient spare capacity allowing for the addition of services as new workstations are created. And if services are reduced or eliminated in one area of the building, zone boxes and cables can be moved to other areas.

### The Standards Advantage

ACS power systems are designed for installation in compliance with the National Electrical Code, Section 604, Manufacturing Wiring Systems, and are UL listed.

ACS telecommunication systems meet the criteria of TIA 568A, and for zone wiring as outline detailed in TSB75.

### The Flexibility Advantage

With conventional hard wired systems, a change in office layout means replacing wire from the workstation all the way back to the wiring closet. But with an ACS zone distribution system, whether in the ceiling or below a raised floor, the only wiring affected is the segment from the distribution box to the workstation. The plug-in connectors on the power and telecommunication cables allow for the easy movement of components. When changes are made for individual workstations, service is uninterrupted for other users in the zone.

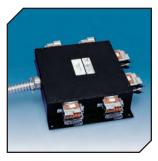
Lexan is a registered trademark of General Electric.

### **MODULAR ZONE DISTRIBUTION**

### POWER DISTRIBUTION BOXES

#### Main Distribution Box:

The heart of the modular wiring system, the Main Distribution Box (MDB) delivers power to the Secondary Distribution Boxes via Power Extender Cables. The MDB comes standard in 6 double port General Purpose (GP) and Isolated Ground (IG) or 6, 9, or 12 single port configurations. Single ports can be configured for General Purpose power or Isolated Ground. A prefabricated Metal Clad Type MC Home Run® or Super Neutral® cable with oversized neutral conductor(s) is provided as an integral part of the system.



Main Distribution Box

### **Secondary Distribution Box:**

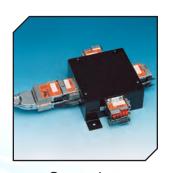
The Secondary Distribution Box (SDB) is the point from which General Purpose (GP) branch circuit power or Isolated Ground (IG) power is delivered to user outlets. The SDB comes standard in 4 double port or 4 or 6 single port configurations.

### TELECOMMUNICATIONS DISTRIBUTION BOXES

#### **Zone Distribution Box:**

The Zone Distribution Box functions as a telecommunication Consolidation Point (CP) or Multi-User Telecommunication Outlet box (MUTO). This enclosure, when combined with our pre-terminated telecommunication home run cable, provides a communication wiring distribution point between the telecommunication closet and the end user location.

The enclosure can be fitted with a variety of industry standard copper or fiber telecommunication modules which provide connectivity, cable management, and slack storage for cables. The standard telecommunication home run cable is a bundled and armored assembly consisting of unshielded twisted pair or fiber optic cable. The telecommunication system is factory tested to meet TIA 568A performance specifications. Standard 12 or 18 port copper and/or fiber configurations are available.

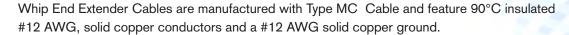


Secondary Distribution Box

#### **FURNITURE TRANSITION BOX**

#### **Transition Box:**

Transition Box with Terminal strip is prewired with Whip End Extender Cable fed from a Main Distribution Box via Extender Cable. All Furniture feed boxes receive a terminal strip and are labeled for contractor friendly installation. A knockout is provided for field wiring of Manufactures' Furniture systems electrical connections.



Whip End Extender Cables are rated for use on 20 ampere branch circuits and are keyed and color-coded according to specific voltage requirements.



Zone Distribution Box



Transition Box

### **EXTENDER CABLES**

#### **Power Extender Cables:**

A Whip End Extender Cable carries branch circuit power from the "power out" tap on the Extender Cable to access floor modules or to support connections to modular furniture systems.

A single (5 pin) or double (10 pin) port Extender Cable runs from MDB to SDB and from SDB to Whip End Extender Cable at point of use. It may also run directly from MDB to Whip End Extender. This versatile component also provides extension capability in the event of changing length requirements.

Power Extender Cables are manufactured from Metal Clad Type MC Cable, consisting of 90°C insulated #12 AWG solid copper conductors and #12 AWG solid copper ground. These cable sets are also available with #10 AWG super conductors. All Extender Cables are rated for use on 20 ampere branch circuits, and are dead-fronted for safety. To eliminate inter-voltage connection, each cable is keyed and color-coded to meet specific voltage requirements.

#### **Telecommunication Extender Cables:**

These cables are used to connect desktop devices to the ZDB. Cable configuration varies based on user requirements. For a Consolidation Point (CP) configuration, these cables generally use RJ45MP or SC connectors at the ZDB and are factory-terminated on a RJ45MJ or SC connector at the faceplate. On the Multi-User Telecommunication Outlet (MUTO) configuration, these cables generally use RJ45MP connectors on both ends providing direct connection of the desktop devices to the ZDB.

#### **ACCESSORIES**

### **Access Floor Module:**

Easily integrated into The Intelligent Floor® System, the ACS Access Floor Module allows easy access to power and telecommunication outlets in an access floor. The floor module can be equipped with both General Purpose and Isolated Ground receptacles as well as industry standard telecommunication connectors from the vendor of your choice. The Access Floor Module is easy to relocate when moves, adds and changes occur.

#### PRE-WIRED DUPLEX ASSEMBLY

### **Duplex Assembly:**

The Duplex Assembly has a 4" sq 2 1/6" deep box with duplex receptacles wired to cable ready leads for easy field installation. Assembly includes mud-ring, bracket, prewired receptacle and Device Protector.

The 1PTA\*\* Power "T" wires into the device's cable ready leads with wago 2 port connectors and is simple color to color wiring. The Power "T" is fed from the under floor power distribution system. Devices available in your specified color and by your specified Manufacturer.



Power Extender Cables



Telecommunications Extender Cables

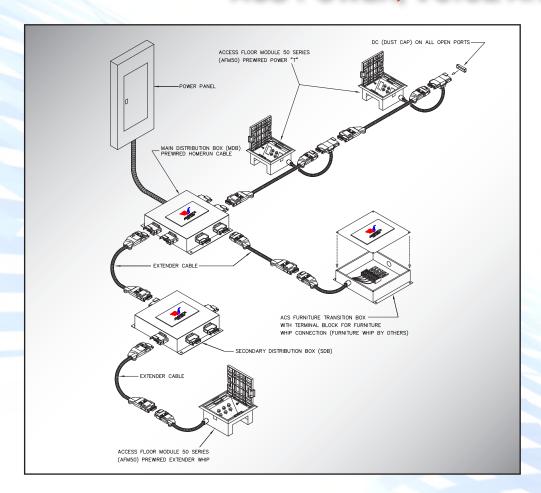


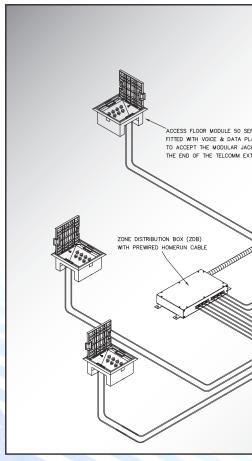
Access Floor Module



**Duplex Assembly** 

### ACS POWER, VOICE AND DATA SYSTEMS





### **POWER SYSTEM**

General Purpose and Isolated Ground power are distributed throughout a zone with this system. Metal Clad Home Run® Cable runs from the electrical panel to the Main Distribution Box (MDB). Metal Clad Extender Cables carry power to Secondary Distribution Boxes (SDB). The SDB's then deliver power to individual user outlets and workstations and/or electrified furniture feed locations.

### STANDARD POWER SYSTEMS INCLUDE:

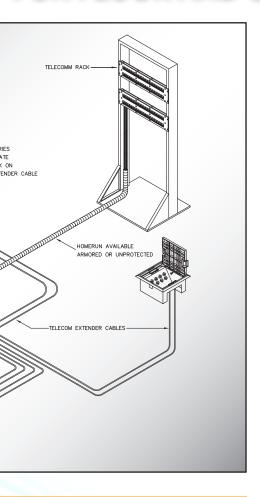
- 6 port (GP & IG) MDB coupled with up to size 4 port (GP & IG) SDB
- 6 port (GP or IG) MDB coupled with up to six 4 port or 6 port (GP or IG) SDB
- 9 port (GP & IG) MDB coupled with up to nine 4 port or 6 port (GP & IG) SDB
- 12 port (GP or IG) MDB coupled with up to twelve 4 port or 6 port (GP or IG) SDB

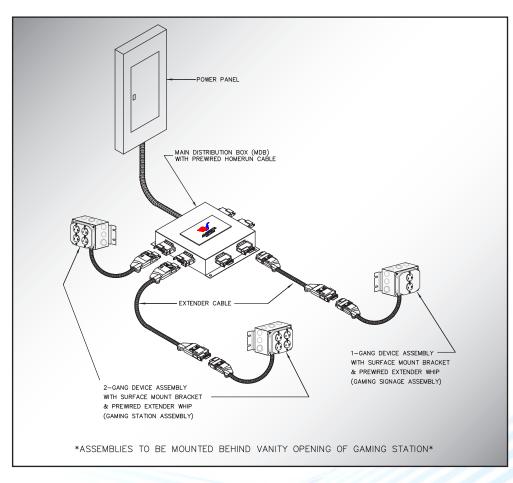
### **TELECOMMUNIC**

This system distributes voice and data throughout the zone. A telecommunication home run cable runs from the telecom closet to a Zone Distribution Box (ZDB). Extender Cables then bring service from the ZDB to individual users.

Consolidation Point (CP) and Multi-User Telecommunication Outlet (MUTO) configurations are available.

### FOR FLOOR AND CEILING APPLICATIONS





### CATION SYSTEM

STANDARD TELECOMMUNICATIONS SYSTEMS INCLUDE:

- 24 port ZDB coupled with 12 x 4 pair UTP and 12 x 1 pair fiber
- 18 port ZDB coupled with 18 x 4 pair UTP
- 18 port ZDB coupled with 12 x 4 pair UTP and 6 fiber
- 12 port ZDB coupled with 12 x 4 pair UTP
- 12 port ZDB coupled with 2 x 25 pair UTP
- 12 port ZDB coupled with 12 fiber

### **CASINO POWER SYSTEM**

General Purpose power is distributed throughout a zone with this system.

Metal Clad Home Run® Cable runs from the electrical panel to the Main Distribution Box (MDB). Metal Clad Extender Cables carry power to pre-wired quad and duplex assemblies for gaming stations and slot signage.

STANDARD CASINO SYSTEMS INCLUDE:

- 6 port (GP & IG) MDB coupled with up to size 4 port (GP & IG) SDB
- 6 port (GP or IG) MDB coupled with up to six 4 port or 6 port (GP or IG) SDB
- 9 port (GP & IG) MDB coupled with up to nine 4 port or 6 port (GP & IG) SDB
- 12 port (GP or IG) MDB coupled with up to twelve 4 port or 6 port (GP or IG) SDB

# Access Floor Modules AFm and AFm/M Series



# **AFm Series Access Floor Modules Technical Specifications**

The ACS/Uni-Fab AFm series access floor module offers a highly adaptable and cost effective solution for distributing power and telecommunication outlets for use in raised floor applications.

AFms are ideal for today's open office environment, as well as many other applications including computer rooms, call centers, laboratories, and clean rooms.

Designed with an attractive and durable cover, the AFm fits in floors as shallow as 2.5 inches, and accommodates carpet inserts or a matching filler plate.

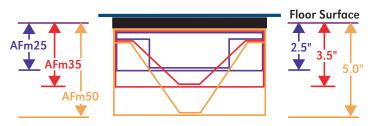
In keeping with our "Practical" approach to wiring...this solution represents the most adaptable floor box in the industry, fully compatible with ACS/Uni-Fab modular wiring systems.

#### **Features and Benefits**

- Modules accommodate power, voice and data for maximum convenience
- Units can be pre-wired with ACS/Uni-Fab modular wiring systems
- Three depth profiles: 5" standard, 3.5", and 2.5" low profile
- Cord entry doors allow quick and easy access to power and telecommunication ports
- Three configurations support a variety of device inserts for standard and isolated ground power, and for UTP, fiber optics, coaxial and audio
- Locking tabs quickly secure the module to floor panel
- Standard color Gray. Custom colors also available
- Floor pattern cutout templates available



#### **Three Depth Profiles**



# **AFm Series Access Floor Modules Technical Specifications**

#### AFm25

The AFm25 provides both power and telecommunication compartments for raised floors with a minimum finished floor height of 2.5 inches. The power compartment is designed for 2 duplex receptacles, and the telecom compartment can accept 2 duplex data openings which can accommodate up to 8 data ports. The cover is suitable for both carpet and tile applications.



#### AFm35

The AFm35 provides both power and telecommunication compartments for raised floors with a minimum height of 3.5 inches. The power compartment is designed for 2 duplex receptacles, and the telecom compartment can accept a single data plate which can accommodate up to 8 data ports.\* The cover is suitable for both carpet and tile applications.



#### AFm50

The AFm50 provides both power and telecommunication compartments for raised floors with a height of 5 inches or greater. The power compartment is designed for 4 duplex receptacles, and the telecom compartment is designed to accept 2 data plates which can accommodate up to 16 data ports.\* The cover is suitable for both carpet and tile applications.





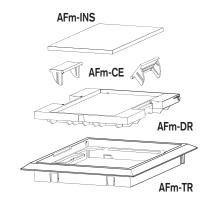
### **Technical Data**

Description	AFm25	AFm35	AFm50
Overall Trim Ring	10" [254mm] x 10" [254mm]	Same	Same
Module Depth, overall	2-1/2" [64mm]	3-1/2" [89mm]	5" [127mm]
Floor Panel Opening Req.	8-5/8" x 8-5/8" [± 1/16" opening]	Same	Same
Door Size	8-1/4" [210mm] x 8-1/4" [210mm]	Same	Same
Wire Chamber Volume	2 x 32 cu.in. [2 x 536 cu.cm.]	2 x 43 cu.in. [2 x 704 cu.cm.]	2 x 61 cu.in. [2 x 1003 cu.cm.]
Cord Chamber Volume	104 cu.in. [1696 cu.cm.]	145 cu.in. [2375 cu.cm.]	208 cu.in. [3407 cu.cm.]
Total Volume	165 cu.in. [2704 cu.cm.]	231 cu.in. [3785 cu.cm.]	330 cu.in. [5408 cu.cm.]
Max Duplex Power	2	2	4
Max Data Ports	8	6	12

### **Access Floor Module Parts Numbers AFm Series**

### **AFm - Complete Assemblies**

AFm25	(1) AFm25-CO1; (2) AFm25-P2; (1) AFm-COV-DKGRY; (2) AFm-TS; (2) AFm-L1; (4) AFm-S1
AFm35	(1) AFm35-CO1; (1) AFm35-D1; (1) AFm35-P2; (1) AFm-COV-DKGRY; (2) AFm-TS; (2) AFm-L1; (4) AFm-S1
AFm50	(1) AFm50-CO1; (1) AFm50-D1; (1) AFm50-P4; (1) AFm-COV-DKGRY; (2) AFm-TS; (2) AFm-L1; (4) AFm-S1
AFm-COV-DKGRY	Dark Gray AFm Cover Complete= (1) AFm-DR; (1) AFm-TR; (2) AFm-CE



### **AFm - Modular Components**

AFm25-CO1	2.5" Deep 8x8 Floor Box with Standard Rectangular Data Cutout
AFm35-CO1	3.5" Deep 8x8 Floor Box with Standard Rectangular Data Cutout
AFm50-CO1	5.0" Deep 8x8 Floor Box with Standard Rectangular Data Cutout

### Cover

AFm-CE-DKGRY Dark Gray Cord Entry Door	
AFm-TR-DKGRY	Dark Gray Trim Ring
AFm-DR-DKGRY	Dark Gray Door
AFm-INS-DKGRY	Dark Gray Cover Insert

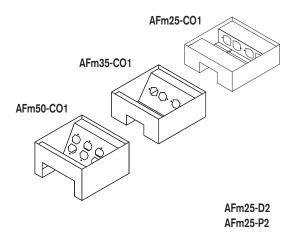
#### Hardware

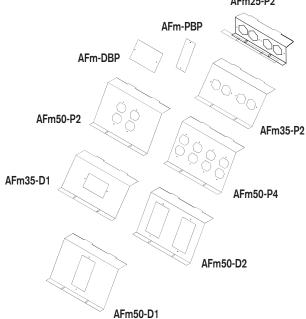
AFm-L1	Side Locking Piece	
AFm-TS	#10-32 x 3/4" Thumb Screw	
AFm-S1	#8-32 x 1/4" Phillips Pan type F	
AFm-GS	#10-32 x 1/2" Ground Screw	

### **Power Plates**

AFm25-P2	2.5" Double Duplex Power Plate	
AFm35-P1	3.5" Single Duplex Power Plate	
AFm35-P2	3.5" Double Duplex Power Plate	
AFm50-P2	5.0" Double Duplex Power Plate	
AFm50-P4	5.0" Double Double Duplex Power Plate	
AFm-PBP	Power Blocking Plate	
Data Plates		
ΔEm25_D2	2.5" Double Data Plate	

AFm25-P2	2.5" Double Data Plate
AFm35-D1	3.5" Single Data Plate
AFm50-D1	5.0" Single Data Plate
AFm50-D2	5.0" Double Data Plate
AFm-DBP	Data Blocking Plate





### **AFm Round Series**

### The Intelligent Floor® • The Intelligent Ceiling®

The AFMR Round Series Access Floor Module contains the user interface to power and telecommunications wiring that is distributed below a raised floor. Easily integrated into the Intelligent Floor system, the AFMR can be equipped with both General Purpose (GP) power and Isolated Ground (IG) power receptacles, as well as industry standard telecommunications connectors from most vendors. The AFMR is typically supplied factory assembled and pre-wired with Whip End Power Extender Cable. Custom circuitry configurations and cover colors are available.

### **Features and Benefits**

- Fits access floors with 5" clearance from finished floor level
- Manufactured with 0.0625" galvanized steel
- Capacity for up to 3 duplex power receptacles
- Capacity for one duplex data plat for up to 4 RJ45 data points
- Metal cover includes two integrated cable exits
- Locking tabs easily actuated to secure AFM to floor tile
- Factory-assembled and pre-wired with ACS modular wiring system
- IBEW-assembled, UL listed and labeled



### **AFM50-HVAC Access Floor Module**

### For use with under floor air handling systems

#### **Description**

The AFM50-HVAC Series Access Floor Module provides both power and telecommunication compartments for raised floors incorporating air handling systems that require low air leakage. The power compartment is designed for up to four duplex receptacles, and the telecomm compartment can accept two data plates which can accommodate up to 8 data ports. The lid is suitable for both carpet and tile applications.

AFM50-HVAC Leakage Levels <5.9 CFM @ 0.05in. w.g. <7.65 CFM @ 0.10in. w.g.

AFM50-HVAC Dimensions

Lid, exposed above floor

Length: 10" Width: 10"

Height 3/8" + compressed foam

Box, from raised floor down

Length: 8" Width: 8" Height: 5"

Recommended floor panel hole size

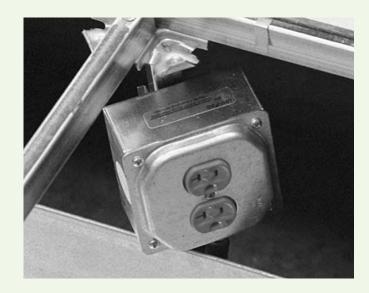
Length:  $8-5/8" \pm 1/16"$ Width:  $8-5/8" \pm 1/16"$ 

Raised floor height: 5" min.



### ACS/Uni-Fab — PDU Assemblies





**PDU Cable Sets** 

**Lab Boxes** 

Pedestal Mounted Power Points (PMPP)

Floor Mounted Power Points (FMPP)



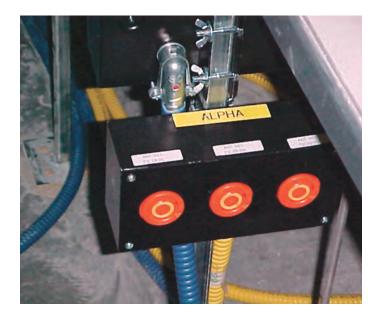
### **PDU Assemblies Technical Specifications**

ACS/Uni-Fab Lab Boxes, Power Points and Floor Boxes are the building blocks for a unique, user friendly system of Computer Room Power Distribution assemblies. We combine the benefits of custom design with the flexibility and installation ease of a modular system.

This system supports all requirements between 15 and 60 Amperes - a capability not normally available on other systems. PDU Cable Assemblies are designed for raised floor branch circuit applications. They can be configured with a Bell Box and stainless steel cover or a 4" square box and industrial raised cover. The assemblies are capable of utilizing straight blade and locking type devices in a variety of configurations. Lab Boxes and PMPP's are furnished with a custom bracket for easy hand installation which eliminates the dust and metal shavings produced by drilling for conventional support methods.

All power distribution assemblies are shipped with home runs attached – made from Liquidtight, MC or jacketed MC cable, or flexible metal conduit.

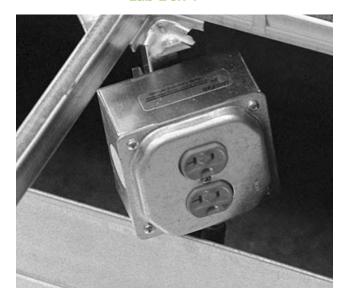
Our modules are assembled from off the shelf materials to allow for easy field modifications. This means last minute design changes can be done on-site. For the long term, the same modular features, which allow for installation ease contribute to the longevity of the system. Even removal for relocation or storage can be accomplished quickly, with confidence that the system will be ready for future use.





# **PDU Assemblies Technical Specifications**

Lab Box 1









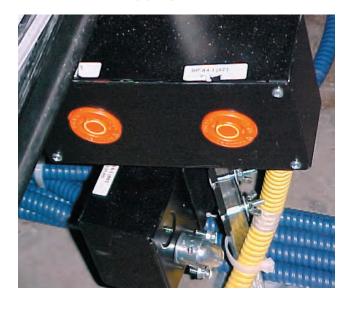
1 Duplex Receptacle

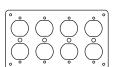
2 Duplex Receptacl

1 Twist Lock Cove

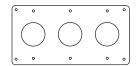
Device Capability of Each	Straight Blade	Twist Lock	Pin & Sleeve
4 Sq w/IRC	2	1	_
Bell Box w/SS Cover	2	1	_
PMPP	6	6	4

Lab Box 4





**Quad Lab Cover** 



4X8 2 & 3 Twist Locker Cover

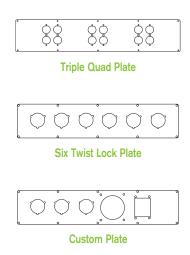
Device Capability of Each	Straight Blade	Twist Lock	Pin & Sleeve
FMPP	_	9	_
Lab Box 1	2	1	_
Lab Box 4	4	3	_

- Assemblies are available with general purpose, isolated ground, straight blade or twist-lock devices
- Lab 1, Lab 4 and PMPP Power Distribution Assemblies are shipped with ACS/Uni-Fab's custom pedestal supports
- All power distribution assemblies are shipped with Home Run Cable® attached

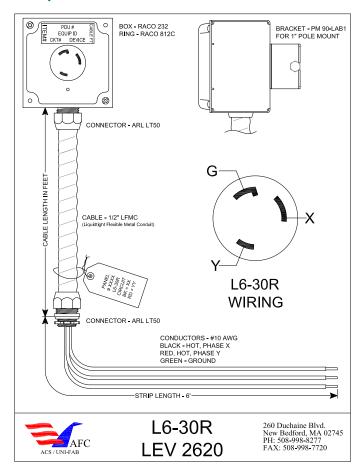
# **PDU Assemblies Technical Specifications**

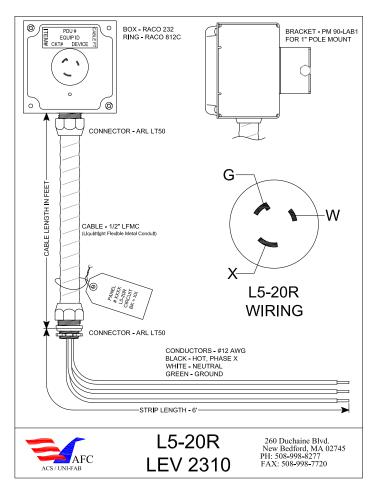
### **Pedestal Mounted Power Point-(PMPP)**





### Sample Submittals







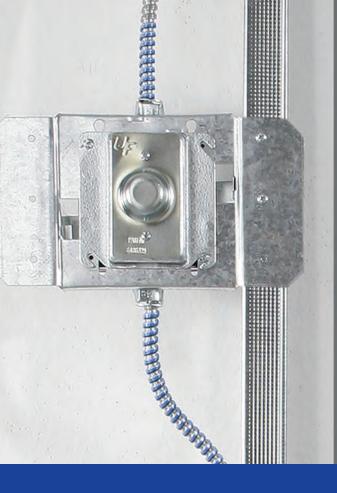


# WHY CHOOSE ACS/UNI-FAB?

### ACS/Uni-Fab Device Assemblies are your best choice for:

- Industry's broadest scope of products
- · Easy installation saves money, saves time and eliminates errors associated with repetitive tasks
- Custom build to your specifications
- Built to exacting standards by IBEW members
- JIT (Just-In-Time) manufacturing assures on-time delivery, wherever you need it, making inventory control easy and accurate
- All products built in accordance with UL and installed per NEC®
- UL listed Wiring Assembly (QQYZ)
- 25 years experience in design and manufacturing expertise for unmatched support





Job-site conditions such as weather, clutter and human error have always had negative effects on quality and productivity. At ACS/Uni-Fab, we assemble components to exacting standards in a controlled environment and deliver products to you, ready to install. So you can get the job done right — while saving time and money.

ACS/Uni-Fab also offers the industry's broadest scope of products. We can help you design the best solution for any application. And you can order device assemblies as a standard part number or as a complete system, designed specifically for your job requirements.

# THAT'S ACS/UNI-FAB

### **Metal Device Protectors**

There has been a growing concern about undetected damage caused by router bits cutting into devices and related wiring while these openings are being made. Our new Metal Device Protectors are installed on all standard assemblies to protect them from damage and dust during the installation process. Device protectors are constructed from 22 gauge steel for heavy duty protection from router/drywall damage.

### **Universal Mounting**

The S-brackets are constructed from 20 gauge steel. These unique brackets feature universal mounting capability, ideal for mounting the assembly to either side of the stud, with built-in for side standoffs 2-1/2", 3-5/8" and 6".

#### It's all in the details.

Planning ahead and documenting your intentions lays the ground work for the successful execution of inevitable change orders and protects against, undocumented change requests. We look after the small details, thereby enhancing on-site productivity which, in turn, improves cost effectiveness.

Start by laying out the location of the assemblies. With the aid of a template, attach each assembly to a stud.

Punch the top track and feed cables into the ceiling and make them up into a j-box. When devices are within several feet of each other the device assembly box can be used to make joints.

Each ACS/Uni-Fab device assembly includes everything necessary to make the connection. Secure cable as required by Code, and call for wall rough inspection. All assemblies are UL listed which frees the inspector from checking the internal wiring of each assembly.









# EASIER. FASTER. BETTER.

When it comes to the installation of branch wiring, two factors are critical: quality and cost-effectiveness. ACS/Uni-Fab Device Assemblies dramatically improve both.

### **Unmatched Quality**

ACS/Uni-Fab assemblies are manufactured in a highly controlled manufacturing facility, to your precise specifications. The UL logo displayed on all of ACS/Uni-Fab's assemblies demonstrates our commitment to the highest level of quality.

ACS/Uni-Fab works in conjunction with the electrical contractor to determine the proper assembly to meet their required application: hotels, condos, dormitories, offices, multi-family housing units, assisted living centers, hospitals\* and more.

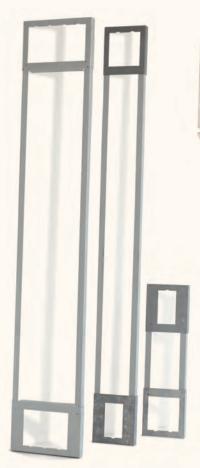
\*Except on emergency circuits as defined in NEC® 517

### **Superior Savings**

ACS/Uni-Fab services such as project review, factory shop drawings, packaging by area and palletizing by floor, staged releases to reduce handling and on-site security; all greatly enhance on-site productivity and subsequently improve cost effectiveness.

Unsurpassed quality, high on-site productivity, significantly lower labor exposure, and easier on-site distribution makes ACS/Uni-Fab your value added partner.

### **ACS/Uni-Fab Device Assemblies**



### **Templates**

Templates are a tool designed to assist in mounting a device assembly. It supports the device assembly at the proper height from the floor, squares the ring with the floor, and supports the weight of the assembly while it is being mounted.

Templates are available in one-inch increments, from fifteen (15) to forty-eight (48), for vertical and horizontal ring orientation, one, two, three and four gang assemblies. Specials are also available upon request.



# Home Run Cable® or Super Neutral®

When distributing power for lighting and devices, it is necessary to bring circuits from the electric closet to a point on the floor.

Home Run Cable or Super Neutral, unique types of MC cable, allow contractors to combine circuits rather than running each circuit individually — greatly reducing costs. Standard, isolated grounds, additional or oversized neutrals can be consolidated into a single cable, greatly reducing labor hours.

Home Run and Super Neutral come cut to length with one end prepared for panel installation and the other end prepared for the MTB. Each conductor is color-coded and marked for identification.

#### **Master Terminal Box**

The Master Terminal Box (MTB) is used to distribute 20 to 50 AMP branch circuits from the panel to remote locations by means of multicircuit Home Run® or Super Neutral® cable. The MTB provides detailed panel and circuit information, as well as terminal-strip termination for up to 20 current-carrying conductors (15 phase and 5 neutral), greatly reducing congestion in the electric closet.

MTBs can be factory assembled with the Home Run Cable or shipped separately. Each MTB has identified terminal strips for ease of wiring. MTBs can be designed for any application — under raised floors, in ceilings, in furniture or consoles.

### **Adjustable Ring**

The Adjustable Ring is a one-gang 5/8" rise ring adjustable to 1-1/8". This allows the device to be leveled with the finished wall for proper trim plate installation.

#### **Standard Device Assemblies**

Standard Device Assemblies are UL listed components assembled to create a UL listed wiring assembly (UL QQ YZ) intended for field installation in accordance with the National Electrical Code (NEC®). They are available in a variety of configurations and styles to meet your project requirements.

Standard Device Assemblies are fast and convenient for projects such as tenant space, non-typical spaces, or when project scope or time allowed does not permit typical units.

Now featuring foam backing which eliminates taping.

### **Typical Units**

Typical units are similar to Standard Units in quality and cost-effectiveness, but are built to your specifications on a "made-to-order" basis.

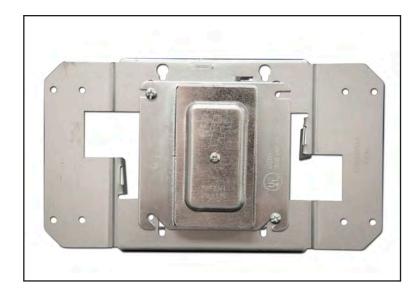
Simply provide the specs and drawings for your project — we'll provide a quote (including room counts, device counts, estimated labor required and project recap); after your order is placed, detailed shop drawings will be developed; a complete job schedule will be done; and (upon approval) materials will be shipped packaged by room number, area and section.

This pre-planning and documentation lays the groundwork for the successful execution of inevitable change orders, and protects against undocumented change requests.

# **Standard and or Typical Unit Device Assemblies**



### **Assembly Required Device Assemblies**



### **Features and Benefits**

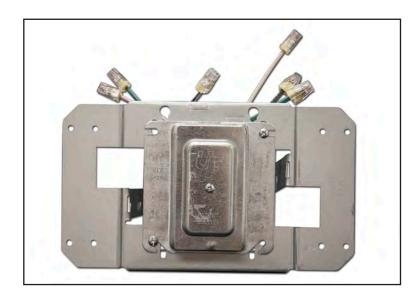
- Fixed pricing
- The Contractor can provide his own cable or buy Uni-Fab's custom-cut whips
- Mounting templates greatly reduce installation time.
   Templates are available in one inch increments
- · Reduces material storage, waste and handling
- Metal device protectors prevent damage by other trades
- Ideal for the non-typical floor layouts
- UL listed assembly (UL QQYZ)
- IBEW/USA

### ORDERING AND TECHNICAL INFORMATION

(Please check all that apply and fax back to 508.998.7720)

Assembly Required Device  Manufacturer:
<b>Device Grade:</b> □Residential □Commercial □Industrial □Hospital
Bracket: □Unifab Standard S □R16 adj "Big O" □R24 adj "Big O" □K18 Kick
<b>Device Style:</b> □Standard □Decora □Tamper Resistant
<b>Box:</b> □4" sq. x 2-1/8" deep □4-11/16" sq. x 2-1/8" deep Ground Pin: □UP □DOWN
Are there any half switched outlets? □Yes □No □Top switched □Bottom switched
Switch type: □Single pole □Two pole □Three way □Four way
Current rating: □15A □20A □30A □50A Receptacle: □GFCI □Surge Suppressor □Isolated Ground
Color: □Ivory □White □Brown □Black □Gray □Other:
<b>Drywall Thickness:</b> $\Box 1/2''$ $\Box 5/8''$ $\Box 3/4''$ $\Box Adj$ for adjustable ring
Are non-standard brackets needed?

## **Cable Ready Device Assemblies**



### **Features and Benefits**

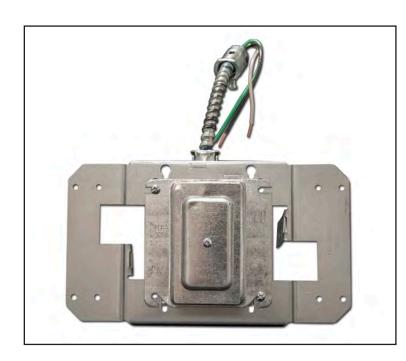
- Fixed pricing
- The Contractor can provide his own cable or buy Uni-Fab's custom-cut whips
- Mounting templates greatly reduce installation time. Templates are available in one inch increments
- Reduces material storage, waste and handling
- Metal device protectors prevent damage by other trades
- Ideal for the non-typical floor layouts
- UL listed assembly (UL QQYZ)
- IBEW/USA

### ORDERING AND TECHNICAL INFORMATION

(Please check all that apply and fax back to 508.998.7720)

Cable Ready Device  Manufacturer: □Leviton □Bryant □Hubbell □Pass & Seymour □Other:		
Device Grade: □Residential □Commercial □Industrial □Hospital		
Bracket: □Unifab Standard S □R16 adj "Big O" □R24 adj "Big O" □K18 Kick		
Cable Ready Configuration:		
Device Style: □Standard □Decora □Tamper Resistant		
Box: □4" sq. x 2-1/8" deep □4-11/16" sq. x 2-1/8" deep Ground: □UP □DOWN		
Are there any half switched outlets? □Yes □No □Top switched □Bottom switched		
Switch type: □Single pole		
Current rating: □15A □20A Receptacle: □GFCI □Surge Suppressor □Isolated Ground		
Color: □Ivory □White □Brown □Black □Gray □Other:		
Drywall Thickness: $\Box 1/2'' \ \Box 5/8'' \ \Box 3/4'' \ \Box Adj$ for adjustable ring		
Are non-standard brackets needed? □16" 24" adj □18" tall kick □Other:		

# Standard and or Typical Unit Device Assemblies



### **Features and Benefits**

- Fixed pricing
- Mounting templates greatly reduce installation time.
   Templates are available in one inch increments
- · Reduces material storage, waste and handling
- Metal device protectors prevent damage by other trades
- Ideal for the non-typical floor layouts
- UL listed assembly (UL QQYZ)
- IBEW/USA

### ORDERING AND TECHNICAL INFORMATION

(Please check all that apply and fax back to 508.998.7720)

Standard Unit Device         Manufacturer:       □Leviton       □Bryant       □Hubbell       □Pass & Seymour       □Other:								
Device Grade:	□Residential	□Comm	ercial 🔲 In	dustrial 🛭	Hospita	I		
Device Style:	□Standard	□Decora	□Tamper R	esistant				
<b>Box:</b> □4" sq. x 2-	-1/8″ deep □	l4-11/16" sq.	. x 2-1/8" dee	p Grour	nd: E	⊒UP	□DOWN	
Are there any half switched outlets? □Yes □No □Top switched □Bottom switched								
Switch type: □Single pole □3-way switch □4-way switch								
Current rating: □15A □20A □30A □50A Receptacle: □GFCI □Surge Suppressor □Isolated Ground								
Color: □Ivory	□White □	Brown □B	Black □Gra	ay 🗆 Other			_	
<b>Drywall Thickness:</b> □1/2" □5/8" □3/4" □Other: Cable Length: ft.								
Are non-standard brackets needed? □16" 24" adj □18" tall kick □Other:								

### Standard and/or Typical Units Technical Specifications

### Why Use ACS/Uni-Fab Typical Units?

Planning ahead and documenting your intentions lays the ground work for the successful execution of inevitable change orders and protects against undocumented change requests. We look after the small details thereby enhancing on site productivity which, in turn, improves cost effectiveness.

Typical Units are made to your specifications. Similar to Standard Units in offering quality and cost effectiveness, Typical Units are built on a "made-to-order" basis.

This approach reduces and controls:

Time spent on the job

- Storage space
- Material waste and handling
- Security issues

We offer project assistance in the following areas:

- Review
- **Planning**
- Design/layout
- Installation support

### **Applications**

These units are used for hotels, condos, dormitories, office and retail spaces, assisted living and hospitals.

#### Construction

The units are UL listed components assembled to create a UL listed Wiring Assembly (UL QQYZ). They are intended for field installation in accordance with the National Electric Code (NEC®).

#### **IBEW Assembled**

ACS/Uni-Fab products are built by IBEW personnel.





### Standard and/or Typical Unit Technical Specifications

#### Quote

Electronic files or the electrical prints as well as any special project requirements are required to generate a quotation. The quotation includes: room counts, device counts, estimated labor for individual rooms and a recap of the project.

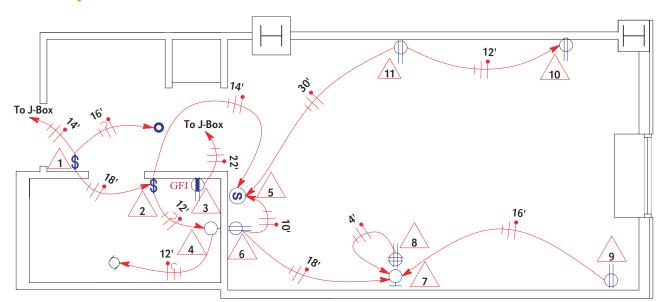
### **Project Time Line Initial Design**

ACS/Uni-Fab, with the Electrical Contractor, will coordinate the specific project requirements, which include project schedule, device type, color, amperage, height, ground up/down, wall thickness, etc.

After receipt of the drawings and project requirements, the initial design process begins. A typical unit layout is generated, allowing a visual confirmation of the project scope and contractor intent. Also produced is a detail report which provides specific information about each detail represented by numbered triangles on the shop drawings. This detail number shows on both the shop drawing and the detail report and corresponds to the label on the back of each device assembly.

Electronic files, if available, are recommended as they expedite the design process.

### **Typical Unit Layout**

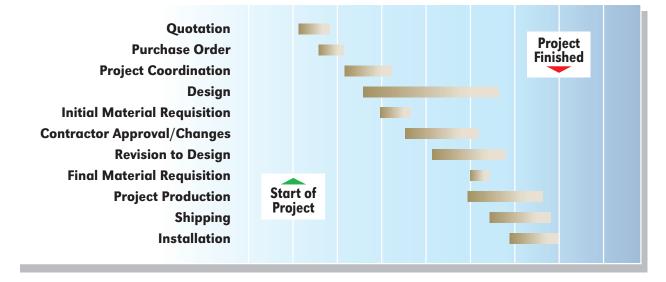


### **Unit Detail Report**

Generic Hotel (0000-01)			1)	Area		Double Double A								
	Group	ALL		Drawing		Revision	0.	1/06/20	000					
-					Date	Near								
							Cable Cable		Far					
Detail	Cat #	Box	Ring	Bracket	Device 1	Device 2	Arm	Туре	Strip	Conn.	Length	Conn.	Strip	Location
1	SMC902NI-	4S Deep	1G 3/4"	S	CSBI20-BI									
	16-18-14						MC	12/2	0.7	AFC-50	16	AFC-50	0.7	TC
							MC	12/2	0.7	AFC-50	18	AFC-50	0.7	TL
							MC	12/2	0.7	AFC-50	14	AFC-50	0.7	TR
2	SMC902NI-	4S Deep	1G 3/4"	S	CSBI20-BI									
	14-12						MC	12/2	0.7	AFC-50	14	AFC-50	0.7	TC
														TL
							MC	12/2	0.7	AFC-50	12	AFC-50	0.7	TR

### Typical Units – Technical Specifications

### **Project Timeline**



### **Approval**

The Electrical Contractor plays a key role in maintaining the project schedule. The shop drawings should be reviewed and approved as quickly as possible after the receipt of the initial design in order to keep the project on schedule.

A quick turn-around allows ample time for the balance of the "Project Time Line" to be completed.

The initial design should be reviewed closely for:

- Cable lengths
- Wall thickness
- Device type
- Overall layout

After reviewing the design, the Contractor should approve with changes or as shown and return the approvals to ACS/Uni-Fab.

#### **Packaging**

ACS/Uni-Fab makes every effort to reduce overall job cost. As a part of that effort, we will box and palletize your order by room number, area, section, like products, etc. to minimize sort time at the job-site. Each box contains a set of shop drawings allowing the electrician to quickly identify the placement of each device assembly.

#### **Shipping**

ACS/Uni-Fab contracts with a network of carriers. Should the Contractor request a carrier outside our contracts or special handling, additional freight costs may apply.



### **Adjustable Mud Ring**

### **Features and Benefits**

- Allows device to be leveled with the finished wall during trim-out
- Reduces the need for multiple ring sizes
- Expandable from 5/8" to 1"
- For one and two gang applications, utilizing
   4" square box
- Made from durable .062" thick galvanized steel



1. Gang Adjustable Mud Ring PART# 1G-4-AMR



2. Gang Adjustable Mud Ring PART# 2G-4-AMR

### **Device Protectors**

### **Features and Benefits**

- Allows device to be installed before drywall
- Device protector provides drywall installer an edge to cut around for rotor zip tool
- New metal device protectors with foam backing keeps devices looking new during construction
- Reusable
- · Sold in cartons of 100

### Single Gang Device



Toggle Device PART# P-S Protector



Decora Device PART# P-BF Protector



Duplex Device PART# P-DF Protector

### **Two Gang Device Protectors**



Toggle Device Angled PART# P-SA Protector



Decora Device Angled PART# P-BAF Protector



Duplex Device Angled PART# P-DAF Protector

### **Distribution Systems Technical Specifications**

Distribution wiring for hotels, condos, dormitories, office & retail spaces, assisted living centers and health care settings.\*

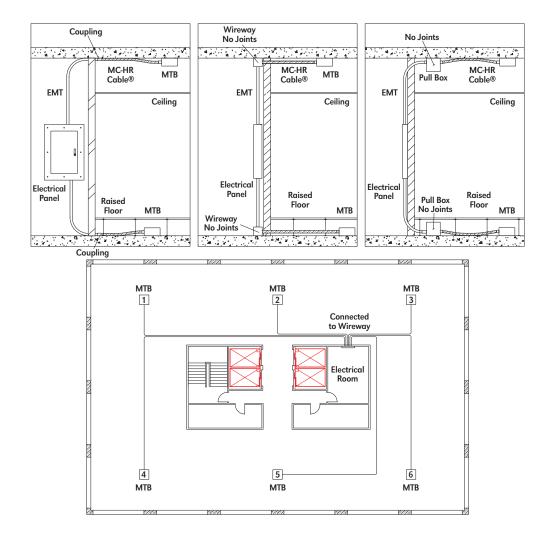
When distributing power for lighting and devices, it is necessary to bring circuits from the electric closet to a point on the floor. Rather than running each circuit individually, it is more economical to combine circuits. Home Run Cable® or Super Neutral®, unique types of MC Cable, allow the contractor to combine circuits. Standard, isolated grounds, additional or oversized neutrals, etc. can be consolidated into a single cable, allowing the contractor to greatly reduce labor hours. Each conductor is color coded and marked for identification.

Factory prepared Home Run® or Super Neutral® Cable combined with master and secondary terminal boxes, create

a distribution system which is not only cost-effective, but also extremely user friendly. Home Run Cable® or Super Neutral® come cut to length with one end prepared for panel installation and the other end prepared for the MTB.

The MTB can be factory assembled with the Home Run Cable® or shipped separately, depending on job conditions. Each MTB has identified terminal strips for ease of wiring now and in the future. There is no more uncertainty as to what panel or circuit is being worked on. MTBs can be designed to meet any number of applications — under raised floors, in ceilings, in furniture or consoles.

\*Except on emergency circuits in health care settings.



# **Branch Circuit Power Systems**

### (MTB) Main Terminal Box



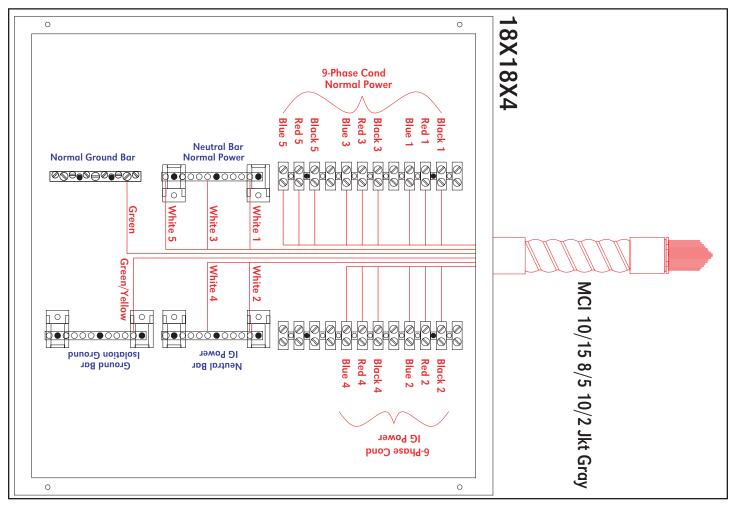
12 x 12 x 4 Box Shown

#### **Features and Benefits**

- Available in four stock sizes: 8 x 8 x 4, 12 x 12 x 4, 18 x 18 x 4, 20 x 20 x 4
- With: Insolated Ground Bar, Neutral Bar, Equipment Ground Bar, Flush Covers
- With or Without Home Run®

### **Description**

The Main Terminal Box (MTB) is utilized to distribute 20 to 50 AMP branch circuits from the panel to remote locations by means of multi-circuit Home Run® or Super Neutral® cable. The MTB provides detailed panel and circuit information as well as terminal-strip termination for up to 16 current carrying conductors (12 phase and 4 neutral). Provides the contractor greater cable management by running multiple Hotel, Motel and Dorm Rooms back to the panel. This greatly reduces congestion in the electric closet.



18 x 18 x 4 MTB

# **Branch Circuit Power Systems Audio Visual Boxes**







### **Audio Visual Boxes Technical Specifications**

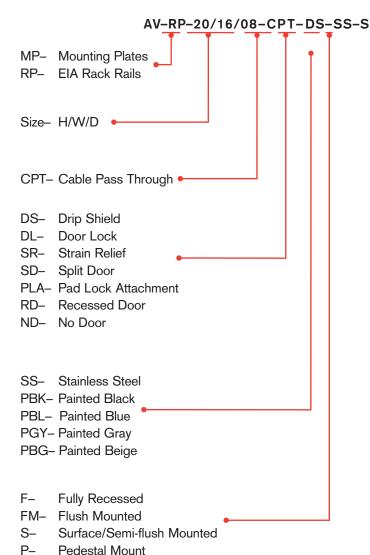
Audio Visual Boxes for stadiums, arenas and convention centers

### **Description**

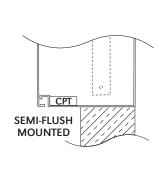
ACS/Uni-Fab's Audio-Visual boxes are specifically designed for the Audio -Visual Industry

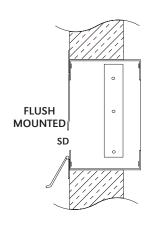
- 22" wide enclosures accommodate 19" EIA rack panels
- All rails are machined with the EIA universal spacing holes
- Cable Pass Throughs (CPT) with Neoprene Seals are available for cable entry
- Boxes are available in stainless steel with #3 brushed finish or beige textured paint
- 16 gauge stainless steel is used on boxes under 24" in any dimension
- 14 gauge stainless steel is used on boxes over 24" in any dimension
- Flush mounted enclosures have NEMA 1 door
- Recessed and surface mounted enclosures have NEMA 3 door
- · Not UL listed for wet locations
- Material: 304 Stainless or Cold Rolled Steel
- "S", "F" and "PM" come standard with drip shield
- "FM" and "FM/RD" not recommended for use in wet areas
- 1/4 turn latches standard, locking cylinders available
- Universal Rack Rails w/10-32 tapped holes spacing .625-.625-.500", 1.75" = 1 RU - The bottom two RU's can be field adjusted to a 45° angle
- Gaskets and Cable Pass Through seals are closed cell Neoprene rubber

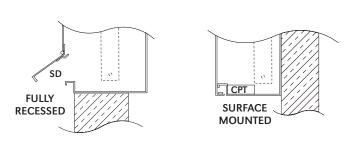
#### Standard Part Number



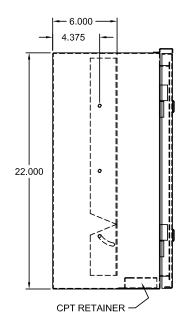
### Cable Pass Through

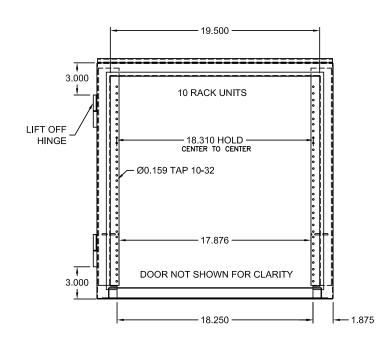


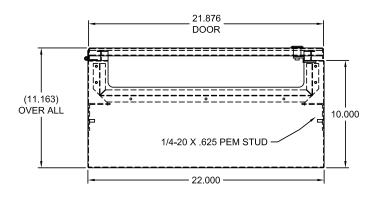




# AV-RP-22X22X10-CPT-DS-SS-S







WRAPPER= 16GA DOOR=14GA RACK MOUNTS=12GA



AV BOX SUBMITTAL

260 Duchaine Blvd. New Bedford, MA 02745 PH: 508-998-8277

FAX: 508-998-7720

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