

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:

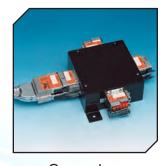
The Secondary Distribution Box (SDB) is the point from which General Purpose (GP) branch circuit power or Isolated Ground (IG) power is delivered to user outlets. The SDB comes standard in 4 double port or 4 or 6 single port configurations.

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.

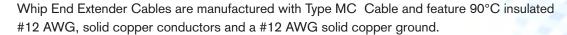


Secondary Distribution Box

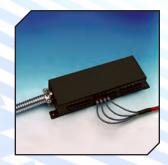
FURNITURE TRANSITION BOX

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 1/8" 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

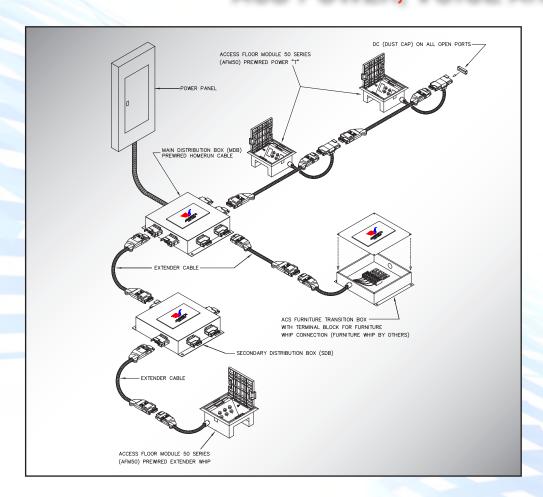


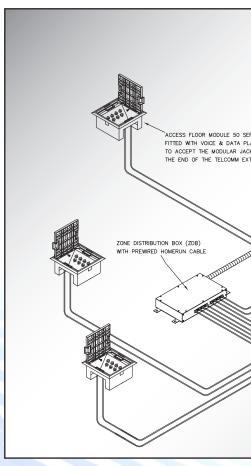
Access Floor Module



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:

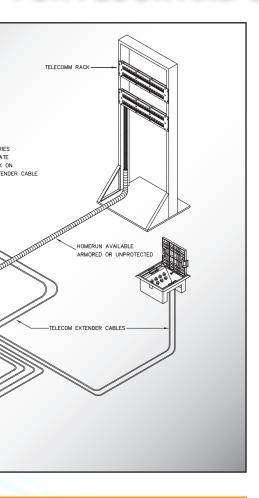
- 6 port (GP & IG) MDB coupled with up to size 4 port (GP & IG) SDB
- 6 port (GP or IG) MDB coupled with up to six 4 port or 6 port (GP or IG) SDB
- 9 port (GP & IG) MDB coupled with up to nine 4 port or 6 port (GP & IG) SDB
- 12 port (GP or IG) MDB coupled with up to twelve 4 port or 6 port (GP or IG)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

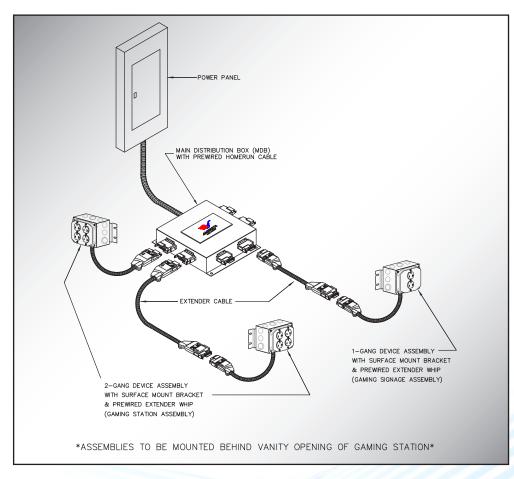
TELECOMMUNIC

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.

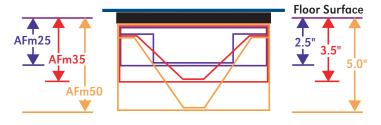
In keeping with our "Practical" approach to wiring...this solution represents the most adaptable floor box in the industry, fully compatible with ACS/Uni-Fab modular wiring systems.

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.



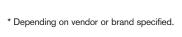
AFm35

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.





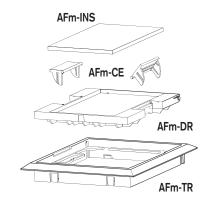
Technical Data

| 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

| Rox | |
|-----|--|
| | |

| 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

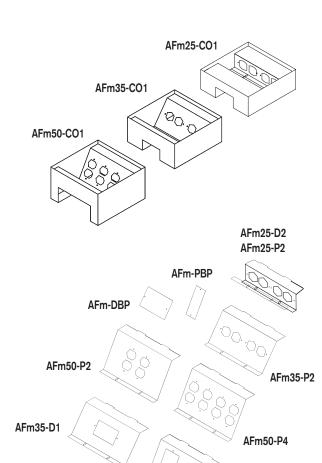
AFm35-D1

AFm50-D1

AFm50-D2

AFm-DBP

| i owei i lates | |
|----------------|---------------------------------------|
| 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 | |
| AFm25-P2 | 2.5" Double Data Plate |
| | |



AFm50-D1

3.5" Single Data Plate

5.0" Single Data Plate

5.0" Double Data Plate

Data Blocking Plate

AFm50-D2

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

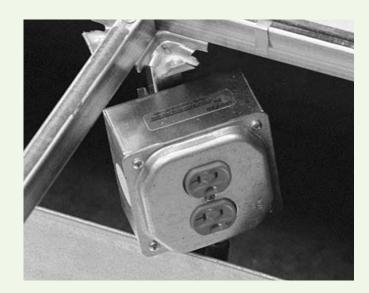
Length: 8-5/8" ± 1/16"
Width: 8-5/8" ± 1/16"

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)



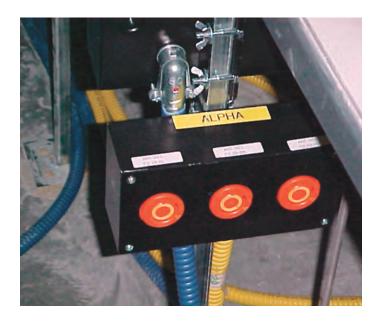
PDU Assemblies Technical Specifications

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.

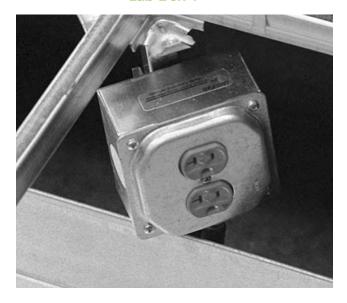
Our modules are assembled from off the shelf materials to allow for easy field modifications. This means last minute design changes can be done on-site. For the long term, the same modular features, which allow for installation ease contribute to the longevity of the system. Even removal for relocation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





PDU Assemblies Technical Specifications

Lab Box 1









2 Duplex Receptacle

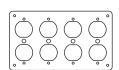


Twist Lock Cover

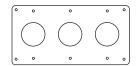
| Device Capability of Each | Straight Blade | Twist Lock | Pin & Sleeve |
|---------------------------|-------------------|---------------|-----------------|
| 4 Sq w/IRC | 2 | 1 | _ |
| Bell Box w/SS Cover | 2 | 1 | _ |
| PMPP | 6 | 6 | 4 |

Lab Box 4





Quad Lab Cover



4X8 2 & 3 Twist Locker Cover

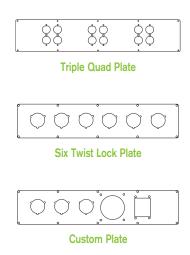
| Device Capability of Each | Straight Blade | Twist Lock | Pin & Sleeve |
|---------------------------|-------------------|---------------|-----------------|
| FMPP | _ | 9 | _ |
| Lab Box 1 | 2 | 1 | _ |
| Lab Box 4 | 4 | 3 | |

- 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

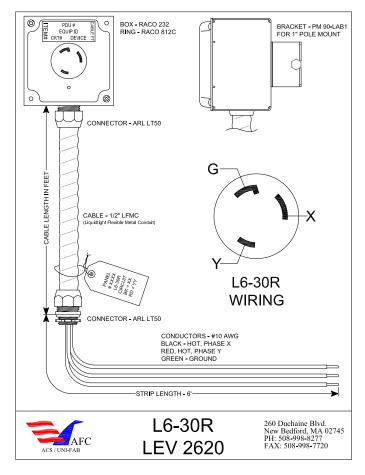
PDU Assemblies Technical Specifications

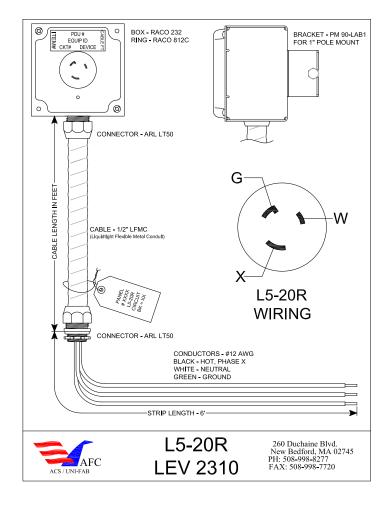
Pedestal Mounted Power Point-(PMPP)





Sample Submittals







Contact Ed Patti 407-466-9987 www.SelectPrefabSolutions.com





























