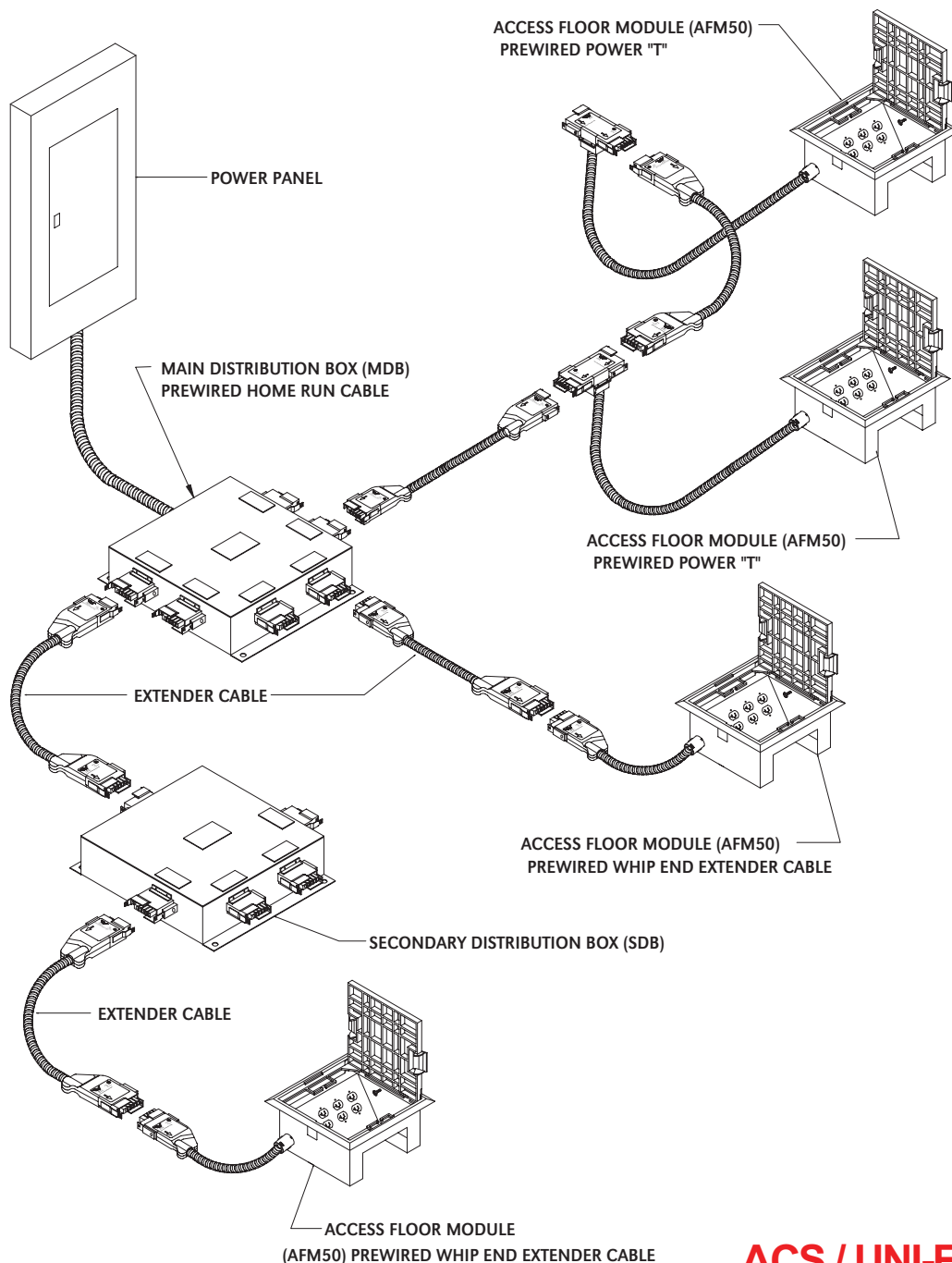


# Main Distribution Box – Technical Specifications

The ACS/Uni-Fab Main Distribution Box (MDB) is the modular version of the Master Terminal Box (MTB). The installer refers to CAD drawings developed by the ACS/Uni-Fab engineering staff, which allow him to lay out components and snap them together quickly and economically. This provides a reliable installation with maximum flexibility to accomplish future moves, adds, and changes. Total installed cost is lower than with traditional wiring methods – the higher the labor rates, the greater the savings.

The MDB is fed by Home Run®, Super Neutral®, MC I.G. or standard cables. MDBs are used to distribute 20 Amp 120/208-volt branch circuit power through modular extender cables and related whip end extender cables. MDBs are available in Single Port General Purpose (GP), Isolated Ground (IG) or Double Port both GP and IG. MDBs are available in 6-port, 9-port, or 12-port versions. We recommend consulting the ACS/Uni-Fab Engineering Group before designing a wiring scheme as use of standard configurations reduces cost and lead times. Custom circuitry and port configurations are available.



# Main Distribution Box – Technical Specifications



The MDB distributes 20 Amp 120/208-volt branch circuit power through single head (5-pin) and double-head (10-pin) modular Extender Cables, which come with a variety of circuit configurations and lengths. Extender Cables feed the Secondary Distribution Box (SDB) or run directly to the Access Floor Module (AFm), furniture, etc. The AFm is the most common workstation distribution point. Alternates to the AFm include convenience power outlets, furniture feeds or various furniture-mounted devices.

## Cost Advantage

Due to their “plug and play” nature, ACS/Uni-Fab modular wiring systems reduce installation costs by dramatically decreasing time spent on the job. The savings can be 30% – 50% over conventional wiring methods.



## Flexibility Advantage

With conventional hardwired systems, a change in office layout frequently means replacing wire from the workstation all the way back to the electrical closet. With the ACS/Uni-Fab modular wiring system, the only wiring affected is the segment from the SDB or MDB to the workstation. The plug-in connectors on the power cables allow for the easy movement of components. 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. While such changes take place, nearby operations continue uninterrupted.



## Construction

All distribution boxes, connector housings and latching strikes are made of steel, not plastic. Connector pins and sleeves are made from highly conductive tinned copper alloys and are encased in GE Lexan. The plastic is keyed and color-coded to prevent mismatching of system voltages and uses. Each power assembly is factory tested prior to shipment, assuring the product’s quality and reliability.

## UL Listing

ACS/Uni-Fab power systems are designed for installation in compliance with the National Electric Code, Section 604, Manufactured Wiring Systems and are UL Listed.



# Main Distribution Box – Technical Specifications



## Main Distribution Box

The MDB is the heart of the modular wiring system. It provides power to both the SDB and AFm via extender cables. MDBs are available in 6, 9, or 12 port General Purpose (GP) or Isolated Ground (IG) single or double port configurations. Single ports can be configured for General Purpose or Isolated Ground Power. Home Run®, Super Neutral® or MC IG cable can be pre-wired to the MDB. The cable length is determined by the distance between the designated area to the electrical panel or junction box location.



## Secondary Distribution Box

The SDB receives power from the MDB via an Extender Cable and provides a central power distribution point to feed General Purpose (GP) branch and/or Isolated Ground circuits to the AFm through Extender Cables. The SDB comes standard in 3, 4 or 6 single or double port configurations. SDBs allow for equipment to be moved or disconnected without interrupting power to other users.



## Power 'T'

AFms equipped with Power 'T's are an alternative to SDBs. Through a series of extender whips, one MDB port can feed up to 3 AFms equipped with Power 'T's. While Power 'T's are more cost effective than SDBs, minimal power interruption will occur for "downstream" users when moving work stations.



## Power Extender Cables

Extender Cables are used to interface with MDBs and SDBs to feed the AFms and to provide an extension in the event of increased length requirements. They are available in single and double port configuration for the distribution of General Purpose (GP), Isolated Ground (IG) or combination of GP/IG Branch Circuit Power Systems. Extender Cables make the connection between the MDB and SDB and from the SDB to the Power 'T' or Whip-End Extender Cable. They can also make a direct connection from the MDB to the point of use.

Whip-End extender cables are designed to interface with the Access Floor Module and/or to energize other electrical equipment. It is available in both single port and double port configurations to facilitate General Purpose (GP), Isolated Ground (IG) or combination GP/IG Branch Circuit requirements.

Power Extender Cables are manufactured from MC Cable consisting of 90 C insulated #12 AWG solid copper conductors (with optional #10 AWG neutral) and rated for use on 20 amp 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.



## Home Run Cable®

Home Run Cable® is a metal clad cable with a variety of configurations to choose from including Super Neutral®, individual neutrals, isolated ground or general purpose conductors. All conductors are UL Listed. Rated 600V. Type THHN. Copper Wires.