

Technical Specifications

Legion™ Panel System



PANELS

Legion panels are offered in monolithic and segmented styles. Panels may be specified without top caps to allow for attachment of spanning top caps or divider screens. All Legion panels meet the flammability requirements as defined in the ANSI/UL 1286 safety standard for Office Furnishings. Class A rated standard finishes are available.

Preconfigured panels are 3.5" thick and are available in the following dimensions:

- Panel Widths: 24", 30", 36", 42", 48", 54", 60", 72" (72" features split tiles)
- Panel Heights: 32", 40", 48", 56", 64"

Three base styles are available:

- Standard base
- Elevated base
- Tile-to-floor base

Insert tiles are interchangeable among standard, elevated, and the standard base side of tile-to-floor panels. Tile height of the tile-to-floor tile is unique, and is not interchangeable. All tiles are hand-placed, requiring no tools for attachment to frames. All base styles support reconfiguration.

Standard bases allow for distribution of power and data at the base of the panel. Tile-to-floor panels feature a base raceway on the user side only. Above worksurface beltline power is available on all base styles.

Frame Construction

Frames are welded, and consist of the following:

- Top & bottom horizontal rail – formed of 16-gauge steel x 1- 7/8" square
- Vertical Post – formed of 16-gauge steel x 1-3/4" x 2-1/16", featuring slots at 1" increments to allow for tile and component hanging.
- Top cap mounting clip - formed of 20-gauge spring steel x 1.28" x 1.88" x 2.00" with channel to route data cables. Fastened with #12 x 3/4" screw to all top horizontal rails.
- Glide housing – plastic rated HB minimum. Overall dimensions are 1.15" x 24" x 1.5" height. Glides provide a 3" range of adjustment.
- Glide – 3/8 -16 x 1" diameter
- Glide stem – 3/8 -16 x 1" diameter
- Wireway mounting bracket – used on bottom and beltline raceway in powered assemblies. Formed of 16-gauge steel. Overall dimensions are 1-3/8" x 1-13/16" x 2-1/2" with mounting holes for wireway.

Stackable Frames

Stackable frames are available in 16" height. Stackable frames are constructed in one of two styles:

- Stackable frames for standard two-sided tile attachment feature horizontal rails and vertical posts. Stacking frames are attached with 1/4" x 1" x 7-1/2" steel blades.
- Stackable frames with glass or perforated steel inserts consist of full four-sided aluminum horizontal and vertical posts. Frames measure .075" x 1.35" x 3.27", in overall widths consistent with frame widths. Frames capture a single 1/4" glass panel or perforated steel segment within, and are attached with 1/4" x 1" x 7-1/2" steel blades.

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Lightblock

90° – Formed of 0.04" thick extruded black plastic x .58" x .58" rated HB minimum. Angle is 90° for 90° panel intersections. Lengths range from 48", 64" and 80". Other lengths must be field cut from the tree listed. Plastic light blocks snap to connector blocks at 90° intersection and serve only to block light.

120° – Formed of 18-gauge, pre-painted black steel x 2.68" x 2.68". Length ranges from 8" to 80" x 8" increments. Angle is 60° for 120° panel intersections. Steel light blocks hang on connector block bolts at 120° intersections. 120° light blocks block light and serve as a spacer for proper floor planning.

Raceway Hinge Clip

Raceway hinge clip is plastic rated HB minimum.

Dimensions: 1-13/16" x 2-1/8" x 3-1/4"

Connector Block

90° – Formed by an extruded aluminum square block 0.09" minimum wall thickness x 2.50" tall x 3.40" wide that includes one threaded steel insert on each face. Block contains two "U" shape 18-gauge galvanized steel spacer plates fastened to the block with one 1/4-20 bolt.

120° – Formed of extruded aluminum triangular block 0.09" minimum wall thickness x 2.50" tall x 2.95" wide. Includes three threaded inserts and no spacer plates.

Tile Inserts

Monolithic

Preconfigured monolithic panels feature either fabric or steel tile inserts.

Segmented

Preconfigured segmented panels are available in a variety of substrates and finish options. Segmented panels universally feature a 32" segmentation height, with specified upper and lower, and front and back tiles. Preconfigured segment options vary by configuration and may include:

- Fabric – upper and lower
- Fabric – upper, Open – lower
- Steel Markerboard – upper
- Glass – upper
- Powder-coated Perforated Steel – upper

Fabric Tiles

Fabric tiles feature:

- Fiberglass – 1/2" thick fiberglass board in dimensions from 24" - 60" wide and 8" - 64" tall; may feature up to 2 cutouts with overall dimensions 2-1/16" x 7-5/8" for receptacles.

Fabric tiles feature 2" stiffener rails of 0.048" formed steel. Rails are secured to board with adhesive, and are located on left and right edge of tile. Additional horizontal stiffener rails may be added as required for additional rigidity. Fabric is secured to tile edges and back of tile with adhesive. Fabric tiles are available in monolithic, segmented, and stacking sections.

Steel Markerboard Tiles

Steel markerboard tiles are constructed of 22-gauge formed steel with honeycomb corrugated board adhered to the back of the tile to dampen sound. Two .06" x .25" x 1.0" magnets are adhered with double back tape to the back of the tile to aid in assembly without tools. Magnet are Neodymium (NdFeB) Grade N52 (4.45lb pull force) block with a nickel coating. A magnetic tray, markers and eraser can be specified separately. Steel markerboard tiles are available in segmented and stacking sections.

Glass Tiles

Glass tiles feature glazed glass inserts captured in an aluminum extrusion frame. Glass is 1/4" thick tempered. Glass tiles are available in segmented and stacking sections.

Perforated Steel Tiles

Perforated steel tiles are constructed of 20-gauge steel with 3/32" diameter holes on 5/32" staggered centers. Perforated tiles may not be hung back-to-back with any other tile. Perforated steel tiles are available in segmented and stacking sections.

Acoustic Septum Kits – UNRC.size

Acoustic Septa are rigid 2" thick composite fiberglass sheets designed to be inserted into standard Legion panel frames. When installed, the septum increases the NRC of the Legion raceway fabric panel from .60NRC to .70NRC per ASTM C423-09a. Septa fit inside and fill the interior of the Legion metal frame without the use of tools. When rigid wireways are included at beltway, the septa must be cut in the field to allow space for the wireway.

- Acoustic Septa are 2" thick and are available in seven widths and five heights designed to fit into all standard Legion frame sizes.
- Acoustic Septa are constructed of three cured (ie. molded) fiberglass layers that are bonded together. The two outer layers are 3 lb. (pcf) x 3/4" thick fiberglass. The center core is 12 lb. (pcf) x 1/2" fiberglass.
- The fibrous glass wool (fiberglass) is manufactured using a minimum of 30% post-consumer recovered materials and a minimum of 5% post-industrial (pre-consumer) recovered materials. Fiberglass bats are subsequently cured using heat to compress the fiberglass into desired densities. The ingredients of the fiberglass are listed:
 - Fibrous Glass
 - Urea extended phenol-formaldehyde resin
 - Formaldehyde - Non-Woven facings

PANEL TRIM**Base Trim/Raceway**

Base raceways consist of two 22-gauge trim pieces (one on each side of the panel). Each piece is hinged to an injection-molded clip and snap onto brackets attached to the bottom horizontal rail when closed. All base raceways accept rigid wireways and data cables. Base raceways are specified with or without 2-1/16" x 7.60" knockouts, which are easily removed to accommodate electrical receptacles and/or data jacks. No tools are required for installation. 24" panels feature one knockout per side; all other sizes feature two.

Dimensions: 5.28" high x width of panel

Panel-to-Panel Connectors

Panel-to-panel connectors are universal. Full welded panel frames attach in-line using 3/8-16 hex head bolts with washers and star lock nut. Frames attach at intersections using aluminum extruded connection blocks. Intersections can be reconfigured without disturbing the existing workstation. Components for each intersection condition, including change of height conditions, are available in kit form. Each kit includes all hardware and associated trim to complete the intersection condition. 9/16" socket drivers are required to complete all panel connections.

Intersection kits include all necessary light blocks. Light blocks for 90° intersections are black plastic and serve only to block light. Light blocks for 120° intersections are pre-painted black steel that block light and serve as a spacer for proper floor planning.

Split Tile Light Block

"C" shaped split tile light block is formed of 0.046" black pre-painted steel.

Dimensions: 1.25" x 3.45" x height of panel

Top Cap

All pre-configured Legion panels include a top cap of appropriate size. Top caps are formed of 0.060" extruded aluminum with powder-coat finish. Top caps used with top fed power feature cutout for top feed. Installation of top cap is a snap fit and requires no tools. Top cap snaps to spring steel clips which are fastened to the top of all panel frames.

Top cap dimensions: 0.40" x 3.50" x width of panel

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End of Run Trim

All exposed ends of a panel run are covered with an end-of-run trim, formed from 18-gauge steel with powder-coat finish. Installation of end of run trim is a snap fit and requires no tools. Panel end trim lengths correspond to panel heights.

Intersection caps are formed of machined aluminum, cast aluminum, or cast zinc.

Dimensions: 0.40" x 3.50" x height of panel

End of run trim clips are formed of 0.034" black spring steel.

Dimensions: 0.54" x 2.00" x 3.30"

3 Way, change of height, or "C" shape trim is formed of 0.046" powder-coated steel.

Dimensions: 3.50" x 3.50" x height of tallest panel

90° dead end trim features and 18-gauge welded steel plate.

Dimensions: 0.50" x 3-3/16"

120° dead end trim is formed to a 60° angle of 0.046" powder-coated steel.

Dimensions: 3.50" x 3.50" x height of panel

Corner Trim and Change of Height Trim

All exposed corners of a panel run must be covered with either corner trim or change of height trim. Corner condition "L" shape trim is formed of 0.046" thick powder-coated steel. Installation utilizes a snap fit and requires no tools.

Dimensions: 3.50" x 3.50" x height of highest panel

Segmented Trim Channel

"H" shaped segmented trim channel is formed of 0.06" extruded powder-coated extruded aluminum. Channel connects two segmented tiles along the horizontal connection. No tools are required for installation.

Dimensions: 0.71" x 1.25" x width of panel

Bottom Trim Channel

Standard base and elevated base bottom channel trim is used to locate and hold tiles horizontally. Channel is roll-formed of 0.034" steel.

Dimensions: 1.00" x 2.25" x width of panel

Tile-to-Floor bottom trim is powder-coated aluminum.

Dimensions: 0.75" x 1.50" x width of panel

Vertical Trim Clips

Stamped spring steel clips allow attachment of vertical trim at the end or run and change of height trim. Clips attach to the vertical posts with 3/8-16 hex head bolts.

Intersection Caps

All top cap intersection conditions are joined with separate intersection caps. Caps are injection-molded zinc with a powder-coat finish, and are required for all end of run, 2-way, 3-way, and 4-way connections, regardless of intersection angle.

Lifted Panel Foot Shroud

Foot shroud is formed of 16-gauge formed steel with powder-coat finish, and is used in elevated base conditions only.

Dimensions: 1.10" x 3.50" x 5.43"

ATTACHMENT CONDITIONS

Wall Track

Wall track is available to allow for hanging of components onto an existing structural wall in the identical method as if the components were hung on Legion panels. The wall track consists of slotted 16-gauge steel with powder-coat finish in panel trim colors.

Adjustable Wall Mount

Adjustable wall mounts consist of a formed steel channel and 7/8" thick cork/rubber washers enclosed in a steel "U" channel to allow panels to be attached to existing building walls. Each unit features an adjustable depth of 1-1/4" in 1/8" increments. Method of attachment to the existing building is dependent upon the existing wall construction.

ELECTRICAL

Power Options

The US standard electrical system supplied for Legion is an 810 electrical system. Rigid wireway can be mounted to any panel frame.

Power is available at the following heights:

- Base Height Power – found in the 6" base raceway of the panel.
- Worksurface (Beltway) Height Power – The powered tiles allow for installation of worksurface height receptacles. Two duplex receptacles can be mounted in a tile (one in a 24" tile). Receptacles are approximately 32" high.

Power is supplied through one of two available means:

6-2-2

- (6) hot wires
- (2) shared oversized neutral wires
- (2) ground wires – 1 isolated ground and 1 building ground

4-4-2

- (4) hot wires
- (4) independent neutral wires
- (2) ground wires – 1 isolated ground and 1 building ground

Rigid Wireways

Each powered panel requires the use of rigid wireways to pass power to receptacles. Wireways may be mounted at the base of panels or at beltway height. Wireways are specified by panel width. The wireway design allows for snap connection of one panel's wireway to another panel's wireway through the use of common panel jumpers. All panels 24" and wider accept electrical components.

There are four port locations on each end of every rigid wireway 30" and larger. 24" wireways feature two ports on one end only.

Wireways mount by screws to attached brackets on the underside of the lower frame for base power. For beltway power, rigid wireways attach with screws to brackets that are hooked into the vertical posts at each end.

Base Infeeds

The electrical system permits power infeed at the base raceway of the panel. Base infeeds are constructed of a 6' long, 1/2" liquid-tight flexible metal conduit containing ten wires with a receptacle type design allowing for quick installation and removal. Infeeds rotate to allow for left or right configuration.

Top Infeeds (Data and/or Power)

Power and data may be brought into a Legion panel through the use of a top infeed. Top infeed assembly consists of a 7' or 10' extruded aluminum data and/or power pole, top cap and ceiling trim. The interior of the power pole features a septum for power and data cable management. Flexible conduit containing ten wires to span the ceiling with a snap fit attachment for connection to the rigid wireway cable must be specified separately. Refer to the Planning Guide for additional tips for specifying top infeeds.

Power Pass-Through

The electrical system provides a method of passing power from one powered panel through a non-powered panel to the powered rigid wireway of the next panel. The pass-through consists of a standard rigid wireway without receptacles. Panel-to-panel jumpers are required to connect adjacent wireways.

Panel-to-Panel Jumpers

12" and 16" panel-to-panel jumpers feature nylon mesh casing.

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System Jumpers

Designed for interconnection of Manufactured Wiring Systems to Office Furnishings. Two lengths are available for in-line and 90° connections. Jumpers are constructed with steel corrugated sheathing and steel shielded connectors.

Vertical Jumpers

30" vertical jumpers feature steel corrugated casing.

Receptacles

The receptacles for the modular electrical system feature injection molded components which snap fit into the rigid wireways of the panels. The rated capacity of the duplex receptacles is 15 or 20 amps in the 6-2-2 circuit configuration. Beltway receptacles come with bezel plate.

Bezels/Filler Plates

Bezels and filler plates are molded in nylon molded in a variety of colors.

Raceway Cable Trough

A formed 22-gauge black steel trough manages cables in raceway. Trough installs with a snap fit into raceway clips at each end of a panel without the use of tools.

Electrical System Test Requirements

The Legion panel system, including the modular US electrical components, meets applicable UL standards and requirements as identified by Underwriters Laboratories, Inc.

LEGION FREESTANDING TABLE

Table Tops

Rectangular shapes are available in 24" and 30" depths and 48", 60" and 72" lengths.

Table Supports

Supports are welded and consist of the following:

- Bottom, vertical and horizontal tubes – 14-gauge measuring 1-1/2" x 3/4"
- Top mounting bracket – formed 14-gauge steel
- Glide – 3/8"-16 x 1" diameter
- Leg insert (optional) – 18-gauge perforated steel

WORKSURFACES AND ACCESSORIES

Rectangular Worksurfaces

The standard rectangular worksurfaces are available in widths of 6" increments from 24" - 96", and in depths of 18", 22", 24" and 30".

Rectangular conference ends are also available.

90° Corner Worksurfaces

90° symmetrical corner worksurfaces are available in 36", 42", and 48" widths, and in 18", 20", and 22" depths.

Shaped Worksurfaces

Peninsula, Extended Corner (shoe), Extended Corner Reduction (shoe), Tapered, 120°, and 60° shaped surfaces are available in a variety of widths and depths. Grommet locations are specified.

Transaction Countertops

Transaction countertops are available in widths of 6" increments from 24" - 84", with a countertop depth of 16". Countertops are also available for 90° corners. Support brackets feature steel locking clips to prevent dislodgment. Optional brackets are available for use on a 32" high panel, appropriate for ADA applications. Countertops accommodate task lighting.

Underhead Worksurfaces

Surfaces are available to hang underhead Vini® storage units. A 15" deep surface sits flush with underhead unit, with 22", 24", and 30" depths also available.

Worksurface Grommets

Worksurface grommets are available to fit a 3" hole in most worksurfaces. Grommet is aluminum injection-molded with powder-coat finish.

Worksurface Wire Manager

Wire manager is constructed of black hook-and-loop ribbon, 7-1/2" wide by 2" deep. The harness is fastened to the underside of the worksurface with pressure-sensitive adhesive. This wire manager supports cords and communication cables under the worksurface.

WORKSURFACE SUPPORT

Worksurface Support Legs

Support legs can provide both worksurface support and panel support in certain configurations. Brackets on the support leg prevent dislodgment from the vertical post of the panel. Worksurface support legs are specified by worksurface depth or width, depending upon configuration. See Planning Guide for additional planning rules.

Worksurface End Support Legs

End support legs are available for use at the ends of perpendicular, or peninsula worksurfaces. These legs do not have brackets. See Planning Guide for additional planning rules.

Worksurface Support Brackets

Two types of worksurface support brackets are available for Legion:

- Standard cantilever brackets
- Design brackets

Worksurface Vertical Fillers

3" worksurface vertical filler fills the gap when one worksurface drops from the standard 29" down to an adjacent 26" worksurface. Worksurface vertical fillers are available in 24" and 30" widths to match worksurface depths and are attached to worksurfaces with wood screws. Filler is constructed of 15-gauge powder-coated steel.

STORAGE AND ACCESSORIES

Vini® Underhead Storage

Underhead dimensions and specifications match those of overhead units. Underhead may be mounted on any approved panel run (provided one end of the underhead is adjacent to a return). Underhead accommodates standard binders. Storage units include holes in top and bottom for cord drop in conjunction with grommets. Brackets are included for attachment. Legs may be specified separately if desired.

Flourescent Overhead Task Lights

Task lights that suspend from a shelf or overhead cabinet are available. Task light mounts on the underside of the shelf and overhead cabinet, and feature a 9' cord. Cords can be concealed by tucking between the reveal along tiles. Lights feature a T5 flourescent bulb.

LED Overhead/Countertop Task Lights

Task lights are available with magnetic mount for metal applications or screw mount for wood applications. Lights offer single touch on/off and touch-and-hold continuous dimming pad with last state memory. Cord length to be 9' on 15W power supply and 12' on 60W power supply. Overall lengths to be 17", 31", 44" and 58".

Shelf Dividers

Shelf dividers are compatible with Universal and Venus overheads, cabinets, and shelves only. Shelf dividers are powder-coated steel, and may be installed or removed with no tools.

Frameless Markerboards

White dry-erase steel markerboards are constructed of 22-gauge steel with honeycomb core to dampen sound. Markerboard surfaces are magnetic, and include a 16" x 1-1/2" magnetic removable tray with marker and eraser. Markerboards mount in vertical post rail slots of a panel of the same width as the board, or alternately to wall track.

Framed Markerboards

Framed markerboards are constructed of powder-coated aluminum frame with a white porcelain painted marker surface and matching white painted trim. Markerboard surfaces are magnetic, and include a 16" by 2-1/2" magnetic removable tray with markers and eraser. Markerboards mount in vertical post rail slots of a panel in the same width as the board or to wall track.

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ACCESSORIES

Glass Divider Screens

Glass divider screens are constructed of 3/8" tempered glass captured in injection-molded plastic clamps. Aluminum split top caps surround the assembly.

Glass dimensions: 10" x panel width

Wall Track

Wall track allows for hanging of components onto an existing structural wall in the identical method as if the components were hung on Legion panels. Wall track is constructed of slotted 16-gauge steel with powder-coat finish.

Markerboards

Markerboards are constructed white porcelain painted marker surface captured in a white painted aluminum frame. Markerboard surface is magnetic. Markerboards mount in the vertical post rail slots of a panel in the same width as the board or to wall track.

Tackboards

Tackboards are constructed of 3/4" industrial insulation board covered with fabric. The mounting brackets are steel powder-coated and attached to the core with T-nuts and machine screws. Fabric is attached to the core with staples. Tackboards mount in the vertical post rail slots of a panel in the same width as the board, or alternately to wall track.

PAPER MANAGEMENT ACCESSORIES

Tool Rail

Tool rails are fabricated of a powder-coated aluminum extrusion. Tool rails are attached to the panel through the use of steel brackets, and support most paper management accessories. Available for standard panel sizes, on module only.

Paper Tray Unit

Legal and letter sized paper trays are constructed of injection molded plastic. Trays are supported by the tool rail.

Dimensions: 2" high x 9-1/2" wide x 14" deep

Diagonal Storage Unit

Diagonal storage units are constructed of injection molded plastic. Three ABS dividers may be used in left or right positions. Units are supported by the tool rail.

Dimensions: 2 1/2" high x 7" wide x 12 1/2" deep

Vertical Storage Unit

Vertical storage units are constructed of injection molded plastic. Units are suspended from tool rail or used freestanding on worksurfaces and shelves.

Dimensions: 9" high x 5" wide x 10-1/2" deep

Telephone Caddy

Plastic caddies are adjustable to accommodate a phone up to 10-3/4" deep. Caddy includes three hooks for suspending from tool rail.

Dimensions: 2" high x 8-1/2" wide x 9-1/2" deep

Accessory Tray

Plastic accessory trays include three hooks for mounting. Trays feature compartments to hold pencils, paper clips and miscellaneous items, and are suspended from tool rail or used freestanding on worksurfaces and shelves.

Dimensions: 2" high x 9-1/2" wide x 10" deep

Pencil Cup

Injection molded plastic cups provide for storage of pens, pencils and highlighters. One hook is provided for mounting on tool rail.

Dimensions: 4" high x 4" wide x 3-1/2" deep