

Note: x=color; Gray (-1XX), Computer White (-2XX), Black (-7XX).

Q. When should a Standard Swing Gate Wall Rack be used?

A. Use Standard Swing Gate Wall Racks in Telecommunications Rooms (TR) where floor space is limited, and when access to the rear of the equipment is critical.

Q. What type of equipment will Standard Swing Gate Wall Rack support?

A. This rack will support both panel-mount equipment and shelf-mount equipment. Both 19" wide EIA-310-D compliant and 23" wide rack options are available to support direct panel-mount (rack-mount) equipment. CPI offers rack shelves in a variety of styles, sizes and load bearing capacities.

These racks are ideal for telecommunications equipment such as patch panels, fiber enclosures, network switches, hubs, routers, CSU/DSUs, modems, media converters, etc. Server and data storage equipment may be placed on shelves attached to the rack as well; however, the rack is not designed to support rack-mount servers and data storage equipment. Instead, select a cabinet configured with two pairs of square punched rails for this application.

Q. What thread set does the mounting system support?

A. All wall racks are punched along the front and rear flange of the 3"D (80 mm) C-shaped equipment mounting channels with the EIA-310-D Standard Universal hole pattern. Mounting hole centers are aligned vertically on an alternating pattern of 5/8"-5/8"-1/2" (15.9 mm-15.9 mm-12.7 mm) centers to provide each 1-3/4"H (44.45 mm) Rack Mount Unit (U). On 19"W EIA racks, mounting hole centers are aligned horizontally at 18.31" (465.1 mm) and there is 17.75" (450.9 mm) of clearance between the equipment mounting channels. On 23"W racks, mounting hole centers are aligned horizontally at 22.31" (566.7 mm) and there is 21.75" (552.5 mm) of clearance between the equipment mounting channels. Each mounting hole is roll formed with the #12-24 thread. Every rack includes 50 each equipment mounting screws. Use the screws included with the rack to install all equipment. Each piece of equipment will use a minimum of four screws for installation. Additional mounting screws may be purchased as an accessory in packs of 50 each using CPI part number 40605-001 for silver-colored (zinc) or 40605-005 for black.

Q. How does the pivot system work?

A. The rack consists of two assemblies: A wall-mount bracket and a swing gate rack. The wall-mount bracket is attached to the wall and provides support for the swing gate rack. The "swing gate" is attached to the wall-mount bracket with spring loaded catch pins. The gate may pivot to the right or left simply by opening the top and bottom catch pin on one side of the rack. Both hands must be used to open the gate, providing added safety and security for rack users. However, the corner brackets (which hold the pins and act as both latch and pivot point) allow one-hand closure. These brackets are formed with a ramp shape that lifts the pin over the latch point during the closure action. The spring then causes the pin to snap into the closed position with an audible "click".

This system also aids the installer. Once the wall-mount bracket is attached to the wall, the factory assembled swing gate may be quickly placed in the bottom corner brackets and easily snapped into the top corner brackets.



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Q. Will the Standard Swing Gate Wall Rack pivot open to both the left and the right side?

A. Yes, Standard Swing Gate Wall Rack is a two-part assembly. The "swing gate" is attached to the "wall-mount bracket" with spring loaded catch pins which function as either the pivot point or the latch closure and allow the rack to be opened to either the right or left side. Additionally, the "swing gate" will stop its "swing" at 90°, facilitating cable punch down on the rear side of the frame.

Q. What is the equipment Load Bearing Capacity of these racks?

A. Standard Swing Gate Wall Racks are UL® Listed and cUL Listed as an "ITC Equipment Rack", NWIN category, file E227626. UL has certified that the racks will hold 100 lb (45.4 kg) of equipment in both the opened and closed positions. Racks should be attached with 1/4" lag screws (included with the rack) through all attachment points on the rack's wall-mount bracket to 3/4" AC grade plywood secured to the wall.

For additional load bearing capacity in the 18"D (460 mm, -X18) and 25"D (640 mm, -X25) racks, add the Heavy-Duty Swing Gate Kit (CPI P/N 12795-X01). This set of brackets increases the rack's load bearing capacity to 150 lb (68 kg) of equipment. It includes installation hardware and instructions.

Q. How is the Heavy-Duty Swing Gate Kit (CPI P/N 12795-X01) attached to the rack?

A. The Heavy Duty Swing Gate Kit (CPI P/N 12795-X01) is installed with nut and bolt hardware on the inside of the Standard Swing Gate Wall Rack's wall-mount brackets. Rack models manufactured after March 3, 2003, are pre-punched with attachment holes to allow easy installation. Models manufactured prior to March 3, 2003 will require match drilling of the attachment holes on the rack's wall-mount bracket by the installer. The Heavy Duty Swing Gate Kit (CPI p/n 12795-X01) can be added to all 18"D (460 mm, -X18) and 25"D (640 mm, -X25) Standard Swing Gate Wall Racks. The kit includes two brackets, installation instructions and attachment hardware, and increases the load bearing capacity of the rack up to 150 lb (68 kg).

Q. Why is Usable Depth less than Overall Depth

A. Overall dimensions define the space required on the wall to mount the rack. Overall dimensions are maximum width, height and depth dimensions and include all taps, bolts and other items which project past the rack's wall-mounted support. Usable dimensions are the rackmount space available for equipment on the rack's swing gate. Usable depth is the maximum depth of equipment for which the swing gate may still be operated. Deeper items will interfere with the swing gate's wall-mounted bracket. The usable depth of the rack is further limited at the rack's top and bottom U because of the corner design. If the Heavy Duty Swing Gate Kit is used with the rack, the usable depth will be further reduced another 1/2" (12.7 mm) at the first and last U.

Standard Swing Gate Wall Rack									
	Usable Dimensions			Overall Dimensions - in (mm)			Shipping		
Part Number	Height	Width	Depth*	Height	Width	Depth	Weight Ib (kg)		
11790-X12	13U	19"EIA	11 (280)	29.1 (739)	21.7 (551)	12.2 (310)	22 (10.0)		
11790-X18	13U	19"EIA	17 (430)	29.1 (739)	21.7 (551)	18.2 (462)	24 (10.9)		
11790-X25	13U	19"EIA	24 (610)	29.1 (739)	21.7 (551)	25.2 (640)	42 (19.1)		
11791-X12	21U	19"EIA	11 (280)	43.1 (1095)	21.7 (551)	12.2 (310)	24 (10.9)		
11791-X18	21U	19"EIA	17 (430)	43.1 (1095)	21.7 (551)	18.2 (462)	26 (11.8)		
11791-X25	21U	19"EIA	24 (610)	43.1 (1095)	21.7 (551)	25.2 (640)	46 (20.9)		
11807-X12	27U	19"EIA	11 (280)	53.6 (1361)	21.7 (551)	12.2 (310)	25 (11.3)		
11807-X18	27U	19"EIA	17 (430)	53.6 (1361)	21.7 (551)	18.2 (462)	26 (11.8)		
11807-X25	27U	19"EIA	24 (610)	53.6 (1361)	21.7 (551)	25.2 (640)	50 (22.7)		
11792-X12	41U	19"EIA	11 (280)	78.1 (1984)	21.7 (551)	12.2 (310)	31 (14.1)		
11792-X18	41U	19"EIA	17 (430)	78.1 (1984)	21.7 (551)	18.2 (462)	33 (15.0)		
11792-X25	41U	19"EIA	24 (610)	78.1 (1984)	21.7 (551)	25.2 (640)	60 (27.2)		
11793-X12	13U	23"	11 (280)	29.1 (739)	25.7 (653)	12.2 (310)	23 (10.4)		
11793-X18	13U	23"	17 (430)	29.1 (739)	25.7 (653)	18.2 (462)	25 (11.3)		
11793-X25	13U	23"	24 (610)	29.1 (739)	25.7 (653)	25.2 (640)	43 (19.5)		
11794-X12	21U	23"	11 (280)	43.1 (1095)	25.7 (653)	12.2 (310)	25 (11.3)		
11794-X18	21U	23"	17 (430)	43.1 (1095)	25.7 (653)	18.2 (462)	27 (12.2)		
11794-X25	21U	23"	24 (610)	43.1 (1095)	25.7 (653)	25.2 (640)	47 (21.3)		
11808-X12	27U	23"	11 (280)	53.6 (1361)	25.7 (653)	12.2 (310)	26 (11.8)		
11808-X18	27U	23"	17 (430)	53.6 (1361)	25.7 (653)	18.2 (462)	28 (12.7)		
11808-X25	27U	23"	24 (610)	53.6 (1361)	25.7 (653)	25.2 (640)	51 (23.1)		
11795-X12	41U	23"	11 (280)	78.1 (1984)	25.7 (653)	12.2 (310)	32 (14.5)		
11795-X18	41U	23"	17 (430)	78.1 (1984)	25.7 (653)	18.2 (462)	34 (15.4)		
11795-X25	41U	23"	24 (610)	78.1 (1984)	25.7 (653)	25.2 (640)	61 (27.7)		

Q. How do I select a Standard Swing Gate Wall Rack?

A. Begin by making a list of the equipment that will be supported and identifying the width, height, depth and maximum weight of each piece of equipment. This information is usually available from the manufacturer's web site.

Equipment List							
Description	Width	Height	Depth	Weight			
Cable Manager	19" EIA	1U	(+4" 102 mm)	2.5 lb (1.2 kg)			
Patch Panel, 48 Port	19" EIA	2U	4" 102 mm	5 lb (2.3 kg)			
Cable Manager	19" EIA	1U	(+4" 102 mm)	2.5 lb (1.2 kg)			
Patch Port, 48 Port	19" EIA	2U	4" 102 mm	5 lb (2.3 kg)			
Fiber Enclosure	19" EIA	1U	11" (280 mm)	2.5 lb (1.2 kg)			
Switch, 48 Port	19" EIA	2U	13" (330 mm)	10 lb (4.5 kg)			
Upper Jumper Tray	19" EIA	3U	(+4" 102 mm)	2.5 lb (1.2 kg)			
Switch, 48 Port	19" EIA	2U	13" (330 mm)	10 lb (4.5 kg)			
Upper Jumper Tray	19" EIA	3U	(+4" 102 mm)	2.5 lb (1.2 kg)			



To Select Width. Racks are either 19"W EIA or 23"W. In the example, all of the equipment is 19"W EIA rack-mountable, so a 19"W EIA rack can be selected. If the equipment were not rack mountable, a shelf would need to be selected to provide support. Generally, a 19"W rack with shelves is suitable for equipment up to 17.25" (438 mm) in width, and a 23"W rack with shelves is suitable for equipment up to 21.25" (539 mm) in width. If there is a mix of 19"W EIA and 23"W equipment, select a 23"W rack and use CPI Rack Panel Adapters (available in 1U to 5U high, P/N 31410-X00 to 31450-X00) to convert the 23"W rack to a 19"W EIA rack mount solution where required.

To Select Height. For rack-mount equipment, height is stated in Rack Mount Units (also called Rack Units, Rack Spaces, Rack Mount Spaces, RMU, RMS or U) in equipment specifications. An U is equivalent to 1-3/4" (44.45 mm) of vertical mounting space. In the example, all of the equipment is 19"W EIA rack-mountable, so all heights are stated in RMU. Add these values to determine a total number of spaces required, then add one. The result, in the example 18U, is the minimum height required for the Swing Gate Rack. Alternately, the height of shelf mount equipment will be given in inches (or millimeters). Convert these values to U by dividing by 1.75 (or 44.45) and rounding up to the nearest whole number. Then follow the method for U (add the values for U, then add 1).

Remember to consider U space that will be used for horizontal cable managers and shelves in the calculations.

To Select Depth. For rack-mount equipment, depth is stated in inches (or millimeters). Highlight the largest value for depth from your equipment list and then add 2" (51 mm) to your result. In the example, the largest value is 13" (331 mm), add 2" (51 mm) for 15" (381 mm). The stated "Useable Depth" for the rack should exceed the calculated value. In this case, an (-X18) rack, which has a useable depth of 17" (430 mm), will be sufficient. For shelf mount equipment, select a shelf that is deeper than the depth of the equipment and has sufficient load bearing capacity for the equipment. The shelf must project to the rear of the rack no more than the useable depth of the rack or there will be interference when the rack is opened. If the shelf projects from the front of the rack, note that it could be a hazard to passers by.

CPI recommends adding the additional 2" (51 mm) to the base value for depth of rack-mount equipment to allow space for ventilation, power and network cables that may exit the rear of the equipment.

Equipment manufacturers do not always include these projections in chassis size on equipment specifications. Additionally, remember that equipment, shelves, cable and cable managers may project to the front of the rack. So, the overall depth may be greater than the depth of the rack. This additional depth should be considered when planning the location of the rack.

To Verify Load. Each rack has a maximum load bearing capacity of 100 pounds regardless of the load bearing capacities of any shelves that may be attached to the rack. If fitted with the Heavy-Duty Swing Gate Kit, load bearing capacity is increased to 150 lb (45.4 kg). Add the weight of all equipment and shelves that will be supported by the rack. Be sure that the total supported weight is less than the appropriate load bearing value for your rack (100 lb/45.4 kg, 150 lb/68 kg with the Heavy-Duty Swing Gate Kit installed).

Remember to include the weight of shelves and cable managers. Also, use the maximum weight values of modular telecommunications equipment when calculating equipment load. Even if the device is not "fully populated" during the initial installation, it could be upgraded with modules that will increase its overall weight to meet the stated maximum weight value.

Q. How is cable managed on the Standard Swing Gate Wall Rack?

A. The Wall Rack Cable Management Ring Set (CPI P/N 11799-001) allows you to create a cable pathway from the wall to the equipment mounted on the rack. The set includes 6 each 3" (76 mm) diameter rings with all necessary hardware for attachment to the rack. The rings may be oriented to route cable along the wall mount bracket to the front, rear or side of the swing gate. This is the best way to create an EIA/TIA Standards compliant pathway for cables entering [or exiting] the rack. The Patch Panel Wire Management Bar (CPI P/N 12176-X01) may be placed behind patch panels mounted on 19"W EIA racks to support cable. After terminating cables, attach the bar behind the patch panel. Then, attach cables to the bar so that there is no pressure from the weight of the cable on the termination at each connector. Several styles of horizontal rack-mount cable managers are available for use on the front of the rack in between patch panels and active equipment to route patch cords between connectors. Generally, one should allow 1U of cable management for every 2U of connectivity. Refer to the CPI Mini Catalog or CPI website www.chatsworth.com to see Cable Management Options.

Q. What is the overall depth of the swing gate from the wall when it is opened to 90°?



Overall Depth from Wall - Swing Gate Open							
Part Number	19" EIA Racks	23" Racks					
-X12	30.25" (769 mm)	34.25" (870 mm)					
-X18	35.25" (921 mm)	40.25" (1023 mm)					
-X25	43.25" (1099 mm)	47.25" (1201 mm)					

Q. How do I find out more about the Standard Swing Gate Line?

A. Visit www.chatsworth.com or contact CPI Technical Support (800-834-4969 or techsupport@chatsworth.com.

