LITTLE PARKER™
BICYCLE PARKING MODULES™

Bike Solutions
by Vermont Manufacturing Services, Inc.
www.vtbikesolutions.com | 802.775.7638

INSTALLATION AND USE INSTRUCTIONS

Normal Spacing: 2' with or without back-mounted connector bars, or 27" center-to-center with top-mounted connector bars. Module base always rests on ground.

Suggested Mounting Instructions:
Recommend: Use all Stainless Steel Hardware and Fasteners

Concrete sidewalks and Pads: Use 1/2" dia., stainless steel hex head bolts combined with 4-way expansion shields for best results. Carefully mark and drill holes to assure proper alignment. Fasten each module firmly through 2 opposing holes in bottom plate. If the concrete quality is good, the 2 anchor points will firmly anchor the module. If the concrete is weak and the modules are free-standing away from a wall, flat bar connectors are recommended for additional stability.

Wooden walls and posts: Mount via the back plate using 2-3/8" dia. x 1-1/2" or longer hex head lag screws with flat washers. Mark the location of back plate holes on the wood surface and pre-drill a 1/4" dia. hole. The maximum lag screw dia. that can be used for maximum holding strength is 1/2" (pre-drill a 3/8" dia. hole). Since fasteners into wood may not provide strength to resist vandalism, we recommend that modules be fastened to a concrete surface, and/or joined by connector bars.

Metal posts: Mounting to predrilled holes in steel, such as a highway sign post, a variety of 3/8" dia. bolts, washers, and nut may be used.

Brick and concrete walls: 2-3/8" dia. stainless steel, hex head bolts combined with a 4-way expansion shields give the best results. 3/8" dia. bolts are used to make it easy to align the holes in the back plate. For extra mounting strength use 1/2" dia. stainless steel hex head bolts and 4-way expansion shields. Since fasteners in brick walls may not provide strength to resist vandalism, we recommend that modules be fastened to a concrete surface below and/or joined by connector bars.

Benches and planters: May be fastened to the top of the modules. The front edges should not protrude beyond the front of the module, unless spacers are added to raise the benches or planters enough to clear a bicycle wheel.

Flat bar connectors: Come with 1-1/2" dia. stainless steel carriage bolt, washer and self-locking nut for each end of each bar. The square portion under the bolt head fits into the square hole in each end of the flat bar. The shank of the bolt goes through the top or back mounting hole you select on the module, the washer slides over the end of the bolt and the nut is tightened from inside of the module. We recommend that you connect the modules first and position them before marking and drilling anchor holes.

Tamper-resistance: There are several ways to increase the tamper-resistance of the 1/2", stainless steel, hex head bolts recommended for the fastening down bicycle parking modules.

- 1/2" stainless steel bolts combined with 4-way masonry anchors set in drilled holes in solid concrete will accept all the torque that can be applied with a socket wrench with a 45 cm (1/5') long handle. Few vandals or thieves will have a socket wrench with such a long handle, and if they put a pipe on the handle of a smaller socket wrench, they will likely break their wrench.
- A plastic ring may be placed around the head of the anchor bolts and filled with masonry cement, plastic steel, plasti-dip, or numerous other surfaces that will adhere and harden in place. Bolts can still be removed by breaking the rings and chipping or scraping the filler away from the bolt head.
- Manufactured, black plastic caps can be snapped over the bolt heads. Concealing the heads will deter many potential vandals and thieves.
- Corners may be grounded or filed off the hex heads of the bolts after they are tightened into place. This should only be done if you do not intend to remove the anchors.
- Bolt heads may have a stainless steel washer, larger than the diameter of the bolt head, spot welded to the top after the bolt is tightened into place, thus preventing placement of a wrench on the head. The weld must be ground off and the washer removed before an attempt can be made to remove the bolt.
- Bolt heads can be spot welded to the bike racks, but this mars the finish of the racks and is difficult to grind off.

Little Parkers may be placed in a wide variety of locations and configurations.

THE ORIGINAL
MINI MUM
VERTICAL BIKE HANGER

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POINTERS

Mini Mums are rugged, economical and a space efficient bicycle storage system. Facilities managers are making the Mini Mum their standard

Spacing can be calculated depending on density and numbers needed:

- Where there is ample wall space and few bikes to store—use 2' horizontal spacing for best access and ease of lifting bikes. Height of re-curved bracket: 5'-8". All bikes hung with handlebars up.
- Where there is less wall space and need for more space efficiency—16" horizontal spacing for alternating bike storage. Height of re-curved bracket: 5'-8". Alternate bikes when hung—one handlebar up, the next down.
- For maximum space efficiency—1' vertical and horizontal spacing for 2 rows ("W" configuration). Upper row at 6'8" height for re-curved bracket; lower row at 5'-8" re-curved bracket height. Top row bikes hang handlebar up. Lower row, handlebars down.

Other pointers:

- Hanging bike protrudes 40" +/- from wall. At corners, measure at least 72" along wall from corner before installing first bike hanger on adjacent wall.
- When calculating storage on opposite walls, make sure aisle between hanging bikes is at least 3'–4' wide. Remember, a hanging bike protrudes 40" out from wall and a bike needs to be wheeled to its storage post.
- Bike handlebars are 2' across (1' on each side).
- Minis need firm anchoring to support several times the weight of a bicycle. If wall is drywall, install a 2" x 10" wooden mounting surface (at the correct height) anchored into studs behind wall. Then, Minis can be installed on the horizontal 2" x 10". For ease of installation on concrete, first anchor 2" x 10" at the desired height (5'-8" and/or 6'-8") and then install Minis on wooded 2" x 10".
- We do not provide hardware because of the many installation possibilities, but we do recommend the correct hardware in our installation instructions.

Maximum bike storage efficiency Mini Mum Wall-It Hangers spaced at staggered 1' intervals. Hang bicycles:

- Front wheel down in lower hangers.
- Front wheel up in upper hangers.
- This staggers handlebars and allows for easy hanging and removal of individual bicycles.
- Handlebars protrude about 40" from wall.
- Floor space equivalent per bike—3.3 sq. feet along wall.