



Steve Sant Andrea, AG1YK, hk@arrl.org

Antenna-saver Mount, 12 V Power Distribution Strip, and Auto Power on Tap

Vertical Antenna Truck Mount

Mounting a vertical antenna on a truck can be a real challenge, because until now there just wasn't any good location to mount it. Mounting it to the bed wasn't a good option because most of today's truck beds are insulated from the frame. If you mounted the antenna vertically, you stood a good chance of breaking it off on a low-hanging tree. Alternately, you could take it down and re-mount it every time you wanted to use it, but this is inconvenient. Mounting it to the bumper would interfere with the tailgate or loading/unloading activity. After some consideration, I came up with this simple and relatively inexpensive solution (see Figure 1).

Using this method, a vertical antenna can be mounted safely and cheaply with nothing more than a wrench and a quick turn of a nut to put it up using three simple and readily available antenna brackets.

Most trucks have what are called stake



Figure 1 — A quick, inexpensive drop-down mount arrangement that allows you to mount a vertical antenna on your truck. [Mayor Nelson, KD5LBE, photo]



Figure 2 — This arrangement of three CB-style mounting brackets makes for a simple drop-down mount for your vertical antenna. [Mayor Nelson, KD5LBE, photo]

holes in the side of the pickup bed. I inserted a piece of square pipe into the stake hole. I anchored the pipe with screws through the truck stake holder from inside the bed, and then cut the pipe to a height just below the top of the truck.

To mount the antenna to the pipe, I went to the local CB shop and bought three antenna holders (see Figure 2). Two of the three were designed to mount on the horizontal piece of a truck body and one was a 90° holder. One of the horizontal types was mounted to the vertical pipe in the stake hole. Because the truck body is insulated from the truck frame, I added a piece of ribbon cable and a piece of heavy ground wire, connecting both to the frame at a clean ground location. I wrapped the ribbon cable with electrical tape so it would not rub on the truck bed or cab.

The second horizontal-type holder is mounted to the first through the antenna mounting holes. The 90° holder is connected to the other holder with a single 1/16-inch bolt that comes with the holders. Loosen the bolt and pull the antenna straight up or at any angle and tighten the bolt to hold it firmly in place. Loosen the bolt again to lay the antenna down to any angle, and then tighten the bolt to secure it. When in the low-

ered position, I made a little loop of baling twine to secure the end and prevent it from bouncing around. One wrench is all that's needed to raise or lower the antenna, quick and easy. — 73, Mayor Nelson, KD5LBE, 8 Deerwood Dr, Morrilton, AR 72110-4416, kd5lbe@arrl.net

Quick Auto Power Tap

The Fuse Tap shown in Figure 3 is a fast and easy-to-use device that lets you split and tap one of your car's existing +12 V accessory fuses. The cool thing about this device is that you can tap +12 V by removing the factory accessory fuse, inserting the tap, and adding another fuse for your rig.

I use the Fuse Tap in a C6 Corvette and the +12 V is keyed like other auto accessories in that the +12 V is muted while the auto starter is engaged — just like the auto sound system and other vehicle accessories. Note that this is a +12 V tap, so users will have to find a good common ground. I found one just outside of the fuse panel. I tapped the Corvette's heated seats fuse and have no problem running both the heated seats and my Yaesu FT-8800 50 W rig. I do not suggest or recommend the Fuse Tap for a HF rig. [Caution — the Tap *doesn't* increase the current capacity of the 12 V branch circuit you install it in. The rating of the fuse you remove to install the Tap is the maxi-



Figure 3 — The Fuse Tap is an auto accessory that plugs into the fuse panel and splits out a +12 V line for a small transceiver or other accessory. [Richard Kriss, AA5VU, photo]

imum current for that branch. *Don't overload the branch.* — Ed.]

Yes, I know the preferred method is to run a direct line from the battery, but that involves tapping the battery and running wires through the firewall. The Fuse Tap is an easy way to feed a VHF or UHF handheld transceiver, mobile rig, or other low-power accessory. The Fuse Tap is available from various retailers and is usually supplied with several fuses. It sure beats trying to splice wires to add an inline fuse. — 73, Richard Kriss, AA5VU, 904 Dartmoor Dr, Austin, Texas 78746, aa5vu@arrl.net

12 V DC Power Strip

While reconfiguring my test bench, I realized I never had enough 12 V dc connections available. Since many pieces of test equipment and homemade devices run on 12 V, having a convenient distribution panel would be helpful. After some thought, my design goals became something that would have Powerpoles, a car power socket, a “power on” indicator, and the ability to directly hard wire pieces of test equipment.

I remembered reading an article where someone had used circuit breaker box neutral bus bars for holding ground radials. I thought that if the spacing was correct, a pair of them could be used to hold Powerpoles and become a distribution device.

I purchased two neutral bus bars (they come in different lengths) from a local hardware store. I screwed them down on their sides, 90° from their normal orientation (see Figure 4), using wood screws passed through the mounting holes. The mounting holes are drilled through, so I also placed nylon washers as insulating spacers at the mounting points. I cut off a section of an #8-32 nylon screw, added a nylon washer, and fitted it into the holes in the bar at the mounting points (see Figure 5).

To attach the Powerpoles, I soldered (not crimped) short lengths of solid #12 AWG house wire to each contact (see Figure 6). Since house wire is exactly what is required by code, it should hold fine under the bus bar screws. The 12 V supply is fused with a 20 A blade fuse and the supply wires are soldered to short pieces of #12 AWG house wire. I added an LED with series 470 Ω resistors soldered to each lead [the resistance will vary depending on the type of LED you use. — Ed.] and insulated with heat shrink at the top end of the strip to indicate when the power is on.

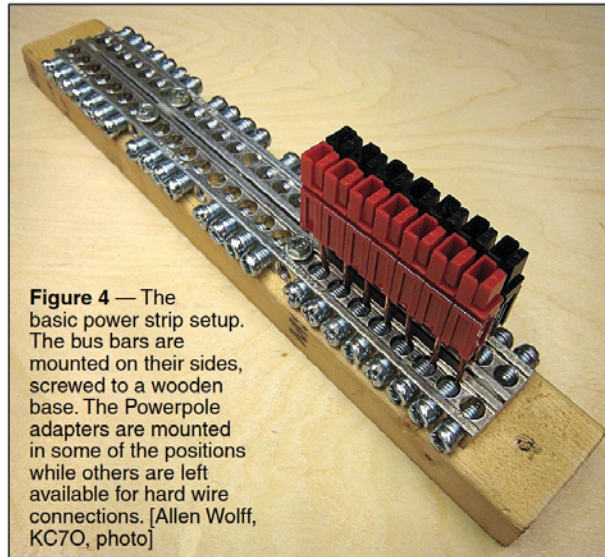


Figure 4 — The basic power strip setup. The bus bars are mounted on their sides, screwed to a wooden base. The Powerpole adapters are mounted in some of the positions while others are left available for hard wire connections. [Allen Wolff, KC7O, photo]

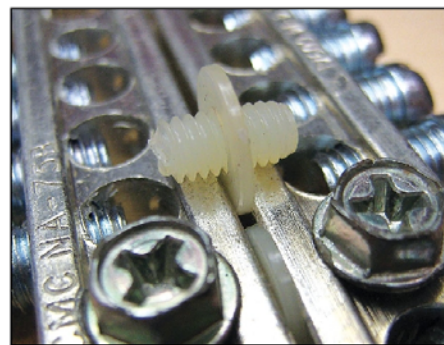


Figure 5 — The cut-off nylon screw fits into the holes in the bar and carries a nylon washer for spacing and insulation. [Allen Wolff, KC7O, photo]

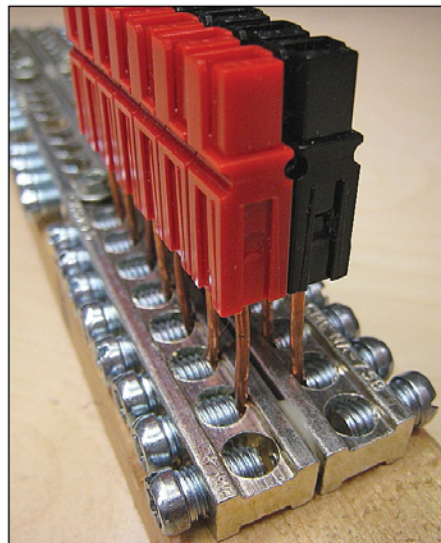


Figure 6 — Powerpole adapters are made with 12 AWG solid wire and are mounted to the lower section of the bus bar to provide convenient connection points for Powerpole adapted equipment. [Allen Wolff, KC7O, photo]

The distribution strip is mounted vertically under a shelf where a short is unlikely. Plastic protective shrouds could be added to prevent shorts, if desired. — 73, Allen Wolff, KC7O, 57 W Grand View Ave, Sierra Madre, CA 91024, ajwolff@earthlink.net

Clothespin Spreaders

I designed a fan dipole for 40 and 20 meters. I needed a way to support the 20 meter elements underneath the 40 meter wires. For a little more than \$3, I found a pack of 36 plastic clothespins in the housewares section of a local department store.

I needed three spreaders for each 20 meter element and there were just enough white clothespins in the package to do the trick.

Silicone glue was used to fasten six pairs of clothespins, back-to-back (see Figure 7). I used the white clothespins hoping to minimize complaints from neighbors because white is not a very noticeable color. The clothespins should be inspected yearly for signs of deterioration. — 73, Bob Haynes, WB4AKA, 4316 Lithia Pinecrest Rd, Valrico, FL 33596, rhaynes5@tampabay.rr.com



Figure 7 — Clothespins glued back-to-back can be used to support wires in a fan dipole or as clip-on anchors for other applications. [Bob Haynes, WB4AKA, photo]

“Hints and Kinks” items have not been tested by QST or the ARRL unless otherwise stated. Although we can't guarantee that a given hint will work for your situation, we make every effort to screen out harmful information. Send technical questions directly to the hint's author.

QST invites you to share your hints with fellow hams. Send them to “Attn: Hints and Kinks” at ARRL Headquarters, 225 Main St, Newington, CT 06111, or via e-mail to hk@arrl.org. Please include your name, call sign, complete mailing address, daytime telephone number, and e-mail address on all correspondence. Whether you are praising or criticizing an item, please send the author(s) a copy of your comments.