Cushcraft R7 Vertical Manual

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Book Descriptions:

Cushcraft R7 Vertical Manual

The resource is currently listed in dxzone.com in 2 categories. The main category is Manuals of amateur radio transceivers and equipment that is about Ham radio manuals for amateur radio. Radio manuals and schematic diagrams.Webmaster, add a Remote rating HAManuals Ham manuals on PDF Format. Take a tour of manuals online. Kenwood User Manuals Instruction manuals for all Kenwood current radios. BoatAnchor Manual Archive BAMA The manuals in this archive are available to all who enjoy working on. W7FG Vintage Manuals Over 5000 operator and service manuals for almost all radios.Share this link with your friends, publish within popular social networks or send it via email.Service provided by Google FeedBurner. It may not display this or other websites correctly. You should upgrade or use an alternative browser. I had information and dimensions of the traps for the model 1994 with trap 20M unequal Ushape. But I have an R7 personally and there are differences in traps between the 1991 model Old version and the new model 1994. The U hatch for the 20M is U equal. The user manual of the old model R7 1991 shows pen traps and not Utrap So I ask to find some picture of the old model 1991 with U equel trap for 20M and the other traps. I want to check that this is a mistake in drawing on the 1991 manual and also to be certain that I have the right antenna. Thanks for your help.The R7 was first released around 1990. The R7 was influenced by the last two changes. — This Cushcraft series design began with the R4 antenna in mid1980s and released before North America was granted 17 meters per WARC79. Relocation of fixed government operators was not completed until 1989. The Cushcraft R5 was not reviewed by QST magazine until October 1990. QRZ Archives 2008 discussion 2016 discussion But no picture about R7 old 20M u Trap equal shape. I see on VK2QR page a picture, its seems like mine 20m equal U trap. I have send an email to rob. Many thanks for more info about this 20M traps.

- **cushcraft r7 vertical manual, cushcraft r7 vertical antenna manual, 1.0, cushcraft r7 vertical manual, cushcraft r7 vertical antenna manual.**

As you say, the U traps seems like pen trap on the manual with side view. I think this is the right explain non. Ok for reconditionned traps. No problem to add this data to my document. You can send measurements and little schematic to my email and i make the draw on my document. Many thansk for your help and comment. 73 from F4CVQView attachment 535631 I saw this J trap on NEW model. YOu have this 20M J Traps on old Model Thanks for reply, see you soon on the air. 73I saw this J trap on NEW model. YOu have this 20M J Traps on old Model. Click to expand. Register for a free QRZ account. Jim GerwitzWhy you would want one. Specifications. How they are built. Issues that generally need repair. WEB Resources.Vertical HF AntennaRequires NO Radials. Easily erected. Very small footprint. Easily found at swap meets. Usually defectiveCovers 10, 12, 15, 17, 20, 30 and 40 Meter bands. Has 3 dBi gain. Half wave on each band. VSWR 1.21 typicalPower rating of 1800 watts PEP. Typical radiation angle of 16 degrees. Height of about 22 feet. Wind load about 2.2 sq ft. Weight 12.3 lbThey are fairly plentiful. Easy to erect and take down. Almost all of the bands are now active and open. Solar cycle 24 will be generally good for the next few years. Small footprint and easy to handle. Not too difficult to tune up, just time consuming. No bandswitching requiredIf you know how they are constructed, you willM, then the 15 M and so on up to 30 MIsolator. Feed line. Connector. Balun. To antenna. Date of Mfg July 83. RivetsMN7 Matching. NetworkFrayed fiberglass. Missing Pop rivets. Missing radials and clamp. Loose collar. Loose or missingBroken bracketOpen Choke. Broken coresPoor or dirty connections at all clampingCompressed tubesCorrosion under sleeving. Moisture in CAP tubeCorrosionFirst, the MN7 Matching NetworkBONDO, JB Weld or

otherUV protectionStainless steel and is TIGHT!Resources at the end of thisI used a good old GDM and had good luck.Clean both clamping surfaces of each joint.http://project-st.ru/userfiles/conquest-whirlpool-gold-refrigerator-manual.xml

Look for oval capacitor tubes distorted byCheck each trap with GDO or VNA for proper frequency onClean them withThe earlier picture was the Zinc plated kind. You can check yours by using a strong magnet. SS parts areBend up the wire and use a Dremel tool with wire wheel to buff off allWhile bent out of the way, take aDo on both ends. Replace with a 1. Bend the wire back down andReseal the areas on each new screw and nut with. PERMATEX Black Adhesive Silicone Sealant. Do not shrinkI haveEvery joint should beUse steel wool, Brillo pads or emery cloth to burnish the tubing and clampsThis is a seven band antenna and that requires 6 traps. However the 10 M andThis causes some issues in tuning since you can only adjust the length betweenTo get 10 M and 12 tunedJust make aWhen checking the tuning of the 10 and 12 meter traps, I suggest you short outThere is interaction between the two tuned circuits.Make sure the dimensions are per the manualPay attention toIf you don’t have the round clamps you can buyMake it as close to the antenna base INSIDE diameter asThe top of it should not be higherYou could useTo raise the antenna, lift the antenna and mast,AntennaUpperFeed line. Wire. LowerLaying it down is just the reverse. Fixed Pipe. Very simple! You will do this several hundredBefore you start, make a chart of where you want the lowest SWR for each ofHere are mine since I am not a CW personIf the resonantToo low and the length is too long. This assumes the trap is tuned correctly and the capacitor is set in the rightMy experience on 10 M is that the resonant frequency is usually a bit high and youNext we will check 12 M. Here is where you may have issues.M with the length and then change the 10 M capacitors for proper tuning.

INCREASING antenna lengths also LOWERS the frequencyWhen you are successful, makeMeasure down to theUse blue painters tape to hold the dielectric and rod in theOnce all settings are complete andIf it is off, adjust the length of onlyDo not adjust the dimension you set for the 10 M section. It turns out that there were several versions of the R7 and some have different traps asIf you cannot shorten a section to achieve theUse the capacitor to tune the antenna. You can play with the depth of the dielectric as well as the rod to adjust the Q of theThis takes LOTS of work soI found little effect on BW. Once you get it where you want it, record all data, use painters tape on the capacitorRecheck the tuning on 10 M, and 12 M to make sure it is where it should be. There willEvery time you adjust one band, checkYou will do this until you get it exactly like you want or until you get tired of doing it andI have been able to get the SWR down below 1.251 in most cases, sometime belowTypical SWR is lessAlways recheck priorI always record the delta between theYou will find the quick release system described earlier toManuals for 3 versions of R7. When I boot knoppix 8.6.1 the onscreen keyboard always appears on the desktop and my mouse is frozen. How can I disable this Prof. Klaus Knopper and Team Knoppix, This model covers 40 thru 10 meters including the WARC bands. Free shipping to CONUS only. HF 6m vertical Cushcraft R6000 R6000 HF antennas of Cushcraft is R6000 a 6 to 20 meters no earth radial antenna. I was fortunate enough to borrow a newer working R5 to compare parts and found traps on the older R5 were all OK with the newer R5 matching box. Cushcraft R7 manual Johnnie Suture his Bilbos cushcraft R7 vertical manual toasted dyslogistically. TV1 10 meters 2 MHz 12 meters 24 MHz TV2 15 meters 21.2 MHz TV3 17 meters 1.11 MHz TV4 20 meters 14.47 MHz TV5 30 meters 10.25 MHz.

https://brandnewhomes.co/new-construction-homes/al/echo-280-chainsaw-manual

The two toroid cores came from and at the time of writing they are still in stock if you need them in the UK.HF 6M vertical Cushcraft R6000 R6000 HF Antennas by Cushcraft The R6000 is a 6 through 20 meter no ground radial antenna.I was lucky enough to borrow a newer working R5 to compare parts and found the traps on the older R5 were all ok using the newer R5 matching box.Cushcraft r7 manual Johnnie suture his bilbos cushcraft r7 vertical manual shooks dyslogistically.TV1 10 meter 2

MHz 12 meter 24 MHz TV2 15 meter 21.2 MHz TV3 17 meter 1.11 MHz TV4 20 meter 14.47 MHz TV5 30 meter 10.25 MHz. Would you like to try it too Please try again later. I bought such an antenna secondhand some days ago, but never used a vertical antenna for HF before.Never used one myself, just commenting on multiband verticals in general that I have used. 73 Gary N4AST It is fed at a high impedance point by virtue of the matching black box at the antenna feedpoint. I ignored this as an experiment and found Cushcraft knew what they were talking about. The four 49 inch rods at the antenna bottom are counterpoises designed to isolate the antenna from ground and not long enough to be resonant on any band. The bandwidth and efficiency on 40M, I found to be poor. But it works well enough on the other bands, covering full bandwidth on all bands except 40M and 20M. You will have to choose the portion of the band you want to operate on for these two bands. Tuning the R7 was easy, following the manual instructions. Be careful of running high power into this antenna for an extended length of time particularly if you horse it beyond resonance with a tuner several here have frazzled the traps when doing this. Using an R7 I was able to work a lot of DX, it does seem to have a low angle of radiation Cushcraft claims 16 degrees. The R7 will work, needs a ground radial system to work well, and will be difficult to get a good match on multibands.

http://icmonteodorisio.com/images/canon-ixus-120-is-manual.pdf

Never used one myself, just commenting on multiband verticals in general that I have used. 73 Gary N4AST It is fed at a high impedance point by virtue of the matching black box at the antenna feedpoint. Never used one myself, just commenting on multiband verticals in general that I have used. 73 Gary N4AST Im not a big vertical fan, but have to say that it did work as advertised. Unfortunately, the fibreglass insulator used to hold the antenna on the base doesnt last forever if its in the sun very much mine was. It wasnt really all that hard to tune, just follow the recomendations. Dont expect much bandwidth on 40 meters. I tuned mine on a fence post, then tried to move it to the top of my house. Worked great on the post, terrible on the roof. Too lazy to retune, so just mounted it on the post. Still not a vertical fan, but I think I got my moneys worth out of the R7 1015 years. Doc I checked out all the mechanical connections in the traps, then set it up according to instructions manual and am terribly pleased with it. I did arrange for the 40 meters to be set to the low end where I operate, other than that, I get great results with it using QRP. If you do a Google search you will find that some people have experienced problems, but nothing that cant be fixed using the information available on the net. I have mine sitting on a 12 foot piece of pipe just to lift the radials over the garage roof.NO PROBLEMS. I have it on a telescoping TV mast. The bottom of it is about 20 feet up. On 40 it is adjusted for CW portion, and use builtin AT in rigs for a match there. Elsewhere it has acceptable SWR for each band. 73 de Jack, K9CUN Still works like a top. Now I dont know if anyone else did check the antenna with an antenna tuner mfj 259 or whichever Did check mine out last year will doing the installation and found the antenna to resonant not to badly at all on 6 meters, and also on 80, where it would be a real compromise antenna.

http://idc504.com/images/canon-ixus-100-instruction-manual.pdf

A bit hight on swr, but in a pinch i am sure it could be use with a tuner on at least 80 meters. Someday will check it out on the air on 80 meters to really find out what is what with it. NO PROBLEMS. I have it on a telescoping TV mast. Elsewhere it has acceptable SWR for each band. 73 de Jack, K9CUN. You should at least tune it at 8 feet or similar, convenient height first to confirm its construction. 73s Richard Clark, KB7QHC Then I placed it on top of a small tower 10m high without its flexible radials, the result is much better. I remember than R1ANF was on 20m, I call him in SSB only a few seconds using my TX barefoot, and I had my QSL. This is not a proof that the R7 works well, but in all cases, there is nothing to tell against it. This is probably one of the best vertical on the place. But try to place it in height, that will improve the radiation pattern.As for height mine is 8 feet off the ground and works very well. A friend had one up about 25 feet and we got very nearly the same reports in on the air checks. BUT there are a lot of variables in all this ground conductivity,

obstructions, terrain, etc so mounting higher MAY give better results I know users who found this to be true at their location. BUT if increasing height will help clear obstructions then by all means mount it up higher. They are not long enough to be resonant radials on any band. Before doing anything READ THE MANUAL. URL Your results may vary let the reader beware. From one currently in the Cloaked Mode Any clod can have the facts, but having opinions is an Art. At ground level it needs many flexible radials burried into the ground to give good results. Then I placed it on top of a small tower 10m high without its flexible radials, the result is much better. But try to place it in height, that will improve the radiation pattern.I always used radials when using ANY vertical at ground level successfully, whatever write manuals.

I laways use counterpoise when erected in heights, and in both cases, results are there. Post by Just Another Opinion As for height mine is 8 feet off the ground and works very well. Your results may vary let the reader beware. From one currently in the Cloaked Mode Any clod can have the facts, but having opinions is an Art. But try to place it in height, that will improve the radiation pattern.I laways use counterpoise when erected in heights, and in both cases, results are there. A friend Post by Just Another Opinion had one up about 25 feet and we got very nearly the same reports in on the air checks. Post by Just Another Opinion BUT if increasing height will help clear obstructions then by all means mount it up higher. They are not long enough Post by Just Another Opinion to be resonant radials on any band. But try to place it in height, that will improve the radiation pattern.Post by Just Another Opinion As for height mine is 8 feet off the ground and works very well. But try to place it in height, that will improve the radiation pattern.It may complicate the tune, but it may also bring reward. Post by Just Another Opinion Lookup the theory and you will see why. Multiple radials also serve to decouple the feed line which then provides a more robust reference against which the antenna operates. 73s Richard Clark, KB7QHC A quarter wave radiator needs a ground plane or radials to work against for sure but Cushcraft sez a half wave antenna doesnt need radials as it is like a horizontal dipole turned vertical and end fed high impedance rather than center fed. URL Do you know what is in the black box matching unit If not see URL A local Ham added radials couldnt tune the antenna so he added a tuner. When he ran a kilowatt into this mishmash the black box blew up. So he repaired it as in URL He no longer has the added radials and tuner and runs a KW all the time with no ill effects let the experimenter beware.

I know this is a controversial subject rehashed many times here, mostly because folks treat the R7 like a quarter wave vertical which it isnt and the R7 has that complex matching black box design which I wouldnt mess with by adding radials. Unless I had the proper test equipment and expertise to determine what effect added radials have on the impedances and matching. Cushcraft undoubtedly did this. More at URL AND Regarding decoupling the feed line Cushcraft recommends an RF choke 8 inches in diameter and ten turns on the coax. Me I trusted Cushcraft and followed their instructions. Been working great for 6 years now. I wont run out the brag tape on countries worked with it means nothing. From one currently in the Cloaked Mode Any clod can have the facts, but having opinions is an Art. There is absolutely nothing wrong with Thierrys advise. It may complicate the tune, but it may also bring reward. Multiple radials also serve to decouple the feed line which then provides a more robust reference against which the antenna operates. 73s Richard Clark, KB7QHC Mantras soothe the soul certainly. Post by Just Another Opinion A quarter wave radiator needs a ground plane or radials to work against for sure but Cushcraft sez a half wave antenna doesnt need radials as it is like a horizontal dipole turned vertical and end fed high impedance rather than center fed. Not needing and prohibiting are not the same thing. More radial bad. Yeah, sure. In fact a word search against the quote above returns 0 hits. I note the links below have the same breathless nature, which is to say a lot of air. Post by Just Another Opinion A local Ham added radials couldnt tune the antenna so he added a tuner. And this proves what besides a penchant for repetition. Another anonymous lid. Thanks, but no thanks, we have our quota here; too often appearing in the guise of learned lecturer complete with Cliff notes.

This doubly quoted link does not describe the event you allude to, and in fact offers trap construction is more problematic than the invention of radialsasevil. Post by Just Another Opinion He no longer has the added radials and tuner and runs a KW all the time with no ill effects let the experimenter beware. Yeah, now theres a line no experimentation in Amateur radio. We have enough Credit Card operators. Post by Just Another Opinion I know this is a controversial subject rehashed many times here Ah, the voice of experience. Ive been here 10 years and havent seen this soap opera yet. Post by Just Another Opinion mostly because folks treat the R7 like a quarter wave vertical which it isnt Repetition again, quite boring now. Post by Just Another Opinion and the R7 has that complex matching black box design which I wouldnt mess with by adding radials. The two quotes above offer repetition and no actual technical discussion. But then, this group is the place for that, and rightly so in the face of such tepid offerings. You should vet your offerings before submitting them as evidence. Post by Just Another Opinion Regarding decoupling the feed line Cushcraft recommends an RF choke 8 inches in diameter and ten turns on the coax. Excellent advice for the 1960s. However, in the 21st century most correspondents here would appreciate how mediocretopoor that would be with a conventional choke looking into a half wave load. You seem to be at odds with experimentation with this last piece of advice. The link to the match box above suggests a far different means of choking. As this choking method does not appear in the Cushcraft liturgy, are we to assume the antenna will burst into demonic flames if this unordained device is used. Post by Just Another Opinion Me I trusted Cushcraft and followed their instructions. I wont run out the brag tape on countries worked with it means nothing. That has been demonstratively true here for years.

Now, demonstrate the difficulties that will be imposed if one follows Thierrys advice by constructing a model readable by EZNEC that may be offered here for peer review.Mantras soothe the soul certainly. Now, demonstrate the difficulties that will be imposed if one follows Thierrys advice by constructing a model readable by EZNEC that may be offered here for peer review.Hi Jim, Believe in three impossible things before breakfast. 73s Richard Clark, KB7QHC Mantras soothe the soul certainly. Richard, I dont know the answer to the main issue of this thread. I just dont know enough about antennas to speak as an expert. The R7 should not be attached to a ground radial system. When I clicked on the above link, a PDF file was opened. It appears that the manual was scanned and stored in PDF. In this case, no text search would be successful. FWIW, when I added radials to my R7 I was unable to tune it properly on all the bands. Once the radials were removed I was able to tune it up without problems. Thanks, Rick, K6RJ I just dont know enough about antennas to speak as an expert. However, as a point of fact, the R7 manual does state on page 1 under the section Hi Rick, Thank you for the followup. You are correct, and yes the pdf is a poor, unsearchable copy as evidenced by your observations offered. Such is the value of testimonials where you can find any answer to suit any occasion. Testimonial is fine and is occasionally called for. Testimonial as proof is worthless. As for matching, I averred that tuning may be impacted I cannot imagine how it could be otherwise. THAT is within the provence of Amateur radio service as a minimum technical skill. THIS is a technical forum where design and data is offered for examination. The remaining correspondence is confined to the slow lane or the shoulder when a rhetorical axle is broken. This apparently is not within the skillset of many, or arguably even desired; however, it is not impossible nor particularly difficult.

To this last point. I would offer that most of the interesting correspondence that isnt simply entertainment quality is composed of rather academic interests. Some of it is impractical in the extreme and as absurd as fractals. More of it barely offers a difference that would twitch an S Meter, or a Power meter. This does not mean it lacks merit in its discussion because, lets face it, a forum is built and survives on the vigor of debate. Clearly no one is going to legitimately reinvent the dipole, so topics become rather obtuse. 73s Richard Clark, KB7QHC After checking out antenna did find that the 12 meter trap was the problem, and after fixing it, well it was time to mount it. The

installation here is 12 feet about ground, mounted on the baby barn, nice and easy to work on it from the roof of baby barn. Also did put 3 guy wires just under the 10 meter trap. Antenna is performing a lot better than expected on dx and is holding its own on 40 meters local and roughly 600 miles during the day, of course all depends on probagation also. But i am extremly satisfied with the antenna so far, and with guys on it, well, dont have to worry much about it during strong winds, as they do have a tendancy to bend a bit. It is also in close proximities to trees and stuff, but does not seem to bother the antenna pattern at all and swr is what the book says.Main downside to the antenna is a fairly narrow tuning range on 40 meters. Bob k5qwg Post by David Browne Outgoing mail is certified Virus Free.He was speaking fast, as he normally does, so Im sure I missed a lot. Roy can confirm that, and Roy can confirm that he handed over another copy of his software to him just last week. Per the designer The R7 was built because he needed a multiband antenna in the fall of 90. The R5 was used as the base idea for the design. The antenna project was up and down 2 to 3 times a day at times. Tomorrow at the latest. The impedance is approximately 250 ohms, and a roughly 4.

5 to 1 transform is done. There is a series cap of 41 pF for 40m. The R5 had 4, this needed more. There is a false resonance on 75m or 80m, and if you put power into it at that freq, you will burn up the matching system. And, to end this argument, do not ever add radials to the system, and do not remove any of the ones it comes with. Its a touchy match. tom K0TAR He was speaking fast, as he normally does, so Im sure I missed a lot. Its a touchy match. tom K0TAR.