Short dipole antenna pdf

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7-Band OCF 7-Band STEALTH 7-Band QRP 4-Band OCF 8-Band OCF Features Installation Order an Antenna Reviews FAQ 7-Band 300 Watt (top) and 300 Watt (
bower ratings: To work 4, 7, or 8 different bands on one length of wire we use a custom 6:1 balun. The 6:1 balun does a great job of matching but is subject to heating up with sustained usage at higher SWRs. So, it is important to buy an antenna with a balun that is rated at a higher power than what you will actually transmit. As a general rule of
thumb: 100 Watt baluns support 100 Watts with 1:1 SWR, 50 Watts with 2:1 SWR, 33 Watts with 3:1 SWR, and so on. So they are for QRP work, not standard 100W transceivers. 300 Watt baluns support at theoretical 3,000 Watts with 1:1 SWR, 1,500 Watts with 1:1 SWR, 150 Watts, but the SWR numbers can also be better than 300W models in some cases, so you will be heard better. See our measured SWR
numbers in the 4-Band, 7-Band, and 8-Band descriptions below. Buckmaster OCF Dipole Antennas are a great simple way to get on the air and work multiple bands! They are shipped ready to go, all you have to do is screw in your coax and raise the antenna in the air. We have had many satisfied customers since 2004! Read our OCF Antenna FAQ
Frequently Asked Questions) An installation environment clear of long metal objects. THIS IS IMPORTANT FOR ANTENNA PERFORMANCE. Long metal objects include metal objects include metal objects can interfere with RF coming to/from any antenna if they are resonant on a band you are trying to work. Multi-band antennas work on many frequencies so there is greater chance that nearby metal tower unless you
have a least a 10' standoff and/or hang the balun enclosure down from a 10'+ piece of rope and use the legs of the antenna to pull the balun enclosure away from the antenna. Having the Buckmaster OCF close to a metal mast or tower very often results in poor SWR on one or more bands! Something non-metal to hang the center from, such as a tree
oranch, non-metallic pole, or a "messenger line", a rope stretched tight between two supports such as trees. Due to the wire; the wire is tough and flexible but tree branches will gradually rub the insulation off and allow water inside, which will cause SWR to rise. Enough ground space for the antenna in a straight line will have negative performance impacts. A 4-Band OCF is 68
Feet long, 7-Band is 135 feet long, and 8-band is 270 feet long. For small lots: with the antennas need at least 60 feet of ground space from end-to-end, 7-Band antennas need at least 120 feet of ground space, and 8-band antennas need 239 feet of ground space. If you don't have
enough ground space, you will either have to try a different type of antenna or accept lower performance from bending the legs. Good quality 50 Ohm coaxial cable with appropriate power rating. Good coax such as: RG58, RG8X, RG8, RG213, Belden 9913F7, Davis RF Bury-Flex, or LMR-400. A coax with a dense (or double) braid is worth the money.
Don't lose that weak signal in the coax! Also needed or useful: Suspension Rope, Stainless Steel Pulleys, and Line Grips. 4-Band: Supports 40, 20, 17, 12, 10, & 6 meters. 68 feet (23+45) long. 7-Band: Supports 160, 75/80, 40, 20, 17, 12, 10, & 6 meters. 135 feet (45+90) long. 8-Band: Supports 160, 75/80, 40, 20, 17, 12, 10, & 6 meters. 270 feet (90+180) long. Need help choosing the right Buckmaster International antenna for you? The magic is in the mathematical relationship between amateur bands. The charts below speak for themselves! 4-Band 300 watt model. The 4-Band antennas cover 40, 20, 10, and 6 meters, with no tuner required! 12 meters may also work on the 4-Band 300 watt model. The
Band antennas are OCF (off-center-fed), with a 23 foot leg and a 45 foot leg, totaling 68 feet. If the legs slope down at the minimum 120-degree angle, you need about 60 feet of ground space. The 4-Band 300 Watt weighs 6 pounds. Order here!7-Band OCF Antennas Buckmaster 7-Band 300 Watt OCF
Dipole Antenna (Click for larger image) Our 7-Band antennas are OCF (off-center-fed), with a 45 foot leg and a 90 foot leg, totaling larger image) Our 7-Band antennas are a great simple way to work 40M and 80M rather than a noisy vertical antenna that requires horizontal radials. Our 7-Band antennas are OCF (off-center-fed), with a 45 foot leg and a 90 foot leg, totaling larger image) Our 7-Band antennas are OCF (off-center-fed), with a 45 foot leg and a 90 foot leg, totaling larger image) Our 7-Band antennas are a great simple way to work 40M and 80M rather than a noisy vertical antennas are a great simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antenna are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80M rather than a noisy vertical antennas are occasionally for the simple way to work 40M and 80
and 20M bands. It doesn't require an amplifier, works just as well with a standard 100 Watt transceiver, but is ready for an amplifier whenever you are. Our 300 Watt models are not upgradable so if you think you may buy an amplifier in the future, you would definitely want to buy 3,000 Watt model. The 7-Band 300 Watt antenna weighs 6 pounds and 2-band 3,000 Watt antenna as a STEALTH model by painting the balun enclosure an olive green color (wire is still the standard black, our new insulators differ from the picture and are now also black.) These
are internally identical to our regular 7-Band 3,000 Watt antennas. The olive green color helps hide the antenna from homeowner's associations or picky neighbors! Order today to reserve yours! The STEALTH model takes about 2-3 weeks to manufacture after we receive your order. Order here! Special Edition - QRP (low power) 7-Band 100 Watt
QRP (low power.) Same length and construction methods as our larger antennas, but with smaller and lighter 14-gauge flexible wire instead of 12-gauge. This 135-foot antenna only weighs about 3.75 pounds. A favorite of backpackers and SOTA adventurers. Limited edition! Order here! Please note: Our 100 Watt antenna is a low power antenna and so not intended for operation with a standard 100 Watt transceiver. A 100 Watt antenna would handle about 50W, with a 3:1 SWR it
can handle 33W, etc. Because of this for a 100 Watt transceiver you need at least a 300 Watt antenna because most operation. (click for larger image) 7-Band antennas support 160, 75/80, 40, 20, 17, 12, 10, & 6 meters. A tuner may be needed on 160M and the 3.8 MHz to
4.0 MHz range of 80M, see the Frequency/SWR chart below. Our 8-Band models have a 90 foot leg and a 180 foot leg, totaling 270 feet. With the legs sloping down at the minimum 120-degree angle, you need about 238 feet of ground space. Construction details are the same as the 7 and 4-Band antennas, the 8-Band just has more wire so it can work 160M. A tuner may be required for 160 and portions some other bands, please see our SWR numbers: 8-Band antennas. You may not be able to run high power across 80M with an 8-Band antenna. That is the tradeoff to get 160M. For the
pest all-around performance with an amplifier and 80M, we highly suggest our 7-Band 3,000 Watt. The 8-Band 300 Watt antenna weighs 10 pounds and the 8-Band 300 Watt antenna is 12 pounds. Order here! Buckmaster OCF Antennas are made from the best quality materials and are designed to give you years of trouble-free service. Features
nclude: Heavy duty stainless 1/4 inch center threaded, cemented with lock nut eyebolt supports the off center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of trouble free service. Permanently sealed white PVC weatherproof center enclosure for years of the proof of the pr
These are the instructions that ship with the antennas. The balun enclosure must be supported by the stainless steel eyebolt, not the antenna legs. The antenna legs are strong and flexible, but will stretch over time with 24/7/365 wind and weather if used to support the balun enclosure. The antenna should be at least 10' from any metal objects such
as poles, buildings, towers, house wiring, fences, or gutters that may be resonant on a frequency you're trying to work. Hang the center from an object such as a tree limb or a non-metallic pole. If hanging from the tower by a non-metallic means such as a standoff pole or hung from the tower with 20 feet of rope and pulled away from the tower with the legs of the antenna. Having the Buckmaster OCF close to a metal mast or tower often results in poor SWR on 80 Meters and other bands. If the legs of the antenna go near trees, branches must be kept trimmed away from the wire or the insulation will gradually rub off and allow water inside,
which will negatively affect SWR. Hang the center of the Buckmaster OCF at 30 feet and the ends from 10 to 30 feet. If you decide to hang the center higher you must still maintain a 120-degree to 180-degree (flat) angle as viewed from the side. For example, if you decide to hang the center 10 feet higher at 40 feet, then the ends must
correspondingly be raised 10 feet higher, so at least 20'. Higher isn't always better though, most of our best reviews come from users with the center from, consider using a 'messenger line' between two supports (trees, etc.) consisting of a run of good quality, UV protected rope with a pulley at one support. Tie the OCF balun along this line in a spot that works for you (and will allow the balun to be reached from the ground) and run the coax away at a ninety degree angle (as possible). This takes tension off of the antenna legs and the pulley at one support makes it easy to take things down for service or inspection (be sure the rope is long
enough). Also be sure to make allowances for support trees swaying in the wind by using a weight such as a gallon milk jug or two and a pulley to handle the movement of the tree supports. Small lot? With the legs at a 120 degree angle as viewed from the side and depending on how you secure the ends, the 4-Band antennas need at least 60 feet of
ground space from end-to-end, 7-Band antennas need at least 120 feet of ground space. Install the antenna in a straight line as viewed from above. Usually works best as an "inverted-V." Erecting the center at least 30 feet above ground is recommended. Ends should be 10 feet or more from the ground for proper broadcasting and safety. Higher is not always better. If the center is mounted too high it can be hard to get the ends high enough to maintain a 120 to 180 degree (flat) angle. We recommend using rope and a pulley to hang the center balun, so the antenna can be easily lowered for easy access. Use good quality 50 Ohm coaxial cables.
with appropriate power rating such as: RG58, RG8X, RG8, RG213, Belden 9913F7, Davis RF Bury-Flex. A coax with a dense (or double) braid is worth the money. Don't lose that weak signal in the coax! Keep it simple. Ideally the coax will go directly from the antenna feed point to your transceiver with no grounding, lightning arrestors, tuners, or
switches in between. Less connectors and less electronics equals more reliability. The integrated drip ring that protects the connector on the bottom of the antenna can make it hard to get your fingers in to screw in your coax. If needed use pliers to get a better grip. Make it good and snug but not super tight. An ideal installation would have the center of the antenna at least 20 feet away from your house or hamshack and hanging about 30 feet high from a tree branch. The ends of the antenna in a straight line as viewed from above, and away from metal objects. Any deviation from this can affect
your SWR numbers on one or more bands. There are an infinite number of environment and installation scenarios but all of our testing has been done with the center at 30' and the ends at 10', away from the antenna in a straight line as viewed from above. Route coaxial feed line to the shack by running it away from the antenna at a 90
degree angle as possible. Do not tie the coax to a metallic structure or tower. Shorter coax is usually better for lower loss. Read our OCF Antenna FAQ (Frequently Asked Questions) Our multi-band antennas at exactly what we think they will do, so a 300 Watt antenna really will support about 300 Watts. Our 300 Watt model, it supports legal limit with a good margin of error for less than perfect SWRs (which are hard to achieve on a multi-band antenna.) If you ever anticipate getting an amplifier, you need our 3,000 Watt model, it supports legal limit with a good
margin of error. Please note that all our antennas work great with less than rated power, you just don't want to put more than rated power into them. So for example you could run our 7-Band 3,000 Watt antenna with a 15 Watt Elecraft KX3 with great results. Check your SWR numbers on each band before putting power into the antenna. If your SWF
numbers are above 2.5 or so, reduce power when transmitting. We don't recommend using a tuner. A tuner can be used to make your SWR numbers are low before putting power into the antenna. The balun will test as a short when testing using a DC Ohm meter and will test correctly at RF frequencies when erected and using an antenna analyzer. So use an analyzer or your transceiver's SWR meter at reduced power. ALWAYS physically disconnect the OCF coax from equipment and securely ground both conductors when you are finished operating. We believe simple is better and no
amount of lightning protection can protect you more than simply disconnecting the antenna from your equipment. Better to lose an antenna to lightning rather than a transceiver! Chosen by the 3YØX DXpedition to Peter I Island in Antarctica. Used aboard the 'DAP Mares' transport ship. Photo of Peter I DXPedition Members Photo of Bob K4UEE
pointing to the Buckmaster OCF Antenna "its amazing that just two carefully selected lengths of wire can work that well on five [really 7] bands." - Kent, WA5VJB (CQ, January, 2006, p70) "works great, I'm impressed, tunes 160m with tuner [not recommended], worked stations on all bands, outstanding quality construction." - WC4N Chosen by KC4AUF leader of the 2004 Tangier Island DXpedition. "Superb design (no tuner), quality manufacture and booming all bands! Thanks for a good-quality product! I speak well of it to my friends." - K3TED "Great signal on both ends of QSO. It is
good to get products and service that deliver as, or better than, advertised." - KA4AQN "These things are built like a tank! This is the finest wire antenna I've ever used. Just cannot recommend it enough." - KB0QMF (at eham.net) "Liked it so much I bought a second one. The Buckmaster's are definitely worth the money." - K3VV (at eham.net)
'Absolutely the best dipole I have owned or tried. Superior to the Windom ANTs." - N9VV (at eham.net) "After playing around with numerous wire antennas for the last 40 years in amateur radio, I am impressed with the construction and simplicity of installation. The real bonus is that I bought last week. I just wanted to tell you that I am very pleased!! It was an easy installation, and the
SWR is great on all bands. The signal reports I have gotten are excellent, and the receive is even better. Thanks for a great antenna. I will recommend it any time. Worked the VP6DX Ducie DX pedition on 80 meteres with only 2.5 watts with my FT-817 QRP rig. The
VP6DX is 5248 miles away so that equates to 2099.2 miles per watt." - Tony KC4AUF See the 7-Band OCF at the HH2AA site in Haiti at 6,300 feet above sea level. A very nice photo, courtesy of RemoteHamRadio. eHam.net user reviews for the Buckmaster 7-Band 300 OCF eHam.net user reviews for the Buckmaster 4-Band 300 OCF Buckmaster antennas are built from high-quality components, that makes them cost more to build. Many spend well over \$1,000 for a good transceiver, don't skimp on your antenna! Your antenna! Your antenna is what actually gets you "on the air." A good antenna in good conditions can work the world with 100 Watts
or less! We generally ship by USPS Priority Mail because the cost is about the same as UPS and the transit time is shorter. USPS Priority Mail shipping is generally \$15 to \$20 to the USA. For antennas shipped to Virginia and adjoining states, we generally ship by UPS because they are the best price/speed combination. UPS shipping usually costs
around \$13.00-\$28.00. If you can ship to a business or urban address, UPS typically charges several dollars less. Outside the USA, we ship USPS Priority Mail International, the cost starts around \$67.00. Canada is less. These shipments can take a long time and we insure each shipment for the full value of the antenna. Please check this page to see if insurance is offered on shipments to your country (click on your country name, look for the section that mentions "Insurance for the full cost of the antenna to you! Please ship the antenna to you! Please ship the antenna to a country where insurance is offered. Shipping weight is estimated at 6 pounds for the
800 Watt, 8 pounds for the 3,000 Watt, and 10 pounds for the 5,000 Watt. 8-Band antennas have a lot more wire so they weigh about 11 pounds. **Due to high demand and large dealer orders, antennas will take up to 21 days to ship. We ship orders on a "first come, first served" basis. We won't charge you until we ship your order. HRO, DX
Engineering, and Main Trading have some models in stock, so if you need an antenna right away check with them. Quantity on hand varies, order now and we will put you next in line! What is in stock today may not be in stock tomorrow. If you have a rush order, please call us first to confirm we have your antenna in stock and can ship it immediately! To order an antenna, click one of the following links: Buckmaster 4-Band OCF Dipole Antenna: \$260 Order 4-Band 3,000 Watt OCF Di
order only and are made on-demand, so will always take a couple weeks to ship.) Buckmaster 7-Band OCF Dipole Antenna: \$278 Order 7-Band 3,000 Watt OCF Dipole Antenna: \$278 Order 7-Band 3,000 Watt
OCF Dipole Antenna: \$374 Order 7-Band 3,000 Watt STEALTH (balun enclosure painted olive green): \$384 (STEALTH antennas are built on-demand, order only and are made on-demand, so will always take a couple weeks to ship.)  Buckmaster 8-Band OCF Dipole Antenna: \$351 Order 8-Band 3,000 Watt OCF Dipole Antenna: \$451 Order 8-Band 5,000 Watt OCF Dipole Antenna: \$636
5,000 watt models are special order only and are made on-demand, so will always take a couple weeks to ship.) For help in erecting your OCF antenna, see our Antenna Support Rope, Line Grips, and Stainless Steel Pulleys. One (1) year warranty against defects. We will repair or exchange your antenna within the first year of ownership for any
workmanship defects. Warranty not offered if antenna has been stretched, broken by something falling on it, cut, the enclosure physically damaged, or the balun over-powered, operated with high SWR, or operated on non-supported bands. All supported bands are inscribed on the balun case. 30 Day return privilege. You may return your antenna within 30 days in "as new" condition for a full refund of the antenna purchase price (less shipping.) Before returning any antenna, please talk to us at the phone number below. It is extremely rare we get a defective antenna back, problems are usually due to bad
coax connectors or a resonant length of metal in the vicinity. We also need you to include this RMA form with your antenna so we will know who sent it and why. Buckmaster International, LLC 6196 Jefferson Highway Mineral, Virginia 23117 USA Email, general information/questions: Email, order or shipping inquiries: We normally answer emails within 1 business day. Phone: 540-894-0907 (General inquiries) Toll free: 800-282-5628 (Orders) Phones are generally open Monday through Friday from 8:30 AM to 4:30 PM Eastern USA Time. Offices are closed on US Postal Service holidays, including Thanksgiving, Christmas, and New Year's Day, but also days like President's Day and Columbus
Day. Most orders received after Noon Eastern US Time will be filled the next business morning. Website: If you see anything broken on the site, please let us know at: webmaster at HamCall.net Facebook: All images and text Copyright 2022 Buckmaster International, LLC 05925 hits since Other Buckmaster products you may be interested in: T 23, N
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