# MOSLEY TRAP MASTER MODEL MINI-32-AW

**Assembly Instructions** 

**Version 2015.2** 

For assistance with assembly contact: Mosley Electronics, Inc. Technical Support 636-583-8595

antenna@mosley-electronics.com www.mosley-electronics.com



SERIAL#	

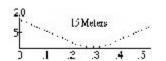
The high performance of your MOSLEY Antenna can only be achieved if the antenna is assembled in accordance with the instructions supplied. Substitution of materials or modification of design will materially lessen this performance.

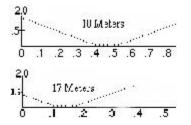
# **MOSLEY MODEL MINI-32-AW**

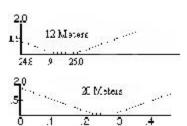
# **Specifications**

Frequency, MHz	28, 24, 2	1, 18, 14	
Power Rating, watts CW	500		
Power Rating, watts SSB	1000		
Power Rating, AM/FM	25	0	
Power Rating, RTTY/AMTOR	25	0	
VSWR at frequency	1.0/1 to	1.5/1	
Forward Gain, dBd 10 meters	5.	1	
Forward Gain, dBd 12 meters	0		
Forward Gain, dBd 15 meters	4.5		
Forward Gain, dBd 17 meters	0		
Forward Gain, dBd 20 meters	3.3		
Front-to-Back Ratio, dB 10 meters	17 (avg.)		
Front-to-Back Ratio, dB 12 meters	0	1	
Front-to-Back Ratio, dB 15 meters	17 (avg.)		
Front-to-Back Ratio, dB 17 meters	0	1	
Front-to-Back Ratio, dB 20 meters	17 (avg.)		
Boom Length	6 ft	1.83 m	
Maximum Element Length	19.6875 ft	6 m	
Turning Radius	10.29 ft	3.14 m	
Mast Size hardware (equipped)	1.5 in	3.81 cm	
Assembled weight	12.5 lbs	5.67 kg	
Wind Surface Area	3.7 sq ft	.344 sq m	
Wind Load, EIA Standard 80 MPH	49 lbs	22.23 kg	
Warranty	2	2	
Recommended Coax	Belden RG-8	3 / RG-213	

#### **Average SWR Curves**







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# **Table of Contents**

Specifications	i	Use of a Balun or Not	19
		Stacking	19
WARNING NOTICES			
Installation Warning	4	PRODUCT SUPPORT	
Deburring Notice	5	Technical Support	19
Assembly Cautions	5-7	Warranty	20
		Receipt of Shipment	20
PARTS LIST			
Replacement Parts	7		
Tubing & Assemblies	8		
Hardware	8		
ASSEMBLY			
Assembly of Driven Elements	9-11		
Assembly of Reflector Element	11-12		
Boom	13		
ATTACHING COAX		1	
Preparing Coax	13-14	V	
Phasing Line	14-15	Manlay	
Using an RF Choke	15	Westher-Gord 1/1	114 ca sa con
FINAL CHECK		PROTECT YOU INVESTMENT	
	15	MOSLEY	
SUGGESTIONS		Weather-Gua	rd
Checking Antenna Before Final		&	
Installation	18	Anti-Corrosio	n
Watch Out for Artificial Ground	18-19	Compound	

# **Warning Notices**

#### **Installation Warning**

**WARNING** - INSTALLATION OF THIS PRODUCT CLOSE TO ELECTRICAL POWER LINES IS DANGEROUS AND COULD BE FATAL. FOR YOUR SAFETY AND PROTECTION, BECOME FAMILIAR WITH AND FOLLOW THE INFORMATION BELOW.

Every year many people are permanently injured or killed through careless installation of communication antennas. These accidents can be avoided if proper information is obtained and simple safety precautions are observed. Antennas, such as this, are cumbersome and hard to handle after assembly. Installation of this assembly upon a supporting structure close to a power line could result in electrocution if accidental contact is made with it.

Choose the installation site of the antenna carefully. Determine the overall height of the complete antenna system; include the supporting structure's height (tower, slip-up mast, etc.), rotor (if needed) and the length of the antenna's longest element. The antenna system should be installed a minimum of ten feet over and above the collective height of the system itself, away from any electrical power line. If it is not possible to meet this criterion, it is suggested that professional help be obtained.

Determine the location of the electrical service, which is supplied to your location. Most power lines are installed above the ground from a pole to the house; however, in some cases power lines are buried beneath the ground surface. Solicit the assistance of your electric power company. Request that the electric service be shut off during installation time.

It is suggested that professional help is obtained, however, if non-professional help is used, be sure installation procedure has been determined and known by all parties. Be sure that safety equipment has been provided and is used. If during installation of the antenna system it begins to fall, do not try to prevent it, let it fall. If the assembly comes in contact with a power line, do not touch it, call the electric power company for assistance.

If any part of an antenna system comes in contact with an electrical service (supporting structure, guy lines, antenna, etc.), anyone that touches it will provide an electrical path directly to ground and may be electrocuted. If this happens, call for medical assistance, remove the victim using a non-conductive material (dry board, rope, dry tree limb, etc.), and apply artificial respiration. If a person comes in contact with electrical power

lines, directly or indirectly, and has been electrocuted – do not touch the victim yourself – you too will be electrocuted.

As previously stated, an assembled antenna is cumbersome and hard to handle. Install the antenna system only in good weather and under favorable conditions. Do not attempt to install an antenna during twilight hours, windy conditions or inclement weather such as rain, snow, etc. Unfavorable conditions greatly increase the chance of accidental mishap.

There may be other factors that are unique only to your installation. Using good judgment and common sense may prevent a serious accident, permanent injury or even death.

#### **Deburring Notice**

During the manufacture of this antenna there are many aluminum chips made by drilling and sawing. It is too time consuming and costly to make a one hundred percent removal of those loose chips from the finished product.

We suggest you remove any loose chips from the inside and outside of parts before assembly. Especially check where the U-bolt holes go through a tubular part. Remove aluminum burrs from the inside and outside of all tubing ends with the aid of a file and small pocketknife. The removal of these burrs at the ends will make the telescoping of tubing sections easier.

Trap assemblies have been cleaned one hundred percent on the inside. It is not necessary for you to disassemble these for cleaning or testing. It may be necessary for you to remove burrs from the ends of small tubing extending from both ends of the traps. When doing so, be careful that aluminum chips do not get within the trap assemblies by way of the inside of the small tube at both ends of the trap assemblies.

#### **Assembly Cautions**

Make sure that before attempting to sleeve ANY of the pieces of tubing together you check to see that all tubing pieces are DEBURRED!

In building the antenna we have removed the majority of the burrs, however, due to the number of pieces of tubing, the cost of labor, the time consumption; some pieces may still have a few remaining burrs. Double-check the pieces before trying to put them together!

The tubing Mosley uses is made for us and the telescoping tolerances are very close. If you would try and force a piece of tubing to sleeve, which is not deburred, it will SEIZE. If this would happen you aren't going to get them apart.

This is a beautiful beam; we have put a lot of time and pride into it, take a few minutes and check the pieces. NOTE: PENATROX, (Mosley Anti-Corrosion Compound) should be applied in a light layer/film between coupled sections of tubing to prevent formation of high resistance and seizing of aluminum.

Trap Assemblies are color coded on one end of the trap tubing.



THIS COLOR-CODE MUST ALWAYS GO TOWARD THE BOOM. REVERSAL OF THE TRAPS WILL CAUSE HIGH S.W.R. AND OTHER MALFUNCTIONS.

Mark the color-coded ends of the traps by placing masking tape on the metal trap cover and note the side and color on the trap. This will solve any problems if the color code comes off when sanding or placing the Anti-Corrosion compound on the trap tubing.

The various pieces of tubing used on the antenna elements are also color coded on one end. This end always goes in toward the boom.

Debur tubing and use the enclosed Mosley Anti-Corrosion Compound.

Mount all elements on TOP SIDE of Boom!

Do not over tighten fasteners.

Try to avoid using power tools where possible. Drill holes in element sections are precision drilled to allow the fastener to cut into the tube making a better electrical connection. Over tightening will cause stripping of the drill or tapped hole.

Be sure to tighten u-bolt legs equally. Do not overtighten u-bolts or other hardware. Tighten to seat lock washer.

#### Tightening one leg of a u-bolt before the other will give a false tight.

Follow all safety procedures in assembly and rising of this beam.

When installing the antenna, make sure the tower; all other associated hardware, and components are rated correctly for this antenna!

Avoid power lines and other electrical hazards!

Make sure you and the people helping you use good judgment and follow all safety rules, which would apply.

Before beginning assembly, start by grouping all element sections and traps according to color code.

Review the drawings and READ the instructions before starting assembly.

The MINI in an excellent antenna; however, it was designed for low power, observe the power the power limits of this antenna. **DO NOT LOAD UP IN THE TUNE POSTION WITH MORE THAN 350 WATTS!** 

If you have questions or concerns, please contact us before the final installation of your Mosley antenna system.

#### **Parts List**

The high performance of your Mosley antenna can only be achieved if this beam is assembled in accordance with the instructions in this manual. Substitutions of materials or modification of design will greatly lessen its performance. We recommend that you read through the assembly instructions and familiarize yourself with each step before assembling your antenna.

Missing or damaged parts will be replaced or repaired free of charge. Mosley Electronics, Inc. will provide replacement parts for only those items purchased within the last 90 days. If this product has not been purchased within 90 days, we are under no obligation to provide parts or merchandise free of charge.

#### Repair Parts for Your Mosley Antenna System...

Mosley stocks replacement parts for any antenna we ever produced. Some items may be limited in quantity, but replacements can be fabricated. It is recommended that all replacement parts be ordered by part number, color coding, description and the form number of the instruction manual used. This will insure that you receive the proper parts. Prices for replacement parts will be given on request. For part availability or a price quote, please send your inquiry to:

Mosley Electronics, Inc. 636-583-8595 antenna@mosley-electronics.com www.mosley-electronics.com

# **Tubing & Assemblies**

Part Number	Item #	Description	Qty
	1	Radiator center insulator assembly, BLUE	1
	2	Radiator loading coil, BLUE	2
	3	5/8" x .058 x 18", BLUE	2
	4	Radiator trap assembly, BLUE	2
	15	3/4" x .058 x 10", BROWN	1
	16	Reflector loading coil assembly, BROWN	2
	17	Reflector trap assembly BROWN	2
	18	1-1/4" x .058 x 72", boom	1
	19	1/4" x 3" x 6", mast plate	1
	24	Radiator center insulator assembly, RED	1
	25	Radiator loading coil, RED	2
	26	5/8" x .058 x 18", RED	2
	27	Radiator trap assembly, RED	2
	28	Phasing line	1

#### **Hardware**

Part Number	Item #	Description	Qty
	5	#8 x 1/2", slt. pn. hd. sheet metal screw, s/s	8
	6	#8 i.t. lock washer, ph/brnz	3
	7	8-32 hex nut, s/s	3
	8	Anti-Corrosion Compound	1
	9	U-bolt, 1/4-20 x 1-1/2", s/s	7
	10	1/4" i.t. lock washer, ph/brnz	14
	11	1/4-20 hex nut, s/s	14
	12	#40 aluminum element mount	2
	13	#6 x 3/8" slt. pn. hd. sheet metal screw, s/s	6
	14	1021 solder lug	2
	20	1-1/4" boom protective cap	2
	21	#43 mast clamping block	2
	22	#44 boom clamping block	2
	23	#41 aluminum element mount	1

## **Element Assembly**

#### **Read Directions Carefully!**

Begin assembly by grouping all element and coil sections according to color code.

**CAUTION**: Sections are color coded on one end only; this color should ALWAYS be nearest the boom. Reversal of section will cause high SWR and other malfunction of beam.

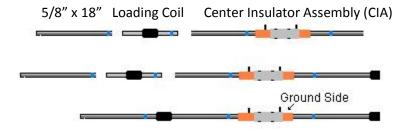
**NOTE**: Mosley Anti-Corrosion Compound should be applied in a light layer/film between coupled sections of tubing to prevent formation of high resistance and seizing of aluminum.

#### **Assembly of Driven Elements (BLUE & RED)**

#### **NOTES:**

- The hole on the end of each element section should be facing down.
- In order to accommodate the various ways and places that the MINI's are installed, we have purposely not predrilled the trapped element ends. This way they can be adjusted at the installation sight.
- We have given a pre-selected setting, which will give a general starting point in which to work from.
- Tape your trapped element end tips (parts 4, 17 & 27) in place using a short 2" piece of tape wrapped around the joint of the inner tubes (parts 3, 16 & 26) and the trapped elements (parts 4, 17 & 27) when testing the antenna.
- Once you have the antenna set the way you want it, use the predrilled hole in the 5/8" tubes (parts 3, 16 & 26) as a guide holes for drilling into the 1/2" trapped end piece.
- Make sure the drill bit used is smaller than the #6 screw which is used to secure the two element pieces. We recommend a #33 drill bit. A 7/64" or 1/8" bit should work as well.

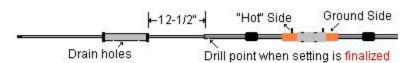
Insert the loading coils (part 2) into the center insulator assembly (CIA, part 1) and secure with #8 screws (part 5). Be sure to insert color coded end in towards the center. Place a light amount of the Anti-Corrosion compound (part 8) on the exposed 1/2" tube of the load coil (part 2) and slide the color coded end into the CIA (part 1).



# (NOTE: Make sure that the hole at the opposite end of the tube is downward. This will make sure that the trap assemblies will be mounted with their drain holes toward the ground.)

Check the element to make sure both sides of the element are correct and note that one half of the element is attached to the metal tube in the center of the element. This half of the element is the ground side of the radiator. It must have the "braid" of the coax attach to this half "ground side" of the element!)

Insert the color coded end of the BLUE trapped element (part 4). Use **12-1/2" of exposed** tubing between the 5/8" tube and the trap as a starting point. See drawing.

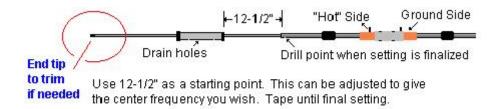


Use 12-1/2" as a starting point. This can be adjusted to give the center frequency you wish. Tape until final setting.

Check all the bands starting with 10 meters. If you are satisfied with the resonant points, secure by drilling a hole in the trapped element, using the hole in the 5/8" tubing (part 3) as a guide. Secure with the #6 screws (part 13). Seat the screw flush with the tubing, do not over tighten.

Complete the assembly of the kit before making and adjustments to 20 meters. If you see your 20 meter resonance shift is too low; you will trim the BLUE radiator end tip shorter. Trim in 1/2" increments. Trim each side equally using a small pipe cutter

or saw. Stop trimming when you have the center frequency you would like. DO NOT trim the end tip below 29". See suggestions found below for further detail.



Continue following the above procedure for the RED, back driven element using the pieces color coded RED (parts 24, 25, 26, 27).

Insert the color coded end of the RED trapped element (part 27) into the assembled RED loading section made up of parts (24, 25, 26). Use **7" of exposed** tubing between the 5/8" tube and the trap as a starting point.

Tape into position until final adjustments are completed. This adjusts the 12 meter section.

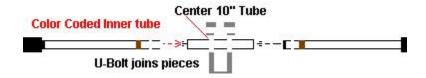
Tape into position until the remaining element is assembled and is on the boom. NOTE: once 10 and 12 meters are set to the correct frequency, 15 and 17 meters will fall into place automatically. 20 meters may or may not depend upon the area around the installation. If 20 meters is below or low in the band use the adjustment procedure described.

#### **Assembly of Reflector Element (BROWN)**

#### **NOTES:**

 Continue following the procedures for the reflector coded BROWN center assembly and trapped element sections.

Use the 10" center section of 3/4" tube (part 15) and insert the color coded end of the element loading section (part 16) into the 3/4" center. See drawing.



Align the hole in the element with the hole in the center section.

Repeat this procedure on the opposite side making sure that the 1/2" drill holes at the outer ends (part 17) are point down in the same way.

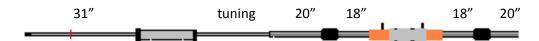
Insert the same color coded traps (part 17) into the exposed 5/8" inner ends.

Set the BROWN color coded trap at **14" exposed** on each side of the element. Secure with a small piece of tape.

#### **RADIATOR BLUE**

Boom side of Loading section 18" Endtip side of Loading section 20"

Trap assembly endtip 31"



#### **RADIATOR RED**

Boom side of Loading section 20" Endtip side of Loading section 20"

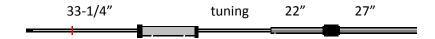
Trap assembly endtip 24-1/2"



#### **REFLECTOR BROWN**

Boom side of Loading section 27" Endtip side of Loading section 22"

Trap assembly endtip 33-1/4"



See Suggestions below for final tuning.

#### **Boom**

Boom comes ready to use. Simply place the matching color coded element to the boom.

Place the BLUE radiator element assembly onto the BLUE color code on the boom, by using a single 1-1/2" u-bolt, lock washer, nut, and element block (parts 9, 10, 11, 12).

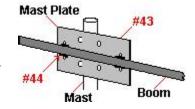
Place the reflector onto the BROWN color code mark on the boom. Secure to boom using a single 1-1/2" u-bolt, lock washer, nut, and element block (parts 9, 10, 11, 23).

# DO NOT OVER TIGHTEN SCREWS OR U-BOLTS WHEN MOUNTING THE ELEMENT CENTER ASSEMBLIES! TIGHTEN DOWN ENOUGH TO COMPRESS THE LOCK WASHERS

Place the mast plate (part 19) on the boom (part18) off centered between the BROWN reflector and the RED driven element; closer towards the RED.

Adjust to the balance point between the two elements.

Place (2) #44 clamping blocks (part22) between the boom (part 18) and the mast plate (part 19) and secure with u-bolt, nut and lock washer (parts 9, 10, 11).



Place boom caps (part 20) on boom ends.

The MINI-32-AW will accept up to a 1-1/2" OD mast. Use element mount, u-bolt, nuts and lock washer to secure (parts 9, 10, 11, 21). Be sure to pay attention to the drain holes in the trap assemblies (parts 4, 17 and 27) so that they are facing down towards the ground.

Make braid

# **Attaching Coax**

# RG-213 into a lead Cut back "HOT" 3/4" Cut back 3"

#### **Preparing Coax**

To attach 1021 solder lug (item 14) to coax, strip back the braid only **2-1/2" to 3"** and make a twisted lead out of the braided wire side.

Solder the 1021 solder lug (item 14) 1/4" down from the end of this braided leg. Trim back the insulation of the center of the coax a 1/4" and solder the 1021 lug (item 14).

Tape the "Y" between the 2 leads with a good 3M All Weather type tape and also tape up each leg to the 1021 solder lug (item 14). If this is done correctly, with a good tape, nothing else is needed to seal the coax.

#### **PLACEMENT OF COAX & PHASING ROD**

Locate the coax mounting terminal/screw coming out of the radiator center assembly. (NOTE: One screw is on aluminum tubing; this terminal side is used for the braid connection only.)

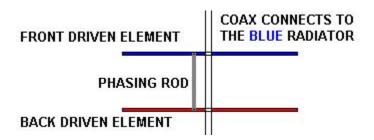
Place the phasing rod (part 28) on the non-grounded side of the center insulators as shown. Secure the RED side of the phasing line with lock washer and nut (parts 6 & 7).



Place each of the solder lugs (part 14) onto the appropriate mounting screw on the BLUE center assembly and secure with lock washer and nut (parts 6 & 7).



After both leads and the phasing rod are attached, secure the coax to the boom with tape. If a choke is going to be used, please read below.



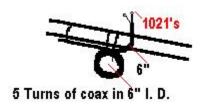
The coax connects to the **BLUE front driven element**. The center of the coax "the hot" goes to the non-grounded side of the element. This is the side with the phasing line.

RG-8/U or RG-213 is recommended to link terminals. The "braid" of the coax should attach to **the** "ground side" of the element!

#### **Using an RF Choke (OPTIONAL)**

To achieve a good balance at the feed point, coil 5 turns of transmission line into a coil having a 6" diameter. Tape coil to boom within 3"- 6" of the feed point. Keep the coil as close to the connection as possible.

If you are experiencing some RF down your feed line or if you want to insure you will not have RF down your feed line then a simple RF Choke made with your coax will work well.



This choke can be made by coiling 5 turns of your feed line in a 6" INSIDE diameter right at the connection of the feed line to the RADIATOR.

This coil is just a loop of your feed line rolled up like a rope or a garden hose in the size mentioned. This coil is then taped within 6 to 8 inches after the connection point to the radiator at the boom. **DO NOT WRAP COIL ON A FORM OR WRAP TURNS SIDE-BY-SIDE**. This will create a large inductor and not a resonant choke!

### **Final Check & Mounting**

Assembly is complete. Check all elements and connections one last time. Be sure to pay attention to the drain holes in the trap assembly (parts 4, 17 and 27) so that they are facing down towards the ground.

#### Recheck All Connections

- Make sure all hardware is tight and all color codes were followed.
- Make sure the anti-corrosion compound was used.

- Place any remaining end caps or boom caps.
- Check the coax attachment points.

#### Final Element Adjustments

Once the antenna is ready to be tested, place the antenna on a temporary support 10 to 12 feet off the ground, away from surrounding objects.

Tune the inner BLUE for the 10 meter section of the band you desire. Then tune the inner RED element for the 12 meter band. **DO THIS BEFORE MAKING ANY ADJUSTMENTS** to the 20 meter end tips.

**NOTE**: once 10 and 12 meters are set to the correct frequency, 15 and 17 meters will fall into place automatically. 20 meters may or may not depend upon the area around the installation. If 20 meters is below or low in the band use the adjustment procedure described.

Run an SWR curve to see where the antenna is resonating for each band. Determine if these are the areas you want the antenna to remain. If so, permanently secure the BLUE radiator trap (part 4) by drilling a hole into the 1/2" tube which is inserted in the 5/8" tubing on the BLUE inner element section. Repeat for the RED element trap (part 27).

Use the existing drill hole in the 5/8" tubing as a "GUIDE" hole. Make sure you use a SMALLER drill bit so that the hole isn't oversized.

Align the hole on the trapped element with the hole on the center assembly and secure with a single #6 stainless screw. (Remember not to over tighten the screw. Tighten **only until** the screw is flush with the outer tubing.)

Check your 20 meter resonance. If it is either low or below the band, you will need to trim the BLUE end tip, as described earlier in the assembly, shorter in order to raise the **20 meter frequency. To do this, remove the end cap and in ½" increments cut each** side of the element equally using a small pipe cutter or saw.

After making the first cut on each outer BLUE end tip, check the 20 meter band and see if the SWR dip is in the area of the band you wish to operate. If not, adjust accordingly. Stop trimming when you have the center frequency you would like. Trim in small increments. Stop trimming when you have the center frequency you would like. DO NOT trim the end tip below 29".

Tune in a signal on 20 meters and check the front to back ratio. If the front to back is acceptable then go ahead and secure the reflector in the same manner as was done with the radiator.

If you would like to peak the front to back then you will need to adjust the reflector. (The adjustment should not be more than 10" either way, e.g., longer or shorter.)

When the maximum is obtained, secure with tape to the 5/8" tube.

(Remember that as you increase the front to back on this close spaced antenna the band width will DECREASE.)

If the SWR and the front to back ratio is where you want it, secure the trap elements (part 17) in the same manner that was used on the radiators.

This completes antenna assembly.

The MINI in an excellent antenna; however, it was designed for low power, observe the power the power limits of this antenna. **DO NOT LOAD UP IN THE TUNE POSTION WITH MORE THAN 350 WATTS!** 

#### **Review**

The Mini-32-AW was designed to give the Ham who would like to have a 2 element **beam on "3" bands** and also be able to work 12 & 17 meters while keeping the size of the antenna smaller than even a normal tri-band antenna. The design criteria were:

- A single feed line.
- A very broad band capability, which will work with the new solid state rigs.
- An antenna that was as compact as possible to justify its use on three bands.
- To tune it for optimum gain for a "5" band beam on a 6' boom.
- To minimize the interaction of the close proximity of the various bands.
- Build it to withstand any above average environments.

The Mini-32-AW has been tuned to give you as much flexibility as possible in an under sized beam.

There is one broad setting; however, a tuner can be used to make minor adjustments if needed. The antenna is very broad banded. The only restricted band is 10 meters. It is designed to be operated between 28,000 to 29,000, since this is the main area for HF work in SSB and CW.

We feel the Mini-32-AW gives a Ham the best of all worlds in a very small package!

Enjoy!

# **Suggestions**

#### **Checking Antenna Before Final Installation**

If you wish to check antenna on the ground it needs to be at least 10 to 12 feet, off the ground in a horizontal position.

Do not put reflector on ground or use other methods of checking.

Due to the high "Q" of the antenna it will couple with ground, artificial or real.

Place the antenna on a ladder, temporary pole, or to the side of your tower in a horizontal plane. This will enable you to get an overview of where the antenna is resonant. That **is, if you're showing 2:1** everywhere, you have a problem. However, if you are seeing the antenna trying to dip, but not going completely flat and/or the frequency is 50 to 80 kHz lower in the band; the antenna is correctly assembled.

Remember at this low height you are coupling with ground. That can be both real ground and artificial ground.

This type of check will allow you to see that the antenna is trying to dip and does possess a SWR curve. However, due to its nearness to ground this curve might be shifted lower in frequency and not totally bottom out to 1:1. This is normal.

A problem would be indicated if all bands are showing in excess of 2:1 with no dip of any kind. A coupling problem would be indicated when only one or two bands are unusual and the remainder is within specifications.

#### **Watch Out for Artificial Ground**

Artificial ground is presented to an antenna through various means. Guy wires up under the antenna, rooftop, and other resonant antennas near by are the most common.

This would cause a disruption of a few bands and also degrade the front to back ratio. As with any good antenna, it needs to have a clear area in which to perform.

The antenna should be at least, a 1/4 wave length from any artificial ground at the lowest operating frequency of the antenna. Remember this is a minimum. In the case of the Mini-32-AW, the lowest operating frequency is 20 meters or 14 MHz. With this in mind, the antenna should be at a minimum 17 feet away from any artificial ground. Remember this is a minimum. In a commercial installation, this minimum would be 1/2 wave length away.

To break up guy wires use an insulator every 4' for the first 16'or non- metallic guys. This will give a non-resonant length under the antenna and help its performance. If these procedures are ignored, the antenna will still work very well, however, there will be some trade off in bandwidth, resonance, and front to back.

A high "Q" antenna needs to have a proper installation to get the most out of the system.

A sign of artificial ground will be a shift lower in frequency of the SWR curves and possibly a dip that doesn't reach 1:1 at its lowest point.

Also, the SWR will rise at a faster rate when tuning to the higher portions of the band.

If you need any assistance with this type of a problem, please give us a call and we will be glad to discuss your installation with you.

Doing these simple checks and following these basic rules concerning installation can save you and your crew a lot of frustration. If you think you have a problem, and would like to discuss your installation or something is going on you don't understand, please call us, 1-636-583-8595; we will be glad to help. We want you to be as happy as we are that you chose MOSLEY!

#### Use of a Balun or Not

We do not require the use of a balun. It is not needed.

#### **Stacking**

We recommend a 10 to 12 foot separation between the Mosley and any other beam on the same mast.

## **Product Support**

#### **Technical Support**

If you have questions about this product, or if you experience difficulties during the installation, please contact Mosley at 636-583-8595. You can also e-mail us at: <a href="mailto:antenna@mosley-electronics.com">antenna@mosley-electronics.com</a> For best service, please take a few minutes to review this manual before you call.

#### **Warranty**

The manufacturer warrants this antenna to be free from defects in material and workmanship. Any damage occurring through normal use of the antenna and due to defective material or workmanship will be repaired or the damage \*part replaced free of charge for a period of two years from the date of purchase.

\*Pack carefully and return postpaid to:

Mosley Electronics, Inc. 1325 Style Master Drive Union, MO 63084

THIS GURANTEE APPLIES ONLY TO THE ORIGINAL OWNER REGISTERED ON FILE. ANY MERCHANDISE THAT HAS BEEN REPAIRED BY AN UNAUTHORIZED PARTY, TAMPERED WITH OR ABUSED IS NOT COVERED BY THIS GURANTEE.

To validate guarantee, please fill out warranty card provided and return or register your warranty online at:

www.mosley-electronics.com

GUARANTEE VOID UNLESS REGISTRATION IS RETURNED OR FILED IMMEDIATELY
UPON RECEIPT OF THIS ANTENNA

#### **Receipt of Shipment**

Before beginning assembly, we recommend thoroughly inspecting contents and taking inventory of all materials. This shipment left our dock in perfect condition. Upon arrival, please inspect for damage and incorrect quantity. Notify carrier immediately if discrepancies were not recorded upon delivery.

ANY DAMAGE TO CONTENTS SHOULD BE NOTED WITH THE CARRIER BEFORE CONTACTING MOSLEY. KEEP ALL BOXES AND PACKING MATERIALS UNTIL THE CLAIM PROCESS HAS BEEN COMPLETED.

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