

MP1LXMAX
Deluxe Maximum
Large Tripod
Portable Antenna Package

## Please keep this document

#### Thank you for your order!

We appreciate your business and hope you enjoy your new Super Antenna equipment.

#### Review

If you are happy with your purchase, would you consider leaving a product review online?

#### **Support for your Super Antenna product**

There are plenty of application notes and manuals available on the Super Antenna website to help you get the most from your new equipment.

#### newsuperantenna.com

Select your desired manual or application note in the Download section. It is free and easy.

#### Problems with your order?

We strive to ensure that your equipment is in perfect condition but sometimes mistakes can happen or products can be damaged in shipping. If there is something wrong with the equipment you ordered, please contact us by direct email:

#### support@newsuperantenna.com

We will try to immediately take care of your problem. Please include your Order ID in your email and explain exactly what your issue or problem is. Generally, problems with missing or broken equipment, or shipping damage, can be resolved within 5 business days. We stand behind our products and strive to make every customer happy with their purchase.

#### **Accessories and Options**

Accessorize your new Super Antenna equipment. Get the full range of SuperPods, SuperMounts, SuperWhips, Go Bags, SuperWire Radial Sets, Extension Rods, Low Profile Tripods, Super Coils, Adapters, and more.

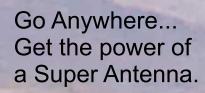
- Your friends at Super Antenna

APPLICATION NOTES
INSTRUCTIONS
USER GUIDES





Top Of The Line Deluxe Maximum Portable HF-VHF Antenna System



# MP1LXMAX Portable Antenna System Features and Specifications

- Frequency Range:
   80 metres through 2 metres Amateur Bands
   HF 3.5 MHz to 148 MHZ continuous coverage,
   plus MARS-CAP-Marine-shortwave-CB-etc
- Simultaneous Operation on VHF 2 metre band 144-148 MHz and an HF band or 6 metres
- Good SWR: 1.5:1 or better,
   Manual adjustment, with no tuner needed
- Power Rating: 500W SSB, 300W CW / DIGITAL
- Lightweight for travel carrying and packing
- For indoor or outside field use
- Antenna Fittings: Standard 3/8"-24 threads
- Assembly: Easy set up in ten minutes by one person, no tools needed
- Antenna packs down to a single Go Bag 13" x 9" x 3.5" (33 x 23 x 9 cm)
- Tripod packs down to a single Go Bag 25" (63cm) long
- Fully extends up to 12 feet (3.6m) high for maximum efficiency operation
- Ground mount for lightweight and quick set up in the yard, garden, forest, or beach
- Standard SO-239 fittings for PL-259 connector
- Ruggedized whip for travel and backpacking
- Color: Black Stealth & Metallic

Everything fits into the 2 Go Bags.



newsuperantenna.com

#### FEATURES & SPECS





- Velcro Panel for Insignia & Flag Patches
- **MOLLE PALS Compatible Attachment System** Front and Back for Interface with Military Packs, Gear Bags, HTs, EmComm Pouches, or securing a SuperWhip
- Cable Pocket for MR Series Radial Sets, Coax, and Connectors
- 2 Coil Pockets for MP1 & DP Series SuperSliders and MC Series SuperCoil Options
- **Pocket for Mounts and Tools**
- Strong Webbing Handles

**UM3 SuperMount** 

- 2 Extension Rod Pockets for Extra Length or Telescopic Whips
- 2 Full Length Stealth Hidden Velcro Pockets for FG1 Frequency Guide, Mics, Keys, Manuals, Equipment, EmComm Forms, or Accessories

2 D-Rings for Attachments or Straps

Multiple Radial

Terminal Connections

#### SW1 SuperWhip

Ruggedized Flexible Whip for HF Bands Rolls up to fit on your Go Bag MOLLE Titanium Strong Super Flexible

MP1C Antenna

Telescopic Whip with Standard 3/8"-24

New Rubberized Grip for Easy Tuning

High Q SuperCoil for Maximum Efficiency

**Durable Polymer SuperCoil Form** 

New Self Locking SuperSlider

Nickel Beryllium Weatherproof Connections Two Extension Rods for Height Flexibility

All Modular Parts Standard 3/8"-24 Fittings

FG1 SWR Ruler

calibrated for good SWR

Thumb screw only for vehicle mobile use

**Pre-Tuned Quarter Wave Stealth** SuperWires for Ham Bands

Radial Sets Super performance on all bands



Standard SO-239 Connector to

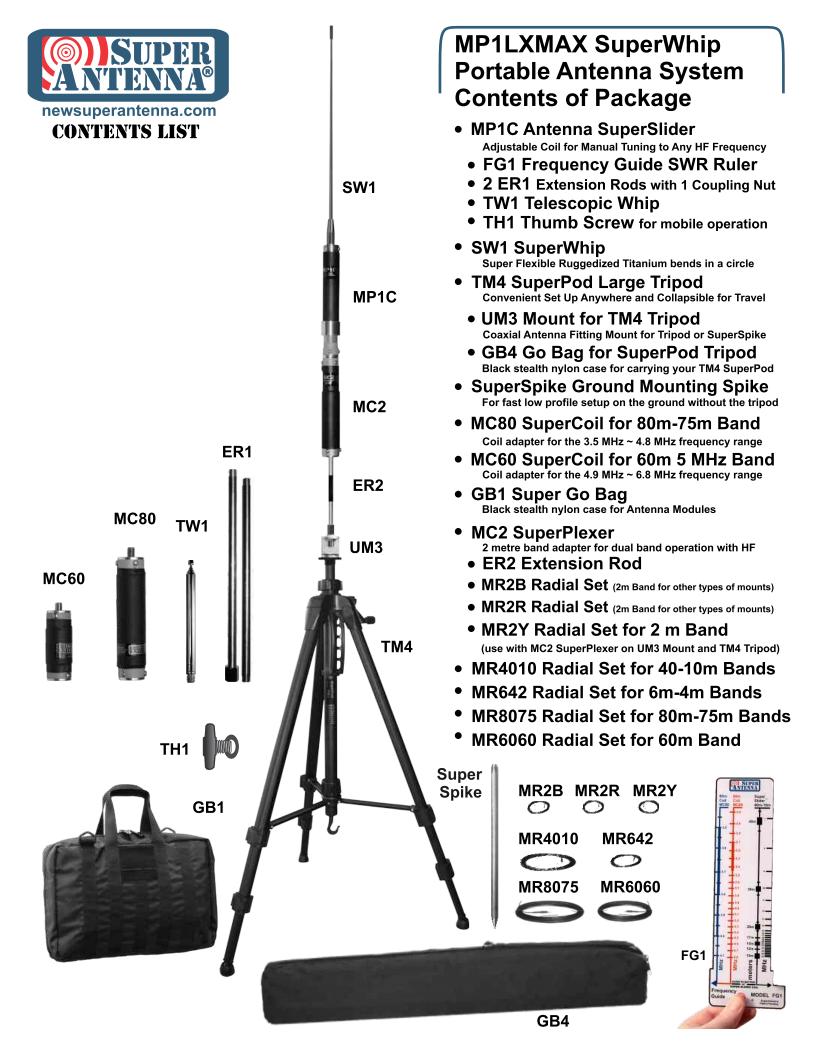
**TM4 SuperPod Tripod** 

**Durable Tripod Legs** with anti-skid feet











#### TM4 SuperPod Large Tripod Set Up Guide

Unpack the contents of the TM4 SuperPod Tripod
package and lay all items out horizontally on a clean
flat surface. (See Contents list on your box label).

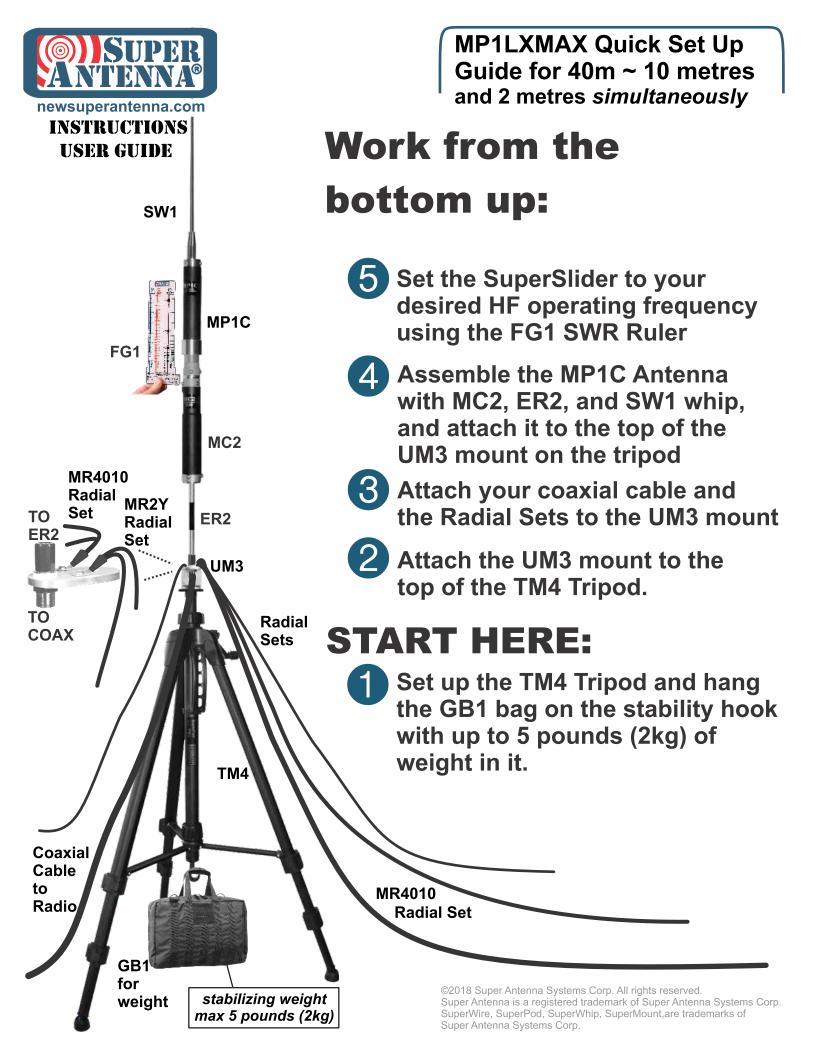
• You will need the following:

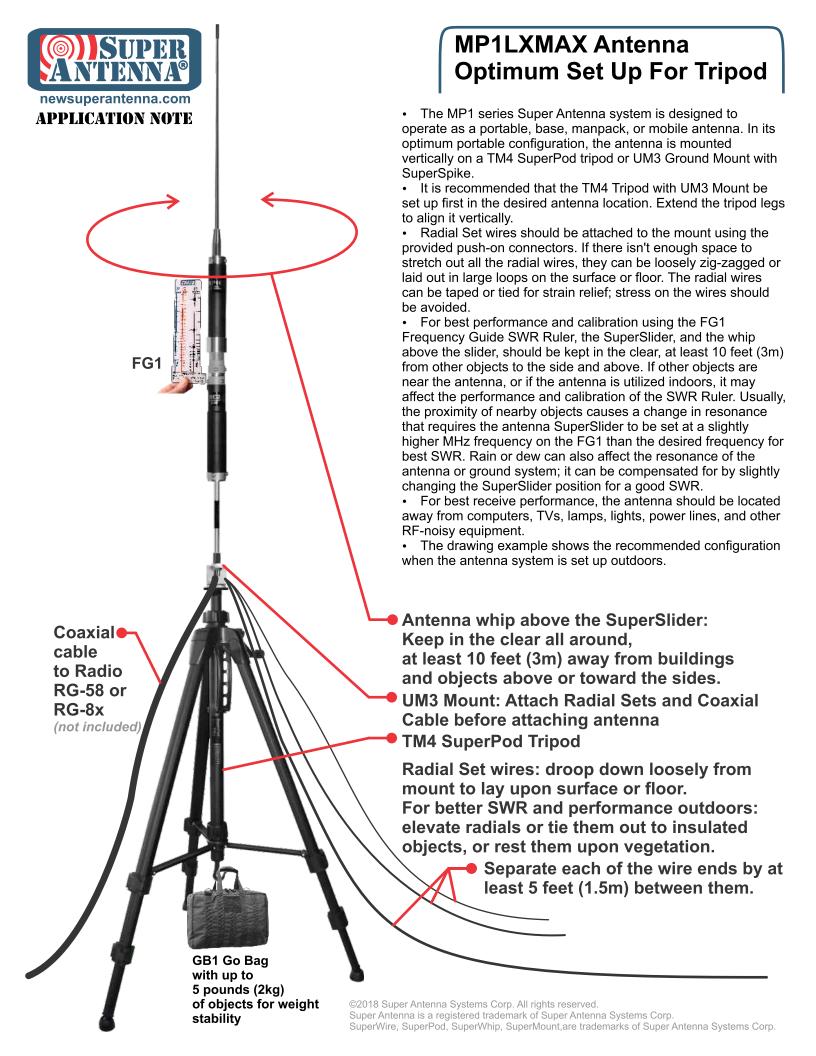
- Flip open the six (6) tripod Flip Lock Leg Clamps .
- Extend all sections of the three (3) Tripod Legs •
- Flip closed the six (6) tripod Flip Lock Leg Clamps .
- Note: Only hand-tighten the fittings. DO NOT USE pliers, wrench, or spanner to tighten any fitting of the tripod, mount, coaxial connector, or antenna.
- Move the TM4 SuperPod Tripod to the desired antenna position location, and while placing it on the surface, loosen the Strut Lock Knob slightly.
- Spread out the Tripod Legs fully, then push down gently on the Strut Lock Knob and rotate it slightly clockwise to keep the Legs in the spread position.
- Place your UM3 SuperMount® onto the Top Mounting Screw® of the Mast Head® as shown in this drawing (top left).
- With the SO-239® coaxial connector facing downward, mate the Top Mounting Screw® with the matching threaded hole in the flat metal plate of the SuperMount. Be sure to select the proper threaded hole.
- Screw the SuperMount in a clockwise rotating motion onto the Top Mounting Screw
   until the SuperMount is seated on the Mast Head
  .
- Slightly rotate the Mast Lock Knob@ counter-clockwise to unlock the Mast@. Raise the Mast@ about 6 inches (15cm) by rotating the Mast Crank@ clockwise. Gently tighten the Mast Lock@ to secure it.
- For added stability, you may attach a stabilizing weight (not included) or bag to the Stabilizer Weight Hook® or guy the tripod with nylon or polyester non-metallic insulated cord.
- Your TM4 SuperPod is now set up and ready for you to attach your antenna, coax cable, and radial sets.

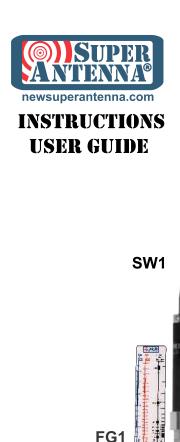
#### **Antenna System Set Up**

See MP1C and UM3 setup on the following pages for details of antenna setup.









MP1LXMAX Set Up Procedure for SuperSpike Ground Mount System

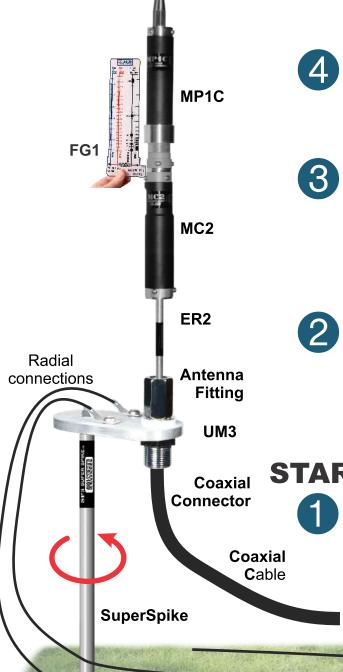
### **Work from the bottom up:**

- Set the SuperSlider to your desired operating frequency using the FG1 SWR Ruler
- 4 Attach the MP1C Antenna by screwing it into the top fitting of the UM3 mount
- Assemble the MP1C Antenna with MC2, ER2, and SW1 SuperWhip (or you may substitute the two ER1 rods instead of the MC2 + ER2 while not using the 2 metre band)
- Push the spike into the ground soil at your desired antenna site and attach the Radial Sets to the terminals on the UM3 mount and spread them out on the ground

#### **START HERE:**

Assemble the SuperSpike by screwing it into the bottom of the threaded female hole in the UM3 mount plate, then attach your coaxial cable to the fitting.

© 2018 Super Antenna Systems Corp. Super Antenna® is a registered trademark of Super Antenna Systems Corp. The Super Antenna logo, SuperSpike, SuperMount, SuperStick, SuperWhip, and MP1C are trademarks of Super Antenna Systems Corp. All rights reserved.



Radials



SW1 SuperWhip (or TW1 TelescopicWhip)



MC2 © SuperPlexer 2 meter Diplexer (no tuning needed for 144~148 MHz)

ER2 ®-Extension Rod (part of MC2)

Mount@

## Configuring the MP1LXMAX for the HF Bands and 2 metres

# This is the standard set up for using one of the following HF Bands:

(simultaneous with 2 metres)

40 metres 30 metres 20 metres 17 metres 15 metres 12 metres 11 metres 10 metres

- When using the MC2 SuperPlexer, the MP1 series antenna becomes a dual-band antenna, which covers the VHF 2-meter band simultaneously, along with an HF band, without the need to re-configure it separately for HF and VHF use.
- To set up your Antenna system, select the designated modular components shown, and configure it according to the band charts below.
- For HF bands, hold the FG1 Frequency Guide as shown, and adjust the frequency by pushing the SuperSlider up or down, to the calibrated position according to the matching color scale. (see FG1 instructions)
- Do not use the optional MC80 SuperCoil or MC60 SuperCoil for HF operation except when operating on the 80 meter, 75 meter, or 60 meter bands.
- For the 6 meter band, remove the Whip or SuperWhip from the top of the SuperSlider entirely. Adjust the SuperSlider to approximately 2 or 3 turns of the coil showing.
- Re-adjust and fine tune the SuperSlider slightly using your radio's SWR meter for the desired 50MHz operating frequency. Note: The FG1 Frequency Guide is not calibrated for the 6 meter band.

Note: VHF may requires finely detailed radial adjustments. Mobile applications may require special grounding or radial techniques to achieve good SWR for the 2 meter band. see instruction sheet "MR2Y Radial Set for 2 metre Band with MC2 SuperPlexer"

SuperSlider

push up or down

to adjust for good SWR on the HF band frequency

7 MHz to 30 MHz HF simultaneous with 144 to 148 MHz VHF

Insert the MC80 coil only while you are using 80 m. Insert the MC60 coil only while you are using 60 m. Do Not insert both MC80 and MC60 at the same time

Note: For HF + VHF operation, use only the one ER2 Extension Rod. Do not use ER1 Extension Rods, set them aside.



**USER GUIDE** 

SW1 SuperWhip ®

TW1 TelescopicWhip

ANTENNA

MP1C

**MC80** 

いい。

MC2

#### SuperSlider •

push up or down to adjust for good SWR on 80m ~75m band desired frequency

MC80 @ **SuperCoil** for 80m ~ 75m **Band** 

MC2 O **SuperPlexer** 2 meter Diplexer (no tuning needed for 144~148 MHz)

> **ER2 @ Extension Rod** (part of MC2)

> > Mount@

#### Configuring the MP1LXMAX for the 80 metre ~ 75 metre Band and 2 metres

#### This is the standard set up for using the 80 metres ~ 75 metres HF Band. (simultaneous with 2 metres)

- When using the MC2 SuperPlexer, the MP1 series antenna becomes a dual-band antenna, which covers the VHF 2-meter band simultaneously, along with the 80m~75m HF band, without the need to re-configure it separately for HF and VHF use.
- To set up your Antenna system, select the designated modular components shown, and configure it according to the diagram to left.
- For HF bands, hold the FG1 Frequency Guide as shown, and adjust the frequency by pushing the SuperSlider up or down, to the calibrated position according to the matching blue color scale. (see FG1 instructions)
- Do not insert the MC60 SuperCoil while using the MC80 SuperCoil. Either/or, but not both.
- Note: VHF may require finely detailed radial adjustments. Mobile applications may require special grounding or radial techniques to achieve good SWR for the 2 meter band. see instruction sheet "MR2Y Radial Set for 2 metre Band with MC2 SuperPlexer"

FG1 **Frequency Guide** use Blue Color scale

#### 3.5 MHz to 4 MHz HF simultaneous with 144 to 148 MHz VHF

Insert the MC80 coil only while you are using 80 m. Insert the MC60 coil only while you are using 60 m. Do Not insert both MC80 and MC60 at the same time

Note: For HF + VHF operation, use only the one ER2 Extension Rod. Do not use ER1 Extension Rods, set them aside.



## INSTRUCTIONS USER GUIDE

Remove top
SW1 SuperWhip ®
remove top
TW1 Telescopic Whip

SuperSlider push up or down to adjust for good SWR on the 6 metre band VHF frequency

SuperSlider Coil **6** for 6 meter band adjust slider to 2 or 3 coil turns showing

MC2 SuperPlexer
2 meter Diplexer
(no tuning needed for 144~148 MHz)

ER2 **@**Extension Rod
(part of MC2)

Mount@

MC2

## Configuring the MP1LXMAX for the 6 metre Band and 2 metres

# This is the standard set up for using the 6 metre (50 MHz) VHF Band. (simultaneous with 2 metres)

- When using the MC2 SuperPlexer, the MP1 series antenna becomes a dual-band antenna, which covers the 2-meter band simultaneously, along with the 6 metre band, without the need to re-configure it separately for 6m and 2m use.
- To set up your Antenna system, select the designated modular components shown, and configure it according to the diagram to left.
- Do not use the MC80 SuperCoil or MC60 SuperCoil while operating on 6 metres.
- For the 6 meter band, remove the Telescopic Whip and SuperWhip from the top of the SuperSlider entirely.
- Adjust the SuperSlider to approximately 2 or 3 turns of the coil showing.
- Re-adjust and fine tune the SuperSlider slightly using your radio's SWR meter for the desired 50MHz operating frequency.
- Note: The FG1 Frequency Guide is not calibrated for the 6 meter band.
- Note: VHF may require finely detailed radial adjustments. Mobile applications may require special grounding or radial techniques to achieve good SWR for the 2 meter band. see instruction sheet "MR2Y Radial Set for 2 metre Band with MC2 SuperPlexer"

#### 50 MHz VHF simultaneous with 144 to 148 MHz VHF

Do not insert the MC80 coil or 60m Coil while using the 6m band, 50 MHz.

Note: For 6m + 2m operation, use only the one ER2 Extension Rod. Do not use ER1 Extension Rods, set them aside.



# MP1 Series Antenna Options Ham Band Chart for Coils Radial Sets and Adapters HAM BANDS

		لـــــا	Bands covered by MP1C by itself											
	SUPERCOILS AND	<b>2</b> m	<b>4</b> m	6 m	10 m	12 m	15 m	17 m	<b>20</b> m	30 m	40 m	60 m	75 m	80 m
PICK ONE SUPERCOIL FOR DESIRED BAND	SUPERPLEXER ADAPTER use with the MP1C	144 MHz	70 MHz	50 MHz	28 MHz	24 MHz	21 MHz	18 MHz	14 MHz	10 MHz	7 MHz	5 MHz	3.8 MHz	3.5 MHz
	MC80 SuperCoil												•	•
	MC60 SuperCoil											•		
	MC2 SuperPlexer **  ER2 Extension Rod	•												
	RADIAL SETS	2	4	6	10	12	15	17	20	30	40	60	75	80
PICK ONE OF THESE RECOMMENDED RADIAL SETS AS NEEDED TO USE ON THE DESIRED BAND	MR8075*** Radial Set												•	•
	MR8060*** SuperWire Radial Set											•	•	•
	MR6060*** SuperWire Radial Set											<b>()</b>		
	MR4010*** SuperWire Radial Set				<b>()</b>	<b>()</b>	<b>()</b>	<b>()</b>	•	<b>()</b>	<b>()</b>			
	MR1710*** SuperWire Radial Set				•	<b>()</b>	<b>()</b>	<b>()</b>						
	MR642*** SuperWire Radial Set		•	•										
_	MR2* SuperWire Radial Sets  MR2Y MR2B MR2R  MR2R	•												

<sup>\*</sup>Only one MR2 Radial Set is needed for the 2 metre band while using the MC2 SuperPlexer. See MC2 Instruction Sheet for details.

<sup>\*\*</sup> The MC2 SuperPlexer may remain in the system when using any other band. It must be in the system when using the 2 metre band.

<sup>\*\*\*</sup> Only one Radial Set is needed for the desired band.



#### **MR2Y Radial Set** for 2 metre Band with **MC2** SuperPlexer

The MC2 SuperPlexer with MR2Y Radial Set enables your Super Antenna to work on the 2 metre band simultaneously with an HF Band. The MC2 can remain inserted in the antenna system while using HF. The MC2 is factory set to 144-148 MHz with no user adjustment needed for 2 metre band operation.

Use the **MR2Y Radial Set** YELLOW color code with the UM3 Mount for TM4 Tripod and

Critical placement of the MR2Y Radial Set for the 2 metre VHF Band finely detailed adjustment.

MC2 **Ground Mount** 

MPIC

MP1C SuperSlider Coil

SuperPlexer

2 meter adapter

(label end up)

ER2

**Extension Rod** 

required

Note: Use only the **ER2 Extension Rod** that came with your MC2 SuperPlexer

> of the MR2Y Radial Set up across top of the mount near the antenna fitting (may be secured with tape)

Position a radial wire

MR4010 Radial Set and other Radial Sets for HF frequencies

Raise or lower upper mast crank of tripod for best 2 meter band SWR

TM4 SuperPod **Large Portable Antenna Tripod** 

© 2018 Super Antenna Systems Corp. All rights reserved.

SuperAntenna® is a registered trademark of Super Antenna Systems Corporation.

SuperWhip<sup>TM</sup>, Max<sup>TM</sup> the SuperMascot<sup>TM</sup>, SuperPod<sup>TM</sup>, SuperPlexer<sup>TM</sup>, SuperMount<sup>TM</sup>,

SuperColi<sup>TM</sup>, and SuperSlider<sup>TM</sup>, are trademarks of Super Antenna Systems Corporation



#### APPLICATION NOTE



FF1 Frequency Flag

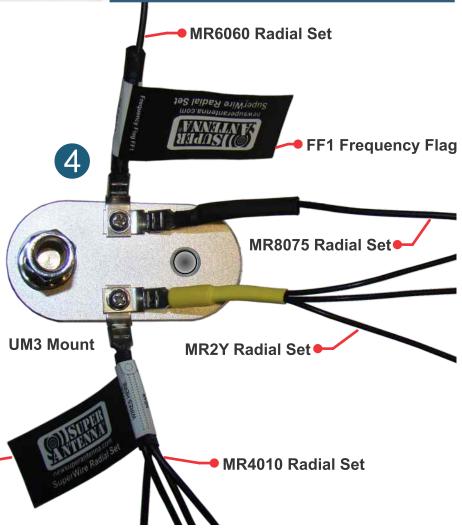
# Add Radial Terminal Connectors to UM3 Mount for Additional Radial Sets

- Normally, it is only necessary to connect the Radial Set for the desired band that is actively in use.
- 2 terminal connectors are provided on the UM3
- Mount for connecting 2 Radial Sets simultaneously.

  It is OK, and can be beneficial, to connect more than
- 2 Radial Sets at the same time.

   An additional spare terminal connector is provided
- inside each Radial Set package for this purpose.

   A phillips screwdriver (not provided) is needed to add
- the spare terminals to the mount.
- Please refer to the illustrations and details below.
- Unscrew the phillips screw(s) from the UM3 Mount plate, and stack the spare terminal connectors onto the same screw as the existing terminal connector.
- 2 Screw the stack of terminal connectors onto the mount, and tighten the screw(s).
- The addition of terminal connectors to the mount is now complete. Attach the UM3 Mount to the TM4 SuperPod or the SuperSpike ground spike.
- 4 Attach the Radial Sets to the terminal connectors, and fan the radials out as desired.





SW1 SuperWhip ®

or TW1 TelescopicWhip

#### SuperSlider •

push up or down to adjust for good SWR on 60 metre band desired frequency

> MC60 ©-SuperCoil for 60metre Band

**MC60** 

いい。

MC2

SuperPlexer 2 meter Diplexer (no tuning needed for 144~148 MHz)

ER2 @ Extension Rod (part of MC2)

Mount@

## Configuring the MP1LXMAX for the 60 metre Band and 2 metres

# This is the standard set up for using the 60 metre (5 MHz) HF Band.

(simultaneous with 2 metres)

- When using the MC2 SuperPlexer, the MP1 series antenna becomes a dual-band antenna, which covers the VHF 2-meter band simultaneously, along with the 60 metre HF band, without the need to re-configure it separately for HF and VHF use.
- To set up your Antenna system, select the designated modular components shown, and configure it according to the diagram to left.
- For HF bands, hold the FG1 Frequency Guide as shown, and adjust the frequency by pushing the SuperSlider up or down, to the calibrated position according to the matching red color scale. (see FG1 instructions)
- Do not insert the MC80 SuperCoil while using the MC60 SuperCoil. Either/or, but not both.
- Note: VHF may require finely detailed radial adjustments. Mobile applications may require special grounding or radial techniques to achieve good SWR for the 2 meter band. see instruction sheet "MR2Y Radial Set for 2 metre Band with MC2 SuperPlexer"

● FG1
Frequency Guide
use Red Color scale

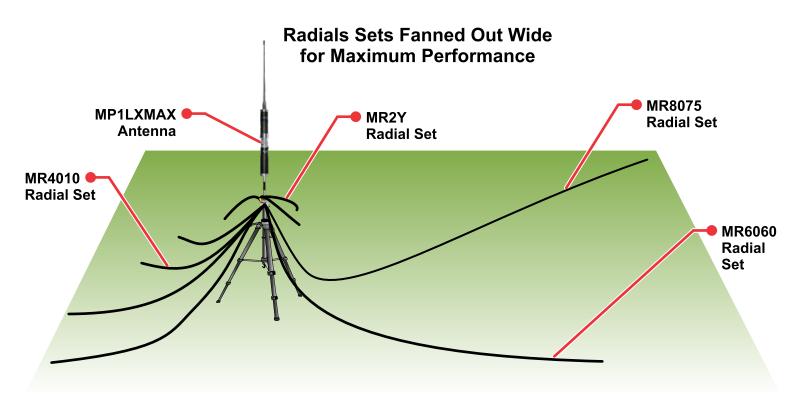
5 MHz HF simultaneous with 144 to 148 MHz VHF

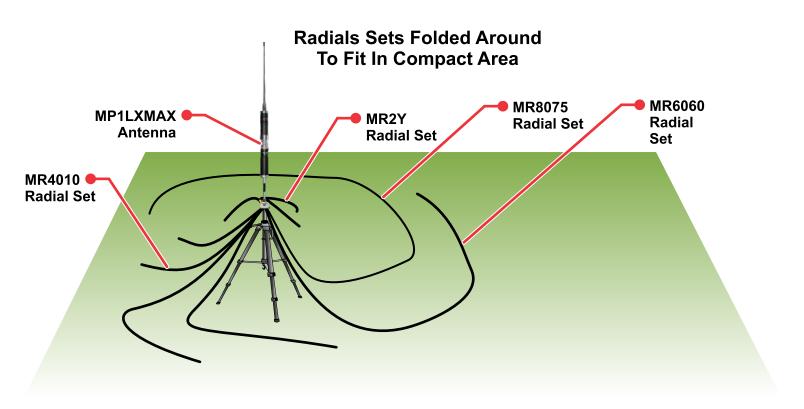
Insert the MC60 coil only while you are using 60 m. Insert the MC80 coil only while you are using 80 m. Do Not insert both MC80 and MC60 at the same time

Note: For HF + VHF operation, use only the one ER2 Extension Rod. Do not use ER1 Extension Rods, set them aside.



# Deployment of Radial Sets for High Performance







# INSTRUCTIONS USER GUIDE



The SW1 SuperWhip is used on the HF bands in place of the normal TW1 Telescopic Whip.

SW1 SuperWhip Set Up

and Travel Packing

To remove: Cut zip ties or tape with a nail clipper.

CAUTION: When unpacking use care due to extreme high energy kinetic forces in the whip.

DO NOT bend in less than 11 inch (28cm) diameter circle. Use eye protection when deploying.

Some small natural curvature is normal after bent storage and decreases during use.

Temperature range -20°C to 60°C (-4°F to 140°F)

Do Not Bend Less Than 11 inches diameter



Attach SW1 SuperWhip to top of MP1 Antenna SuperSlider

To pack down, remove the SW1 SuperWhip from top of MP1 Antenna SuperSlider and bend it into a 12 inch diameter circle.

Thread the SW1 SuperWhip into the outside edges of the GB1 Go Bag's MOLLE webbing straps to hold it in place for travel packing.



MP1 Antenna
Backpack Set Up
for Pedestrian
Mobile Operation

Insert a single provided ER1 Extension Rod
Through the top hydration tube slot or zipper
opening at the top of the backpack.

Secure the rod to the top handle of the backpack. This is the spot where the most force will be encountered while in motion, so make this attachment as secure and strong as possible.

Secure the rod with cinch straps, cord, cable ties, or duck tape. 2 Extension Rods are supplied in the package.

But, for most ruggedized applications, a single ER1 Extension Rod is optimum, and sufficient for HF operation.

Place the UM3 SuperMount inside the backpack, and screw the bottom of the ER1 Extension Rod into the mount fitting. With a screwdriver or tool, loosen the swivel mount angle screws and adjust the angle to provide a good footing for the mount plate inside the pack.

Soft items such as clothing may be placed around the mount with heavier items surrounding it, to hold the mount in place in the pack.

Typical backpack

suggestion.

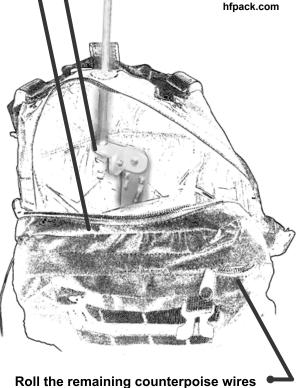
For packs with side MOLLE-PALS straps

Tie the top of the rod to the point where the shoulder strap cinch strap meets the top of the pack.

The rod and mount may be slotted through the side straps.

Attach coaxial cable to mount and radio.

Attach drag wire counterpoise to the mount connection. Draw out a single wire of the counterpoise and let it dangle. Use the shortest wire for higher frequencies.



up, and stow them in a pocket of the

© 2018 Super Antenna Systems Corp. All rights reserved. Super Antenna® is a registered trademark of Super Antenna Systems Corp. SuperStick™ SuperMount™ SuperWhip™ SuperWire™ are trademarks of Super Antenna Systems Corporation.

pack.

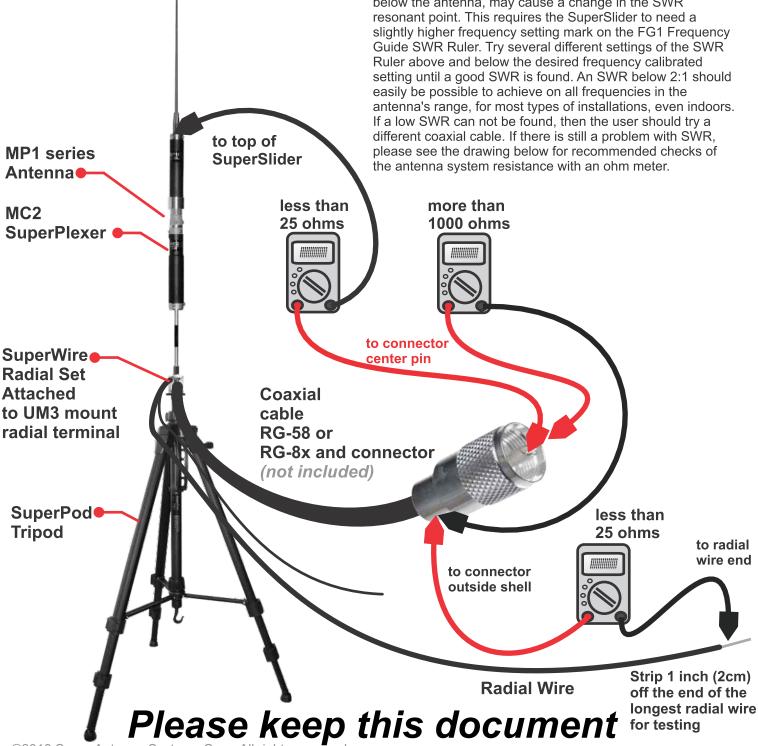


#### MP1LXMAX Antenna **System Troubleshooting Basic Electrical Testing**

The MP1 series Super Antenna system is designed to operate as a portable, base, manpack, or mobile antenna. For a recommended high performance set up, please see the Super Antenna Application Note:

#### "MP1LXMAX Antenna Optimum Set Up For Tripod"

Proximity of nearby objects to the antenna, or the type ground below the antenna, may cause a change in the SWR



©2018 Super Antenna Systems Corp. All rights reserved. Super Antenna is a registered trademark of Super Antenna Systems Corp. SuperWire, SuperPod, SuperWhip, SuperMount, and SuperSlider are trademarks of Super Antenna Systems Corp.