

## DESCRIPTION OF MODIFICATION

The purpose of this modification submittal is to present two additional remote antennas to be used with the SKY2000 transmitters. These antennas are the SKY-1 and SKY-7 antennas. These auxiliary antennas are needed so that the antenna can be placed in a remote location away from where the transmitter is located. Many of the commercial applications will be better serviced using the auxiliary antennas. The optional antenna will allow the user to place the signal where it is needed which will maximize the effectiveness of the low level signal.

The SKY-1 antenna is a 34" whip antenna with a fixed base. This antenna will be supplied with a 100' RG-58 coaxial cable. The SKY-7 antenna is a magnetic mountable base version of the SKY-1 and will be supplied with a 12' RG-58 cable.

These optional antennas will require professional installation. The current antenna is removed and a special antenna coupler is installed. The coupler provides the needed transition to the coaxial connector supplied with the antenna.

### Attachments:

Letter from Daniel Larson, President of Skywave Electronics, Inc.  
SKY-2000 Brochure  
Notice to Users  
Notice to Dealers  
Modification instruction

### Photographs:

Antenna coupler  
SKY-1 Antenna  
SKY-7 Antenna

SKYWAVE ELECTRONICS, INC.  
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[skywaveinc@yahoo.com](mailto:skywaveinc@yahoo.com)

**"EXHIBIT A"**

Ray Klouda  
Chief Engineer  
Elite Electronics

April 19, 1999

Dear Ray:

Per our phone conversation, I am writing this letter to explain our philosophy on why we wish to incorporate the external antennas the way we have.

In the first place, FCC is very concerned of the type of antenna used on our particular type of equipment as well as the type of coupling on the unit to attach the antenna. If the FCC is that concerned about this, as they need to be, then we wish not to provide any coupling through manufacturing to be included on the back of the unit itself. Nothing is more of a deterrent than not providing an external antenna jack on the unit. Dealer base, however, is screaming for an auxiliary antenna to at least allow the signal to the outside in efforts of not destroying the signal by as much as 80% just trying to get through the building.

I am sure all parties involved can understand this, as our range is not what we hoped for under part 15. We at Skywave need to do all possible to make this venture profitable. As most know at FCC, we seem to be one of the very few, actually 1 of 2, manufacturers out of seven that sincerely wish to follow the laws of our FCC. Many are using GAIN antennas, repeaters and amplifiers, we have never and never will.


You will see in this enclosed packet a sheet labeled "Exhibit B" that we will ship with each SKY-2000 product. I am sure the FCC will appreciate this letter. We feel that our connection for our external antenna would deter anyone other than our dealers and distributors themselves in even knowing that there is any way to alter the unit. We will also agree to send the letter "Exhibit C" to all of our dealer and distributor clientele.

Again, all we at Skywave seek is simply to provide our SKY-2000 unit with an auxiliary antenna to get the signal through the building to the outside atmosphere. All will agree you cannot program, maintain and operate the SKY-2000 from a rooftop, also with the fact that our unit was not manufactured to include outside placement.

The two antennas are technically the same but different mounting bases. The SKY-1 is the base antenna and the SKY-7 is nothing but the SKY-1 center rod and a magnetic base. Our dealers and/or distributors to ensure proper connections must install our external antennas or chances are the unit will have no range, again see "Exhibit C".

Thanks Ray.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel M. Larson", with a long horizontal flourish extending to the right.

Skywave Electronics, Inc.  
Daniel M Larson – President

## **EXHIBIT B**

This important notice WILL be inserted into the operations manual of the SKY-2000 Transmitter upon acceptance of the two external antennas by the FCC.

### **IMPORTANT NOTICE**

**ANY** alterations or modifications other than approved accessories by either Skywave Electronics, Inc. and/or the Federal Communications Commission will VOID the SKY-2000 FM Transmitter warranty and may warrant the SKY-2000 FM Transmitter becoming ILLEGAL for use within the United States of America. Be sure to check with your Dealer, Distributor or Skywave Electronics, Inc. for approved accessories.

# **“EXHIBIT C”**

This letter will be sent to ALL Distributors and Dealers of the SKY-2000 Transmitter per acceptance by the FCC of the SKY-1 and SKY-7 external antennas.

## **IMPORTANT NOTICE**

Your Federal Communications Commission and Skywave Electronics, Inc. have answered your prayers. The SKY-1 and SKY-7 antennas are **NOW CERTIFIED** with the use of the SKY-2000 FM Transmitter, and the SKY-2000 FM Transmitter **ONLY!**

However, stipulations for use of the SKY-1 and/or SKY-7 antennas are as follows:

- 1) Any SKY-2000 product sold with the use of the SKY-1 and/or the SKY-7 antenna must be installed by a communications installation company or one of your qualified installation companies.
- 2) No SKY-2000 Transmitter may be sold with a SKY-1 and/or SKY-7 antenna without being installed by properly trained people!
- 3) The SKY-1 and/or SKY-7 antennas may not be sold with ANY transmitter other than the SKY-2000 FM Transmitter under the certification belonging to Skywave Electronics, Inc.
- 4) NO antennas other than the existing telescoping antenna, the SKY-1 or the SKY-7 antennas can be used with the SKY-2000 FM Transmitter. If you do, you are in VIOLATION of the Federal Communications Commission!

Skywave Electronics, Inc. has taken great steps to insure the Federal Communications Commission that we are sincere with our product and it's accessories to abide by our nations laws, and how our antennas will be used.

We at Skywave wish you the best of sales and sincerely hope now that you have the tools you've been so patiently waiting for, you **WILL** be satisfied with your SKY-2000 sales.

## UNIQUE COUPLING ATTACHMENT INSTRUCTIONS

AS YOU LOOK AT THE UNIQUE COUPLING, YOU WILL FIND IT TO HAVE A SILVER CONNECTOR ON ONE END AND TWO BLUE PIGTAILS ON THE OTHER END. NOTICE THAT ONE OF THE BLUE LEADS IS SHORTER THAN THE OTHER. ALSO THE SHORT BLUE LEAD HAS A DOUBLE THICKNESS RING ON THE END. THE LONG BLUE LEAD HAS A SINGLE THICKNESS RING ON THE END. TAKE A SNUG FITTING PHILLIPS SCREWDRIVER AND TURN THE PHILLIPS HEAD SCREW OUT OF THE TELESCOPING ANTENNA STUB THAT COMES OUT OF THE BACK OF THE SKY-2000 UNIT WHERE THE TELESCOPING ANTENNA ATTACHES TO THE STUB. WATCH FOR TWO SMALL WASHERS TO FALL OUT WHEN YOU REMOVE THE SCREW AND ANTENNA FROM THE STUB. PLACE THE SHORT (DOUBLE THICKNESS) RING OF THE UNIQUE COUPLING INTO THE STUB WHERE YOU REMOVED THE TELESCOPING ANTENNA AND MAKE SURE THE LONG BLUE LEAD IS TOWARD THE BOTTOM OF THE SKY-2000 UNIT. INSERT THE WASHERS INTO THE STUB BESIDE THE DOUBLE RING TO MAKE IT SNUG AND REPLACE THE SMALL PHILLIPS SCREW BACK INTO THE STUB AND TIGHTEN SNUGLY. THIS LEAD SHOULD NOT PIVOT IN THE SKY-2000 ANTENNA STUB. IT SHOULD BE A VERY SNUG FIT.

NEXT TURN THE SKY-2000 UNIT UPSIDE DOWN AND REMOVE THE RUBBER FOOT CLOSEST TO THE ANTENNA STUB COMING OUT OF THE BACK OF THE SKY-2000 UNIT. THE RUBBER FOOT WILL BE REMOVED BY A PHILLIPS SCREWDRIVER. PLACE THE LONG BLUE LEAD RING OVER THE RUBBER FOOT HOLE WHERE THE SCREW WAS TAKEN OUT AND REPLACE THE RUBBER FOOT AND SCREW BACK INTO PLACE. DO NOT OVER TIGHTEN AS YOU MAY RUN THE SCREW RIGHT THROUGH THE RUBBER FOOT, HOWEVER, TIGHTEN AS SNUGLY AS POSSIBLE AS THIS IS YOUR ANTENNA GROUND. (THIS WILL SHORTLY CHANGE IN THE NEXT COUPLE OF BATCHES AS WE ARE ADDING A SEPERATE GROUND SCREW TO NOT AFFECT THE RUBBER FOOT AND TO ALLOW A BETTER TIGHTER GROUND CONNECTION.)

ALL COAXIAL CABLE THAT WE SELL WILL SCREW INTO THE UNIQUE COUPLINGS SILVER CONNECTOR.

PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY AS ANY DEVIATION FROM THESE INSTRUCTIONS WILL RESULT IN VERY POOR PERFORMANCE. IF YOU HAVE ANY QUESTIONS AS TO WHEATHER YOU ARE DOING THE INSTALLATION CORRECTLY PLEASE CALL OUR SERVICE DEPARTMENT AT (815) 961-1757.

THANK YOU

SKYWAVE ELECTRONICS, INC.,  
BROADCAST DIVISION