

SUPER GALAXY (EXPORT)...Cont.

Clarifiers dead center: 27.185 on counter, actual 27.185.8MHz (800Hz off).
Max clarifiers (+10.3KHz), counter off by 300Hz.
Min clarifiers (- 7.6KHz), counter off by 400Hz.
Since this is only a 5 digit counter isn't of any real consequence; can be tightened up in an alignment; as all readings were high.

SWR calibration was excellent!

RF Power rolloff: Ref. 4W at center Fo; 2.8W at Min Fo; 3.9W at Max Fo.

?? Next to last digit in the Frequency Counter went out with approximately 1½ hrs of time on unit. ??

?? When replacing the covers noticed that not only didn't they mate up; BUT; were entirely painted/finished differently. ??

FOR ALIGNMENT PROCEEDURE: Compare Schematic/Alignment Section for each;
PLL - use the Jackson alignment, PLL section.
TRANSMIT - use the Grant-DX alignment, Transmit section.
RECEIVE - use the Excalibur SSB alignment, Receive section.
NOTE: Compare each section with both schematics as a guide.....

SELECT-A-WATT OR DIAL-A-WATT

By Jim's CB Tech's & Frank Fournier

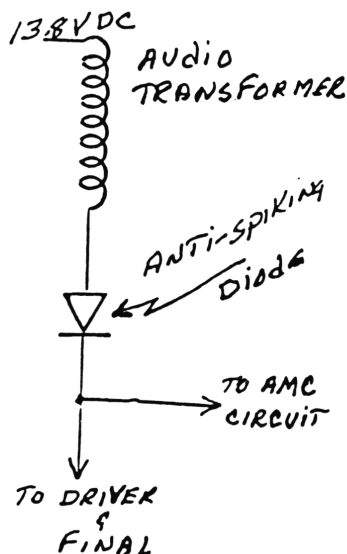
SELECT OR DIAL-A-WATT IS A METHODE OF DOING TWO THINGS. 1. Making a unit drive at the proper level to feed an amplifier while having a peaked unit when the amplifier is not being used. 2. A way of lowering the carrier level of a unit while maintaining all of the PEP swing of the audio.

Almost every AM unit has an anti-spiking diode on the output of the audio transformer. This is where the DC is fed to the driver and final. The reason it is there is to prevent the RF positive spikes

from exceeding the insulation factor of the audio transformer, causing shorting between the primary and secondary. This diode is generally a 1 amp. 600V Peak reverse (PRV). This is also about the same as most of the protection diodes. Most of you have these by the dozens in your shop, if not hundreds.

Silicone diodes require about .7 forward voltage to begin conduction. This means, if we put two such diodes in series, it would require about 1.4 Volts to start conduction, three, 2.1 Volts, etc.

As you know, as you lower the voltage on the driver and final of a unit, your wattage output on dead key will drop. The audio swing in this case will not drop because the diodes are already forward biased. Any positive swing will be coupled through 1:1.



We can lift the cathode of the Anti-spiking diode and add as many diodes in series as we desire. We can have as many levels of carrier as the number of diodes we install. Let's start with a simple SPDT switch. It will give us two levels. Peaked level for normal operation and a lower level, say, for driving a amplifier. Let's say it takes three diodes to give us the desired level of drive for the amplifier. With the SPDT switch closed you will have peaked condition. Let's say 6 watts swinging 18 watts. With the switch open, it might drop to 3 watts but the swing will be 15 watts.

Select-A-Watt or Dial-A-Watt...Cont.

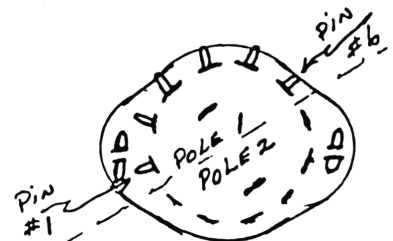
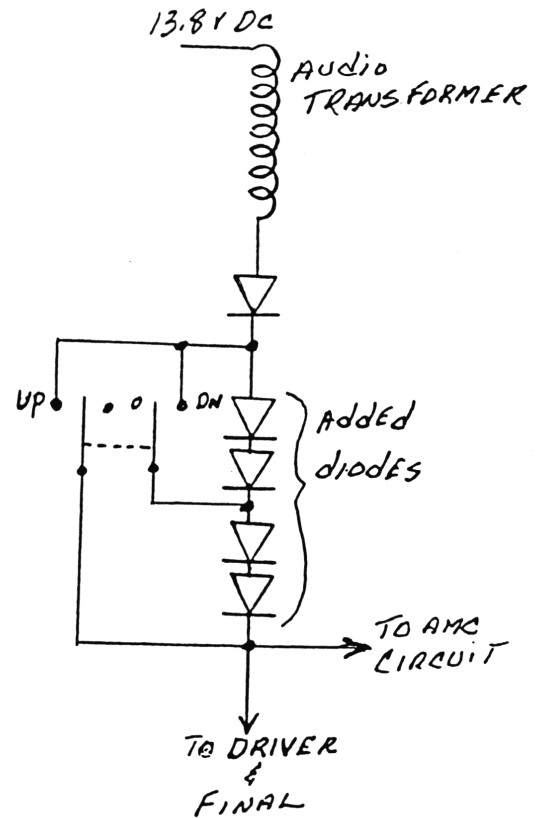
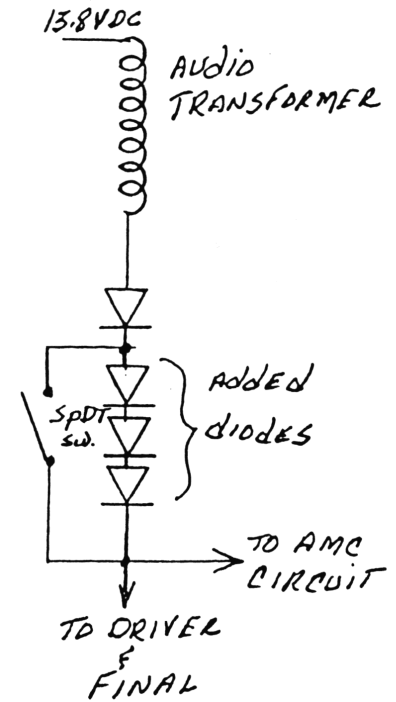
Now let us consider a DPDT switch with center off. This could give us three levels.

Up, would give peaked condition. Down would give a lower level, and center would give the lowest level.

Now for those of you that have followed our suggestion and bought yourself a set of hand punches and would like to be more professional, you might want to try Dial-A-Watt. For this we would like to suggest a 2 pole, 6 position switch such as Mouser's # 10WK026. It is a printed circuit switch but the layout on this switch is easier.

1. Lay the outside terminals of one pole out at about a 45 degree angle.
2. Bend the legs of five diodes as illustrated leaving the legs about 3/8" long.
3. Starting at pin #1, solder the diodes between 1 and 2, 2 and 3, 3 and 4, 4 and 5, 5 and 6, with the cathodes toward pin 6.
4. Mount the switch.
5. Lift the cathode of the anti-spiking diode.
6. Run a wire from the raised cathode to pin 1.
7. Run a wire from where the cathode was raised from to the common terminal and to pin 6.

Now as you rotate the knob CW, the wattage out will increase. As you rotate CCW it will decrease.



Select-A-Watt or Dial-A-Watt...Cont.

This mod is such, that when you have spare-time in your shop, you can make up and wire a few of these switches in advance. Then all you have to do is mount the switch and wire it in.

****SUGGESTION****

Put yourself a sign in your shop.

DIAL-A-WATT
SIX LEVELS.....\$??.
SELECT-A-WATT
THREE LEVELS.....\$??.
TWO LEVELS.....\$??.

An average shop should make an extra thousand dollars or more off of this modification each year.

ANTRON "99"

Let's put the record straight about the ANTRON "99" CB base station antennas. Don Wells of the engineering department for Antron Antenna Research & Electronics has assured us that the ANTRON "99" does meet all the U.S. Consumer Product Safety Commissions safety standards and more. He tells us that engineering and design improvement have been made and they are now using all brass fittings. In fact, the fittings are all machined from solid brass. No more diecasting.

Our, Secret CB Staff, inquiry to the manufacturer, Antron Antenna Research & Electronics, was after we read an article in the May 1987 Issue of AudioVideo International. Seems the USCPSC had tested several over a period of time and all met the safety standards. Then early 1986 they came back for another testing and found a problem. The antennas in that batch were recalled. Since then the improvements have been made and the U.S. Consumer Product Safety Commission has given them a certificate of recommendation for a job well done.

We think it is one of the best base antennas made that will more than meet all the safety standards. It is a very good matchup to the EXPORT units.