

Central Ohio Radio Club, Inc.

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Over 50 Years of
Service to the
Amateur community!



Editor, The CORC Repeater Newsletter
Joe Hahn (W8NBA)
P.O. Box 166
Sunbury, OH 43074-0166

The Central Ohio Radio Club
January 2021 Newsletter



ARRL Special
Services Club

Membership application

Central Ohio Radio Club, Inc. (CORC)

Operating Amateur Repeaters Since 1970

CORC operates repeaters with outputs of 52.70, 146.76, 146.97, 147.33, 442.800, 444.200
145.49 D-STAR & 444.000 D-STAR

Some of the features include:

Worldwide linking on our IRLP & D-STAR Repeaters.
Repeaters are used by the Central Ohio Weather Net and Central Ohio Traffic Net.
Multiple receiver sites located in Franklin, Licking, Delaware, Pickaway and Logan Counties
To ensure you excellent coverage throughout Central Ohio.

Membership allows full use of the CORC facilities, Operating Manual, subscription to the CORC Newsletter,
and a vote at the annual meeting of the corporation.

Family member amateurs at the same address are NO additional charge, (No Vote at annual meeting)

\$18 / 1 year - \$32 / 2 years - \$45 / 3 years Dues Enclosed \$ _____
Optional Donation – CORC is a 501(c)(3) corporation \$ _____
Total \$ _____

Please mark one: New Application Renewal Application

Call Sign _____ Name _____ e-mail _____

Call Sign _____ Name _____ e-mail _____

Call Sign _____ Name _____ e-mail _____

Street Address _____

City _____ State _____ Zip _____

Home Phone () _____ Alternate () _____

How many of above are ARRL Members _____ (CORC is an ARRL affiliated club)

Check to Request Newsletter by e-mail (this saves the club mailing cost) _____

Please make check payable to CORC and mail application and check to:

Central Ohio Radio Club, PO Box 166, Sunbury, Ohio 43074-0166

For questions call membership chairman John, W8RXX @ 614-579-0522
or visit the CORC website at www.corc.us

Thank You for your Membership and Support!

Rev 1/20

The Central Ohio Radio Club Newsletter

President

Laura Perone
KA8IWB

Vice-Pres.

Warren Hull
W8WJH

Secretary

Tony Fabro
N8RRB

Treasurer

Steve Robeano
WD8JKX

Newsletter

Editor

Joe Hahn
W8NBA

Membership

Chair

John Perone
W8RXX

FM Repeaters

53.70 /

52.94 / 52.70

51.70 /

W8RRJ

146.16 / 146.76

W8AIC

146.37 / 146.97

W8RRJ

147.93 / 147.33

W8NBA

IRLP Node 8094

449.20 / 444.20

W8AIC

447.80 / 442.80

K8NIO

D-Star Repeater

G3 Gateways

144.89 / 145.49

449.00 / 444.00

W8CMH

CORC January Newsletter COVID 19 Is Still Here, but help is on the way!

Well here we are at the beginning of January 2021 and COVID 19 virus is still among us. A vaccine has been developed and is being administered and hopefully soon we can return to a somewhat normal life, whatever that is. The election is over and we have a new President.

Even though we still can't hold a Pot Luck for a little while we are planning for the 50th Anniversary Celebration later this year. More information will be made available as soon as we have details.

Other items included in this newsletter are a message from President Laura, KA8IWB, articles from W8RXX WA3UOO KD8IDJ and N8RRB are also being presented.

Tom Sly, WB8LCD, Appointed as ARRL Ohio Section Manager

Tom Sly, WB8LCD, of Kent, has been appointed as the Ohio Section Manager, effective January 1, 2021. Sly will assume the seat that incumbent Section Manager Scott Yonally, N8SY, is vacating to become Great Lakes Division Vice Director, after serving as Ohio Section Manager since 2014.

Sly was appointed by ARRL Radiosport and Field Services Manager Bart Jahnke, W9JJ, after consulting with Great Lakes Division Director Dale Williams, WA8EFK. The Section Manager appointment extends through September 30, 2022.

Sly is an ARRL Life Member and has served as Ohio Section Affiliated Club Coordinator since 2017. He is past president of the Portage County Amateur Radio Service (PCARS) and has been a radio amateur since 1968.

Outgoing Section, Manager Scott Yonally, N8SY, has been elected as Great Lakes Vice Director. Scott has done a tremendous job of communicating with Amateur Radio operators in Ohio and across the country. The Ohio Section has a great reputation thanks to Scott's work and the many PIO's I talk with say the Ohio Section is the best in country! I won't argue with that!!!

We are all in good hands and I know the Ohio Section will continue grow and continue to reflect the quality and integrity of these to gifted leaders.

For 2021 everyone is hoping we can safely get back to our clubs events and meetings. Just before we went to press ARRL announced that the **2021 Dayton HAMVENTION has been cancelled** for the second year in a row. COVID 19 still is a strong factor in all public gatherings and in recent days new cases have trended upwards. May not be what we wanted to hear but safety is the top priority. For us hams, we have the advantage of still being able to communicate. ATV beginning to sound like a good idea!!

Again, I appreciate the opportunity to write for our club's newsletter. I'll try and keep you up-to date on the Ohio Section events.

73,

John E. Ross – KD8IDJ

ARRL Ohio Section Public Information Coordinator and CORC Member



From the President:

COVID QRM IS SQUELCHING FREQUENCY OF IN-PERSON CONTACTS

What a year 2020 was or wasn't! Covid-19 forced the cancellation of two CORC meeting/potluck dinners. Our planned CORC 50 Year Birthday Party was cancelled. It stifled our carefully planned Fall Fox Hunt. It nixed both last year's Dayton and Columbus Hamfests. But you already know about all that... more importantly there were personal upsets for you and your family.

Some other effects CORC is experiencing that you probably didn't realize but probably should...

Maintenance and repair site access visits, while often not easy, were restricted and in some cases forbidden by the site owners or government rules. Locations for board meetings or general meetings became impossible to come by. CORC Tech Committee staff servicing remote equipment are rightfully hesitant about sharing cars to travel to sometimes distant sites, or working closely together in tight spaces. Why? The bulk of our board is 60+ and therefore high risk for Covid. Bottom line: We're managing. We've kept the lights on, the equipment running, and intend to continue to do so.

Several years ago, we wisely modified our corporate constitution to allow board members the option to conduct certain internal business electronically by phone or email. We have held several board meetings online.

Now on to the tough stuff facing the club, its board and officers:

Annual Meeting – 1/3 of CORC's board member terms expire each year and are up for re-election or replacement by the general membership at the Annual Meeting. In order to vote at this meeting, the member must be present. There is no right of proxy. (See CORC Constitution Sec. 1.03 – Proxy)

Board Election of Club Officers – CORC has four officers whose terms usually expire after the "new" board is elected. The officers are President, Vice President, Secretary and Treasurer. According to the CORC Constitution, the Board elects the club officers. This normally occurs at a special short board meeting held immediately after the Annual Meeting is adjourned. (See CORC Constitution Sec. 4.01 – Officers)

The Plan - After much research and discussion of what we could or not do without violating our corporate constitution (chartered with the State of Ohio), we made the follow decisions and plans.

1) The Annual Meeting is delayed until the earliest date we can reasonably, conveniently, and safely hold one.

2) The three board position elections will be delayed until this Annual Meeting. That meeting will be a 'special meeting' (which may or may not be termed an 'Annual Meeting') called by the President or the Board for the purpose of election of board members. (See CORC Constitution Sec. 1.02 – Special Meetings and Sec.3.10 - Election of the Board)

3) Each of the three incumbent board members has agreed to remain in office until a successor is elected and qualified. (See CORC Constitution Sec. 3.08 – Terms of Members of the Board)

4) Each of the four incumbent officers has agreed to remain in office until a successor is elected and qualified. The board may elect one or more officers at any time by a 2/3 vote. (See CORC Constitution Sec. 4.01 – Officers)

The board and officers jointly agreed that the above four points notwithstanding, we will return each area back to normal operational mode as soon as is possible.

For more information about “how and why”, see the CORC Constitution as filed with the Ohio Secretary of State.

A copy of the Constitution is on the CORC website WWW.CORC.US under the Publications tab.
73,

Laura, KA8IWB
CORC President

From your CORC Membership chairman...

John / W8RXX

I would like to thank everyone that have either joined or paid their dues since our last newsletter. I know during this time of the Covid-19 virus some have become unemployed and may not have extra money to spend on hobbies. Please let me know if you are unable to pay your dues at this time & CORC will extend your membership thru 2021.

New Members... YEA!

The following have joined CORC since the last newsletter was printed. Please thank them for joining when you hear them on the air.

KE8PSL – Mark KE8PRK – Michael WB8ZTP – MARK W8RIH – Thomas KE8QBY – Bill
KE8PXJ – Charles KE8QDA – Stephen KE8QLX – Mike K8EAA – Don

A reminder... CORC has NOT had a dues increase since 1970. Even with our costs continually on the rise, by minding our spending, having great volunteers, and keeping paying members has made this possible. If you hear an amateur on our repeaters that is not on the roster invite them to take a look at the club web site www.corc.us and consider joining. I have just made everyone a volunteer on the membership committee. Thank you in advance. Hopefully this will help keep the dues low for many years. A complete member roster is included in this newsletter.

Many thanks to those who have donated their time, talent, money, printing, etc. since the last newsletter. They all help keep CORC financially sound.

W8RRJ	W8NBA	N8RRB	WA3UOO	KE8PSL	AC8TZ	W8RIH
KD8UTU	KE8IOS	KB8CIQ	WD8JKX	W8WJH	WA8KKN	KA8IWB
AC8YE	WB8LAP	KD8UNT	W8RXX	KN8ITR	K8KDR	K8NEG

Travelin' Tony's Timetables

By: Anthony "Tony" Fabro N8RRB

In December we conducted a Tech Net for new hams providing tips for getting your license and putting together your first station. This is the second time we have discussed this topic on the Tech Net and both times brought out a variety of hams, both recently licensed and those who have been licensed for years (notice I avoided saying "new" and "old" hams). It's a fun topic to discuss and I always enjoy hearing from those willing to help the new hams get started.

Related to this is the closing of Universal Radio, our local ham radio store. What's the connection? Well, when I got my license in 1992, that's where I purchased my first radio! Getting the radio was a small adventure for this teenage green ham.

My ham radio "Elmers" were Andy KB8ER/SK, and Joe W8IEN/SK, both of whom were very helpful but were also primarily on HF. My interest, however, was focused on VHF/UHF. After passing the test and receiving the license in the mail, Andy told me to, "go see Trigg at the candy store and he'll get you fixed up with a radio." Huh? Who is Trigg? Why would I buy a radio at a candy store?

I don't remember the details, but somehow I got Trigg's (K8NIO) phone number and had conversation with him about radios. For those who remember, Trigg always seemed to be doing 100 things at the same time and was extremely busy between his full-time job, ham radio, and everything else. So I felt lucky to get in a phone conversation with him. I distinctly remember part of our conversation about single band versus dual band radios. He said, "If someone says to QSY to UHF, you'll need a radio that can do it." He also gave me the store address and advised when he would be working at the store.

With checkbook in hand, I drove out to the store a week or so later. This was back when Universal Radio was still on Aida Drive in Reynoldsburg. The brick building had several antennas on the roof and a big Universal sign above the front door. Inside was a showcase counter filled with all kinds of radios, mostly HTs if I remember correctly. I was completely overwhelmed by all of the equipment inside, but thanks to my conversation with Trigg I had an idea of what I wanted.

I asked for Trigg and was told he was busy but would be with me when he was free. Eventually he found me and showed the radios mentioned over the phone. After reviewing each one, I decided on the Alinco DJ-560T HT radio. At the time, Alinco was just starting to get into the ham radio market and their HT was the lowest priced dual band radio available. It was \$369.99 or something like that. The most expensive radio was made by Standard which was over \$500.

I wrote a check for the radio (which had to be approved by the manager on duty because of the amount), and I was in business. The radio served me well for many years but suffered a lot of wear and tear being used as a mobile radio. I still have it but it's unreliable and collecting dust in my junk box. I also purchased a Diamond dual band mag-mount antenna for the car (the same one I'm still using almost 30 years later!).

So I lament the fact that there won't be a local ham radio store that other new hams can have a similar experience. That first visit seeing all of the radios in person, smelling the scent of new radios, smelling the distinctive scent of old radio equipment, and hearing the static and odd sounds of HF sideband transmissions emanating from the radios on the showroom floor. But hopefully for the new hams, there will still be a "Trigg" to help them make a decision for their first radio. Have a safe day.

CORC Tech Net Update

The CORC Tech Net continues to meet every other Sunday on 146.760 at 1930. We have been able to provide downloadable presentations for some of the topics presented this year so that people can follow along. These presentations will be posted on the CORC web page at <http://www.corc.us>.

Here is a list of upcoming nets: 1/31: RaspberryPi/Arduino, 2/14: Open Forum Roundtable, 2/28: Wire Antennas, 3/14: TBD, 3/28: Open Forum Roundtable, 4/11: Digital Modes, 4/25: Hamfests.

We encourage you to ask questions! Questions about ham radio or computer topics, or suggestions for other Tech Net topics can be sent to technet@corc.us. We hope to hear you on the net!

Why Join a Radio Club?

By Ron Hashiro, AH6RH

Tonight, a person asked "Why should a person join a radio club like the EARC? What are the benefits of joining an amateur radio club? The answers may surprise you.

The key benefit of joining an amateur radio club is to join up with other people who have the same interests and have a good time exchanging information and experiences relating to amateur radio. And, it's not only amateur radio, per se, but also an open door to many related and non-related activities.

At one recent meeting, there were hams ranging from Novice to Extra class. There were the usual 2m handie and mobile enthusiasts. In addition, there were HF'ers, satellite, packet, tropo, repeater and other enthusiasts present. Those who've rolled their own radios, feedline and antennae to those who seemed to have bought just about every radio around.

Among them were teachers, RF and wireline communications technicians, doctors, executives, computer and networking specialists, the military, nurses, nature enthusiasts, airline pilots, financial experts and university professors. Within that mix, it seems you can understand and solve almost any radio situation with the talent present.

There are chances to try out and expand your radio horizons at the gatherings. Field Day is an excellent time to pitch in and build an HF station from scratch in the field, where one must improvise and leverage every advantage from the terrain. Similarly, at our periodic outdoor gatherings, one gets to see and operate a no-fuss HF, VHF and UHF station that's powered by deep-cycle batteries.

There are other benefits, such as the newsletter, repeater systems and frequent public service events that round out the offering.

Keep in mind that the greatest benefit of joining an amateur radio club is a regular and ready mutual access to experienced technical information, references and learning experiences. The more you pursue and interact, the more you get out of your membership. And that translates to a chance to nurture and grow your knowledge and radio horizon -- whether it's amateur, commercial or personal.

Permission given to reproduce the above article in club newsletters provided credit is given to the author and the EARC (Emergency Amateur Radio Club) Wireless Dispatch.

Linear DC Power Supply Basics for Ham Radio Operators

By Rick Tressler - WA3UOO

Introduction

When you consider the power requirements for today's ham equipment, the first thought that might come to mind is the 12 volt power supply that dutifully keeps most, if not all your gear operating. To those new to ham radio, this low voltage power source is a staple of required equipment to power up today's ham gear. Requirements for 12 volts as a common source of power have not always been the case. If we go back in time, HF receivers primarily operated on 110 volt AC with heavy built-in transformer-based power supplies. Transmitter power supplies were another matter. The rigs were large, heavy and generated a lot of heat. The AC power supply was a separate piece of equipment, powered from the 110 volt 60 Hz AC line, providing both AC *and* DC voltage levels as required by the transmitter. These were vacuum tube rigs and, as such, required multiple voltages from a few volts to light tube filaments, to several hundred volts for the plate and grid supply needs. These supplies were heavy, and also used iron core transformers. The power supply usually sat on the floor, under the shack desk was interconnected with multi-conductor cables. In still older rigs, the power supply used tubes as well to convert the AC to a DC level needed. As technology improved, the power supply went the way of solid state silicon diodes, still using transformers, integrated into the transmitter.

Today's radio gear uses a built-in AC power supply or requires an external 12 volt supply such as battery or AC line operated product. You probably have at least one 12 volt supply in the shack. This article focuses on conventional transformer-type linear DC power supplies. A follow up article on the more modern switch mode supply will be the next installment on this topic. The article provides basic information on the basic design, construction, options, ratings, features, controls and other topics of interest.

Basics of Rectification

Rectification is the process of converting alternating current to direct current. The house power we use every day is about 110-120 volts AC, 60 Hertz. To meet the need of many of today's radios and related gear, the incoming voltage must be *rectified* to a lower DC value. After the voltage is rectified, more needs to happen before it can be fed to our gear. A common method of rectification is the utilization of a solid state bridge rectifier module fed from a transformer. See figure 1 for a basic schematic of such a circuit. I will use the full wave bridge in this example. AC goes in and DC comes out.

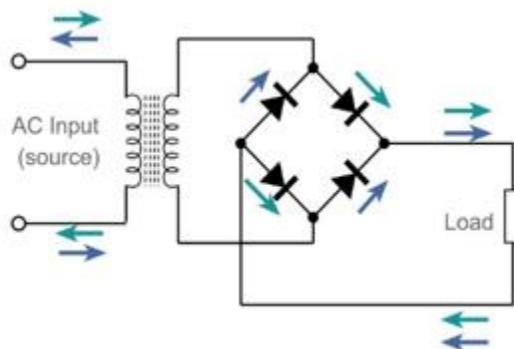


Fig.1

Basic full wave bridge rectifier circuit with transformer input

Figure 1A illustrates the AC input waveform, typically 110 volts and the full wave rectified output waveform which will always be a lower voltage than the input for 12 volt supplies. There is more to do before this output can be used as a viable power source for your radio.

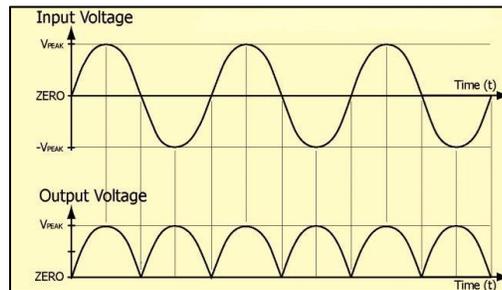
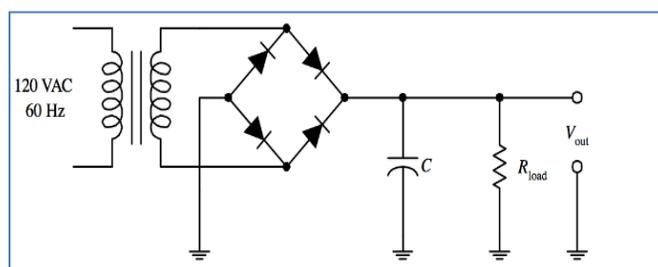


Fig 1A

Comparison of AC input to the full wave rectified DC output from a bridge rectifier without filtering

Filtering

After the AC has been rectified the resulting DC requires filtering, otherwise harm may come to the equipment because the unfiltered DC still has an AC component that needs to be addressed. This is called *AC ripple*. If applied to a transmitter, at a minimum, AC hum will be introduced into the audio which, of course, is unwanted. Unwanted ripple can also cause damage to equipment. Filtering is achieved with one or more electrolytic capacitors connected across the output of the rectifier. A series inductor with an iron core may also be used for additional filtering and regulation. More on regulation later. One or more capacitors helps to smooth the waveform, thus removing the AC ripple, preferably entirely from the output. Just how much is a function of design, cost, and required quality? Power supplies in use today have virtually no AC ripple. *Rload* is a “bleeder” resistor. It is needed to assure discharge of all filter capacitors once the power supply has been turned off. If not used the filter(s) will remain charged until they self-discharge. This component is essential in high voltage power supplies for safety reasons. See Figure 2.



Single capacitor input filter added to a bridge rectifier with bleeder resistor

After installing the filter capacitor, the output waveform contains less AC ripple. Depending on the application for the supply and other requirements, more filtering may be required. See Figure 2A. In the illustration, there is still ripple present but not at the previous level. Ideally, a flat line waveform is desired, representing zero ripple. About 50 to 80 millivolts peak-to-peak is typical. More filtering is required to achieve lower AC ripple values.

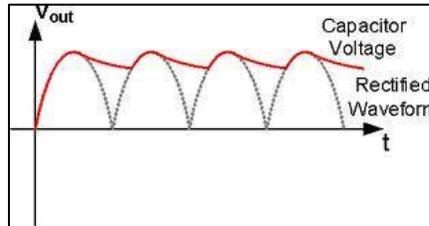


Figure 2A
Reduced AC ripple waveform after filtering

Voltage Regulation

When a load is placed on an unregulated power supply, the output voltage will drop. Depending on the load imposed, this drop, also called “sag” may cause operational problems for the connected equipment. If the voltage sag is low enough, it will result in shut down of that equipment. Therefore, it is desirable to use a regulated supply.

Power supplies usually include voltage regulator circuitry to maintain the output voltage within a specific range, expressed as a percentage or voltage. For example, the Astron RS-20 in Figure 3 is rated to maintain its output voltage to within +/- .05 volts or 13.75 – 13.82 volts.



Fig. 3
[Astron](#) RS-20A 12 volt fixed, regulated DC power supply

Product Ratings

Output Current

It is important to understand the basic ratings of power supplies so you can make an informed decision to make the best product selection based on your needs and budget. Current ratings are defined as intermittent or surge (ICS) and continuous. Some manufacturers integrate the ICS rating in the model number. Some interpret this as the continuous current rating of the supply. In the case of the Astron RS-20 in Figure 3, it is rated for continuous output current of 16 amps; short by 4 amps of the capability some may expect based on the model number. If you really need 20 amps continuous, you need the RS-35 which is rated 25 amps continuous. I use an RS-50M (metered) for all the 12 volt needs in the shack. Its continuous rated output current is 37 amps, not 50. Read and understand this rating or you may come up short on needed capacity.

Output Voltage

Output voltage ratings are listed based on the rated nominal output voltage of the supply. For example, the RS-20 is a nominal 12 volt fixed power supply with its default voltage factory set to 13.8 volts. This will support equipment rated to be operated from a 12 volt source.

AC Input Voltage

Unless you have a specific need for a power supply with a 220 volt input, you will be using one that requires the standard 110 volt input with a standard 3 prong grounding plug.

Protection Features

Various manufacturers incorporate product protection features to enhance safety and performance. These may include AC input and DC output fusing or resettable circuit breakers, current limiting, over voltage and crowbar protection.

Adjustable Power Supplies

Depending on your needs, adjustable voltage/current power supplies are available in a range of sizes. I have an Astron VS-20M which has an adjustable output voltage range from 2 to 15 volts. A nice feature includes direct front panel current limit control which can be useful for circuit designers and other uses. The maximum continuous and ICS current specifications vary based on the voltage to which the supply is set.

Many fixed supplies are built with an internal adjustment potentiometer on a circuit board for adjusting voltage if required. Generally, it does not need adjustment. The RS-20 can be adjusted internally from 11 to 15 volts. This adjustment does not meet the definition of an “adjustable” power supply.

Metering

Unless you have a meter panel for your power system, you might find built-in panel meters useful. Whether what you are looking for is an adjustable or fixed supply, meters may be an option from the manufacturer. Types are limited to voltage and current. They may be separate meters, or one meter with a function selector switch. Backlighting may also be available. See Figure 5.



Fig. 5

[MFJ-4035MV](#) adjustable output linear DC power supply with current and voltage metering

Cooling

Most power supplies use convection cooling, frequently incorporating one or more externally mounted aluminum heat sinks. Heat sinks may also use this mounting location for high current pass transistors used in voltage regulator circuits. It is noteworthy that the metal cases of these transistors have potential to ground

and may get hot. Keep the area around these heat sinks clear for ventilation and free from contact with conductive materials. Another cooling method your power supply may use a fan whereby outside air is pulled in through an intake vent and forced through the cabinet, then pushed through an exhaust vent. A filter may be used on the intake side. When equipped with a filter, it should be checked for dust buildup and cleaned as needed.

Connection Methods

There are several ways to connect your gear to the power supply. Banana jacks, binding posts, cigarette lighter sockets, heavy duty stud terminals and more recently, Anderson Power Poles are the typical ways to get your gear connected. Multiple connection methods on both front and rear panels may be offered. Make sure connections are well made and secure to minimize overheating and maximize power transfer to the load(s). If you have multiple loads to connect, consider using a rig runner or other product intended for distribution of power to numerous loads. Never make or break power supply connections while the supply is turned on. Turn the power **OFF** first.

Summary

You get what you pay for. Shop carefully, becoming familiar with the various makes, models, sizes and features available. Spend some time thinking not only about what your needs are *today*, but what you may be planning for the shack in the *future*. While you may spend more money on the initial purchase for a larger model, you will not have to buy another one down later, leaving you with two power supplies. As many hams have learned, you rarely get nearly what you paid for equipment. Lastly, many products are available as desk top units or rack mounted versions. Popular brands on the market today include [Astron](#), [MFJ](#), [Ameritron](#), and [Alinco](#).

If you would like a PDF copy of this article, email me at wa3uoo@gmail.com.

Next time... **Basics of Switch Mode DC Supplies**



CORC 1-16-2021 Roster

AA8EY	BILL	KB8WO	PAUL
AA8TA	JOE	KC8ASF	TONI
AC4HV	ERIC	KC8DIJ	DAN
AC8TZ	GREGORY	KC8FRJ	CHRISTOPHER
AC8VM	RANDY	KC8MLN	TOM
AC8XP	TROY	KC8MQO	DAN
AC8YE	LARRY	KC8NRE	ANN
AD8CM	MARCEL	KC8NRF	CHARLIE
AF8WX	BRIAN	KC8NRI	BETH
K3ZAA	BILL	KC8WTW	DWIGHT
K8BRJ	AL	KD7PBU	JOHN
K8CYA	ROSS	KD8ASZ	ROBERT BRUCE
K8DQ	KEN	KD8BDO	ROYDEN
K8DWR	DOUGLAS	KD8BGR	CHARLOTTE
K8EAA	DON	KD8IDJ	JOHN
K8KDR	MATT	KD8ISB	TAMMERA
K8MAY	KENNETH	KD8KBX	STAN
K8MEJ	ED	KD8LFX	KIRK
K8MJ	MICHAEL	KD8LLL	MARTIN
K8NEG	NANCY	KD8OQA	MARTIN
K8NIO	WILLIAM TRIGG	KD8OZF	MICHAEL
K8NJ	JOHN	KD8PHG	RICHARD
K8PB	PHILIP	KD8QFO	GENE
K8PFD	RONALD C.	KD8RHR	VICTORIA
K8SAR	STEPHEN	KD8RID	RANDALL
K8SCM	JOHN R	KD8RTP	JOHN
K8TSG	JASON	KD8SSD	LEW
K8TW	TOM	KD8SYP	BOB
K8UHH	WILLIAM	KD8TQE	RICK
K8VKA	TOM	KD8TTE	MATTHEW
K8WBW	JAMES	KD8TYK	SCHUYLER
K8XYZ	JEFF	KD8UNT	MARK
K8YMG	MARK	KD8UTU	SUSAN
KA8CEQ	JOE	KD8VRN	WILLIAM
KA8IWB	LAURA	KD8YYP	ANN
KA8KVV	MARVIN	KD8ZG	J. ARTHUR
KA8LGO	LYNN	KE8ANW	BRIAN
KA8RLC	KALMAN Y.	KE8BBU	DONNA
KA8RTI	MICHAEL	KE8BBV	EDWARD
KB6VN	MICHAEL	KE8BKR	SANDI
KB8ABO	JOHN	KE8BRN	TOM
KB8CIQ	SANDY	KE8BVO	CARROLL
KB8CMW	PAUL J.	KE8BWI	MICHAEL
KB8DEO	STUART	KE8CKT	KURT
KB8DRQ	DAVID	KE8CLB	KIM
KB8KKW	MORY	KE8FUR	DON
KB8NMT	DAVID	KE8GTT	SEAMUS
KB8PZA	MARY	KE8HPH	FRANCIS
KB8TRL	JIM	KE8HWY	MOTT
KB8UVN	MATT	KE8HXE	BRAD

CORC 1-16-2021 Roster

KE8ILF	JAMES	NUHAM	WILLIAM
KE8IOS	JOHN	NZ8C	RICHARD
KE8IZX	SHAWN	W8AGS	JOHN
KE8JWJ	MATTHEW	W8ARD	RUSSELL
KE8JYY	THOMAS	W8CFO	CHARLES
KE8KJX	DAN	W8DHS	DENNIS
KE8MEJ	CHARLES	W8EV	MIKE
KE8MGV	ROB	W8FEH	STEW
KE8MJD	SCOTT	W8III	GARY
KE8NWA	MARK	W8JJB	JORDAN
KE8OBA	PETER	W8JNE	CHARLES
KE8PCT	BILL	W8JTH	TED
KE8PRK	MICHAEL	W8KWA	CHARLES
KE8PSL	MARK	W8KWG	GAYLE
KE8PXJ	CHARLES	W8LGY	RUTH L.
KE8QBY	BILL	W8LGZ	JIM
KE8QDA	STEPHEN	W8LW	ROBERT B.
KE8QLX	MIKE	W8NBA	JOE
KF8FA	BILL	W8NEE	JOHN
KG8DN	KENNETH	W8NRH	DAVID
KM6KOT	ROBERTA	W8PRR	RICK
KN8ITR	MARTHA	W8REH	ROY E.
KV8Z	CHRIS	W8RIH	THOMAS
N3STG	PETER	W8RRJ	JOHN
N8ABE	MICHAEL L	W8RXX	JOHN
N8AJ	LYNN	W8SJQ	ROCCO A.
N8AKI	SYLVIA	W8WJH	WARREN
N8BHL	G. STANLEY	W8WTB	FRED
N8DLA	DON	W8ZCG	AARON
N8DRZ	JOSEPH R.	W9ARD	ALICIA
N8FES	LINDA	WA3EZN	DAVID
N8GU	DR. BOB	WA3UOO	RICK
N8HDR	AL	WA3ZBU	DONNA
N8ISI	MARY L.	WA8CLT	JOHN
N8MFE	KEMPTON	WA8FKC	ANDREW ERIC
N8MLP	MIKE	WA8KKN	CHARLES
N8OIT	FAWN	WA8MNC	ALAN
N8PCJ	JIM	WA8OFF	BILL
N8PRB	PHILIP ROLAND	WA8OMQ	DEAN
N8PVC	JOHN	WA8RMC	ART
N8PVD	JOHN	WA8RR	RICHARD
N8RRB	ANTHONY	WA8UZP	JIM
N8RZB	CHERYL	WB1ARO	BRUCE
N8SQ	STANLEY F.	WB8AKW	JOHN
N8SY	SCOTT	WB8LAP	JOHN
N8XYP	KENNETH C.	WB8RUW	DENNIS F.
N8ZQ	PAUL	WB8ZTP	MARK
N9MHZ	MIKE	WD8CZG	GORDON L.
NA8L	TERRENCE	WD8JKX	STEVEN
NL7CF	ALFRED	WD8OTO	FRED D.
		WD8QWR	PHILIP L.
		WJ8ACK	JAMES
		WJ8B	ANDREW
		WX8U	JEFFERY M