

RADIOWAVES



MARCI Newsletter

FROM THE PRESIDENT: I hope that all of you are doing well, feeling great, and that you and yours have so far evaded any serious issues related to the COVID 19 pandemic. No doubt by now you have heard about the loss of our good friend Judy Hawrysko, wife of our own MARCI Vice President and former president, George Hawrysko. Judy was a fine lady, a friend, and supporter of MARCI, and will be missed by so many.

At the most recent meeting of the MARCI Board of Directors, we discussed the likelihood that the election of MARCI executives may have to be conducted in the same fashion as in 2020. We will be talking about this process in the weeks to come. In addition, I was already informed by Kemp Mednick KM4PYH, our treasurer that he will be stepping down. If anyone would like the opportunity to work with the club as treasurer or any other executive position within MARCI, please let me know so that you may be considered. My email address is below.

Please tune in via ZOOM this Tuesday night, March 2nd at 7:00pm to our General Membership Meeting. The LINK TO THE ZOOM MEETING IS ON THE MARCI WEBSITE HOME PAGE, <https://www.manatee-arc.org/>

A reminder that on Wednesday nights at 7:30pm on the 146.820 MARCI repeater is the Marci Ham Trader's Net. A number of very fine items for sale have shown up the last few weeks on this net. I urge you to check it out if you are looking for something previously owned or have some surplus ham gear (antennas, speakers, radios, tuners, towers, cables, etc.) lying around. You may have something too good to throw away which may find a happy home somewhere else.

This net is a good way of turning these items (*amateur radio related items only please*) into cash. Dave Flail, W3IK keeps things interesting on this net to be sure!

Lastly, it's that time again so please renew your MARCI Dues for 2021. Individual dues are \$25 per member with an additional \$5 for another member in the household. Through the hard work of Ed Skalecki NI4MX, Kemp Mednick KM4PYH, and Chris Ebert KB2ICN, the MARCI Website home page now has a link to allow the use of PayPal for dues renewal as a convenience.

I hope to see all of you on Tuesday night during the General Membership Meeting. Take care and PLEASE...tell someone that you love them.

- Mike Ryan, K4CVL mryan001@tampabay.rr.com

FROM THE EDITOR: March is here, and that means Spring Training is here also. Spring Training means different things to baseball fans than it does to Ham Radio Operators. In Florida it means time to get those antennas maintained, erected and or replaced. For those who have attic space and HOA rules, it means now is the time to get up in the attic and work on those antennas before it gets too hot to do so. The same thing applies to those of us lucky enough to have outside antennas either on the roof or on a tower. In another month or so it will be too hot to climb up there unless it is really early morning. So, make your plans, do your maintenance and get these things done before you have to wait another whole year to do them.

On another note, as your Editor, I have made numerous requests for articles, photos, shack pictures, etcetera, etcetera. Unless you want this newsletter to become a monthly report on what Geoff did last year, you need to start responding with said articles, and pictures. Even any ideas for articles would be welcome. Thanks in advance.

73

ANDERSON POWER POLE CONNECTORS

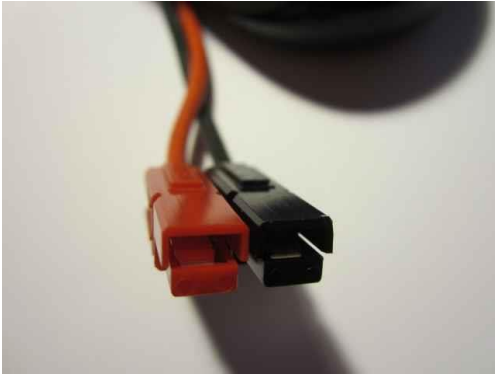
In the space of just a few short years, the Anderson Power Pole Connectors have become the de-facto standard for almost all of Amateur Radio. Even the Coast Guard Auxiliary has settled on them for their transceivers at least on the Gulf Coast of Florida.

Many people use them without really understanding the advantages of the system.

1. Properly installed they are sturdy, self-cleaning, and completely genderless. By that I mean that on either side of the connection, the connectors are identical, the only difference being that one side is upside down.



This photo shows the standard layout of a 2-conductor Power Pole Connector. Note that the red or positive connector is always to the right of the black or negative connector with the connectors “top” facing you. The “top” is the wider of the two opposite faces. The “top” is also the only place that Anderson’s Logo appears on the housing.



It is wise to assemble the connector housing before inserting the contacts. Do not insert the contacts before crimping or soldering them to the wires. Kind of obvious, but stranger things have happened. The reason for assembling the housings is that particularly with heavier gauge wire, it will be difficult to assemble the housings with the wired contacts already in place. The picture below shows the front end of a properly assembled pair

of housings. The “top” is wider than the bottom. The other side of the connection will be “upside down” but since it will be facing in the opposite direction the red contact will mate with the other red contact and the black contact/housing will also mate with the other black contact/housing.

The picture below shows an internal view of the assembled positive connector. Note that the contact is straight with no bends. Looking at the design of the housing one can see why the contact has to be straight.



When beginning to assemble Power Pole connectors, the contacts are separate from the housings. The contacts are available in 3 different sizes, 15 amp, 30 amp and 45 amp. These sizes refer to the wire size as the mating portion of the contacts are identical in size and shape. The only difference is the diameter and shape of the end that the wire attaches to.



Some people, myself included have standardized on the 30 amp size. The 30 amp size will accept wire up to 12 gauge and with the removal of a few strands one can even get 10 gauge wire to fit. If the removal of a few strands of wire is going to make that much of a difference in the current handling capability of the assembly then another method should be pursued. For lighter wires such as 16 or 18 gauge just strip more bare wire and fold it up to fill the available space inside the contact.



This picture demonstrates the proper orientation of the contacts to the housings. It also shows the proper shape of the contacts prior to installing in the housing. The mating tip must be parallel and straight with the rest of the contact. If it is bent down or up it will not be easy to assemble and may even be impossible to put together

properly. The mating tip will sometimes get bent down during crimping. It must be returned to a straight position before being inserted into the housing. If one is using thin wire such as 16 or 18 gauge, it may be necessary to use a fine pair of needle-nosed pliers to push the contact fully into the housing. Larger gauges of wire should have enough stiffness to accomplish the insertion without tools. In a few cases where 12 or 10 gauge wire is used, one may have to thin the insulation around the wire to allow it to enter the back of the housing.



CRIMP OR SOLDER: What's the Answer?

The answer is "it depends". If I am placing contacts on the ends of wires, I will usually crimp the contacts onto the wires using the tool to the left. The smaller U-shaped opening is used for 30 and 15 amp contacts. The larger U-shaped opening is used for 45 amp contacts. The small oval opening to the far left is used for adjusting

the crimp to fit into the housing as the other two tend to widen the crimped area too far to fit easily into the housing. One can also use a more expensive tool called a ratcheting crimper that will supposedly give a perfect crimp every time. I have used both and own both but I always come back to my \$20 hand operated crimper which gives me good results all the time. On the other hand if I am building power distribution blocks and thus using 3/32" copper clad steel welding rod to connect opposite contacts, I solder every connection because there just is no way to adequately crimp the contact on the wire that is approximately the size of 6 gauge solid wire.

In some cases where heavy use or severe tugging is likely, I will both crimp and solder the contact to the wire.

Once the Power Pole connector is assembled, there are several ways to keep the connection from coming apart. If a degree of tension on the connection is expected then a wire tie can be used to keep both halves of the connection together or commercially available double pins are available.

One of the most underrated aspects of Power Pole connectors is the ability to create specialized connectors for almost anything. Need a 5 to 8 contact connector for a tower rotator? Just keep adding contacts and housings until you have the right set-up. I once built a master connector for the installation in a previous vehicle that had 14 or 15 contacts and housings in a 5 wide/3 high arrangement that fed power to and from a control system that controlled the radios, the 52 inch light bar on the roof and so called "alley lights on both sides of the bar. Can't find the mating Cinch-Jones connector for that "boat anchor" you are restoring? Replace both sides of the connector with Power-Poles. There are as many uses for these connectors as there are ham operators in the world.

In this day and age of counterfeit products it must be said that there are many imitators of Anderson Power-Poles. The unfortunate truth is that they do NOT interchange well with the real thing. They are poorly constructed and come apart way too easily. Amazon carries both types, make sure you are buying the real thing ANDERSON POWER-POLES, not some cruddy imitation. By the way there is a lot of imitation red/black zip cord out there as well. Beware of lengths of wire saying copper clad aluminum. That stuff is usually undersized and breaks with even minor wear. Sometimes it says 12 gauge, but when you measure it, it really is 14 gauge or less, just with heavier insulation so it looks the same size as the real thing. You want real, all copper, stranded wire for proper current handling and wear-ability. Don't accept less than the real thing. Amazon is nice but their prices for the good stuff is usually the same or darn close as the ham radio dealer who has much more interest in serving his customer properly with the authentic material.

73,

Geoff Haines, N1GY

QST MARCH 2021

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M E T U J A Y K H J N R R P
P K N S C N L G C C N D R X
T C V H H L I F N C E R E P
X E L C L H T A O X T I W O
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R J P R M L V O L T A G E M
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| CHECKER | ICOM | SAFETY |
| COMET | MOXON | STEPPIR |
| CUSHCRAFT | POLARITY | VOLTAGE |
| DIAMOND | POWER | YAESU |

SWAP / TRADE / SELL : If anyone has gear they wish to sell or donate, please send the particulars to the editor for inclusion in the next issue. The want or sell ads are free so please avail yourself of the service. Note: this list is getting a bit long in the tooth, so if anything here has already been sold or is no longer on offer, please let the Editor know so it can be removed.

FOR SALE:

Offer to build: Custom extension cables for any remote-able radio such as the Yaesu FTM-300, 350 etc.

PowerPole Power Distribution Blocks in 4+1, 6+1, and 8+1 sizes \$10, \$15, \$20 each respectively Can custom build to suit.

Foot operated PTT switches brand new from MPJA wired with 3.5mm mono plug on 10' cable. ¼" adapter available if needed. \$10

IN ADDITION: I have more parts and components than I will ever use, so if you need something, a transistor, a plug, a jack, etc etc. call me first, I will give you a great price (as in no charge).

Call Geoff at 941-447-8579 (cell) or 941-752-3696 (home)

For Sale: 2 Hand Held transceivers.

Kenwood TH-K2AT 2M transceiver with English Manual and Spanish Manual.

Kenwood TH-G71 Transceiver. 2M/440 Mhz. No manual.

These are nice small HH which takes 6 AA Batteries (easy to change in a power out situation). Last used in Simplex mode between 2 vehicles. Worked great.

These have been replaced with 2 FTM-70.

Price 2 for \$100.

Contact WB9KVD at jham58@tampabay.rr.com or 941-567-6716

From Bill, N9US:



The AEA model VSB-70 is a Fast-Scan Television (FSTV) transceiver that operates on the amateur 420 to 440MHz band. The transmitter features two local oscillator crystal-controlled channels and an output of one watt PEP on sync peaks. Receive operation can transceive or use variable

tuning. In transmit, baseband NTSC video and audio are converted to Vestigial Sideband (VSB) video with the FM audio subcarrier in the 70 cm band. This is the same format as used by analog broadcast television. Video cameras, Camcorders and video cassette recorders with video and audio output jacks can be used to generate the baseband video and audio for transmission. A separate front panel microphone jack may also be used for audio input. Either color or black and white video may be used. Television channel 3 or 4 may be used to monitor your broadcast signal. If you live in an area where channel 3 is used by a commercial television station, your VSB-70 must be configured for channel 4, and vice versa. A standard color or black and white television is used for reception. The same television is used for monitoring your transmission. The VSB-70 uses a GaAs FET preamplifier which provides for a system noise figure of less than 1.5dB. Either crystal-controlled or VFO receive tuning may be selected. In addition to the video source and television set, a 13.6 volt regulated power supply and 70cm antenna are necessary. AEA also offers the RLA-70 linear amplifier with MPS-100 power supply and the 430-16 antenna to complete your ATV station. To transmit, an FCC amateur Technician or higher-class license is required.

Bought for \$309 from AEA in 1992. Works great! Best Offer



Ameritron 5 Way Antenna Switch RCS-8V

RCS-8V HF to VHF/UHF Remote Coax Switch

Ameritron's Remote Coax Switch lets you remotely switch up to five separate antennas using one inexpensive small control line (like standard telephone wire). Eliminate a tangle of troublesome coax and have a simple and neat installation with just a single feed line.

The **RCS-8V** consists of two units, the weatherproof switching box that mounts on your tower or mast and the control unit that's placed at your operating station.

VSWR is less than 1.2 from DC to 250 MHz and less than 0.1 dB loss at 150 MHz, great for the HF/VHF/UHF operator.

It handles over 5 kW below 30 MHz and 1 kW at 150 MHz. You can ground unused positions or leave them open.

The indoor control unit is all metal to prevent RFI and TVI. It also has LEDs to indicate the antenna you've selected. A Lexan scratch-proof panel has a markable surface for labeling your antenna positions.

RCS-8V operates from a 120 VAC power source. Use any 6 conductor control line (not supplied) and allows safe operation with 14V control voltage.

Specifications

- Number of antennas positions: 5
- Loss at 150 MHz: Less than .1dB
- VSWR: under 1.2 to 1 from DC to 250 MHz.
- Impedance: 50 ohms
- Power Capability: > 5kW Watts below 30 MHz, 1kW at 150MHz.
- Antenna select time: 50 ms.
- Power requirements: 120 VAC @100mA, AC adapter supplied
- Connectors: Teflon® SO-239
- Control Box: 6" x 6 1/8" x 2 1/4"
- Switch Box: 5 3/8" x 7" x 3"
- This one modified to add remote-controlled relay to permit **switching between unactivated ports to ground or floating. Makes big difference (sometimes) on received noise level. Came off my tower in Illinois**
- **Current MFJ price \$229.95 Best Offer**

Heathkit HA-14 “Mobile Kilowatt” Linear Amplifier

- The **HA-14** amplifier uses two 572B power tubes in parallel in a traditional grounded grid configuration. The matching power supplies are solid state. The amplifier is a small and affordable home KW that works very well in fixed station service. Perhaps more of them are used fixed than mobile. Model: Linear Amplifier HA-14 - Heathkit Brand, **Heath** Co.; Material: Metal case : Shape: Tablemodel, Dimensions (WHD) 12.25 x 3.25 x 10 inch / 311 x 83 x 254 mm : Notes: Heathkit HF-Amplifier HA-14. Grounded grid linear power-amplifier for 80 to 10 meters HAM bands. Driver power max. 100 watts, output power abt. 600 watts. My friend George Ulm, W9EVT, claims to have run one of these from his MOTORCYCLE! (Crazy as he is, I can believe it!). Check out his radio collection on his QRZ.COM page!



Have 2 of these. Sold 1 for \$350 in 2010. Best Offer

Heathkit MODEL HP-24 AC Power Supply for HA-14 Linear

| | |
|-------------------------|---|
| Material | Metal case |
| Shape | Tablemodel, |
| Dimensions (WHD) | 9 x 4.75 x 6.75 inch / 229 x 121 x 171 mm |
| Notes | Heathkit Power-Supply <i>HP-24</i> . AC power supply for SSB linear power amplifier HA-14 (80 - 10 meters HAM bands). Can be wired for either 120 or 240 VAC input. Output: HV 2500 VDC (no load), Filament 12.6 VAC, Bias -150 VDC. |
| Net weight | 8.7 kg / 19 lb 2.6 oz (19.163 lb) |
| | <u>Best Offer</u> |

ICOM AH-2 Remote Automatic Antenna Tuner

This tuner was specifically designed to interface with ICOM transceivers using the CI-V interface. It can be used with other rigs with some manual intervention. With an antenna 12 meters or longer, this tuner will work all bands from 160 through 10 meters. To minimize interference to other stations, it transmits just 0.3 watts while tuning. Maximum input power is 120 watts. It has a built-in memory capable of storing tuning information for 8 different frequencies, which can be called up in less than 1 second. Tuning time for non-memorized frequencies is 2 to 4 seconds (20 seconds maximum time). It has both THROUGH (By-Pass) and TUNE modes. It comes with 100 feet of RC-6 six conductor control cable to connect between the control unit and the remote tuner.



Best Offer

MFJ-1026 HF Noise Canceller

Frequency Range: 1.5-30 MHz

Phase Reversal Switch: Yes

PTT Keying Input: Yes

Keying Connector Type: RCA phono jack

Width: 6.500 in.

Height: 1.500 in.

Depth: 6.250 in.

Weight: 1.800 lbs.

MFJ Noise Canceling Signal Enhancers are designed to reduce noise or interference, or improve desired signals, before the noise affects sensitive receiver circuits. Unlike conventional noise blankers, these units can be effective on all types of noise (QRN), as well as on interference (QRM) from unwanted signals. Noise Canceling Signal Enhancers work on all signal modes and can transform difficult receiving situations so you can finally hear, work, and log that rare DX!

MFJ Noise Canceling Signal Enhancers allow the user to adjust both phase and amplitude while combining antenna inputs. One of two antenna inputs may be connected to the transmit antenna, and the other to an external receive antenna or the internal whip antenna on the model MFJ-1026. Or both inputs may be used with identical receive antennas to create various directional patterns for optimum results. The signal output to the receiver or transceiver is the vector addition or subtraction of signals from two separate antennas, balanced and phased. This allows unwanted noise to be removed or desired signals to be enhanced.



Current MFJ Price \$239.95. Have 2 for 1 (One needs repair). The good one works great!
Best Offer

For Sale: from Burch Akin: I have a Force 12 C3 HF bean that I bought about 2 years ago for \$1100. It's brand new in the box. I'll take \$800 for it. Contact me at K4QXX@arrl.net

CLUB MEETING: To be a ZOOM session via the Internet on March 2, 2021 at 7PM
Monthly Board Meeting TBA (may be replaced with a teleconference)

Monthly ARES Meeting TBA

Club and Other Nets:

| | | |
|--|-------------------|-------------------|
| MARCI Info Net | Sunday 7:00 PM | 146.820 – 100 Hz. |
| ARES Net | Monday 7:00PM | 146.820 - 100 Hz. |
| MARCI Traders Net | Wednesday 7:30 PM | 146.820 –100 Hz |
| David Flail, W3IK is the NCS for the Traders Net | | |
| Manatee Skywarn Net | Thursday 8:00 PM | 146.820 - 100 Hz. |

PLEASE PARTICIPATE IN ALL THE NETS ANY TIME YOU CAN. The nets on Monday (146.820) and Thursday (146.820) are logged for the Manatee County Emergency Management and create “bill-able” hours of Volunteer Participation which often results in County provided equipment for ARES. And DON’T FORGET about the Regional Nets on NI4CE on 145.430 and 442.950. The Eagle Net, the NTS Traffic Net is on every night at 8:30 PM. The regional Skywarn Net is on Tuesday at 9 PM, The Technical Net is on Every Thursday at 9 PM or immediately after the end of the Eagle Net should that net run a little over. Our Club Net on Sunday night is recently very poorly attended. Our club has over 60 members. Surely at least 15 Or 20 of you can take 20 minutes out of your Sunday evening to check into your own club net! The most common complaint I hear about repeaters of all sorts, local and regional, is that **“there’s no one on”**. The old saying about **“if you don’t use it you will lose it”** was never truer than now