

The ECOMM Trailer Handbook



Published
July 2024

The trailer is stored in a storage garage own by Twin Falls County Sheriff's Office located at 450 6th Ave West Twin Falls, Idaho. The garage sits between the Twin Falls County Training Annex and Willow Exterior & Renovation.



The trailer was rebuilt for the purpose to quickly set up and begin communication within 30 minutes or less.

Trailer Setup

The trailer has two forms of power, battery and shore, so it can be used either way depending on the situation. It is highly recommended that battery power be used first to maintain peak battery health. The battery will start recharging when turning on the generator or connecting to commercial power it will charge. This will be discussed in more detail later in the manual.

When first entering the trailer please turn lights to maintain safety for you and the trailer. (See figure 1)



Figure 1



Figure 2

Antennas are located on the corner on the wall behind the rear door. Depending on what operation being used only take the antenna needed. (See figure 2)

The repeater antenna is strapped along the roof above the side door. (See figure 3)



Figure 3

Repeater Setup

Please follow the below steps when setting up the repeater.

1. Remove the antenna from the straps and put on radials. The radials are in a PVC pipe on the side of the wall next to the antennas. There are to 3 radials. (See figure 4)
2. The repeater antenna is broken into two parts. The telescoping mast base and the antenna attachment.
 - a. The telescoping mast is anchored inside the back right corner of the trailer. The mast extends through a waterproof opening in the roof.
 - b. The antenna attachment is also stored next to the mast. The antenna has an attached accessory designated to feed coax cable through before attaching the antenna to the mast outside the trailer. *The attached accessory **cannot** be removed no matter the reason. Should you feel this needs to be removed please contact the ARES trailer manager.* (See Figure 5)
3. Once the coax is installed on the antenna, it can now be put on the telescope mast. If it's windy, please secure with the stabilizing ropes provided located on wall with antennas. The telescoping mast extends up to 20 feet and it is highly recommended for two people to complete this task for efficiency and safety.
4. Once antennas are all installed on the trailer, the remainder of the trailer can be turned on. Turn on the battery switch first and then the inverter switch. You will be able to use everything except for the refrigerator and AC unit from battery power.

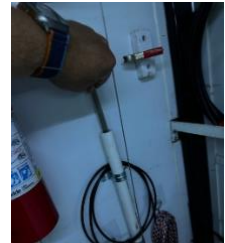


Figure 4



Figure 5

Power use



Once the battery and inverter have been turned on the gauges will begin working. (See figure 6)

The trailer has two forms of power, battery and shore. Please monitor all gauges regularly. Figure 7 shows the gauges that monitor the inverter, battery, and shore power. Figure 8 shows the monitor the inside and outside temperatures.



Figure 7

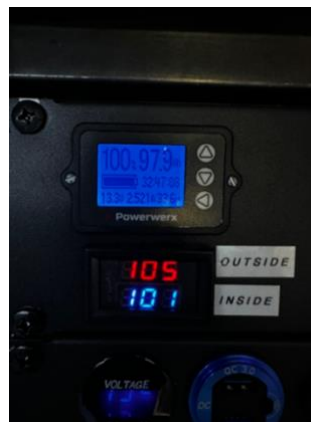


Figure 8

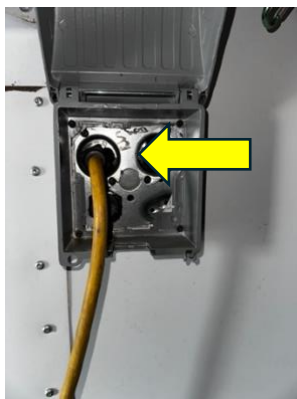


Figure 9

It is highly recommended that battery power be used first to maintain peak battery health. When using battery power, the inverter will start beeping to indicate the battery is low. The generator or commercial power will need to be connected to continue trailer communication use. (See figure 9)

Should the AC unit or refrigerator need to used shore power **must** be connected. The generator will run for around 8 hours before needing to be refueled.

Communication Operations



Figure 10

The trailer has a Yaesu 400dr, Yaesu 911a, CB Radio, Police Scanner, Yaesu DX-2 Repeater, Computer, Printer/Copier, Router, Refrigerator, and A/C unit. The trailer was built to add additional equipment as needed.

Communication operations can start immediately after connection with power. The computer does not require a username or password to be used. The printer uses wireless connectivity to the computer. No internet is needed to use the printer. If the internet is needed, the

trailer has a hard wire network connector and can receive internet at locations if available.



Tearing Down



Figure 11

To tear down the trailer, simply reverse set up steps. Please make sure to turn off all computers, radios, the battery, and inverter before disconnecting power.

All antennas must be returned to their storage locations and secured with provided straps.

THE ATTACHED ACCESSORY ON THE ANTENNA POLE CANNOT BE REMOVED FOR ANY REASON. (See figure 11)

Everything in the trailer that is used ***must*** be returned to places they were found. The ladder must be secured with the provided bungee cord, the closet doors screwed shut with original screws, and the computer monitor is secured with the provided bungee cord. Chairs must be folded and put underneath the desk. If used, the canopy is neatly returned to its carrying cases secured with the provided bungee cord in its proper place. All antenna connector caps are put back in place. Make sure the generator is full of gas and ready to be used for the next event. **Notify the ARES coordinator when gas cans on the trailer are empty so they can be refilled generator use.** (See figures 12-18)



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16



Figure 17

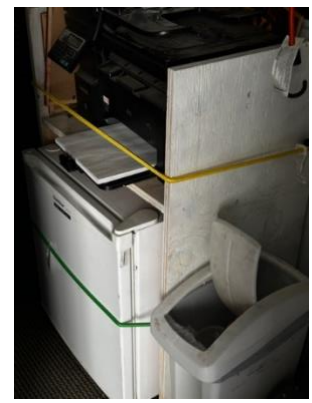


Figure 18

Returning to Garage

It is highly recommended that there are 1-2 people assisting when putting the trailer in the garage. They will be needed to stop oncoming traffic from turning on 6th Ave from Washington as this is blind corner and drivers will whip around without pay attention. (See figure 19) For this reason, yellow reflective vests have been provided and warning strobe lights have been installed on the trailer to draw oncoming traffic's attention. Helpers must wear the provided yellow vests to increase visibility and personal safety.



Figure 19

Make sure the trailer is plugged in to charge the battery and that the generator is covered.



Figure 20

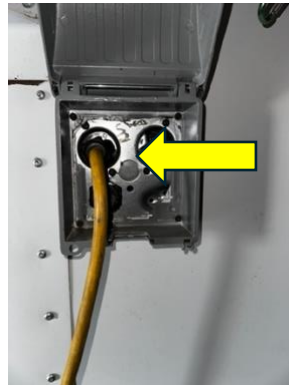


Figure 21



Figure 22

Double check to make sure the garage is locked and the padlock on the front door is locked. Following these instructions will ensure the trailer will be ready for the next event.

Trailer Checklist

Setup

- 1) Hitch Tailer (2in Ball)
- 2) Grab gas can and extension cord
- 3) Secure Trailer (Choke wheels and level Trailer)
- 4) Put up all antennas.
 1. Repeater
 2. 400
 3. scanner
 - 4.991a
- 5) Turn on power in trailer Switches (Battery should be at 13 volts)
 1. Battery
 2. Inverter
 3. Lights
 4. (If Needed USB)
- 6) Turn on Radios and (Computer if needed)
- 7) Check your Voltage throughout the day when the battery is low, turn on the Generator or Plug in this will charge the battery.

****Note****

AC and refrigerator run on shore power only.

Tear down and reverse everything from set up and ensure everything is strapped and secured.

DEPLOYABLE UNIT

- 1 FCC Licensed, ARES/RACES carded Radio Operator
- Vehicle with 2m mobile, dual band preferred + HT with adequate DC power for duration
- Working 12 hr. shifts, 2 operators per shift, AVAILABLE FOR MINIMUM 48 hrs. remaining on site
- Familiar and supplied with Radio Logging forms and ICS 213 Message forms
- Be able to check-in within 2 hrs. of call up or identified report timing
- Each Operator must provide food, water, shelter, sleeping, for a minimum of first 48 hrs. of operation
- Be situationally aware – Is an Incident occurring or likely to occur? Monitor
- Credentials must be visible: FCC License, RACES ID, Driver's License.
- Dress comfortably but appropriately for the job. Also, seasonal and day/night.
- Come fully prepared to stay on-site and provide self-support for minimum of 48 hrs.
- BE PREPARED TO ANSWER THE QUESTION "Are you available" YES OR NO..OR ADVISE OF A LATER TIME.

TYPICAL SCENARIO

- Liaison Officer receives call to report E.O.C. for briefing and size-up.
- Liaison Officer becomes HAM Communication Group Leader) for Amateur resources only
- Leader initiates QST and calling tree to request operators. NO SELF DEPLOYMENTS
- NET Control, establishes adjacent to ICP or EOC as appropriate
- Leader interfaces Net Control with ICP / EOC
- Operators complete personal check-in and attend initial briefing with Leader, receive assignments
- Operators deploy to assigned locations and establish Communication Stations with Tactical Names
- Comm Tech's deploy dedicated repeater as needed. Determine frequency coordination and assign
- Net Control establishes and calls for NET check-in at determined times/ freq's
- Stations log all traffic and document and file all logs and messages.
- Operators rotate in pairs for 12 hr. shifts, remain on site at the station as scheduled and DEMOB Station at completion of assignment.