

## Kenwood TM-V71A Installation on BMW K1300GT

I passed my Technician Class Exam in 2004 and have not really done anything serious with Amateur Radio since I left California in 2008. My company transferred me to Colorado Springs then and I was busy with work and road racing motorcycles. I had a really bad road racing crash in August of 2011 that convinced me that it was time to retire from racing. My wife Cindy (still newlyweds from Aug 2006) thought it was way past time.

Fast forward to Dec 2011, I retired from Northrop Grumman as an antenna system engineer and then later in 2012 I bumped into an old friend, Ray Davis, at the 2012 SCMA Three Flags Ride, starting in El Paso, Texas. Ray renewed my interest in Amateur Radio and I began working on some nets here in Colorado Springs (actually we live in Falcon about 10 miles east of the 'Springs). In 2013 I saw Ray and Bonnie again at the Finish banquet of the 2013 SCMA Three Flags ending at Winnipeg, Manitoba, CANADA. So now I'm really thinking about putting my HT on my Bike.

I discussed this a few times on-line and on the telephone with Ray (even one time while he was riding his bicycle). Ray convinced me to scrap the idea of using a low power HT when I could integrate a mobile rig on the bike with gobs (technical term) more power. So in October, I started getting really serious.

To start, I have a BMW and I found that it was going to be different in that not many of us in M.A.R.C. have BMWs. Second, I use SENA Bluetooth Headsets on this bike for everything; GPS, XM satellite radio, Cell phone, MP3 player and radar detector. So the first thing was to try to make the SENA work with the Kenwood TM-V71A. SENA has a Two-Way Radio Bluetooth Adapter that I had tested with my HT, a Kenwood TH-F6. They even had a nice cable that worked for that radio. I tested that first on the bench wearing my helmet and received good signal reports.

Then I had to adapt the TM-V71A to the SENA Bluetooth Adapter. First I had to find a source for the connector SENA uses for their adapter. It is a Hirose HR10A-7P-6P (73) connector. I found a source at Mouser Electronics and I used a shielded CAT 5 cable from the Kenwood PG-5F Remote location Kit to connect to the MIC connector (RJ-45) on the Kenwood. I also had to add a pigtail to the cable to connect an RCA plug to an external speaker jack on the back of the radio for audio. After building that cable I hooked up the radio on the bench and once again was on the local ARES net to test it out. Again, good reports.

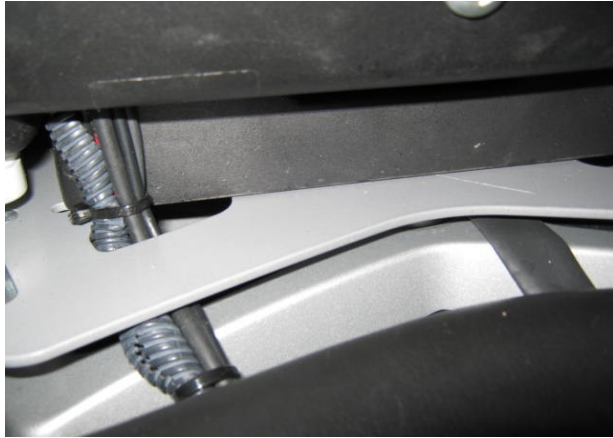
I'm using a Comet SBB-5 with a Diamond Cable assembly which uses RG-316 cable. The radio is mounted in the trunk of my bike which is an add-on aftermarket case (Coocase), of medium size (37Liters). I had to drill holes for the cable access and also a vent for airflow for the radio. I found an enclosure vent that keeps the rain out that I mounted onto the bottom of the trunk. You can see the air vent just below the radio in Fig.1, below.



**Fig.1. Radio Mounted inside front of Trunk**

Power is directly from the battery with fuses for both +12VDC and the Ground wires (12AWG) and I use Anderson Power Pole connectors under the seat to make the installation/de-installation easier. The RF cable comes from the antenna mounted off the luggage rack under the trunk to a place under the seat where I made a loop and tied it out of the way before it goes to the radio in the trunk. I'll add Ferrite beads to the extension cables if needed to reduce noise if necessary.

## BMW K1300GT Installation ...cont'd.



**Fig 2. Cables and Ground strap exit the Trunk.**



**Fig. 3. Air Vent on bottom of Trunk.**

The front panel is mounted on a panel that is rubber mounted to the handlebar and fork area of the bike. It has to go there since there is no other place to locate it on this bike where it can be conveniently operated. The SENA Bluetooth Adaptor came with an auxiliary PTT button that I mounted on the left handlebar and I will use it until I find something better.



**Fig.4 . SENA SR10 Shown under panel.**



**Fig.5. View from the seat.**

Pushed out of the garage, since we had snow, I tested using a local net and a few Simplex ops showed and it had good signal reports. With the Tupperware back on, and the sun out, it's time to go riding.

Cindy and I are going to the SCMA's Awards Banquet in Santa Ana on 1 Mar and I'll probably trailer the bike out. Maybe some of my So-Cal friends and I can hook up then.

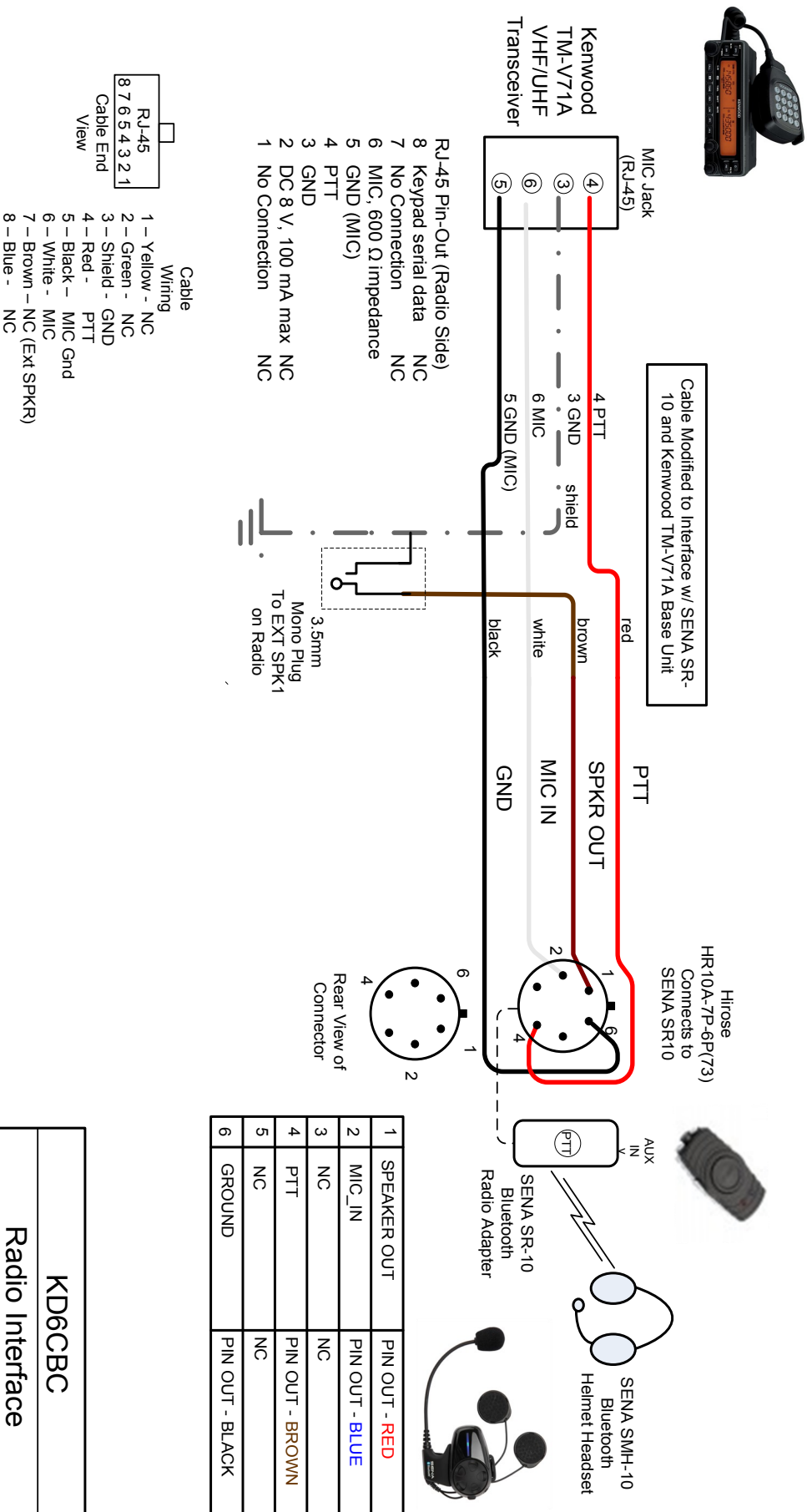
73 to you all!

Charlie Coyner

**KD6CBC**

**Drawings Below:**

# MIC and PTT Interface from SENA SR10 to Kenwood TM-V71



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Radio Interface

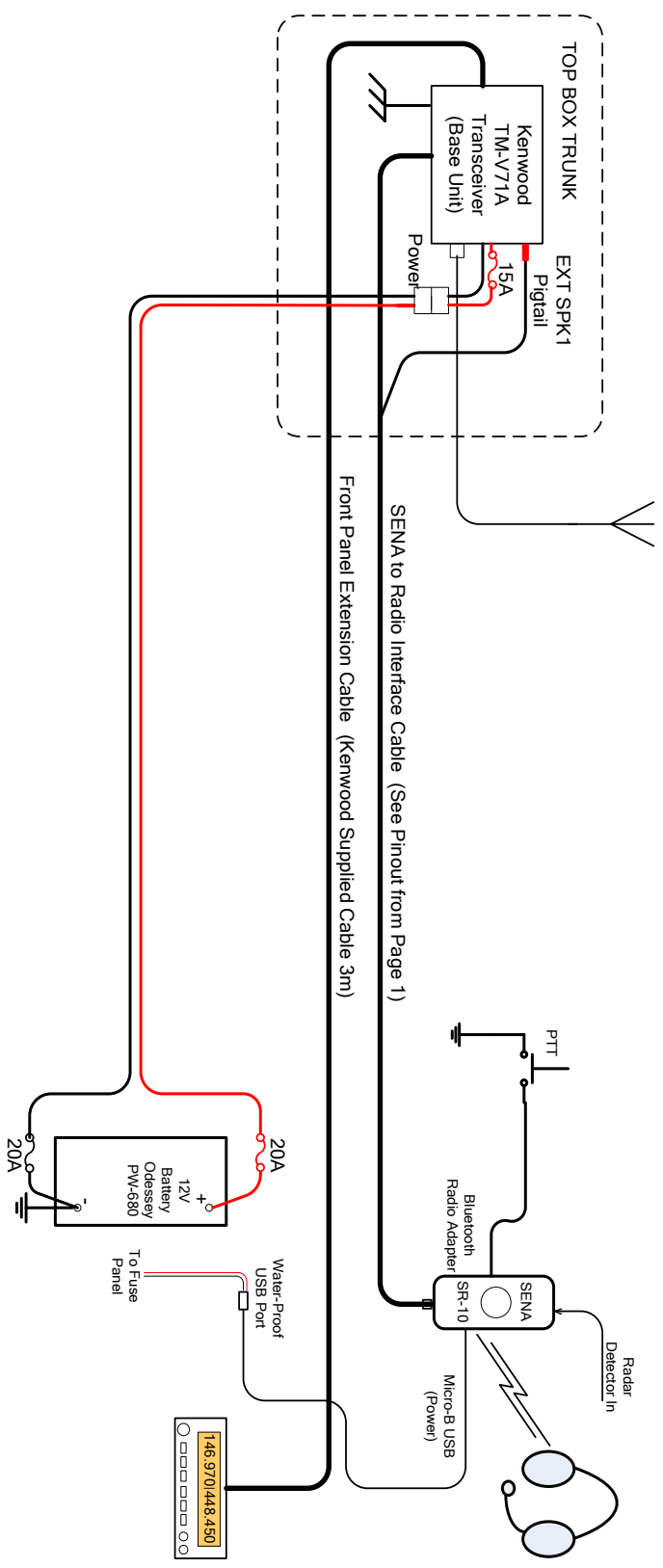
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