

SO₂R

- * Single operator – two radios
- * Latest variation is 2BSIQ - Two Bands Synchronized Interleaved QSOs
- * Software driven
- * Need to experiment – every station is different

Roll your own SO2R



2 radio RTTY CW and SSB controller for Writelog



Jaycar Microphone preamp to boost Heil headset and help match to Sound card



SO2R out of box solutions

- * All modes catered for – no rewiring of station
- * Best of the best



YCCC SO2R



- works with major contest logging software including N1MM Logger, Win-Test, and WriteLog.
- Comes in Kit form

DX Doubler

- * Simple hook-up
- * Much cheaper than MicroHam
- * Good for SSB or CW



Filters that work

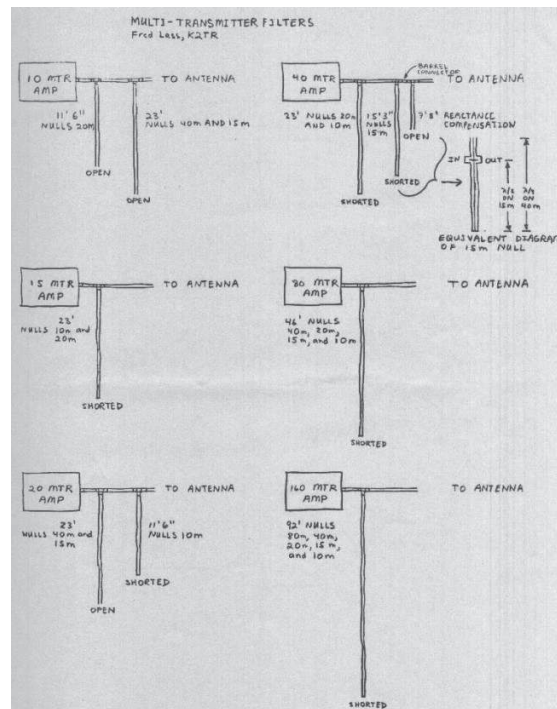
- * Coaxial Stubs
- * W₃NQN
- * Dunestar
- * ICE
- * High Power versions of W₃NQN several suppliers eg 4O3A and others

STUBS

- * Stubs – simple to make – tune on analyser
- * Cheap – bigger coax is better
- * RG58 to RG8 Approx. 10~15db better
- * Standards K2TR and K9YC
- * Can add two stubs to get bigger nulls (K9YC)

<u>Frequency</u>	<u>$\lambda/4$ Open</u>	<u>$\lambda/2$ Shorted, 2nd Harm</u>
160M	18-21 dB	
80M	20-23 dB	23-27 dB
40M	23-26 dB	25-27 dB
20M	26-29 dB	26-29 dB
10M	28-30 dB	

K2TR



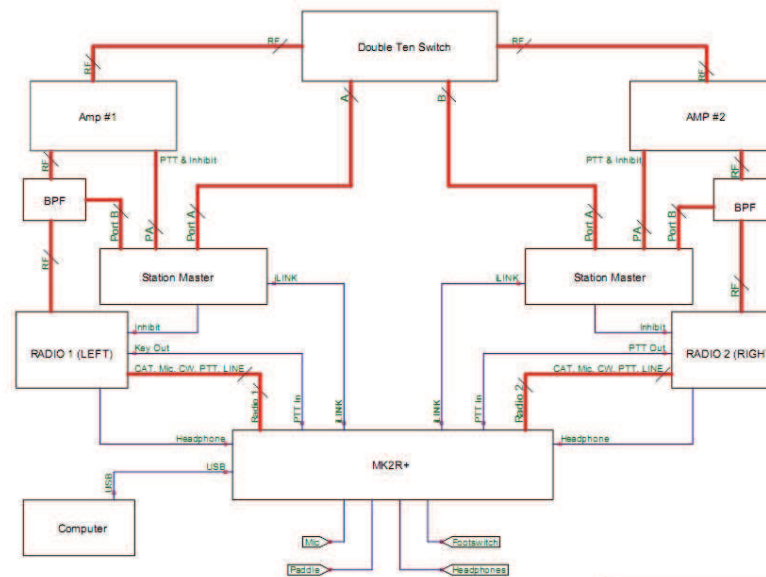
More Stubs



Bandpass FILTERS

- * Anything goes
- * W3NQN is the gold Standard
- * Usually handle rig output
- * Modern versions can handle 2kw plus
- * Typically over 45db suppression on adjacent bands
- * Again Google is your friend

Typical SO2R



Note: PTT/Key Out must be connected from each transceiver to MK2R+ (or in the absence of MK2R+ to PTT In of Station Master). For Yaesu transceivers PTT Out and Inhibit are available via the "Band Data" jack. For the K3, Inhibit and Key Out are available on the ACC connector. Most TenTec transceivers have PTT Out and Inhibit connections available on RA jacks. Icom transceivers require the use of the "Send" RCA jack or a two stage transistor circuit from the HBEND line of the ACC jack. Kenwood transceivers require connection to the amplifier relay (Remote, pin 4) or an NPN transistor driver connected to +12T (Remote, pin 7).

Title		
MK2R+-Station Master Connection		
Author		
W4TV		
File		Document
c:\users\michal\My Projects\BASIS\SO2R.docx		
Revision	Date	Sheets
1.0	9 Jan 2009	1 of 1

CR300

Two Bands

2BSIQ requires the capability to RUN with no interstation interference, in an alternate way, on two bands, interleaving transmitting signals one at a time



SO2R set-up

- Two radios; No inter-station interference
- No interference to be able to RUN on any two bands



Alternate running on two bands

- If radio1 on band 1 is TX, radio2 on band 2 must be RX
- If radio1 on band 1 is RX, radio 2 can be TX



Only one signal on the air

- To comply with SOAB only one signal on the air
- To comply with SOAB each TX signal to different band

CR300 2BSIQ

- * CR300 operating 2BSIQ (Two Bands Synchronized Interleaved QSOs) during CQWW CW 2016



- * <https://www.youtube.com/watch?v=42TCOtmJuE>