AS-603WL

Operation Manual

AS-61WL / RC-603WL Set

6x3 Automatic Wireless Antenna Switch

Commands over RF Cable

Operation from 1.8 MHz to 54 MHz

Operation Manual

V. 2.2.2

HAMPLUS

http://www.hamplus.com

AS-603WL

AS-61WL / RC-603WL Set

6x3 Automatic Wireless Antenna Switch

The **AS-603WL** is an automatic antenna switch for three radios and six antennas. There are two independent boxes, one for the antenna switch that is near the antennas, **AS-61WL**, and another box with the Push Buttons for the selection of the antennas and the Radios, **RC-603WL** that is next to the Radio. **The connection between the two boxes is only made with the RF cable (RG-58 or RG-213). This cable takes RF, power and the necessary commands for the perfect operation of this system**. The **RC-603WL** also allows the insertion of a linear amplifier or a wattmeter, or both. In this way the equipment will always be connected with the Radio and the antenna selected. The operation is individual, which means that only the selected radio will have access to the antennas. Unused antennas are automatically short circuited.

To facilitate the operation, the **RC-601WL** also has a third internal switch that switches the Send commands and the Com port to the selected Radio.

The **AS-603WL** supports communication with the following radios:
Icom (CI-V), **Kenwood** (RS-232), **Elecraft K3** (RS-232), **Yaesu** (RS-232) or any other Radio that uses one of these communication protocols.

Procedure for connecting the RC-603WL to the radio:

1- On the **RC-603WL** press and hold the yellow radio select Push button and turn on the **RC-603WL.**

2- Then press the Antenna Push Button corresponds to the model of the radio that you will connect, according to the list below;

- **a- Ant 1** Push Button for **Icom** (CI-V) radios **Baud rate 19200**
- **b- Ant 2** Push Button for **Yaesu** type FT-817, FT-857 and others**. Baud rate 4800**
- **c- Ant 3** Push Button for **Yaesu** type FT-1000 MP radios and others. **Baud rate 4800**
- **d- Ant 4** Push Button for **Yaesu** type FT-5000 radios and others. **Baud rate 4800**
- **e- Ant 5** Push Button for **Kenwood, Elecraft, Flex Radio,** and others. **Baud rate 4800**
- **f- Yaesu and Elecraft radios, when using a control cable with a BCD to CI-V converter, must configure the antenna switch to work with Icom Radio.**

After the choice, the **Data LED** stops blinking, this indicates the end of this procedure.

Procedure to activate Split mode:

To activate Split mode, the **RC-603WL** must be connected to the radio with the appropriate cable and the **TX Delay of the radio must be set to at least 20 ms.**

1- Press the PTT on the radio and watch the RC-603WL's Send LED light up.
2- Then, with the PTT still pressed, press and release the button of the antenna that you want to receive.
3- When PTT is released, the RC-603WL will switch to the chosen receiving antenna.

Each time you press the PTT, it returns to the transmitting antenna.
Any change of antenna or band on the radio deactivates Split mode.

Testing and using the automatic antenna selection feature of the RC-603WL and AS-61WL with a connected and selected radio:

NOTE: No computer programming, PC connection or internal changes are required. A connected radio means that it is interfaced to the RC-603WL with a cable, such as Hamplus ERC-6, IRC-6, KRC-6, YRC-6, FRC-6 or YRC-61, and the radio set to the correct baud rate (19,200 baud CI-V or 4800 baud CAT and COM) and set up as described in the previous section.
If the RC-603WL is not interfaced as described, then it may be operated as a Manual Antenna Switch.
When connected, the RC-603WL is an Automatic Band Memory Antenna Switch that may be operated manually. "Programming" automatic antenna selections are made as each different band is selected on the connected and selected radio. The initial manual selection of a specific antenna for that band is made by depressing the desired Ant button, which is then automatically memorized. There is no "SAVE" button nor is there a multi-button programming sequence. Just set the antenna by the band on the radio.
Restated, simply assign or reassign any RC-603WL Ant button number to any band by initial or subsequent manual selection. For every and any band chosen and displayed on the connected and selected radio, every time a different antenna button is manually depressed, that selection is memorized.

Here is an example of antenna memorization by band setting on the transceiver connected to and selected as Radio 1 on the RC-603WL:

1. Select 40 meters on Radio 1 and press Ant 2 on the RC-603WL (as if your 40 meters antenna is connected to the Ant 2 port on the AS-61WL)
2. Select 80 meters on Radio 1 and press Ant 1 on the RC-603WL (as if your 80 meters antenna is connected to the Ant 1 port on the AS-61WL)
3. Select 20 meters on Radio 1 and press Ant 3 on the RC-603WL (as if your 20 meters antenna is connected to the Ant 3 port on the AS-61WL) … and so on.

Now, test the automation by changing back to the 40 meters band on your radio. The RC-603WL should now automatically switch to Ant 2.
Then, select 80 meters on your radio and the RC-603WL automatically switches to Ant 1, and so on.

If automatic antenna selection by band or frequency does not occur, then reattempt the **Procedure for connecting the RC-603WL to the radio** in the section above.
Supporting the use of a multi-band antenna, the RC-603WL provides the ability to assign any single antenna port to any number of bands on the connected radio, also by initial manual selection.

For example: A 20/15/10 meters tri-band beam coaxial cable is connected to Ant 3 port on the AS-61WL.

4. Select 20 meters on the connected radio and press Ant 3 on the RC-603WL (because your tri-band antenna is connected to Ant 3 port on the AS-61WL)
5. Select 15 meters on the connected radio and press Ant 3 on the RC-603WL (because your tri-band antenna is connected to Ant 3 port on the AS-61WL)
6. Select 10 meters on the connected radio and press Ant 3 on the RC-603WL (because your tri-band antenna is connected to Ant 3 port on the AS-61WL)

Now, test the tri-bander automation by selecting any of those bands, 20, 15 and 10 meters, on your radio. The RC-603WL will now automatically stay on Ant 3, or go back to Ant 3 after selecting a band with a different band memorized.

7. Select 80 meters on your radio and the RC-603WL automatically switches to Ant 1,
8. Then, select 20 meters on your radio and the RC-603WL automatically switches back to Ant 3… and so on.

IMPORTANT FEATURE: PC interface to this antenna switch controller is not necessary. Interfaced transceivers that are also controlled locally or remotely by USB or LAN will continue to benefit from this Automatic Band Memory Antenna Switch. This smart controller method of automatic antenna selection is simply made by band or frequency selection with the radio control program.

REMINDER: Reassignment of any band or frequency to a different antenna port is simply made by manual reselection of the new antenna port number whenever the connected radio is set on that specific band or frequency. The manual change is automatically updated by the RC-603WL for only the selected radio. Simply stated, reassign any Ant # to any band by manual reselection of the new Ant # whenever the radio is set to that band.

For example, let's say that you now want to move your 40 meters antenna to the Ant 5 port on the AS-61WL. Simply select 40 meters on the connected radio and press Ant 5 on the RC-603WL, and it memorizes this change. Each time you change this radio to a 40 meters frequency, Ant 5 will now be automatically selected.

NOTE: On any given radio band, any manual antenna selection that is made, even if it happens to be incorrect, will be memorized. So, check and recheck each of your band memorized antenna selections by changing to each of the bands on your connected and selected radio and watching the RC-603WL automatically change to the correct antenna. Correct any wrong Ant # on any band by manual selection.

Remote Operation:

The **AS-603WL** can be operationally controlled through its **RS-232** serial port.
The selection of antennas and radios follow the **Hamplus HP603** protocol.

HP603 Protocol:

RS-232, 9600 baud, 8 data bits, 1 stop bit, no parity
Letter "**K**" in the first byte and commands in the next byte.

List of commands:

K0 = (zero) STATUS Request (response formatting is described below)
K1 = Activate antenna-1
K2 = Activate antenna-2
K3 = Activate antenna-3
K4 = Activate antenna-4
K5 = Activate antenna-5
K6 = Activate antenna-6
K7 = Switch to radio-1
K8 = Switch to radio-2
K9 = Switch to radio-3
KA = Activates SPLIT by placing antenna-1 as RX
KB = Activates SPLIT by placing antenna-2 as RX
KC = Activates SPLIT by placing antenna-3 as RX
KD = Activates SPLIT by placing antenna-4 as RX
KE = Activates SPLIT by placing antenna-5 as RX
KF = Activates SPLIT by placing antenna-6 as RX

Format of the response to the STATUS request (K0):

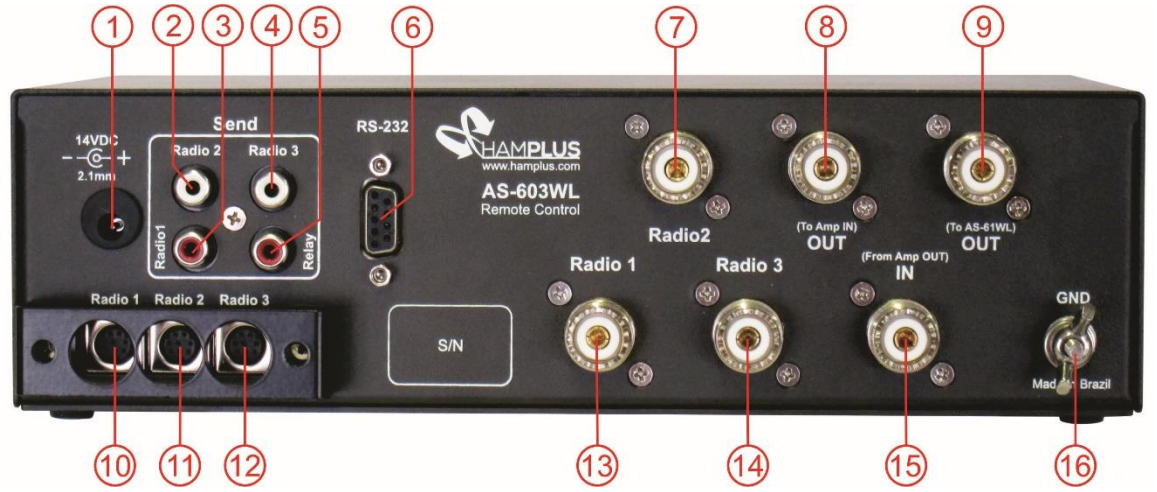
First Byte (U2)
Bit-0 = Set if Antenna-1 is connected
Bit-1 = Set if Antenna-2 is connected
Bit-2 = Set if Antenna-3 is connected
Bit-3 = Set if Antenna-4 is connected
Bit-4 = Set if Antenna-5 is connected
Bit-5 = Set if Antenna-6 is connected
Bit-6 = Set if on radio-1
Bit-7 = Set if on radio-2

Second Byte (U3)
Bit-0 = Set if on radio-3
Bit-1 = Set if SPLIT mode active
Bit-2 = PTT - set if enabled
Bit-3 = not used
Bit-4 = not used
Bit-5 = not used
Bit-6 = not used
Bit-7 = not used

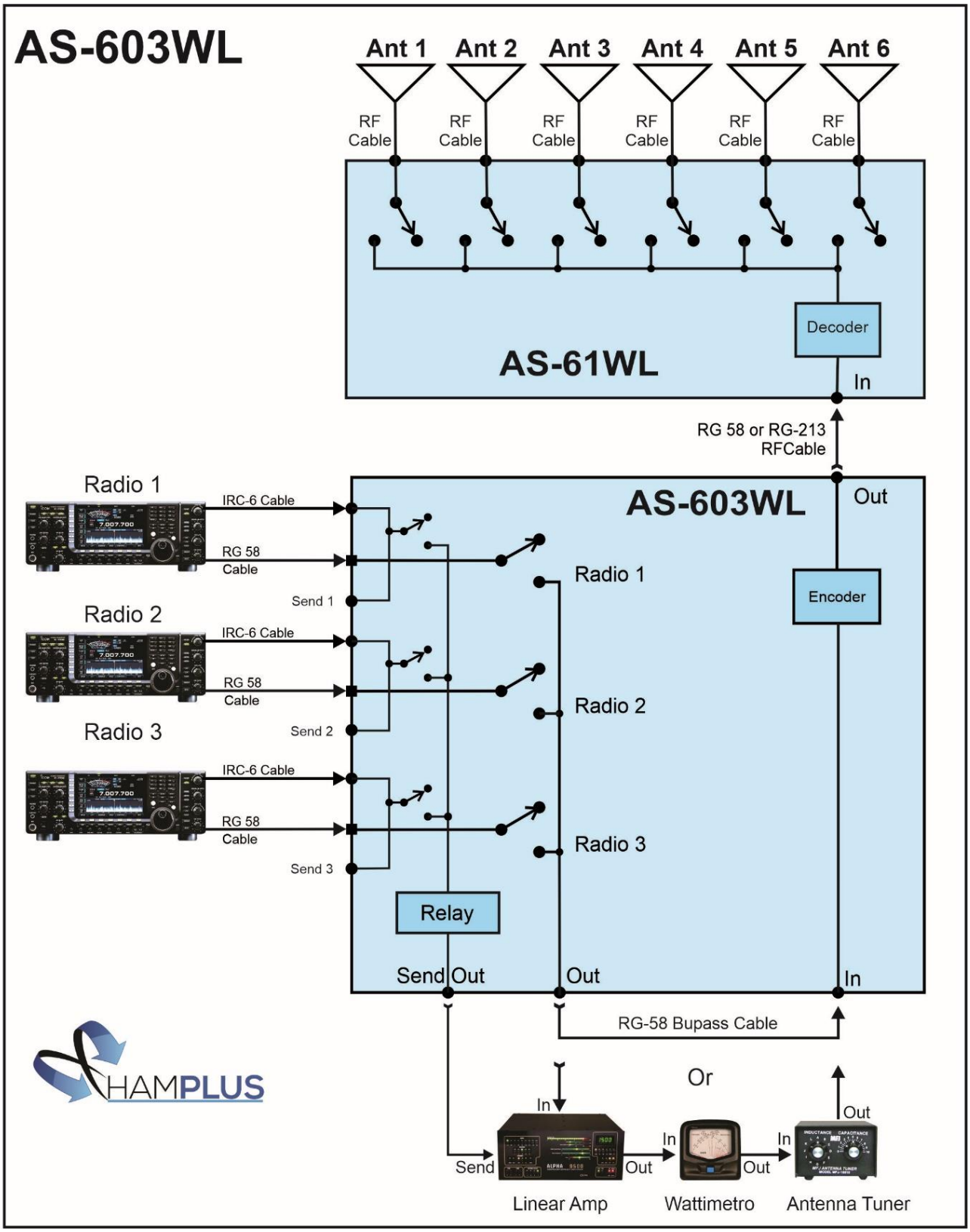
STATUS is retransmitted by **UART via RS-232** with the following format:
"**ST**=" + STATUS **byte-1** + STATUS **byte-2** + **0x0D** + **0x0A**

Note: In commands only the letter "**K**" (first byte) can be **upper** or **lower** case, the other bytes of the commands are **just numbers** or **uppercase letters.**

----------x----------



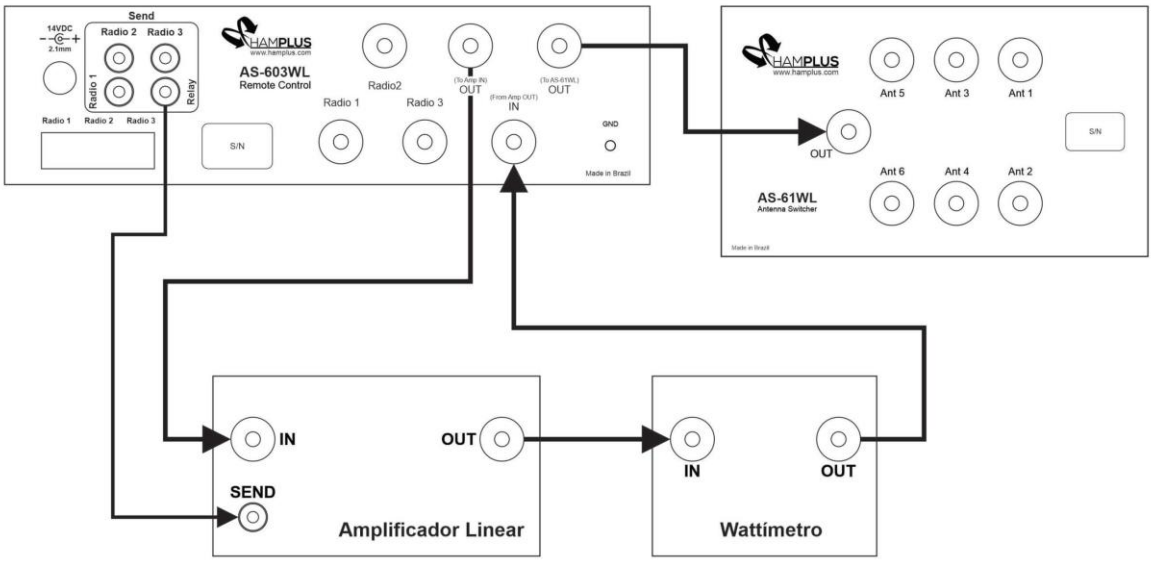
1- Auxiliar Power Supply In 13.8 VDC
2- Radio2 Send In/Out
3- Radio1 Send In/Out
4- Radio3 Send In/Out
5- Switched Relay Send Out
6- RS-232 Serial Port
7- RF from Radio 2
8- RF Out to Linear Amp. In
9- RF + DC + Com Out to AS-61WL
10- Control Cable to Radio 1
11- Control Cable to Radio 2
12- RF from Radio 1
13- RF from Radio 2
14- RF from Radio 3
15- RF In from Linear Amp. Out
16- GND


AS-603WL
Ant 1
Ant 2
Ant 3
Ant 4
Ant 5
Ant 6
RF Cable
Decoder
AS-61WL
In
RG 58 or RG-213 RFCable
Out
AS-603WL
Radio 1
IRC-6 Cable
RG 58 Cable
Send 1
Radio 2
Send 2
Radio 3
Send 3
Encoder
Relay
Send
Out
In
RG-58 Bupass Cable
Or
Linear Amp
Wattimetro
Antenna Tuner
HAMPLUS

Bypass Cable

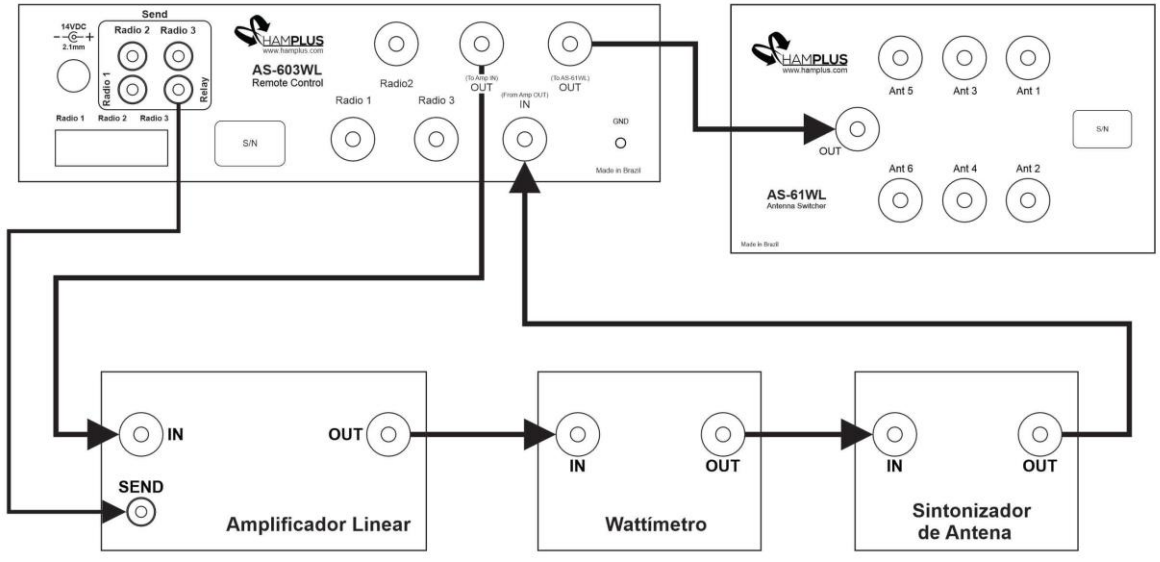
- Connect the Bypass cable or the Linear Amplifier.

Conexão de Amplificador Linear e Wattímetro



Date:	25 / 10 / 2022	By:	Valmor
Filename:	DI-AS603WL-Lin-Watt	Rev.:	1.0

Conexão de Amplificador Linear, Wattímetro e Sintonizador de Antena



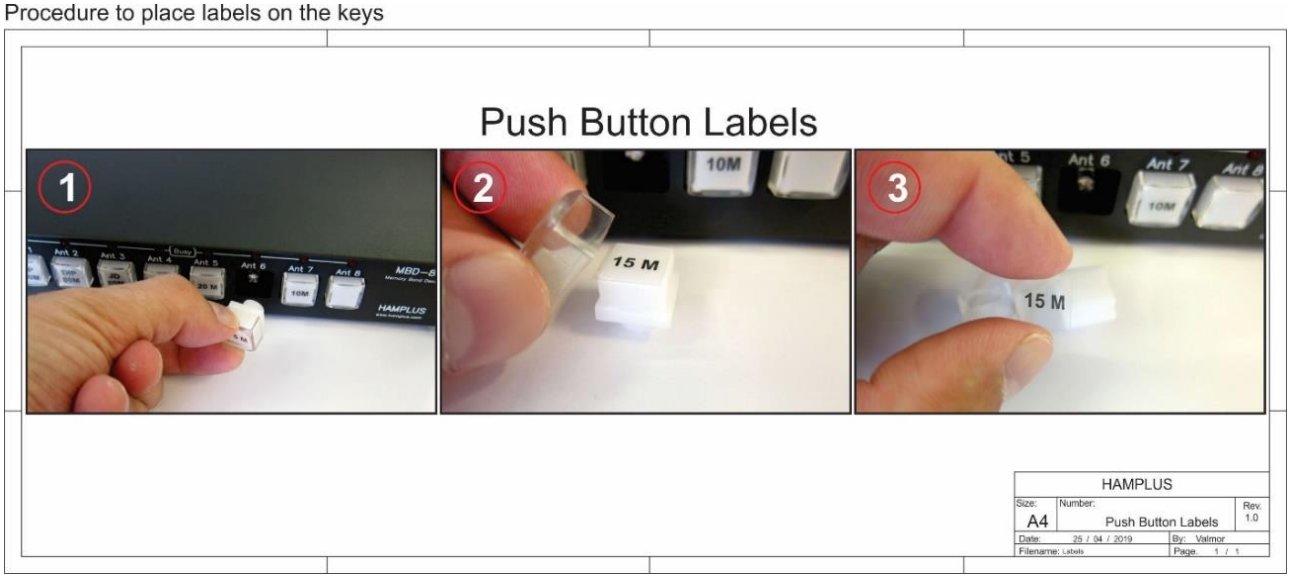
Date:	25 / 10 / 2022	By:	Valmor
Filename:	DI-AS603WL-Lin-Watt-Tuner	Rev.:	1.0

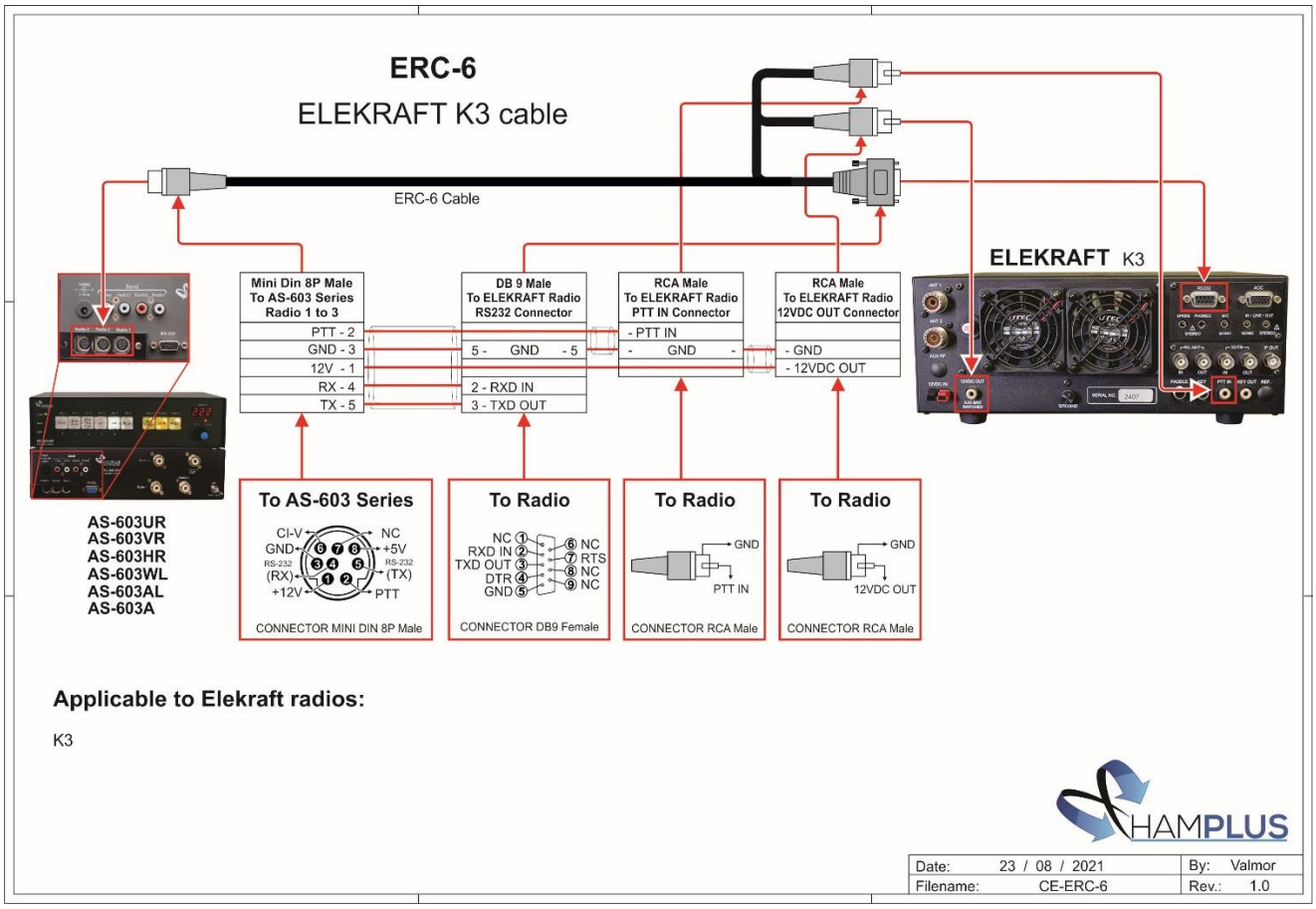
Labels for identifying buttons

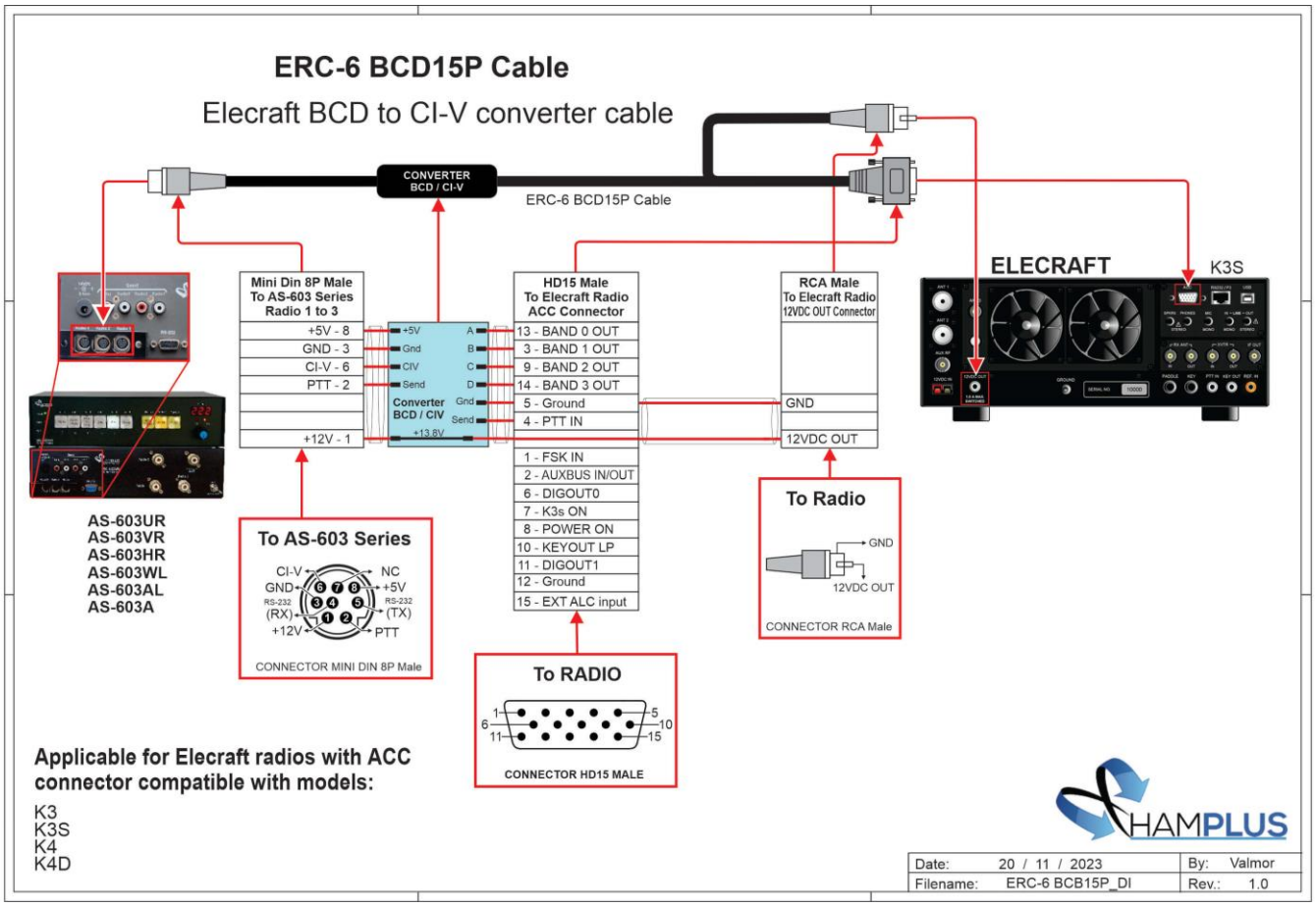
160 m	80 m	40 m	30 m	20 m	18 m	17 m	15 m	12 m	10 m	6 m
2 m	70 cm	80 m 160 m	80 m 40 m	20 m 15 m 10 m	LOG	MULTI BANDA	MOSLEY	TA33	YAGI	FOUR SQUERE
IC 718	IC 756	IC 7100	IC 7300	IC 7600	IC 7610	IC 7700	IC 7800	IC 7850	IC 7851	FT 450
FT 450D	FT 817	FT 817ND	FT 847	FT 857	FT 857D	FT 897	FT 920	FT 950	FT 991	FT 991A
FT 1000	FT 1000MP	FT 2000	FT 2000D	FTDX 10	FTDX 101D	FTDX 101MP	FTDX 1200	FTDX 3000	FTDX 3000D	FTDX 5000
FTDX 5000MP	FTDX 9000D	K3	K3 1	K3 2	K3 3	YAESU	YAESU 1	YAESU 2	YAESU 3	ICOM
ICOM 1	ICOM 2	ICOM 3	FLEX	FLEX 1	FLEX 2	FLEX 3	KEN WOOD	KEN WOOD 1	KEN WOOD 2	KEN WOOD 3

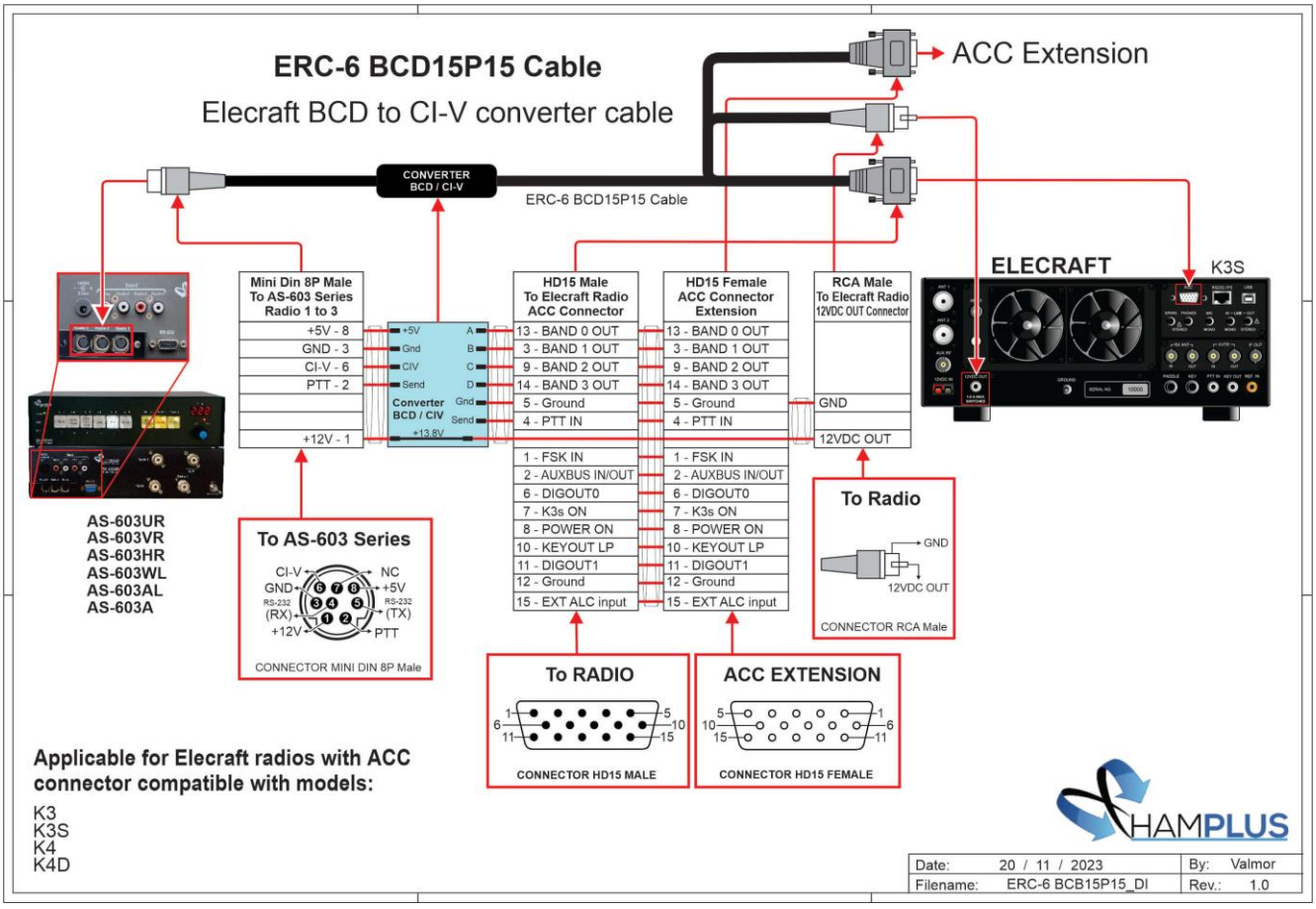
Printable file available on the website www.hamplus.com on the product page in downloads.

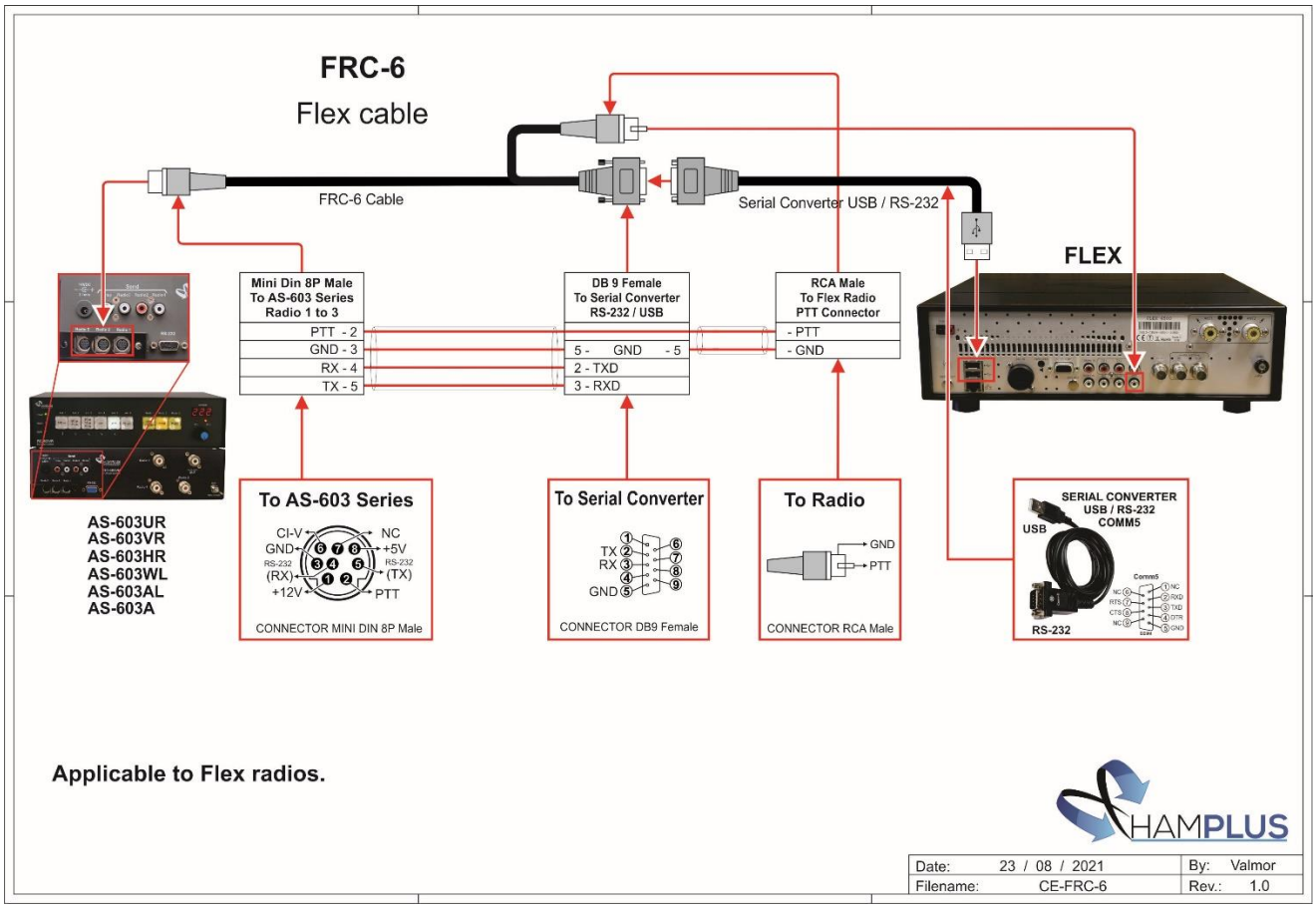
Procedure to place labels on the keys

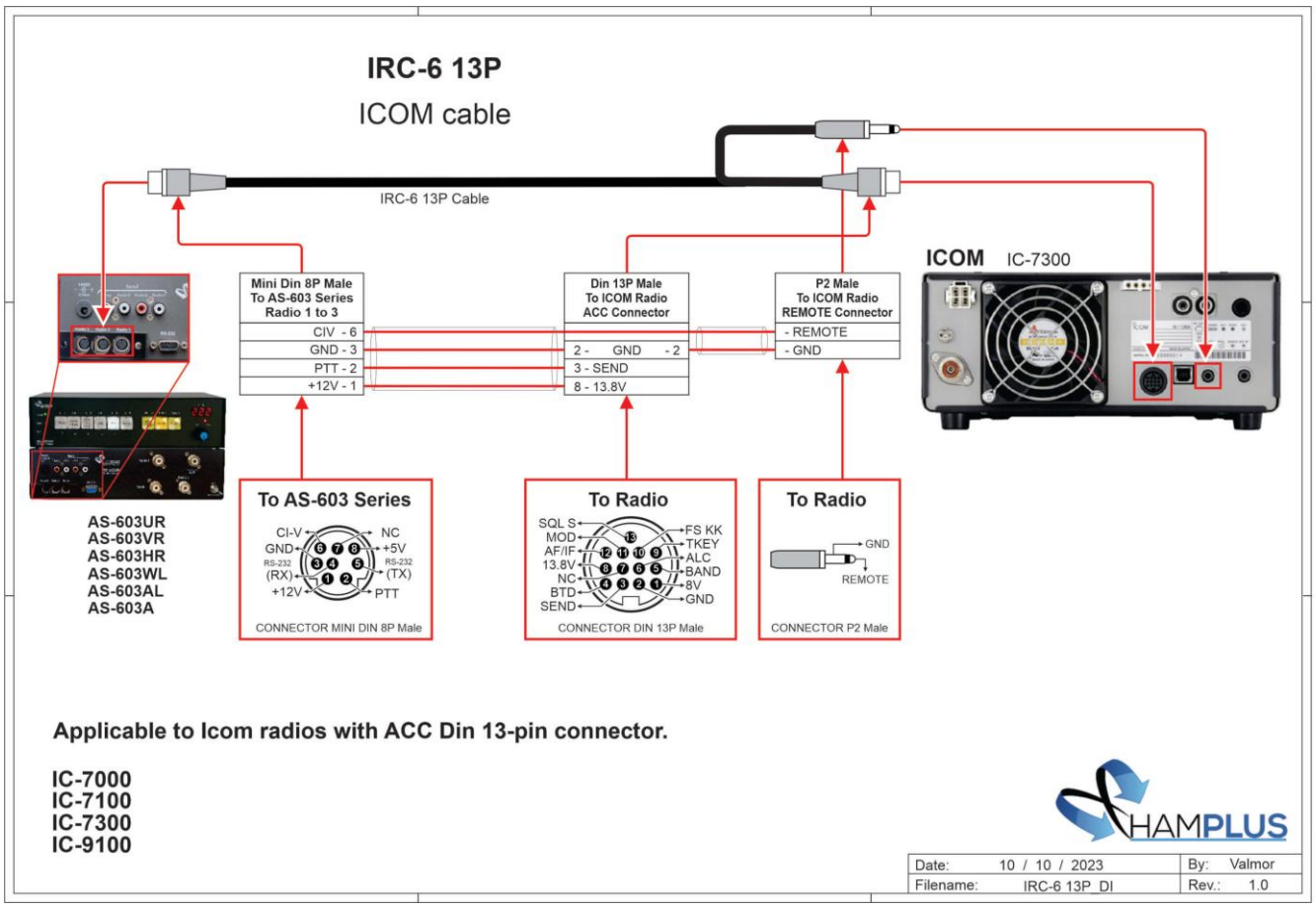


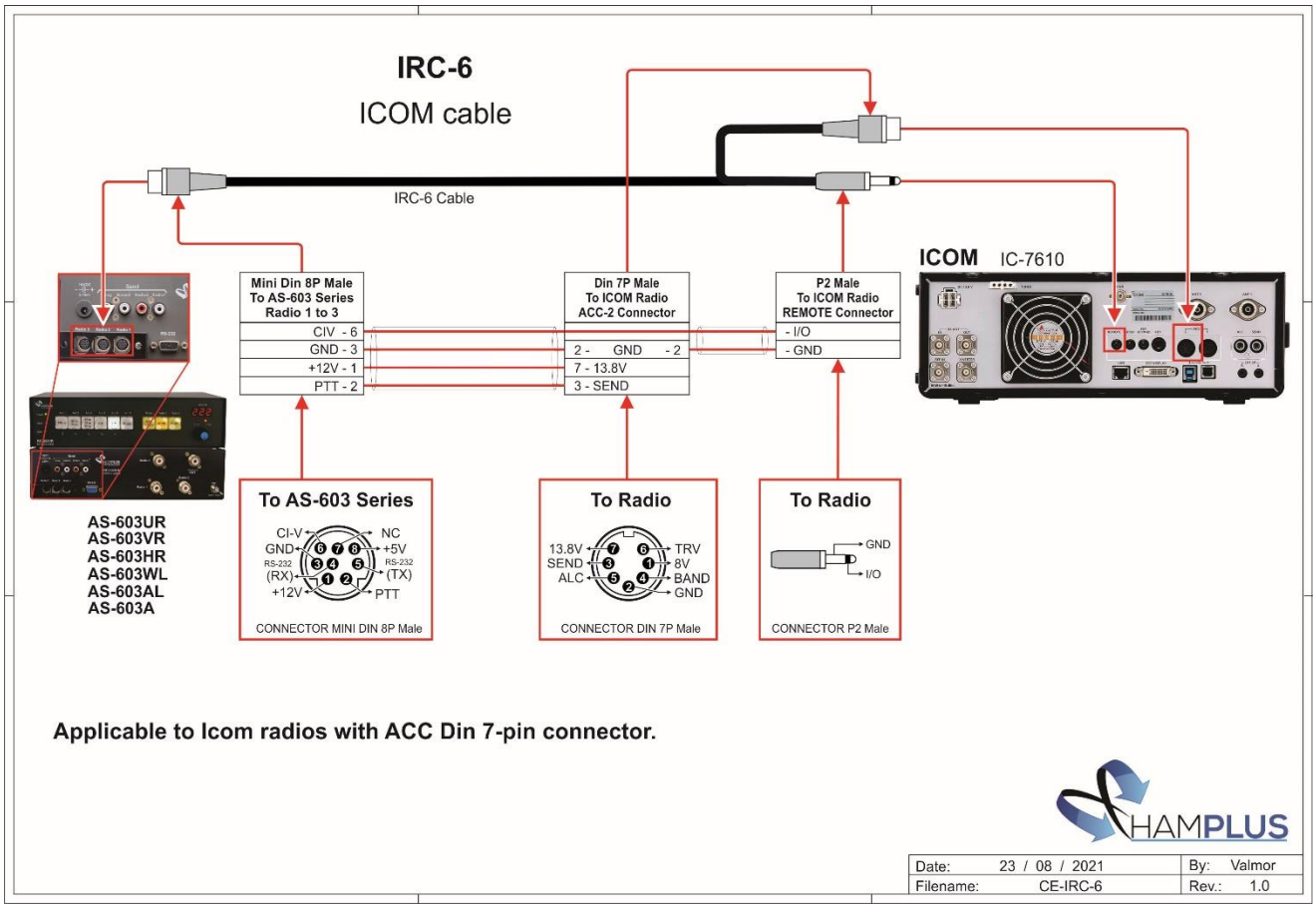

ERC-6
ELEKRAFT K3 cable
ERC-6 Cable
ELEKRAFT K3
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
PTT - 2
GND - 3
12V - 1
RX - 4
TX - 5
DB 9 Male
To ELEKRAFT Radio
RS232 Connector
5 - GND - 5
2 - RXD IN
3 - TXD OUT
RCA Male
To ELEKRAFT Radio
PTT IN Connector
- PTT IN
- GND -
RCA Male
To ELEKRAFT Radio
12VDC OUT Connector
- GND
- 12VDC OUT
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CONNECTOR MINI DIN 8P Male
To Radio
CONNECTOR DB9 Female
To Radio
PTT IN
CONNECTOR RCA Male
To Radio
12VDC OUT
CONNECTOR RCA Male
Applicable to Elekraft radios:
K3
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: CE-ERC-6
Rev.: 1.0

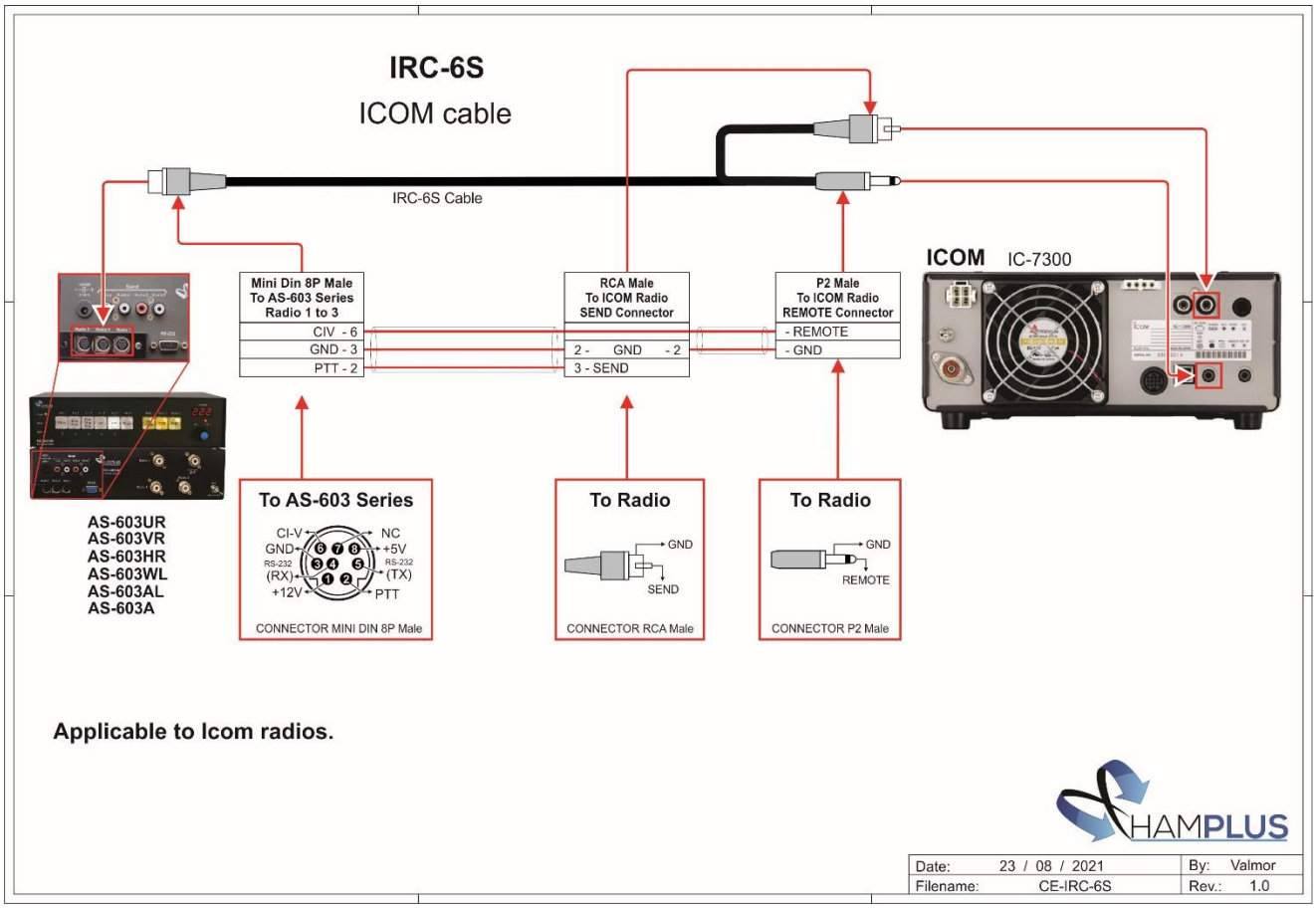

ERC-6 BCD15P Cable
Elecraft BCD to CI-V converter cable
CONVERTER BCD / CI-V
ERC-6 BCD15P Cable
ELECRAFT
K3S
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
HD15 Male To Elecraft Radio ACC Connector
13 - BAND 0 OUT
3 - BAND 1 OUT
9 - BAND 2 OUT
14 - BAND 3 OUT
5 - Ground
4 - PTT IN
1 - FSK IN
2 - AUXBUS IN/OUT
6 - DIGOUT0
7 - K3s ON
8 - POWER ON
10 - KEYOUT LP
11 - DIGOUT1
12 - Ground
15 - EXT ALC input
RCA Male To Elecraft Radio 12VDC OUT Connector
GND
12VDC OUT
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To Radio
GND
12VDC OUT
CONNECTOR RCA Male
To RADIO
1
5
6
10
11
15
CONNECTOR HD15 MALE
Applicable for Elecraft radios with ACC connector compatible with models:
K3
K3S
K4
K4D
HAMPLUS
Date: 20 / 11 / 2023
By: Valmor
Filename: ERC-6 BCB15P_DI
Rev.: 1.0

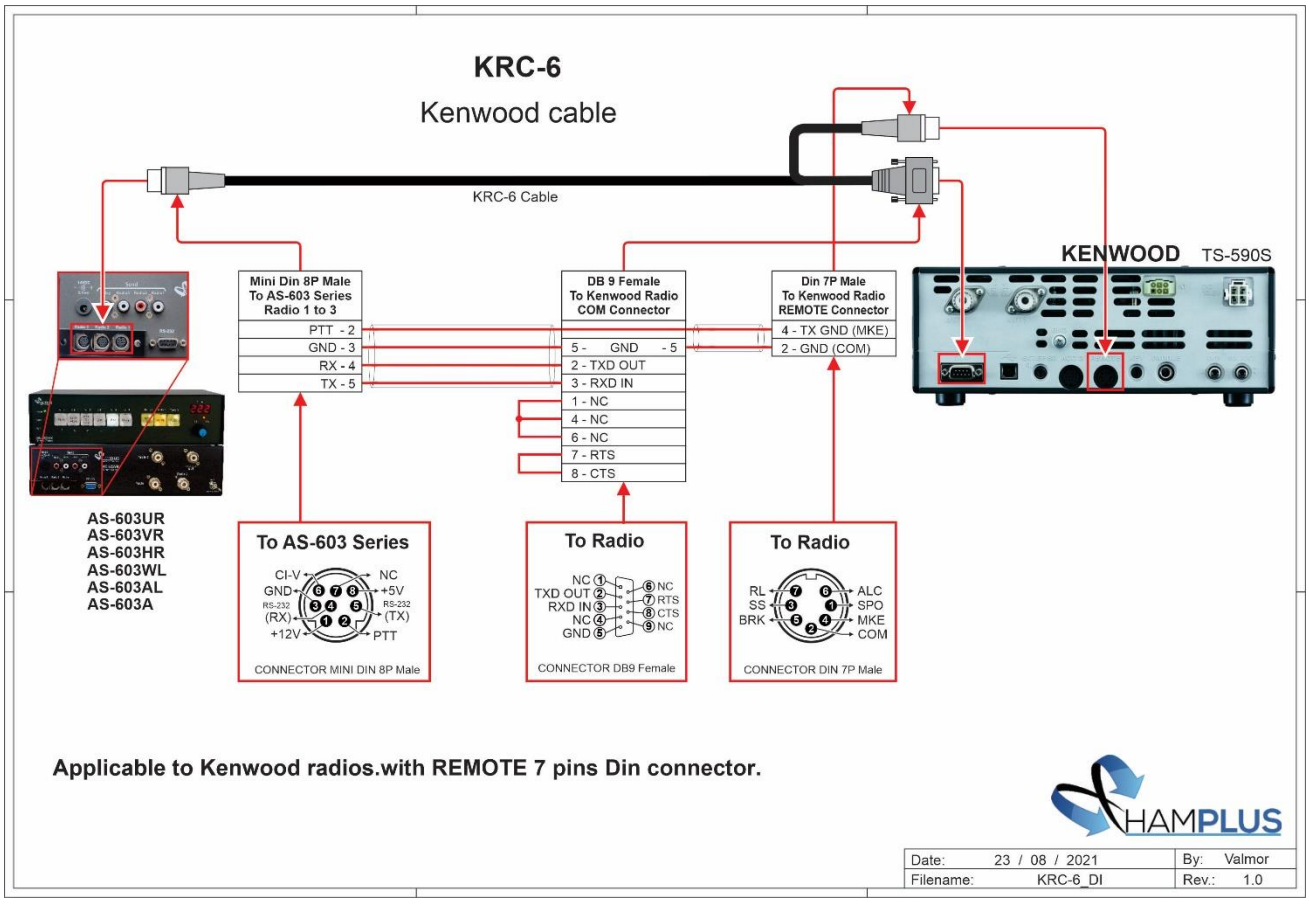

ERC-6 BCD15P15 Cable
Elecraft BCD to CI-V converter cable
ACC Extension
CONVERTER BCD / CI-V
ERC-6 BCD15P15 Cable
ELECRAFT
K3S
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
HD15 Male To Elecraft Radio ACC Connector
13 - BAND 0 OUT
3 - BAND 1 OUT
9 - BAND 2 OUT
14 - BAND 3 OUT
5 - Ground
4 - PTT IN
1 - FSK IN
2 - AUXBUS IN/OUT
6 - DIGOUT0
7 - K3s ON
8 - POWER ON
10 - KEYOUT LP
11 - DIGOUT1
12 - Ground
15 - EXT ALC input
HD15 Female ACC Connector Extension
13 - BAND 0 OUT
3 - BAND 1 OUT
9 - BAND 2 OUT
14 - BAND 3 OUT
5 - Ground
4 - PTT IN
1 - FSK IN
2 - AUXBUS IN/OUT
6 - DIGOUT0
7 - K3s ON
8 - POWER ON
10 - KEYOUT LP
11 - DIGOUT1
12 - Ground
15 - EXT ALC input
RCA Male To Elecraft Radio 12VDC OUT Connector
GND
12VDC OUT
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To Radio
GND
12VDC OUT
CONNECTOR RCA Male
To RADIO
CONNECTOR HD15 MALE
ACC EXTENSION
CONNECTOR HD15 FEMALE
Applicable for Elecraft radios with ACC connector compatible with models:
K3
K3S
K4
K4D
HAMPLUS
Date: 20 / 11 / 2023
By: Valmor
Filename: ERC-6 BCB15P15_DI
Rev.: 1.0

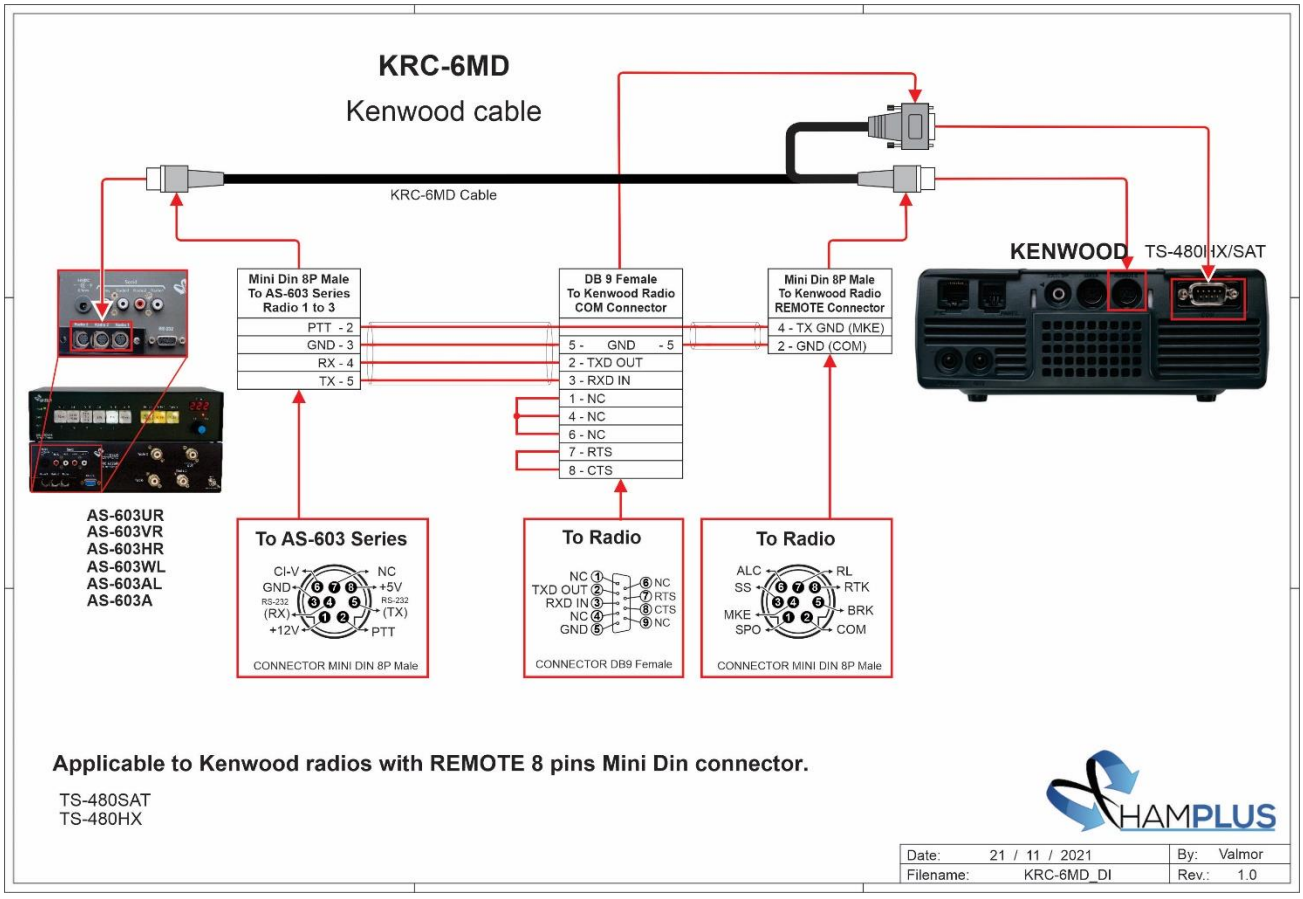

FRC-6
Flex cable
FRC-6 Cable
Serial Converter USB / RS-232
FLEX
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
PTT - 2
GND - 3
RX - 4
TX - 5
DB 9 Female
To Serial Converter
RS-232 / USB
5 - GND - 5
2 - TXD
3 - RXD
RCA Male
To Flex Radio
PTT Connector
- PTT
- GND
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To Serial Converter
TX
RX
GND
CONNECTOR DB9 Female
To Radio
GND
PTT
CONNECTOR RCA Male
SERIAL CONVERTER
USB / RS-232
COMM5
USB
RS-232
Applicable to Flex radios.
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: CE-FRC-6
Rev.: 1.0

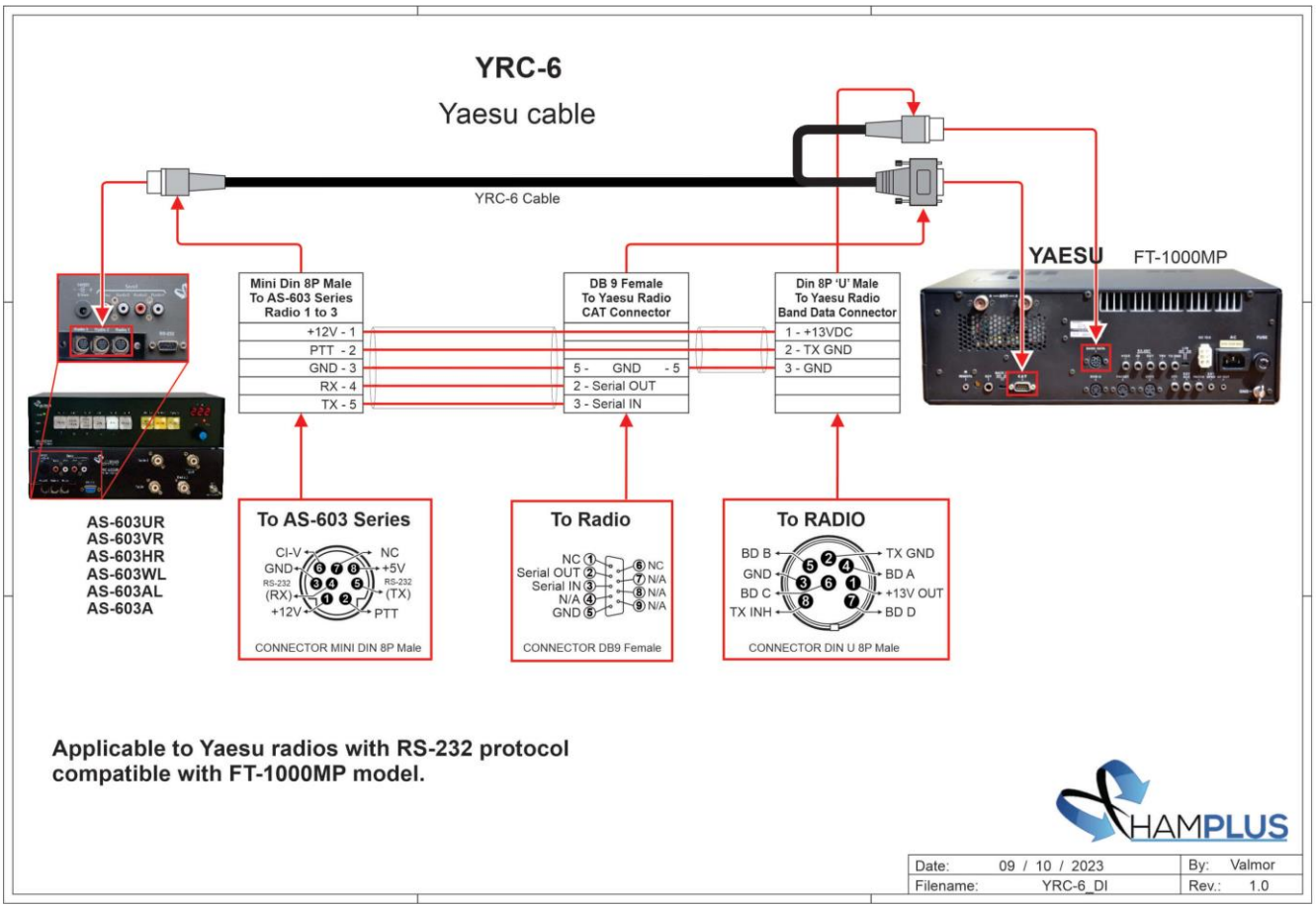

IRC-6 13P
ICOM cable
IRC-6 13P Cable
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
CIV - 6
GND - 3
PTT - 2
+12V - 1
Din 13P Male
To ICOM Radio
ACC Connector
2 - GND - 2
3 - SEND
8 - 13.8V
P2 Male
To ICOM Radio
REMOTE Connector
- REMOTE
- GND
ICOM IC-7300
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To Radio
SQL S
MOD
AF/IF
13.8V
NC
BTD
SEND
FS KK
TKEY
ALC
BAND
8V
GND
CONNECTOR DIN 13P Male
To Radio
GND
REMOTE
CONNECTOR P2 Male
Applicable to Icom radios with ACC Din 13-pin connector.
IC-7000
IC-7100
IC-7300
IC-9100
HAMPLUS
Date: 10 / 10 / 2023
By: Valmor
Filename: IRC-6 13P_DI
Rev.: 1.0

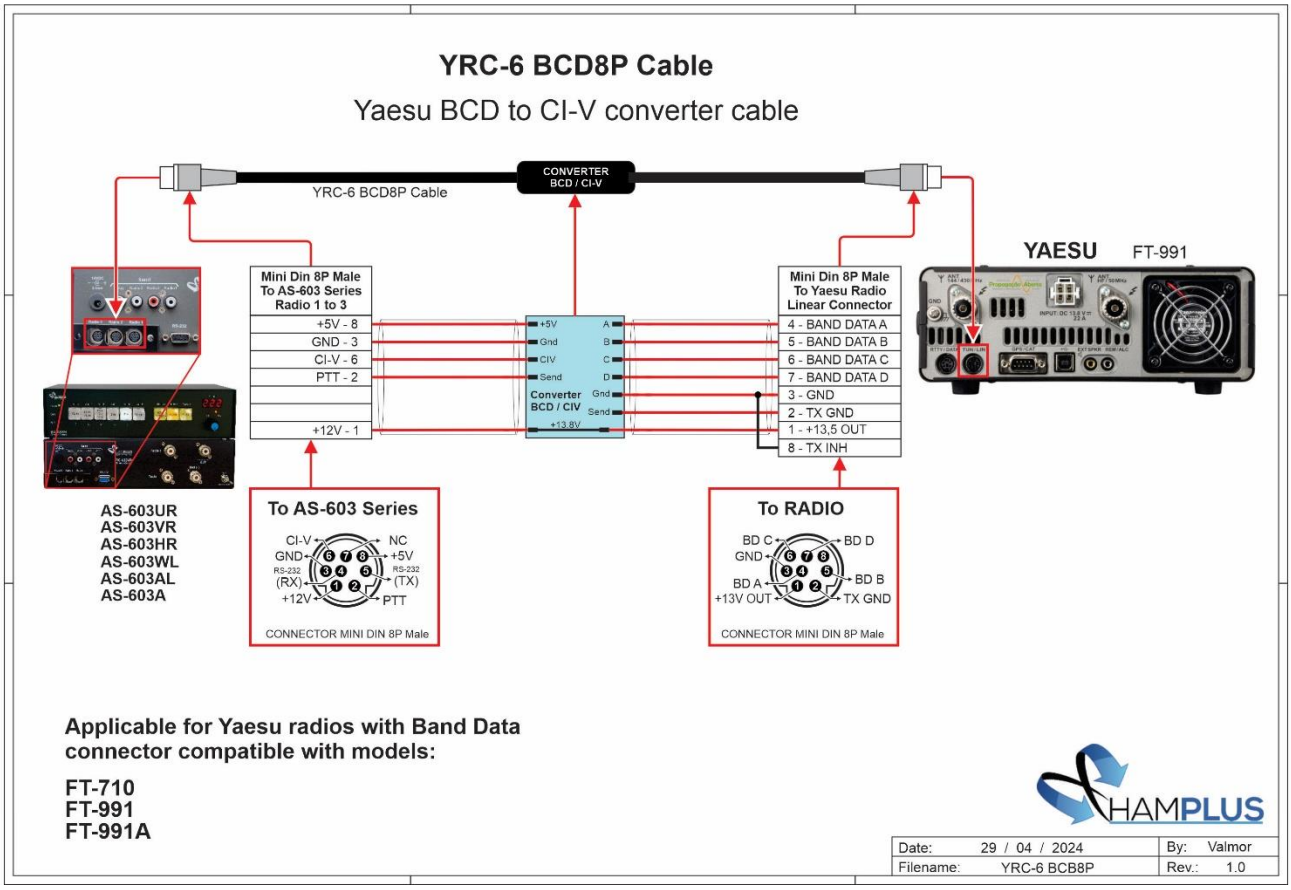

IRC-6
ICOM cable
IRC-6 Cable
ICOM IC-7610
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
CIV - 6
GND - 3
+12V - 1
PTT - 2
Din 7P Male
To ICOM Radio
ACC-2 Connector
2 - GND - 2
7 - 13.8V
3 - SEND
P2 Male
To ICOM Radio
REMOTE Connector
- I/O
- GND
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To Radio
13.8V
SEND
ALC
TRV
8V
BAND
GND
CONNECTOR DIN 7P Male
To Radio
GND
I/O
CONNECTOR P2 Male
Applicable to Icom radios with ACC Din 7-pin connector.
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: CE-IRC-6
Rev.: 1.0

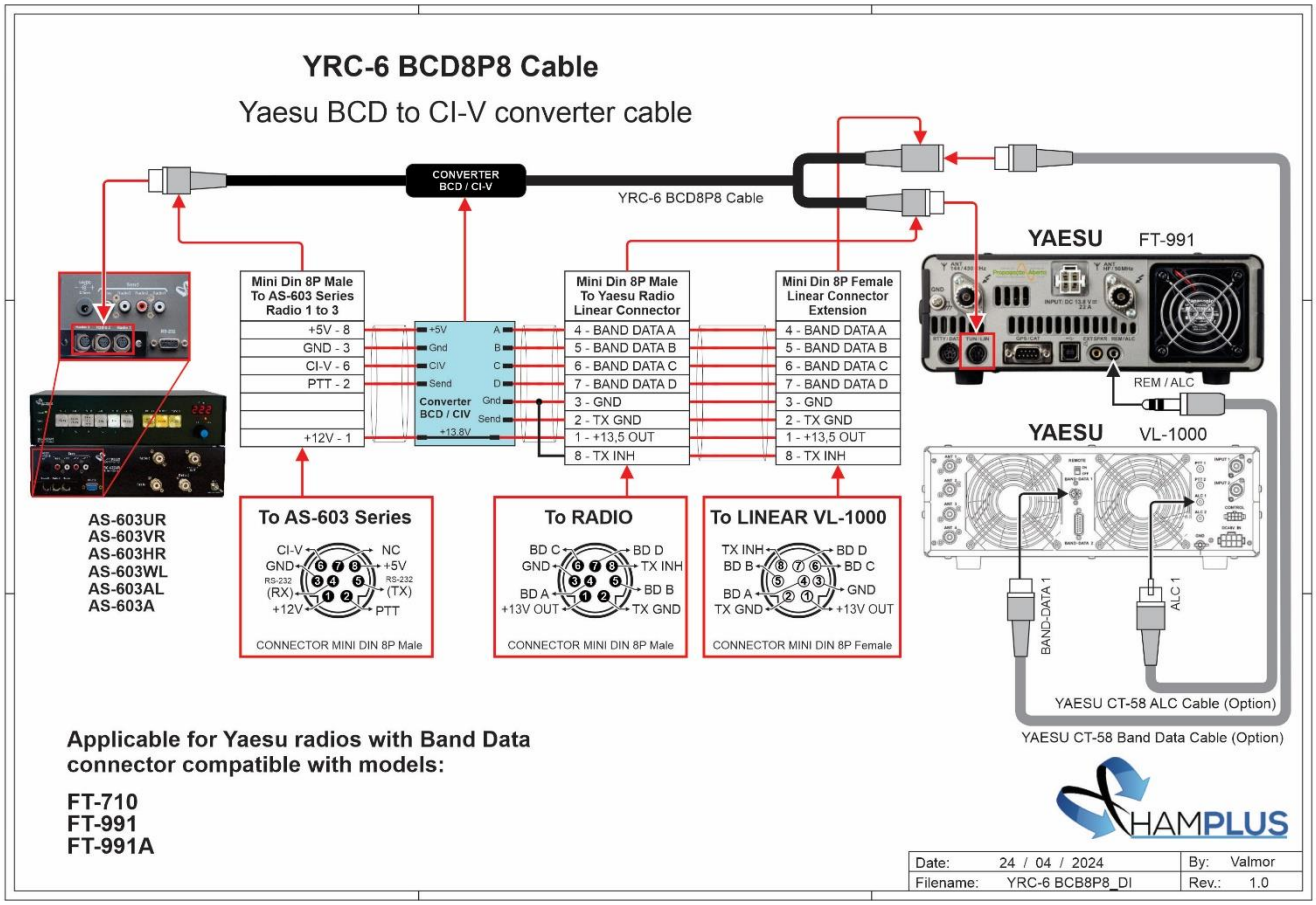

IRC-6S
ICOM cable
IRC-6S Cable
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
CIV - 6
GND - 3
PTT - 2
RCA Male
To ICOM Radio
SEND Connector
2 - GND - 2
3 - SEND
P2 Male
To ICOM Radio
REMOTE Connector
- REMOTE
- GND
ICOM IC-7300
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To Radio
GND
SEND
CONNECTOR RCA Male
To Radio
GND
REMOTE
CONNECTOR P2 Male
Applicable to Icom radios.
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: CE-IRC-6S
Rev.: 1.0

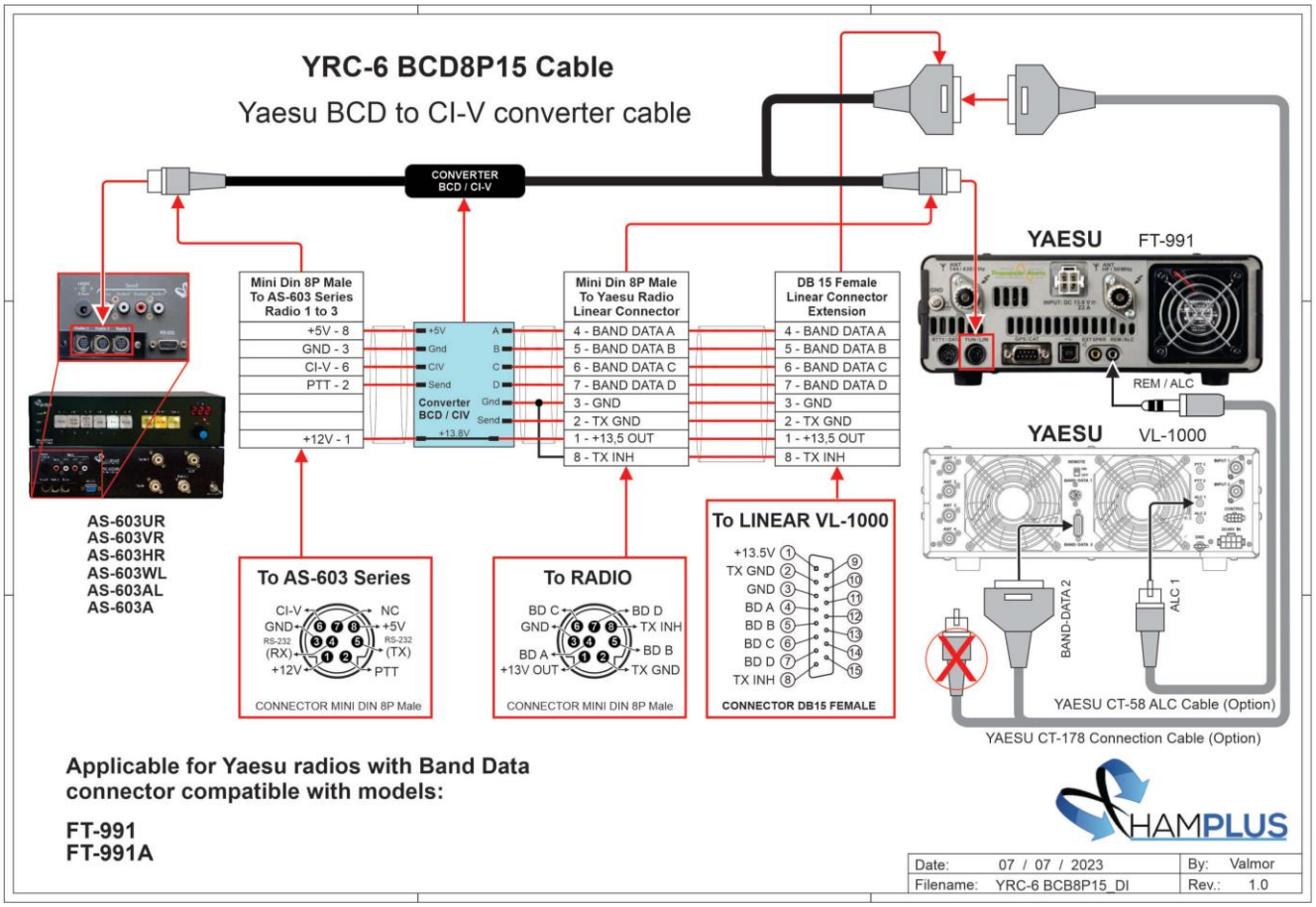

KRC-6
Kenwood cable
KRC-6 Cable
KENWOOD TS-590S
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
PTT - 2
GND - 3
RX - 4
TX - 5
DB 9 Female
To Kenwood Radio
COM Connector
5 - GND - 5
2 - TXD OUT
3 - RXD IN
1 - NC
4 - NC
6 - NC
7 - RTS
8 - CTS
Din 7P Male
To Kenwood Radio
REMOTE Connector
4 - TX GND (MKE)
2 - GND (COM)
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CONNECTOR MINI DIN 8P Male
To Radio
CONNECTOR DB9 Female
To Radio
CONNECTOR DIN 7P Male
Applicable to Kenwood radios.with REMOTE 7 pins Din connector.
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: KRC-6_DI
Rev.: 1.0

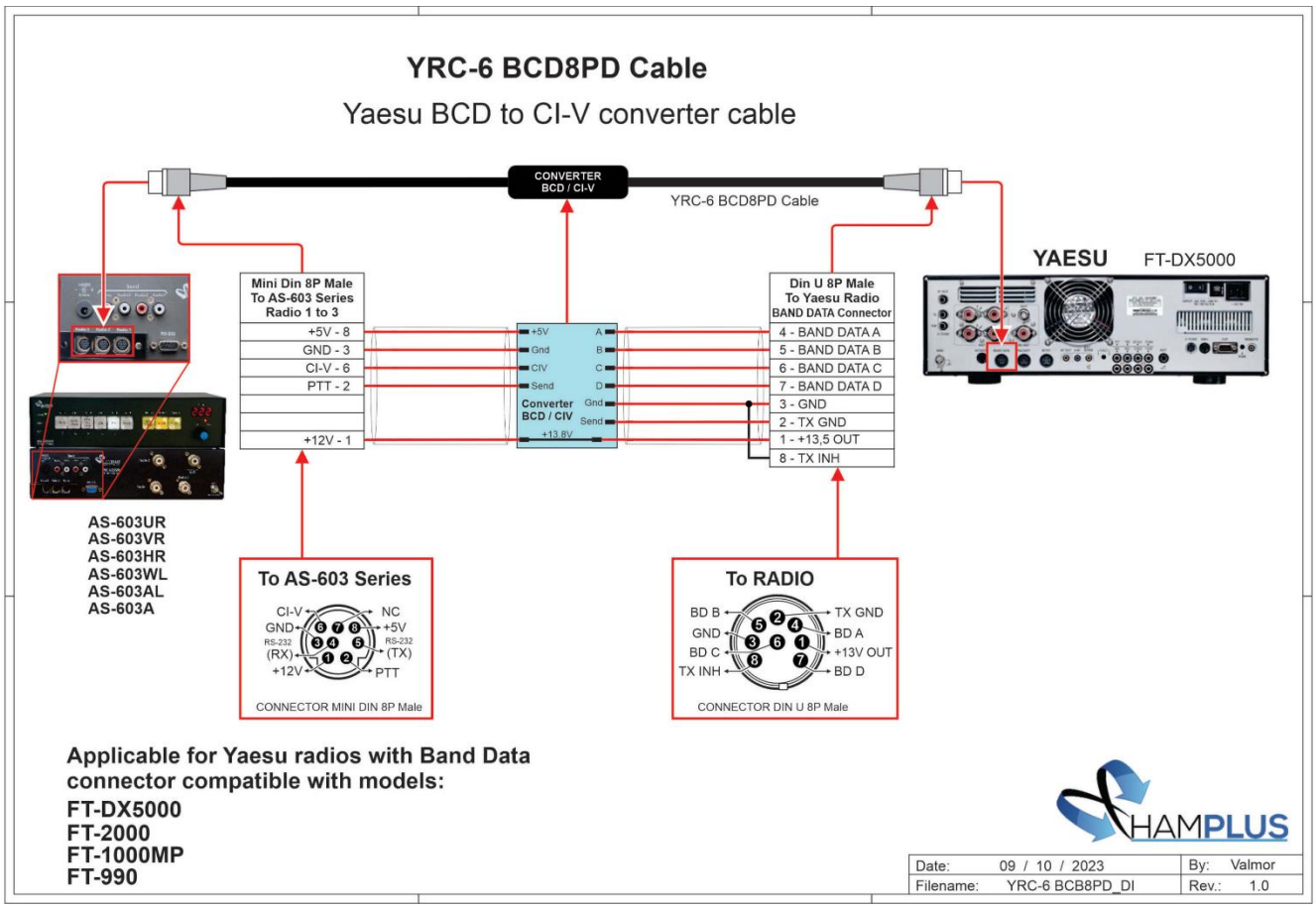

KRC-6MD
Kenwood cable
KRC-6MD Cable
KENWOOD TS-480HX/SAT
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
PTT - 2
GND - 3
RX - 4
TX - 5
DB 9 Female
To Kenwood Radio
COM Connector
5 - GND - 5
2 - TXD OUT
3 - RXD IN
1 - NC
4 - NC
6 - NC
7 - RTS
8 - CTS
Mini Din 8P Male
To Kenwood Radio
REMOTE Connector
4 - TX GND (MKE)
2 - GND (COM)
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To Radio
NC
TXD OUT
RXD IN
NC
GND
NC
RTS
CTS
NC
CONNECTOR DB9 Female
To Radio
ALC
SS
MKE
SPO
RL
RTK
BRK
COM
CONNECTOR MINI DIN 8P Male
Applicable to Kenwood radios with REMOTE 8 pins Mini Din connector.
TS-480SAT
TS-480HX
HAMPLUS
Date: 21 / 11 / 2021
By: Valmor
Filename: KRC-6MD_DI
Rev.: 1.0

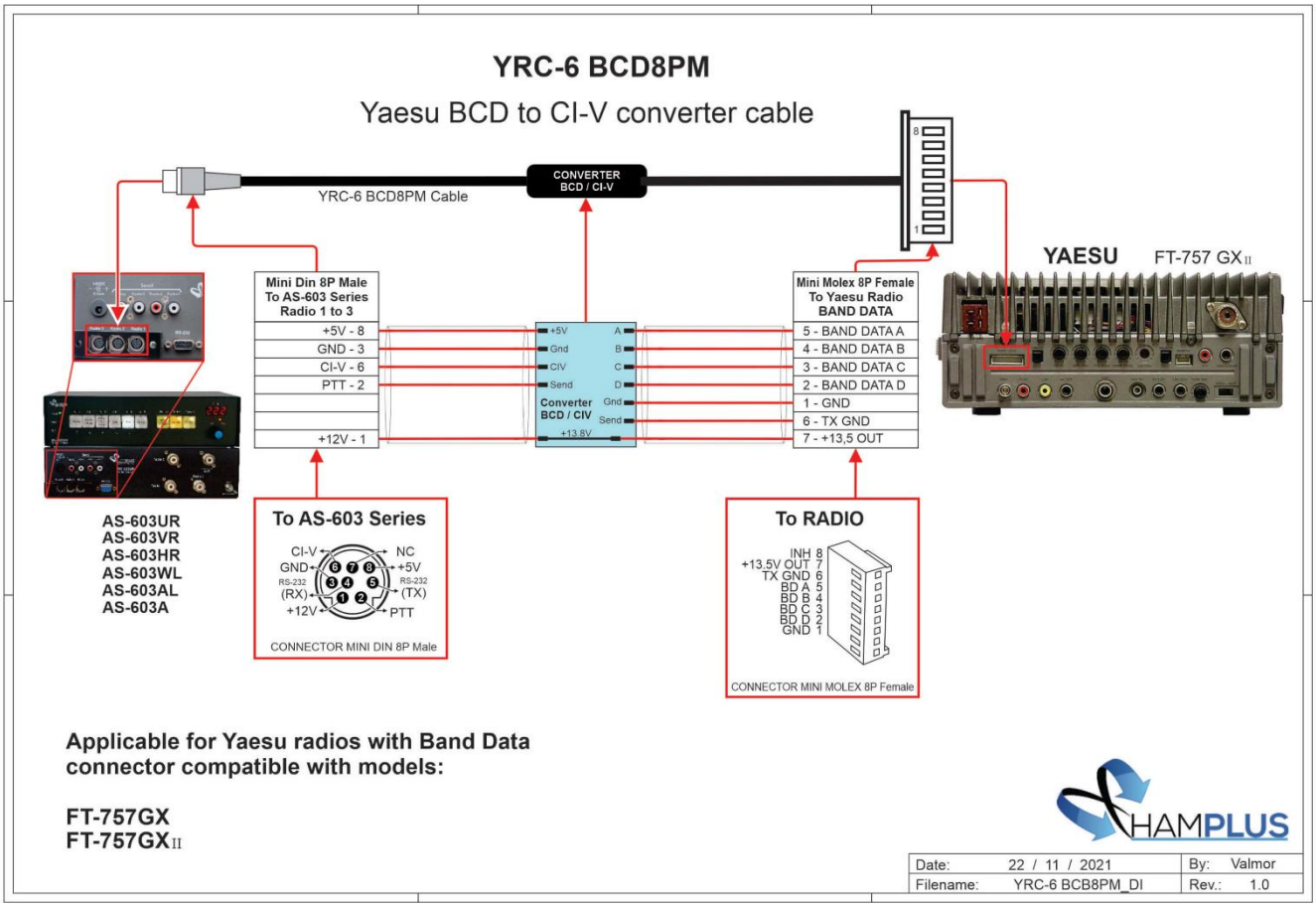

YRC-6
Yaesu cable
YRC-6 Cable
YAESU
FT-1000MP
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
+12V - 1
PTT - 2
GND - 3
RX - 4
TX - 5
DB 9 Female
To Yaesu Radio
CAT Connector
5 - GND - 5
2 - Serial OUT
3 - Serial IN
Din 8P 'U' Male
To Yaesu Radio
Band Data Connector
1 - +13VDC
2 - TX GND
3 - GND
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CONNECTOR MINI DIN 8P Male
To Radio
CONNECTOR DB9 Female
To RADIO
CONNECTOR DIN U 8P Male
Applicable to Yaesu radios with RS-232 protocol
compatible with FT-1000MP model.
HAMPLUS
Date: 09 / 10 / 2023
By: Valmor
Filename: YRC-6_DI
Rev.: 1.0

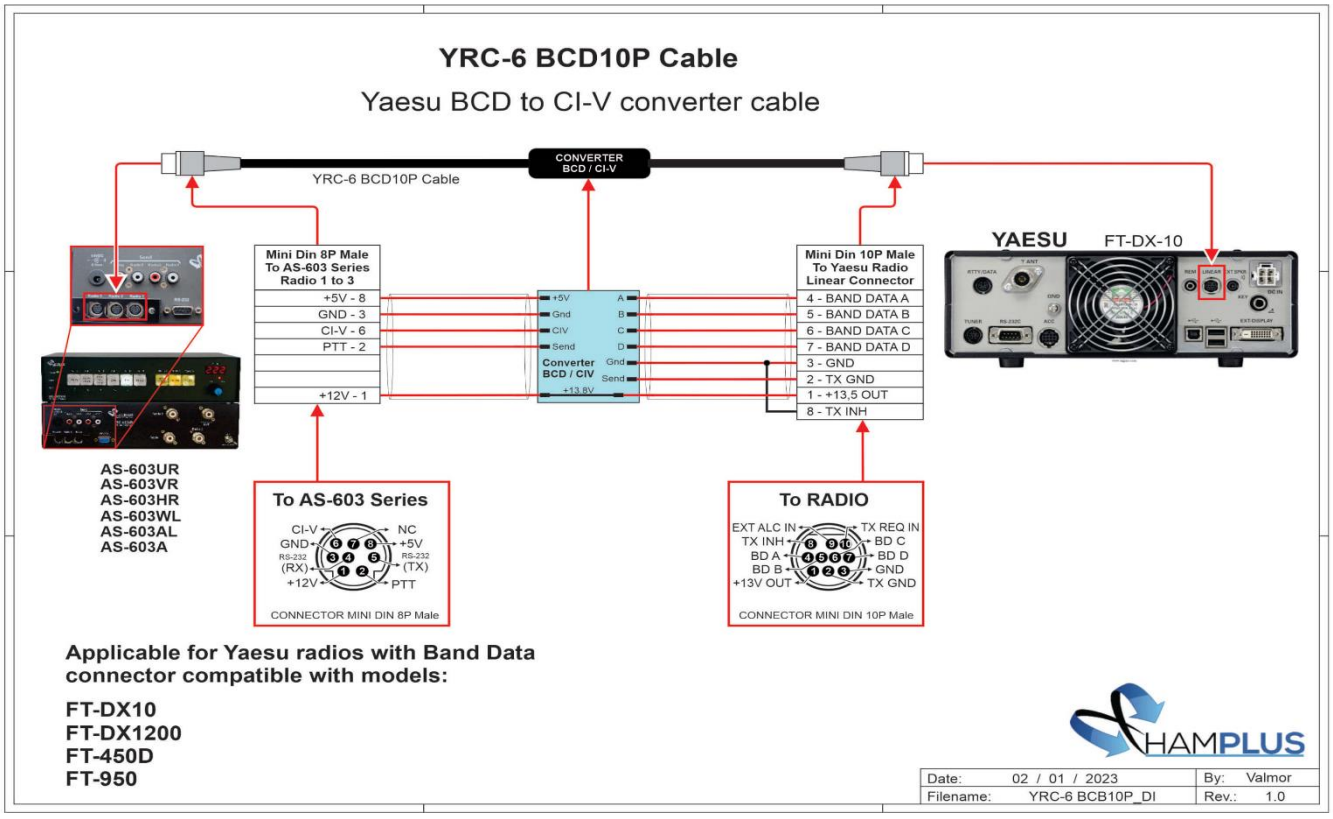

YRC-6 BCD8P Cable
Yaesu BCD to CI-V converter cable
CONVERTER
BCD / CI-V
YRC-6 BCD8P Cable
YAESU
FT-991
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter
BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
Mini Din 8P Male
To Yaesu Radio
Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
BD C
GND
BD A
+13V OUT
BD D
BD B
TX GND
CONNECTOR MINI DIN 8P Male
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-710
FT-991
FT-991A
HAMPLUS
Date: 29 / 04 / 2024
By: Valmor
Filename: YRC-6 BCB8P
Rev.: 1.0

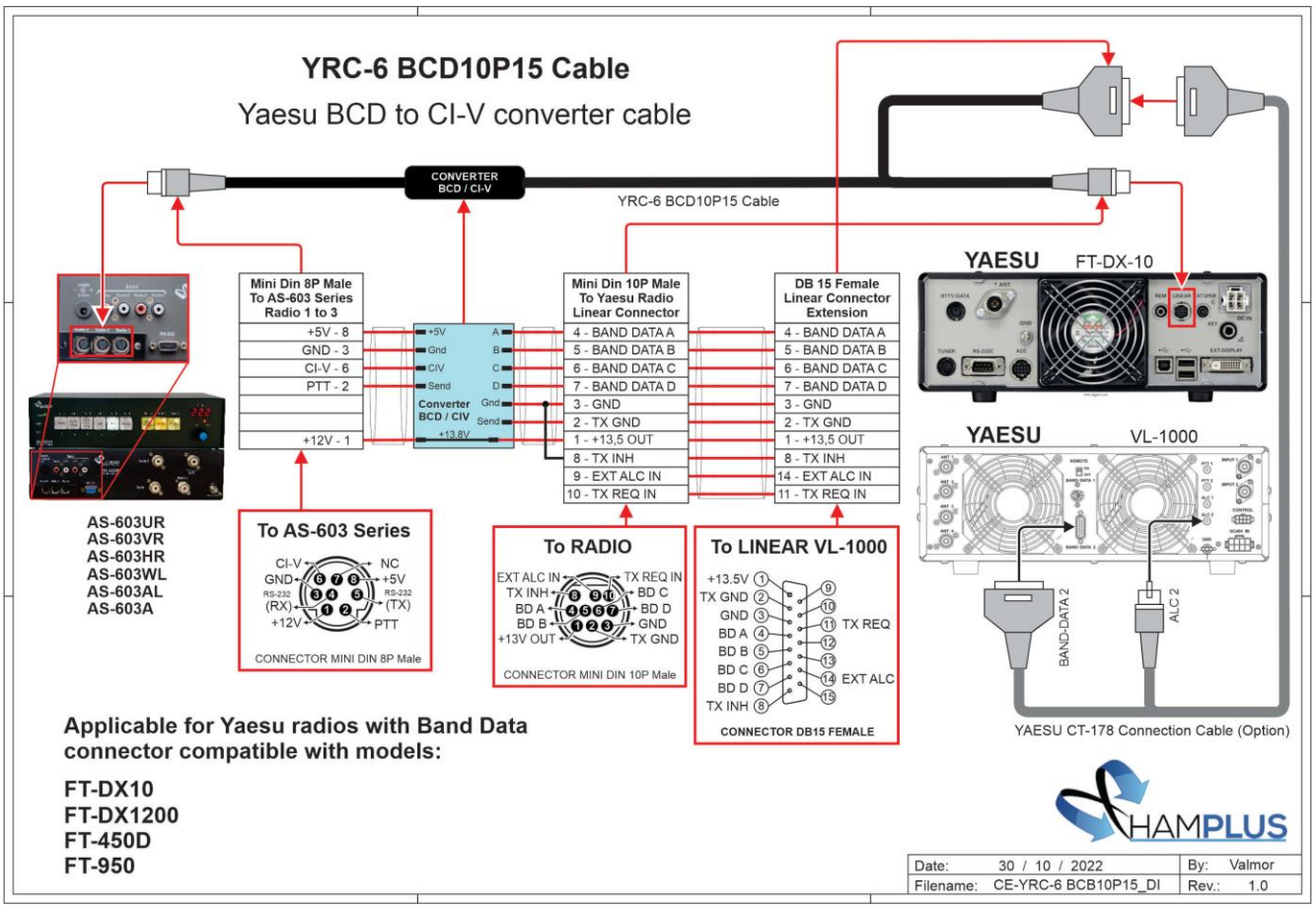

YRC-6 BCD8P8 Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6 BCD8P8 Cable
YAESU FT-991
REM / ALC
YAESU VL-1000
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+13,8V
Mini Din 8P Male To Yaesu Radio Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
Mini Din 8P Female Linear Connector Extension
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CONNECTOR MINI DIN 8P Male
To RADIO
CONNECTOR MINI DIN 8P Male
To LINEAR VL-1000
CONNECTOR MINI DIN 8P Female
BAND-DATA 1
ALC 1
YAESU CT-58 ALC Cable (Option)
YAESU CT-58 Band Data Cable (Option)
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-710
FT-991
FT-991A
HAMPLUS
Date: 24 / 04 / 2024
By: Valmor
Filename: YRC-6 BCB8P8_DI
Rev.: 1.0

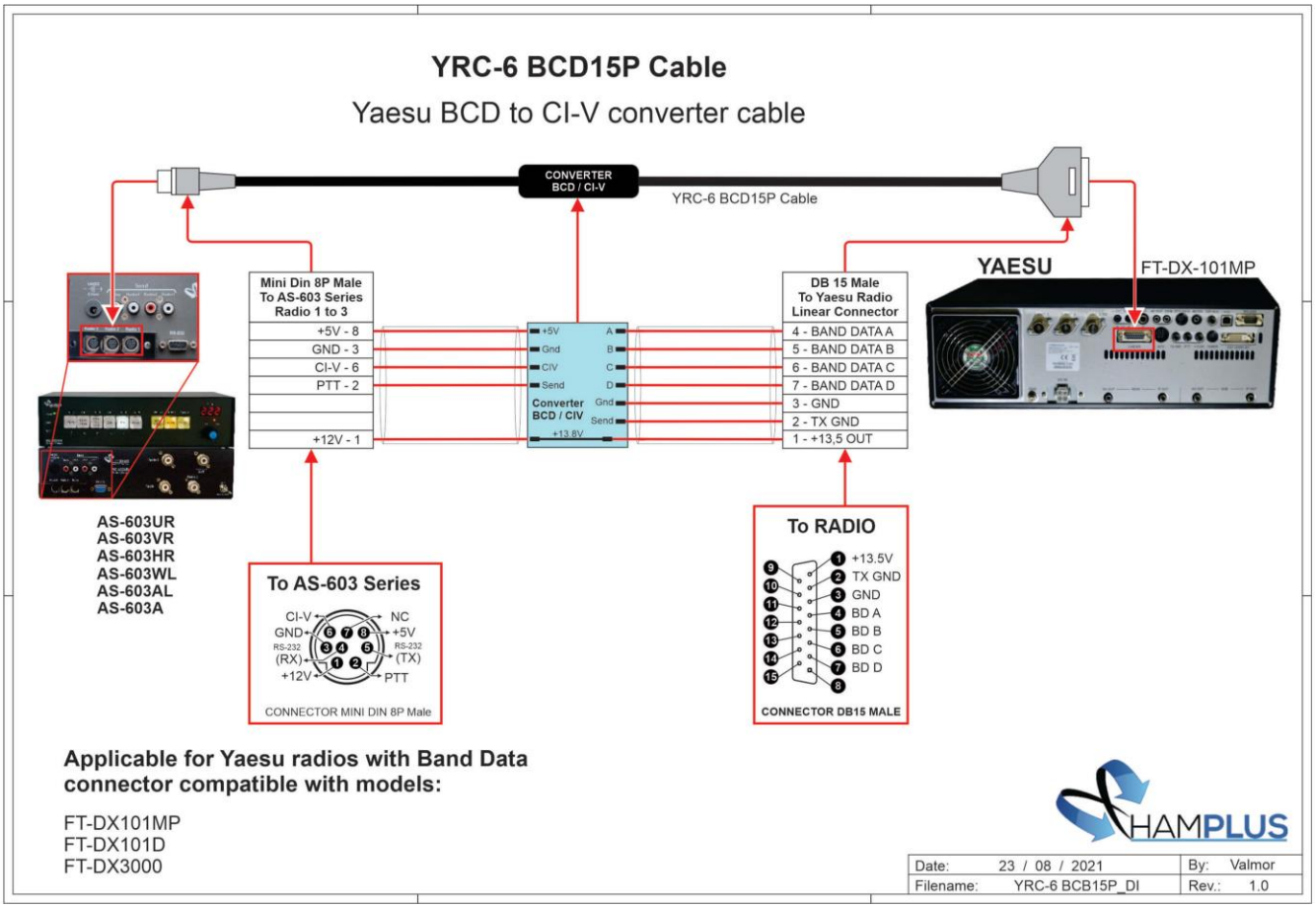

YRC-6 BCD8P15 Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YAESU FT-991
REM / ALC
YAESU VL-1000
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
Mini Din 8P Male To Yaesu Radio Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
DB 15 Female Linear Connector Extension
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CONNECTOR MINI DIN 8P Male
To RADIO
CONNECTOR MINI DIN 8P Male
To LINEAR VL-1000
CONNECTOR DB15 FEMALE
BAND-DATA 2
ALC 1
YAESU CT-58 ALC Cable (Option)
YAESU CT-178 Connection Cable (Option)
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-991
FT-991A
HAMPLUS
Date: 07 / 07 / 2023
By: Valmor
Filename: YRC-6 BCB8P15_DI
Rev.: 1.0

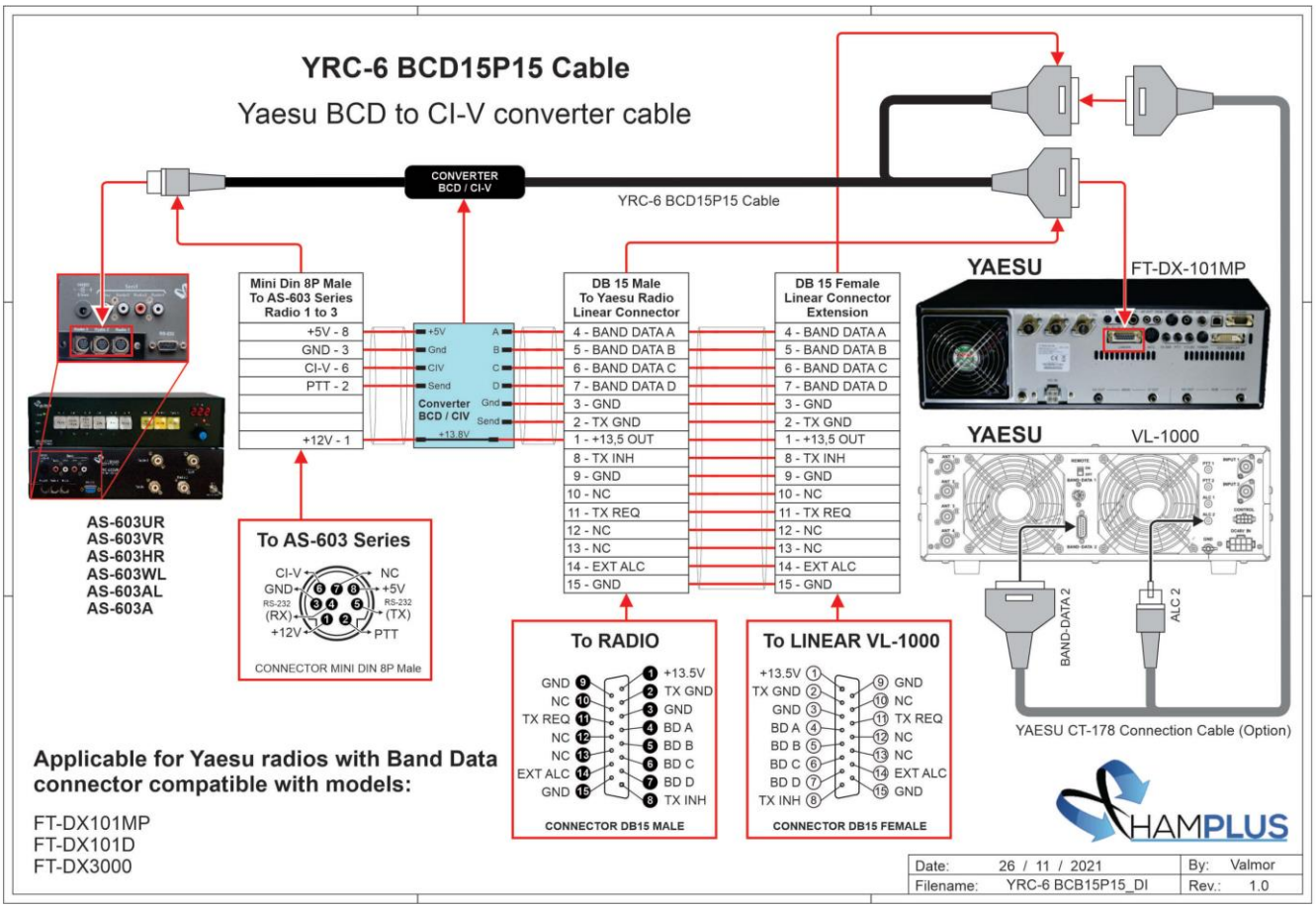

YRC-6 BCD8PD Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6 BCD8PD Cable
YAESU
FT-DX5000
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
Din U 8P Male To Yaesu Radio BAND DATA Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
BD B
GND
BD C
TX INH
TX GND
BD A
+13V OUT
BD D
CONNECTOR DIN U 8P Male
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-DX5000
FT-2000
FT-1000MP
FT-990
HAMPLUS
Date: 09 / 10 / 2023
By: Valmor
Filename: YRC-6 BCB8PD_DI
Rev.: 1.0

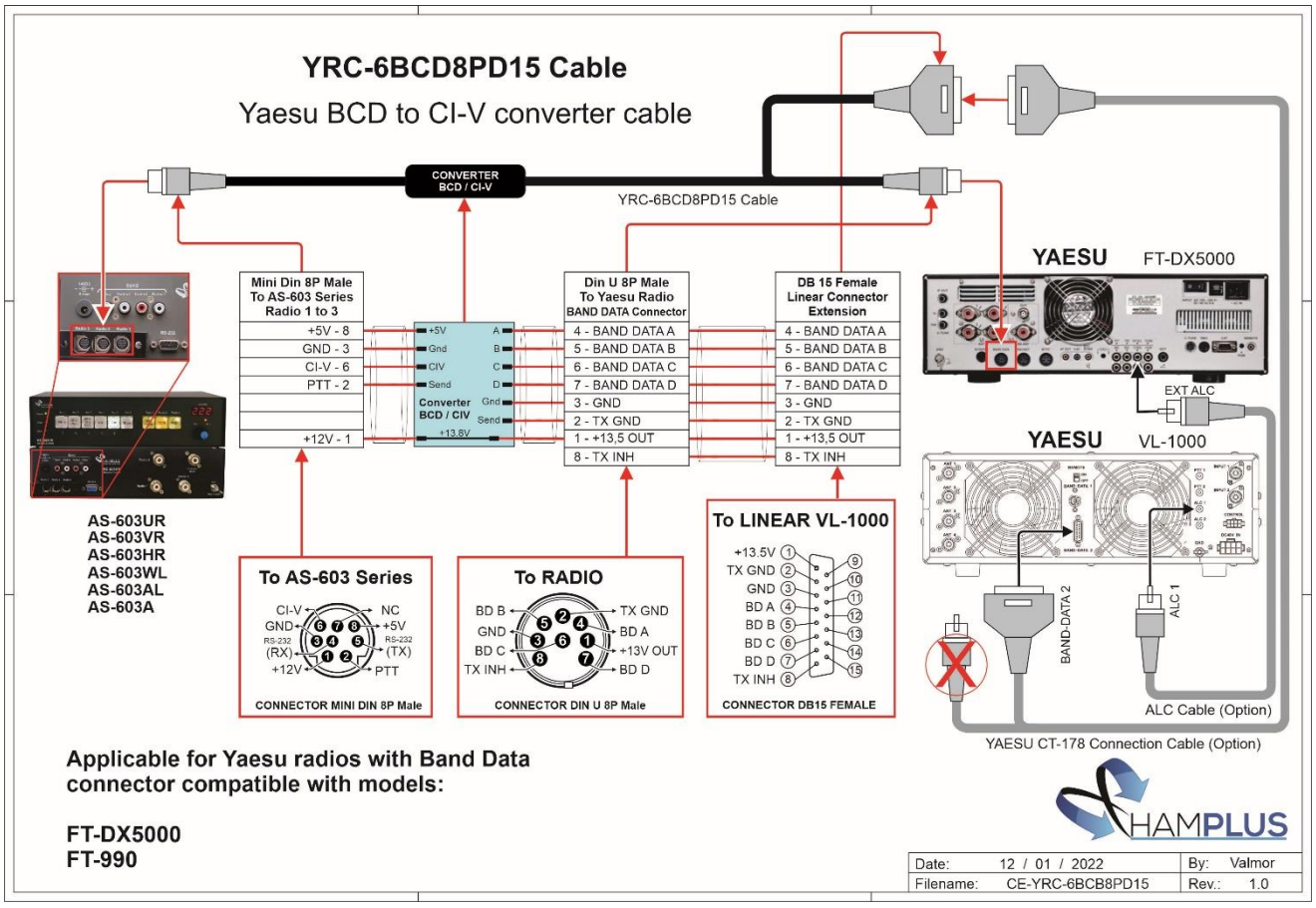

YRC-6 BCD8PM
Yaesu BCD to CI-V converter cable
YRC-6 BCD8PM Cable
CONVERTER
BCD / CI-V
YAESU
FT-757 GXII
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter
BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
Mini Molex 8P Female
To Yaesu Radio
BAND DATA
5 - BAND DATA A
4 - BAND DATA B
3 - BAND DATA C
2 - BAND DATA D
1 - GND
6 - TX GND
7 - +13,5 OUT
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
INH 8
+13,5V OUT 7
TX GND 6
BD A 5
BD B 4
BD C 3
BD D 2
GND 1
CONNECTOR MINI MOLEX 8P Female
Applicable for Yaesu radios with Band Data
connector compatible with models:
FT-757GX
FT-757GXII
HAMPLUS
Date: 22 / 11 / 2021
By: Valmor
Filename: YRC-6 BCB8PM_DI
Rev.: 1.0


YRC-6 BCD10P Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6 BCD10P Cable
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
Mini Din 10P Male To Yaesu Radio Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
YAESU FT-DX-10
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
EXT ALC IN
TX INH
BD A
BD B
+13V OUT
TX REQ IN
BD C
BD D
GND
TX GND
CONNECTOR MINI DIN 10P Male
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-DX10
FT-DX1200
FT-450D
FT-950
HAMPLUS
Date: 02 / 01 / 2023
By: Valmor
Filename: YRC-6 BCB10P_DI
Rev.: 1.0


YRC-6 BCD10P15 Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6 BCD10P15 Cable
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
Mini Din 10P Male To Yaesu Radio Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
9 - EXT ALC IN
10 - TX REQ IN
DB 15 Female Linear Connector Extension
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
14 - EXT ALC IN
11 - TX REQ IN
YAESU FT-DX-10
YAESU VL-1000
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
EXT ALC IN
TX INH
BD A
BD B
+13V OUT
TX REQ IN
BD C
BD D
GND
TX GND
CONNECTOR MINI DIN 10P Male
To LINEAR VL-1000
+13.5V
TX GND
GND
BD A
BD B
BD C
BD D
TX INH
TX REQ
EXT ALC
CONNECTOR DB15 FEMALE
BAND-DATA 2
ALC 2
YAESU CT-178 Connection Cable (Option)
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-DX10
FT-DX1200
FT-450D
FT-950
HAMPLUS
Date: 30 / 10 / 2022
By: Valmor
Filename: CE-YRC-6 BCB10P15_DI
Rev.: 1.0


YRC-6 BCD15P Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6 BCD15P Cable
YAESU
FT-DX-101MP
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
DB 15 Male To Yaesu Radio Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
+13.5V
TX GND
GND
BD A
BD B
BD C
BD D
CONNECTOR DB15 MALE
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-DX101MP
FT-DX101D
FT-DX3000
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: YRC-6 BCB15P_DI
Rev.: 1.0


YRC-6 BCD15P15 Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6 BCD15P15 Cable
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
DB 15 Male To Yaesu Radio Linear Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
9 - GND
10 - NC
11 - TX REQ
12 - NC
13 - NC
14 - EXT ALC
15 - GND
DB 15 Female Linear Connector Extension
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
9 - GND
10 - NC
11 - TX REQ
12 - NC
13 - NC
14 - EXT ALC
15 - GND
YAESU
FT-DX-101MP
YAESU
VL-1000
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
GND 9
NC 10
TX REQ 11
NC 12
NC 13
EXT ALC 14
GND 15
+13.5V 1
TX GND 2
GND 3
BD A 4
BD B 5
BD C 6
BD D 7
TX INH 8
CONNECTOR DB15 MALE
To LINEAR VL-1000
+13.5V 1
TX GND 2
GND 3
BD A 4
BD B 5
BD C 6
BD D 7
TX INH 8
GND 9
NC 10
TX REQ 11
NC 12
NC 13
EXT ALC 14
GND 15
CONNECTOR DB15 FEMALE
BAND-DATA 2
ALC 2
YAESU CT-178 Connection Cable (Option)
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-DX101MP
FT-DX101D
FT-DX3000
HAMPLUS
Date: 26 / 11 / 2021
By: Valmor
Filename: YRC-6 BCB15P15_DI
Rev.: 1.0


YRC-6BCD8PD15 Cable
Yaesu BCD to CI-V converter cable
CONVERTER BCD / CI-V
YRC-6BCD8PD15 Cable
Mini Din 8P Male To AS-603 Series Radio 1 to 3
+5V - 8
GND - 3
CI-V - 6
PTT - 2
+12V - 1
Converter BCD / CIV
+5V
Gnd
CIV
Send
+13.8V
A
B
C
D
Gnd
Send
Din U 8P Male To Yaesu Radio BAND DATA Connector
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
DB 15 Female Linear Connector Extension
4 - BAND DATA A
5 - BAND DATA B
6 - BAND DATA C
7 - BAND DATA D
3 - GND
2 - TX GND
1 - +13,5 OUT
8 - TX INH
YAESU FT-DX5000
EXT ALC
YAESU VL-1000
BAND-DATA 2
ALC 1
ALC Cable (Option)
YAESU CT-178 Connection Cable (Option)
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232 (RX)
+12V
NC
+5V
RS-232 (TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
BD B
GND
BD C
TX INH
TX GND
BD A
+13V OUT
BD D
CONNECTOR DIN U 8P Male
To LINEAR VL-1000
+13.5V
TX GND
GND
BD A
BD B
BD C
BD D
TX INH
CONNECTOR DB15 FEMALE
Applicable for Yaesu radios with Band Data connector compatible with models:
FT-DX5000
FT-990
HAMPLUS
Date: 12 / 01 / 2022
By: Valmor
Filename: CE-YRC-6BCB8PD15
Rev.: 1.0

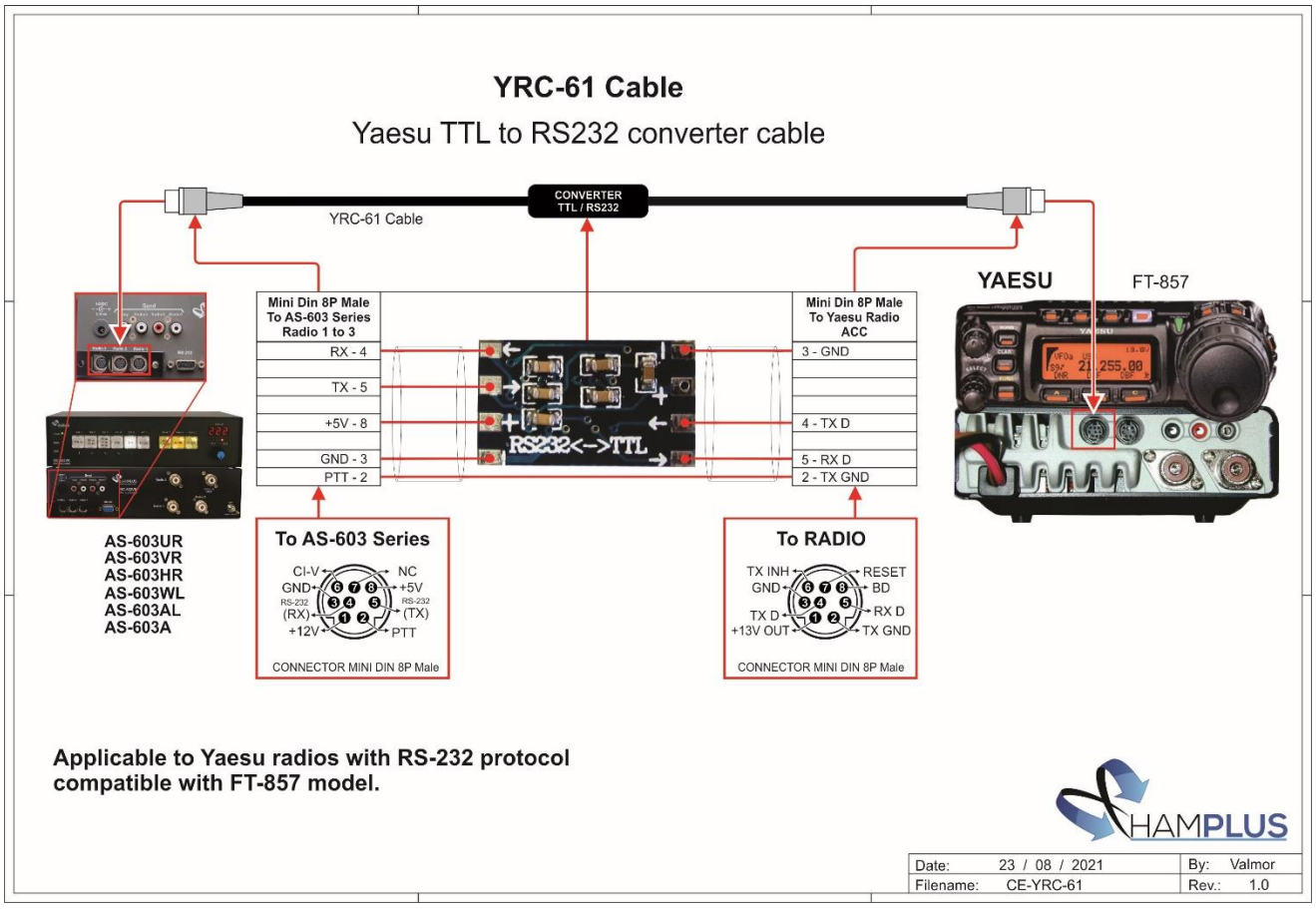
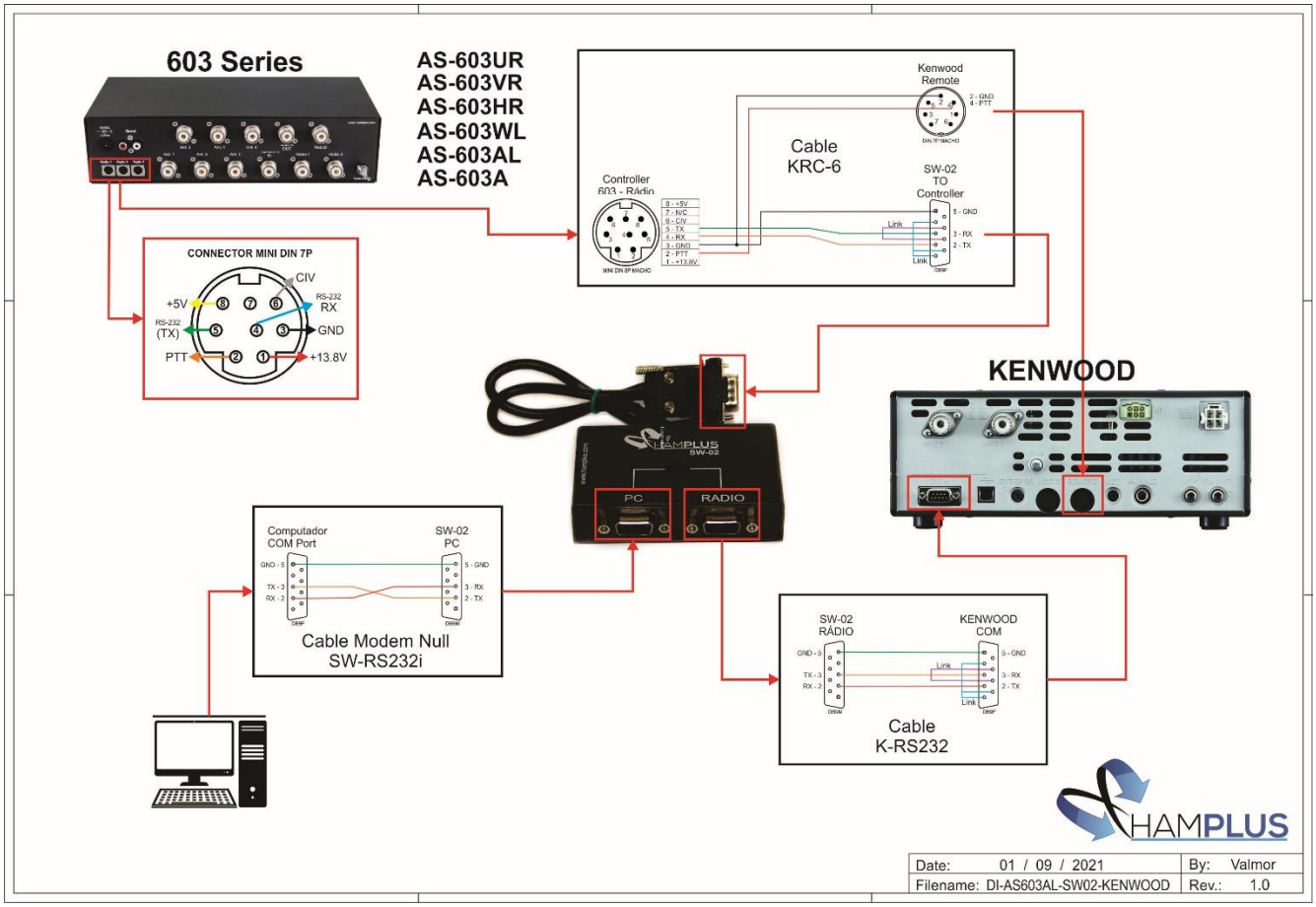

YRC-61 Cable
Yaesu TTL to RS232 converter cable
CONVERTER
TTL / RS232
YRC-61 Cable
YAESU
FT-857
Mini Din 8P Male
To AS-603 Series
Radio 1 to 3
RX - 4
TX - 5
+5V - 8
GND - 3
PTT - 2
Mini Din 8P Male
To Yaesu Radio
ACC
3 - GND
4 - TX D
5 - RX D
2 - TX GND
RS232<->TTL
AS-603UR
AS-603VR
AS-603HR
AS-603WL
AS-603AL
AS-603A
To AS-603 Series
CI-V
GND
RS-232
(RX)
+12V
NC
+5V
RS-232
(TX)
PTT
CONNECTOR MINI DIN 8P Male
To RADIO
TX INH
GND
TX D
+13V OUT
RESET
BD
RX D
TX GND
CONNECTOR MINI DIN 8P Male
Applicable to Yaesu radios with RS-232 protocol
compatible with FT-857 model.
HAMPLUS
Date: 23 / 08 / 2021
By: Valmor
Filename: CE-YRC-61
Rev.: 1.0

Diagram for sharing the radio's RS-232 Comm port with the Hamplus antenna switch and the personal computer using the SW-02 Serial RS-232 Expander.



AS-603WL

APRIL 29, 2024

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