

## Expanded function for the IC-910H

The following information is regarding the expanded function for the IC-910H.

### **Model: IC-910H (All versions)**

#### **1. How to expand TX/RX frequency coverage:**

Following parts list are modification of expanded TX/RX frequency coverage on each band.

Parts location are different, and it depending on the PCB board number.

The PCB board number for **B-5456D** as shown in the attached diagram **No.1**.

The PCB board number for **B-5456E or later number** is shown in the attached diagram

#### **No.2.**

Band		Frequency Coverage	Modification
VHF (144MHz)	RX	136.0MHz ~ 174.0MHz	Remove D5 (1SS355) on the DISPLAY board.
	TX	136.0MHz ~ 174.0MHz	Remove R188 (1K) on the DISPLAY board.
UHF (430MHz)	RX	420.0MHz ~ 480.0MHz	Remove D6 (1SS355) on the DISPLAY board.
	TX	420.0MHz ~ 480.0MHz	Remove R187 (1K) on the DISPLAY board.
UHF (1200MHz)	RX	1240.0MHz ~ 1320.0MHz	Remove D7 (1SS355) on the DISPLAY board.
	TX	1240.0MHz ~ 1320.0MHz	Remove R186 (1K) on the DISPLAY board.

#### **Note:**

You do not have to reset the CPU after above diode matrix is changed.

The above information is common for all versions.

#### **2. How to select the narrow FM mode on 1200MHz band:**

The narrow FM mode can be selected in the 1200MHz band when the following diode is installed.

- Install the diode **HD8** (1750000550 1SS355) on the DISPLAY board, as shown in the attached diagram **No.1** or **No.2**.

#### **Note:**

You do not have to reset the CPU after above diode matrix is changed.

There will be no problems in operation as a result of this change.

### **3. How to change the cross band repeater function ON/OFF:**

A cross band repeater function can be operated when the following diode is installed.

- Install the diode **HD4** (1750000550 1SS355) on the DISPLAY board, as shown in the attached diagram **No.1** or **No.2**.

**The following steps are how to switch between the cross band repeater mode and normal mode:**

- (1) Make sure the lock function is ON before turning power OFF.
- (2) Push and hold down the M/S key while turning the power on.
- (3) Then enter to the cross band repeater mode. (Lock segment will flash while the cross band repeater function is on.)
- (4) Push lock key to turn the lock off to exit the cross band repeater mode.

#### **Note:**

The cross band repeater function cannot be cancelled even when the power is turned ON and OFF.

### **4. How to set the power protect in transmit:**

To protect from damage to the RF stage when transmitting outside of the expanded frequencies the RF power output is reduced to 10% of the default RF power limit as a standard specification. However, the default setting can be changed in each of the bands independently.

The following information is frequency range of standard RF power:

Band	Frequency range of standard RF power
144MHz	144.0MHz ~ 148.0MHz
430MHz	430.0MHz ~ 450.0MHz
1200MHz	1240.0MHz ~ 1300.0MHz

**The RF power in the expanded frequency can be adjusted with the following steps:**

- (1) Short the CI-V line of the CI-V jack on the back panel of radio to the ground.
- (2) Push and hold down the RIT and SATELLITE keys while turning the power on.
- (3) Push 9 key to enter the expanded frequency power set mode.

(4) Then enter the adjustment mode for 144 MHz out-of-band RF power. An RF power meter must be connect to the 144MHz antenna jack.

(5) Push the RIT key to transmit at 145.01MHz automatically. Then rotate the tuning knob to adjust to the desired RF power.

(6) Push RIT key to memorize the above setting.

(7) Then enter the adjustment mode for 430 MHz out-of-band RF power. An RF power meter must be connect to the 430MHz antenna jack.

(8) Push the RIT key to transmit at 439.82MHz automatically. Then rotate the tuning knob to adjust to the desired RF power.

(9) Push RIT key to memorize the above setting.

(10) Then enter the adjustment mode for 1200 MHz out-of-band RF power. An RF power meter must be connect to the 1200MHz antenna jack.

(11) Push the RIT key to transmit at 1260.0MHz automatically. Then rotate the tuning knob to adjust to the desired RF power.

(12) Push RIT key to memorize the above setting.

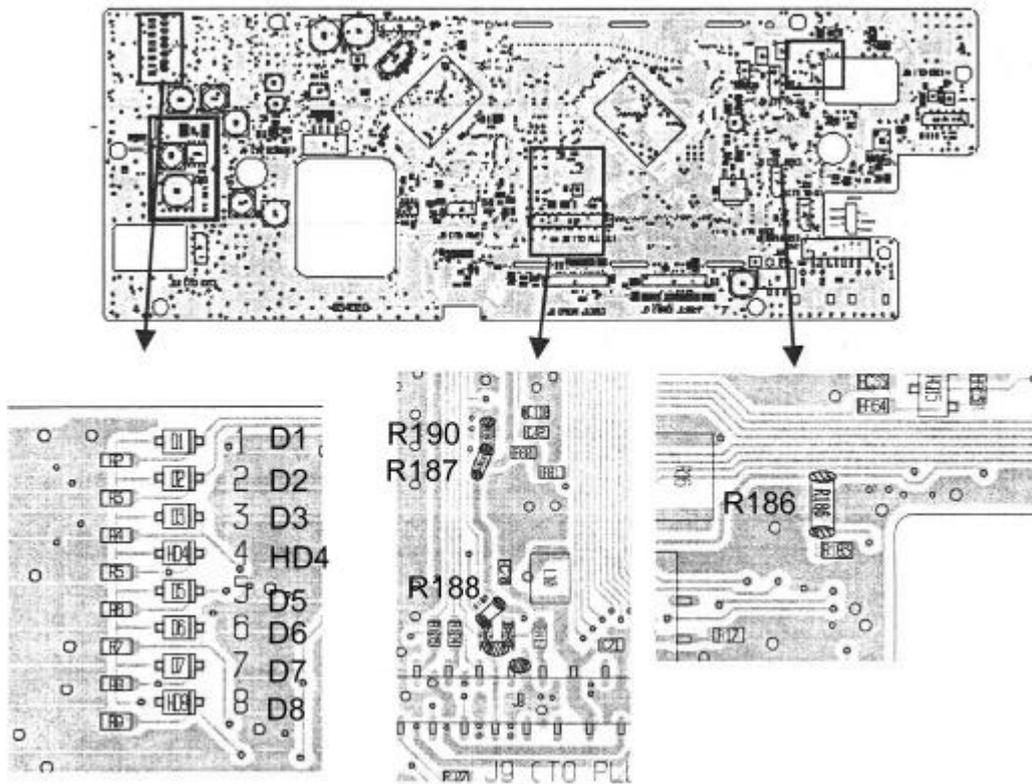
(13) Turn off the power.

**Note:**

We will not guarantee the specification of the above adjustment.

The RF power can possibly be adjusted between 1 to 100% (Depending on the unit). But, we strongly recommend not to increase the RF power setting above the default setting. It can cause problems, i.e. RF feedback or oscillation in RF stage may occur from this adjustment.

**Picture No.1 (B-5456D)**



**Picture No.2 (B-5456E or later number)**

