

GET BLE RCU Operational Specifications

1. PAIRING

1.1. Pairing Trial

- Press and hold [Voice] key and [OK] key together for 3 seconds while the remote control unit is unpaired
- Pairing trial is started by transmission of IR Trigger code
- Top LED blinks every 330ms for Un-Direct Advertising for up to 30 seconds.

1.2. Pairing Success

- If RCU and STB succeed in pairing, RCU blinks Top LED 3 times and the pairing process completes.
- Pairing success is determined after all Client Characteristic Configuration is received.

1.3. Pairing Failure

- If the pairing fails, RCU stops the LED Blinking and returns to the previous state.

2. UNPAIRING

- Press and hold [OK] key and [BACK] key together for 3 seconds for unpairing
- RCU deletes the pairing information and blinks Top LED 3 times at intervals of about 250ms and terminates unpairing
- When unpairing is performed, unpairing code is transmitted to synchronize with STB
- RCU can be unpaired at any time regardless of the connection status with the STB

3. Key Operational Specifications

3.1. Basic Keys operational specs

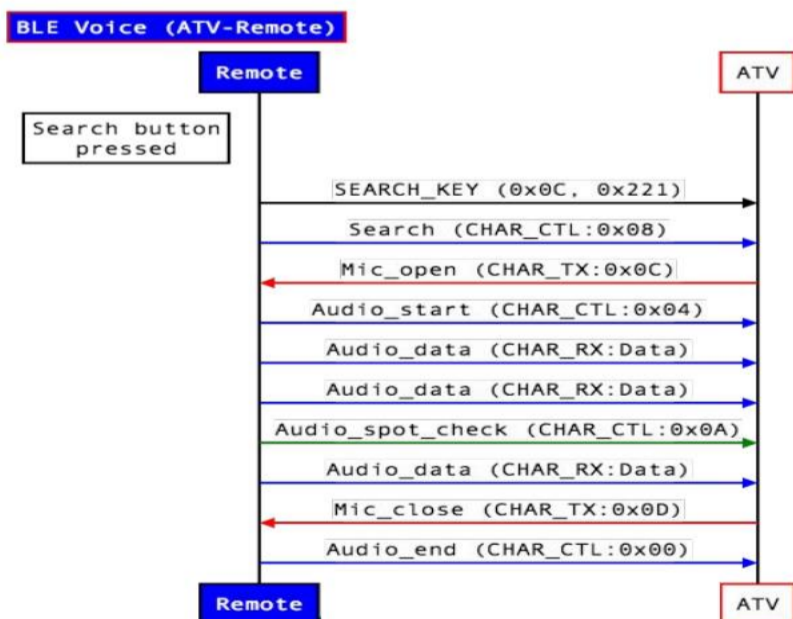
- When key is pressed, RCU operates as IR or BT according to the connection status and LED turns on
- There is no LED action for key input during pairing attempt
- When two keys or more keys are pressed at the same time, IR transmission is stopped.
- Release code is transmitted when 2 keys or more keys are pressed at the same time in case of RF mode
- If one key is released while 2 keys are pressed, the data of the remaining key pressed is transmitted

3.2. Keys operational specs in BT mode

- When connected, all keys except TV key operate with RF
- In the Disconnected state, Direct Advertising is performed for 10 seconds to re-connect when any key is pressed.
- IR should work in any case that BLE doesn't work.

4. Voice Search Operation Specifications

- When [Goole Assistant] button is pressed, RCU transmits the code for activating the voice search function to STB
- When RCU receives the Mic Open Command from STB, the Top LED turns on and starts voice packet transmission
- User performs a voice search when the Top LED on RCU is turned on
- When RCU receives a Mic. Close Command from STB, the voice packet transmission ends and LED turns off
- Even if STB doesn't send a Mic. Close Command, RCU automatically ends the voice packet transmission after 20 sec. timeout



5. Battery Level Information

- STB can read battery voltage levels from RCU when battery information is needed
- Battery voltage level information : Battery level(2.0V~3.0V) ⊙ Percentage[%] (0x00~0x64)

ex) Voltage level display example

V	%
3.10	100%
3.00	100%
2.85	85%
2.64	64%

2.35	35%
2.00	0%
1.95	0%

6. Bluetooth Connection Specifications

- If RCU and STB are disconnected for some reason after the connection is completed, RCU tries to do re-connection(Direct Advertising)
- Re-Connection (Direct Advertising) attempt is performed for about 11 seconds
- When Re-Connection (Direct Advertising) fails, RCU enters the sleep mode to reduce battery consumption
- Then, when there is a key input by user, RCU again tries for Re-Connection (Direct Advertising) for about 11 seconds
- Direct Advertising conducted by RCU for about 11 seconds during the re-connection is divided into two stages as shown below
 - 1 step : Direct Advertising is performed every 1.6ms for 1 second (Fast)
 - 2 step : Direct Advertising is performed every 20ms for 10 seconds (Slow)

7. Code Read Out

- Display the current TV set number on RCU with LED
- Press and hold [TV Power] and [OK] keys together for 5 seconds --- **Bottom** LED On (Enter set mode)
- Press [KILDE] key
- Blink in led, 100 digits, 10 digits, and 1 digit
- If it is "0", it blinks 5 times at intervals of 0.1 second, and "1 to 9" means the number of blinks at 0.3 second intervals
- Example) When "023" code is set, LED operates as below
 - 1st : **Bottom** LED blinks 5 times quickly
 - 2nd : **Bottom** LED blinks 2 times
 - 3rd : **Bottom** LED blinks 3 times

8. Couch Function (Timeout)

- When any key is pressed continuously, the code transmission of RCU stops when 30 seconds have elapsed, to reduce battery consumption
- In connected state, the release code is transmitted via RF after 30 seconds
- In unpaired or disconnected state, IR code transmission is stopped after 30 seconds

9. Factory Default

- Press and hold [OK] and [KIDLE] keys together for 5 seconds
- After 5 seconds, All LED blinks 3 times and it is initialized as factory default state.
- TV default codes are set for SAMSUNG and LG Batch code as factory default.

10. Boks Mode

- In default mode, it operates as STB
- During the Boks mode, the upper LED turns on with keys operation
- Pressing [Boks / TV] key turns the **bottom LED** turns On for 10 seconds.
Unless you have pressed another key for 10 seconds, LED is off
- **Press [Boks / TV] key to enter TV mode and after 10 seconds to return to Boks mode**
- If you press [Boks / TV] key while in TV mode, the upper LED turns on for 1 second(Reminds user to return to Boks mode)

11. TV Mode (During Bottom LED ON)

- When key is pressed, the bottom LED turns on
- When TV key is pressed, the bottom LED is turned off,
and when the key is released, the LED turns on again for 10 seconds before returning to the Boks mode
- > When RCU transmit IR codes, LED blinks to show that RCU transmits IR codes.

When RCU is changed to TV mode by pressing [Boks/TV] key and Bottom LED is on, TV keys is pressed, LED blinks. When release key, Bottom LED is on for 10 secs.

- TV Mode Lock
If user press [Boks / TV] & [OK] keys for 3 seconds, RCU blinks the bottom LED 3 times and it is set to TV Mode.
When TV key is pressed, the bottom LED turns on
Pressing [Boks / TV] key turns on the upper LED for 1 second and returns to the Boks mode

12. Key Definition

- Boks / TV: Changed STB and TV mode control. The LED operation operates as mentioned in paragraph 1, 2 above.
If user press [Boks / TV] key for 5 seconds, all the upper and bottom LEDs are ON and Quick Setup Pairing is activated.
- Power: Turn on or off STB power and TV power
Press the Power key long to transmit another code. (So
In TV mode, the Power key must support Key hold, to support Panasonic TV
- Restart : General key. STB only
- Play/Pause : General key
- Recording : General key. STB only
- Exit : General key
- Mitt innhold : General key. STB only

- Back : General key
- Home : General key
- OK : General key
- Directional Pad : General key
- Volume : General key
- Mute : General key
- Voice : Google Assistant Search. General key
- Apper/Netflix : General key
- Channel : General key
- Guide : General key
- Numpad : General key
- KILDE : TV only
- SISTE : General key

13. TV UR Setup

- Press and hold [Boks / TV] key for 5 seconds, all the LEDs on the top and bottom are turned on and enter the TV setup mode.
 - Release [Boks / TV] key, and then TV code is set up while holding down the numbers of TV brands provided
 - RCU transmits the code for the brand setup (The upper LED remains ON and the lower LED blinks)
 - When TV is off, release the key to set the TV (The LED blinks 3 times.)
 - If user doesn't press the numeric key within 10 seconds after pressing [Boks / TV] key for 5 seconds, the Quick Setup function is ended
- ※ The initial Default TV code is Samsung (Because it is the most used in Norway)

Suggestions with new setup method described below ;

13-1. TV UR setup with 3 digit code

- Press and hold [Power] key & [OK] Key for 3 seconds. (FYI, 2 keys combination was suggested to match with other setup method)

Setup mode	Time
OK & Power -> TV setting	3sec
OK & Voice -> pairing start	3sec
OK & Back -> Unpairing	3sec
OK & Boks/TV -> TV Mode Lock	3sec
OK & Kilde -> Factory Default	5sec
OK & Vol -> Volume lock En/D	3sec

- After release keys, Then input 3 digit code from the TV brand list. Remote Solution provided TV brand list for GET RCU
- RCU transmits the code for the brand setup (The upper LED remains ON and the lower LED blinks)
- When TV is Off, press [OK] kye to complete UR setup process. Then, Lower LED blinks 3 times
- In case that there is no key input at any key press stage for 20 seconds, UR setup mode ends

13-2. TV UR setup with Auto search

- Press and hold [Power] key & [OK] Key for 3 seconds
- After release keys, then press and hold [CH+] or [CH-] key until TV is off
 - > While pressing [CH+] or [CH-] key, TV UR codes are transmitted continuously.
- When TV is Off, press [OK] kye to complete UR setup process. Then, Lower LED blinks 3 times
- In case that there is no key input at any key press stage for 20 seconds, UR setup mode ends

13-2. TV UR setup with Group search (Top brand on numeric buttons 1 ~ 0)

- Enter Group Search Mode by pressing [OK] and [Number key] keys together for 3 seconds
 - Press [CH+] key to send out each TV code of TV brand that users selected.
 - Once TV turns off, press [OK] key to setup the right TV code
- OK + 1 : Samsung Group
 - OK + 2 : Sony Group
 - OK + 3 : LG Group
 - OK + 4 : Philips Group
 - OK + 5 : Panasonic Group
 - OK + 6 : JVC Group
 - OK + 7 : Grundig Group
 - OK + 8 : Finlux Group
 - OK + 9 : Thomson Group
 - OK + 0 : Toshiba Group

※ The initial Default TV code is Samsung.

13. Volume Lock => This function will be added later

- Press and hold [OK] & [Vol +] keys together for 3 seconds, VOL +/-, Mute keys always operate as TV key(LED blinks 3 times)
- Press and hold [OK] & [Vol -] keys together for 3 seconds to release the volume lock(LED blinks times)

14. FCC warning

§ 15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

15. RF exposure statement

*** RF warning for Portable device:**

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

16. label statement

§ 15.19 Labelling requirements. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.