

Technical Descriptions of (BW6311 + BW2112):

RF transmitter (BW6311):

- (A) Each time a key is pressed, U1 (micro-controller) will activate Q8 & Q9 for driving the backlight. At the same time, the corresponding data will be loaded from U2 (ROM). The data will be transferred through two paths.
1. Q10 (data buffer): Q4 will then drive D3 (IR emitter) to transmit IR signal.
 2. Q10 (RF oscillator): the MCU will activate the RF oscillator with the frequency of 434MHz. The data will mix with the oscillation frequency 434MHz. The signal is then amplified by Q11 (RF amplifier) and band-limited by a LC band-pass filter. Finally, transmit through an antenna.
- (B) The transmitter is powered by 3 x 1.5V "AAA" battery. For each battery connection, Q2 & Q3, will generate a pulse for re-setting U1 (micro-controller). Moreover, Q7 will give a signal to U1 (micro-controller) if battery is below a pre-set voltage.

RF Receiver (BW2112):

- (A) An antenna & matching circuit is connected to U2 (UHF receiver) for receiving RF signal. Inside U2, a mixer will down-convert the RF signal (434MHz) to an IF frequency (500kHz). The signal is then demodulated by a limiting amplifier and the comparator makes the data available at the data output pin.
- (B) Q3 & Q4 is then driving the data to D7 & D8 (IR emitter) for IR transmission. On the same time, Q1 & Q2 will flash to indicate the transmit of signal.
- (C) The receiver is powered by an adapter of input ~~230V ac 50Hz~~ and output 17Vdc 50mA.

120V ac 60Hz

Remotec	
MODEL: BW6311	
Released for	
<input type="checkbox"/>	PRELIMINARY CONSTRUCTION
<input type="checkbox"/>	QUOTATION ONLY
<input type="checkbox"/>	MOCK UP ONLY
<input type="checkbox"/>	HARD/SOFT TOOLING
<input type="checkbox"/>	TOOL MODIFICATION
<input type="checkbox"/>	TECHNICAL MANUAL
<input type="checkbox"/>	MANUFACTORY
<input type="checkbox"/>	PRINTING
<input checked="" type="checkbox"/>	MARKETING
Prepared by: Tim Jc	
Date: Nov 15, 2001	
Approved by: [Signature]	
Date: 12/14/01	

User Manual (BW2112 + BW6311)

Connecting the Included AC Power Adapters

Connect one end of the included AC Power adapter into the DC IN 17V JACK, and the other end into an AC outlet.

Note: Only use the AC power adapter supplied. Do not use any other AC power adapter.
Connect the AC power adapter to a continuous power supply.

Setting-up the units

RF & Infrared Transmission Unit

Where to use:

Use in the room where you want to control your AV equipment.

How to set-up:

1. Install 3 x 1.5V "AAA" battery to the RF & Infrared Transmission Unit
2. The LED should flash for new installation of battery.

RF receiving Unit

Where to use:

Use in the room where AV equipment should be controlled.

How to set-up:

1. Locate the LED-indicator side of the unit on the front of the equipment that you want to control.
2. Put the AC power plug of RF receiving Unit into a wall socket.
3. The LED indicator should light up.

Operating the units

Once you have set up the RF & Infrared Transmission Unit and the RF receiving Unit for the equipment you want to control, the product enables you to control your TVs, VCRs, satellite receivers, cable TV converters, HiFi, CD players, LD players etc. from one room to another or inside the same room.

To operate, simply press the corresponding function button on the RF & Infrared Transmission Unit. The LED indicator of the Transmission Unit will flash during signal transmission. The RF receiving Unit will receive and send out the signal to your AV equipment.

Precautions

1. Do not use oil, solvents, petrol, paint thinners or insecticides on the product.
2. Keep this product away from any strong light & strong radiation environment. Otherwise, the indication LED of Receiving unit will dim out and it may be loss of function.
3. This product contains no user serviceable parts inside. Never disassemble as this may result in electric shock.
4. Do not use this product near water. for example: near a bathtub, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Use this product on a flat surface free from vibration.
6. This product should be powered from the type of source indicated on the rating label.
7. Do not hold the Receiving unit when it is in use. Otherwise, the performance is affected.
8. Remove the AC power plug from the wall socket under the following conditions:
 - (i) Whenever the plug is damaged.
 - (ii) The product has been exposed to water.
 - (iii) If the product does not operate normally.
 - (iv) If the product has been broken or dropped.

Operation Instructions of (BW6311 + BW2112):

1. Install 3 x 1.5V "AAA" battery to the IR+RF transmitter.
2. Connect the RF receiver with an adapter* and plug the unit into any ^{120V ac 60Hz} ~~230V ac 50Hz~~ outlet in the room where your TV, VCR, CD player, etc are located.
3. The IR+RF transmitter will transmit both IR & RF signal for any pressing.
4. The receiver will receive the RF signal from transmitter and then convert it to IR signal. The IR signal is then sent to the devices (TV, VCR, CD player, etc)

Remark:

^{120V ac 60Hz}

* adapter input voltage: ~~230V ac 50Hz~~

output voltage: 17Vdc 50mA

Precautions

1. Do not use oil, solvents, petrol, paint thinners or insecticides on the product.
2. Keep this product away from any strong light & strong radiation environment. Otherwise, the indication LED of receiving unit will dim out and it may be loss of function.
3. This product contains no user serviceable parts inside. Never disassemble as this may result in electric shock.
4. Do not use this product near water, for example: near a bathtub, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Use this product on a flat surface free from vibration.
6. This product should be powered from the type of source indicated on the rating label.
7. Do not hold the Receiving unit when it is in use. Otherwise, the performance is affected.
8. Remove the AC power plug from the wall socket under the following conditions:
 - (i) Whenever the plug is damaged.
 - (ii) The product has been exposed to water.
 - (iii) If the product does not operate normally.
 - (iv) If the product has been broken or dropped.

Remotec	
MODEL: BW6311	
Released for	
<input type="checkbox"/>	PRELIMINARY INFORMATION
<input type="checkbox"/>	QUOTATION ONLY
<input type="checkbox"/>	MOCK UP ONLY
<input type="checkbox"/>	HARD/SOFT TOOLING
<input type="checkbox"/>	TOOL MODIFICATION
<input type="checkbox"/>	TECHNICAL MANUAL
<input type="checkbox"/>	MANUFACTURE
<input type="checkbox"/>	PRINTING
REWORKING ITS CEEC	
Prepared by Tm Sze	
Rev 15/000	
Date 12/1/01	

FCC ID: M7N-BW2112RX-00