

Manual of RC1804948/01B, Rothko

[Note: This document also applicable to RC18049xx/01 or RC18049xx/01B or RC18049xx/01BS, where xx vary from 47 to 61]

RC18049xx/01B

Model	12NC	Alternate P/N	Description
RC1804947/01B	3139 228 11181	684257-001	Rothko Non-Teletext NA Flash
RC1804948/01B	3139 228 11221	684258-001	Rothko Non-Teletext NA OTP
RC1804949/01B	3139 228 11231	684257-L31	Rothko Teletext EMEA Flash
RC1804950/01B	3139 228 11241	684258-L31	Rothko Teletext EMEA OTP
RC1804951/01B	3139 228 11331	684257-371	Rothko NonTeletext AP LA Flash
RC1804952/01B	3139 228 11341	684258-371	Rothko Non-Teletext AP LA OTP
RC1804953/01B	3139 228 11411	684259-001	Rothko Non-Teletext NA OTP with dongle
RC1804954/01B	3139 228 11431	684259-L31	Rothko Teletext EMEA OTP with dongle
RC1804955/01B	3139 228 11451	684259-371	Rothko Non-Teletext AP LA OTP with dongle
RC1804956/01B	3139 228 11551	684257-AA1	Rothko Non-Teletext S-CH Flash
RC1804957/01B	3139 228 11561	684258-AA1	Rothko Non-Teletext S-CH OTP
RC1804958/01B	3139 228 11571	684259-AA1	Rothko Non-Teletext S-CH OTP with dongle
RC1804959/01B	3139 228 11591	684257-AD1	Rothko Non-Teletext KOREA Flash
RC1804960/01B	3139 228 11601	684258-AD1	Rothko Non-Teletext KOREA OTP
RC1804961/01B	3139 228 11611	684259-AD1	Rothko Non-Teletext KOREA OTP with dongle

Specifications are subject to change without notice



FCC Statement

Federal Communication Commission Interference Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

Specifications are subject to change without notice



IC Statement:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B conforme à la norme NMB-003 du Canada.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Specifications are subject to change without notice

1.1 RF Pairing

When there is more than 1 pair of remote and Receiver working in a near distance, interference may occur, thus the remote has to pair with the Receiver to generate a specific address to overcome the interference.

RF pairing is by proximity pairing method. The remote needs to be in RF Pairing mode and within **6cm** away from the Receiver.

The Receiver pairing pipe is always open for pairing. Whenever a remote in Pairing Mode is within pairing proximity, both remote and Receiver will be paired.

Should there be 2 Receivers present during pairing procedure, the remote is to pair with any 1 receiver that passes the proximity test.

RF pairing timeout will be 2mins.

Whenever pairing fails, the previous pairing entry(if there was a previous entry) should not be deleted.

1	Bring the remote within 6cm distance from the host and make sure no other remote is present.
2	Press and hold keys <INFO> and <#> for 5secs.
3	The LED turns On and goes into RF Pairing mode.
4	Upon completion of pairing, the LED will blink 2 times and the remote will exit the RF Pairing mode.

1.2 RF Quick Pairing

There is a quick pairing mode for factory testing at the dongle makers' factories. For quick pairing there is no need to wait for 5 seconds.

1	Bring the remote within 6cm distance from the host and make sure no other remote is present.
2	Press and hold keys <INFO> and <#> and <Print>
3	The LED turns On and goes into RF Pairing mode.
4	Upon completion of pairing, the LED will blink 2 times and the remote will exit the RF Pairing mode.

1.3 RF Auto Connection

When the remote wakes up or resumes from SLEEP/STANDBY or come back within range of a power on paired Receiver, RF link will be re-connected automatically. No RF re-pairing is needed.

1.4 RF Pairing Limitation

The remote that uses the OTP IC may only be paired with another device up to a maximum of 64 times. When the pairing device limit is reached, there is a chance the remote will not be able to pair with another device.

1.5 Indicator LED

LED	Indication Purpose	Status Description
"RF"	Blink to indicate Pairing	On for 2 min or until it is paired.
"RF"	Pairing Success	2 blinks when pairing passes.
"RF"	Pairing Failure	4 blinks when pairing fails.
"RF"	Blink to indicate RF transmission (RC RF transmission)	1 short blink when valid key is sent. There is a minimum 2 blinks for a short key press.

***Note:** For other LED indication of other remote features, refer to respective features.

2. Power Management

The following proper power management for battery energy conservation is needed, to achieve the indicated battery life.

Power State	RC Function	RF Link
ACTIVE, instantaneous response	Active	Active
SLEEP, near instantaneous response	Sleep (RTC turned off), need to press a key to activate.	Sleep (RTC turned off), need to press a key to activate

2.1 Stuck Mode

Stuck Key means that a button has been pressed for a very long time in normal operating mode. To preserve battery power, the remote will stop transmission about 30 seconds after the last key transition to consume minimal power. After all keys are released, the remote resumes normal operation.

In this mode, any indicator LED will be off and no signal transmission.

Following graphic shows when this power down mode is entered:

2.2 Simultaneous Key Press

For RC keys, if more than one button is pressed simultaneously, RF transmission will stop in order to conserve battery life. Stuck Mode applies for simultaneous key press. If the second or third key is released until there is only 1 key pressed, the RF transmission of the remaining key press will be sent.

2.3 Active Mode

When in this mode, remote should have instantaneous response. For RF transmission, instantaneous response is provided when RF link is sufficiently good.

2.4 Sleep Mode

When in SLEEP mode, any key press will wake up MCU from SLEEP mode. When the remote wakes up from SLEEP mode, there may be re-connection latency depending on the RF link condition with the receivers.