

EXHIBIT A

(FCC Ref. 2.1033(b)(5))

"Installation and Operating Instructions  
Furnished to the User"

# WIRELESS REMOTE CONTROL USER MANUAL

## TR300 Transmitter

### RC270 Indoor Receiver for Appliance

#### Introduction

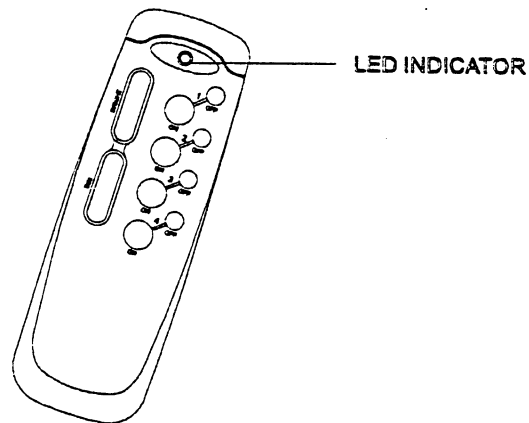
The TR300 Transmitter is designed to control our Indoor Receiver RC270. You can use this Transmitter to control the Receivers RC270 for any plug-in electrical appliances as well as lighting devices.

The Transmitter has 4 channels, which can control up to 4 receivers.

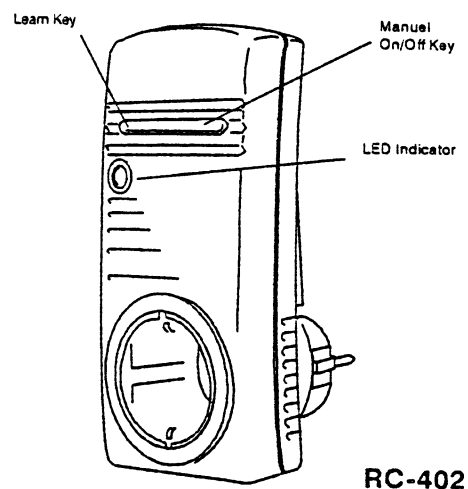
Intelligent Code setting and Learning function means there is no complicated setting of code switches and interference by other remote control system is nearly impossible.

Operation of this Remote control is simple and easy. To obtain fullest utilization out of this product, please read and follow the instructions listed below carefully.

#### TRANSMITTER TR300



#### RECEIVER RC270



RC-402

The system code and channel number of the Receivers will be retained if they are unplugged from the power outlet for less than 10 minutes. If the Receivers have been unplugged for too long duration, the above 'learn' procedures needs to be performed again.

DO NOT press the RESET button of the transmitter again after setting up the Receivers unless you suspect that the Remote Control is interfered by other signals. This will generate a new system code, and all Receivers needs to perform the 'learn' procedure again.

To avoid interference, do not put the Receivers along side one another. A minimum distance of 18 inches (0.5 meter) is recommended.

### **OUTPUT INDICATOR OF RECEIVER**

- For RC270 appliance receiver, the green LED will light if the output is turn on.

### **OPERATION**

#### **Control using button on the Receivers**

- A short press of the ON/OFF button will toggle the plugged-in appliance / lamp on and off.

#### **Remote Control Operation**

With the TR300 Transmitter, you can control up to 4 Receivers using RF remote control.

- To turn on or off the output of the Receiver(s), press the ON or OFF button of the assigned channel respectively.

#### **Notes:**

Please note that there is a data backup circuitry inside the Receiver to remember the code setting during the period without AC power. Therefore, there is a possibility that, in some rare circumstances, the Receiver may become unable to operate after AC failure. To solve this problem, just remove the Receiver from the AC power for 6 hours and try the set-up procedures again.

### **Technical Specifications**

#### **RC270 Appliance Receiver**

Ratings: 120V 60Hz  
Transmission Range: 25 meters in open area  
Maximum Load: 1800W (15A) resistive

#### **Transmitter**

Power Source: 9V Battery  
System Code: 4,096 combinations

This device complies with Part 15 of the FCC Rules Operation is subjected to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interence recived, including interference that may cause undesired operation.

## BUTTON CONFIGURATION

### Transmitter TR300

ON	The 4 ON button will turn on the receiver of the respective channel
OFF	The 4 ON button will turn on the receiver of the respective channel
BRIGHT	Increase the brightness of the plugged-in lamps (only applicable for our other "UPM" Brand Dimmer Receivers RC270D)
DIM	Decrease the brightness of the plugged-in lamps (only applicable for our other "UPM" Brand Dimmer Receivers RC270D)
RESET (located inside the battery compartment)	Generate a new System code

### Appliance Receiver RC270

LEARN	Learn the System Code and Channel number assigned by the Transmitter
ON/OFF	Turn on/off the plugged-in devices manually

## SYSTEM SETUP

Note: *LEARN procedure as described below must be performed before the remote control function will work.*

### Battery Installation & Setting Up of Remote Transmitter TR300

- Open the battery cover at the back of the Transmitter.
- Install one 9V battery (included) into the battery compartment. Make sure the battery is in the right polarities. Otherwise, it may result in short-circuit and damage the device.
- If you wish, press the RESET button once to generate a unique System code so that this set of remote control will not be interfered by other similar systems nearby.
- Put the battery cover back onto the Transmitter.
- Press any button to ensure that it is working properly (which is indicated by the flashing LED).

### Setting Up of Indoor Receiver RC270

- Plug the Receiver into the wall socket.
- Plug an electrical appliance or a lamp into the output socket of the Receiver. Make sure the plugged-in device is turned on.
- Press the ON/OFF button on the Receiver. The plugged-in appliance or lamp should turn on, indicating everything is ready. Push the button again to turn off the appliance.
- To match the system code and assign a channel to the Receiver, press and hold the LEARN button on the Receiver while pressing and holding the ON button of your desired channel (e.g., CH.1 ON) of the Remote Transmitter TR300. The Receiver will "learn" the assigned channel automatically and the appliance / lamp will turn on. Release the LEARN button.
- To check whether the Receiver is now responding to the assigned Channel, try turning on/off the plugged-in device by pressing the ON or OFF button of the assigned channel on the Transmitter.

Repeat the above procedures if you have more than 1 Receiver. The Receivers can be set to same channel or different channels, depending on whether you want to control the Receivers together or separately.

# Period of Keyed Modulated RF - Carrier

Model : TR300  
RC270/RC270D

Carrier Frequency: 433.92MHz  
Bit Rate: 521 bits / second  
Encoding: Pulse width modulation  
1 pulse of 1.28 ms low, 0.64 ms high for logic 1  
1 pulse of 0.64 ms low, 1.28 ms high for logic 0  
Word Format: 1/3bit + 20 bits / word  
Operating Period: One transmission of 4 words each time (depends on user)

## Specification:

	<u>TX</u>	<u>RX</u>
Frequency Range :	433.92MHz	433.92MHz
Number of Channel :	1	1
Antenna :	Printed Antenna	Printed Antenna
Power Supply :	9V	120V AC
Transmitter Duty :	Intermittent (User Controlled)	N/A

# WIRELESS REMOTE CONTROL USER MANUAL

## TR300 Transmitter

### RC270D Indoor Dimmer Receiver for Lighting

#### Introduction

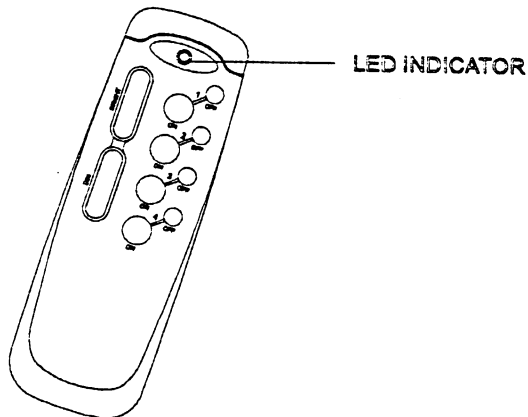
The TR300 Transmitter is designed especially to control all our Indoor Dimmer Receiver RC270D. With its dual mode (on/off and dimmer functions), you can use this Transmitter to control the Receivers for switching on or off, dim or bright the plugged-in lamp.

The Transmitter has 4 channels, which can control up to 4 receivers.

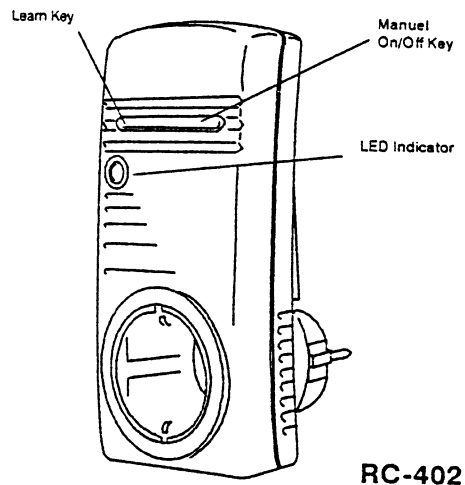
Intelligent Code setting and Learning function means there is no complicated setting of code switches and interference by other remote control system is nearly impossible.

Operation of this Remote control is simple and easy. To obtain fullest utilization out of this product, please read and follow the instructions listed below carefully.

#### TRANSMITTER TR300



#### RECEIVER RC270D



## BUTTON CONFIGURATION

### Transmitter TR-502S

ON	The 4 ON button will turn on the receiver of the respective channel
OFF	The 4 ON button will turn on the receiver of the respective channel
BRIGHT	Increase the brightness of the plugged-in lamps (only applicable for Dimmer Receivers RC270D)
DIM	Decrease the brightness of the plugged-in lamps (only applicable for Dimmer Receivers RC270D)
RESET (located inside the battery compartment)	Generate a new System code

### Dimmer Receiver RC270D

LEARN	Learn the System Code and Channel number assigned by the Transmitter
ON/OFF DIM	Control the on/off and brightness of the plugged-in lamps

## SYSTEM SETUP

Note: *LEARN procedure as described below must be performed before the remote control function will work.*

### Battery Installation & Setting Up of Remote Transmitter TR300

- Open the battery cover at the back of the Transmitter.
- Install one 9V battery (included) into the battery compartment. Make sure the battery is in the right polarities. Otherwise, it may result in short-circuit and damage the device.
- If you wish, press the RESET button once to generate a unique System code so that this set of remote control will not be interfered by other similar systems nearby.
- Put the battery cover back onto the Transmitter.
- Press any button to ensure that it is working properly (which is indicated by the flashing LED).

### Setting Up of Indoor Receiver RC270D

- Plug the Receiver into the wall socket.
- Plug a lamp (with a wattage of 300W or less) into the output socket of the Receiver. Make sure the switch of the lamp is turned on.
- Press the ON/OFF button on the Receiver. The lamp should turn on, indicating everything is ready. Push the button again to turn off the lamp.
- To match the system code and assign a channel to the Receiver, press and hold the LEARN button on the Receiver while pressing and holding the ON button of your desired channel (e.g., CH.1 ON) of the *Remote Transmitter TR300*. The Receiver will "learn" the assigned channel automatically and the lamp will turn on. Release the LEARN button.
- To check whether the Receiver is now responding to the assigned Channel, try turning on/off the plugged-in lamp by pressing the ON or OFF button of the assigned channel on the Transmitter.

Repeat the above procedures if you have more than 1 Receiver. The Receivers can be set to same channel or different channels, depending on whether you want to control the Receivers together or separately.

The system code and channel number of the Receivers will be retained if they are unplugged from the power outlet for less than 10 minutes. If the Receivers have been unplugged for too long duration, the above 'learn' procedures needs to be performed again.

DO NOT press the RESET button of the transmitter again after setting up the Receivers unless you suspect that the Remote Control is interfered by other signals. This will generate a new system code, and all Receivers needs to perform the 'learn' procedure again.

To avoid interference, do not put the Receivers along side one another. A minimum distance of 18 inches (0.5 meter) is recommended.

### **OUTPUT INDICATOR OF RECEIVERS**

- The orange indicator lamp will glow if the light is connected and turned on, and the Dimmer Receiver itself is turned off. When you turn on the Dimmer Receiver, the orange indicator will turn off.

### **OPERATION**

#### **Control using button on the Receivers**

- A short press of the ON/OFF button will toggle the plugged-in lamp on and off.
- Press and hold the ON/OFF button of the Receiver will cycle the lamp through various intensity.

#### **Remote Control Operation**

- With the TR300 Transmitter, you can control Dimmer Receiver RC270D using RF remote control.
- To turn on or off the plugged-in lamp(s) of the Dimmer Receiver, press the ON or OFF button of the assigned channel respectively.
- To dim or bright the plugged-in lamp(s) of the Dimmer Receiver, first press the ON or OFF button of the assigned channel once. Then, press the DIM or BRIGHT button to adjust the brightness.

If you want to adjust the brightness of the channel that you have just used previously, you can use the DIM or BRIGHT button directly to adjust the brightness without pressing the ON or OFF button in advance.

#### **Notes:**

Please note that there is a data backup circuitry inside the Receiver to remember the code setting during the period without AC power. Therefore, there is a possibility that, in some rare circumstances, the Receiver may become unable to operate after AC failure. To solve this problem, just remove the Receiver from the AC power for 6 hours and try the set-up procedures again.

The Dimmer Receiver RC270D is only intended to control lightings only (max. 300W). Do not plug any electrical appliances other than lamps into the Dimmer Receiver RC270D. Otherwise, it may result in damages to the Receiver as well as the plugged-in appliances.



**Technical Specifications**

RC270D Dimmer Receiver

Ratings: 120V 60Hz

Transmission Range: 25 meters in open area

Maximum Load: 300W incandescent lamp or Halogen lamp (120V)

**Transmitter**

Power Source: 9V Battery

System Code: 4,096 combinations

This device complies with Part 15 of the FCC Rules Operation is subjected to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interence recived, including interference that may cause undesired operation.