

	TCP RF Remote Control System
	RC100: RF Remote Controller (Handheld Remote Control Unit)
	RC123: Lamp Controller (Receiver Module with 23 Watt CFL)
	Congratulations. You have purchased a state of the art remote control system from TCP for compact fluorescent lighting. Please follow the simple instructions under "OPERATION" for the steps needed to get your system up and running.
CFL Remote Control Specifications	
Protocol:	IEEE 802.15.4
Frequency:	2450 MHz
Language:	Modified MAC (Media Access Control)
TCP IEEE ID:	24 BA 30
	The Atmel 128RFA1 I.C. is an 802.15.4 transceiver which is a Direct Sequence Spread spectrum mode of transmission.
	OPERATION
Initial Setup	
1	The CFLs arrive in a factory test mode. They will have to be trained to respond to the remote control unit in the package.
2	There are four channels available to control the CFLs; A, B, C, and D.
3	You may train the CFLs to any combination of channels. i.e., All on channel A; Two on A, two on B; Two on B, one on C and one on D, etc.
4	An unlimited amount of CFLs can be trained to each channel. Additional CFLs can be purchased separately.
5	The CFLs will always turn on when power is applied. This ensures that each CFL can be turned on without a remote by turning the wall or lamp switch off, then back on.
6	Install the batteries in the remote control unit by paying carefull attention to battery polarity. Putting the batteries in backwards will destroy the unit.
7	The "Cap Touch" control panel on the remote senses the presence of a finger above each button area. Only a light touch is required. There are no moving parts in the remote control unit.
8	For the first time, train the CFLs one at a time. If there will be two or more CFLs on one channel, they can be trained in groups at the same time. Training shortcuts will be covered later.
9	To start the training process, apply power to the first CFL(s) to be trained.
10	On the remote, while touching and holding the program (PRG) button, touch and hold another finger on the channel button that you want to use for this CFL (or group of CFLs.) Always touch the PRG button first. After about five seconds the CFL(s) will blink once indicating that training was successful. Verify by touching the off button. Remove power from the first CFL(s) and apply power to the next CFL(s) to be trained.
11	Repeat Step 8 until all lamps are trained.
12	Apply power to all of the lamps and test them. Touch and remove your finger from one of the five available control buttons; A, B, C, D, or ALL. The remote will stay in this channel or mode until another control button is touched. If you now touch off or on, the CFL(s) corresponding to the last control button touched will turn off or on.

13	Remember to leave the CFLs' power on if you want to be able to control them with the remote.
Retraining CFLs to another channel	
1	A lamp that has been trained and is turned "off" with the remote can not be retrained. That way other CFL(s) can be retrained without having to remove power from the CFL(s) that you do not want to retrain.
2	Remove power or turn off with the remote the lamps that you do not want to retrain.
3	Turn on the CFL(s) that you want to retrain. You may have to toggle the power switch if this lamp was trained to the same channel as one of the CFLs that were turned off with the remote to prevent retraining.
4	To minimize the risk of training unintended CFLs, during training the remote is in a low power output mode. You may need to move closer to CFL(s) being retrained.
5	To erase any CFL that is on, touch and hold the program (PRG) button then touch and hold another finger on the off button. After about five seconds the CFL(s) will blink twice indicating that they are back in the factory test mode.
Remote Cloning	
1	Additional CFLs and remote control units can be purchased separately. CFLs however can only be trained to operate with one remote. The cloning function can be used to make additional remotes operate identically to the original remote.
2	To clone a new remote, touch and hold the PRG button on the original remote. With the other hand quickly touch and hold the PRG button and then the on button. Hold them all down for about five seconds. The new remote should operate the trained CFLs in the same manner as the original. If there are problems repeat the procedure.
3	To completely erase any remote, touch hold the PRG button and then the ALL button for five seconds. The remote will be returned to its factory condition.
Testing the Remote Unit	
1	Ensure that the batteries are good.
2	One lamp will have to be reset to factory test mode. (See "Retraining CFLs to another channel" 2 through 5)
3	Tap the "D" button five times at a rate of about twice per second.
4	The remote will only stay in this special mode for 15 seconds.
5	The "ON", "A", "B", and "ALL" buttons will all turn the lamp on, and the "OFF", "D", "C", and "PRG" buttons will turn the lamp off.
6	Once in test mode it is recommended that you press the buttons in the order of "OFF", "ON", "D", "A", "C", "B", "PRG", and then "ALL". The lamp will turn off and then on repeatedly and all the buttons can be tested in a few seconds.
Agencies Certifications	
FCC Statements	
Compliance Statement (Part 15.19)	
These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:	

	These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
	1. These devices may not cause harmful interference, and
	2. These devices must accept any interference received, including interference that may cause undesired operation.
Compliance Statement (Part 15.105(b))	
	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.
IC Statements	
	This Class B digital apparatus complies with Canadian ICES-003.
	Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
	IMPORTANT: Modifications not expressly approved by this company could void the user's authority to operate this equipment (FCC section 15.21).
FCC IDs	
	The RF Remote Controller has FCCID: NIRRC100
Industry Canada	
	The RF Remote Controller has IC ID: 9486A-RC100
	The Lamp Controller has IC ID: 9486A-RC123