



Operating Instructions

COMMANDO™ Control RF™

Professional Wireless Remote



INTRODUCTION

Thank you for choosing the CoachComm Commando™ Control RF™ professional wireless remote, the world's only RF, bidirectional wireless remote control. CoachComm is the undisputed leader in sports electronics control technology with our innovative line of Commando hardwired remotes. Now Control RF wireless remote technology raises the bar to a whole new level.

Your new Commando Control RF wireless remote will provide a seamless, rock solid link to your game and scouting film while freeing you to move about freely. Your Control RF remote will even work through walls and other obstructions. There is no need to point the remote toward the device you want to control, players can be in the way, the deck or computer can even be in a different room. It's no problem for the Control RF remote.

No other remote even comes close!

UNPACKING

What you should have received:

- 1 Commando Control RF Base
- 1 Commando Control RF Wireless Remote
- 1 Antenna for RF Base
- 1 Power Supply for RF Base
- 1 Operating Instructions

Important Note: Immediately upon receipt of the equipment, inspect the shipping container and the contents carefully for any discrepancies or damage. Should there be any, notify the freight company and CoachComm at once.

DESCRIPTION

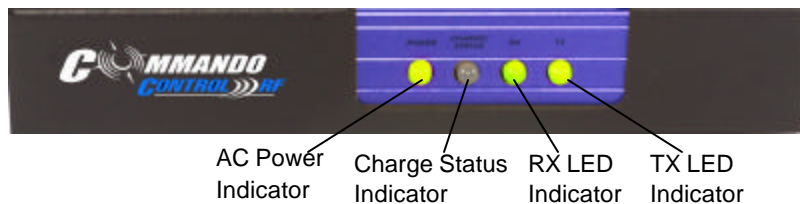
The Commando Control RF wireless remote provides a seamless link to your video device while freeing you to move about freely. There is no need to point the remote toward the device you want to control or worry about players getting in the way. Unlike infrared remotes the digitally controlled RF technology employed by the Control RF remote is not affected by such obstacles. The deck or computer you wish to control can even be in a different room.

There is no need to obtain a license or other authorization to use your Control RF remote as the frequencies utilized do not require such action.

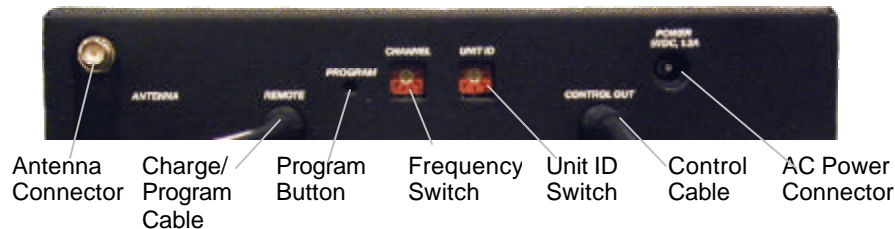
The Commando Control RF professional wireless system consists of two major parts, the Base Station and the Wireless Remote. The base station is connected to the device you want to control and the wireless remote is used by the coach or player to control the video in exactly the same manner as a hardwired remote. The base station and the remote communicate with each other via a RF wireless link.

The major facets of the base station are identified on the following page.

RF Remote Base Station Front Panel:



RF Remote Base Station Back Panel:



INSTALLATION

Installation of your new Commando Control RF remote is fast and easy. After unpacking your Control RF remote locate the base station near the device you wish to control.

Find the small base station antenna and screw it onto the antenna connector on the back of the base. The antenna should be hand tight. Do not over tighten. Orient the antenna so that it points straight up.

Plug the base station power supply into the AC Power connector on the back of the base station. Locate a standard AC power source (wall outlet) and plug the power supply into the outlet. The Power LED on the front of the base station should light green.

Plug the Control cable (15ft in length) into the device you want to operate. Be careful to align the pins properly. Do not use excessive force when inserting as the connector may become damaged. Your Control RF remote is designed to connect to a specific type of device and has an appropriate connector for that device on the end of the Control Cable. The following is a list of available connection types. Your Control RF base will have one of these.

- CoachComm and Panasonic VCRs – mini 5-Pin or 6-Pin Din
- RS-232 Serial Computer interface – DB-9 connector
- USB Computer interface – USB type connector
- RS-422 Serial Device interface – DB-9 connector
- Control-S Sony interface – 1/8th inch stereo

That completes installation of your new Control RF remote. Please move on to the OPERATION section of this manual for important tips on battery charging and system programming.

OPERATION

General Remote Operation

Your new Commando Control RF remote operates in essentially the same manner as your current hardwired remote. All of the buttons and features work the same way as your current CoachComm Commando hardwired remote so you can start using your Control RF remote without learning new skills. Before getting started, read through the rest of this section for tips on battery charging and system programming.

Battery Charging

One important distinction with your new wireless remote is that it runs on LiIon rechargeable batteries. It is possible to use your Control RF wireless remote in a hardwired backup mode regardless of battery condition. That means even if your remote batteries are completely dead, you can plug the remote into the 15 foot Charge / Program cable on the back of the base station and the remote will function normally just like a hardwired remote.

Prior to your first wireless use of your Control RF Remote you will need fully charge the internal LiIon battery. To do this, plug the wireless remote into the base station via the Charge / Program cable. The Charge Status indicator LED on the front of the base will light red to indicate that the batteries are charging. If the Charge Status LED does not light, or lights amber contact CoachComm service immediately. Let the batteries charge until the Charge Status indicator LED on the front of the base turns green to indicate that the battery has a full charge. This will take about 4 hours for your first charge and approximately 3 to 3.5 hours after that. You can use the remote while it is charging as outlined above. Using the remote while it is charging will have no affect on charging time.

System Programming

Your new CoachComm Control RF wireless remote system is capable of operating on one of ten different frequency channels. Each channel then has eight ID codes so that more than one (up to eight) wireless remote system can use that frequency channel at one time. Your system, or systems, was/were programmed at the factory to operate on a specific frequency channel and unit ID. If you bought more than one system at the same time, all of your systems were programmed on compatible frequency channels and Unit ID codes so that they can all work together.

Your Control RF system will work right out of the box. You do not have to program anything if you do not want to. What follows is a description of how to change the system settings if you are experiencing interference, or need to switch frequency channels or Unit IDs for any reason.

NOTE: The base station and its corresponding wireless remote will only work together if they are set to the same Frequency Channel and Session ID.

To change the Frequency channel set the Frequency Channel switch on the back of the base station to the desired setting. Plug the Charge/Program cable located at the back of the base station into the wireless remote. Push the Program button on the back of the base. The base and the wireless remote are now programmed to the new frequency channel.

NOTE: The program button is recessed so that it is not unintentionally pressed. You will need to use a paper clip or some other thin item to push it.

To change the Unit ID set the Unit ID switch on the back of the base station to the desired setting. Plug the Charge/Program cable located at the back of the base station into the wireless remote. Push the Program button on the back of the base. The base and the wireless remote are now programmed to the new Unit ID.

Button Functions

The specific buttons that are on your new CoachComm Commando Control RF remote will depend on the type of product your remote was designed to control. The list of functions below are the most common.

Power – To turn the power to the VCR on and off, hold the “STOP” button and press “PAUSE”.

Rev – Rewind - Press “STOP” to terminate the rewind function.

FF – Fast Forward - Press “STOP” to terminate the fast forward function.

PLAY – Plays the tape in the VCR. While the VCR is in the “PLAY” mode, the following functions are applicable:

Rev – Visible fast reverse scan, reverts to standard play when released.

FF – Visible fast forward scan, reverts to standard play when released.

R-Play – Standard play speed in Reverse, reverts to standard play when released.

Slow – Plays in slow motion (1/5th speed), reverts to standard play when released. Reverse “SLOW” is obtained by pressing “PAUSE” or “REV” while in the “SLOW” mode.

Pause – When the VCR is in the “PLAY” mode the “PAUSE” button will pause or freeze the picture. Using other keys such as “REV”, “FF”, “R-PLAY” or “SLOW” will allow you to seek out a particular frame and the “PAUSE” function will hold that frame still until pressed again. To return to standard play, press “PAUSE” again.

ADV – Plays Tape in 1/15th speed. Pressing “REV” while in this mode will achieve the same speed in reverse. Press ADV again to return to standard play.

Record – Play or search tape to the point you wish to begin recording. Place VCR in “PAUSE”, press “STOP” and then quickly press “REV”. The CoachComm Series VCRs will now be in “RECORD PAUSE”, to begin recording press “PAUSE”. The Panasonic 1900 Series VCRs will begin recording immediately.

Stop – Stops any VCR function in progress.

/R (Instant Replay) Button

To initiate Instant Replay press “IR” button to mark the beginning of the segment of tape you want to review. When your tape reaches the end of the segment, press the “IR” button again. The remote will now return the tape to the original mark and play the tape to the ending mark. The tape will remain in this ‘Instant Replay Loop’ until the “IR” button is pressed a third time. (Note: The first mark can also be at the end of a segment. You simply press “IR” to mark the end of the segment and return to the beginning of the segment by pressing any of your reverse functions. At this point you press the “IR” button again and the tape will go into the “Instant Replay Loop” until the “IR” button is pressed a third time.) When the “IR” button is pressed a third time, it takes the VCR out of the “Instant Replay” mode and the VCR will go into the “Pause” mode, you can now press the “PLAY” button to continue regular VCR operation. During the “Instant Replay Loop” process you can use all of the functions you do during regular play: Slow, Pause, R-Play, ADV, FF & Rev.

Laser Button

Your new Control RF remote has a built in Smart Laser Pointer. The “LASER” button at the top right of the remote activates the laser. When pressed and held, the laser will light indefinitely. If pressed and released, the laser will light only for a few seconds. If during those few seconds you operate any function of the Remote (other than “STOP”), the laser will remain active. It will cut-off a few seconds after your last action on the keypad or if you press the “LASER” button again or if you press “STOP”.

Keypad Backlighting

The keypad of your new Control RF remote is backlit to so that use in darkened rooms may be easily accomplished. The backlighting may be turned off to conserve battery life if you are operating in a well lit environment. To toggle keypad backlighting ON or OFF press the STOP and the LASER buttons down together and hold them down for three seconds.

SPECIFICATIONS

System:

Button functions are identical to Commando PRO IR hardwired remote

Receiver Intermediate frequency	10.7 MHz (low side Local Oscillator)
Transmitter type	Direct conversion, FSK modulated
Data rate	19.2 kbaud, Manchester Encoded
Minimum FM deviation	120 kHz
Base conducted output power	-1 dBm
Remote conducted output power	5 dBm
Maximum Receiver sensitivity	-93 dBm
Maximum Transmit current	45 mA
Maximum Receive current	35 mA

FCC Compliance Remote: Parts 15.109 and 15.249 Base: Parts 15.107, 15.109 and 15.249

Range: 250 feet typical line of sight; 100 feet indoors through walls

User Selectable RF Channels: 10 unique frequencies for multiple units operating in the same room

Ch No.	MHz	Ch No.	MHz
1	903.0	6	907.0
2	903.0	7	908.0
3	905.0	8	909.5
4	905.5	9	910.0
5	906.0	10	911.0

User Selectable Session IDs: 8 unique codes for multiple units sharing the same frequency, expands the number of units that can be operated in the same room to 80

Wireless Remote:

Size: 4.8" x 2.3" x 1.0"

Weight: 6 oz.

Lithium Ion Rechargeable Battery rated 920 mAh

24 hours normal operation between charges, 3 days standby

3.5 hours to charge

Operates while charging via the 15' captive charging cable supplied

Backlit keypad for operating in a darkened room

Backlights can be toggled ON/OFF to conserve battery power

Backlighting shuts OFF when the unit is not being used (after 45 seconds)

Base Station:

Size: 6.9" x 4.4" x 1.3"

Weight: 2 lbs.

5V Regulated UL approved Wall-mount Power Supply

VCR Interface Options:

Standard 5-pin VCR interface

RS 232

RS 422

USB

Control S

Status LEDs indicate Power, Battery Charge Status, and Transmit/Receiving activity between Base and Remote

TECHNICAL SUPPORT

Technical Support questions and requests for Return Authorization should be directed to:

Customer Service Department

CoachComm

Voice: 800-749-2761 or 334-321-2300

Fax: 334-821-0397

**DO NOT RETURN ANY EQUIPMENT DIRECTLY TO THE FACTORY
WITHOUT FIRST OBTAINING A RETURN AUTHORIZATION.**

Returning Equipment for Repair or Adjustment

All shipments of CoachComm Control RF products should be made via UPS or the best available shipper, prepaid. The equipment should be shipped in the original packing carton; if that is not available, use any suitable container that is rigid and of adequate size and surround equipment with at least four inches of shock-absorbing material. All shipments must be sent to the following address and must include the Return Authorization Number.

Customer Service Department

CoachComm

205 Technology Parkway

Auburn, AL 36830-0500

Warranty Information

Commando Control RF products are warranted by CoachComm to be free from defects in materials and workmanship for a period of one year from the date of sale. Buttons on the wireless remote are warranted to be free from defects in materials and workmanship for the life of the wireless remote.

The sole obligation of CoachComm during the warranty period is to provide, without charge, parts and labor necessary to remedy covered defects appearing in products returned prepaid to CoachComm. This warranty does not cover any defect, malfunction or failure caused by circumstances beyond the control of CoachComm, including but not limited to unreasonable or negligent operation, abuse, accident, failure to follow instructions in the Service Manual or the User Manual, defective or improper associated equipment, attempts at modification and repair not authorized by CoachComm, and shipping damage. Products with their serial numbers removed or effaced are not covered by this warranty.

This warranty is the sole and exclusive express warranty given with respect to COMMANDO CONTROL RF products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose.

ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY.

NEITHER COACHCOMM NOR ANY DEALER WHO SELLS COMMANDO CONTROL RF PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

FCC Compliance

Compliance Statement (Part 15.19)

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. 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.

Warning (Part 15.21)

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