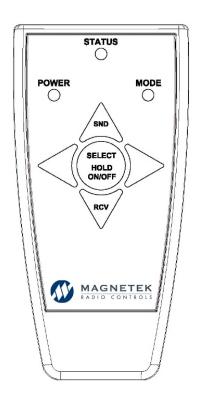
# Telemotive Infrared to USB Adapter

# Wireless Controls





October 2011 Part Number: 198-00252-0001 ©Copyright 2011 Magnetek Material Handling

## **Your New IR Adapter**

Thank you for your purchase of Magnetek's Telemotive brand Infrared to USB Adapter. Magnetek has set a whole new standard in management solutions for all of our wireless products.

If your product ever needs modification or service, please contact one of our representatives at the following locations:

## **U.S. Service Information**

For questions regarding service or technical information contact: 1.866.MAG.SERV (1.866.624.7378).

Magnetek, Inc. N49 W13650 Campbell Drive Menomonee Falls, WI 53051

**Telephone:** 1.800.288.8178

**Website**: www.magnetekmh.com e-mail: info@magnetekmh.com

## Fax Numbers:

Main: 1.800.298.3503 Sales: 1.262.783.3510 Service: 1.262.783.3508

## Canada Service Information:

4090B Sladeview Crescent Mississauga, Ontario L5L 5Y5 Canada Phone: 1.800.792.7253

Fax: 1.905.828.5707

1.416.424.7617 (24/7 Service pager)

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## 1.0 INTRODUCTION

Thank you for your purchase of Magnetek's Telemotive brand Infrared to USB Adapter.

These instructions are to be used as a reference for personnel operating the Telemotive brand Infrared to USB Adapter and the equipment that this Telemotive brand Infrared to USB Adapter interfaces with.

The user of these instructions should have basic knowledge in the handling of electronic equipment.

## 1.1 PRODUCT MANUAL SAFETY INFORMATION

Magnetek, Inc. (Magnetek) offers a broad range of radio wireless controls products, control products and adjustable frequency drives, and industrial braking systems for overhead material handling applications. This manual has been prepared by Magnetek to provide information and recommendations for the installation, use, operation and service of Magnetek's material handling products and systems (Magnetek Products). Anyone who uses, operates, maintains, services, installs or owns Magnetek Products should know, understand and follow the instructions and safety recommendations in this manual for Magnetek Products.

The recommendations in this manual do not take precedence over any of the following requirements relating to cranes, hoists and lifting devices:

- Instructions, manuals and safety warnings of the manufacturers of the equipment where the radio system is used,
- Plant safety rules and procedures of the employers and the owners of facilities where the Magnetek Products are being used,
- Regulations issued by the Occupational Health and Safety Administration (OSHA),
- Applicable local, state or federal codes, ordinances, standards and requirements, or
- Safety standards and practices for the overhead material handling industry.

This manual does not include or address the specific instructions and safety warnings of these manufacturers or any of the other requirements listed above. It is the responsibility of the owners, users and operators of the Magnetek Products to know, understand and follow all of these requirements. It is the responsibility of the owner of the Magnetek Products to make its employees aware of all of the above listed requirements and to make certain that all operators are properly trained. No one should use Magnetek Products prior to becoming familiar with and being trained in these requirements.

## **WARRANTY INFORMATION**

FOR INFORMATION ON MAGNETEK'S PRODUCT WARRANTIES BY PRODUCT TYPE, PLEASE VISIT WWW.MAGNETEKMH.COM.

## 1.2 WARNINGS and CAUTIONS

Throughout this document WARNING and CAUTION statements have been deliberately placed to highlight items critical to the protection of personnel and equipment.

WARNING – A warning highlights an essential operating or maintenance procedure, practice, etc. which, if not strictly observed, could result in injury or death of personnel, or long term physical hazards. Warnings are highlighted as shown below:



CAUTION – A caution highlights an essential operating or maintenance procedure, practice, etc. which, if not strictly observed, could result in damage to, or destruction of equipment, or loss of functional effectiveness. Cautions are highlighted as shown below:



## WARNINGS and CAUTIONS SHOULD NEVER BE DISREGARDED.

The safety rules in this section are not intended to replace any rules or regulations of any applicable local, state, or federal governing organizations. Always follow your local lockout and tagout procedure when maintaining any radio equipment. The following information is intended to be used in conjunction with other rules or regulations already in existence. It is important to read all of the safety information contained in this section before installing or operating the Radio Control System.



## **WARNING**

PRIOR TO INSTALLATION AND OPERATION OF THIS EQUIPMENT, READ AND DEVELOP AN UNDERSTANDING OF THE CONTENTS OF THIS MANUAL AND THE OPERATION MANUAL OF THE EQUIPMENT OR DEVICE TO WHICH THIS EQUIPMENT WILL BE CONNECTED TO. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

ALL RADIO CONTROL EQUIPMENT THAT THIS DEVICE INTERFACES WITH SHOULD BE OFFLINE FROM THE EQUIPMENT THAT IT IS CONTROLLING. DO NOT ATTEMPT TO UTILIZE THIS DEVICE WHILE THE RADIO CONTROL EQUIPMENT IS OPERATING CONNECTED EQUIPMENT. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

FOLLOW YOUR LOCAL LOCKOUT TAGOUT PROCEDURE BEFORE MAINTAINING ANY REMOTE CONTROLLED EQUIPMENT. ALWAYS REMOVE ALL ELECTRICAL POWER FROM THE CRANE, HOIST, LIFTING DEVICE OR SIMILAR EQUIPMENT BEFORE ATTEMPTING ANY INSTALLATION PROCEDURES. DE-ENERGIZE AND TAGOUT ALL SOURCES OF ELECTRICAL POWER BEFORE TOUCH-TESTING ANY EQUIPMENT. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

#### 2.1 GENERAL

Radio controlled material handling equipment operates in several directions. Cranes, hoists, lifting devices and other material handling equipment can be large, and operate at high speeds. Quite frequently, the equipment is operated in areas where people are working in close proximity to the material handling equipment.

## The operator must exercise extreme caution at all times.

The operator must constantly be alert to avoid accidents. The following recommendations have been included to indicate how careful and thoughtful actions may prevent injuries, damage to equipment, or even save a life.



## WARNING

THIS INFRARED TO USB ADAPTER IS EQUIPPED WITH AN INFRARED TRANSMITTER. THE OPERATOR SHOULD BE AWARE OF THESE RISKS AND AVOID LOOKING DIRECTLY INTO THE INFRARED TRANSMITTER DURING OPERATION. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN INJURY.

## 2.2 PERSONS AUTHORIZED TO OPERATE RADIO CONTROLLED MACHINERIES

Only properly trained persons designated by management should be permitted to operate radio controlled equipment and the Infrared to USB Adapter.

Radio controlled cranes, hoists, lifting devices and other material handling equipment should not be operated by any person who cannot read or understand signs, notices and operating instructions that pertain to the equipment.

Radio controlled equipment and the Infrared to USB Adapter should not be operated by any person with insufficient eyesight or hearing or by any person who may be suffering from a disorder or illness, is taking any medication that may cause loss of equipment control, or is under the influence of alcohol or drugs.

## 2.3 SAFETY INFORMATION AND RECOMMENDED TRAINING FOR RADIO CONTROLLED EQUIPMENT OPERATORS

Anyone being trained to operate radio controlled equipment should possess, as a minimum, the following knowledge and skills before using the radio controlled equipment.

## The operator should:

- have knowledge of hazards pertaining to equipment operation
- · have knowledge of safety rules for radio controlled equipment
- have the ability to judge distance of moving objects
- know how to properly test prior to operation
- be trained in the safe operation of the radio transmitter as it pertains to the crane, hoist, lifting device or other material handling equipment being operated
- have knowledge of the use of equipment warning lights and alarms
- have knowledge of the proper storage space for a radio control transmitter when not in use
- be trained in transferring a radio control transmitter to another person
- be trained how and when to report unsafe or unusual operating conditions
- test the transmitter emergency stop and all warning devices prior to operation; testing should be done on each shift, without a load
- be thoroughly trained and knowledgeable in proper and safe operation of the crane, hoist, lifting device, or other material handling equipment that utilizes the radio control
- · know how to keep the operator and other people clear of lifted loads and to avoid "pinch" points
- continuously watch and monitor status of lifted loads
- · know and follow cable and hook inspection procedures
- · know and follow the local lockout and tagout procedures when servicing radio controlled equipment
- know and follow all applicable operating and maintenance manuals, safety procedures, regulatory requirements, and industry standards and codes

## The operator shall not:

- lift or move more than the rated load
- operate the material handling equipment if the direction of travel or function engaged does not agree with what is indicated on the controller
- use the crane, hoist or lifting device to lift, support or transport people
- lift or carry any loads over people
- operate the crane, hoist or lifting device unless all persons, including the operator, are and remain clear of the supported load and any potential pinch points
- operate a crane, hoist or lifting device when the device is not centered over the load
- operate a crane, hoist or lifting device if the chain or wire rope is not seated properly in the sprockets, drum or sheave
- operate any damaged or malfunctioning crane, hoist, lifting device or other material handling equipment
- · change any settings or controls without authorization and proper training
- remove or obscure any warning or safety labels or tags
- leave any load unattended while lifted
- leave power on the radio controlled equipment when the equipment is not in operation
- operate any material handling equipment using a damaged controller because the unit may be unsafe
- operate manual motions with other than manual power
- operate radio controlled equipment when low battery indicator is on



THE OPERATOR SHOULD NOT ATTEMPT TO REPAIR ANY RADIO CONTROLLER. IF ANY PRODUCT PERFORMANCE OR SAFETY CONCERNS ARE OBSERVED, THE EQUIPMENT SHOULD IMMEDIATELY BE TAKEN OUT OF SERVICE AND BE REPORTED TO THE SUPERVISOR. DAMAGED AND INOPERABLE RADIO CONTROLLER EQUIPMENT SHOULD BE RETURNED TO MAGNETEK FOR EVALUATION AND REPAIR. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

## 3.0 BATTERY

The IR to USB Adapter can be powered through the USB interface with no battery installed.

**Two AAA alkaline batteries** are needed when the adapter is used standalone (disconnected from a computer).



USE ONLY ALKALINE BATTERIES. DO NOT USE RECHARGEABLE BATTERIES.

NOTE: The batteries will not be charged when the USB cable is connected between the USB port and a computer system or USB power supply.

#### 3.1 HANDLING BATTERIES



KNOW AND FOLLOW PROPER BATTERY HANDLING, CHARGING AND DISPOSAL PROCEDURES. IMPROPER BATTERY PROCEDURES CAN CAUSE BATTERIES TO EXPLODE OR DO OTHER SERIOUS DAMAGE. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

Use only batteries approved by Magnetek for the specific product.

Do not short circuit the battery.

Keep batteries in a cool environment during storage (i.e., not in direct sunlight or close to a heating source).

## 3.2 BATTERY DISPOSAL

Before disposing of batteries consult local and governmental regulatory requirements for proper disposal procedure.

## 3.3 BATTERY INSTALLATION

The IR adapter requires two alkaline AAA batteries when operating with USB disconnected.

To insert the batteries, unscrew the Phillips head screw on the back/bottom of the device (shown in Figure 1) and gently separate the two halves of the case apart.



THE HOUSING HALVES ARE CONNECTED BY A RIBBON CABLE. USE CARE WHEN SEPARATING THE TOP HALF FROM THE BOTTOM THAT THE CABLE IS NOT STRAINED/PULLED ON. IF THE CABLE IS STRAINED, THE CABLE CAN BECOME SEPARATED FROM THE CIRCUIT BOARD INSIDE THE IR TO USB ADAPTER, OR THE CABLE CAN BE DAMAGED, WHICH COULD RESULT IN LOSS OF FUNCTION TO THE IR TO USB ADAPTER DEVICE OR DAMAGE TO THE DEVICE

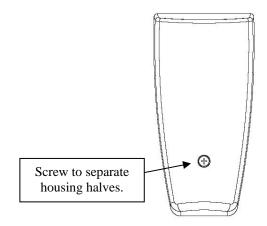


Figure 1: Phillips screw location on back/bottom of IR to USB Adapter

The halves of the device will still be connected together by a ribbon cable after separating the top half from the bottom half.

Unscrew the Phillips head screw and remove the brace that holds down the batteries.

Place the AAA batteries into the inside of the device (total of two AAA batteries) in the battery compartments as shown in Figure 2.

NOTE: Follow the markings in the battery compartment sections for proper orientation of the batteries.



IF THE BATTERIES ARE NOT INSTALLED INTO THE DEVICE IN THE CORRECT ORIENTATION THE DEVICE WILL NOT FUNCTION ON BATTERY POWER.



AVOID CONTACT WITH THE CIRCUIT BOARD ON THE INSIDE OF THE IR TO USB ADAPTER. THE CIRCUIT BOARD CAN BE SENSITIVE TO ELECTROSTATIC SHOCKS AND PHYSICAL DAMAGE. USE CAUTION WHEN CHANGING THE BATTERIES TO ENSURE THAT THE CIRCUIT BOARD IS NOT DAMAGED. A DAMAGED CIRCUIT BOARD COULD RESULT IN LOSS OF FUNCTION TO THE IR TO USB ADAPTER DEVICE.

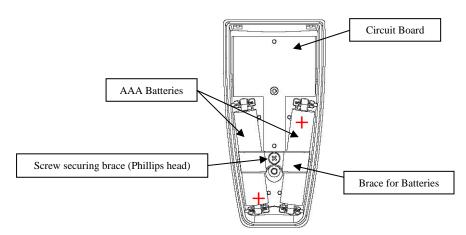


Figure 2: Inside battery compartment details for the IR to USB Adapter

Once the batteries are installed, using caution to avoid the circuit board, place the battery brace back on top of the batteries and screw in the attached Phillips screw.

NOTE: Do not over-tighten the screw as over-tightening will strip out the threads and result in the brace not adequately securing the batteries into the battery compartment.

Clasp the two halves back together, making sure that the housing screw hole and the sides of the device are aligned. Screw the Phillips head screw removed at the beginning of this section back in.

NOTE: Do not over-tighten the screw as over-tightening will strip out the threads and result in the halves of the IR to USB Adapter not being properly secured together.



BEFORE OPERATING THE ADAPTER, FAMILIARIZE YOURSELF WITH ALL SAFETY INFORMATION IN THIS MANUAL, APPROPRIATE MANUAL SUPPLEMENTS, MANUALS FOR THE RADIO CONTROL DEVICES BEING INTERFACED BY THE ADAPTER AND ANY OTHER LOCAL, STATE, OR FEDERAL RULES OR REGULATIONS ALREADY IN EXISTENCE. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

This IR to USB Adapter is designed to operate either connected via computer or as a standalone device.

## 4.1 OPERATING WHEN CONNECTED TO A COMPUTER

The following section describes the operational steps and features of the IR to USB Adapter when it is being used while connected to a computer.

## 4.1.1 Turning IR to USB Adapter On And Off

When the IR to USB Adapter is connected to a computer via the USB Mini-B receptacle shown in Figure 3, the IR to USB Adapter will automatically power on.

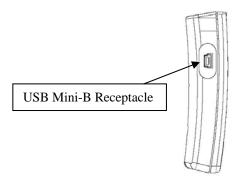


Figure 3: Detail of USB Receptacle on IR to USB Adapter

NOTE: There is no need to press any buttons on the IR to USB Adapter when connected to a computer through USB.

## 4.1.2 Connected Operating Mode

When properly connected to a computer through the USB receptacle, the Green Power LED will illuminate. This indicates that the IR to USB Adapter is powered and functioning properly.

The IR to USB Adapter is ready to send and/or receive programming information from the connected computer using the RCP software to the Magnetek radio control device.

NOTE: Aside from positioning the IR to USB Adapter in front of the IR window in the Magnetek radio control device, there is no further operator interaction with the IR to USB Adapter in the connected operating mode.

## 4.1.3 Programming with RCP Software

RCP is the software utilized on a computer to program Magnetek radio control devices through the IR port on IR equipped devices. The RCP software allows you to select frequency, access code, transmitter power, and other configuration items.



## **WARNING**

THE USE OF RCP (RADIO CONTROL PROGRAMMER) IS INTENDED FOR USE BY AUTHORIZED PERSONS ONLY. CHANGES TO ANY RADIO DATA VALUE MAY LEAD TO UNEXPECTED, UNDESIREABLE, OR UNSAFE OPERATION OF EQUIPMENT AND FURTHERMORE MAY LEAD TO EQUIPMENT DAMAGE, PERSONAL INJURY, OR EVEN DEATH. ALL EQUIPMENT OPERATORS AND/OR PERSONNEL SHOULD BE NOTIFIED OF ANY RADIO DATA VALUE CHANGES THAT MAY AFFECT OPERATION.

## 4.1.4 Pre-Programming Considerations

The receiver and transmitter must be programmed with the same access code to properly communicate with each other.



## **WARNING**

TWO OPERATIONAL TRANSMITTERS WITH THE SAME ACCESS CODES OPERATING AT THE SAME TIME IS A DEFINITE SAFETY HAZARD – DO NOT OPERATE THEM AT THE SAME TIME. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.



## **WARNING**

USING THE IR TO USB ADAPTER TO SEND A CONFIGURATION TO A TRANSMITTER WILL UPDATE THE ACCESS CODE. AFTER CHANGING THE ACCESS CODE ON THE TRANSMITTER, TEST THE UNIT BY TURNING IT ON AND OFF NEAR THE APPROPRIATE RECEIVER. IF THE RECEIVER DOES NOT RESPOND, DO NOT ACTIVATE A FUNCTION BUTTON! THE TRANSMITTER MAY HAVE THE WRONG ACCESS CODE, WHICH COULD MOVE OTHER EQUIPMENT. RE-CHECK THE ACCESS CODE IN THE TRANSMITTER AND RETEST. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH, AND DAMAGE TO EQUIPMENT.



## **WARNING**

USING THE IR ADAPTER TO SEND A CONFIGURATION TO A RECEIVER WILL UPDATE THE ACCESS CODE. THE ACCESS CODE IN THE RECEIVER IS UNIQUE AND FACTORY PRESET. DO NOT CHANGE THE ACCESS CODE UNLESS YOU ARE REPLACING AN EXISTING RECEIVER AND ITS ACCESS CODE. CHANGING THIS CODE COULD MAKE IT COMMON WITH ANOTHER RECEIVER ACCESS CODE, WHICH COULD MOVE OTHER EQUIPMENT. NO TWO SYSTEMS IN ANY LOCATION SHOULD EVER HAVE THE SAME ACCESS CODE INDEPENDENT OF THE FREQUENCY. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH, AND DAMAGE TO EQUIPMENT.

## 4.1.5 Using RCP to Program Radio Control Devices through IR to USB Adapter

NOTE: Help is provided for each function at the bottom of the RCP screen.

#### Run the RCP Software

NOTE: If the RCP software is not installed on the computer being used to program the radio control device, please see Section 6.0 for RCP software installation instructions.

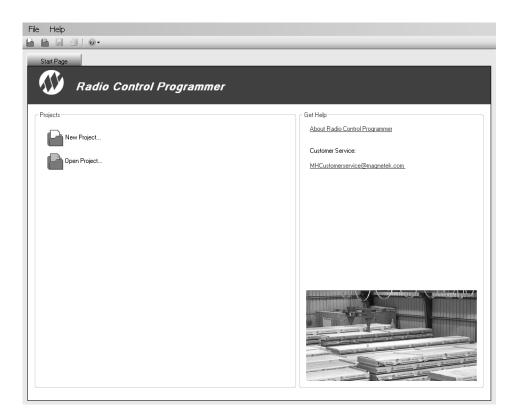
Double click the RCP icon to launch the program.



NOTE: Reference the Magnetek radio control device's product manual for specific RCP programming functions and options for the device.

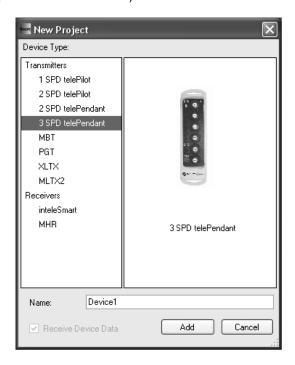
## Click on New Project or Open Project

Select "New Project" if you are creating a new program file. Select "Open Project" if you want to retrieve an existing program file. A list of recent projects will appear under "Open Project." Clicking on one of these will open that project. It is recommended that you create a folder in which to save all programming files.



## For New Projects, Select Device Type

After the New Projects icon is selected, a menu will open listing the available device types. Select the device type that matches the product you wish to program (selecting a project type will display a picture of the product for verification).



This screen also allows the user to create a specific name for the device to help keep track of device settings and changes.

NOTE: It is recommended that a unique name is chosen for each device programmed with RCP.

## Creating/Modifying the Programming File for the Selected Radio Control Device

Adjust the options and features as necessary for the selected radio control device.

NOTE: Reference the Magnetek radio control device's product manual for specific RCP programming functions and options for the device.

## Saving the Programming File

Once programming is complete, click the file tab at the top of the RCP screen to open the file menu. Select the save option to save the project.

File locations and names can be selected from this menu.

Old files can be deleted, called up, modified and renamed by this same menu

## 4.1.6 Sending a Configuration through the IR to USB Adapter in Passthrough Mode

Passthrough mode sends the programming data directly through the IR to USB Adapter to the target device without storing it on the IR to USB Adapter for later use.

NOTE: Standalone Mode will store the programming data on the IR to USB Adapter for later use.

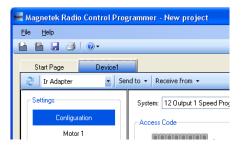


## **WARNING**

AFTER EVERY PROGRAMMING OF A TRANSMITTER OR RECEIVER, TEST THE SYSTEM BY UTILIZING THE APPROPRIATE RECEIVER AND TRANSMITTER. IF THE RECEIVER DOES NOT RESPOND, **DO NOT ACTIVATE A FUNCTION BUTTON!** THE TRANSMITTER MAY HAVE INCORRECT PROGRAMMING. RE-CHECK THE PROGRAMMING IN THE DEVICE AND RETEST. AFTER ACTIVATION OF THE RECEIVER, FUNCTIONALLY TEST ALL COMMANDS ON THE TRANSMITTER BY INITIALLY JOGGING THE BUTTONS, THEN WITH A FULL MOVEMENT BEFORE RETURNING TO SERVICE. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

To send a configuration file through the IR to USB adapter (passthrough):

- 1. If not already connected, connect the USB programming cable to the computer and connect the USB Mini-B plug to the USB Mini-B receptacle on the side of the IR to USB Adapter. See Figure 3 in Section 4.1.1 for receptacle location details.
- 2. Verify that the programming file that is selected is correct.
- 3. At the top of the page make sure "**Ir Adapter**" is selected. If the window is blank, press the rescan button to the left of the dropdown menu.

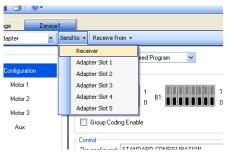


- 4. Point the IR to USB Adapter at the IR sensor of the product you want to communicate with. The optimal distance should be between 1–2 feet.
- 5. Click the "Send to" dropdown menu on the RCP screen, and select "receiver" or "transmitter" per the product type selected.

NOTE: The option choices "receiver" or "transmitter" are available based on the type of radio control device chosen in the original device type screen (e.g. If a SPD telePendant is selected, only the "transmitter" option will be available).

6. A dialog box will pop up confirming that you want to proceed. Check the box marked "I accept," and then click the button "Continue send to radio."

On-screen prompts will confirm that the radio control device has been programmed or if there are any issues.



7. RCP will display the status about the send operation on the screen.

## 4.1.7 Using RCP to Read Radio Control Device Programs through IR to USB Adapter

Passthrough mode sends the radio control device programming data directly through the IR to USB Adapter to the computer without storing it on the IR to USB Adapter for later use.

To receive a configuration file through the IR adapter:

- 1. If not already connected, connect the USB programming cable to the computer and connect the USB Mini-B plug to the USB Mini-B receptacle on the side of the IR to USB Adapter. See Figure 3 in Section 4.1.1 for receptacle location details.
- 2. Open RCP and select the appropriate project or radio control device.
- 3. At the top of the page make sure "Ir Adapter" selected. If the window is blank, press the rescan button to the left of the dropdown menu.
- 4. Point the IR to USB Adapter at the IR sensor of the radio control device you want to communicate with. The optimal distance should be between 1–2 feet.
- 5. Click the "Receive from" dropdown menu on the RCP screen, and select "receiver" or "transmitter" per the product type selected.
  - NOTE: The option choices "receiver" or "transmitter" are available based on the type of radio control device chosen in the original device type screen (e.g. If a SPD telePendant is selected, only the "transmitter" option will be available).
- 6. A dialog box will pop up confirming to proceed with overwriting the current RCP project settings values. If this is correct, click the "OK" button to proceed with reading the radio control device programming data and overwriting the active RCP project settings.
  - NOTE: Clicking on the "Cancel" button will return you to the previous RCP project screen without reading programming data from the radio control device or overwriting the active RCP project settings values.
- 7. On-screen prompts will confirm that the radio control device programming data has overwritten the active RCP project file settings on the computer.

## 4.2 STANDALONE MODE OPERATION

The following section describes the operational steps and features of the IR to USB Adapter when it is being used in standalone mode (not connected to a computer).

## 4.2.1 Using RCP to Load Programming Data onto IR to USB Adapter Memory Slots

## **Run the RCP Software**

NOTE: If the RCP software is not installed on the computer being used to program the radio control device, please see Section 6.0 for RCP software installation instructions.

NOTE: Refer to Sections 4.1.3 through 4.1.5 for RCP programming details.

#### Sending a Configuration to the IR to USB Adapter memory slots

- If not already connected, connect the USB programming cable to the computer and connect the USB Mini-B plug to the USB Mini-B receptacle on the side of the IR to USB Adapter. See Figure 3 in Section 4.1.1 for receptacle location details.
- 2. Select the appropriate project or radio control device in RCP software start page.
- 3. At the top of the page make sure "**Ir Adapter**" is selected. If the window is blank, press the rescan button to the left of the dropdown menu.



- 4. Press the "Send to" dropdown and select a memory slot to save the configuration to. The options are Adapter Slots 1 through 5.
- 5. A dialog box will pop up confirming to proceed with overwriting the selected adapter slot memory. If this is correct, click the "OK" button to proceed with sending the radio control device programming data and overwriting the selected adapter memory slot.
  - NOTE: Clicking on the "Cancel" button will return you to the previous RCP project screen without overwriting the selected adapter memory slot.
- 6. On-screen prompts will confirm that the radio control device programming data has overwritten the selected adapter memory slot.
- 7. Disconnect the IR to USB adapter from the programming cable.
- 8. The configuration can now be sent to devices from the IR Adapter.

## 4.2.2 Basic IR to USB Adapter Operation (Standalone)

When pressing any button in standalone mode, the power LED will blink to confirm the button press.

NOTE: Pressing the button on the IR to USB Adapter activates that button's designated function.

NOTE: The power LED will blink for every button press and only when a button is pressed, except when the device is waiting for memory slot confirmation (see Section 4.2.3 for details on selecting memory slots).

## 4.2.3 Selecting a Memory Slot



MAGNETEK STRONGLY RECOMMENDS THAT THE OPERATOR OF THE IR TO USB ADAPTER WRITE DOWN THE MEMORY SLOT LOCATION OF THE PROGRAM THAT IS INTENDED TO BE USED TO PROGRAM A RADIO CONTROL DEVICE IN STANDALONE MODE. SELECTING THE WRONG PROGRAM COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

- 1. Press the or buttons to select which memory slot will be used. The green status LED will confirm the number of the current memory location with 1 to 5 blinks. The number of blinks corresponds to the number of the memory slot location in the IR to USB Adapter.
- 2. Press the button to confirm which memory slot is chosen.

NOTE: If the Select button is not pressed within 1 minute, the device will revert to the previously selected memory slot. The Send and Receive buttons will not function until the Select button is pressed or until the device times out.

# 4.2.4 Using the IR to USB Adapter to Send Programming Data to a Radio Control Device (Standalone)

 Point the IR device at the infrared port of the target radio control device, optimally 1-2 feet away.

NOTE: Refer to the radio control device's manual for location.

2. Press the button to begin sending the configuration to the current memory location.

NOTE: During the transmitting of the programming data via infrared, the IR to USB adapter must maintain line of sight with the IR port on the target radio control device. If line of sight is broken during transmission, the data will not be successfully sent to the target radio control device.

3. Upon successfully transmitting the configuration the green status LED will blink twice.

If the transaction was unsuccessful, the orange status LED will blink 2 or more times indicating an error code. See the table in Section 4.3 for error code descriptions.



AFTER EVERY PROGRAMMING OF A TRANSMITTER OR RECEIVER, TEST THE SYSTEM BY UTILIZING THE APPROPRIATE RECEIVER AND TRANSMITTER. IF THE RECEIVER DOES NOT RESPOND, **DO NOT ACTIVATE A FUNCTION BUTTON!** THE TRANSMITTER MAY HAVE INCORRECT PROGRAMMING. RE-CHECK THE PROGRAMMING IN THE DEVICE AND RETEST. AFTER ACTIVATION OF THE RECEIVER, FUNCTIONALLY TEST ALL COMMANDS ON THE TRANSMITTER BY INITIALLY JOGGING THE BUTTONS, THEN WITH A FULL MOVEMENT BEFORE RETURNING TO SERVICE. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH AND DAMAGE TO EQUIPMENT.

# 4.2.5 Using the IR to USB Adapter to Read Programming Data Stored in a Radio Control Device (Standalone)

1. Confirm that the desired IR to USB Adapter memory slot location where the programming data is to be stored is selected.



THE DATA READ FROM THE RADIO CONTROL DEVICE WILL OVERWRITE ANY EXISTING PROGRAMING DATA IN THE SELECTED MEMORY SLOT. MAGNETEK RECOMENDS THAT THE OPERATOR WRITE DOWN THE RADIO CONTROL DEVICE ID AND WHICH MEMORY SLOT THE PROGRAM IS STORED IN FOR FUTURE REFERENCE.

2. Point the IR device at the infrared port of the target radio control device, optimally 1–2 feet away.

NOTE: Refer to the radio control device's manual for location.

3. Press the button to receive a configuration to the current memory location.

NOTE: During the transmitting of the programming data via infrared, the IR to USB adapter must maintain line of sight with the IR port on the target radio control device. If line of sight is broken during transmission, the data will not be successfully sent to the target radio control device.

4. Upon successfully receiving the configuration the green status LED will blink twice.

If the configuration was unsuccessfully received the orange status LED will blink 2 or more times indicating an error code. See the table in Section 4.3 for error code descriptions.

## 4.2.6 Using RCP to Read Programming Data from IR to USB Adapter Memory Slots

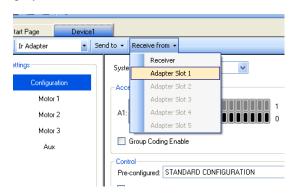
#### Run the RCP Software

NOTE: If the RCP software is not installed on the computer being used to program the radio control device, please see Section 6.0 for RCP software installation instructions.

NOTE: Refer to Sections 4.1.3 through 4.1.5 for RCP programming details.

## Receiving a Configuration to or from the onboard memory slots

- 1. If not already connected, connect the USB programming cable to the computer and connect the USB Mini-B plug to the USB Mini-B receptacle on the side of the IR to USB Adapter. See Figure 3 in Section 4.1.1 for receptacle location details.
- 2. Select the appropriate project or radio control device in RCP software start page.
- 3. At the top of the page make sure "**Ir Adapter**" is selected. If the window is blank, press the rescan button to the left of the dropdown menu.
- 4. Press the "Receive from" dropdown button.
- Select the memory slot to receive from. Only memory slots with valid configurations compatible with the current radio control device type will be highlighted; the rest will be grayed out.



6. A dialog box will pop up confirming to proceed with overwriting the selected project "Settings" values. If this is correct, click the "OK" button to proceed with reading the radio control device programming data from the IR to USB Adapter and overwriting the current RCP project settings.

NOTE: Clicking on the "Cancel" button will return you to the previous RCP project screen without overwriting the selected project settings.

## Saving the Programming File in RCP

Once the project file is successfully read into RCP from the target radio control device, click the file tab at the top of the RCP screen to open the file menu. Select the save option to save the project.

File locations and names can be selected from this menu also.

Old files can be deleted, called up, modified and renamed by this same menu.

## 4.3 STANDALONE OPERATION ERROR CODES

SELECT HOLD ON/OFF

The last error code received can be display by pressing the LED will blink a sequence corresponding to the error.

button. The amber status

Error Codes			
# of blinks	Description		
2	No communication with device		
3	Wrong device type		
4	No valid configuration at this memory location		
5	Other Error		

NOTE: When the IR to USB Adapter blinks the Green LED two times, there is no error.

## 4.4 LOW BATTERY WARNING

When the batteries are <10% capacity remaining, the red power LED will blink red when any button is pressed.

When there is < 5% remaining battery capacity the red power LED will blink 5 times when a button is pressed. When this battery state is reached, the IR to USB Adapter will not function except to display the battery warning (red LED blinks 5 times).

NOTE: See Section 3.3 for instructions on how to replace the IR to USB Adapter batteries.

## 5.0 GENERAL TROUBLESHOOTING

Problems	Possible Reasons	Suggestions
Cannot send/receive with device	Device is not powered on.	Passthrough Mode: Make sure device is plugged in via the USB Programming cable.  Standalone Mode: Make sure device batteries are installed correctly  Standalone Mode: Make sure device
		batteries have a charge
	Target device is not in communication mode.	Make sure target device is ready to receive commands over IR. Refer to target
	communication mode.	device's manual for specifics.

## 6.0 RCP SOFTWARE INSTALLATION INSTRUCTIONS

The RCP software is self-installing; simply insert the RCP CD-ROM into your CD-ROM drive and follow the on-screen prompts.

Refer to the installation instruction sheet for help.

You will be prompted to enter an activation code. The activation code can be found on the CD jewel case and on the installation instructions.

NOTE: The software cannot be used without the activation code.

## 7.0 ASSEMBLY AND REPLACEMENT PARTS

If your IR to USB Adapter ever needs repair, we always recommend that you have Magnetek perform the repair. If you need to refer to a parts list, refer to the transmitter drawing that was included in the shipment of your transmitter. Please contact Magnetek's service department at 1.866.MAG.SERV for information regarding parts and service.