



RoadRunner Timing System



Installation and User Guide

F1007 Rev. 201704



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Contents

RoadRunner	1
Timing System	1
System Overview	5
System Components.....	6
Starter	7
Current Event and Heat	7
Starting and Finishing a Race.....	7
Starter Settings.....	8
Setting the channel	8
Setting the Speaker On or Off	9
Setting the Display Contrast	9
Timers	10
Group Timer.....	11
Backup Group Timer	12
Lane Timers	12
Power Timers On and Off.....	12
Timing a Race.....	13
Remote Start Mode and Stand Alone-Mode.....	14
Timer Settings Menu	15
Remote Start Setting.....	15
Timer Channel Selection.....	16
Timer Speaker Setting	16
Group Timer Places per Race	16
Lane Timer Lane Designation.....	17
Group Timer Designation.....	17

Setting Timer's Display Contrast	17
Timer Memory.....	18
Accessing Timer Memory	18
Viewing the Previous Race	19
Selecting a Race to View	19
Browse Races	20
Clearing Memory.....	20
Repeater.....	21
Repeater Settings	21
PC Interface Module and Application	22
Setting up the PC Interface Module and PC Application.....	22
Application Startup	23
System Status Panel.....	24
Current Times Display	25
TCP IP Connections Panel	26
Monitor Group Timer.....	26
Settings Screen	27
Logging	27
PC Interface panel	28
Firmware Updating Instructions	28
Download Times	30
Edit Events.....	31

System Overview

The RoadRunner wireless timing system is designed to simplify timing, reduce errors, and improve organization of times for a wide range of sporting events as well as industrial and laboratory applications. The system is modular and can be set up in a number of configurations to suit individual needs. The system is also portable. All units are compact and battery operated and can be quickly deployed in a wide variety of settings. With the use of the repeater units, the system can operate in very large areas.

The RoadRunner wireless timing system is a collection of remotely started stop watches. Most configurations consist of a starter unit which sends out a start signal when a race is started. The patented technology is then used to accurately start all timers simultaneously. Timer operators can then take accurate split times and finish times based on the synchronized starting time. Multiple timers can run simultaneously in the case of lane type races, or a single group timer can be used for longer races where there are many participants and the participants are not kept in lanes.

The timers are much more than simple stopwatches. Each timer has a large amount of onboard memory so many races with split times can be stored. Events and heats can be specified to simplify organization and memory lookup. Each timer also has a large display that makes it easy to navigate and view detailed information such as lap times. Timers can also be used in stand-alone mode, which makes it easy for coaches to time practices and download recorded times for review at a later time.

The RoadRunner wireless timing system also comes with a PC application and PC interface module, which make it simple to monitor events in real time or to download and organize times when it is convenient. The RoadRunner application makes it easy to log results in a format that is easily read by most meet management systems or stream live results via a TCP IP connection.

The RoadRunner system comes in two general configurations, RoadRunner Cross Country and RoadRunner Track. The RoadRunner track system can support 6, 8 or 10 lanes and the RoadRunner cross country system can be purchased with an available backup timer. Some systems include a starting unit, all include a group timer and a PC Interface module. The RoadRunner PC application is also included in all packages. Track systems also include lane timers and a repeater unit with tripod and battery pack.

System Components

The following is a list of all possible components available with the RoadRunner timing system. Your system may have only some of these units depending on your application needs.

- ✓ Starter unit – used to start races and set the current event and heat
- ✓ Lane Timers – used to take split and final times in shorter races where the participants normally stay in lanes. There should be one lane timer for each lane in the race.
- ✓ Group Timer – used to record finish times for longer races where there may be many more participants and the participants do not stay in lanes.
- ✓ Backup Group Timer – used primarily for cross country and road races to make sure times are not missed.
- ✓ Repeater – used to extend the range of the system in longer races or larger venues.
- ✓ PC Interface module – this unit must be plugged into the PC running the RoadRunner application in order to monitor the system, display real time results, and transfer results to other meet management systems.

Starter

The starter unit, which has an orange face, is used to broadcast start, stop and reset messages for all of the timers to sync to. When using a starter, it controls the state of the system which includes the current event number and the current heat number. When using a starter unit, all timers should have their “Remote Start” setting set to yes. How to set the “Remote Start” setting on the timers is described in the Timers section on page 15.



Current Event and Heat

The current event and heat numbers are used to distinguish each race. It is not possible to have two races stored on the timers with the same event number - heat number combination. If a race is run with the same event number - heat number combination as another race that is already stored in a timer's memory, the prior race times will be overwritten in memory.

Each time the starter is put into Reset mode, the heat number will be automatically incremented. If you want to run the same heat again you will need to manually set the heat number back. The event number always needs to be set manually. Note that when you change the event number the heat number always gets reset to one.

To edit the event and heat numbers:

- Use the up and down buttons to highlight the value you wish to edit and press the center gray button to enter edit mode.
- In edit mode, use the up and down arrows to change the value.
- Once the value is correct, press the center gray button to exit edit mode.
- Note that the event number and heat number can only be changed when the system is in reset mode.

Starting and Finishing a Race

When the starter is turned on it is in reset mode by default. When you have entered the correct event and heat numbers and are ready to start a race, press the green button to put the system in the running state. Doing this sends out a signal to all of the timers telling them to start running and to sync their time with the starter. Timers can only take split times and finish times while the system is in running mode.

Once the race is finished, the starter can be put into stopped mode by pressing the blue button. Once stopped, the time cannot be started again. Pressing the blue button will put the system in Reset mode and increment the heat number. Pressing the green button (False Start) will also put the system back into reset mode but will not increment the heat number.

Starting units are equipped with a jack on the side of the unit for plugging in various starting devices for automated starts, such as a start system (CTS Infinity or Champstart) or transducer for a starter pistol.

Starter Settings

Settings, such as the channel the unit is operating on and the speaker setting are configured on the Settings screen. This is also where you need to go to power the unit off. To navigate to the Settings screen from the home screen, press the down arrow button until “Settings” is highlighted and then press the center gray button. Note that the system must be in Reset mode before navigating to the Settings screen.



Setting the channel

All units in the RoadRunner system must communicate with each other over a common channel. There are 16 possible channels numbered 0 through 15. Each system will come with all units preset to the same channel but the user may wish to change this channel if the preset channel has too much traffic and is not working well.

To change the channel on the starter unit, make sure the system is in reset mode and navigate to the Settings screen:

1. Use the down arrow button to highlight the Channel option.
2. Press the center gray button to put the unit into a mode where you can edit the channel.
3. Once in edit mode, you can use the up and down arrow buttons to select the desired channel.
4. When finished, press the center gray button to return to edit mode. To return to the main screen, use the up arrow to highlight “Exit” and then press the center gray button.

Note: all units in the system must be set to the same channel in order for the system to operate properly.

Setting the Speaker On or Off

The starter unit is equipped with an internal speaker which normally sounds each time a button is pressed or when a new message is received from the PC. To disable or re-enable the speaker, make sure the system is in reset mode and navigate to the Settings screen.

1. Use the down arrow button to highlight the Speaker setting.
2. Press the center gray button to toggle the speaker on and off.
3. To return to the main screen, use the up arrow to highlight "Exit" and then press the center gray button.

Setting the Display Contrast

The starter unit has a high resolution graphical display. If the display seems too dark or too light, the contrast may be adjusted.

1. Make sure the system is in reset and navigate to the settings screen.
2. Use the down arrow key to highlight "Contrast" and press the center gray button to put the unit into edit mode.
3. Use the up and down arrows to enter the desired value for the contrast.
4. Press the center gray button to exit edit mode.
5. To return to the main screen, use the up arrow to highlight "Exit" and then press the center gray button.

Timers

There are two types of timers: lane timers and group timers. This section will describe the common attributes of both kinds and point out where the two differ.

Timers all have five buttons and a large graphical screen on the front of them. They all come with a remote button port on the side for plugging in a push button. Use of this type of button is optional as it simply emulates the blue button on the front of the timer.

The timer display is broken into two sections divided by a thick black line. The top section is common to all types of timers and is broken up into three lines. The top line shows a battery level indicator on the left, a timer designation on the right, and the system state in the middle. The second line shows the current event number and heat number. The third line is in a much larger font and always shows the current system run time.



Group Timer

The group timer, which has a yellow face, is designed to time distance races where participants are not kept in lanes and a single button is pressed each time a participant crosses the finish line. Group timers can record up to 7500 finish times per race. Group timers are not designed to take split times but they can be used that way if there is only a single participant and you interpret each finish time as a split.



On a group timer, the bottom section of the main screen is where finish times are displayed. The most current finish time is displayed in a large font right below text indicating the place number and the total places recorded in the race. The most recent place is shown by default but other places can be viewed by using the up and down arrow buttons. When the main screen is shown, the bottom part of the lower section will show the elapsed time since the last finish time. If the group timer is being used to take split times of a single participant, the bottom time displayed would be the lap time.

Make sure that the primary group timer's number is set to one. The timer number is displayed in the upper right-hand corner of the screen.

To change the group timer number:

1. Make sure the unit is in reset mode.
2. Press the center button
3. Press menu
4. Settings
5. Press and hold down arrow button
6. Use up and down arrow buttons to change group timer number
7. Exit out of menu settings

Backup Group Timer

Some cross country systems have an additional group timer to be used as a backup to the primary group timer. The timer number for this unit should be set to 2 while the primary timer number should always be 1. This timer has its own memory and is run independent of the primary timer. When using a backup timer a starter unit must be used to sync the start times on both timers. It is not possible to use a backup group timer with “Remote Start” set to “No”. When using the PC application to monitor times, the backup timer’s times will set to the PC just as the primary timer’s times are but the times will appear with the timer number two next to them.

Lane Timers

The lane timers, which have a green face, are designed to time races where participants are assigned to lanes. Lane timers can record up to ten split times per race with the last split being considered the final time. You cannot use a single lane timer to time multiple participants.



The lane number that the timer is assigned to is displayed in the upper right-hand corner of the screen. No two lane timers should be assigned to the same lane. On a lane timer, the bottom section of the main screen is where split times are displayed. The most current split time is displayed in a large font right below text indicating the split number and the total splits recorded in the race. The most recent split is shown by default but other splits can be viewed by using the up and down arrow buttons. When the main screen is shown, the bottom part of the lower section will show the lap time of the displayed split.

Power Timers On and Off

To turn a timer unit ON, briefly press the up arrow button on the front of the unit. To turn a unit off make sure the system is in the reset mode press and hold the up arrow to skip quickly to the OFF option in the settings menu. You can also navigate to the Settings menu as described below. Use the down arrow key to scroll down and highlight “OFF”. Press the center gray button to select this function and power the timer off.

Timing a Race

Normally the event number and heat number are set by the starter. Races are started automatically by the starter as well so the person doing the timing doesn't have to do anything when the race is started. The exception to this is when the group timer is in stand-alone mode. This is discussed in the following section.

For distance races, where the group timer is used, the person operating the group timer only needs to press the blue button each time a runner crosses the finish line. The finish times will be displayed as they are taken. The timer operator does not need to do anything when the race is over. The race will be reset by the starter.

For lane races each timer operator only needs to press the blue button when the runner in their designated lane crosses the finish line or reaches a split distance. If split times are being taken, the last split registered is considered to be the finish time. Again, the timer operators do not need to do anything when the race is over. The race will be reset by the starter.

Remote Start Mode and Stand Alone-Mode

Timers normally operate in “Remote Start” mode. In remote start mode, timers are under the control of the starter unit. Their state is controlled by the starter as well as their current event and heat numbers. When the starter goes into the running state, the time on the timer starts and is synced with the starter’s time. When the starter stops and goes into reset state the race is over and the timer can no longer record splits or finish times.

Timers may also be placed in “Stand-Alone” mode by setting the remote start setting to “NO”. In stand-alone mode, timers work as independent stop watches and do not listen for start signals or event and heat information from the starter. This mode can be useful in a practice situation where a coach wishes to record practice times for review later or in a cross country race where the same person is starting the race and recording the finish times. Refer to the Timer Settings Menu section below to see how to put a timer in stand-alone mode.

When using the timer in stand-alone mode, the timer operator is responsible for setting the event and heat number for each race as well as starting the race and recording the finish times.

1. To edit the event and heat numbers, press the center gray button from the home screen while the group timer is in reset mode. This will display the Event/Heat screen.



2. Use the up and down arrow buttons to highlight either the event or heat.
3. Press the center gray button again to place the unit in edit mode.
4. Once in edit mode, use the up and down arrows to change the values.

Pressing the gray center button again takes the unit back out of edit mode. Note that the heat number will increment automatically each time a race is finished and the timer is put back into reset mode.

Note: The RoadRunner PC application has a setting to remotely monitor a group timer in stand-alone mode but the application cannot monitor lane timers when they are in stand-alone mode.

Timer Settings Menu

The timer settings menu is where to go to set up many of the important functions of the timer. These settings will be described in the following sections.

1. To access the settings menu from the home screen, press the center gray button while the timer is in reset mode.
2. If the timer is in remote start mode, this will display the Menu screen.
3. If the timer is a group timer and is not in remote start mode (ie, the timer is in stand-alone mode) then the Event/Heat screen will be displayed.
4. If the Event/Heat screen is displayed, use the down arrow button to scroll down and highlight the Menu selection and then press the center gray button to display the Menu screen.
5. Once the Menu screen is displayed, use the down arrow button to highlight the Settings item and press the center gray button to display the Settings screen. The Settings screen for the group timer and the lane timers have some items in common but some items are unique to each.

RESET	GRI
EVENT 1	HEAT 1
00:00.00	
SETTINGS	EXIT
REMOTE START	YES
CHANNEL	04
SPEAKER	YES
PLACES <75>	100
CONTRAST	15

RESET	1
EVENT 1	HEAT 1
00:00.00	
SETTINGS	EXIT
REMOTE START	YES
CHANNEL	04
SPEAKER	YES
TIMER<LANE>	4
CONTRAST	14

Remote Start Setting

To use a timer with a starter unit the Remote Start setting must be set to yes. If no starter is being used this setting must be set to no. To change the setting, use the up and down arrows to highlight Remote Start and then press the center gray button to toggle the setting. For more information see the section titled "Remote Start and Stand-Alone Mode" on page 14.

Timer Channel Selection

All units in the RoadRunner system must communicate with each other over a common channel. There are 16 possible channels numbered 0 through 15. Each system will come with all units preset to the same channel but the user may wish to change this channel if the preset channel has too much traffic and is not working well.

To change the channel on a timer unit:

1. Make sure the system is in reset mode and navigate to the settings screen.
2. Use the up and down arrow buttons to highlight the Channel option.
3. Press the center gray button to cycle through the channels.
4. Once the channel you want is displayed, press either of the arrow keys to exit the channel changing mode.

Note: all units in the system must be set to the same channel in order for the system to operate properly.

Timer Speaker Setting

Each timer unit is equipped with an internal speaker which normally sounds each time a button is pressed. To disable or re-enable the speaker, make sure the system is in reset mode and navigate to the Settings screen. Use the down arrow button to highlight the Speaker setting. Then press the center gray button to toggle the speaker on and off.

Group Timer Places per Race

Group timers allow for setting the maximum number of finish places per race. The timer's memory will hold up to 7,500 finish times. If 100 places per race is selected then a total of 75 races can be recorded in memory. If 7,500 places per race is chosen, only one race can be stored in memory at a time. Choices are 100, 250, 500, 750, 1000, 1500, 2500, 3500 and 7500. To change this setting, use the up and down arrows to highlight the Places/Race setting and then press the center gray button to cycle through the choices. Note that changing this setting will clear all current times from the memory.

Lane Timer Lane Designation

All lane timers in the system must be set to a unique lane number in order for the system to operate correctly. The RoadRunner system allows for up to ten lanes to be timed per race and the lanes are numbered 1-10.

To change a timer's lane designation, use the settings menu on the timer. To change the lane number, use the up and down arrows to highlight the lane number option on the settings screen. Press the center gray button to cycle to the desired lane number. When finished, press either of the arrow keys to exit the lane designation field.

Group Timer Designation

If you have more than one group timer in your system, one must be the primary timer (number 1) and the other must be the backup timer (number 2).

To change a group timer's designation, follow the instructions on page 11.

Note: Make sure that no two timers of the same type (lane or group) have the same designation. The system will not operate properly if this occurs.

Setting Timer's Display Contrast

Each timer unit has a high resolution graphical display. If the display seems too dark or too light, the contrast may be adjusted.

- Use the down arrow key to highlight "Contrast" and press the center gray button to put the unit into edit mode.
- Use the up and down arrows to enter the desired value for the contrast.
- Press the center gray button to exit edit mode.

Timer Memory

Each timer in the RoadRunner system has enough memory to hold about 7500 times. For the group timer, this means 7500 finish times. For the lane timers this means 7500 split times. Since each race allows for up to 10 split times, each lane timer can store 750 races. Either way, there will be more than enough memory to store an entire meet's worth of results.

Group timers and lane timers both allow users to recall and view races in memory the same way. Users may search for times by specifying a specific event and heat number or by browsing a list of races. There is also a quick way to view the previous race (see page 19).

All times are stored in the timer's flash memory meaning that they will not be lost even if the timer is turned off or the batteries are removed. Race times are only removed from memory when the user specifically requests that all memory be cleared. All of these functions are covered in the following sections.

Note that reusing an Event/Heat combination overwrites the previous data. Also note that changing the group timers' places per race will clear previous data.

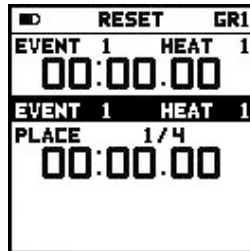
Accessing Timer Memory

Timer memory can be accessed any time the timer is in the reset mode by selecting Memory from the timer's main menu. To reach the main menu from the home screen press the center gray button. If the timer is in remote start mode the menu will display at this time. If the timer is in stand-alone mode, the Event/Heat screen will be displayed. In this case, use the down arrow to highlight "Menu" and press the center gray button once more. From the main menu screen, use the down arrow to highlight "Memory" and then press the center gray button to access the memory screen.



Viewing the Previous Race

The RoadRunner timers provide a quick way to go back and view the results from the previous race. On the memory screen, use the down arrow to highlight “Previous Race” and then press the center gray button. The previous race will be displayed.



Once the race is displayed the up and down arrows can be used to scroll through split times or finish times. When finished viewing, press the center gray button to exit.

Note: If a new race is started from the starter while a timer is viewing a previous race in memory, the timer will immediately display the home screen so that the race can be timed.

Selecting a Race to View

Another way to find a race to view in memory is to select the event number and heat number.

- From the memory screen use the down arrow and highlight “Select Race”.
- Pressing the center gray button displays a screen which allows you to specify an event number and a heat number for the race you would like to view in memory.
- Use the up and down arrows to highlight the event number or heat number you would like to edit and press the center gray button to put the value in edit mode.
- Use the up and down arrow keys to change the number.
- Press the center gray button again to exit edit mode.
- When the event and heat numbers are correct, use the down arrow to highlight “View” and then press the center gray button to display the desired race results.



Browse Races

The other way to select a race out of memory for viewing is to browse the list of races. To browse a list of races stored on the timer:

- Use the down arrow and highlight “Browse Races” on the memory screen.
- Press the center gray button and a list of races will be displayed. The top line indicates the total number of races available in memory.
- Use the up and down arrows to highlight the desired race and then press the center gray button to view.

Often there will be more races in memory than can be displayed on one screen.

- To view additional races, press and hold the down arrow for one second to display the next screen of races.
- Pressing and holding the up arrow will display the previous screen of races.
- To exit, use the up arrow to highlight “Exit” and then press the center grey button.

Clearing Memory

Normally each timer’s memory will need to be cleared before every meet or timing session. This ensures that the memory will not fill up during a meet and helps avoid confusion with old results.

To delete the memory on a timer:

1. Press the down arrow button to highlight “Delete Memory” on the memory screen.
2. Press the center gray button and this will display a screen that shows the percent of memory that is currently being used.
3. Press the down arrow to highlight “Delete” and press the center gray button. A confirmation screen will appear.
4. Press the down arrow to highlight “Continue” and press the center gray button to erase all memory. After the memory is cleared the memory screen will be displayed.

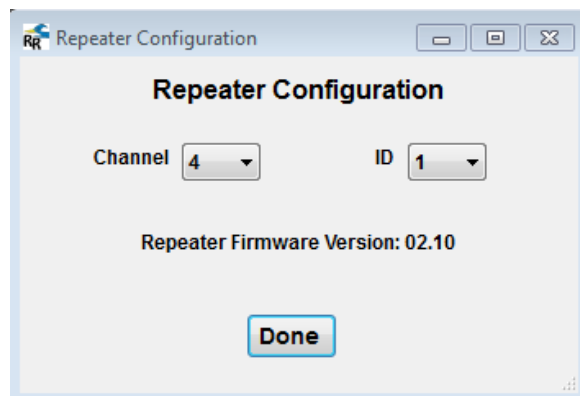
Repeater

A repeater is used to extend the range of the system. How far it can extend the range depends on many factors including things like large obstacles in the way and the relative humidity. It is always best to elevate the repeater as high as possible so that there is a line of sight between the repeater and the other units. If you are using a tripod, mount the repeater unit at the top of the tripod while locating the battery pack at the base to keep a low center of gravity.

There may be as many as three repeaters in a RoadRunner system but normally one will be sufficient for a venue such as a track stadium. When there is only one repeater, it is designated as repeater #1 and it is best to locate it right in the middle of the stadium or area in which you are timing. For situations where the system is spread out over a much longer distance, multiple repeaters may be required. In this case, each repeater needs to be set to a unique number, one, two or three. When locating these repeaters, always place the #1 repeater closest to the starter and the highest numbered repeater closest to the timers. You will need to experiment with the distances to see how far apart the repeaters need to be placed given the sounding conditions.

Repeater Settings

Repeater units have only two settings, the channel and the repeater number. These settings are set at the factory so the user normally does not need to worry about these. If these settings do need to be changed for some reason, this can be accomplished by connecting the repeater to the USB port on a PC and then starting the RoadRunner PC application. Make sure that the PC interface module is not connected at the same time. When the application launches it will automatically detect that the repeater is connected and present you with the Repeater Configuration screen which will allow you to set the channel and change the repeater number if necessary. Simply shut down the application and disconnect the repeater when you are finished.



PC Interface Module and Application

All RoadRunner Wireless Timing Systems come with a wireless PC Interface module PCIF and companion PC application software for monitoring the system in real time and communicating times to meet management systems. The PCIF module plugs into the USB port on any Windows® PC and communicates wirelessly with the RoadRunner system. The RoadRunner PC application stays in constant contact with the starter and all timers allowing all of the parts of the system to work together as one.

Setting up the PC Interface Module and PC Application

In most cases you will want to monitor and record race times using the PC Interface module plugged into a laptop.

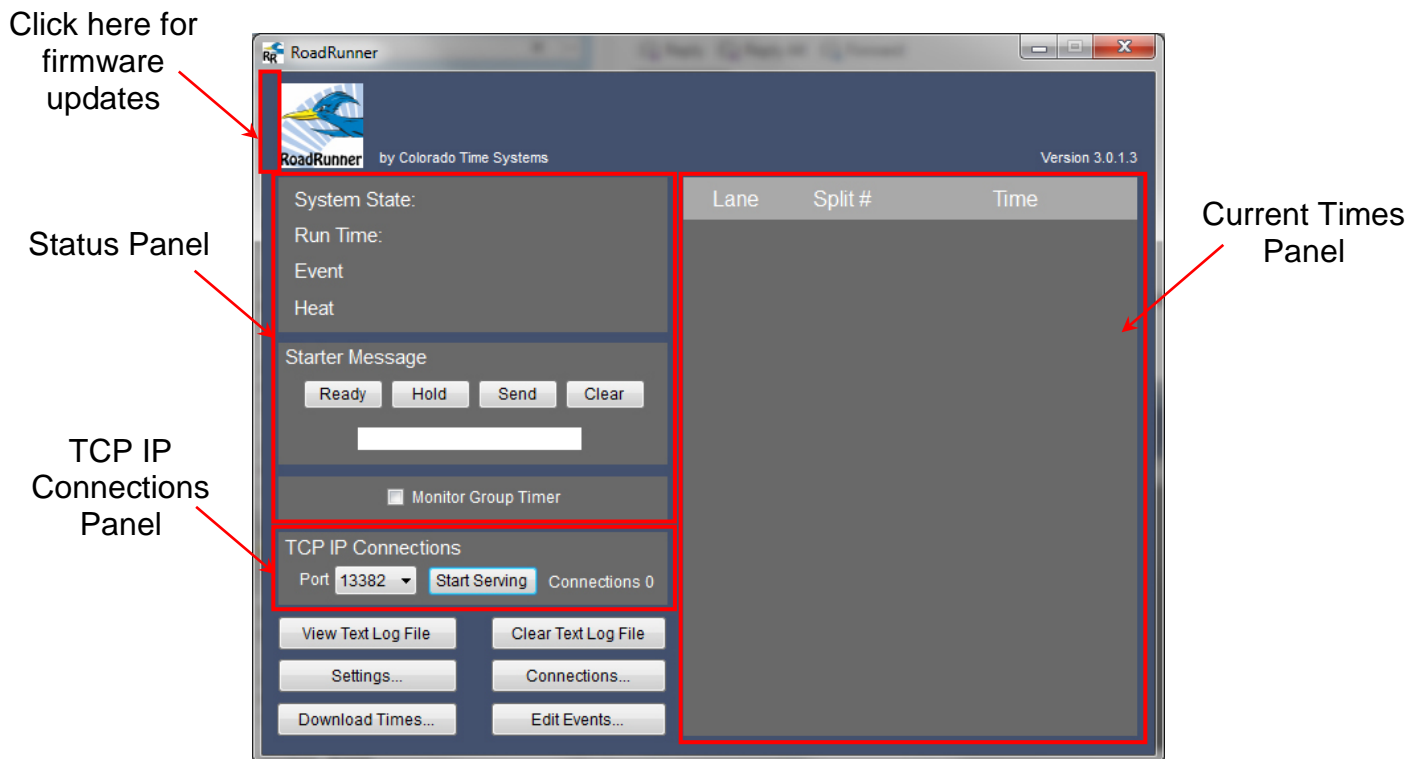
Before connecting the PCIF to a computer the first time, download the RoadRunner software: www.coloradotime.com/RoadRunner. When finished you should see the RoadRunner icon on your desktop. Make sure the PCIF module is plugged into a USB port and double-click on this icon to launch the application.

The RoadRunner PC application is fairly straightforward. On the right side of the screen you will see the current state of the system along with a list of current race times if a race is currently being run. The left side of the screen is where you will find all of your settings. At the bottom of the application you will also see a button for editing Event names. Press this button to be taken to a screen where you can enter names for each of your events.

The PCIF is powered through the USB port so it does not require batteries. It is important that the PC and the PCIF are located within range of the rest of the wireless system. If needed, you can extend the range by elevating the PCIF to a height where it is in the line of sight of the rest of the system. The application cannot be started unless the PCIF is attached to the PC.

Application Startup

To start the application, simply double click the RoadRunner icon located on your computer's desktop. As long as the PCIF is properly connected the application will launch. If the PCIF is not connected, an error message will be displayed. The PCIF is a plug and play USB device and is sometimes not detected right away. If the PCIF is plugged in but is not detected by the application, unplug the PCIF, plug it in again and wait for several seconds before trying to launch the application again.



The main screen looks like the picture above. From the main screen it is possible to monitor the current system state and run time along with all of the current times from the timers. It is also possible to send a text message to the starter and configure a TCP IP connection from here. Buttons are provided to launch separate screens which assist the user in setting logging properties, editing event names and manually downloading times from the timers. All of these functions will be described in detail below.

System Status Panel

The RoadRunner PC application is arranged neatly into panels. The top panel on the left side of the screen is where the system status is displayed. The current system state is displayed on the top just above the system run time. Below that is the current event number and heat number. If event names have been entered, the current event name will be displayed next to the event number. For more information on event names, see the “Editing Events” section below.

Note: The system state, run time, event and heat numbers are all controlled by



System: Running
Run Time: 02:37
Event 1 Varsity Boys 300 Meter Dash
Heat 1

the starter or by the timers if they are in stand-alone mode. None of these may be controlled by the PC application.

Current Times Display

On the right side is the current times panel. While a race is running, any times taken by the timers will appear here. If the race is being timed by the group timer, finish times will appear here ordered by place. When there are more finish times than what will fit on one screen a scroll bar will appear allowing the user to view any of the times in the race. If the race is being timed by the lane timers, all lanes will be displayed as soon as the first time is received. Other lane times will be displayed as they come in. If multiple splits are received from a given timer, the last split will be displayed along with the split number.

Timer #	Place	Time
1	1st	01:05.39
1	2nd	01:07.21
1	3rd	01:09.02
1	4th	01:10.41
1	5th	01:11.97
1	6th	01:13.58
1	7th	01:16.30
1	8th	01:17.55
1	9th	01:20.00
1	10th	01:21.72
1	11th	01:23.35
1	12th	01:25.64
1	13th	01:27.51

Times from a Group Timer

Lane	Split #	Time
1	1	17.69
2	1	16.90
3	1	16.22
4	1	15.37
5	1	15.76
6	1	13.77
7	1	14.26
8	1	13.50
9		
10		

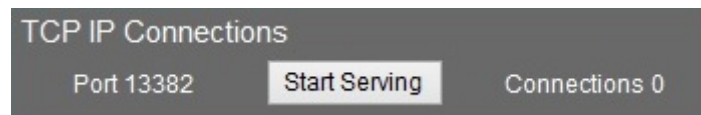
Times from 8 Lane Timers

All times will remain displayed until the system goes into reset mode. If there is a need to view the times after they have been removed from the screen, the user may press the "View Log" button on the Logging panel to see a complete history of all times.

TCP IP Connections Panel

The fastest way to get live results from the RoadRunner system to a meet management system is to set up a TCP IP connection between them. The RoadRunner application is set up to serve race data on one of five different ports. To get the application to start looking for connections from a meet management system, simply press the “Start Serving” button.

When the service is started the connection count will read zero. An actual connection must be initiated from the meet manager software. In the meet manager, enter the IP address of the computer that the RoadRunner application is running on and use the port number that matches the port that was selected on the RoadRunner application. Then press the connect button. If a connection was made the connection count on the RoadRunner application will increase. It is possible to connect more than one meet management program to the RoadRunner application at a time.



Any meet management software that connects to the RoadRunner TCP IP server must be able to parse and process the RoadRunner data. See the RoadRunner meet manager integration page for a list of meet manager applications that currently interface with the RoadRunner. This page can be found at www.coloradotime.com/roadrunner.

Monitor Group Timer

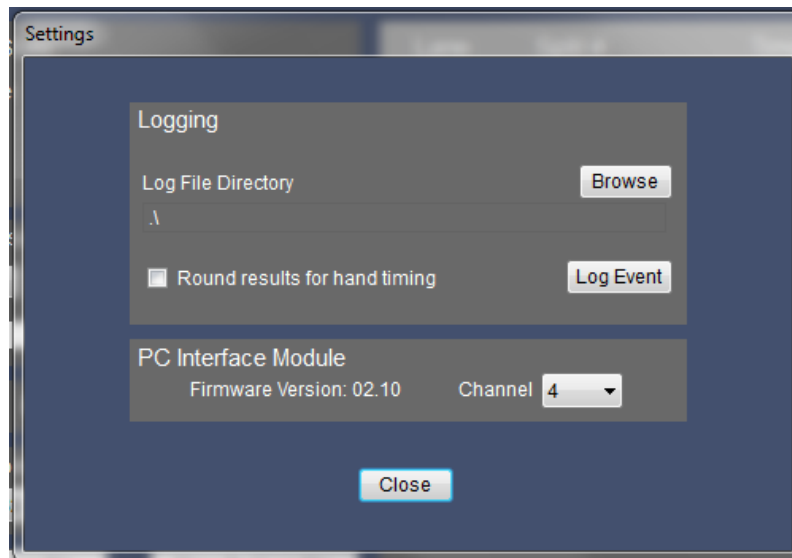
When running a distance race and timing it with the group timer, sometimes it is preferable to use the RoadRunner system without a starting unit. An example of this would be if the same person who starts the race is also recording all of the finish times. In this case the group timer should be placed in stand-alone mode. See the “Remote Start and Stand-Alone” section on page 14 for details on how to do this. To monitor a race’s results with the RoadRunner PC application when the Group timer is in stand-alone mode, check the “Monitor Group Timer” check box at the bottom of the screen.

Note: Make sure that the “Monitor Group Timer” check box is not checked while the starter unit is on. This will cause the system to not work properly.

Settings Screen

Users can modify PCIF properties from the settings screen. To access the settings screen, press the “Settings...” button on the main screen.

NOTE: Do not modify the Log File Directory without prior authorization from Colorado Time Systems. Doing so may prevent the program from working properly.



Logging

The main purpose of the RoadRunner PC application is to record the results of the races so they can be managed by a meet management application or used in some other way. The RoadRunner PC application automatically logs all results into a text file. This file can be viewed at any time by pressing the “View Text Log File” button on the main screen. To clear this file, press the “Clear Text Log File” button on the main screen.

Three other types of log files are generated. LIF files are comma separated text files that are similar to the files generated by the Finish Lynx system. Most meet management applications will import and process these types of files. CSV files are similar in that they are comma separated value text files. These files contain only basic data and can be used to import into meet management applications such as RaceTab. Finally, XML files can be generated. These files work well for importing the results into a spreadsheet.

PC Interface panel

PC Interface panel is also located on the settings screen. This panel displays the current firmware version that the PCIF module is running and a drop-down menu for changing the channel of the PCIF module. Take special care when changing the channel of the PCIF as its channel must match the channel of all the units in the system. The PCIF channel is set at the factory to match all of the other units and should not be changed unless there are interference problems on the current channel. If this is the case, all units must be switched to the same channel.

The PCIF firmware version is displayed here. If you contact customer support, please include the PCIF firmware version number.

Firmware Updating Instructions

The firmware for the RoadRunner devices can be updated using the following procedure. Read all instructions before attempting to update a device.

- ! Save all times that are stored in the timers before updating the firmware. The times will be reset after the update.
- ! If more than one type of device is being updated, they should be updated in the following order: Starter -> Timers -> PCIF.
- ! Unless the Starter is being updated, it should be turned off during the update process.

Starter Update

1. Connect the PCIF to the PC and open the RoadRunner application.
2. Turn on the Starter and go to the PROGRAM screen that shows the update status. SETTINGS -> Hold Up Arrow -> PROGRAM
3. Double click the mouse in the far upper left corner of the main application screen to open the Device Programming window.
4. Select Starter Unit and click Next.
5. Click Browse and find the update file STARTxxx.RRS.
6. Select the file and click Start. The progress bar should update along with the status on the device.
7. When the update is complete the Starter will turn off automatically. Click Quit to close the application.
8. Disconnect the PCIF unit from the PC.
9. Turn the Starter on and verify the firmware has the correct version. SETTINGS -> Hold Up Arrow

Timer Update

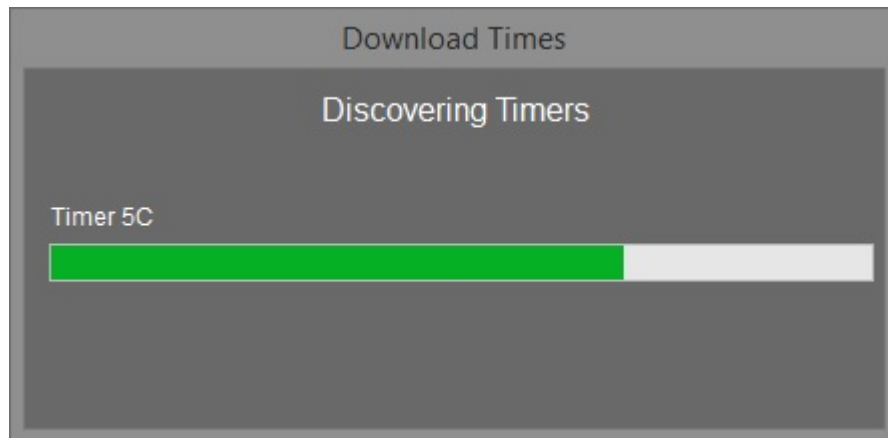
This procedure applies to Group and Lane timers. However, only one type of timer can be updated at a time. Multiple timers of the same type can be updated simultaneously.

1. Connect the PCIF to the PC and open the RoadRunner application.
2. Turn on the Timer and go to the PROGRAM screen that shows the update status.
SETTINGS -> Hold Up Arrow -> PROGRAM
3. Double click the mouse in the far upper left corner of the main application screen to open the Device Programming window.
4. Select Group Timer or Lane Timer and click Next.
5. Click Browse and find the update file GROUPxxx.RRG or LANExxx.RRL.
6. Select the file and click Start. The progress bar should update along with the status on the device.
7. When the update is complete the Timer will turn off automatically. Click Quit to close the application.
8. Disconnect the PCIF unit from the PC.
9. Turn the Timer on and verify the firmware has the correct version.
SETTINGS -> Hold Up Arrow

Download Times

The RoadRunner system timers have a large amount of memory which means that times can be stored and downloaded to a computer after races are run. This makes it handy if it is not practical to have a PC set up at a meet.

1. Make sure that the starter unit is turned off. Times will not download properly if the starter unit is on.
2. Make sure that all timers are turned on and that they are in range of the PC interface module.
3. Once everything is set, press the “Download” button at the bottom of the screen to start the process. The RoadRunner application will launch a new window to show the progress of the download.



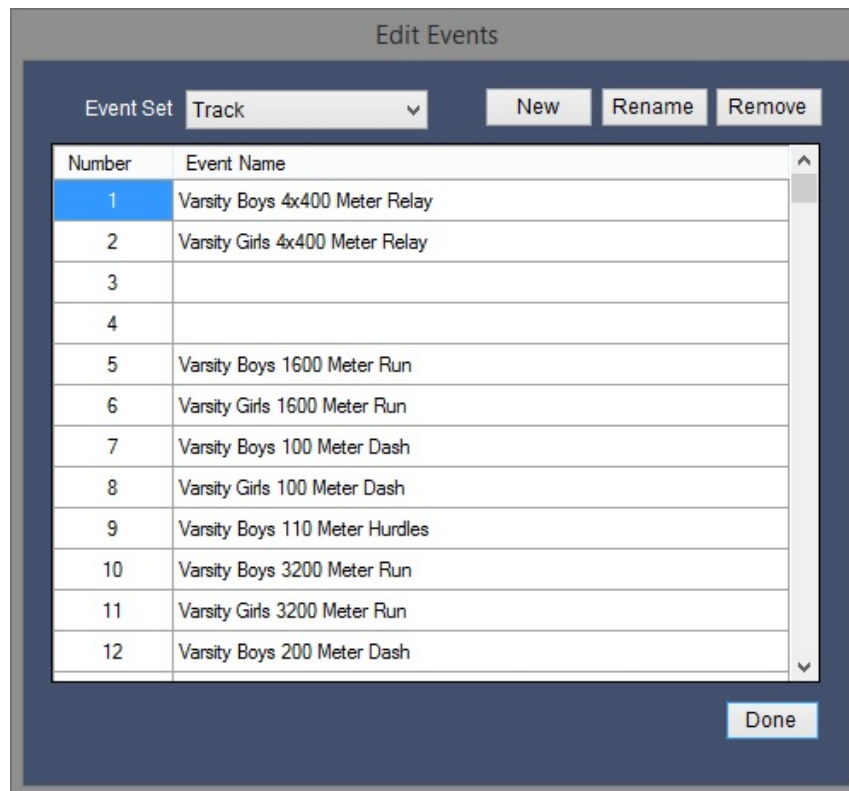
In the first phase of the process the application will poll each of the timers to see which ones respond and to see how many races are recorded on each timer. The application will then download times from each of the timers. Results will be stored in the applications memory until all timers have downloaded their times. The application will then assemble all races and write out the applicable log files. With races that are being monitored in real time, log files will be created in each format that is checked in the logging section. All races will also be automatically logged in the text file. If a TCP IP connection is set up to a meet manager application, all downloaded races times will be streamed through the connection.

Note that all race times on all timers will be downloaded in one operation. It is not possible to download specified races. When downloading is complete, press the “Close” button to close the download window.

Edit Events

The RoadRunner PC application gives the user the ability to name events. These event names are displayed in the status panel during races and are written into each of the log files. The event name for the current event number is also transmitted to the starter unit for display. This helps the person running the starter so they do not have to memorize the event numbers and names.

To launch a window to edit the event names, press the “Edit Events” button at the bottom of the screen. There is a drop-down menu at the top of this window for selecting the current event set to edit. An event set is a collection of events used for a certain types of meets such as track or cross country. The user may create as many event sets as they wish and edit the event names within those sets.



Number	Event Name
1	Varsity Boys 4x400 Meter Relay
2	Varsity Girls 4x400 Meter Relay
3	
4	
5	Varsity Boys 1600 Meter Run
6	Varsity Girls 1600 Meter Run
7	Varsity Boys 100 Meter Dash
8	Varsity Girls 100 Meter Dash
9	Varsity Boys 110 Meter Hurdles
10	Varsity Boys 3200 Meter Run
11	Varsity Girls 3200 Meter Run
12	Varsity Boys 200 Meter Dash

The “New”, “Rename” and “Remove” buttons in the upper right corner of the Edit Events screen pertain to the event sets and are self-explanatory. Once the desired event set has been selected the event names can be edited within that set. To edit a name for a specific event number, click the box next to the event number and start typing. When all of the names are correct a different event set can be selected or press done at the bottom to close the window. All event sets and event names are stored in the applications settings file so they will be automatically reloaded each time the application is loaded.



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