9432 E. Ave. T-10 Littlerock, CA. 93543 Ph or Fax 661-944-6307

Pro-Race Director System and Time Seller ©

Slot Racing Technology

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Dear S.R.T. Customer: Jan 03'

The S.R.T. computer interface card has a 90 day warranty from the date that you receive it from any malfunction that may arise. When we receive the card from you and we determine the problem was caused by improper installation, you will be billed for the repairs. ***In the event you need a card shipped out immediately we have an exchange program during the warranty period, there will be a $195.00 cash COD deposit, plus shipping, due upon you receiving the card.*** After we make the repairs on your card, this amount will be refunded to you (except shipping cost) when we receive the loaner card back. If any problems with the program disk occur on initial installation, there will be another program disk sent to you.

After the warranty period has expired there is a $60.00 flat rate charge for board repair. If you want a loaner card after the warranty period has expired, the above mentioned procedure also applies.

We also offer free software upgrades for existing customers. Check out our WEB Site at www.slotracingtechnology.com for software updates. You must have version 2.90 or later for this feature to work. If you do not have this version of the program, contact SRT and we can email you an update.

S.R.T. offers excellent tech support by phone in the evenings (PT) just by calling the above number. This number is also located in the program when exiting.

If you have any questions or comments, please feel free to give us a call. We have developed a quality product with thousands of programming hours behind it, to give you and numerous other satisfied customers hassle free race directing.

Thank you very much for your order
Mike & Gary

NOTICE!

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Slot Racing Technology

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Pro-Race Director © Quick Start

Minimum system requirements are.... 386AT 20mhz or faster IBM or compatible type computer, hard drive, one floppy drive (3.5" HD drive), VGA monitor & card (color or mono) or EGA color monitor & card, and a printer of your choice. DOS 6.2, WIN 95/98, 640k (576Kfree)

After you've installed the program and you are looking at the main menu, press function key F4, then F12 to print out the documentation file. Make sure your printer is on, has paper, and is on line, press the "C" key then the "P" key to start the printout of changes in the program. Next, press F12 again, and then the "D" key. Press "P" to print out the main body of the doc file. When the printing is completed press the "Esc" key twice to return to the main menu and continue with the quick start process described below.

From the main menu press function key F1, to enter Race Mode. Press F1 again to enter driver's names. Type in 9 names pressing enter key after each entry, after the ninth name press the "Esc" key. If you don't want to type all the names in, just press F10 at this point and press the '9' key to have the computer do it. The program will generate 9 driver's called 'Driver 1 through Driver 9'. The program will now go back to the 'Race Menu'.

Next press function key F4, Qualify Driver's For Race. At this point you can press the "A" key to bye-pass this section or press the "C" key to continue with the Qualifying round. For now lets skip Qualifying section and get to the Driver's set-up. You will be prompt to press the "Y" key, and after doing so the program will take you back the 'Race Menu.'

Press function key F6, 'Driver's Lane Choice for Race'. The program defaults to a Round Robin race format. Press Function key F2, this will set up the driver's automatically, or enter the lane number for each driver as their name appears.(lane 1 is Red, lane 8 is Blk) Remember that the 9th driver is a sit out position and you have to assign a number for him. In this case he will be position 9, because it is the only sit out. If you had 20 driver's you would have 12 sit out positions, as the driver's name appears they can pick any number from 9 through 20. Now press the "Esc" key to return to the main menu.

Now press Function key F7, Start Race Mode. The next screen is for turning the printer on or off and to look at your race set-up before you enter the race mode. If something needs to be changed this is the time to do it. Press the 'N' key for now, and it will take you to the race mode. With 3 min. heats, 2 min. intermission, a round robin format and European style rotation. The first driver that you typed in should be on the red lane, black should be the eight driver that you typed in, and the driver who is on deck should be the ninth driver that you typed in. Pressing the "Ctrl-R" keys will start the race. Beeps will sound at the 2, 1, and 0 count. If this were on your track, power to the lanes would be applied at this point. You can use the number keys 1 - 8 across the key board to simulate the lap counter. Each time you press a key a lap will register for that driver. Keep in mind that there is a minimum lap time of 2 seconds (default) before the next lap can be registered.

Your up and running !!!!

When the race is completed, from the race screen press the 'Esc' key back to the 'Race Menu'. Now press F8 for your final race results.
Have fun with the demo and feel free to change the settings in the Set-up area of the program. Call if you have any questions, we've been told its the best race director program on the market for your money.

Thanks From Mike and Gary at S.R.T.

(661) 944-6307

DOCUMENTATION

S.R.T. Pro-Race Director
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PRO-RACE DIRECTOR USER MANUAL

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MINIMUM SYSTEM REQUIREMENTS

386AT 20 MHz or faster IBM-compatible computer, 1meg RAM
Hard Drive -- 20 Megabytes or more
One 3.5 inch high density floppy drive.
VGA monitor (color or mono), or EGA color monitor, Minimum 576K or more free conventional memory
A uninterruptible power supply (UPS) is recommended

****

NOTE: Please confirm that you have the correct TIME and DATE on your computer. The program depends on this in many ways.

****

HARDWARE INSTALLATION

This section gives instructions for installing the SRT controller card(s) in your computer. The SRTPRD program is capable of handling up to four tracks. If you are using Time Seller for simultaneous use of multiple tracks, each track must have its own SRT controller card. (If you are using a demonstration copy, this section is not applicable.)

Before inserting the controller card(s) in the computer, you must set the dip switches. There are eight combinations of dip switch settings, which are related to eight internal computer addresses. The dip switches on each controller card must be set to one of the eight settings shown in the following table, and each card must have its own unique dip switch setting. (The internal computer address for each combination of dip switch settings is provided for those who are interested.) Make a note of which dip switch setting(s) you made for each card as you will need this information when you set the related software parameters later in the installation process.

NOTE: If you have old style board with only 4 switches use the table below.

Switch			Computer address	
S1	S2	S3	DEC	HEX
On	On	On	736	2E0
Off	On	On	704	2C0
On	Off	On	672	2A0
Off	Off	On	640	280
On	On	Off	608	260
Off	On	Off	576	240
On	Off	Off	544	220
Off	Off	Off	512	200

(Note: S4 is not used. The S4 setting has no effect on the program.)

If you have the newer style board (this board has 8 dip switches) use the following table.

Note: S1,S2,S3, S7, & S8 are factory set, do not change these settings.

Switch Settings								Computer Address	
S1	**S2**	**S3**	**S4**	**S5**	**S6**	**S7**	**S8**	**DEC**	**HEX**
ON	ON	ON	OFF	OFF	OFF	ON	OFF	736	2E0
ON	ON	ON	ON	OFF	OFF	ON	OFF	704	2C0
ON	ON	ON	OFF	ON	OFF	ON	OFF	672	2A0
ON	ON	ON	ON	ON	OFF	ON	OFF	640	280
ON	ON	ON	OFF	OFF	ON	ON	OFF	608	260
ON	ON	ON	ON	OFF	ON	ON	OFF	576	240
ON	ON	ON	OFF	ON	ON	ON	OFF	544	220
ON	ON	ON	ON	ON	ON	ON	OFF	512	200

After setting the dip switches, install the controller card in any available slot in your computer.

SOFTWARE INSTALLATION

Insert the disk in Drive A or B. Type “A:” or “B:” and then press “Enter”. At the A: or B: prompt, type "INSTALL". Except for one small batch file, the program will automatically install itself onto the hard drive of your computer in a subdirectory called \SRTPRD. A batch file named SRTPRD.BAT is placed in the root directory of your hard drive. The program will not make any changes to your existing directories, data, or autoexec.bat and config.sys files -- unless you already had a subdirectory named SRTPRD, which is highly unlikely.

Confirm that your Config.sys file has BUFFERS=20 or more, and FILES=40 or more.

STARTING THE PROGRAM

To run the program, type “SRTPRD”, the title page will appear. Hit any key to continue. If you have a demo program, the message “This is a Demo Program” will appear for 5 seconds on the screen. The program will then automatically switch to the Main Menu. After you are in the program and have set up the addressing, (F4, F4, F1) you will want to change the software to boot to a track . The program defaults to the keyboard when turned on. To change to another track from the main menu press F4, F4, then F5 change to another track. After doing this make sure to press F12, save data to disk. The next time you boot, the program will go to the track you selected and not the keyboard.

CHECKING THE COMPUTER SPEED

This would be a grand time to test the efficiency of your computer. From the main menu, press ‘F4’, then ‘F11’ then enter ‘S’ to start the computer test. If your computer fails this test, chances are your computer BIOS is not configured properly. i.e. Video shadow ram should be enable, and mother board cache. You may want to talk with the people you bought your computer from. If your computer is running slow, you might be missing some laps in the race mode.

UPDATING THE PROGRAM

These instructions apply if you have received updated software from SRT. To update your program to the newer version, press function key "F4" from the MAIN MENU. Then press function key "F9" and follow the updating instructions.

PARAMETER SETUP

Before you can continue you need to set up your parameters. This may appear overwhelming at first, but don't panic: You only have to do this once (or when you wish to make changes), and it is relatively easy to step through the menu options. Once these parameters are set, the race director's job is easy!

Press function key "F4", "Setup Menu/Documentation/Test"

The F4 option from the main menu takes you to the setup menu, which also provides options for documentation and testing. If you are operating from a demo copy of the program, or if you have lost the original documentation, this is a good time to print a copy. This makes it easier to read and reference previous steps.

NOTE: The default settings for the computer interface card are at address 2E0 (736 dec). If this conflicts with any other hardware settings in your computer, you can change the dip switch setting on the card. Then go into the "Computer/Program Options" (from Main Menu, press F4, then press F4) and change the software to the new dip switch setting**.** (See complete table under Hardware Installation earlier in this documentation).

The options available from the Setup Menu, and suboptions where available, are explained in the remainder of this PARAMETER SETUP section.

F1 Race Format

The following 12 options are available from the Race Format menu.

NOTE: It is critical that you designate the Class of Slot Car first, because the program automatically sets the other parameters in Race Format (F1) and Track Options (F2) based on the class of car selected. This allows you to have unique settings for each class.

F1 Class of Slot Car
Here you will choose the class of car that will be racing. You can use one of the predetermined classes or you can dream up your own class designed especially for your raceway. The predetermined classes (1 through 23) are preset and cannot be changed. To create your own user-defined class, type "37" to change class name to equal "yes," then type a number from 24 to 36. This allows you to enter your own custom name or names.

F2 Round Robin or Semi/Consi

This option lets you choose which style of race format you want for your race. A round robin is used when there are more drivers than there are lanes. The extra drivers are referred to as "sitouts," and each sitout has a number (sitout 1, sitout 2, etc.). A semi/consi is an elimination race, where starting positions are based on qualifying times. After each race the top drivers move into the next round, eventually working to a main event. The SRTPRD program automatically determines how many semi/consis are required based on the number of drivers, assigns the drivers to a race group based on qualifying times, and after each race determines who moves to the next consi, semi, or main.

You can select 1- or 2-man sitout in round robin mode (select R or 2 from the menu). For Round Robin 1, drivers go out on white and return on red. For Round Robin 2, drivers go out on white and purple, return on red and black. You can round robin with four drivers at a time on either the red group, black group, or both groups, or you can use the four inside lanes, the four middle lanes, the four outside lanes, or the four outside lanes and then the four inside lanes combined. This is a great option when you have 6 to 8 people show up who want to race and you don't have any turn marshals. Just pay close attention to the lane numbering when in the driver set-up routine (Main Menu, F6).

This section is also where you can select 4 or 8 heats if in the semi/consi format. National U.S.R.A. uses four heats per consi race and eight heats per semi or main race. Another feature is the So. Cal. U.S.R.A. 25-32 entry class.

The following are Round Robin type of races the SRTPRD program can run:

R - 'Round Robin' with single driver rotation. Default setting for the program, the driver will exit on white and return on red.

2 - 'Round Robin 2' with 2 driver rotation. 1 driver will exit on the white and return on the red and the other driver will exit purple and return on black. You must have 2 more drivers than lanes to run this mode.

4 - This will enter you into another menu for running 4 lanes on a 8 lane track.

A - 'Round Robin A' For running 4 lanes at a time starting with the red group and then running the black group. Each driver will be running 8 heats, 4 at a time.
(red group is the red, green, blue, purple lanes) (black group is the black, yellow, orange, white lanes)

R - 'Round Robin R' For running on the red group only. After running all drivers on the red group, the race is over. ie. 4 heats per driver.

B - 'Round Robin B' For running on the black group only. After running all drivers on the black group, the race is over. ie. 4 heats per driver.

I - 'Round Robin I' For running on the inside 4 lanes of a 8 lane track. (Blue, yellow, purple, and black.)

M - 'Round Robin M' For running on the middle 4 lanes of a 8 lane track. (Green, orange, blue, & yellow.

O - 'Round Robin O' For running on the outside 4 lanes of a 8 lane track. (Red, white, green, & orange)

C - 'Round Robin C' For running on the outside 4 lanes and then the inside 4 lanes.

S - This will enter you into another menu for manually selecting drivers.

1 - 'Round Robin4S' Manual select with single rotation and 4 heats per race.
2 - 'Round Robin4D' Manual select with 2 driver sitout and 4 heats per race.
3 - 'Round Robin8S' Manual select with single rotation and 8 heats per race.
4 - 'Round Robin8D' Manual select with 2 driver sitout and 4 heats per race.

Note: In this race format you would still enter your drivers in a normal manner, and qualify in a normal manner. It is up to the race director to pick his drivers for the race. He does not have to pick all the drivers for the any of the race.

6 - 'Round Robin 6' for running the 6 middle lanes of a 8 lane track. The lane rotation is, in on Green, blue, yellow, purple, orange, and then out on white.

N - 'Round Robin N' for running a race with no lane rotation. This was done with the Radio controlled race cars in mind. It is up to you to come up with something to interface with SRT I/O card

that will trip the lap counter. You can also use the program in the keyboard mode and press the correct lane number for adding laps.

B - Crash and Burn fun race (This will work with any of the above round robin modes, select your round robin type race 1st before turning on crash and burn). Select 1 to turn on or off the crash and burn function. Select 2 to set the amount of time before the race will pause (ie. track call) and select 3 to set the length of the pause before the race will resume. You would set up your normal heat and intermission parameters like any other round robin race. The rules of this race is that if a driver comes off his lane, his car will not be returned to the track until the pause time is activated. Space bar for a track call will function normally, but typically is not used for this style of race.

The following are Semi/Consi type of races the SRTPRD program can run:

Note: Under the 'Track Option' menu, you will set up the time per heat for the main and also for your semi/consi.

Before you enter the semi/consi type format menu you should select either National USRA, with or without wrap around or select Southern Cal USRA method using the 'U' key.

S - 'Semi/Consi' (Southern Cal USRA format) where 4 heats are used for each consi and semi and the main will still be ran with 8 heats automatically.

4 - 'Semi/Consi 4' (National USRA format) where 4 heats are used for consi and 8 heats are used for the semi and main.

8 - 'Semi/Consi 8' where 8 heats are used for consi, semi, and main races.

C - 'Semi/Consi C' (Southern Cal 25 to 32 drivers entry format) where 4 heats are used for each consi and semi and the main will still be ran with 8 heats automatically.

U - 'Semi/Consi U' (Southern Cal 25 to 32 drivers entry format) where 8 heats are used for consi, semi and the main races.

M - 'Semi/Consi M' is with all mains. ie. 24 drivers entry will automatically divide into 3 separate main races. Main 3 will be ran first and then Main 2 and then Main 1.

N - 'Semi/Consi N' see 'Semi/Consi M' and 'Round Robin N'.

B - Crash and Burn fun race (This will work with any of the above semi/consi modes, select your semi/consi type race 1st before turning on crash and burn). Select 1 to select a lap race for the main event only, select 1 again to select a time race for the main event only, select 1 again to select a lap race for all races, select 1 again to select a time race for all races and select 1 again to turn off the crash and burn function.

In the Lap race select 2 to set the number of laps that determines the heat length. Select 3 to set how many times the drivers will run each lane. ie. for 8 drivers and a 8 lane track a 1 will mean 8 heats, a 2 will mean 16 heats and each drivers would have run each lane twice, etc.

In the Time race Select 2 to set the amount of time before the race will pause (ie. track call) and select 3 to set the length of the pause before the race will resume. You would set up your normal heat and intermission parameters like any other round robin race. The rules of this race is that if a driver comes off his lane, his car will not be returned to the track until the pause time is activated. Space bar for a track call will function normally, but typically is not used for this style of race.

F3 Europe Style or Single Lane

This option lets you choose which style of rotation you want for your race. In the European style if the driver starts on red he would rotate to green, then blue, and purple. He would then skip one lane to black and go back up the track to yellow, orange and finish on white. Single lane is self-explanatory. Single-lane rotation works for all except Round Robin 2. **NOTE**: If you are using the 4-lane rotation mode, you should select the single-lane rotation for the drivers to move to the adjacent lane.

F4 Qualifying Direction

Here you can decide in what order your drivers will qualify or if there will be qualifying at all. The default is Descending order and is selectable for each type of car class.

'A' for Ascending order. This is were the last driver entered from the drivers entry routine, would be the first one to qualify.

'D' for Descending order. The first driver enter in the drivers entry routine , would be the first one to qualify.

'R' for Random order. This is where the computer assigns the qualifying order.

'H' for High Accuracy timer. The high accuracy timer is only use in qualifying.

'L' for Low Accuracy timer. This is only used, if your computer has problems with the high accuracy mode. i.e. Lock-ups, boots on it own.

'O' for Skipping Qualifying. If you do not plan on qualifying driver's, then select this option to skip to driver setup from driver entry. The drivers in the setup mode will be in order by the 'A', 'D', or 'R' option.

'P' for the qualifying type menu. Press the '1' key to toggle thru the different types of qualifying:

NORMAL - normal is based on time.

LAP QUAL - means that a specific number of laps determine the qualifying period.

PIT STOP - define specific number of laps, define the lap in which the service will be performed on the car. This could be a FUN TYPE RACE in itself.

F5 Minimum Lap Time/Maximum Lap Time

Here you would set a minimum lap time to help prevent false lap counting caused by having "Riders." A Rider is someone who deslots and ends up in the wrong lane. It is usually a good idea to set this a few hundredths of a second less then your top qualifier. The default is 2 seconds and is selectable for each type of car class.

You can also set your maximum lap time; this is used if you wish penalize a driver for taking to long to complete a lap. The default is 999 seconds and is selectable for each type of car class.

F6 Warm Up Time for RACE and Qualifying mode

This is where you can select the warm up time for a driver in the qualifying mode and at the beginning of a race. This time must be between 1 and 60 minutes, and is selectable for each type of car class. The default is 2 minutes.

F9 Time added during a track call (Coast Time)

This is the amount of time the program will add to a lap time during a track call or at the end of a heat. This is also known as "'Coast Time." When power is removed from the track, all cars will coast for some distance. In other words, if the track length is 150 feet and the car coasts for 15 feet after the power is removed, the car is coasting 10% of the track. If his lap time is 5 seconds, then his coast time is .5 seconds. This time is added to the driver time and is used to compute the driver lap time, which is then checked against the minimum lap time.

i.e. Coast Length / Track Length = Track Coast * Lap Time = Car Coast Time in seconds

F10 Time Between Semi/Consi's Races for Time Estimate

The program will put estimated start time for each Consi's, Semi's and the Main event on the print out in the Semi/Consi mode. The field is used for telling the program, how much time there will be, between races. The default is 30 minutes.

F11 Load Program Defaults
You can use the SRT pre-determined defaults or you can set your own.
F12 Save Data To Disk
If you have changed any parameters and want to keep them as your defaults, use F12 to save them to disk (hard drive).

F2 Track Options

F1 Track length
Set the length of your track in feet, this is used to calculate speed (miles per hour) in the practice mode.

F2 Main/Semi Heat Set to Minutes
This option allows you to set the amount of time the track is powered up for each heat or segment. Default values are the ones used by So. Cal USRA, but you can change them to suit your needs.

F3 Race Mode Set to Laps
Use this mode for a race where the drivers must complete a certain number of laps (200, 250 or 500 etc.). After the first driver reaches the designated number of laps, track power is automatically removed from his lane (if power to each of the lanes is controlled individually). As each successive driver completes the designated number of laps, their power is also removed. At twice the winner's lap time, all power to the track is removed, regardless of whether all drivers have completed the designated number of laps. If you are controlling the track as 1 lane, power is not removed from the individual drivers' lanes but the program will record each driver's time and no longer count his laps once he completes the designated number.

F4 Lane Color Change/Qualifying Lane
Enter a number (1-8) for the only lane to qualify on or...
'A' will select the auto lane choice. The driver can put his car on any lane, and when he crosses the lap counter, that will become his qualifying lane. The power and lap counter for the other lanes will then be disable.
'C' to change lane color positions and the background shading. You must be running in the color mode option to change the background shade. If you are using a monochrome monitor, you can call your lane colors anything you want. In the color mode, there are only 8 colors to select from. (Standard US colors are RED, WHITE, GREEN, ORANGE, BLUE, YELLOW, PURPLE, and BLACK. When using these colors, they must be all caps.
While under the 'C' option, you can select 'B' to change background shading. You use the up and down arrows key to change from lighter to darker. This will be saved, by using the track option save key 'F12'.
'D' to change all colors to the program defaults.

F5 Qualifying
This is where you set the length of time each driver has to qualify in order to achieve their best time (.5, 1, 2 or 3 min.). Enter 5 for 0.5 minute (30 seconds), 1 for 1 minute (60 sec), or 2 for 2 minutes (120 sec). If you enter 2 for 120 seconds, the driver will have 120 seconds to qualify in. If the driver

uses 40 seconds on his first try, then in his bye round he will have 50 seconds left. This is because he will lose 30 seconds by using the bye round. Entering the 3 will be the same as entering the 2 for all drivers except for the first driver: The first driver will have 180 seconds to qualify, and the other drivers will have 120 seconds. The rest is the same as entering the 2. Times acquired during the first minute counts toward the best driver time. If you do not want the time to count during the first minute, you are better of selecting 2 minute mode and give the first driver a 1 minute warm-up time in qualifying.

F6 Qualifying and Heat count down
This is like a final warning before power is applied to the track. This countdown begins when the race director presses the space bar in qualifying to start the driver qualifying run. In the race mode, pressing ctrl 'R' starts the count down time toward starting the race. You may enter the desired time in seconds. The default is 3 seconds.

F7 Heat Intermission
This is the amount of time in between heats that racers have to check their cars, change their stickers, apply glue to their next lanes, etc. This time is in minutes and the default is 2.

F8 Maximum Number for Top Qualifiers
This is set, for example, if you happen to have a large number of drivers and you don't want to pull an all-niter. You can specify the number of top qualifiers that will race. The program is capable of handling 200 drivers. By typing in 40, you would only be using the top 40 drivers from qualifying to run your races.

F9 Track Voltage Setting For Qualifying & Race
This allows you to select 8 different settings for voltage to the track. If your track is wired to SRT specifications, you will have the capability to change track voltage from the keyboard. Pressing the "F9" key will take you to the track power menu, this will display the auxilary outputs truth table. Items 1 - 9 can have their names and bit count changed by selecting the 'N' key. (Item '1' name can not be changed), Aux 1, Aux 2, Aux 3, & Aux 4 represent each of the 4 Auxilary output relays. When you select item 'O' track call power will be turned off. Item 'H'(if you have a auxilary power source wired to the track) will put track call power at that level. Note: A '1' in the truth table represents that the output is keyed (grounded), a '0' means that the output is not keyed (ungrounded). The 'X' means that it can be either state, (built into the program) but not user changeable.

F11 Load Program Defaults
You can select SRT defaults (Program) or load those you previously saved (Disk).

F12 Save Data To Disk
Any parameters that you have changed and wish to keep as your defaults should be saved to disk (hard drive) using this function key.

F3 Weekly Race Schedule

This option allows you to establish a schedule of which races will be run at certain times on certain days. When the computer is turned on, the SRTPRD program will then automatically adjust itself to the parameters for the class and track designated for that time and day. (This is just one of the places where it is critical that the time and date set in your computer is accurate.) When you have completed a race in one time slot, you must return to the main menu and select "F9" Start New Race to enable the program to look at the current time slot. This applies only if you have more than one class of race in the same day. For convenience, if there is only one class of race on certain days, it is suggested that you enter the same class of car for all times slots. Before you start your race, you should always make it a habit to verify the race set-up just to make sure it's what you really want. This feature can be a great time saver. The routine can be toggled on or off by using the number 8 key. Use the number 9 key to clear the whole table to start over.

F4 Computer/Program/Track Options

When you installed your controller card(s), you used one of eight combinations of dip switch settings for each card. To enable the computer to communicate with the card and control the track, you must designate the appropriate addresses within the software to match the dip switch settings on the controller card(s). (Note: The SRTPRD program is capable of handling up to four tracks. Each track must have its own SRT controller card, and each card must have its own unique dip switch setting.)

'F1' is for setting up the first track. You will be entering the address table by entering a number 1 through 9. The address must match the I/O card dip switch setting. Then you will enter the track name. You can only use 15 char. You also select how many lanes this track has. i.e. 4, 6, or 8 lanes. Make sure you save this track data by pressing 'F12'.

'F2' is for setting up the second track. The rest of the information is the same as for track 1.

'F3' is for setting up the third track. The rest of the information is the same as for track 1.

'F4' is for setting up the fourth track. The rest of the information is the same as for track 1.

NOTE: If you are using 1 I/O card and have more than 1 track, you can define all of your tracks above using the same I/O address. Time Seller will only work on the track that is connected to the I/O card. It is recommended that Time Seller not be used when changing tracks with 1 I/O card.

F5 Change To Another Track
This option allows you to change to a different track for racing. If you save your selection using the 'F12' key, the program will boot to this track the next time you turn the computer on. If you are using the weekly scheduler, the program will boot to what ever track the scheduler has selected.

F6 Time Seller Printout on Exiting Program
This option allows you to see how much track time was used for the day on each lane and track. It toggles between YES and NO when selected. You must exit the program in the normal manual. i.e. Press 'esc' from the main menu and the press 'Y' key to start the print out.

F7 Time Seller Minutes Setup
Using this option, you can change the amount of time that is added to a track and/or lane when you enter a number from 1 to 9 and A to D. The program default options include an extra minute to be sure the customer receives the full amount of time they paid for. Because Time Seller updates only once a minute, the customer could otherwise lose as much as 59 seconds of their time. Any of the time options can be modified, but typically Selections 1 to 9 would be used for sold time, and A to D would be used for promotional purposes (such as coupons or free time). This allows you to have the program track how much time was sold and how much time was used under various promotions.

F9 Track Power Control in Practice Race
You can toggle this key to lock or unlock track power to all lanes in the practice race screen (the P key). This is useful if you have the computer or a computer keyboard is located at the track. See practice race mode for explanation of the P key.

F10 Screen Saver Time
This option allows you to set the screen saver time for the Main Menu, Practice Race, and Time Seller screens. Whenever the program detects keyboard or lap counter activity, the screen comes back to life. The program default is 5 minutes of no activity before the screen saver is activated.

F11 Load Program Defaults
Same as described in F11 under section F1.

F12 Save Data To Disk
Same as described in F11 under section F1.

AF3 (ALT F3) This will enable the program to talk to the Trik Trax mini 8 type stand alone lap counter. By toggling AF3 you can select Com1, Com2, or Off.

F5 Time Seller List Routine

This option allows you to see how much track time was used on any given date. Follow the instruction on the screen to view a particle file, enter '01' for January, '02' for February, etc. Then enter the day you wish to view, by entering a 2 digit format. You can enter a '*' or press the 'Enter' key to check the whole month. i.e. 01 to 31, * or 'Enter'. If you have made a mistake on entering the month or day, you can press the 'Enter' key in the year field to start over with the month. Then finally enter the year in a 2 digit format. i.e. 94 for 1994. The computer will show the date that it will be looking for, if it exists, then display the information on the screen. Enter 'A' to view the entire file. Press the 'Enter' key to view additional data.

F7 Delete files in the Race Data Directory

You can delete a month or a year worth of race data from the computer hard disk drive at a time. To do this, enter the year in a two digit format and press the enter key. To delete a month of data only, enter the two digit month code and press the enter key. To delete a entire year of data, just press the enter key at the prompt for the month.

F8 Print out Heats of the Last RACE

You can print out each Heat from your last (most recent) race, so long as you have not started a new race by entering the Race mode 'F7'. All the heats for each race are also saved under the directory C:\SRTPRD\RACEDATA. You can access the data for any race by first selecting the Enter Drivers Names 'F1' Option and then entering 'F3'. The data for heats is only there for races that were run using Rev 1.90 and above. To avoid filling up your hard drive, you should periodically check the directory (\SRTPRD\RACEDATA) and remove unnecessary data files by using the 'F7' key as mention in the previous step.

F9 Install New Update

This option may be used to install new versions of the SRTPRD program as they are received. Just insert floppy disk in drive and follow instructions.

F10 DOS Commands

If you need to run a DOS command while in this program, you may do so by using this function key. WARNING: Use of this command may interfere with time seller, if in this mode too long. If you are not using Time Seller, then the amount of time spent on another DOS command does not mean much. If you are using the Time Seller routine, while you are in the DOS mode, the track time will not be updated to control lane power, until you exit the DOS mode. 1 minute is OK.

Example of a DOS command:
To set TIME, type TIME and press enter/return key. For 6:10 PM you would type 06:10p and press enter/return key. You should NOT change TIME while you are using Time Seller. It will change the time renter time by the number of minutes you change the computer time. For example, if your computer clock is 10 minutes slow and you change the time to the correct time, the time renter will lose 10 minutes of their rental time.

To set DATE, type DATE and press enter/return key. For April 1, 1993 you would type 04-01-1993 and press enter/return key.

F11 Card I/O Test Routine

This option provides a built-in self-diagnostic of the interface card. The test is accomplished by inserting a test plug (you can make your own or purchase one from SRT) into the back of the I/O card. The routine tests all of the inputs and outputs, and provides a pass/fail status for each. You can also check the input from the track and key each relay to check the status of the track, which is useful in troubleshooting.

If you are using a 286 PC, run the following test to determine whether your computer is fast enough to run the SRTPRD program. (This test can be run on faster computers with no problems.) Enter the card I/O test routine and select 'S'. If your computer DOES NOT pass this test and you have at least a 286 12MHz computer, check the CMOS setup for video Shadow RAM.

F12 Documentation

Use this option to view the program documentation on screen. You can also print the documentation file from this option.

Now all of the parameters are set up and you're ready to race!!! Return to the main menu to run the program.

MAIN MENU

F1 Race Mode

RUNNING THE PROGRAM (RACING)

F1 Enter Drivers' Names For Race

Enter the driver's names. Maximum name length is 20 characters.

You may enter names before, during and after you have qualified drivers and before setup. If you are running in the semi/consi mode, you may not enter any more drivers once you have entered the setup routine.

If your qualifying direction is **ascending order**, and you want to add another driver name after you have started qualifying, it is recommend that you enter the new driver names after you have qualified all the previous drivers, including the bye round. When you add new drivers in, remember this is still ascending order and the first one entered will be the last to qualify.

If your qualifying direction is **descending order**, you may add new drivers at any time and they will be placed at the end of the list. It is still recommended to add new driver names after all qualifying has be completed including the bye round.

If your qualifying direction is **random order**, you may add new drivers at any time and they will be placed at the end of the list. It is still recommended to add new driver names after all qualifying has be completed including the bye round.

Other functions from this menu are available as follows:

F1 In the event of power failure or other computer problems causing program interruption, this option allows you to recover driver data which had already been entered at the time of interruption. After the program is rebooted, return to this screen and, when prompted to enter drivers' names, simply press the 'F1' key. This will restore the drivers' data which was in use at the time of interruption; worst case would be having to start the heat you were in over (if it hadn't completed). This same procedure can be used if there is a computer problem during the qualifying section..

F2 This function is used to load drivers' list files created separately from the SRTPRD program. Such files may be created using any word processor or the DOS EDIT command. They must be saved as a text file (ASCII format). This is useful for carrying a list of drivers' names from one computer to another.

F3 This function enables you to view a list of drivers from a previous race. Follow the instructions on the screen to find the file you want. If you press the Enter key when on the DAY line, it will display all files for the month selected.

F2 List Driver's Names For Race

This will display the driver names the way they were entered in to computer. The display of data will change depending on what stage of qualifying you are in. The time displayed are the best and 2nd best qualifying times. You must have already entered the qualifying section 'F4', to be able to list the qualifying order in this section, by pressing the 'Q' key as displayed at the bottom of the screen. You can also list out the qualifying order under the qualifying section 'F4' under the first menu. To make a hard copy, press the 'P' key. Make sure your printer has paper, powered up and is on-line.

F3 Edit Drivers' Names For Race

The following (F1 - F4) functions require the driver number from the 'F2', list driver's names.

F1 Edit Driver's Name Only
This is incase you misspelled somebody name and it needs to be corrected.

F2 Delete Driver's Name/Qualifying Time
This is a way to delete a driver name from the race. This must be done before setup. This will not let you delete a driver from the race mode. If a driver backs out in the race mode, then use the 'NP' function as describe under 'F7', Start Race, later in this section.

Note: If you are deleting more than 1 driver, check the list driver's names 'F2' after each driver is deleted to obtain a updated driver number. You may also delete the driver with the highest number first and work your way toward lower driver numbers. This is because once you delete a driver, the numbering sequence changes at that time of deletion.

F3 Delete Driver Qualifying Time
This will allow you to requalify a driver if he has already qualified and there was something wrong and he must requalify.

F4 Allow a Driver to Qualify again in the bye round.
This allow a driver to requalify in the bye round. This can be accomplished even when qualifying and the bye round has been completed, and you have not entered the setup mode.

F4 Qualify Driver's For Race

To simulate qualifying, press the number '4' key (if keyboard is selected as track or using a Demo) to accumulate laps and to get the qualifying times for each driver. You can move on to the next driver or requalify the previous driver. After all drivers have qualified, they have the option to requalify (some tracks charge a buck) by entering into the bye round. Upon entering the qualifying section, there is a 2-second pause if you are using the High Accuracy mode in qualifying. This pause allows the program to verify that the timer is installed and working. Please do not press any keys during this routine or it will start over.

The following are keys that can be pressed from the first menu:

'C' to start the present driver qualifying time menu. The driver qualifying time does not start at this point.

'Q' to list the qualifying order. If using the radom mode and you have a large driver entry, this will help drivers see when they qualify.

'A' to skip qualifying for all drivers. Then press the 'Y' key to confirm this action or any other key to return to the qualifying menu.

'V' to change the track voltage if wired to SRT specification. If in the Track Option menu, this function is turned off, this line will not be displayed on the screen.

'S' to enter the Time Seller routine to change time on another track.

After pressing the 'C' key, the following keys can be pressed:

'V' to change the track voltage if wired to SRT specification. If in the Track Option menu, this function is turned off, this line will not be displayed on the screen.

'S' to enter the Time Seller routine to change time on another track.

'W' to enter a warm up period as defined in the Race Format menu under 'F6'. This turns on power to all lanes, but does not look at the lap counter or timer.

'Space Bar' to start qualifying the driver with a selectable 3 second count down.

The following are keys that can be pressed during a qualifying run:

'Space Bar' to abort qualifying the present driver.

'Del' key to cancel current lap from counting. i.e.

'V' to change the track voltage if wired to SRT specification. If in the Track Option menu, this function is turned off, this line will not be displayed on the screen.

The following are keys that can be pressed after a qualifying run is completed or aborted:

'Enter' key to qualify next driver.

'Backspace' key to re-qualify the same driver.

Press the 'C' key to continue driver qualifying run, if the driver has time remaining. This will start the driver back with the same remaining time and will not delete any previous qualifying times.

Press the 'P' key to reset time and continue current driver qualifying run. This mean that the amount of qualifying time he has left will revert back to the previous qualifying run time and deletes all of the driver times.

The following are commands to be used in the bye round:

'Y' to requalify the driver and enter the bye run.

'N' to skip the present driver and keeps all of the driver times.

'Q' to list the qualifying order. If using the radom mode and you have a large driver entry, this will help drivers see when they qualify.

'A' to skip all drivers and keeps all of the driver times. i.e. to skip the bye round.

The 'V' and 'S' are explained above.

F5 Sort Driver's Qualify Time

Sorts drivers' by their top qualifying time. In the event of a tie (unlikely), it automatically looks at the drivers' second best time to determine the winner. Press the 'P' key to make a hard copy of this list.

F6 Driver's Lane Choice For Race

The Round Robin format:
Here the drivers choose what color lane they want to start on. Lane colors and numbers are listed on the bottom of the screen. If you have more than eight drivers, there are also mandatory sit-out. Even the person who TQ's can opt to sit-out a heat or two if they desire. By pressing the 'F2' key at any time during the selection process, the program will start from the first position and fill any vacant position with the next available driver.

The Semi/Consi format:
The order in which races are run are, Consi's, Semi's, and the Main event. You must enter the set-up race menu 'F6' before each one of these races to assign lanes to the drivers. Between races, **DO NOT** hit the 'F9' key to start a new race. As soon as a race is completed and you have done your necessary printouts, then return to the main menu and press 'F6' for set-up race. This will allow you to assign lanes to the drivers for the next semi/consi race.

F7 Start Race Mode

At this point you can start the race, give the drivers a warm-up time, or test the loudness of the beep (if you have your computer speaker tied to your P.A. system). The beeper will sound at 20, 10, 2, 1 and 0 seconds before each heat begins. The beep also signals when the heat is over.

To simulate the cars driving on the track, (hit the number keys 1 through 8, if this is a Demo program or using the keyboard as a track) to simulate laps and lap times for that lane.

The 'P' key will toggle the printer output on and off at any point after entering the 'F7' race mode.

The following commands can be entered at the selectable 3 second count down point:

The ‘Ctrl R’ keys combination will start the count down to begin the race mode.

The ‘W’ key will give the drivers a warm-up time, by turn on the track power for a selectable amount of time.

The ‘B’ key will beep the beeper to test the loudness of the beep if using an P.A system.

The following command can be performed while waiting at the selectable 3 second count down point or during a track call:

When using the ‘V’ key, the track voltage can be altered during a track call or during intermission when the track is wired to SRT specifications. (See supplied wiring diagram.).

The following commands can be entered during the race mode, lap correcting or intermission:

On the bottom of the screen, the drivers are listed in rank order based on the number of laps. While in the race mode the following letters can be selected to change the driver list at the bottom of the screen:

‘A’ to return to the normal list with drivers total laps displayed and in rank of order.
‘B’ to display the laps each driver is out of the first place position of the 8 racing drivers.
‘C’ to display the laps each driver is out of the fourth place position of the 8 racing drivers.

The following commands can be entered during the race mode or lap correcting mode:

To add a lap to a lane press the insert key and the number key of the lane.

To delete a lap, press the delete key and the number key of the lane.

To remove power to a specific driver on a lane, press and hold the 'ALT' key, press the lane number key and then release. This is used to black flag a driver or when a driver drops out of the race; the NP symbol will follow that driver's name until the end of the race. To turn power back on, press the same combination again.

The following commands can be entered during intermission:

You can display the current list of all drivers laps, corrected lap log, number of heats, best times, and best lane per driver by pressing the ‘F8’ key. At the 15 seconds mark of the intermission, the screen will return to the race screen automatically.

The following are displayed on the screen only:

A ‘+’ by the lap number means that a car coasted through the dead strip after the power was shut off and his lap counted.

A 'P' on the right side of the screen next to the '+/- laps' means a car has passed over the lap counter under the minimum lap time. The current lap time will be displayed, but a lap will not be counted and the best time will not be changed. A beep will sound along with the 'P', indicating to the Race Director that there was a possible rider and that lap correction may be necessary. Another possibility is that the minimum lap time may be set too high and should be corrected.

If the letter 'C' appears in this same area as the ‘P’ above, when the heat starts after intermission, the driver is probably not putting his car back on the track where he took it off. (The program keeps track of minimum lap time through intermission.)

If the letters ‘NP’ are to the left of a drivers name on the screen, that lane will have no power applied during a race or when the race resumes. See above to take corrective action if needed.

If you need more intermission time, such as to repair the track, press the 'esc' key and return to the main menu. This will stop the intermission countdown. When you are ready to resume the race, press the 'F7' key for a 3-second (selectable) countdown.

The Best and Worst times are only updated if the driver completed a lap without a track call.

F8 Final/Current Race Results

The Round Robin format:
This function lists the drivers’ names, total number of laps, total number of laps that have been added or subtracted for each driver, heat number, best times, best lane, and the ‘NP’ symbol (no power to that driver) for each driver. Press the ‘P’ key to make a hard copy of this list.

The Semi/Consi format:
This function lists the drivers’ names, total number of laps, total number of laps that have been added or subtracted for each driver, position, best times, best lane , and the ‘NP’ symbol (no power to that driver) for each driver. Press the ‘P’ key to make a hard copy of this list.

F9 Unload Previous Race, (To start another race)

This function clears the results of the last race and clears the track, thus enabling the time seller routine for that track. If you are using the weekly race scheduler, this function will set up the computer for the current time slot. Press the ‘N’ key to clear all data and to start a new race, including deleting all driver names. Press the ‘S’ key to clear all data and to start a new race with the same driver names. **DO NOT use this function if you are running a semi/consi race and you have not completed the main event.**

F2 Practice Mode

While in this screen you can see what times you are turning. This can also be displayed if you installed a monitor located at the track for the drivers' convenience.

The program also has the capability to select and reset a driver time from the track, if the track is wired to SRT specifications on resetting driver time. To reset a lane time, you can place push-button switches at the track. One switch would be labeled select and the other switch would be labeled reset.

To reset a driver time from the keyboard, you would use the TAB key to toggle to the lane and then press the zero '0' key to reset that lane.

Track voltage can also be selected from this screen, if wired to SRT specifications (see supplied wiring diagram).

When you activate a track call in this mode, you override the time seller. Another feature in this mode is that by pressing the "P" key you can turn power on to all lanes, if this function is enabled in the setup.

F3 Track Time Seller

This routine is used to sell time and see how much time is left on tracks "A" through "D", thus eliminating the need of mechanical timers.

To sell time from this screen, press the 'S' key and then select the track from 'A' to 'D' that is being used. **NOTE**: You must have a separate SRT I/O card for every track. After you select the track letter, you then must select the lane. Select 1 to 8 to adjust individual lanes, and select 9 to adjust all eight lanes at one time. Select 0 to 9 or 'A' to 'D' (see also 'F4' computer/program track options, 'F7' time seller minutes setup) for the time you want to add to that lane. Press 'H' to hold the time and shut the lane off. Press the letter 'O' to turn the lane back on and use the time that is remaining. To change the time that each number adds to a lane, you must use the Time Seller minutes routine. From the main menu, press the following keys: 'F12, F4, F7'. Time Seller can also be called from Qualifying and Race mode (during track calls and between heats), and from the 'F8 Current Race Results'.

F4 Setup Menu/Documentation/Test

Explained previously (see PARAMETER SETUP).

DB37 PIN OUT

PIN 1 INPUT #1 RED LANE LAP COUNTER (when momentary gnd is applied, it registers lap)
PIN 2 INPUT #2 WHT LANE LAP COUNTER (")
PIN 3 INPUT #3 GRN LANE LAP COUNTER (")
PIN 4 INPUT #4 ORG LANE LAP COUNTER (")
PIN 5 INPUT #5 BLU LANE LAP COUNTER (")
PIN 6 INPUT #6 YEL LANE LAP COUNTER (")
PIN 7 INPUT #7 PUR LANE LAP COUNTER (")
PIN 8 INPUT #8 BLK LANE LAP COUNTER (")
PIN 9 OUTPUT #1 RED LANE POWER CONTROL (outputs a gnd for relay)
PIN 10 OUTPUT #2 WHT LANE POWER CONTROL (")
PIN 11 OUTPUT #3 GRN LANE POWER CONTROL (")
PIN 12 OUTPUT #4 ORG LANE POWER CONTROL (")
PIN 13 OUTPUT #5 BLU LANE POWER CONTROL (")
PIN 14 OUTPUT #6 YEL LANE POWER CONTROL (")
PIN 15 OUTPUT #7 PUR LANE POWER CONTROL (")
PIN 16 OUTPUT #8 BLK LANE POWER CONTROL (")
PIN 17 12vdc POWER FROM TRACK
PIN 18,19,36,37 TRACK GND. (from track)
NOTE: PIN 20 THROUGH 23 ONLY NEED A MOMENTARY GROUND
PIN 20 AUX. INPUT #1 REMOTE TRACK CALL (gnd applied causes Track call, applied again after 2 sec. turns power back on)
PIN 21 AUX. INPUT #2 RESET SELECT (used with remote monitor)
PIN 22 AUX. INPUT #3 RESET (used with remote monitor)
PIN 23 AUX. INPUT #4 N.C.
PIN 24 AUX. OUTPUT #4 Key relay that could be used for caution light.
PIN 25 AUX. OUTPUT #3 TRACK VOLTAGE SELECT (used with voltage opt.)
PIN 26 AUX. OUTPUT #2 TRACK VOLTAGE SELECT (used with voltage opt.)
PIN 27 AUX. OUTPUT #1 TRACK VOLTAGE SELECT (used with voltage opt.)
PIN 28 - 32 NOT USED
PIN 33 COMPUTER 12VDC. **USED FOR TEST PLUG ONLY**.
PIN 34 COMPUTER 5VDC. **DO NOT USE**.
PIN 35 **GROUND FOR TEST PLUG USE ONLY**.
PIN 36 & 37 SEE PIN 18

TEST PLUG JUMPER CONNECTION

The following pins must be connected together for a test plug:

1 to 9, 2 to 10, 3 to 11, 4 to 12, 5 to 13, 6 to 14, 7 to 15, 8 to 16

20 to 27, 21 to 26, 22 to 25, 23 to 24, 17 to 33, 35 to 36

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LATEST UPDATE

INFORMATION

REV 3.02 has the following changes: 19 May 1998

1. The program will print out a file for each race with an "F" at the end of the file. This file is located under c:\srtprd\racedata\". The file contains the output of the "F8" screen, which is the Race Results. This file will be updated everytime you enter the "F8" screen. You must scroll thru all of the drivers names for the output. If you have 40 drivers and enter the "F8" screen and then exit without looking at the next screen of drivers, the output file will only contain the 1st screen.

2. After you assign all drivers in the setup menu, you can now print out the order that the drivers will come up in a round robin format.

3. Fixed a problem on the screen only if you are using a track that does not have 8 lanes. This is the Round Robin setup in the Manual selection. If you are running a 4 lane track, the Manual "S" selection mode will show that you will be running 4 heats.

4. Changed the way you can now select the different times for Qualifying. You will enter all values in seconds. The 1st value is the time for the 1st driver to qualify in the main round. The 2nd value is the time for all the rest of the drivers to us in the main round of qualifying. The 3rd value is for how much time will be used in the bye round. This time does care how much time was used by the driver in the main round. The 4th value is for how much time is to be subtracted from the time the driver has left in the main round and this time will be used in the bye round.
The delay time between drivers is the same as before. It is used for time between drivers in the qualifying mode. This helps keep drivers/qualifying moving alone.

5. Fixed the screen printout for Round Robin Zone input routine.

REV 3.01 WAS SKIPPED

REV 3.00 has the following changes: 7 Dec 1997

1. You can now run a Race more than 1 time around. ie. if you have a Round Robin race with 10 drivers in it. You can set the number of time each driver will run a lane (F4, F2, F10) to 2. This means the Race will have 20 heats in it and each driver will run 16 heats.

REV 2.99 WAS SKIPPED

REV 2.98 had the following changes: 22 Oct 1997

1. This is more information on how the Aux output work.

You can select the names and the bit pattern for changing the track power level for three different aux outputs. The forth (4) output is for low voltage track call.

Aux1 Aux2 Aux3 Aux4

1.	Track Power is OFF	1	0	0	0
2.	Track Power is 13.8 V	1	0	0	0
3.	Track Power is 6.0 V	0	1	0	0
4.	Track Power is NONE	0	0	0	0
5.	Track Power is NONE	0	0	0	0
6.	Track Power is NONE	0	0	0	0
7.	Track Power is NONE	0	0	0	0
8.	Track Power is NONE	0	0	0	0
9.	Track Power is NONE	0	0	0	0
O.	Track Call Power is OFF	X	X	X	0
H.	Track Call Power at HALF POWER	0	0	0	1
L.	Track Call Power with Light Only "This turns track power off and the Aux 4 on."	X	X	X	1
N.	CHANGES TRACK POWER NAMES AND OUTPUT BITS				

Notes: 0 = Output bit is not keyed. (High, Relay not keyed)
1 = Output bit is keyed. (Low, Relay keyed)
X = Does not care.

The names like '13.8 V' can be changed to anything up to 6 characters, by pressing the 'N' key then the '2' key. You can also change the bit pattern for the '13.8 V' in this same way. If you change the name to 'NONE', then the program will skip over that entry.

REV 2.97 had the following changes: 9 Oct 1997

1. Changed the program so you can now run a race on a 2, 3, 4, 5, 6, 7, or a 8 lane track. When using a 2, 3, 5, or a 7 lane track, the program will only run a Round Robin race with single lane rotation.

REV 2.96 had the following changes: 24 Sept 1997

1. Fixed a printing error in Qualifying, that was writing over another line.

REV 2.95 had the following changes: 8 May 1997

1. The Bar Chart mode in racing had a problem with black flaging a driver (NP). The right lane would shut off, but the display would be wrong.

2. Fixed the Semi/Consi in the 4 Heat mode.

REV 2.94 had the following changes: 5 Apr 1997

1. In the Race mode, you can now toggle between drivers heat laps (normal) and drivers total laps by pressing the 'ALT-D' keys. This will work on the large LED screen and also the Bar Chart screen.

2. SRT homepage and email address changed.
HOMEPAGE is http://home.inreach.com/srt/
EMAIL is srt@inreach.com

REV 2.93 had the following changes: 16 Mar 1997

1. Changed the minimum lap time that you can enter from .5 seconds to .2 seconds in practive and qualifying routines.

REV 2.92 had the following changes: 21 Feb 1997

1. Found a typo in the program that caused '.DAT' being saved in V2.90 and V2.91 to read back in with an error.

2. You can now install a new version from your hard drive by typing in the whole path including the drive letter. ie. 'c:\junk'

REV 2.91 had the following changes: 17 Feb 1997

1. There is now a way to pick the race format file that will be used in the program. This only effects Italy race formats.

2. Created another race format for Italy.

REV 2.90 had the following changes: 8 Feb 1997

1. Fixed the ON DECK color, if you change from the normal RED incoming lane to another the color, the ON DECK would also change.

REV 2.89 WAS SKIPPED

REV 2.88 had the following changes: 30 Jan 1997

1. Made the SRTPRD program smaller by making the system not a stand alone program.

REV 2.87 had the following changes: 25 Jan 1997

1. The program can now be set to MPH (Miles per Hours) or to KPH (Kilometer per Hours) for the Practice and Qualifying modes. The value is set at the same location that the length of track is set.

2. Fixed a bug in the program when in the Qualifying section and you tried to sell time on another track.

REV 2.86 had the following changes: 2 Jan 1997

1. When running the manual mode for a race. If a Driver is bought in for a second race, the Driver number of laps is reset back to zero.

REV 2.85 had the following changes: 1 Dec 1996

1. Fixed a bug in the 4 lane track, single lane rotation race.

2. Fixed the Practice mode in the LED mode for counting laps after a midnight turn over in screen saver.

3. Changed the time remaining count down in the Race mode from Seconds only to minutes and seconds.

REV 2.84 had the following changes: 27 Oct 1996

1. Added Password access in the computer setup menu to gain access to 'F7' the timeseller minute setup, 'F9' the lock/unlock power control in the practice mode and 'F11' the default load. If you forget the password you will have to do a new install. To turn the password off, enter a password of 'SRTPRD'.

REV 2.83 had the following changes: 25 Oct 1996

1. Fixed a bug in running a 6 lane track in the 'Round Robin A' mode.

REV 2.81 and 2.82 had the following changes: 13 Oct 1996

1. Worked on different Race format so they will work with 4 or 6 lane tracks.

REV 2.80 had the following changes: 27 Sep 1996

1. Fixed a bug in Rev 2.79. If you did not use time seller the program might re-boot your computer.

REV 2.79 had the following changes: 14 Sep 1996

1. In the practice mode, track call did not stay active if you were using Time Seller.

2. Changed the way Time Seller will save a file and how often.

3. There is a new directory 'c:\srtprd\heatdata'. After each heat and the start of the next heat, (when the data is saved), another file will be added to this directory. This will enable you to start any previous heat over again. To start a heat over again, you can exit the program and restart the program and enter the load backup file menu (F1, F1, F1). If you do not want to leave the program, you can do the following steps.
   1. 'F9' unload current race
   2. 'N' to start a race over
   3. From the main menu you will need to go to Race menu 'F1'

4. 'F1' enter drivers names
5. 'F1' load backup file
6. Pick the heat that you would like to start in.

REV 2.78 had the following changes: 20 Aug 1996

1. The time seller portion of the program did not covered the fact that there could be a 6 lane and a 8 lane track in 1 computer. This has now been corrected.

REV 2.77 had the following changes: 12 Aug 1996

1. The program had to be changed to accommodate the new I/O card.

REV 2.76 had the following changes: 23 June 1996

1. Still working on Italy rotation method into program. It is now ready for testing.

2. Fixed a bug with the laps per heat method. It was doing only 99 seconds for a heat in a lap mode.

REV 2.75 had the following changes: 27 May 1996

1. Working on getting Italy rotation method into the program. This is for testing only right now.

2. Working on getting the program working for Boy Scouts Pine Wood Derby race.

REV 2.74 had the following changes: 8 Apr 1996

1. Another type of lap race has been added. Before you could run number of laps per heat or you could run number of laps per race. Now you can select the number of laps per heat and the number of laps for a race.

2. We have added a new feature for keeping track of regular drivers at a raceway. From the main menu you would press 'F1', then 'F1' and then 'F4' to run the 'Name List Program'. We are still working on this part of the program, so it could change some in the future.

REV 2.73 had the following changes: 17 Feb 1996

1. Added a count down time for when you come out of a half-power track call in the race mode. This time will beep just like you are starting a race. The same time that is used for qualifying count down and also the race count down is now used for half-power track call to full-power count down.

REV 2.72 had the following changes: 10 Feb 1996

1. We now setup the store name for you in the program.

REV 2.70 had the following changes: 27 Jan 1996

1. The Southern Cal USRA method was changed for the way drivers entered the Main race from the 2 Semi's races. The top driver in each of the Semi's try for position 1 and 2 of the Main. The next to the top driver in each of the Semi's try for position 3 and 4 of the Main and so on. This is the correct way to run a Southern Cal race.

REV 2.69 had the following changes: 14 Jan 1996

1. Aux 4 input will now operate as the 'BACKSPACE KEY' in the RACE mode to kill power if you are using half power track calls. This input will take a momentary ground.

2. Change the true table in the track power menu. This will give the user more control over the 4 aux output lines. NOTE: Make sure this table is still setup the way you want it to be. This effects full and half power setting when wired to use half power settings.

3. Fixed a problem in practice mode with keying the half power track call.

4. Looked at fixing the lap counter in the practice mode. In the LED mode when you come out of the screen saver mode, sometimes the program would not count laps.

5. Fixed a small problem with time seller when the next day came around and the program was still running. It was putting times back on the screen.

6. If you are using Time Seller and left time on the track and then entered the qualifying section, the time seller time will be zeroed out.

REV 2.68 WAS SKIPPED

REV 2.67 had the following changes: 16 Nov 1995

1. Fixed a problem on the qualifying screen when each lap time would write over the track voltage if it was being used.

2. Fixed a problem in the LED mode of the practice screen. Lane 1 box was being eating away.

REV 2.66 had the following changes: 6 Nov 1995

1. Fixed the Driver No Power 'NP' in the bar chart of the race mode.

2. Fixed a problem in the practice mode which was added in Rev 2.65

#3. The problem was that if you were in the practice LED mode and a lane or more was blinking because of a new fast time, and then you switched back to the practice normal mode, the big print would appear on the screen when it was to stop blinking.

3. To enter the bar chart in the race mode you now need to enter the 'ALT-G' keys. This was changed from the 'ALT-H' keys

REV 2.65 had the following changes: 14 Oct 1995

1. Added the NEW USRA National Race rotation. This was taken from the Australia race rotation method. You must select this mode by pressing 'F4' from the main menu, then 'F1' and then 'F2'. At this point you would press the 'U' key to toggle between different rotation methods.

2. Added a Half Power for Track Calls in the Practice mode. You can change the track call to half power (provide your track is wired for half voltage) by press 'F4' from the main menu and then 'F2' and then 'F9'. At this point you can toggle from track off to half power in the practice mode by pressing the 'P' key. If you are in the half power track call and want to kill the power to the track at this point, you would press the 'backspace' key to enter a power off track call.

3. Also in the Practice mode when in the LED mode and the driver make a new best time, the time starts blinking. 15 seconds after this point the time will stop blinking if the driver has not gone around again.

4. In qualifying the bye round, the Race Director can see the current driver best lap time under the time to beat time.

5. In qualifying mode, the Race Director can see the driver 1st 40 laps current time at the bottom of the screen. This can help to see if the driver is getting better or not. You can get a print out for the drivers of their current lap time for each lap by going into the 'SETUP MENU' 'F4' and then pressing 'F8'.

6. In the Race mode, the 1st 160 laps of each drivers for each heat is saved on a file. You can look at this file by press 'F4' from the main menu and the pressing 'F8'. You must have a race loaded into the program that has been run under V2.65 or above. If there is no file, you will get a error message. NOTE: The 160 laps is ALL laps, that is even if there is a rider on you lane, the time and lap will be recorded in this file. DO NOT count laps here and compare them to the laps the program show the driver received.

REV 2.64 WAS SKIPPED

REV 2.63 had the following changes: 23 Sep 1995

1. Added driver penalty score. This can be put in as either number of laps or as a percent, with the computer calculating the number of laps to penalize the driver. This is for Semi/Consi racing only. At the end of a race for Semi/Consi or Main, the computer ask you to input the zone number

for each car. After you are done doing this it will ask for any changes to a car. At this point you would enter the position number for the car/driver and then the program will give you choices of changing the laps, zone or adding a penalty for the driver.

REV 2.62 WAS SKIPPED

REV 2.61 had the following changes: 27 Aug 1995

1. Fixed a bug in the qualifying list mode in the qualifying section.

2. Added a intermission time function for qualifying. This will keep the qualifying on a schedule and should help speed things up a bit. By pressing the 'I' in the qualifying menu routine, the program will show a count down time and change screens at the 5 seconds mark to the qualifying section. If the Race director presses the 'C', then the screen will change and the time will be at the 5 seconds point. This is a way to speed up the time if the driver is ready to qualify. The qualifying intermission time is set in the same area of the setup menu that you would set the length of time for each driver to qualify. The intermission time does not include the count down time with the beeps after the space bar is press. This maybe an additional 3 seconds. The minimum delay time is 15 seconds between drivers.

REV 2.60 WAS SKIPPED

REV 2.59 had the following changes: 13 Aug 1995

1. SRT added a bar chart in the Race mode. You can enter or leave this mode by pressing the 'alt-H' keys.

2. You can select the names and the bit pattern for changing the track power level for three different aux outputs. The forth (4) output is for low voltage track call.

		Aux1	Aux2	Aux3	Aux4
1.	Track Power is OFF	1	0	0	X
2.	Track Power is 13.8 V	1	0	0	X
3.	Track Power is 6.0 V	0	1	0	X
4.	Track Power is NONE	0	0	0	X
5.	Track Power is NONE	0	0	0	X
6.	Track Power is NONE	0	0	0	X
7.	Track Power is NONE	0	0	0	X
8.	Track Power is NONE	0	0	0	X
9.	Track Power is NONE	0	0	0	X
O.	Track Call Power is OFF	X	X	X	0
H.	Track Call Power at HALF POWER	0	0	0	1
L.	Track Call Power with Light Only	X	X	X	1

"This turns track power off and the Aux 4 on."

N. CHANGES TRACK POWER NAMES AND OUTPUT BITS

Notes: 0 = Output bit is not keyed. (High)
1 = Output bit is keyed. (Low)
X = Does not care.

The names like '13.8 V' can be changed to anything up to 6 characters, by pressing the 'N' key then the '2' key. You can also change the bit pattern for the '13.8 V' in this same way. If you change the name to 'NONE', then the program will skip over that entry.

REV 2.58 had the following changes: 8 Aug 1995

1. The Race Format data files was getting messed up because user were using the double quote symbol ' " ' for their class of slotcar names. This would mess up a file. This problem should now be fixed.

2. Some program cleaning for the large LED mode in the Race mode.

3. In the Final or Current Race results screen, you can now see the average numbers of laps the drivers has done with the numbers of heats that he has run. This helps a driver compare his laps to another driver laps, even when they have run a different numbers of heats in the Round Robin mode.

REV 2.57 had the following changes: 14 July 1995

1. In the Race mode, you can have large LED lap numbers by pressing the 'alt L' keys.

REV 2.56 had the following changes: 11 June 1995

1. Fixed the heat print out during the Race mode.

2. Added the Race information when entering the Race mode.
ie. Class of Car, Heat, Intermission, and Minimum Lap time.

NEWPAGE

SLOT RACING TECHNOLOGY PRODUCT LIST
AS OF OCTOBER 1997
PRICES SUBJECT TO CHANGE

Part #	Product Description	Price
CABLE-15	15 Conductor System Cable (price per ft.)	.65
PRD I/O-1	1 SRT Computer Interface Card	150.00
PRDS-1	Software with 1 Computer Card	295.00
PRDS-2	Software with 2 Computer Card	445.00
PRDS-3	Software with 3 Computer Card	595.00
PRDS-4	Software with 4 Computer Card	745.00
SRTREGIS	SRT Registration Fee & Manual	100.00
DRP2-75	2 Ln, 75 amp Drag Relay Panel	75.00
TRP4-30	4 Ln, 30 amp Track Relay Panel	97.50

TRP6-30	6 Ln, 30 amp Track Relay Panel	142.00
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NEWPAGE

S.R.T.
9432 East Ave T-10
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NEWPAGE

Slot Racing Technology 805-944-6307

DEAR Customer: Jan 1993

S.R.T. offers free software upgrades of the software to the original purchaser. We will keep a customer file containing a S.A.S.E. (Disk Mailer) provided by you. When significant changes to the program have been made, we will ship you a new version. If there is a problem (bug) with the software we will send a corrected version to you immediately. As long as you keep us supplied with mailers (with postage and disk), we'll always keep you with the latest version. S.R.T. can also give technical support by phone in the evening hours (PT) just by calling the above number, which is also located in the program when exiting. We also offer an exchange program on the interface card should you encounter any difficulties.

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Than You Very Much for your order

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RACE

FORMATS

9 Driver's or more Single on deck

Round - Robin Race Format

example *

Sit out #1 will enter the race on the Red lane after the first heat.

Driver on the Wht lane will exit after the first heat and will be place at the bottom of the rotation list.

Red Lane Driver 1
Wht Lane Driver 2
Grn Lane Driver 3
Org Lane Driver 4
Blu Lane Driver 5
Yel Lane Driver 6
Pur Lane Driver 7
Blk Lane Driver 8

Sit Out 1(9th)

Driver's can pick any lane or sit out positions when their name appears on the screen for lane choice.

Thru 200

For every driver there is a heat.
ie, 9 driver's there will be a total of 9
heats in the race. Each driver completing 8 heats.

* Program defaults, user can define what lane to exit on . The program will determine the lane the driver will return on, based on european rotation.

10 Driver's or more Double on deck

Round - Robin Race Format

example *

Sit out #1 will enter the race on the Red lane after the first heat.

Red Lane Driver 1
Wht Lane Driver 2
Grn Lane Driver 3
Org Lane Driver 4
Blu Lane Driver 5
Yel Lane Driver 6
Pur Lane Driver 7
Blk Lane Driver 8

Driver on the Wht lane will exit after the first heat and will be place at the bottom of the upper rotation list.

Sit Out 1 (9th)
Sit Out 2(10th)

The program will divide the sit out list (as close as possible) in half.

Sit out #3 will enter the race on the Blk lane after the first heat.

Sit Out 3(11th)
Sit Out 4(12th)

Driver on the Pur lane will exit after the first heat and will be place at the bottom of the lower rotation list.

Driver's can pick any lane or sit out positions when their name appears on the screen for lane choice during set-up.

Thru 200

For every driver there is a heat.
ie, 12 driver's there will be a total of 12
heats in the race. Each driver completing 8 heats.

* Program defaults, user can define what lane to exit on . The program will determine the lane the driver will return on, based on European rotation.

National U.S.R.A. Racing Format(Old)

MAIN

SEMI WINNER W/ LEAST LAPS
SEMI SECOND W/MOST LAPS
SEMI SECOND W/ LEAST LAPS
SEMI THIRD W/ MOST LAPS
SEMI THIRD W/ LEAST LAPS
SEMI FORTH W/ MOST LAPS
SEMI FORTH W/ LEAST LAPS

SEMI-A

FIRST Qualifier
THIRD Qualifier
FIFTH Qualifier
SEVENTH Qualifier
CONSI A/B WINNER W/ MOST LA
CONSI A/B WINNER W/ LEAST LA
CONSI A/B SECOND W/ MOST LAPS
CONSI A/B SECOND W/ LEAST LAPS

SEMI-B

SECOND Qualifier
FORTH Qualifier
SIXTH Qualifier
EIGHT Qualifier
CONSI C/D WINNER W/ MOST LAPS
CONSI C/D WINNER W/ LEAST LAPS
CONSI C/D SECOND W/ MOST LAPS
CONSI C/D SECOND W/ LEAST LAPS

CONSI-A	CONSI-B	CONSI-C	CONSI-D
9th Qualifier	10th Qualifier	11th Qualifier	12th Qualifier
16th Qualifier	15th Qualifier	14th Qualifier	13th Qualifier
17th Qualifier	18th Qualifier	19th Qualifier	20th Qualifier
24th Qualifier	23rd Qualifier	22nd Qualifier	21st Qualifier
25th Qualifier	26th Qualifier	27th Qualifier	28th Qualifier
32nd Qualifier	31st Qualifier	30th Qualifier	29th Qualifier
33rd Qualifier	34th Qualifier	35th Qualifier	36th Qualifier
40th Qualifier	39th Qualifier	38th Qualifier	37th Qualifier

41 to 44 RACES

Create one Sub-Consi, using all races who qualified over #36. Run the Race and move winner to Consi-A, 2nd to Consi-B, 3rd to Consi-C, and 4th to Consi-D.

45 to 52 RACES

Create two Sub-Consis, using all races who qualified over #36. Fill sub-consis using same pattern used to make semis. Move winner of Sub-Consi-B to Consi-C, move 2nd of Sub-Consi-B to Consi-D, move winner of Sub-Consi-A to Consi-A, and move 2nd of Sub-Consi-A to Consi-B.

53 to 64 RACES

Create four Sub-Consis, using all races who qualified over #32. Fill Sub-Consis using same pattern used to make Consis. Run the sub-Consis and move the winner and 2nd Place into the Consi with the same letter.

65 RACERS AND OVER

For races with over 64 racers, create Sub-Sub-Consis and follow the same instructions for the creation of the Sub-Consis.

NATIONAL U.S.R.A. FORMAT FOR THE DURATION OF RACES

Consi's are run: D, C, B, A. Semi's are run B and A.

MAIN

Class	Heats	Duration's(in minutes)
Pro/semi-pro	8	5 on 3 off
Group 27	8	4 on 3 off
All other	8	3 on 3 off

SEMI

Pro/semi-pro	8	3 on 3 off
Group 27	8	2 on 3 off
All other	8	2 on 3 off

CONSI & SUB-CONSIS

Pro/semi-pro	4	3 on 3 off
Group 27	4	2 on 3 off
All other	4	2 on 3 off

NEW AUSTRALIAN

RACE SCHEDULE

FINAL

LANE CHOICE	RACE POSITION
FIRST	FIRST PLACE IN SEMI WITH MOST WINNING LAPS
SECOND	FIRST PLACE IN SEMI WITH LEAST WINNING LAPS
THIRD	SECOND PLACE IN SEMI WITH MOST WINNING LAPS
FOURTH	SECOND PLACE IN SEMI WITH LEAST WINNING LAPS
FIFTH	THIRD PLACE IN SEMI WITH MOST WINNING LAPS
SIXTH	THIRD PLACE IN SEMI WITH LEAST WINNING LAPS
SEVENTH	FOURTH PLACE IN SEMI WITH MOST WINNING LAPS
EIGHTH	FOURTH PLACE IN SEMI WITH LEAST WINNING LAPS

A Semi Final

LANE CHOICE	RACE POSITION
FIRST	FIRST PLACE IN QUARTER WITH MOST WINNING LAPS
SECOND	FIRST PLACE IN QUARTER WITH LEAST WINNING LAPS
THIRD	SECOND PLACE IN QUARTER WITH MOST WINNING LAPS
FOURTH	SECOND PLACE IN QUARTER WITH LEAST WINNING LAPS
FIFTH	THIRD PLACE IN QUARTER WITH MOST WINNING LAPS
SIXTH	THIRD PLACE IN QUARTER WITH LEAST WINNING LAPS
SEVENTH	FOURTH PLACE IN QUARTER WITH MOST WINNING LAPS
EIGHTH	FOURTH PLACE IN QUARTER WITH LEAST WINNING LAPS

B Semi Final

LANE CHOICE	RACE POSITION
FIRST	FIRST PLACE IN QUARTER WITH SECOND MOST WINNING LAPS
SECOND	FIRST PLACE IN QUARTER WITH THIRD MOST WINNING LAPS
THIRD	SECOND PLACE IN QUARTER WITH SECOND MOST WINNING LAPS
FOURTH	SECOND PLACE IN QUARTER WITH THIRD MOST WINNING LAPS
FIFTH	THIRD PLACE IN QUARTER WITH SECOND MOST WINNING LAPS
SIXTH	THIRD PLACE IN QUARTER WITH THIRD MOST WINNING LAPS
SEVENTH	FOURTH PLACE IN QUARTER WITH SECOND MOST WINNING LAPS
EIGHTH	FOURTH PLACE IN QUARTER WITH THIRD MOST WINNING LAPS

A Quarter Final

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 1
SECOND	QUALIFIER 8
THIRD	QUALIFIER 9
FOURTH	QUALIFIER 16
FIFTH	QUALIFIER 20 OR POS 1 FROM CONSIE A1
SIXTH	QUALIFIER 21 OR POS 2 FROM CONSIE A1
SEVENTH	QUALIFIER 28 OR POS 3 FROM CONSIE A1
EIGHTH	QUALIFIER 29 OR POS 4 FROM CONSIE A1

B Quarter Final

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 2
SECOND	QUALIFIER 7
THIRD	QUALIFIER 10
FOURTH	QUALIFIER 15
FIFTH	QUALIFIER 19 OR POS 1 FROM CONSIE B1
SIXTH	QUALIFIER 22 OR POS 2 FROM CONSIE B1
SEVENTH	QUALIFIER 27 OR POS 3 FROM CONSIE B1
EIGHTH	QUALIFIER 30 OR POS 4 FROM CONSIE B1

C Quarter Final

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 3
SECOND	QUALIFIER 6
THIRD	QUALIFIER 11
FOURTH	QUALIFIER 14
FIFTH	QUALIFIER 18 OR POS 1 FROM CONSIE C1
SIXTH	QUALIFIER 23 OR POS 2 FROM CONSIE C1
SEVENTH	QUALIFIER 26 OR POS 3 FROM CONSIE C1
EIGHTH	QUALIFIER 31 OR POS 4 FROM CONSIE C1

D Quarter Final

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 4
SECOND	QUALIFIER 5
THIRD	QUALIFIER 12
FOURTH	QUALIFIER 13
FIFTH	QUALIFIER 17 OR POS 1 FROM CONSIE D1
SIXTH	QUALIFIER 24 OR POS 2 FROM CONSIE D1
SEVENTH	QUALIFIER 25 OR POS 3 FROM CONSIE D1
EIGHTH	QUALIFIER 32 OR POS 4 FROM CONSIE D1

IRST GROUP OF CONSIES

A1 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 20
SECOND	QUALIFIER 21
THIRD	QUALIFIER 28
FOURTH	QUALIFIER 29
FIFTH	QUALIFIER 36 OR POS 1 FROM CONSIE A2
SIXTH	QUALIFIER 37 OR POS 2 FROM CONSIE A2
SEVENTH	QUALIFIER 44 OR POS 3 FROM CONSIE A2
EIGHTH	QUALIFIER 45 OR POS 4 FROM CONSIE A2

B1 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 19
SECOND	QUALIFIER 22
THIRD	QUALIFIER 27
FOURTH	QUALIFIER 30
FIFTH	QUALIFIER 35 OR POS 1 FROM CONSIE B2
SIXTH	QUALIFIER 38 OR POS 2 FROM CONSIE B2
SEVENTH	QUALIFIER 43 OR POS 3 FROM CONSIE B2
EIGHTH	QUALIFIER 46 OR POS 4 FROM CONSIE B2

C1 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 18
SECOND	QUALIFIER 23
THIRD	QUALIFIER 26
FOURTH	QUALIFIER 31
FIFTH	QUALIFIER 34 OR POS 1 FROM CONSIE C2
SIXTH	QUALIFIER 39 OR POS 2 FROM CONSIE C2
SEVENTH	QUALIFIER 42 OR POS 3 FROM CONSIE C2
EIGHTH	QUALIFIER 47 OR POS 4 FROM CONSIE C2

D1 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 17
SECOND	QUALIFIER 24
THIRD	QUALIFIER 25
FOURTH	QUALIFIER 32
FIFTH	QUALIFIER 33 OR POS 1 FROM CONSIE D2
SIXTH	QUALIFIER 40 OR POS 2 FROM CONSIE D2
SEVENTH	QUALIFIER 41 OR POS 3 FROM CONSIE D2
EIGHTH	QUALIFIER 48 OR POS 4 FROM CONSIE D2

SECOND GROUP OF CONSIES

A2 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 36
SECOND	QUALIFIER 37
THIRD	QUALIFIER 44
FOURTH	QUALIFIER 45
FIFTH	QUALIFIER 52 OR POS 1 FROM CONSIE A3
SIXTH	QUALIFIER 53 OR POS 2 FROM CONSIE A3
SEVENTH	QUALIFIER 60 OR POS 3 FROM CONSIE A3
EIGHTH	QUALIFIER 61 OR POS 4 FROM CONSIE A3

B2 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 35
SECOND	QUALIFIER 38
THIRD	QUALIFIER 43
FOURTH	QUALIFIER 46
FIFTH	QUALIFIER 51 OR POS 1 FROM CONSIE B3
SIXTH	QUALIFIER 54 OR POS 2 FROM CONSIE B3
SEVENTH	QUALIFIER 59 OR POS 3 FROM CONSIE B3
EIGHTH	QUALIFIER 62 OR POS 4 FROM CONSIE B3

C2 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 34
SECOND	QUALIFIER 39
THIRD	QUALIFIER 42
FOURTH	QUALIFIER 47
FIFTH	QUALIFIER 50 OR POS 1 FROM CONSIE C3
SIXTH	QUALIFIER 55 OR POS 2 FROM CONSIE C3
SEVENTH	QUALIFIER 58 OR POS 3 FROM CONSIE C3
EIGHTH	QUALIFIER 63 OR POS 4 FROM CONSIE C3

D2 Consie

LANE CHOICE	QUALIFYING/RACE POSITION
FIRST	QUALIFIER 33
SECOND	QUALIFIER 40
THIRD	QUALIFIER 41
FOURTH	QUALIFIER 48
FIFTH	QUALIFIER 49 OR POS 1 FROM CONSIE D3
SIXTH	QUALIFIER 56 OR POS 2 FROM CONSIE D3
SEVENTH	QUALIFIER 57 OR POS 3 FROM CONSIE D3
EIGHTH	QUALIFIER 64 OR POS 4 FROM CONSIE D3

A.N.S.I. - Italian Race Format

Main A to ..... Z in qualifing order from 1st Qualifier to last Qualified

Main A	Main B	Main C	..... Main Z
1st Qualifier	9th Qualifier	17th Qualifier	.
2nd Qualifier	10th Qualifier	18th Qualifier	.
3rd Qualifier	11th Qualifier	19th Qualifier	.
4th Qualifier	12th Qualifier	20th Qualifier	.
5th Qualifier	13th Qualifier	21st Qualifier	.
6th Qualifier	14th Qualifier	22nd Qualifier	.
7th Qualifier	15th Qualifier	23rd Qualifier	.
8th Qualifier	16th Qualifier	24th Qualifier	Last Qualifier

The race start with the last main and the result of the race is given by the total number of laps (plus sections) of each driver

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I.S.R.A. - Race Format (official)

Main	Semi A	Semi B
1st Semi	1st Qualifier	5th Consi
2nd Semi	2nd Qualifier	6th Consi
3rd Semi	3rd Qualifier	7th Consi
4th Semi	4th Qualifier	8th Consi
5th Semi	1st Consi	9th Consi
6th Semi	2nd Consi	10th Consi
7th Semi	3rd Consi	11th Consi
8th Semi	4th Consi	12th Consi

Consi A	Consi B	Consi C	Consi D
5th Qualifier	5th Heat	13th Heat	21th Heat
6th Qualifier	6th Heat	14th Heat	22th Heat
7th Qualifier	7th Heat	15th Heat	23th Heat
8th Qualifier	8th Heat	16th Heat	24th Heat
1st Heat	9th Heat	17th Heat	25th Heat
2nd Heat	10th Heat	18th Heat	26th Heat
3rd Heat	11th Heat	19th Heat	27th Heat
4th Heat	12th Heat	20th Heat	28th Heat

Heats A to ..... Z in qualifing order from 9th Qualifier to last Qualified

Heat A	Heat B	..... Heat Z
9th Qualifier	17th Qualifier	.
10th Qualifier	18th Qualifier	.
11th Qualifier	19th Qualifier	.
12th Qualifier	20th Qualifier	.
13th Qualifier	21st Qualifier	.
14th Qualifier	22nd Qualifier	.
15th Qualifier	23rd Qualifier	.
16th Qualifier	24th Qualifier	Last Qualifier

WIRING DIAGRAMS

The following color code is use when using cable supplied by SRT. If you have the cable with 12 solid colors, use the color on the left. If you have the cable with 6 solid colors, use the color on the right.

Example...When you see Color Red/Blk, that means solid red with a blk stripe.

INPUT CABLE OF DB-37 CONNECTOR TO LAP COUNTER

DB-37 Pin #	Color	Discription
1	RED or Red	LANE 1 LAP COUNTER
2	WHT or White	LANE 2 LAP COUNTER
3	GRN or Green	LANE 3 LAP COUNTER
4	ORG or Orange	LANE 4 LAP COUNTER
5	BLU or Blue	LANE 5 LAP COUNTER
6	YEL or Wht/Blk	LANE 6 LAP COUNTER
7	PUR or Grn/Blk	LANE 7 LAP COUNTER
8	BLK or Black	LANE 8 LAP COUNTER
20	BRN or Org/Blk	AUX. INPUT #1, REMOTE TRACK CALL
21	TAN or Blu/Blk	AUX. INPUT #2, DRIVER'S PANEL SELECT SWITCH
22	SLATE or Blk/Wht	AUX. INPUT #3, DRIVER'S PANEL RESET SWITCH
23	PINK or Red/Wht	AUX. INPUT #4, SECOND CH. OF A 2 CH. TX'r TO REMOVE TRACK POWER DURING HALF POWER TRACK CALLS.
36	RED/BLK or Red/Blk	LAP COUNTER GROUND

OUTPUT CABLE OF DB-37 CONNECTOR TO RELAY PANEL

DB-37 Pin #	Color	Discription
9	RED or Red	LANE 1 RELAY CONTROL
10	WHT or White	LANE 2 RELAY CONTROL
11	GRN or Green	LANE 3 RELAY CONTROL
12	ORG or Orange	LANE 4 RELAY CONTROL
13	BLU or Blue	LANE 5 RELAY CONTROL
14	YEL or Wht/Blk	LANE 6 RELAY CONTROL
15	PUR or Grn/Blk	LANE 7 RELAY CONTROL
16	BLKor Black	LANE 8 RELAY CONTROL
17	RED/BLK or Red/Blk	+12v FROM BATTERY
18	RED/GRN or Grn/Wht	GROUND (-) OF BATTERY
19	RED/YEL or Blu/Wht	GROUND (-) OF BATTERY
24	PINK or Red/Wht	AUX. OUTPUT #4, Used to key relay that would turn on track call caution light.
25	SLATE or Blk/Wht	AUX. OUTPUT #3, Used in Voltage select
26	TAN or Blu/Blk	AUX. OUTPUT #2, Used in Voltage select
27	BRN or Org/Blk	AUX. OUTPUT #1, Used in Voltage select
37	SHIELD	GROUND (-) OF BATTERY

Hookup procedure for the S.R.T. Pro-Race Director interface card to track.

Note: Cable with connector already assembled is available from SRT on request

The instructions below assume that you are using the SRT recommended cable. If you use a different cable make your own color code chart to keep in the manual.

Step 1: Determine your cable(s) lengths needed. Keep in mind that there is a cable that will terminate at the relay panel area and another that terminates at the dead strip(lap counter). Both of these cables will connect at the computer with the DB-37 connector supplied with the system. It is a good idea to terminate the wire ends(track side) with crimp spade lugs and a 16 terminal barrier block at both locations. The program has many other features that are quite useful that need the extra wires in the cable.

COMPUTER PLUG WIRING

Step 2: Solder the wires into the DB-37 connector first, including the Auxiliary input and output signal wires. Even if you do not use these wires at this time it's a big time saver later down the road. Use a small iron (10- 40w) with needle point tip to solder with. ***DO NOT USE THE IRON YOU USE FOR SOLDERING MOTORS INTO CHASSIS.***

You can start with the lap counter cable first, using lane color to match wire color in pins 1 through 8. Pin 1 being Red and pin 8 being Black, etc. Pick out the Red wire with a Black stripe and use it for the daisy chain Ground and solder to pin 36. Pick the Brown, Tan, Slate, Pink wires and solder to pin's 20,21,22 and 23 respectively. These are the aux. input signals that you may or may not use at this time. You will have 2 spare wires (Red/Green stripe and Red/Yellow stripe) that can be twisted around the cable and used later in the event a wire should ever go bad.

Next do the relay cable, using lane color to match wire color in pins 9 through 16. Pin 9 being red and pin 16 being black, etc. Solder the Red wire with Black stripe into pin 17 (this will be voltage from battery) and the Red/Green stripe, Red/Yellow stripe, and the shield in pins 18,19 and 37 respectively (these are Gnd. return wires). Solder the Pink, Slate, Tan, and Brown wires in pins 24, 25, 26, and 27. These are aux. output signals used with other program features.

The shield of the input cable gets soldered to the metal part of the DB37 connector while the other end is cut off and not used.

TRACK SIDE WIRING

Lap counter

Step 3: Computer wires from pins 1 through 8 of the DB-37 plug are attached to the left side of the dead strip(top view in relation to car travel) of each lane. The right side of each dead strip are jumpered together with 24ga. wire and is connected to the wire that goes to pin 36 of the DB-37 plug (Red with Black stripe). This wire(pin 36) is used for all input signal grounds, i.e. remote track, select and reset switches at driver's panel. The wire that connects to pin 20 (Brown) of the DB-37 plug is used for remote track call. This can be hard wired or remote control via key chain type auto alarm system transmitter/receiver (available through SRT). The wire that connects to pins 21 (Tan) and 22 (Slate) of the DB-37 plug are used for lane select and reset, respectively. **Use wire nuts or solder wire to dead strip braid that is below the track surface.**

NOTE:
If you have something other than a dead strip as a sensor, all that is needed by the S.R.T. system is a momentary ground signal for pins 1 through 8 of the DB-37 plug to register a lap.

Hookup procedure for the S.R.T. Pro-Race Director interface card to track.

Relay panel

Step 4: Computer wires from pins 9 through 16 of the DB-37 plug are attached to one side of each relay coil through a 1/4 amp fuse (pin 9 is red and pin 16 is black lane etc.). The other side of the relay coil is daisy chained together with the other 7 relays(same side) and connected to a 5 amp fuse which is then connected to the positive side of the battery(+).

There should also be a diode placed across each relay coil to minimize voltage spike's which can damage the interface board(see wiring diagram for details of installing this device).

The 3 wires that are in pins 18,19 and 37 connect to the negative(-) side of the battery through a 5 amp fuse.

The wire coming from pin 17 of the DB-37 plug needs to be connected to "+" side of battery through a 1 amp fuse. If you are only going to use 12v battery power on your track, it may be more convenient to connect the 1 amp fuse to the hot side of the relay.

Note:
If your track is going to have multiple voltage settings, be sure that the voltage feeding the relay coils and the interface card do not exceed 14v.

It is very important that your mechanical timers, if used, are wired in the same direction as the S.R.T. system. This means that your timers should be applying a ground to energize the track relays. Otherwise damage will occur to the interface board. **Also do not use a switch in series with the ground return as a way to cut power to the track.** This too in some instances will damage the interface card.

The remaining wires can be tied back or connected to the barrier strip, and will not be used at this time. If later you decide to add the voltage select feature, we found it easier to use the Cidex voltage reducer module with our software. This will give you reduced track call power instead of total power removal. You can also follow the wiring diagram in this manual to build a track voltage source panel for your track. Give us a call for more details.

Diodes, barrier strips and fuse holders can be purchased from your local Radio Shack dealer...

	PART#	QTY	DESCRIPTION
RELAY	275-226	2-8	30A RATED
DIODES	276-1101	8	1N4001
BARRIER	274-670	4	8 POSITION
FUSE	270-1003	8	1/2 AMP
FUSE	270-1011	2	5 AMP
FUSE	270-1005	1	1 AMP
FUSE HOLDERS	270-1281	11	INLINE or
FUSE HOLDERS	270-742	3	4 POSITION FUSE BLOCK

The following is a test procedure for testing the track wiring *before* you hook up to the computer.

Note: V.O.M.(volt ohm meter) is needed to carry out the following procedure.

First place the VOM on a voltage scale suitable for measuring D.C. voltage. Place the negative lead of the VOM on one of the negative pins of the DB37(pin 19 or 37) and the other lead of the VOM (+) to pin 17 of the DB37 connector. Verify a reading between +12 to 14 volts, if you don't, check the track for miss wiring before going on to the next step.

To test the lap counter place the VOM on the R x 1 scale, put the negative lead of the VOM on the signal Gnd pin of the DB37 plug (pin 36) and the other lead of the VOM on pin 1 of the DB37 connector. While someone is applying a short across the lane 1 dead strip(usually red) you should see the meter deflect up scale. Remove the short at the dead strip and meter will return down scale. If you are using a digital meter the internal buzzer will sound when the short is across the dead strip, and go silent when removed(should also show a few ohms of resistance, depending on the length of your cable). Do this same procedure for the remaining 7 lanes. **If it doesn't pass this test, correct the wiring error before connecting to the computer.**

To test relay control, use 2 small test lead wires(paper clip) connected at both ends of the a clip lead wire. Insert one lead in any of pins 19 or 37 (neg.). Use the other end and probe pins 9 - 16 (pin 9 is lane 1 through pin 16 which is lane 8) on the DB37 plug one at a time. Verify that only one relay at a time turns on and that it is the correct relay.

Use your VOM to check the current draw of your relays. Placing the negative lead of the meter to one of the negative pins of the DB37 plug and the positive lead to pins 9 - 16 one at a time. Make sure you have the meter in one the current measuring position before you make this test. Typical meter readings should be in the range of 60 to 250ma. **If you get over 500ma you will exceed the limits of the interface card, and damage will occur.**

If you can pass all of these tests, then it is safe to connect the DB37 plug to the interface card at the computer.

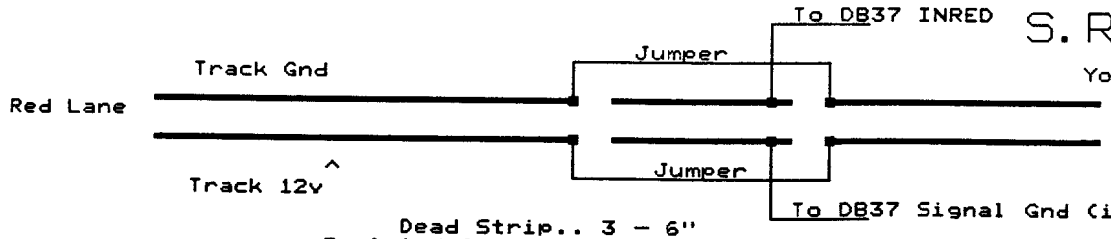
Make sure you install all fuses as per the installation sheet before using the system. This will help protect the computer equipment and save you time and money in repairs.

DON'T TAKE SHORTCUTS

If you still have troubles after completing this test, just give us a call.
Thanks, Mike & Gary of S.R.T.

Direction of travel >

Use 15 conductor #24ga. cable, (shielded)
one to dead strip area, and one to relay panel area.
Shield should be connected to metal of DB37 connector only



S.R.T. has cable in stock

You can use up to 3 wires for track gnd, fuse at track with 5 amp inline, back to the computer

Make sure to fuse Track 12v to computer with 1 amp fuse, at Track

Dead Strip.. 3 - 6"
Isolated from track power
Opposite polarity

TRACK GND "-" OF BATTERY — 5amp

TO BATTERY +12V — 1amp

TRACK GND	19	
TRACK GND	37	
TRACK GND	18	
Signal Gnd (inputs)	36	
TRACK 12V	17	
	35	
OUTBLK	16	
	34	
OUTPUR	15	
	NC33	
OUTYEL	14	
	NC32	
OUTBLU	13	
	NC31	
OUTORG	12	
	NC30	
OUTGRN	11	
	NC29	
OUTWHT	10	
	NC28	
OUTRED	9	
AUX1OUT	27	
INBLK	8	
AUX2OUT	26	
INPUR	7	
AUX3OUT	25	
INYEL	6	
AUX4OUT	24	
INBLU	5	
AUX4IN	23	
INORG	4	
AUX3IN	22	
INGRN	3	
AUX2IN	21	
INWHT	2	
AUX1IN	20	
INRED	1	

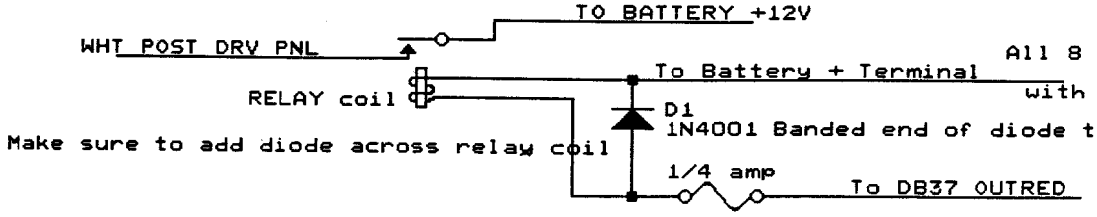
DB37 MALE, ON BOARD

Signal gnd at dead strip can be daisy chained, using small ga. wire.

At least 7/8" gap isolation at dead strip from track braid.

Example for red lane. Do the same for the remainder lanes X 8

Existing RED Lane 12V RELAY



All 8 relays can be daisy chained on + side with one 5amp fuse feed.

Make sure to add diode across relay coil

Look in the Doc file of program for Aux. input & output explainations
Do not have any other lap counter or timer across dead strip

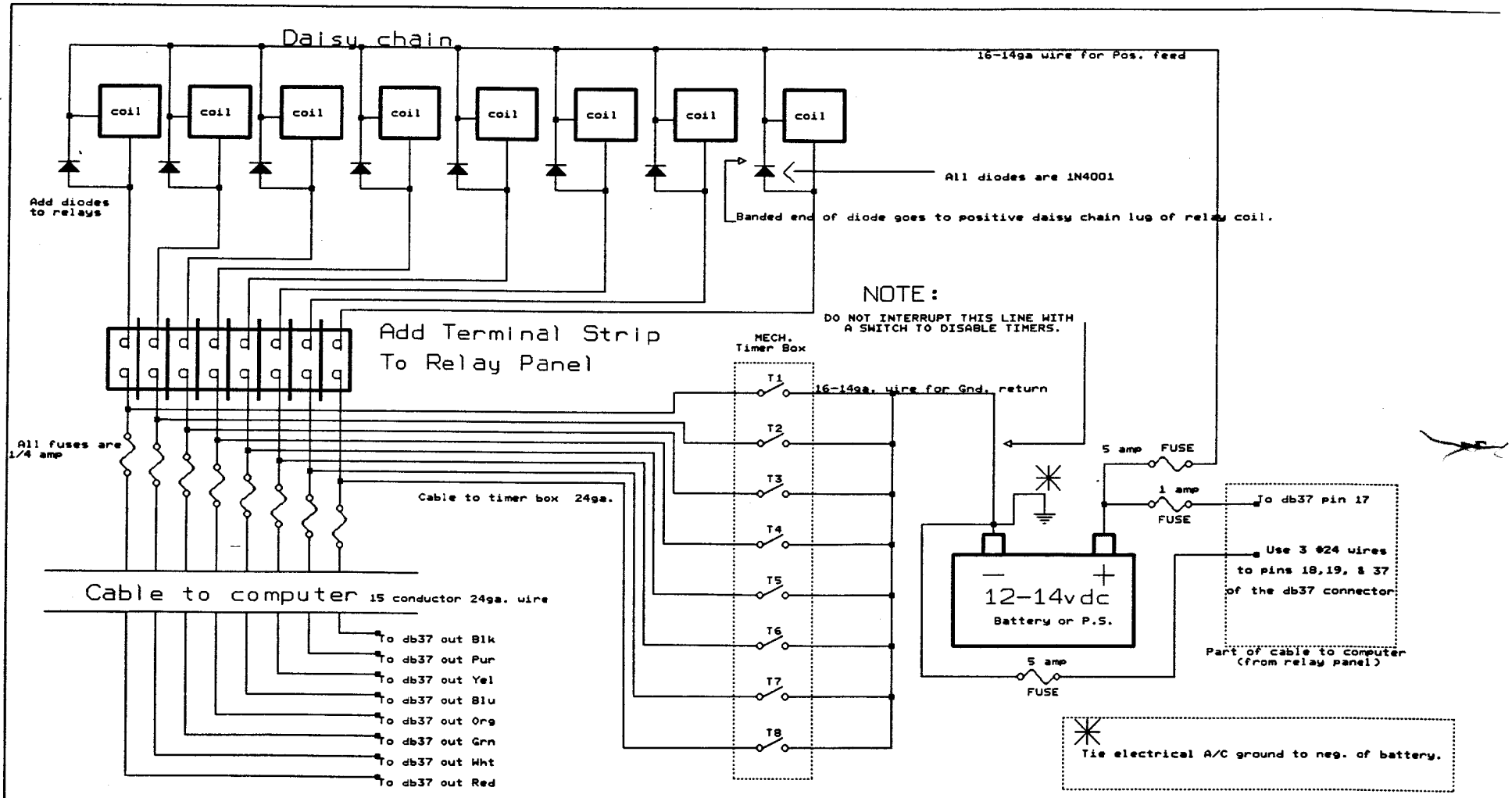
Do Not Use Pins 34 & 35

WARNING

I/O INTERFACE CARD HAS A MAXIMUM CURRENT SWITCHING CAPABILITY OF 500ma PER OUTPUT. DO NOT EXCEED THESE LIMITS.

CHECK THE SPECIFICATION OF THE RELAYS YOU INTEND TO USE. MOST RELAYS USED DRAW APPROX. 250MA OR LESS.

Slot Racing Technology		
Title: Hook-Up		
Size: A	Document Number:	REV: A
Date: November 25, 1996	Sheet: 1 of 1	



Typical wiring diagram for S.R.T. system and timers

Slot Racing Technology
9432 E. Ave T-10
Littlerock, CA 93543
805-944-6307

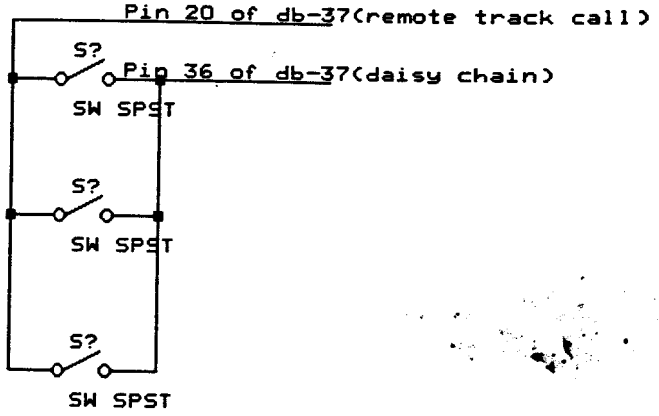
Title: Timer, S.R.T., wiring to relays

Size: B | Document Number: | RE: A

Date: January 10, 1997 | Sheet 1 of

Remote track call

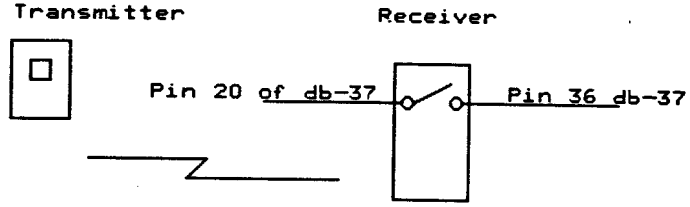
HARD WIRE METHOD



Place as many switch's or jacks for switch's on track as desired.

REMOTE METHOD

Garage type or car alarm Tx'r & Rx'r



Mounted at track

NOTE:

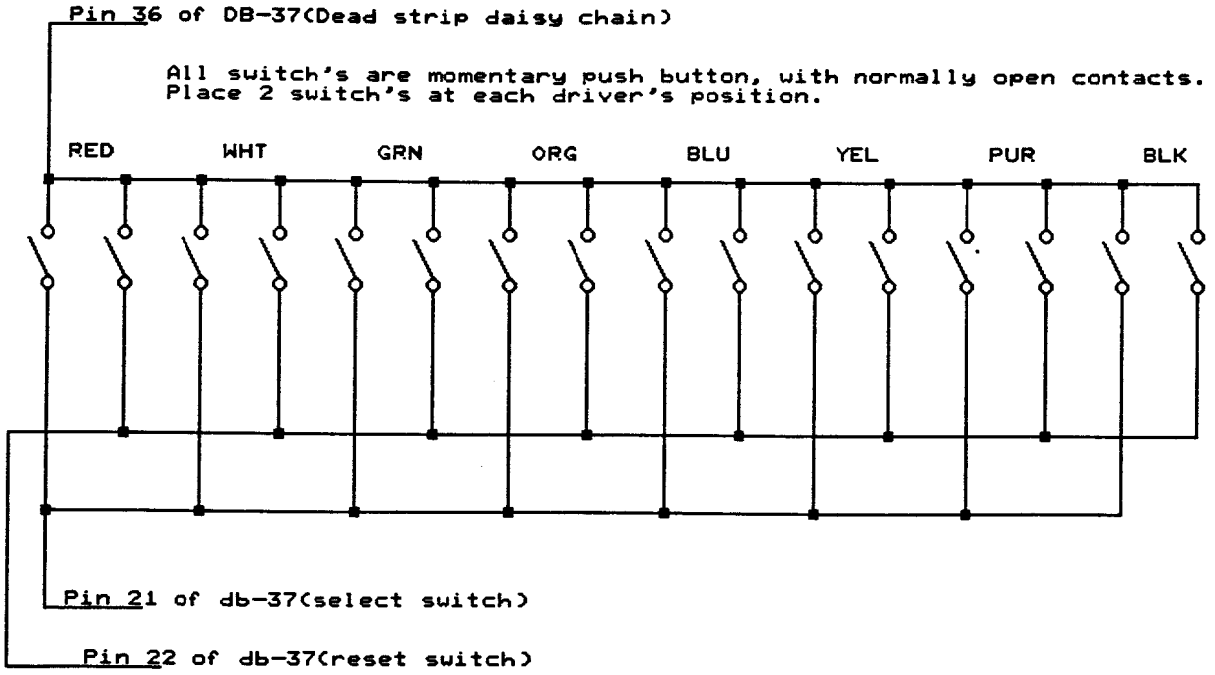
Receiver must have relay contacts that are available for use. Most garage type openers run 24vac thru the contacts. This must be modified to get both relay contacts free.

NOTE:

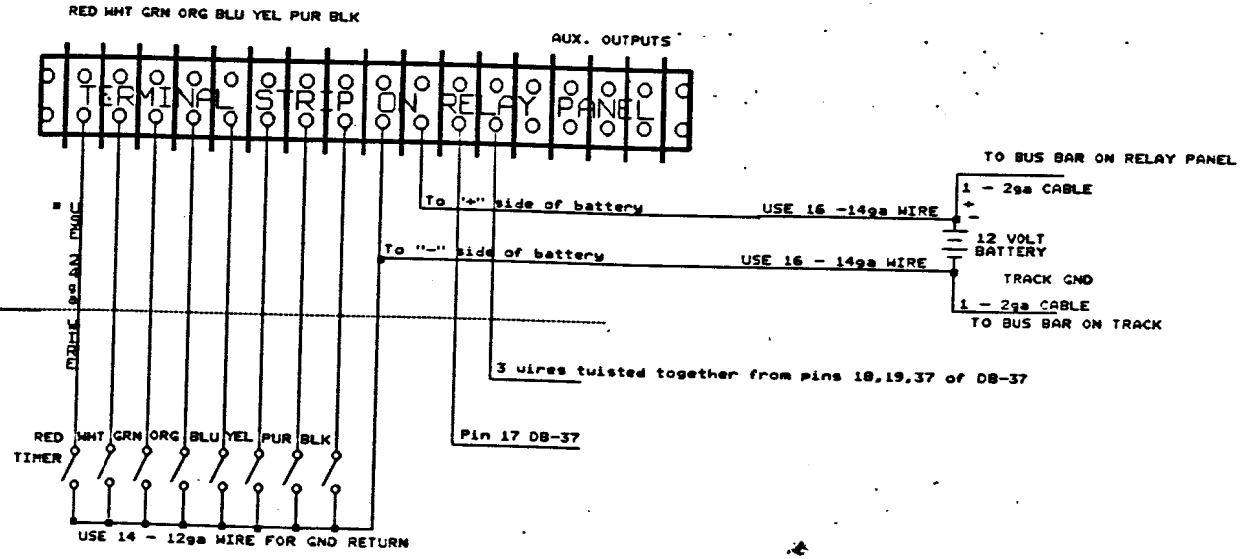
S.R.T. NOW HAS A NEW CAR ALARM STYLE REMOTE TRACK CALL, CALL FOR DETAILS.

Title: Remote track call hook-up		
Size: A	Document Number:	REV: A
Date: October 5, 1996	Sheet: 1 of 1	

Driver's panel select & reset switch's



Title: Hook-up for select & reset switch's		
Size: A	Document Number	REV: A
Date: June 21, 1994	Sheet 1 of 1	



OTE:
IE IN COMPUTER EQUIPMENT AT TIMER BOX OR AT TERMINAL STRIP

OTE: SOURCE FOR CABLE IS ATLAS WIRE CO.

* 1-800-352-4335, CAT# IS 292-24-7T-15J

CABLE IS 15 CONDUCTOR WITH SHIELD USED IN S.R.T. SYSTEMS

	SLOT RACING TE
Title	SRT RELAY PANEI
Size: B	Document Number
Date: September 24, 1995	