



# **JUNIOR DEVELOPMENT PROGRAM**

# **MANUAL**

**A TRAINING PROGRAM**

**FOR JUNIOR SPEEDWAY DRIVERS**

**COMPETING IN JUNIOR SPEEDWAY EVENTS**

**NASR recognises and appreciates the efforts of NASR (NSW) in producing and implementing the initial NASR Junior Sedan Driver Training Program.**



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Approved :	T. McAvaney

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## 1. INTRODUCTION

This program is to be used as a guideline for tracks wishing to participate in the NASR Junior Development Program.

- 1.1 Contact your NASR State Office to register your interest in the scheme. A NASR representative will then assess your tracks ability to run the training scheme in accordance with the program.
- 1.2 In the case of NSW this can not be done by going direct to the NSW Government as the scheme is controlled by NASR (NSW) on behalf of the NSW Government.
- 1.3 If your track is approved for the Junior Program you will then take the following steps:
  - (a) Advertise to racing groups that the Program will be available for children 10 – 16 years of age
  - (b) Form a working committee of interested officials and parents
  - (c) Your Junior Officials are welcome to attend a “Train-the-Trainer” session at the speedway in order for them to gain the necessary information and skills required to complete the Junior Program successfully.
  - (d) You must have an accredited Training Officer to participate in the Program. This person would usually be an experienced Chief Steward.
  - (e) The participants will require either a registered Junior vehicle or stock standard 4 or 6 cylinder Street Stock Sedan to complete their training course.
  - (f) Participants must be fully equipped with safety apparel prior to doing any on track training
  - (g) A training group can consist of as many as you wish, however, a class size over eight has been found to be difficult to handle. Six to eight is suggested as a good number. Each Class is to have three separate training sessions.
  - (h) Once this has been completed and you feel confident that the group is race ready you should contact NASR by letter advising that you wish to apply to have your Track Licence endorsed to include Junior Racing
  - (i) In the case of NSW, once NASR is satisfied the Program has been completed under the terms of the Development Program you will be advised to forward the necessary paperwork to NSW Department of Sport and Recreation for their endorsement of your Track Licence

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## **2. JUNIOR SPEEDWAY DRIVERS (10 to 16 years of age)**

- 2.1 Junior Speedway competition should only be conducted by an approved group affiliated to NASR.
- 2.2 Junior Speedway competition is only conducted in vehicles recognised as Junior racing sedans.
- 2.3 Junior Speedway competition is conducted only amongst Junior Speedway competitors and no competition is permitted that includes Senior competitors. No Senior Speedway competition is permitted that includes Junior competitors.
- 2.4 Application for a Junior Speedway competition licence must be made to NASR through an approved group and the application must be countersigned by the applicant's parent or legal guardian and accompanied by proof of age.
- 2.5 No other person other than the applicant's parent or legal guardian is permitted to sign the application.
- 2.6 The Chief Steward of each approved group is the training officer responsible for the tuition and progress of Junior Speedway competitors.
- 2.7 Each applicant will attend training lectures conducted by the training officer at which time instruction will be provided in the following:
  - (a) General safety in all areas of competition,
  - (b) Interpretation and use of all flags and track signals,
  - (c) Race meeting procedures,
  - (d) Aspects and use of racing equipment including safety belts and harness, quick release mechanism, safety nets, brake systems, ignition kill systems, fuel on/off taps, and
  - (e) Track craft and manners, conduct on and off the racing surface including the responsibilities when in control of a competition vehicle.
- 2.8 Any person working as a mechanic or a member of the crew in the pit area of the speedway track must be at least 14 years of age.
- 2.9 A Junior Driver must be accompanied by a person of at least 16 years of age at all times whilst in the pit area.
- 2.10 Progress to a senior driver occurs once a driver has reached 17 years of age but a driver will be issued with a Junior Licence under the condition that the driver is



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still 16 years of age at the time that he is issued with a NASR racing licence for the current season.

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### 3. TRAINING GUIDELINES FOR OFFICIALS

- 3.1 This training program has been developed to provide Speedway with a Junior base from which 10 to 16 year olds can be educated with careful tuition in areas including track craft, track skills, public relations and personal presentation, and track manners relating to speedway racing. Through this program it should enable Speedway to develop the next generation of Speedway Stars.
- 3.2 This Junior Development Program operates under the guidance of NASR and in NSW with the approval of the Minister of Sport and Recreation.
- 3.3 This training program is a three part program consisting of the steps necessary to train all Junior participants in the skills and the rules and regulations required for competent and safe racing in their future;

#### **PART 1 Training Lectures**

- Introduction of Training Officers and volunteers
- General safety in all areas of competition
- Awareness of the requirement of approved race wear (ie race suit, helmet, gloves, boots)
- Interpretation and use of flags, and track signals
- Track craft and manners
- Conduct on and off the track, including responsibilities when in control of a competition vehicle
- Explanation of NASR Junior licence including personal accident insurance and proof of age (birth certificate and application form signed by parent or legal guardian), and club membership
- How to handle a road car (including awareness of gears, brakes assisted by training officer as passenger) on the race track under supervision

#### **PART 2 Explanation of Track Procedures**

- Race meeting procedures
- On track training – competition vehicle
- Track craft and manners
- Aspects and use of racing equipment including safety belts and harness, quick release mechanisms, brake systems, ignition kill systems, fuel on/off taps
- Racing rules and regulations (each driver to receive a copy)

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### **PART 3 Handling Competition Vehicle on Track Under Racing Conditions**

- Off track written examination
  - Track craft
  - On track examination
- 3.4 Driving apparel consisting of an approved race suit, balaclava, gloves, footwear and helmet must be correctly worn in accordance with the manufacturer instructions at all times whilst in a vehicle when undertaking tuition and racing.
- 3.5 All participants undertaking this program must have a NASR Junior Licence which includes personal accident insurance cover. Application forms for a NASR licence are available through your club, or NASR State Office.
- 3.6 This manual has been compiled with the input from people within the speedway industry who have years of experience in all facets of the sport. This information should be used as a working manual to help provide our junior speedway members with the best training available.
- 3.7 Circulate the “Handout Information for Participating Juniors” prior to their commencement of tuition. It is important that they have time to read this information carefully to familiarize themselves and their parents of what will be required of their training and their responsibilities.
- 3.8 It is in your club’s best interest to encourage your Junior’s parents to participate with the training scheme. It is recommended that a sub-committee of Juniors and parents be formed within your club thereby allowing both parties to feel as though they have some input. Parents can become a valuable asset to a club as willing workers.
- 3.9 The question often asked by clubs wishing to conduct a Junior program is; what happens after the Juniors have completed their tuition?
- 3.10 Once you have completed the training program and you feel that the group is ready to race then the next step would be to contact the NASR State Office by letter for consideration to conduct an approved Special Junior Division where Juniors would be allowed to compete (under controlled conditions), but in their own Junior Division at race meetings. Under no circumstances are Junior drivers allowed to race in the same event with Senior drivers.



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- 3.11 Once the NASR State Office is satisfied that the training program has been completed you will be advised that your track will be endorsed to conduct Junior events.
- 3.12 In NSW, the NSW Government Liaison Officer will be advised through NASR (NSW) that you wish to have your Track Licence endorsed to include Junior Speedway and once he is satisfied the program has been completed you will be advised to forward the necessary paperwork to the NSW Department of Sport and Recreation for the endorsement of your Track Licence.
- 3.13 Please note that undertaking a Junior Training Program does not automatically entitle a track to step up into open Junior competition. NASR will evaluate your completed Junior tuition program accordingly and from there may or may not come the approval to take the next step.
- 3.14 In the Speedway Industry we all want to see this Junior program continue, so with that in mind, we request that you endeavor to support the program as outlined and do not put the program in jeopardy for all future applicants, by ignorance or arrogance of the guidelines.
- 3.15 It should be noted that the conduct of Junior racing must always conform to the standards outlined in this program. NASR reserves the right to withdraw the authority for a track to conduct Junior racing if there are significant or repeated occurrences where the safety of the Junior drivers is being compromised.
- 3.16 Tracks are encouraged to strive to get the program right the first time as our future drivers and the future of the scheme depends on a successful and safe Junior racing program.

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#### 4. JUNIOR SPEEDWAY TUITION

##### PRE-DRIVING LECTURE AND BRIEFING

###### *A dirt track learning experience for the stars of tomorrow*

- Welcome to your first taste of the dirt track learning experience. You may or may not ever race, but these lessons will be of benefit to you and will raise your confidence and skill in any sort of motoring application, whether it be in the KMart carpark or the confines of a dirt speedway track.
- **Firstly!** Have you ever driven a motor car? Auto or manual?
- As you enter the grounds of the speedway your experience begins at the gate as you meet officials who will help you along the way. Most are volunteers and all of them are there to assist you in some way, be they a gate keeper, pit marshals, stewards, tow truck drivers, fire crew etc. They all have a job to do. Do not get upset with them.
- **Respect** their directions at all times, do exactly what you are told. If it seems a bit funny, do it anyway. You do not know all the factors behind their decisions. If you still have a problem with it later, by all means ask someone to explain it to you. They will respond if asked in a polite manner.
- This is a **serious business** and learning can be great fun but there is still danger involved, which is why you must follow all instructions to the letter.
- Common sense must prevail at all times and you are only expected to learn at your own pace. Some of you will easily get into the rhythm while others will need more help. There is no problem with that as one favorite proverb states “**go fast slowly**”. Think about that. Officials will be watching every lap that you do and will adjust your learning program as you go. If you have any problems seek help from an official.
- Full safety gear must be worn at all times, which means that the underwear, balaclava, race suit, helmet, boots, horse collar, gloves, seat belts, and window net. All safety gear was be fitted in accordance with the manufacturers instructions.
- A good rule to remember is to tighten by pulling hard down on your shoulder straps at every restart or slow down period. It is amazing how much belts will loosen after just a couple of laps.

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- You all have pit crew when you take up racing and who is responsible for what they get u to? ***You are!*** Even if it is mum and dad.
- ***Flags.*** Along with the traffic lights that surround the track for night racing, the flags are the universal method of the officials communicating with the competitors which includes you. All drivers are expected to know the meanings of all flags and be ready to act upon them as required. Read the rule book and understand the flag system.
- Later we will talk about the starting procedure and what to do at restarts. These procedures are covered at the most important of all events on the night, the ***drivers briefing.*** Attendance is compulsory so the steward of the meeting can explain to you procedures he will use to ensure the safe running of the meeting and also advise on your duty of care. Failure to attend can result in penalties.
- We have a variety of cars in the pits today. You should sit in a couple, not just yours and you will notice that they are all different. You must be comfortable in your driving position.
  - How is your seat position relative to the steering wheel and pedals?
  - Can you reach those pedals easily?
  - Are your arms cramped or outstretched?
  - Are the seatbelts in a good position and comfortable to wear
  - Does your leg, arm, or head hit the bar work or steel work?
- What happens when you hit the wall and all your arms and legs move to the right, will that odd bolt punch a hole in your knee? When you build a race car the last thing you have to fit is the driver. Bad driver position can force your body to fight the G forces in the corners thus not allowing you 100% concentration on driving.
- ***Track conditions*** vary every lap and you should learn to access these conditions on your form up laps. Look for the wet areas, check out where the loose dirt is. Water runs down hill so you will find that most speedways remain wetter at the bottom. The top of the track is usually a bit drier so the ideal line is usually somewhere around the middle, about one car width out from the bottom of the track or the pole line as it is called. That is great but nothing is ideal and each lap you must check the condition of the track and compromise.

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- Other competitors are out there looking for that ideal line too. You must adjust each lap as the track and circumstances change. The one who adjusts the best usually gets the best result.
- Remember that famous proverb, “*to finish first, first you have to finish*”. If you throw yourself into the wall or get disqualified for interfering with another car you will not finish the race. If you have not made the correct assessments or adjusted to suit the conditions of the track you may not finish the race and are unlikely to win.
- ***The clutch story.*** Some of you may have never driven a motor car or some never a manual car. Most race cars have manual gearboxes which allow the car to have what is called engine braking. When you take your foot off the accelerator the engine speed slows down and so does the car speed.
- To change from first to get into second and then third gear and make the car go faster we use the third pedal on the floor, ***the clutch pedal.*** This is the one on the left. This pedal works like a light switch in that it has the power to disconnect the power plant (the engine) from the gearbox and thus the rest of the drive train including the wheels.
- As soon as you put your left foot hard down to the floor on the clutch pedal you will be able to change into the next gear.
- It is most important to remember to use the clutch when you come into the pit area. If you do not put your foot on it, the car will want to keep going no matter how hard you jam on the brakes. Most of you have laughed at the learner driver kangarooing down the road. Clutch control is the problem. So do not forget to use this pedal in conjunction with the brake – yes both feet working together – when you pull in. The clutch will switch off the drive by disconnecting the engine from the gearbox and you will be able to stop safely.
- Adding to the use of the clutch pedal and the engine braking that we just spoke about, the best way to straighten a car that is getting out of control is to take your foot off the accelerator. This will stop the car driving forward and slow it up. As soon as you back off with your right foot you can then give all your effort to steering the car out of the problem.
- If you adopt this approach in a race you may lose a couple of positions but if you attempt to drive out of a spin and are not successful the other cars following you or the concrete wall will add to your magnified error with dire consequences and damage. It is far more desirable to lose a couple of places

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in the race than to end up on the back of the tow truck and face people angry at you on the infield.

- To assist you with this car control problem and know where the car is pointed in the case of a slide or spin we attach a strip of tape to the steering wheel that indicates when the front wheels are pointed in the straight ahead position. This piece of tape can also assist after a crash to indicate to you whether or not the front end, tyres or steering of the car have been damaged – simple but very useful.
- Steering of your motor car can be affected by several different things. Seating position as we have already covered is one of these. Grip position on the steering wheel is another. The 10 o'clock and 2 o'clock hand grip position is the best allowing you to shuffle the steering wheel between the hands to the left or right, while maintaining good position for reactions to bumps or the car sliding. Hard braking on dirt can often take away your cars steering response as well.
- One important thing to remember at all times is to keep your thumbs out of the centre of the steering wheel. Lay your thumb along the perimeter of the wheel. If you hit the wall or get hit in the front wheels it may spin the steering wheel out of your hands. The spokes of the steering wheel can catch your thumbs as you fight to regain grip and bend them back and dislocate or break them. As many experienced drivers will tell you this is a very painful injury, but an easy thing to avoid by using the thumbs up grip method.
- **Looking ahead** is important so that as you exit each corner look down the straight to the next corner to see if the track is clear. Also as you enter the corner, say turn one, take a glance onto the exit to turn two to if it is clear. Things happen fast out there, but if you look down the track in front as far as you can, you will save yourself a lot of damage. Do not worry about where your car is. Worry about where it is going.
- During your track time in this training session a series of **hand signals** will be used to tell you what you need to do. Watch for them each time you go past and make sure you obey them;
  - A quick wave with the hand being lifted upwards means speed up a little bit.
  - A pushing down motion with the hands means to slow down.
  - One hand held up to stop and the other pointing over the top means for the second car to pass around the outside, with the bottom car to make the passing easy for the other. The only overtaking you will do is



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when you are told. All over taking in these classes will be done on the outside and by doing this we all know what is going on.

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- You may have caught up to another car that in your opinion is a lot slower but you are not waved through! To remain behind another car for a couple of laps teaches you patience, sometimes you have to wait for your chance. Nobody when racing will move over for you and if you force the issue you may run into trouble with the officials.
- A clapping motion means that you are going along well.
- An opposite lock movement means that you are getting too loose or sideways.
- A motion towards the infield and one finger held up means finish the lap and slowly come into the infield at a nice slow angle to the edge of the track. Do not make any sharp turns unless it is an emergency.
- A hand on the forehead means check the water temperature of the car.
- A wave towards the track from the infield means that it is okay to return to the track but do so in a safe way at a slow angle to the edge of the track to merge with the traffic, never at a sharp angle to the traffic and never move straight to the outside of the track.
- Crossed arms means to make an emergency stop, as safely and as quickly as possible.
- Do not at any time think this is easy or get too confident. If you get too smart too soon the race track will jump up and bite you when you least expect it. You see it every night in every division.
- Other signals for single and two lane restarts will be explained before their use.

*Any Questions?*

*Any Fears?*

## **ON TRACK TRAINING**

- Firstly, laps in the learning car with instructor driving
- Secondly, laps in the learning car with you driving
- Thirdly, laps in your car with you driving



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*Okay, lets go and do it!*

**5. JUNIOR DRIVER TRAINING**

**REGISTRATION FORM**

**DATE:** .....

Training Day Date

**NAME:** .....

**ADDRESS:** .....

.....

**SCHOOL:** .....

**DATE OF BIRTH:** .....

**WILL YOU COMPETE IN YOUR OWNCAR**      **YES ( )**    **NO ( )**

***PARENTS/LEGAL GUARDIAN CONSENT***

**NAME:** .....

Please Print

**I/We,** .....

Please sign

**do agree to faithfully observe and abide by the rules and regulations of NASR Inc in accordance with the NASR Junior Driver Training Program.**



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**DATE:** .....



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## 6. HANDOUT INFORMATION FOR PARTICIPATING JUNIORS

### 6.1 DAY ONE – PART ONE

Welcome to the first stage in your development as “*Stars of the Future in Speedway*” to be conducted;

at .....

You are about to participate in a scheme which is conducted under the guidance of NASR and is approved by the Minister of Sport and Recreation in NSW.

To participate in this program you must be 14 years of age and have the consent of your parent or legal guardian. You may do the *off track tuition* if you are going to turn 14 within this racing season and then undertake the *on track training* once you have turned 14 years of age, but you must not step into a car until that time under any circumstances. If you do so you could jeopardize the whole program.

You are about to embark on the first part of a three part Junior Speedway Drivers Tuition Program. This information is to inform you of the steps that you need to take to become a Junior Speedway racing competitor.

The official Tuition Officer is ..... who is the tracks approved Junior Training Officer. You must listen and obey his instructions at all times.

1. You must fill out a Registration Form which is to be signed by you r parent(s) or legal guardian prior to commencement of the tuition.
2. The Tuition Officer will meet the group in the Club House or specified location to take part in a one hour lecture.

The specified location will be .....

3. Points to be covered on *Day One* will be:
  - a) General safety
  - b) Interpretation and use of all flags and track signals
  - c) Race meeting procedures



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- d) Aspects and use of racing equipment including safety belts and harness, quick release mechanisms, brake systems, ignition kill systems, fuel on/off taps etc
- e) Track craft and manners, conduct on and off the racing surface including responsibilities when in control of a competing machine
- f) Explanation of “on track procedure (part two of day one)
- g) Explanation of club membership, joining fees, NASR licence (including personal accident insurance) requirements and requirement to produce copy of birth certificate.
- h) Introduction of club officials; club secretary, chief steward etc.

## 6.2 DAY ONE – PART TWO

After the one hour tuition in the club house/specified location, all participants will then join the Tuition Officer and Committee Members and Volunteers onto the infield for the next phase of tuition.

1. Juniors will suit up into their racing gear ie race suit, balaclava, helmet, gloves and boots.
2. Tuition Officer will give the group a run down on the car they are about to drive and introduce the group to the second tuition officer ..... who is well experienced in speedway racing. Each participant will then be divided into groups by the Tuition Officer according to your knowledge of cars and their capabilities, ie if you have never handled a car or changed gears you will go into the group that will go through the process first.
3. In the first instance one Junior at a time will be taken around the circuit as a passenger in the training car (ie road car) by the training officer. This will provide the opportunity for the training officer to discuss the on track conditions with the Junior.
4. The Junior will then drive on the track for the first time in the training car with the training officer who will be the passenger. The Junior will do eight laps with the training officer at a speed of no more than 25 kph. Both must have helmets on and seat belts fastened.



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5. By having the Junior in a road car to start with gives them knowledge on handling, what line to drive on the track and experience at keeping to a particular speed by watching the speedometer.

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6. After each Junior has been through this process they are given marks by the Tuition Officer who will then discuss aspects of their driving with them as they finish. He will also have a discussion with each Junior prior to them getting into the car on what they may be faced with such as if the track is slippery or dry.
7. Each Junior is given the option to learn to drive with left foot braking or right foot braking. Some parents who are competitors may have already discussed this with their child and have made their decision.
8. Juniors will now be preparing to go out in one of the approved competition vehicles that have been provided for the tuition day. Each Junior is fitted into whichever car best suit him/her.
9. One Junior at a time will then proceed to do eight laps on the track in the competition vehicle, under strict supervision by the Tuition Officer. The Junior is instructed on their speed, their entry points on to and off the track. There will be a volunteer on each corner of the track to keep an eye on the participants. The Tuition Officer will provide instructions to the Junior trackside, ie sign language to indicate to slow down, go faster, you are out of shape, pull over etc.
10. Every driver goes through their first drive in a competition vehicle and then has instruction on what they may or may not have done properly by the Tuition Officer when they have completed their turn.
11. Time permitting, the Juniors will go through the whole process again and again, usually three to four times on the first day. Once the Tuition Officer feels that the Juniors can handle their vehicles, two cars will then be allowed on the track at the same time, starting at either end of the track. The selected Juniors should be of equal ability so that they never actually catch up to each other.

***This whole process on the track is to give the Juniors time to get accustomed to their vehicles, race track conditions and provide the Tuition Officer with knowledge of their ability.***



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### 6.3 DAY TWO

It is expected that the second day of tuition would be a repeat of the first with the exception that the Club House tuition would include:

1. Race meeting procedures.
2. Discussion on driver presentation and “How to handle the Media”, what to do when you are being interviewed, and how to behave off the track.
3. Juniors to receive Racing Rules and Regulation Book to study

*On track training for the second day would not include the club training road car but would be a repeat of every other aspect.*

### 6.4 DAY THREE - TUITION

Firstly the Juniors would do their track craft lessons. Today they will progress to a group on the track together so the participants get used to having other vehicles next to them and overtaking maneuvers.

The next step is competition so it is imperative at this stage that the Junior can handle a car at a reasonable speed. If the Tuition Officer does not deem the participant competent enough after today to handle a car in a race situation then they will need to come back for further track training until he is satisfied that the Juniors ability is up to an acceptable standard.

After the *on track examination* by the Tuition Officer of all the participants we then adjourn to the Club House or the nominated location for a written examination on the racing rules.

### 6.5 POINTS TO REMEMBER FOR JUNIOR PARTICIPANTS AND THEIR PARENTS

1. You must at all times be aware that what you are doing is dangerous to yourself and to others if you do not follow the Tuition Officers instructions. If you break the rules you will be removed from the program.

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2. You must never proceed onto the track in a vehicle unless you are properly attired and have your seat belts and your helmet done up.
3. If you are on the infield watching you must never ever run across the track whilst vehicles are in use on the track.
4. Because this is a Junior racing development program we will not condone participants smoking whilst in our care. Nor will we put up with any bad manners or bad attitudes. You are here to learn and we are here to teach you and to help you. The people who are here are volunteers giving of their time for your benefit and deserve your utmost good manners.
5. Parents must not interfere with the running of the program in any derogatory manner or the child will be removed from the program.
6. ***Go fast Slowly*** – we are not here to see the participants break the land speed record; they are here to learn and we are here to teach them. They will have plenty of time to be No.1 in their senior ranks. Participants are encouraged to drive carefully and to gain skills and experience before they are encouraged to go out and WIN.
7. ***Please remember these at all times*** – let the participants (your child) enjoy their time in the Junior program without pressure to win that will come later. Some of them will be born with the will to win – some may not have – whatever the score, encourage them to be good sports and good ambassadors for our sport, they will be watched closely, and it is up to us to mould them into responsible role models. We all know that there will be winners and losers, let that come naturally. These kids are the ***future*** of our sport.

***Thank you for participating in our Junior program – please enjoy it!***



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## 7. EXAMINATION PAPER FOR TUITION PROGRAM

NAME: \_\_\_\_\_

7.1. Please give an explanation and/or meaning of the following flag colours:

Green Flag: \_\_\_\_\_

\_\_\_\_\_

Red Flag: \_\_\_\_\_

\_\_\_\_\_

White Flag: \_\_\_\_\_

\_\_\_\_\_

Chequered Flag \_\_\_\_\_

\_\_\_\_\_

Yellow Flag: \_\_\_\_\_

\_\_\_\_\_

Blue Flag with Yellow Dot: \_\_\_\_\_

\_\_\_\_\_

Black Flag: \_\_\_\_\_

\_\_\_\_\_

Black Flag with White Diagonal Stripe: \_\_\_\_\_

\_\_\_\_\_

Black Flag with White Spot: \_\_\_\_\_

\_\_\_\_\_

Yellow Flag with Red Angled Stripes: \_\_\_\_\_

\_\_\_\_\_



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7.2 Who controls all aspects of racing in the speedway complex? \_\_\_\_\_

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7.3 Who is responsible for knowing your starting position in a race? \_\_\_\_\_

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7.4 What must you wear before entering the race track? \_\_\_\_\_

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7.5 What is the speed limit in the pit area? \_\_\_\_\_

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7.6 How many people can sit or ride on your car on the way through the pits or in a grand parade?

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7.7 How long before the start of a meeting should YOU arrive in the pits? \_\_\_\_\_

\_\_\_\_\_

7.8 How long before the start of a meeting should YOUR CAR arrive in the pits?

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7.9 Do you have to go to the drivers briefing? \_\_\_\_\_

Why? \_\_\_\_\_

7.10 If you get into trouble for not knowing the rules whose fault is it? \_\_\_\_\_

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7.11 Who tells you how fast to come up to a start?

(a) Who sets the speed? \_\_\_\_\_

(b) What is the speed? \_\_\_\_\_

7.12 When the race starts the lights will turn green.

How do you know when they are getting ready to turn green? \_\_\_\_\_

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7.13 All restarts will be single or Indian file. What does single file mean? \_\_\_\_\_

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7.14 If you spin out in a race what should you do? \_\_\_\_\_

\_\_\_\_\_

7.15 If you get spun out by someone what should you do? \_\_\_\_\_

\_\_\_\_\_

7.16 If you get a flat tyre what will you do? \_\_\_\_\_

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7.17 If your seat belt comes undone on the track what will you do? \_\_\_\_\_

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7.18 If your car breaks down in a race what will you do? \_\_\_\_\_

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7.19 Which Officials must you respect during the nights racing? \_\_\_\_\_

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7.20 If the Steward makes a decision on the track that you do not agree with should you abuse the other driver involved or just get back at him later? What should you do?

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7.21 If the commentator interviews you at any time what will you say? \_\_\_\_\_

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7.22 If the track is wet what adjustments, if any, should you make to your driving style to suit the conditions?

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7.23 If someone spins in front of you what will you do? \_\_\_\_\_

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7.24 How far ahead should you look on the track? \_\_\_\_\_

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7.25 In the pit area where your car is pitted how much work can you do on the racecar?

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7.26 If you want to move around in the general pit area what must you do? \_\_\_\_\_

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7.27 If one of your pit crew, say your mum or dad, abuses another competitor or official, who will be responsible?

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## 8. PUBLIC SPEAKING AND SELF PROMOTION

### *THE MOST COMMON FEAR*

Do not worry yourself about the crowd or the occasion; just pretend you are talking things over with family or friends.

Relax and smile! There is some good reason for this chance at fame, so be yourself and talk freely but slowly, in your own language.

Look at the interviewer and talk to him like a friend, use his name. If you do not know it ask him – he will help you.

Talk to the interviewer or look at the top of the grandstand, forget about the crowd. Do not look down at your feet, pick a central point and focus on it as you talk.

Be aware of the bounce back of the microphone, listen to your own voice not the loud speakers. Try not to give just one word answers, explain yourself with good solid answers and take advantage of the situation.

Talk loud, not quiet and watch for the ear signal. If the interviewer pulls on his ear, it means talk up a bit louder.

Do not be afraid to hold up the trophy or wave to the crowd, it will make them appreciate you and they will feel your emotions from your actions.

Put your hands in your pockets. If you do not have anything to do with them the pockets are a safe place. Do not put your hands in front of your face.

Who do you thank?

- Mum and Dad
- The fans
- The Race Sponsor
- Your Sponsors

Wear your race suit around the track, with your race suit done up and your neck collar fastened. Be aware of your behaviour and let the fans see what you look like. You never know who might be watching – maybe potential sponsors or the bloke next door.



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For TV cameras, just be yourself. They are filming you because of you qualities – just act like you are talking to friends.

What do you like about racing? Be a good guy or girl, do not spit the dummy and have a whinge. Parents – that applies to you too. There could be potential sponsors in the crowd, running off at the mouth will not help you r cause. Do not bag the opposition, praise them for their efforts, it will gain you far more fans than a whinge will.

Always give honest answers to all questions. The fans want to know what it was really like out on the dirt circle. Say the truth like “I was really scared when I spun out in the corner” or “I got pretty angry when the engine stopped” or “When I passed Mary in the corner and won the race it was really cool!”

*Always tell your story in your own language.*

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## 9. DRIVING TIPS FOR JUNIOR SPEEDWAY DRIVERS

When competing in any form of motor sport there are many things a driver must be aware of:

- a) Motor cars are extremely dangerous and must be treated with respect
- b) Your fellow competitors and their equipment must also be treated with respect. Remember to treat them as you would want them to treat you
- c) The reason you have started out in motor racing is for fun. Once you become proficient you may then decide you are serious enough and talented enough to win.
- d) Winning is not everything, but being a good competitor is.
- e) Do not try to drive above your ability. We have to recognize that not everyone has the ability to drive as well as the top competitors, nor do they have the equipment, expertise or budget to physically go as fast
- f) If you make a mistake and your car gets out of shape and you are getting overtaken, let the other driver go past cleanly, then try to learn by following them
- g) If you have trouble with your car, do not try to inconvenience your fellow competitors and let them past

### ***REMEMBER – THE RIGHT ATTITUDE IS VERY IMPORTANT***

#### 9.1 THE CAR AND DRIVER

The first thing a driver has to do is make sure they have the correct driving equipment; this includes driving suit and underwear, helmet, gloves, socks, boots and balaclava. When you get into a race car it is very important that you feel comfortable and snug in your seat.

You must not sit too far from the steering wheel (it may look cool, but let me tell you, your arms will ache and you will tire very quickly because of the extra physical effort required to drive the car).

Make sure your seat belt is VERY tight and that your helmet is a good fit. Make sure that you have enough tear-offs to do the race distance (approximately 2 tear-offs per 3 laps).



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## 9.2 DRIVING THE CAR

Listen to what your instructor tells you and shows you.

Steering:

- a) It is a good idea to mark your steering wheel with a piece of tape at the top so you always know when the steering is pointed straight.
- b) Always start with your hands in the ten to two position and be as smooth as you can with your action on the steering wheel.

## 9.3 BRAKING

As we very rarely have to use the clutch once we are racing in sedans (never in a Speedcar and Sprintcar because they do not have one) it may be to the drivers benefit to learn to left foot brake from the very beginning of their career.

Once we are on the roll up lap and anticipating a start, we should already be in the gear we intend to race in, 2<sup>nd</sup> or 3<sup>rd</sup> gear in Junior car or Street Stock, and mostly top gear in a Super Sedan. We should move our left foot over to just cover the brake pedal.

Care should be taken (and practice will be needed) to make sure you do not rest your foot on the pedal. This will seem awkward at first but believe me it gets easier and it will become second nature after a few meetings.

There is a good reason to left foot brake. You do not waste time with your right foot changing pedals. By using your right and left feet this will eventually allow you to brake and accelerate with a split second delay and it will cut your reaction time in half should you need to brake suddenly.

## 9.4 ACCELERATING

To start with, all accelerating and decelerating (braking) should be done smoothly. Too sudden an application on the accelerator can make the driving wheels lose traction. Not only does this make the race car slide sideways, but it also slows down forward motion.

Once you get more experienced you will learn to steer the car with a combination of steering, braking and accelerating.

Understeer or push is when the front of the car slides or does not react to your steering actions.



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Oversteer or loose means the rear end of the car is sliding.

## 9.5 DRIVING TECHNIQUES versus CHASSIS SET UP

Dirt track drivers are most accustomed to (or seem to enjoy most) the driving style of “backing her in” to the corner. This is the correct style when the track is wet or tacky enough to allow the rear wheels to operate in the dirt surface. Here the dirt is cushiony enough to hold the back end of the car in when the driver applies the throttle and starts the “paddle wheel” in motion.

When the track packs down and slicks over the driver must be aware that he has to change his driving style. The tyres, now, will no longer dig into the dirt surface. They are working on the surface by creating friction between the tyre contact patch and track surface.

This radically changes the correct driving technique. With the slicked over dirt surface the driver must change to an asphalt surface type of driving style. He must concentrate on keeping the rear end of the car tucked in, braking in a straight line entering the turn, releasing the brakes and getting the car turned at a slightly early apex, then powering straight out.

This is the traditional “diamond pattern” driving style. If a driver tries to use the “back her in” soft track style on the slicked over dirt, the car will slide or skate up out of the groove, and the driver using the correct technique will drive right underneath.

Drive technique takes on a much greater importance when racing on a slick track. A smooth driver will have a tremendous advantage on a slick track, even in an inferior car. On a slick track excessive sliding, wheel spin or brake lock-ups cost considerable time.

The driving technique should try to minimize lateral weight transfer during corner braking and acceleration. If the track has dried or slicked over before the race starts the driver can make some adjustments to weight distribution, brake proportioning and tyres. If the track changes while the race is in progress, however, all the driver can do is adapt his driving technique.

The driver should be watching the track closely for signs. If black streaks of rubber are being laid down, definitely it is slicking over and drying out.

Another tell-tale sign (with night races) is that the track lights will start to make a glare across the track surface. This definitely tells the driver to start making changes in technique.



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In addition to an awareness of a change in driving style required for the change in track conditions, the driver must also be aware of the change in chassis set-up required for the different driving conditions.

The soft dirt “back her in” style condition will require extremely soft rear springs to allow the rear weight mass to continue to roll over, allowing the weight transfer to be planted downward on the tyre contact patch.

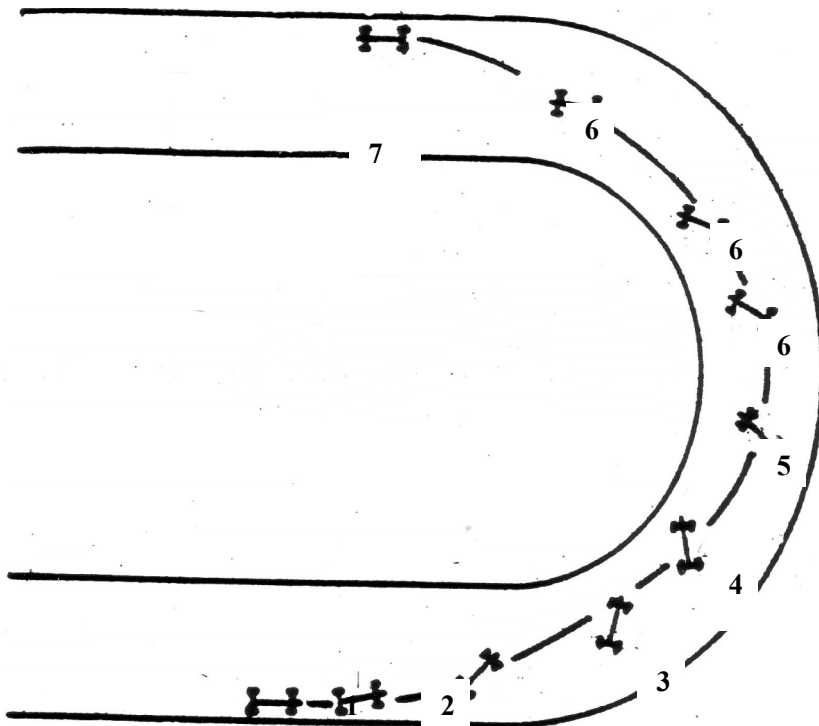
Keep in mind here that we are not advocating tremendous inside to outside weight transfer, but rather controlling how the amount of weight transfer we get is being used. We need to emphasize that the amount of weight transfer is solely controlled by the basic cornering force formula.

Throttle application coupled with the rear suspension linkage geometry will control the rear chassis attitude and forward bite.

The attached diagrams for wet track and dry track conditions will hopefully explain these techniques to you.

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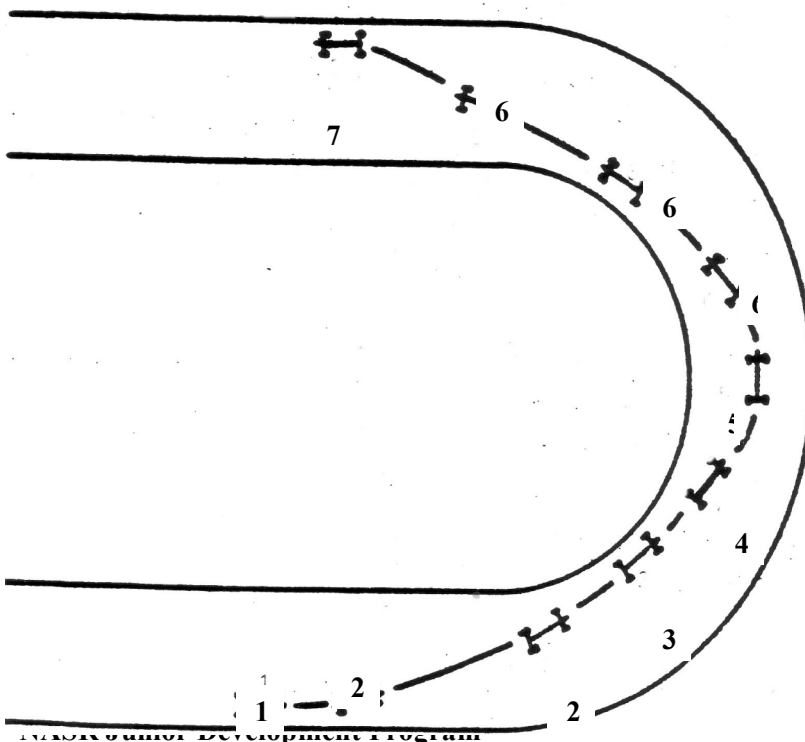
## 9.6 COMPARISON OF DRIVING STYLES FOR WET TRACK AND SLICK, HARD TRACK



### WET TRACK

1. Turn Wheel
2. Set car with brakes (jab)
3. Car is in slide—steer into it—off the throttle
4. Pick up the throttle—still steering into the slide
5. Throttle pushed ½ way down
6. Pick up full throttle
7. Head down straight looking ahead into next turns

You have to back the car in hard enough to drift all the way to point 4. If you do not you have to pick the throttle up too early. You must get to point 5 smoothly, but the race is won with speed from points 6 to 7



### SLICK, HARD TRACK

1. Off throttle, turn wheel
2. Hard, straight line braking
3. Ease off brakes
4. Combination of light braking and light throttle—ease off brakes and ease onto throttle to keep tyres working at their maximum capacity
5. Turn car—brakes all the way off, throttle eased on more
6. Full power, gentle exit radius
7. Head down straight looking ahead into next turns