



منظمة الإمارات للسيارات والموتوسبورت  
EMIRATES MOTORSPORTS ORGANIZATION

# THE EMRA GUIDE TO **MOTOR RACING**



*"ALWAYS **WANTED** TO GO CAR **RACING**,  
BUT **NEVER** KNEW WHERE TO **START**?"*



eparco

eparco



DRAGON RACING

DRAGON RACING



# THE EMIRATES MOTOR RACING ACADEMY (EMRA)

EMRA is a brand new Motor Racing School based here in the UAE, fully recognised and approved by the Emirates' Motorsport Organization (EMSO).

Based at the Dubai Autodrome, EMRA is ideally and conveniently situated to provide a friendly, professional and accessible route into UAE Motorsport for drivers of all levels of ability. Our multilingual team of fully professional International motor racing coaches have a vast depth of experience and take satisfaction in offering the very best automotive coaching and guidance within the region and beyond.

Many are successful racers in their own right, all have an enormous level of Motor Sport coaching

experience to ensure every EMRA student progresses on track as quickly and as safely as possible. All EMRA vehicles are prepared in house to a meticulous standard, all have FIA approved fuel cells & roll cages, fire suppression systems, racing harnesses and Peltor intercom systems - to ensure everyone's best safety and clear and precise communication at all times.

From the moment you walk through the doors at EMRA, you are in safe hands. We pride ourselves in exceeding customers levels of expectations whilst at the same time delivering professional sports coaching in a friendly and approachable manner - whilst all the time adhering to the highest level of safety standards.



# YOU WANT TO GET A RACE LICENCE AND GO RACING? ***HERE'S HOW YOU DO IT...***

You may want to progress up from karts into cars or take your trackday driving to the next level. Or you may be a keen member of your local car club and want to advance your skill set and become a faster and more proficient driver. Whichever is your example, you will need to first obtain a EMSO Competition Licence Application Form (available from the EMSO or EMRA directly).

Thereafter a Medical Doctor will need to assess you are physically fit enough to hold a race licence. They will undertake a 'Life Insurance' type medical assessment; checking your eyesight, cardiovascular condition and all round condition. We always suggest getting this step done before going any further because in the unlikely event that the Doctor finds anything that prevents you from holding a Competition Licence then you can save yourself a good deal of time and expense.

Once you have successfully completed the Medical,

then the next step would be to contact EMRA and take our advice on pre-test lessons. Drivers with extensive track experience can take the Novice Driver Licence Test immediately; however a driver with little or no experience should consider some tuition before the test day itself.

The EMRA Novice Driver Race Licence Test Day itself begins in the class room. Your Senior EMRA Briefing Instructor will outline the parameters of the event, deliver a detailed pre-drive technical lecture before then giving you an on-track demonstration of best circuit practices. Thereafter you will take controls and enjoy first a coaching session, then the element of Track Assessment. And finally, once back in the classroom, you will sit a multiple choice Written Test.

Provided you pass both the Practical and the Written Assessment, EMRA will forward all the necessary paperwork to the EMSO who will issue you with your Competition Licence. Congratulations!





# ESSENTIAL SAFETY

Modern motorsport is a thrilling and addictive sport, and thanks to regular reviews, modern materials and expertise the sport is safer than ever before. However, even with the most stringent safety regulations a degree of risk still remains, "Motorsport is Dangerous", the signs are commonly seen in and around the pits and paddock. But there is no need to be nervous, statistically driving on the highway you are in greater danger of having an accident than driving around a track.

Understanding how to practice best safety on the motor racing circuit is a fundamental basic of modern motorsport and we make no apologies for returning to the subject time and time again. Your safety and the safety of others around you is of paramount importance to the Emirates Motor Racing Academy.

The EMRA Novice Driver Race Licence Test Day is designed to thoroughly prepare you for circuit driving, giving you all the essential safety information backed up by the very highest level of driver coaching. However, even after a thorough training process a degree of apprehension is only natural. Taking to the track on your own - 'flying solo' - as a novice is often a daunting experience but as a driver of limited track experience you will have right of way - it is the onus of the faster drivers

on track to safely and politely 'find their way past'. Leaving you free to focus on the track ahead and improve your racing lines, consistency and driving techniques.

Practicing correct techniques whilst adhering to the correct racing line will see an improvement in your lap times, however trying too hard (or 'overdriving') will only increase the number of mistakes you make and lead to frustration. Remember that speed is generated by developing a smooth flowing driving rhythm; blending braking, steering and power application in a controlled and proactive manner. Remember, always build your pace at a rate that you feel comfortable with.

Upon leaving the circuit be mindful that the pits and paddock are areas of great potential danger, often busy with personnel, pressurised air cylinders and flammable liquids. Remember that the pit lane is strictly one-way and that speeds should be kept to a minimum. During race meetings there will be a Pit Lane Speed Limit but during test events pit speeds are often much slower.

Pay particular attention to manoeuvring in and out of your pit garage, taking care to look for both other vehicles on the pit road and spectators and personnel. A pit lane marshal and/or traffic lights control the pit lane exit.

# THE RACING LINE

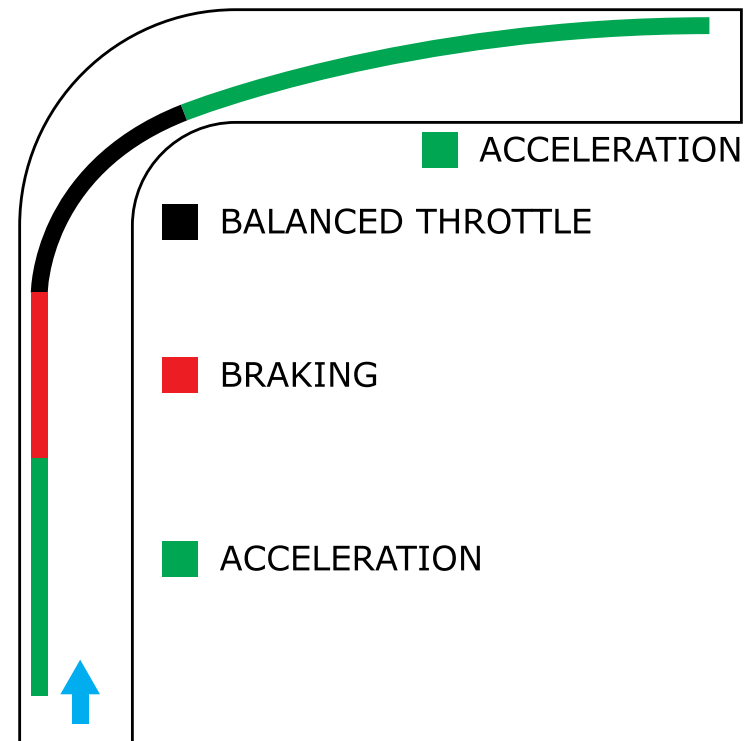
What is the Racing Line? The racing line is the fastest route around a given circuit.

And contrary to popular opinion, the racing line is NOT a line of equal radius in and out of a corner. Analysis of modern motor racing circuits will show that you spend the majority of time driving in a straight line (or thereabouts) with the throttle fully open. Therefore to maximise corner exit speed and momentum a wise investment of time is required at the start of the cornering process.

A fractionally later turn in point, with a slightly lower entry speed, will allow a driver to reach a later 'Clipping Point' further around the corner and enable the driver to reapply an accelerating throttle sooner and thus achieve a straighter and faster exit. And that speed will be carried down the following straight – a classic case of 'slow in and fast out'.

Of course the racing line will vary from car to car; a small front wheel drive car will take a different line to a prototype with a high level of downforce. But our EMRA

driver coaches will help you understand the very best solution for your particular type of vehicle, helping you to achieve a high level of consistency with a good understanding of track positioning and racing line.



*"With the guidance of a professional coach, driving techniques can be improved and honed at only modest expense in the Dragon Racing simulators at the Dubai Autodrome"*







# DRIVING TECHNIQUES & VISION

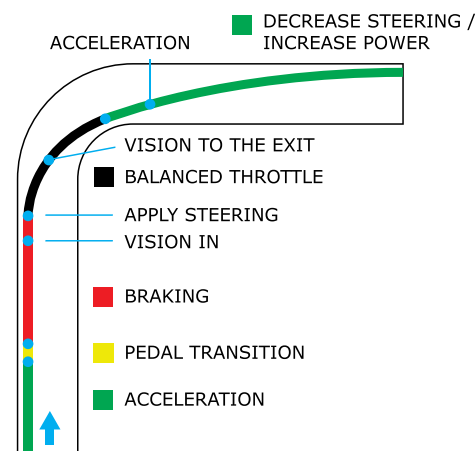
Weight distribution is an extremely important factor when considering driving techniques. Stripping back the fundamentals of our sport, ultimately you are only attached to the circuit by four relatively small contact patches of rubber. And what you do as a driver to modulate the vehicles weight distribution has a huge influence over the cars balance and the speed that the driver can ultimately achieve through a corner.

Our team of EMRA driver coaches will work with you to help you understand the three basic phases of the cornering process;

## 1. Braking

## 2. Transition from braking to cornering and the importance of a 'Balanced Throttle'

## 3. Acceleration and recovery off the corner



How a driver uses his vision is crucially important for the development of confidence and rhythm. Taking an overview of the corner prior to arrival will help with both the brake application point and the correct brake pedal pressure. And looking into and out of the corner early will assist with initially turn in and, thereafter, throttle reapplication and balance.

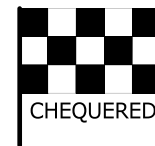
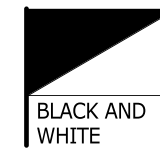
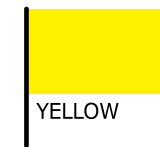
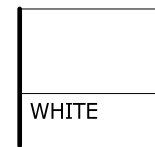
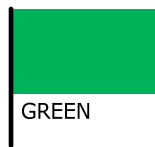
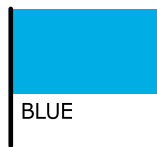
Looking and planning further ahead is initially a difficult skill to master, however in the long run it will pay huge dividends. Bravery and effort will only take you so far; however a good understanding of the racing line combined with appropriate vision and a thorough understanding of the dynamics of the car will take you much, much further.



# FLAG SIGNALS

Flag Signals – Knowing and understanding flag signals is a fundamental basic of our sport. Flag signals are the chosen method of communication between Race Control and the competition vehicles on track, shown from marshals posts situated around the circuit and at the Race Control / Start Line gantry.

Beneath you will find a breakdown of the flags and their individual meanings. Remember that flag signals will be supplemented with LED lights panels where possible – their meaning is identical to the flag signal. You will be tested on these in the Written Test.



- **Blue Flag Stationary** – Another Competitor is following you closely.
- **Blue Flag Waved** – Another Competitor is trying to overtake.
- **Green Flag** – Shown at the start of a formation lap and shown at each marshals post at the start of a practice session. Used to start a practice session but NOT the start of a race. Also shown at the end of a 'Code 60' or after a Yellow Flag zone.
- **White Flag** – Caution. A slow moving vehicle on track; could be a recovery vehicle, ambulance, Course Car or a slow moving competitor.
- **Single Waved Yellow Flag** – Danger. Slow Down. No Overtaking.
- **Double Waved Yellow Flags** – Great Danger. Slow considerably. No Overtaking. Be prepared to take evasive action that may include deviating from the racing line and /or stopping if necessary.
- **Red and Yellow Striped Flag Stationary** – Slippery Surface or Debris ahead. **Red and Yellow Striped Flag Waved** – Slippery Surface or Debris imminent.
- **Red Flag** – Session or race stopped. Cease racing, slow considerably and make your way carefully back to the pitlane and/or start line as directed by the track marshals. Be prepared to take evasive action that may include deviating from the racing line and /or stopping if necessary.
- **Purple Code 60 Flag** – Race neutralised. No Overtaking. Reduce speed carefully and predictably to 60 kph. Maintain the same distance from the competitor ahead. Be prepared to take evasive action that may include deviating from the racing line – watch for the marshals instructions.
- **Black and White Flag (shown at the Start Line) with your Race Number** – Warning. Race Control has received a report that your driving is suspect (corner cutting/not respecting track limits). If they receive further reports you may be Black Flagged.
- **Black Flag (shown at the Start Line) with your Race Number** – Cease racing, slow down and return to the pits at the end of the next lap. Stop in the pit lane under Race Control and report to the Clerk of the Course.
- **Black Flag with Orange Disc (shown at Start Line) with your Race Number** – Your vehicle has a mechanical problem that you may or may not be aware of. Slow down, check your instruments and carefully and predictably leave the racing line (should your vehicle be dropping fluids). Return the pits at your earliest opportunity
- **Chequered Flag (shown at the start line)** – End of a Race or Practice Session. Whilst racing; waved to the winner and held stationary to the following vehicles. After passing the chequered flag, reduce speed, no overtaking and return to the pits at the end of the next lap.

# GOING RACING – HOW?

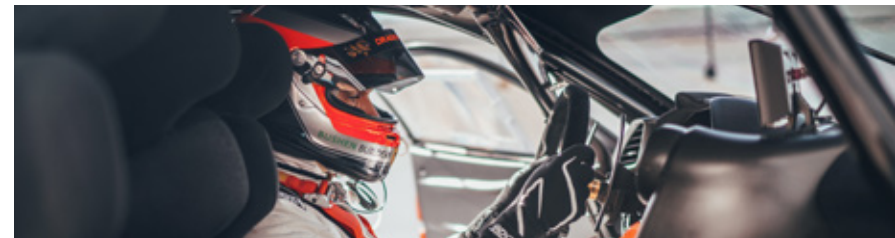
The process of going racing can be both complex and daunting. However a sensible first step is to attend a motor race meeting as a spectator and speak to both competitors and teams. Once into the Paddock area, don't be shy, head into the pit garages and you will be surprised how open and friendly people will be – remember that once upon a time they were in your situation. By asking what seems like a naïve question you may avoid a potentially expensive stumbling point. Many competitors will have made classic novice mistakes and they will be more than happy to share their experiences with you.

## **Should you buy or rent a car?**

Either. The choice is entirely yours however be sure that you are 100% confident that you, or your chosen team, have the required equipment and expertise required to run, service and repair your car.

## **Purchase the required protective clothing and safety equipment.**

EMRA or any local Racewear supplier can offer impartial advice on the level of racewear required to meet the minimum FIA standards. Key items such as race suit, gloves, boots, helmet and HANS device should be 'tried on' rather than purchased on line, as body or head shape often suits a particular brand of manufacturer. All the key items should be backed up with fireproof Nomex socks, balaclava, long pants and long sleeved under vest – buy the very best you can afford. One day you may need their protection.









# GOING RACING – HOW? *CONTINUED*

## **Go testing.**

Free practice sessions and Trackdays are ideal opportunities to get out on track. Utilise each lap fully and proactively work your way around the track. Look to carry more and more momentum through the faster sections yet be patient with your approach into the slow corners. If you are in any doubt, EMRA can supply you a 'Coach for the Day' to keep you on the right lines.

Once you are comfortable with your car and feel ready for more, fill out the Race Entry Form and pay the Race Entry Fee, this is done online with the Organising Club. You will receive confirmation of your entry and receive the Final Instructions. Within these Final Instructions you will find the timings for Signing On / Drivers Briefing / Technical Scrutineering / All Track

Sessions. Make sure you are familiar with the times and locations for each.

On the day of your first race arrive at the venue early and try to be as relaxed as possible – arriving late, leaving yourself little time to prepare is far from ideal.

Signing On will be in the Race Administration building. Here you will sign on, hand in your race licence and attend the Drivers Briefing. As a first time racer it's always worth having a quiet chat with the Clerk of the Course after the briefing where he can answer any particular questions you may have.

You will often be given a wristband to show that you have signed on and attended Drivers Briefing – this may be checked by the pit lane marshal as you exit the pit lane.

# GOING RACING – HOW? *CONTINUED*



Both your car and all your drivers safety equipment will be checked at pre-race technical scrutineering. The Scrutineers will check the vehicle for safety, making sure that all the essential functions and systems are in order and that safety elements; Fire Extinguisher / Roll Cage / Battery Cut-Out switch etc. are in order. Once the Scrutineer is satisfied that both your equipment and car meet the required standard they will affix a sticker that too will be checked at the exit of the pit lane. It is worth watching the more experienced competitors in your race and talking to the Pit Marshals regarding the session timings. Track sessions will often run ahead, so keep track of which session is currently on track and how that correlates to your session.

## **Free Practice;**

Once called from your pit garages to the end of the pit lane, your session will commence shortly after. Build the pace carefully and appropriately. Circuit conditions may have changed from previous events so look out for any changes. Use the session to get you and your car 'up to speed', the pit lane will be open during the session if you wish to stop and re-start to make any required changes.

## **Qualifying;**

This is traditionally a shorter session than free practice. Ensure that you complete a minimum of three flying laps, this is the number of laps required to officially qualify you to take part in the race. Your fastest lap time will determine your position on the starting grid. All the times from the qualifying session will be posted by the Time Keepers – hard copies will be available from Race Control and soft copies can be found on line.

YAS MARINA CIRCUIT





# GOING RACING – HOW? *CONTINUED*

## **Race;**

From pit exit you will proceed to the starting grid and, with the assistance of a Start Line Marshal, park on the correct grid starting slot. Display Boards will count down until the Green Flag is shown to start the formation lap. Upon completion of the formation lap you will take the race start. The Race Start procedure for both Rolling Starts and Standing Starts will be covered in detail in the EMRA Novice Driver Race Licence Test. However we would always advise practising your particular start at least twice to ensure you make the best, most appropriate get away.

Keep a cool head on the rush down into Turn 1 – remember that you and your tyres will not have reached their optimum operating temperature yet! The area of greatest danger in a motor race is between the start and the exit of the first corner. Be

mindful that a race is never ‘won’ at the first corner, only ever ‘lost’. Once you have successfully navigated the start, settle into a rhythm and continue your learning process. Keep your vision ‘up and open’ – watching out for other vehicles on track and, of course, those vital flag signals.

After you take the chequered flag, you will return to the pit lane where you will be marshalled into post-race Scrutineering in the secure Parc Ferme compound. Here, you’ll turn your engine off and breathe a sigh of relief! There will be handshakes with your fellow competitors and stories of epic overtaking manoeuvres. Most likely you will be met by your friends and family, or if you are lucky you will make your way to the podium. Either way, motorsport is a thrilling sport and by coming to EMRA you have taken the best possible first step towards that top step of the podium.

# EMRA – WHO WE ARE

Dragon Racing, the technical team who underpin the Emirates Racing Academy, are the leading motorsport team in the United Arab Emirates. We're a team of highly motivated and experienced professionals from around the world and are dedicated to winning.

We represent the pinnacle of motorsport in the UAE, Winning the UAE F4 Driver and Teams championship in 2018, The Dubai 24hrs in 2014, 2015 & 2020, Class wins at

the Gulf 12hrs and year after year local GT champions from 2012 through to 2019. With a world class motorsport facility at the Dubai Autodrome we invest in our team to ensure we deliver the high standards our customers expect from us.

Attracting a wealth of drivers from across the globe we have developed novice drivers into champions and continue to work closely with the best professional drivers in the sport.



# FAQ'S

## **i. Do I need prior track experience before sitting the EMRA Novice Driver Race Licence Test?**

Ideally yes. There is a limited amount of pre-test coaching included, however we would suggest a few separate days of either circuit-based car experiences, public track days in road or race cars or free practice sessions in race cars, prior track experience before sitting the test.

## **ii. Do I need my own race car?**

No, EMRA will supply a suitable vehicle for your EMRA Novice Driver Race Licence Test.

## **iii. Do I need my own Racewear for the test?**

No. We will supply you a race helmet.

## **iv. Where do I get the Medical completed?**

Any Doctor can complete the form for you. It's a simple 'Life Insurance' type Medical. In section 8 of this booklet we have recommended Medical Practices.

## **v. Is the Written Test difficult?**

Not really, it's a multiple choice examination based upon Safety, Flag Signals, Race Organisation and a good deal of common sense.

## **vi. What happens if I fail?**

We will look at the reasons behind the failure and suggest a coaching programme to rectify the faults. Then you can re-sit, this may even be possible on the same day.

## **vii. Could you advise me in which direction to take once I've successfully completed my EMRA Novice Driver Race Licence Test and obtained my Licence?**

100% Yes. EMRA advice is honest and free of charge. Call in for a coffee and a chat anytime.

## USEFUL CONTACT DETAILS AND SUGGESTED FURTHER READING

EMSO – The Governing Body of Motorsport in the UAE. The EMSO is one of the oldest national organizations in the United Arab Emirates, marking its golden jubilee in 2015. Since its inception in 1965, EMSO has played a leading role in the development of motorsport on both the national and international level. Today, it governs approximately 140 competitive events forming the UAE motorsport calendar, and covering disciplines such as circuit racing, rallying, drag racing and motocross. The EMSO is the country's sole representative of

the FIA, automobile sport's world governing body, and its motorcycling and karting equivalents, the FIM and CIK respectively. Its primary responsibilities are to promote the safe and sustainable growth of motorsport in the UAE, and to ensure all events are run fairly and to regulation.

<https://www.emso.ae/index.php/how-to-get-a-racing-licence/> - here you can download the Licence Application Form and the accompanying Application Notes. You can also download the National Sporting Code and the FIA Drivers Guide – both essential reading.

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Building-3, The Ribbon, Al Hebiah First, Motor City - Dubai , P.O Box 215565  
T: +971 4 514 7969 | W: [www.medcare.ae](http://www.medcare.ae)

Dubai Autodrome Motor Club – <http://www.dubaiautodrome.com/motorsport/> - here you can obtain details of the different Dubai based race series, local race teams & advice on buying a competition vehicle. The DAMC organise and run race meetings at the Dubai Autodrome.  
Dubai Autodrome LLC, Dubai, U.A.E. +971 4 367 8700

Yas Marina Motor Club – <https://www.yasmarinacircuit.com/en/whats-on-track/?tab=motorsportevents> - here you can obtain details of the different Yas Marina based race series, the YMMC organise and run race meetings at the Yas Marina Circuit. Yas Marina Circuit, Abu Dhabi, U.A.E. +971 2 659 9165