AUTO TEST

National Motorkhana Code

1. AUTHORITY

The National Motorkhana Code shall:

1.1 apply to the Australian Motorkhana Championship, in conjunction with the Supplementary Regulations and any Further Instructions issued by the organisers;

1.2 apply to State Motorkhana Championships in conjunction with the relevant State Motorkhana Appendices, event Supplementary Regulations and any Further Instructions issued by the organisers; and

1.3 act as a guide for the conduct of other motorkhanas.

Reference to this Code in the Application for an Organising Permit and in the Supplementary Regulations for any motorkhana will enable use of a shortened form of Supplementary Regulations and a substantial reduction in the documentation required to be published for that event.

2. DEFINITIONS – MOTORKHANA

2.1 Motorkhana is defined by NCR 18 as: "A meeting including only events designed to test the acceleration, braking and general manoeuvrability of the vehicles and the skill and judgement of the crew members. Motorkhanas may be conducted on a sealed or unsealed surface, and must not be, or include, a speed event. The term 'motorkhana' shall include the terms 'autokhana', 'gymkhana' and the like."

2.2 **Australian Motorkhana Championship:** The competition to determine the Australian Motorkhana Champion, which shall be conducted as a single event each year.

2.3 **Championship Motorkhana:** An event which wholly or partially decides the result of a Motorkhana Championship.

2.4 **State or National Level Event:** An event open to all CAMS members who are holders of a Level 2 or higher licence.

2.5 **Club or Multi-club Event:** An event run by a club or group of clubs exclusively for their members (NCR 15(ii) (e) and (f)).

2.6 **Restricted Event:** An event in which a qualifying condition is placed on all entries (NCR 15(iii)).

2.7 **Test:** The description 'test' must apply to that individual course which a driver is required to complete in the prescribed manner.

2.8 **Junior:** A Competitor who is not less than 12 years of age and who is less than 18 years of age on the day of the AMC event.

3. THE COMPETITION

The object of the competition is for each driver to complete all the tests of the program in the prescribed manner, in the shortest possible time, without incurring penalties.

Motorkhanas are regarded as the introductory level of events in the spectrum of motor sport. They offer to clubs and Competitors the opportunity to conduct and take part in some of the less formalised events conducted under the National Competition Rules, in which the essential skills of car control and judgement may be practised under conditions which avoid many of the hazards of public roads.

4. AUSTRALIAN MOTORKHANA CHAMPIONSHIP: CONDITIONS

4.1 The Australian Motorkhana Championship must consist only of tests selected from the CAMS booklet of Motorkhana Tests. Not less than 25% of scheduled tests must be reversing tests.

4.2 CAMS-approved Supplementary Regulations must be available to the State offices of CAMS, to all member clubs and to Competitors at least eight weeks before the event. The regulations must satisfy the requirements of NCR 67.

4.3 The Australian Motorkhana Championship must be conducted on a sealed surface (see Regulation 12.1).

4.4 Not more than four drivers may be entered to drive the same vehicle. At the Clerk of the Course's discretion this number may be extended for a family unit.

4.5 The event must not include any class for novice drivers. It may include classes for junior and lady drivers. To be eligible to compete in any class for juniors, drivers must be less than 18 years of age on the day of the event. The AMC must provide a trophy for the highest placed lady driver, regardless of whether a specific class is provided.

Classes for Specials and Production vehicles must be provided, with the conditions of Regulations 7.2, 7.3

and 7.4 applying.

4.6 Awards must be presented to the drivers who fill the first six places in the general classification; to first, second and third in each class (subject to more than six entries in the class) and to the first lady driver. Other awards may be made at the discretion of the organisers. **Junior and Ladies production car classes shall be decided by applying a handicap factor across all times.**

5. PROGRAM

5.1 Not fewer than four tests must be completed for the event to be valid.

5.2 The diagrams and procedures of the tests to be attempted should be included in the official program for distribution to the Competitors.

5.3 The running order of all Competitors through all tests must be rotated on a system defined in the Event Regulations based on the number of Competitors and the number of tests. Classes are recommended as an appropriate group for such rotation. No split is to be made within a class.

5.4 No test shall be conducted more than once in a Championship Motorkhana.

5.5 The ballot for competition numbers must be conducted within each class and those classes must be based on vehicles, not on drivers.

6. VEHICLE REQUIREMENTS

6.1 All vehicles must comply with Schedule A (refer "General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport) and with the Group 4H Regulations.

6.2 All competing vehicles must be scrutineered before the start of an event including practice. Particular attention will be paid to brakes, steering and tyres.

6.3 The Clerk of the Course must rule on the acceptability of any vehicle to compete in the event and on the class in which it shall compete. Acceptable standards of presentation and condition must be met.

6.4 A driver whose vehicle has broken down may use a replacement vehicle, provided the consent of the Clerk of the Course has first been obtained. The replacement vehicle must be scrutineered, should preferably be in the same class as the original vehicle, and must then be used for the remainder of the day's competition.

6.5 Vehicle scrutiny checks at club and multi-club events shall include the following items – steering, brakes, tyre condition, seat belts, seats, secure wheels, no loose objects in the cabin.

7. CLASSES

7.1 Although a Championship Motorkhana is an outright event, a competition to determine various class winners may be conducted within that event. Competing vehicles may be divided into 'production' and 'specials' classes, and may be further subdivided by such criteria as the wheelbase of the vehicle or drive arrangement.

7.2 Classes for production two-wheel drive vehicles must be subdivided on the basis of the manufacturer's specification of the wheelbase of the vehicles thus:

Class A:	2WD, wheelbase up to 2150mm
Class B:	2WD, wheelbase 2151 to 2390mm
Class C:	2WD, wheelbase 2391 to 2574mm
Class D:	2WD, wheelbase 2575mm and over,

7.3 A class must be provided for production four-wheel drive vehicles, which must be driven in the four-wheel drive mode throughout the competition. **Should there be three or fewer cars entered in this class, these vehicles may be amalgamated into their respective wheelbase classes at the discretion of the Clerk of the Course.**

Class E:	4WD vehicles (which must be driven in the four-wheel drive mode throughout the competition)

7.4 Classes for Specials must be subdivided on the basis of front or rear wheel drive, thus:

Class F:	Front-Wheel Drive Specials
Class G:	Rear-Wheel Drive Specials

NOTE: Group 4H regulations prohibit four-wheel drive in Specials.

7.5 Refer to Regulation 4.5 for additional AMC classes.

8. SUPPLEMENTARY REGULATIONS

Supplementary Regulations must be made available to CAMS and to all invited clubs and Competitors before the event. Refer to Regulation 4.2 for AMC conditions.

9. ENTRIES

9.1 Drivers in all motorkhanas must hold at least a current CAMS Level 2NS licence. For Competitor licence requirements refer "General Regulations of CAMS" in the CAMS Manual of Motor Sport.

9.2 Each driver is allowed only one entry.

9.3 Entries **must** be accepted in accordance with NCR 85.

9.4 The standard entry form must be used whenever practicable.

10. DRIVERS

10.1 Directions and requests by an official must be obeyed. All drivers must behave in a safe and responsible manner.

10.2 A speed limit of 10 km/h must apply in the pit area and when proceeding between tests. Failure by any driver to respect this limit may lead to exclusion from any further competition on the day. The imposition of this penalty will be at the discretion of the Clerk of the Course.

10.3 Notwithstanding the requirements of Schedule I (refer "General Requirements for Cars and Drivers") all drivers must, while competing, wear at least a lap-type seat belt, properly adjusted. Drivers of cars registered with CAMS as Historic cars are exempted from this requirement.

10.4 Drivers of motorkhana specials must wear helmets complying with AS 1698 or another standard listed in Schedule D (refer "General Requirements for Cars and Drivers") and it is highly recommended for all drivers of other open vehicles.

10.5 Drivers of vehicles to which no windscreen is fitted must wear adequate eye protection while competing.

10.6 Adequate footwear must be worn while competing. Bare feet, thongs or sandals are not permitted.

10.7 Any driver or official who consumes or is visibly affected by alcohol or drugs during an event must be excluded from further participation in the event (see NCR 145A).

10.8 The minimum age for drivers in any motorkhana is 12 years. Drivers must be able to demonstrate an ability to control the vehicle.

11. PROCEDURE

11.1 It is the driver's responsibility to understand the method of executing each test.

11.2 The only officials of the event who may advise Competitors on the interpretation of test procedure are the Clerk of the Course and any officials appointed by him for that purpose.

No timekeeper, observer, recorder or Judge of Fact must give any interpretation of the method of any test.

11.3 If a test marker has been displaced from its original position by a vehicle during an attempt at a test, and if the vehicle is required to negotiate that marker again during the attempt, the driver must then proceed according to the original position of the marker (refer to Regulation 17).

11.4 A vehicle must complete the full distance of a test under its own power.

11.5 So long as the vehicle covers all of the required course of a test, even if this entails some retracing of an incorrect path, that attempt must be accepted as valid.

12. EVENT LAYOUT

12.1 The Australian Motorkhana Championship event must be conducted on a sealed surface. Other championship and non-championship motorkhanas may be conducted on sealed or unsealed surfaces.

12.2 The competition area must be as flat and as smooth as is reasonably practical and must be free of any features which could be hazardous to drivers or to vehicles.

12.3 The layout of each test as specified in the test booklet must be strictly adhered to, subject to a tolerance of ±200mm on each dimension.

12.4 Test markers must be at least 750mm high and must not exceed 300mm square at the base. They must be distinctively and prominently coloured and must be constructed so as to not cause damage to competing vehicles. Only green markers shall be used for the start garage, and only red for the finish garage. No other marker shall be coloured red or green. Markers shown on the test diagrams by different letters shall be of different colours.

12.5 All garages used in a test must be clearly marked at their extremities, and by markers in each side. The back of each garage must be marked in a similar manner unless it is required that the vehicles shall travel through the garage. Thus, where a garage is to be entered and left from the same end, 12 markers must be used, and where a garage is to be passed through, 10 markers must be used.

12.6 A field boundary line must extend across the fronts of the start and finish garages of each test extending 4m to each side and joining the fronts of such garages, spaced one metre apart. The markers of this field boundary must be of a distinctive form and/or colour different from all other markers of the test.

12.7 The competition area should be surrounded by a field boundary. This boundary must define the spectator limits, and may also control the proximity of adjacent tests. Conditions may dictate enlargement of the field boundary in the interests of safety, for example if the surface has been made slippery by rain.

12.8 Only officials of that test, the competing vehicle, the driver and the passenger (where permitted in a non-championship event) are permitted within the field boundary during the competition.

12.9 No person or vehicle shall be permitted between the finish garage and the field boundary during the competition.

12.10 All officials must be located in safe positions.

13. START AND FINISH

13.1 Vehicles must start and finish each test in a forward direction.

13.2 To start correctly, the vehicle must be stationary, wholly within the boundaries of the start garage and as close as practical to the designated start line before the commencement of the attempt at that test.

13.3 To start or finish correctly, any point in the front half of the vehicle must precede all points in the rear half of the vehicle across the start or finish line.

13.4 A driver may request the assistance of an official when aligning his vehicle at the start line.

13.5 To finish correctly, the following procedure must be observed:

(i) the crossing of the start/finish field boundary line (described in Regulation 12.6) other than between the two front (red) markers of the finish garage must incur a penalty under Regulation 17.4 (vi) "Incorrect Method" unless at least one of those front (red) markers is displaced. The penalty for knocking any marker of the finish garage must be Plus Five Seconds, imposed under Regulation 17.4(i); and

(ii) after crossing the designated finish line, the vehicle must continue and halt completely within the boundaries of the finish garage. This manoeuvre must be completed without reversing and within a period not exceeding 10 seconds. Spinning a car to a halt in the finishing garage is not considered as reversing.

14. METHOD OF SCORING

14.1 Placings must be decided on the aggregate of elapsed times on the tests completed, plus any penalties. The winner/s must be the driver/s having the lowest aggregate, including any penalties, at the completion of the event. In the case of equal scores, the tied Competitors must be declared joint winners.

14.2 If any error is detected in timing equipment or methods, which gives reason to doubt the validity of Competitors' times in a test, Regulation 16.5(iii) should ensure that the test can continue.

14.3 If the primary system of timing should fail to record a Competitor's time then the Competitor must be offered the choice of a re-run or the average of the manual back-up times used. If any penalty was incurred on the initial run then only the manual back-up times can be offered.

15. METHOD OF TIMING

15.1 Timing must be to .01 of a second, recorded in writing.

15.2 In Championship events if manual timing is used, it must be conducted using two manually operated stopwatches each operated by a different official. The two times must be recorded and the average of those times shall be the Competitor's elapsed time for the test.

Should one of the manual times be judged inaccurate then the Clerk of the Course shall consider whether a re-run is justified or whether the other time alone should be offered or enforced in order to obtain a fair result in the competition. In this regard the Clerk of the Course is entitled to consider the one accurate time recorded as the manual back-up time when enforcing Regulation 14.3.

15.3 When automatic timing is used at least two manually-operated stopwatches must be used as back-up. All the times so determined must be recorded separately, and must be used if failure of the automatic equipment occurs, so that the test can continue.

(i) Should it be necessary to use back-up timing then the average of the two recorded back-up times shall be used.

15.4 The elapsed time for each driver who completes the test must be recorded. Any penalty/ies incurred must be recorded separately. A driver's time card must be issued to each driver and have the time and penalties recorded on it at each test.

15.5 Timing must commence when the leading point of the car crosses the designated start line and must cease when the leading point of the car crosses the designated finish line. The designated finish line must be not less than 500mm and not more than one metre behind the front of the finish garage.

16. RE-RUNS

16.1 Re-runs of a test, whether for an individual or for the whole field, are to be avoided unless that re-run is the only means of ensuring a fair result for all concerned.

16.2 Individual re-runs may be authorised only by the Clerk of the Course whose decision shall be based on the degree of control the driver could reasonably be expected to have over the circumstances which support the Competitor's claim for a re-run (eg, a dog on the test area).

The Clerk of the Course must ensure that the time-keeper and other officials of the test concerned are notified of any authorised re-run.

16.3 Should timing equipment malfunction be discovered during a driver's attempt at a test the driver should be allowed to complete the test, then action taken as provided for in Regulation 14.3.

16.4 Should difficulty be encountered with either automatic or manual timing equipment, correct operation should be verified without repeated attempts being made by competing drivers. If necessary a non-competing driver shall be used to check the operation of equipment.

16.5 All drivers must be advised as soon as possible if any error is detected in timing equipment or methods which gives reason to doubt the validity of the field's times in a test. In such a case, the Clerk of the Course will decide whether:

(i) the test concerned will be abandoned, providing that the program will still then contain at least the requisite minimum number of tests; or

(ii) the original test will be re-run with restored or alternative equipment; or

(iii) the test will revert to manual timing for all Competitors as provided for in Regulation 14.3.

17. PENALTIES

17.1 There are two basic penalties applicable in motorkhanas:

(i) plus five seconds (refer to Regulation 17.2 for clarification);

(ii) slowest time plus five seconds (refer to Regulation 17.3 for clarification).

17.2 The penalty of "plus five seconds" means that five seconds must be added to the time recorded by that driver on that test for each infringement.

17.3 The penalty of "slowest time plus five seconds" must be calculated by adding five seconds to the slowest time recorded by a driver who completed that test correctly, which then becomes the time for the penalised driver in lieu of that which was recorded. No penalty must exceed double the fastest time recorded by a driver who completed that test correctly.

Where slowest time plus five seconds exceeds double the fastest time, the time to be applied must be double the fastest time.

When establishing either fastest time or slowest time, no time which includes any penalty is to be used. Where the fastest time or slowest time incurred a penalty, then the next fastest time or slowest time without any penalty must be used.

17.4 The application of these penalties must be as follows:

(i)	knocking any marker	plus five seconds each infringement
(ii)	vehicle not fully garaged during the course of a test	plus five seconds each infringement
(iii)	finishing a test with part of the vehicle outside the end of the finish garage	plus five seconds
(iv)	failing to halt completely at the finish of a test	slowest time plus five seconds
(v)	finishing a test with the vehicle completely outside the finish garage boundaries	slowest time plus five seconds
(vi)	incorrect method (any procedure other than that specified as the correct procedure for completing that test)	slowest time plus five seconds
(vii)	failure to complete a test or failure to attempt a test (see note (a) below)	slowest time plus five seconds
(viii)	running out of order without the prior approval of the Clerk of the Course	slowest time plus five seconds
(ix)	reversing after crossing the designated finish line (see Regulation 13.5 (ii))	slowest time plus five seconds.

17.5 Notes:

(a) in the situation referred to in Regulation 11.3 (displaced marker), the Judge of Fact for that test must rule whether penalty 17.4 (i) – Knocking any marker, or penalty 17.4 (vi) – Incorrect Method, is the appropriate penalty.

(b) "Failure to attempt a test": before a driver may be penalised under regulation 17.4 (vii) – Failure to attempt a test, the officials must make full effort to call him to the starting line. The officials may discharge this responsibility by calling the driver twice by competition number and name throughout the pit area/s. A driver who, having presented himself at a test fails to start his competition run at that test within one minute of being requested to do so by the timekeeper or his assist-ant, shall be deemed to have failed to attempt the test.

(c) A penalty of exclusion may also be imposed for infringements of the Code (Regulations 10.2, 10.7 and 19) and for other offences prescribed by the NCR.

18. DUTIES OF OFFICIALS

18.1 Clerk of the Course

There must be one Clerk of the Course of the event, who will be held ultimately responsible for the conduct of the event. His duties are defined in NCR 172 and 173. He may have assistant Clerks of the Course for the discharge of his duties. In particular:

- he must act as controller of the functions of all officials of the event and shall co-ordinate their activities;
- he shall be responsible for decisions concerning the running of the competition, particularly those relating to safety, eligibility, timing and interpretation of the Code;
- he shall give rulings on re-runs and on changes of vehicles;
- he shall complete and provide to CAMS a report dealing with any reportable matters arising from the meeting;
- he must prepare a written report containing the information necessary for the Stewards of the Meeting to prepare their reports;
- he must ensure that all officials are fully briefed on their duties and on the use of equipment in their charge and on all the regulations relevant to the tests over which they have control; and
- he must also ensure that all tests are laid out in the correct manner and to the requisite dimensions, and that no natural or artificial features create a hazard to Competitors, officials or spectators.

18.2 Test officials

In Championship events, for each test there shall be at least one principal timekeeper (two when manual timing is being used), and two back-up timekeepers. These officials may also act as starters, recorder and Judges of Fact for that test. Their duties shall include being conversant with the Code particularly those regulations dealing with the method of timing (Regulation 15) and with penalties (Regulation 17). They shall also be conversant with NCR 176 (Duties of Timekeepers), items (i), (iv), (v), (vi) and (vii), and with NCR 181 (Duties of Judges), items (i), (ii), (iv), (v) and (vii).

18.3 Observers

In all tests which require entry into a garage by a vehicle, observers must ensure that the vehicle is fully garaged, and that any penalty is applied fairly. A garage observer must be placed on the projection of a line drawn across the front of each such garage, to enable observation of any incomplete garage entry.

Other observers may be appointed by the Clerk of the Course.

All observers shall be Judges of Fact as referred to in NCR 181 (Duties of Judges), items (i), (ii), (iv) and (v).

18.4 Officials must ensure that they are in safe positions while the event is in progress, especially near the finish garage.

18.5 Under the provisions of NCR162, a Clerk of the Course is the only Essential Official required at club or multi-club motorkhanas. The Clerk of the Course must hold, as a minimum, a Bronze Event Command or Club Chief officials licence. The roles of Secretary of the Meeting, Chief Timekeeper and Chief Scrutineer may be delegated to other licensed officials, who may compete at the meeting. The Clerk of the Course shall not compete at the meeting. Any matter arising from the meeting which requires action by the Stewards shall be referred to a stewards' hearing which shall be organised by CAMS and which shall have the standing of a hearing by Stewards of the Meeting.

19. PASSENGERS

Passengers may be carried in a vehicle while competing in a motorkhana, to the benefit of the crew members and of the competition. However, no passenger may be carried in any vehicle while it is attempting any test in a championship motorkhana. Any offending driver shall be excluded from further participation in the event.

20. SPECTATORS

20.1 It is the responsibility of the Clerk of the Course to ensure that all spectators and Competitors are restricted to safe areas. To this objective, marshals should be appointed.

20.2 Only appointed officials, persons authorised by the Clerk of the Course and Competitors shall be allowed in the competition area.

20.3 Spectators should be excluded from the pit area and, if possible, the area should be supervised by a permanently appointed pit area marshal and assistant/s.

20.4 Animals must not be admitted to the competition or pit areas.

21. SAFETY EQUIPMENT

It is recommended that a first aid kit and a fire extinguisher be provided at all events.

22. RESULTS

22.1 Within 120 hours of the completion of the event a dated list of the provisional results must be supplied to:

- CAMS
- the Stewards
- each Competitor.

22.2 The results sheet should be in a format which shows the following details:

- driver and driver's home state and, if possible, club
- Competitor number
- make and/or model of vehicle
- class
- name of each test
- performance of each Competitor in each test by time, including any penalty; and
- placings - general classification.

22.3 Uniform markings should be used to indicate and identify penalties, eg:

1F, 2F etc	Hit Marker
wd	Incorrect Method
dns	Did Not Start
dnf	Did Not Finish
nfg	Not Fully Garaged

22.4 In State Championship events, a list of all championship point scores should be shown separately.

22.5 To be classified as a finisher in an event, a Competitor must attempt at least 50% of the tests conducted in

that event.

23. PROTESTS

Any protest must be in accordance with Part XII and Appendix R of the NCR (see Insurance on the CAMS website, *www.cams.com.au*).

24. PRIZES

The event awards shall be presented as specified in the supplementary regulations for each event.

For Australian Motorkhana Championship awards see Regulation 4.6.