

# Nad Scientists On Wheels 2000 PRESSURE LE AGUE 2000 PRESSURE LE AGUE 2000 PRESSURE LE AGUE

mobile electronics competition association

Events & Points Accumulation Guidelines Team Guidelines & Procedures Disciplinary Actions & Protest Procedures

# Sound Pressure League

Purpose & Intent, Objectives, Class Definitions, Definitions of Competitors, General Rules, Amateur Street, Street, Modified, Modex, "Radical X", "Drive-by SPL Parade", SPLite, Phat Awards, "Pressure Class Formula", Cone Surface Area Chart, Microphone & Sensor Stand Descriptions & Specs

# Sound Quality League

Purpose & Intent, Objectives, General Rules, Class Definitions, Sound Quality, Installation, RTA Freq Out, Phat Awards, Glossary, Sample Score Sheets for Sound Quality & Installation Formats

Ride the Light Neon & Accessory Lighting Contest BOOM & ZOOM Loudest/Fastest Contest

"MECA Kids" Sound Pressure Level Exhibition Contests For Our Kids

Show & Shine cleanest Rides Judges' Guidelines

MECA, Inc. Mobile Electronics Competition Association, Inc. 5308 Brick Church Pike Goodlettsville, TN 37072-9014 G15-851-PHAT Office G15-855-3460 Fax www.mecacaraudio.com www.boomandzoom.com www.boomandzoom.com www.mecaforums.com www.mgspace.com/MECA\_CAR\_AUDIO mecacaraudio@comcast.net



# Mobile Electronics Competition Association, Inc. Car Audio Club & Contests

5308 Brick Church Pike Goodlettsville, TN 37072 615-851-PHAT Office 615-855-3460 Fax 615-476-PHAT Mobile mecacaraudio@comcast.net www.mecacaraudio.com

# 2010 Rule Book

# **Table of Contents**

- Page 1 Events & Points Accumulation Guidelines
- Page 2
   Team Guidelines & Procedures
- Page 3Discipline & Protest Procedures

# Page 4-5 **Sound Pressure League**<sup>®</sup> - SPL Rules Overview

- Page 6 SPL Pressure Class Formula™Rating System
- Page 7-9 SPL Format General Rules
- Page 10-11 SPL "Amateur Street" Division Rules
- Page 12-13 SPL Street Division Rules
- Page 14-15 SPL Modified Division Rules
- Page 16 SPL "Radical X" Division Rules
- Page 17 SPL "Drive-by SPL Parade" Format Rules
- Page 18 SPL "SPLite" Format Rules
- Page 19 SPL Phat Awards Guidelines

# Page 20-23 Sound Quality League - SQL Rules Overview

- Page 24-25 SQL General Rules
- Page 26-31 SQL Sound Quality Format Rules
- Page 32-35 SQL Installation Format Rules
- Page 36 SQL "RTA Freq Out" Format Rules
- Page 37SQL Phat Awards Guidelines
- Page 38 SQL Sound Quality Score Sheet Example (not available on-line)
- Page 39 SQL Installation Score Sheet Example (not available on-line)
- Page 40 SQL Glossary of Terms

## Contests

- Page 41 Ride the Light Format Rules
- Page 42Boom & ZoomFormat Rules
- Page 43 "MECA Kids" Exhibition Format Rules
- Page 44-45 Show & Shine Guidelines
- Page 46 Show & Shine Score Sheet Example (not available on-line)
- Page 47 Microphone & Sensor Stand Description & Specs
- Page 48Sub-woofer Cone Surface Area Chart
- Page 49 Relative Loudness Chart
- Page 50 Judges' Guidelines







**Events & Points Accumulation Guidelines** 



October 3, 2010 Deadline to Qualify for Finals Soundfest

40 Total Points in Sound Pressure League earn State Champion eligibility for each class and Finals Soundfest invitation. 40 Total Points in SQ in the Sound Quality League earn State Champion eligibility for each class and Finals Soundfest Invitation.

1X Single Point Event - 1st through 5th places awarded points. 1st = 5 pts, 2nd = 4 pts, 3rd = 3 pts, 4th = 2 pts, 5th = 1 pt If SPLite, Limited Classes event: points are awarded to members in standard MECA SPL classes, based on actual standing from that event. Host/sponsor provides awards, 1st - 3rd places

Host/sponsor judges the contest. SPL scores do not count for State Champion Program.

Either SPL, SQL, or both, can be offered by host/sponsor.

SPLite (Limited Classes) - 11 Classes - 3 Amateur Street, 2 Street, 2 Modified, 1 "Radical X", 3 Drive-by SPL ("Radical X" & Drive-by SPL Parade are optional)

SPL Format - 5 Divisions: 3 Amateur Street, 5 Street, 5 Modified, 2 "Radical X", (All but "Amateur Street" are optional) "Drive-by SPL Parade" Format - 5 "Pressure Classes" (Optional)

8 Phat Awards, Best of Show (optional)

SQL - 5 Sound Quality Classes: Stock, Street, Modified Street, Modified (Adding Amateur Optional - 4 Install Classes (Street, Modified, Modex, Extreme), RTA Freq Out, Best of Show, 4 Phat Awards + Phat ICE, Best of Best of Show

2X Double Point Event - 1st through 5th places awarded points. 1st = 10 pts, 2nd = 8 pts, 3rd = 6 pts, 4th = 4 pts, 5th = 2 pts Host/sponsor provides awards, 1st - 3rd places.

MECA Judges conduct the contest. SPL & SQL scores count for State Champion Program.

Either SPL or SQL, or both, can be offered by host/sponsor.

SPL Format - 5 Divisions - 15 "Pressure Classes": 3 Amateur Street, 5 Street, 5 Modified, 2 "Radical X",

"Drive-by SPL Parade" Format - 5 "Pressure Classes" (Optional)

8 Phat Awards, Best of Show

SQL - 7 Sound Quality Classes (Stock, Street, Modified Street, Modified,, Modex, Extreme, Master),

4 Install Classes (Street, Modified, Modex, Extreme), RTA Freq Out, 4 Phat Awards, Best of Show, + Phat ICE, and Best of Best of Show

3X Triple Point Event-SOUNDFEST- 1st through 5th places awarded points. 1st = 15 pts, 2nd = 12 pts, 3rd = 9 pts, 4th = 6 pts, 5th = 3 pts Host/sponsor provides awards, 1st - 3rd places. For Finals Soundfest, 1st - 5th places are awarded.

MECA Judges conduct the contest. SPL & SQL scores count for State Champion Program.

Either SPL or SQL, or both, can be offered by host/sponsor.

SPL Format - 5 Divisions, 15 classes: 3 Amateur Street, 5 Street, 5 Modified, 2 "Radical X", (Modex & "Radical X" are optional) "Drive-by SPL Parade" Format - 5 "Pressure Classes" (Optional)

8 Phat Awards, Best of Show

SQL - 7 Classes (Stock, Street, Modified Street, Modified, Modex, Extreme, Master),

4 Intall Classes (Street, Modified, Modex, Extreme), RTA Freq Out, Best of Show, 4 Phat Awards + Phat ICE, and Best of Best of Show SQ2 - 2 Seat Sound Quality Judging. Intended as prize money class. 2 SQ2 contests required for State Champion and Finals qualification.

Ride the Light - Neon & Accessory Lighting Contest - No points program. Host/Sponsor provides awards, 1st - 3rd places. For Finals Soundfest, 1st - 5th places are awarded. 2 Classes: Best Interior, Best Exterior

Boom & Zoom - LOUD & FAST - Dragstrips only - No points program, but some tracks may offer independent series points programs. Host/sponsor provides awards, 1st - 3rd places.

MECA Judges conduct the contest.

B&Z - 4 Classes: BZ1 - BZ4, Medals for Loudest and Fastest in each class

If you have questions on contest classes or awards, please contact the MECA office or the host/sponsor prior to the event. Page 1



# 2010 Team Guidelines & Procedures

1) MECA teams are created by the Retail Members and Manufacturer Members to enhance their customers and employees visibility at MECA events. MECA team members can travel together, work together, and enjoy their MECA experiences more when part of a properly managed MECA team. The team is recognized when the Retail Member or Manufacturer Member pay the yearly membership fee.

2) MECA teams can be independent, and the team must pay a yearly membership fee of \$50 for this official recognition and service.

3) MECA team members must tell the event registration person that they are on a team, and make sure that this is entered on their score sheet on the line that says "MECA Team". The MECA member MUST present their membership card and make sure that their membership number is listed on the score sheet. They must do this at every event with every score sheet.

4) MECA team members must be MECA members in good standing to be listed as team members in the event results. This means that their membership must be current.

5) MECA members who are on MECA teams will have that team name listed next to their event results on the web site. This takes extra time and effort, and is much easier to process when the score sheet is properly filled out, listing the MECA team on the appropriate line.

6) MECA team registration includes one competition membership, good for one competition vehicle. A membership card will be issued to the Retail Member, Manufacturer Member, or independent team for the vehicle. This vehicle is usually for the owner of the store or manufacturer representative's demo vehicle, but it can be assigned to one competitor, and only one competitor, for the season. For independent teams, the card is usually for the President or competition leader, but it can be issued to a designated team member for competition registration and privileges.

7) We have established a MECA Team Participation Award that is presented at the end of the season. It is presented to the team that has the most members entered at MECA shows throughout the season. Each member counts one time, for each event attended. This is not based on the number of entries each member makes at the show, but on the fact that they were there and competed. For example, Jimmy Loud of Team Really Loud get 1 point for being at the show, not a point for each format entered. If 5 team members enter a given event, then the team gets 5 points toward the Team Participation Award.

8) If a MECA team member is not properly recognized in the Event Results, then the team captain or team member can notify the Event Director, or Commissioner if necessary, of the mistake, or omission, and have it corrected. MECA strives to accurately report all event results and facts at all times.

2010 Rule Book - Page 2

MECA (Mobile Electronics Competition Association, Inc.)			
	5308 Brick Church Pike, Goodlett	sville, TN 37072-9014	
www.mecacaraudio.com	615-851-PHAT(7428) Office	615-855-3460 Fax	mecacaraudio@comcast.net







# 2010 Discipline & Protest Procedures

A. Rules & Ethics Committee Membership Status Review Procedure

1. A MECA member's actions and/or behavior may be reviewed for the following reasons:

a) Cheating or association with cheaters.

b) Disrespect or threat to judges or competitors during the contests/events.

c) Disrespect or threat to judges or competitors on web site forum.

d) Direct accusations of misconduct by judges or officials on public forums.

e) Disorderly conduct, including use of foul language, at the contests/events.

f) Writing bad checks to the club; misrepresenting the business interests of the club.

g) Written protest within 24 hours of a contest.

2. Complaints or protests can only be filed by MECA members.

a) A formal complaint must be filed with the Commissioner. Also, the Commissioner , a Judge, or any R&E Committee member may file a complaint, when necessary.

b) A description of the infraction should be thorough and verifiable. When possible, a list of witnesses should be included in the complaint.

3. The Commissioner will forward the complaint, via e-mail, to all members of the R&E Committee for review and feedback.

a) The Commissioner may recommend a specific action or punishment to suit the case.
 b) R&E Committee members will have 48 hours to respond to the complaint.

c) The Commissioner, or his appointed agent, will assess opinions of the R&E Committee members, determine the majority opinion, and

present a ruling.

4. Upon verification of the infraction and presentation to the R&E Committee members, the following sanctions are possible:

a) Loss of points and qualified scores at a specific event.

b) Loss of membership status, privileges, and benefits.

c) Suspension - a period of time will be specified that suits the case.

d) State Championships and eligibility for Finals Soundfest may be negated.

e) In the most severe cases, the R&E Committee may ban a person from further association with the club.

## B. Filing a Protest at a Contest

1. Only a competitor in the class may protest another competitor in that class.

a) The Head Judge must be advised of the protest.

b) Protests must be filed before the awards are presented.

c) The Head Judge will give the protester an official form that must be filled out and returned to the Head Judge with the protest fee.

d) The protester must be specific about the nature of the protest.

The judge(s) will only inspect or authenticate the system, vehicle, install, or score based on the specifics of the protest.

e) The protest fee will be \$50 cash.

f) For SPL: When the score is protested, the protestee will have 5 minutes to prepare the system/vehicle for the retest.

g) For SPL: When the score is protested, the protestee must back up the score within 1 dB.

h) When the protest is determined to be valid, the Head Judge returns the protest fee to the protester.

i) When the protest is determined to be invalid, the protestee and the club split the protest fee.

MECA, Inc. Mobile Electronics Competition Association, Inc. 5308 Brick Church Pike Goodlettsville, TN 37072-9014 615-851-PHAT Office 615-855-3460 Fax www.mecacaraudio.com www.boomandzoom.com mecacaraudio@comcast.net



## L Purpose & Intent

MECA is a sanctioning body for Competitors involved with car audio sports. MECA is a membership association formed to encourage, support, and reward Competitors involved in car audio sports. This Rule Book is intended to outline the specifics of competition in the Sound Pressure League (SPL). It is the responsibility of each Competitor to review, comply, and honor the rules in cooperation with event officials. MECA strives to present each Competitor with a fair and unbiased forum in which competition is regarded as worthwhile and enjoyable.

#### **IL** Objective

The SPL - Sound Pressure League - working with criteria established in the Rule Book, will objectively evaluate each Competitor's vehicle to identify the loudest car/truck audio systems in Amateur Street Division classes (AS), Street Division classes (S), Modified Division classes (M), "Radical X" Division classes (X), and the "Drive-by SPL Parade" Format classes (DB). Systems/vehicles are categorized by complexity of design and potential as indicated by MECA's "Pressure Class" Formula. For the Amateur Street Division, the Competitor is required to be a Consumer beginner in car audio sports, with no past or present Professional 12-Volt Industry employment history.

#### **III. Format and Division Definitions**

#### SPL Format - 15 "Pressure Classes" in 4 Divisions

#### Amateur Street (AS1, AS2, AS3)

The Amateur Street Division, with 3 "Pressure Classes", is for entry level Consumer Competitors who are beginning their involvement in car audio sports. Most systems at this level are very basic, compared to experienced Competitors' systems. The intent is that Amateur Street Division Competitors own their equipment and do not borrow it. Any Consumer Competitor who meets the requirements may compete in the Amateur Street Division, given that the vehicle and audio system meet the requirements presented in the Rule Book. The rules stipulate that no Professional, Master, or sponsored competitors are permitted to enter this class.

#### Street (S1, S2, S3, S4, S5)

The Street Division, with 5 "Pressure Classes", is intended for competitors with some vehicle and system modifications allowed. Vehicles are still intended to be daily drivers, and not SPL specific.

#### Modified (M1, M2, M3, M4, M5)

The Modified Division, with 5 "Pressure Classes", is intended for vehicles and systems that are designed to maximize sound pressure level, including woofer walls and pick-up truck cut-throughs, but are still capable of being daily drivers.

M1, M2, and M3 are restricted to vehicles that have non-permanent modifications behind the B-pillars and still utilize a 12 volt electrical system, with unlimited batteries, but are limited to a maximum of two (2) alternators.

M4 and M5 allow for limited modifications in front of the B-pillars as well as structural, chassis, and/or body modifications behind the B-pillars and, although they can be driven daily, are designed strictly with SPL competition in mind, and are allowed to run any voltage level with unlimited batteries and/or charging system modifications.

#### Radical X (X1, X2)

The "Radical X" Division, with 2 "Pressure Classes", for extremely modified exhibition systems/vehciles, is intended for hard-core SPL Competitors with unusual or concept vehicles.

#### Drive-by SPL Parade (DB1, DB2, DB3, DB4, DB5) Format

The "Drive-by SPL Parade" Format, with 5 "Pressure Classes", is intended to measure sound pressure levels outside the vehicle, while playing fullrange music.

# **IV. Definitions of Competitors**



For the purpose of fair classification, the following guidelines are stated to define Competitors.

Amateur: Amateurs are entry level Consumers who are beginning their involvement with car audio sports and MECA. Amateurs pay for equipment and installation, or do the installation work themselves, or with assistance. Amateur Competitors own all of their system components and may not borrow equipment for the contest. Amateurs have no employment history with any business involved with the 12-Volt Industry nor are not related (includes girlfriend, fiancee, spouse) to Professionals or Manufacturers who are in the 12-Volt Industry. Success and participation at sanctioned events by MECA or other organizations (Examples: competing at a Finals event, high ranking, 2 or more years as a member in another organization) may prohibit competing as an Amateur. Any Competitor who has been a State Champion or World Champion in MECA is not considered an Amateur. Anyone who is or has been a Judge in MECA or any other sound-off organization is not an Amateur.

**Consumer:** Anyone who purchases equipment and installation services at normal prices available to the general public, and/ or does the installation work themselves, is a Consumer. Consumers have no employment history with any business involved with the 12-Volt Industry and are not related to Professionals or Manufacturers who are in the 12-Volt Industry. Consumers are not sponsored competitors.

**Sponsored:** Any Competitor who receives equipment and/or installation services for free or at a discounted price, which is not available to the general public, is considered sponsored. Competitors who receive financial compensation or reimbursements, example: travel equipment or expenses, are also considered sponsored.

**Professional:** Anyone involved in the 12-Volt Industry, in any capacity, qualifies as a Professional. Anyone employed by a 12-volt related business or related to someone who works in a 12-volt related business is a Pro: retail sales, installation, management, or ownership. Anyone who leaves the mobile electronics industry is considered a Pro, but they may petition the MECA Rules & Ethics Committee to change the classification. Decisions made by the MECA Rules & Ethics Committee are final.

Manufacturer: Any Competitor who works directly for a Manufacturer or operated a Manufacturer's demo Vehicle is considered a Manufacturer.

# V. Best of the Best of Show (BOBOS) Award

The winner of this award will be the Competitor with the best overall audio system performance at an event based on their competition results, determined by the following scoring system.

Using the Competitor's true individual scores (not placement) in SPL, DBSPL, SQL, RTA (score X 2), and Install, those scores will be averaged to get an overall average score, with the highest overall average score winning BOBOS.

If a show does not offer all five (5) formats then the score will be averaged based on the formats that are offered.

SPL offers a maximum score of 150 dB, Drive-by SPL Parade offers a maximum score of 130 dB, SQ is a maximum of 100 points, RTA is a maximum of 80 points (perfect score of 40 X 2), and Install has a maximum of 100 points. If a Competitor does not compete in an SPL or SQL contest offered at the event, the Competitor gets no points, so the score is "0" - zero for that contest.

For example, if a Competitor has a 152.5 in SPL, 126.1 in DBSPL, a 78 in SQ, a 32 in RTA, and 81 in Install, then it would be calculated as: SPL is capped at 150 dB and the RTA Freq out score is doubled. So, 150+126.1+78+64+81 = 499.1 then divide by 5 to get an average score of 99.82.

Tie-breakers: 1st SQ Score; 2nd Install Score; 3rd SPL Score; 4th Drive-by SPL Score; 5th RTA Freq Out Score

Even if they are offered, Ride the Light and Boom and Zoom are not factored into the BOBOS scoring.

Phat Awards and Best of Show awards are not factored into the BOBOS scoring.



**Pressure Class<sup>™</sup> Formula** 

{(Total Amperage of In-line Fusing X 10) + Woofer Cone Surface Area} = Pressure Class # *Please consult Division Rules for complete definitions.* 

Examples:

<b>30</b> amps + 2-12 = 526	40 amps + 1-12 = 513	<b>30</b> amps + 1-15 = 477	50 amps + 1-18 = 754
50 amps + 1-12^2 = 644	50  amps + 2 - 12 = 726	100 amps + 1-15 = 1177	100 amps + 2-18 = 1509
$50 \text{ amps} + 2 - 10^{2} = 700$	100 amps + 2-12 = 1226	200 amps + 2-15 = 2353	200 amps + 2-18 = 2509
50 amps + 3-10 = 736	200 amps + 2-12 = 2226	400 amps + 4-15 = 4707	400 amps + 4-18 = 5018

Fuse Requirements for Qualified Score: Fuses must have value stamped in the metal, except ATC Permitted: AGU, AUE, ANE, ATC, ANL, or Mini-ANL (also known as MIDI); 32 volts maximum

# **SP** - *Sound Pressure* Format TM Measures dB inside the vehicle. 15 "Pressure Classes" in 4 Divisions

AS - Amateur Street - Basic, daily use systems. Beginners & those who have not been champions. Owns equipment. No Pro's. AS1 0 - 550 -- 1 Fuse Maximum AS2 551 - 1000 -- 2 Fuses Maximum AS3 1001 - 2000 -- 3 Fuses Maximum

S - Street - Intended for daily driven vehicles. Competitors show who can do the most with the least. S1 0 - 550 -- 1 Fuse Maximum S2 551 - 1000 -- 2 Fuses Maximum S3 1001 - 2000 -- 3 Fuses Maximum S4 2001 - 4000 -- 4 Fuses Maximum S5 4001+ -- Fuses Not Required

**M** - **Modified** - Intended for vehicles and systems that are designed to maximize Sound Pressure level, including woofer walls and pick-up truck cut-throughs, but are still capable of being daily drivers.

- M1 0 -550 -- 1 Fuse Maximum
- M2 551 1000 -- 2 Fuses Maximum
- M3 1001 2000 -- 3 Fuses Maximum
- M4 2001 4000 -- 4 Fuses Maximum
- M5 4001+ -- Fuses Not Required

X - Radical X - Vehicles with major modifications; for the hard-core Sound Presssure League Competitor. X1 0 - 4000 -- Fuses Required X2 4001+ -- Fuses Not Required

# **DB**- Drive-by SPL Parade Format

Measures dB outside the vehicle, in 5 "Pressure Classes", while playing full-range music.

DB1 0 - 550 -- 1 Fuse Maximum DB2 551 - 1000 -- 2 Fuses Maximum DB3 1001 - 2000 -- 3 Fuses Maximum DB4 2001 - 4000 -- 4 Fuses Maximum DB5 4001+ -- Fuses Not Required



# 2010 Sound Pressure League Format and "Drive-by SPL Parade" Format General Rules

#### A. Vehicle Requirements

SOUND PRESSURE

1. Except for "Radical X" Division, all vehicles must be street legal (registered & licensed, with seat belts in factory locations, DOT approved automotive seats, automotive glass in vehicle, brakes, lights, etc.). Modified Division vehicles only need the front driver and passenger seat belts. All other seat belts behind the B-pillars may be removed in Modified Division.

2. Passenger compartment must be clear of trash and clutter, other than automotive-type floor mats.

3. Vehicle must be driven in and out of the judging lane under its own power, operated by owner/member or Support Team member.

4. Bracing Teams are permitted in all SPL Divisions but are not permitted in "Drive-by SPL Parade".

5. Sun visors must be in the up position during the pass and may not be weighed down by CD's or other items.

6. Maximum engine idle 2,000 RPM. Competitor must be able to prove RPM level or accept Judge's ruling. RPM level will be verified with the Competitor out of the vehicle.

7. No engine revving, regardless of RPM level - pass will be disqualified. Competitors may not "throttle" the gas pedal to increase the engine's RPM level during their pass.

#### **B.** Owner Requirements

1. Competitors must own the vehicle(s) that they use in competition. Driver's license & vehicle registration required to verify eligibility for State Championships, Points Championships, and World Finals Soundfest eligibility. Regardless of registration, a vehicle may not be used by more than one Competitor at a show. Additionally, a Competitor may not use another Competitor's vehicle.

2. Only 1 person, either the owner/member or Support Team member, is allowed to operate the system and/or vehicle during the pass.

3. Only the Owner/Member or Support Team member is allowed to be in the vehicle during the pass.

4. Competitors who elect to sit in the vehicle must sit on the opposite side of the vehicle from where the sensor is placed and must wear hearing protection.

5. No one is allowed in the vehicle when sound pressure level equals or exceeds 145.0 dB - pass will be disqualified, but an immediate retest will be offered. No one is allowed in the vehicle in "Drive-by SPL Parade" regardless of SPL level.

6. Competitors who are not able to operate their system from outside the vehicle may reach into the vehicle to adjust volume, change, or pause tracks but may not manipulate any other equipment nor change fuses. In this situation, the Competitor must properly wear hearing protection and keep his/her head out of the vehicle.

Competitors may only compete in one (1) "Pressure Class" per Format (i.e. SPL and "Drive-by SPL Parade") at an event.
 Competitors may use multiple vehicles at an event, but must purchase separate score sheets for each vehicle and may not enter multiple vehicles in the same format (i.e. SPL or DBSPL).

9. MECA members using multiple vehicles must have separate membership numbers to qualify each vehicle for State Championships, Points Championships, and/or World Finals Soundfest eligibility.

10. A Competitor may only hold records in one (1) "Pressure Class" per Division, i.e., AS, S, M, or "Radical X", or "Drive-by SPL Parade". If a member competes in more than one (1) "Pressure Class" in a Division, the State Record earned first is the only one that counts.

11. In the event of a tie of a State Record, the person who originally set the record will retain the record. Records must be beaten to change hands.

12. MECA members must earn 40 Points in a "Pressure Class" to qualify for State Championships, Points Championships, and/ or World Finals Soundfest eligibility for that "Pressure Class". In the event of a tie of a State Record, the person who originally set the record will retain the record. Records must be beaten to change hands. Points for State Championships accumulate up to and including the State Finals or Regional Soundfest, as determined by the Commissioner, and posted on the event flyer and web site Event Schedule.

13. Competitors and teams must provide all judges proper courtesy and respect. Any unsportsmanlike conduct may result in disqualification and/or suspension from MECA.



# C. Judging Criteria

1. MECA "Pressure Class" Formula will be used to determine "Pressure Class" Ratings:

{(Total Amperage of In-Line Fusing x 10) + Total Square Inches of Woofer Cone Surface Area)} = Pressure Class #

2. Only in-line fusing for subwoofer amplifiers will be calculated in the formula for qualifying members' systems. If multiple fuses are run in series, only the fuse closest to the amplifier(s) will be counted.

Power sources may not be wired in after the fuse, including but not limited to, Batteries, Capacitors, Alternators, or unused Amplifiers.
 In-line fuse(s) must be placed immediately before the subwoofer amplifier(s) a maximum of 18" from the amplifier(s) and all positive power wires leading to the subwoofer amplifier(s) must be fused.

5. In a multi-amplifier installation which utilizes three (3) or more subwoofer amplifiers. The 18" rule will be waived when the fuse holder or fuse bank is within 18" of one (1) of the subwoofer amplifiers and no other rules are violated.

6. A single fuse holder may be used to power multiple amplifiers or multiple fuse holders may be used to power a single amplifier. However, AS1, S1, M1, & DB1 are limited to one (1) fuse, AS2, S2, M2, & DB2 are limited to two (2) fuses, AS3, S3, M3, & DB3 are limited to three (3) Fuses, S4, M4, and DB4 are limited to four (4) fuses, X1 may use multiple fuses, and S5, M5, X2, and DB5 are not required to have fusing.

7. In-line fuse(s), fuse holder(s), and/or power wire(s) leading from fuse holder(s) to subwoofer amplifier(s) may not be obstructed and must be fully accessible for verification.

8. In-line fuses are limited to AGU, AUE, ANE, ATC, ANL, or Mini-ANL (also known as MIDI) type fuses which have the fuse value stamped in the metal,. Exception: ATC fuses are not required to have the value stamped in the metal.. Fuses maximum rated voltage is 32 Volts. 9. Circuit Breakers are not considered fuses.

10. Once system has been verified, fuses may not be replaced without Judge's approval. Fuses may not be changed during the official test.

11. Fuses may not be altered or tampered with in any way. Fuses may not be "iced down".

12. For non-members and members who are not qualifying: If the system does not have in-line fusing, then the total of on-board fuses will be used in the "Pressure Class" Formula. If the amplifier(s) do not have on-board fuses, then one-half (1/2) the amplifier's Maximum CEA 2006 rating will be used in order to determine class assignment. If that rating is not available, then one-half (1/2) the maximum peak rating will be used. If that is not available, then one-half (1/2) the theoretical rating will be used. If that is not available, the one-half (1/2) the theoretical rating is determined by doubling the power when the resistance is halved. For example: the amp has a rating of 500 watts at 4 ohms from the manufacturer and is 1 ohm stable with no rating, therefore, it has a theoretical rating of 2000 watts at 1 ohm and one-half (1/2) of that would be 1000. In these cases:

{(Total Woofer Amplifier Power/2) + Total Sqare Inches of Woofer Cone Surface Area} = Pressure Class #

Subwoofer amplifier(s) must be properly fused, using in-line fuses (per B.8.) in order for a competitor to earn points at a show, and/or to have their score applied toward a State Record and possible State Championship, Points Championship, or for World Finals Soundfest qualifications.
 Competitor selects and supplies source material. (i.e., CD, Tape, Radio, MP3's, iPod's, digital jukeboxes, or any other electronic media source). Specific restrictions are outlined for Amateur Street and "Drive-by SPL Parade".

15. Peak frequency must not be above 100 Hz, as determined by the TermLab system.

16. Once vehicle has entered lane & Judge is ready to begin, Competitor has 5 minutes to begin pass or pass will be disqualified. At the conclusion of the pass, once the Judge has removed the sensor from the vehicle, the Competitor has 5 minutes to drive the vehicle out of the lanes or the pass will be disqualified.

Pass is timed for 30 seconds with TermLab scoring system set to "Peak Hold", except for "Drive-by SPL Parade" which is set to "Average".
 Retry will be allowed if system fails and score does not exceed 130 dB (105 dB for "Drive-by SPL Parade"). Blowing subwoofer amplifier fuses does not constitute a system failure. Competitor will have 5 minutes to fix problem and be ready for retest. Under no circumstances will a Competitor be allowed more than one retest under this rule.

19. Ties will be settled with a formal tiebreaker. Highest score wins place in the class in which tie happened. i.e., if there is a tie for 2nd place, the winner of the tie breaker gets 2nd place and the loser gets 3rd place. Scores set in a tie breaker do not effect any other standings.

20. The "SPL Best of Show" award will be presented to the Competitor who posts the highest SPL score in the Sound Pressure Level contest. The "Drive-by SPL Parade Best of Show" will be presented to the Competitor who posts the highest score among those Competitors. The "Sound Pressure League Best of Show" will be presented to the Competitor who posts the highest combined scores in SPL and Drive-by SPL Parade contests.

21. The TermLab meter is the official MECA meter, and will be used for all Double or Triple Point events. State Records may only be set at a Double or Triple Point Event, using the TermLab metering system and TermLab sensor.

22. World Records may only be set at the World Finals Soundfest, using the TermLab metering system and TermLab sensor.

23. MECA reserves the option to supply fuses at 3X Triple point events and the 2010 World Finals Soundfest, should an "Official Fuse Sponsor/ Supplier" be found.

24. MECA World Finals Soundfest SP and Drive-by SPL Parade contests will each be a "Qualifying Event". A "Qualifying Event" is a 2 day Soundfest where the first day "Top 3" scorers in each class qualify and compete on the second day to determine 1st, 2nd, and 3rd place winners. 25. Any discretionary rulings at a show will be documented by the Head Judge and forwarded to the Commissioner and the MECA Rules & Ethics Committee for an official ruling, and possible rule clarification or amendment.



### **D. Sensor Placement**

1. Competitor cannot touch or move sensor or stand at any time. Competitor may not sit on the same side of the vehicle where the sensor is placed.

2. Sensor placed on MECA approved stand or holder, provided by Judge, 26" High in the Driver's Seat. The seat and seat back of the seat that the sensor stand is placed in must be in a factory locked position and must allow the stand to sit flat on the seat bottom. The stand may not be leaned forward.

3. Sensor faces front of vehicle at all times in horizontal position, except for "Drive-by SPL Parade".

4. With the seat in a factory latched position, the sensor stand will be placed in the center of the seat with the rear of stand touching the seat-back, or be as close as possible.

5. With the sensor and stand placed, the seat must be moved to place the sensor a distance of 20" from the windshield as measured on the horizontal plane, except for "Radical X" and "Drive-by SPL Parade".

6. If the Competitor's seat is not able to move forward enough for the sensor to reach 20", then with the seat in the forward most latched position, the stand will be moved forward to allow the sensor to reach 20", and may weighted down with sandbags or equivalent. However, the base of the sensor stand must still be completely on the seat.

7. Except for Amateur Street, "Radical X", and "Drive-by SPL Parade", Competitors may choose to have sensor placed in the front passenger's seat following the same guidelines as the driver's seat. Competitors must inform the judge of this choice prior to sensor being placed in the vehicle.

## **E. System Requirements**

1. Sound pressure must be created by car audio equipment system sources, and not by any other physical, chemical, or mechanical means.

2. The enclosure is defined as not only the sub box, but also any equipment attached to the sub box, i.e., amps, speakers, subwoofers, caps, batteries, etc.

3. A Battery is defined as a single case unit with a Manufactures rating of up to 1,200 Cold Cranking Amps, 1,500 Cranking Amps, or a 5 Second Discharge Rating of up to 2,000 amps. Any battery that has neither a CCA, Cranking Amps, nor a 5 second discharge rating from the manufacturer will not be allowed in the Amateur Street Division. 4. All equipment, including but not limited to amps, speakers, enclosures, fuse holders, and batteries, must be securely mounted with-in the vehicle and visible/accessible for verification, except as permitted by specific Division rules.

5. No externally mounted batteries permitted, except as provided by specific Division rules.

6. Modifications, changes, and/or additions to audio or electrical system (including fuses) must be approved by the Judge after initial verification. Once verified, the fuse style may not be changed. Fuses may be changed as long as the Pressure Class remains the same. If the changes do result in a competitor's Pressure Class number being changed before the first pass, there will be a \$10 fee assessed to amend the score sheet. Amplifiers and woofers may be replaced, with Judge's approval, after the first pass with identical equipment only: brand name and model number.

7. Once the Competitor has made the 1st pass he/she may not change Divisions or Pressure Classes within a Division.

Intentional cheating and/or manipulation of the rules will result in permanent suspension from MECA competitions and events.

Alcohol, drugs, weapons, and violence of any nature prohibited at MECA events.

Hearing protection required at all events.



AMATEUR STREET - Intended for BASIC, daily use systems. The intent is also that the Competitor owns his/her equipment, and does not borrow it. Amateur Street is for first year consumer Competitors, or those Competitors who have never been World or State Champions. 12-Volt Industry Professionals are not permitted to compete in the Amateur Street Division. Competitors who have had success in other competition organizations are not eligible to compete in the Amateur Street Division.

3 Amateur Street Division "Pressure Classes"

AS1 0 - 550 AS2 551 - 1000 AS3 1001 - 2000

#### **A. Vehicle Requirements**

 No commercial vehicles. (i.e. Box Trucks, Cargo Vans, Limos, Hearses, shop demo vehicles, etc.).
 OEM headliner or functional equivalent must be in vehicle and may be reupholstered, but not built with fiberglass or any other hard rigid material. Headlinersmust be able to be removed, if necessary, to verify sound deadening on the roof of the vehicle.

4. Rear deck must maintain factory appearance, have no holes and must have some type of upholstery/covering. 5. All rear panels, panel covers, and/or carpet must be in place including side, rear, & spare tire cover. Only the spare tire cover panel can be replaced with similar panel as part of a custom installation (i.e., amp rack and/or speaker enclosure mounted in spare tire well).

- **B.** Owner Requirements
- 1. Only the owner/member of the vehicle may operate vehicle and system during pass.

2. Once an Amateur Street competitor moves up to the Street, Modified, or "Radical X" Division they forfeit their Amateur Street Division status.

**3.** Any Amateur Street Competitor who is placed in another Division has the right to appeal in writing to the Commissioner and MECA Rules & Ethics Committee, to review their Amateur Street status.

#### C. Judging Criteria

1. Any combination of open doors, windows, trunks, and/or hatches is allowed. Hood must be completely closed during pass. Sunroofs may be opened or removed provided they are factory designed to be removed by the user without the use of tools.

2. Official SPL test must be taken with the vehicle's engine off.

3. Competitors must play musical track(s), (i.e. songs) for the entire pass. No tones, sweeps, and/or bass only tracks. 4. Mids and highs must be able to be heard outside the vehicle.

5. Competitors must use commerically available music tracks. Burnt CD's, iPods, MP3 players, etc. will be allowed at 1X, 2X, and 3X contests, however, at MECA World Finals ONLY original mass produced CD's may be used. 6. Lyrics in songs may not include any foul or offensive language.

#### **D. Sensor Placement**

1. Placement per General Rules.



# 2010 Amateur Street Division Rules

**E.** System Requirements

1. No modifications in front of the B-pillars, with the intent to increase sound pressure level score. Only aftermarket rubberized/asphalt type sound deadening materials may be used, 2 layers maximum in any area.

2. Spray foam, resins, duct tape, threaded rod or pipe, or any similar materials used to increase sound pressure level score are prohibited. Finished fiberglass enclosures, used as part of an install, will be permitted.

Dash modifications are limited to mounting of: automotive gauges (i.e., tach or voltage gauge), video system components (i.e., screen(s), DVD player, game console) and/or mounting front stage speakers for SQL applications.
 Head unit may slide out of the factory location and be supported by the Competitor, provided that no wires are showing.

5. Enclosure must be mounted behind rear seat. No portion of the enclosure may rest on the rear seat while in the fold down position.

6. Rear vision must not be obscured in any way by any part of the system. The top of the enclosure must be no higher than the top of the rear seats when they are in the factory upright and latched position. Headrests are not considered part of the seat. If the headrest is molded into the seat, the top of the seat is considered the highest spot on the seat where there is a visible difference between the seat and headrest.

7. Pickup trucks: enclosure can not block any 2-way viewable glass. All equipment must be securely mounted in the cab of the truck.

a. Standard cab trucks: enclosure must fit behind seat in the most forward position. If aftermarket seats or factory replacement seats are added, and the factory brackets aren't used, then the brackets to hold said seats down must be made to line up with the rear factory bolts as to not increase the area behind said seats.

b. Extended cab trucks, including trucks with 3rd or 4th door options: enclosure cannot extend past front door jambs, and, factory seats must be in factory location and position.

c. Quad/Crew cab pickups, with 4 full size doors: the back seat must stay in, but enclosure may sit in seat
8. All 2 seat non-trunk vehicles: enclosure must be no higher than the bottom of the rear side glass and must be no more than 26" from the center of the top rear door plastic panel. Plastic side panels may not be removed or altered.
9. Seats cannot be removed and all seats must be properly mounted, however, rear seats may be folded down provided they are factory designed to do so, and can be returned to a latched position after pass without moving the enclosure or any equipment.

10. If the vehicle is not equipped with factory-folding rear seats, then the rear seat back may be unbolted and laid down on the rear seat bottom as to approximate the design of factory folding seats. Rear seat back must be able to latch or be placed back in the original factory position at the conclusion of pass without moving the enclosure or any equipment.

11. In addition to a battery in the factory location, one (1) additional battery may be added either under the hood or in the vehicle's cargo area. Limitations on individual batteries are per the General Rules. Capacitance is limited to 10 Farads. Additional batteries may be installed in the vehicle for use in Drive-by SPL Parade, but must be completely disconnected during the SPL pass.

12. Only commercially available 12 volt car audio specific fuse holders may be used in Amateur Street. Fuse holder(s) may not be modified in any way.

- Some unique situations may arise that disqualify vehicle, system, and/or Competitor from **Amateur Street** Division, determined by MECA Judges.



**Street** – Intended to test a Sound Pressure League vehicle's sound pressure level. Vehicles are intended to be daily drivers, and not SPL specific.

5 **Street** "Pressure Classes" S1 0-550 S2 551-1000 S3 1001-2000 S4 2001-4000 S5 4001+

#### **A. Vehicle Requirements**

1. No modifications to the vehicle, except for the limited modifications outlined in A.2 through A.15.

Only aftermarket rubberized/asphalt type sound deadening materials may be used through out the vehicle, 2 layers maximum.
 Spray foam, resins, duct tape, or any similar materials used to increase sound pressure score may only be used in the vehicle's cargo area

4. OEM headliner or functional equivalent must be installed through out the vehicle and may be reupholstered, but not built with fiberglass or any other hard rigid material. Headliners must be able to be removed, if necessary, to verify sound deadening on the roof of the vehicle. Equipment may not be mounted on the headliner.

5. OEM Door panels may only be modified and/or rebuilt to accommodate front stage speakers. Modifications and/or rebuilds are limited to the area required for mounting of said speakers and must be finished and/or upholstered. Raw metal, wood, or fiber-glass build-outs commonly used to increase sound pressure level are prohibited.

6. OEM floor covering or functional equivalent must be installed throughout the vehicle but may not built with fiberglass or any other hard rigid material. Floor Covering must be able to be removed, if necessary, to verify sound deadening on the floor of the vehicle.

7. Dash modifications are limited to mounting of; automotive gauges (i.e., tach or voltage gauge), for video system components (i.e., screen(s), DVD player, game console), relocation of source unit, and/or mounting front stage speakers for SQL applications.
 8. Dash may only be recovered with a cloth type material. Painting to match a color scheme of the vehicle will also be allowed.
 9. Center consoles may not be removed or rebuilt.

10. Front and rear seats must be installed and properly mounted, however, rear seats may be folded down provided they are factory designed to do so, and can be returned to a latched position after pass without moving the enclosure or any equipment. 3rd Row seats are considered part of the cargo area and may be removed.

11. If the vehicle is not equipped with factory-folding rear seats, then the rear seat back may be unbolted and laid down on the rear seat bottom as to approximate the design of factory folding seats. Rear seat back must be able to latch or be placed back in the original factory position at the conclusion of pass without moving the enclosure or equipment

12. Headrests may be placed in any factory position but may not be removed.

13. Rear deck must maintain factory appearance, have no holes and must have some type of upholstery/covering.

14. Modifications to the vehicle's cargo area are limited to Non-Permanent Modifications. Cutting of metal is prohibited. 15. Any brackets, panels, 3rd row seats, and/or non-structural supports in the cargo area that can be unbolted or unscrewed may be removed, provided they can be reinstalled using factory fasteners and do not violate any other rules in section D.

#### **B. Judging Criteria**

1. Any combination of open doors, windows, trunks, and/or hatches is allowed. Hood must be completely closed during pass. Sunroofs may be opened or removed provided they are factory designed to be removed by the user with out the use of tools.

**C. Sensor Placement** 

1. Placement per General Rules.



#### **D.** System Requirements

1. Enclosure must be mounted behind rear seat. No portion of the enclosure may rest on the rear seat while in the fold down position. Any equipment mounted in areas other than the cargo area must be installed in such a way as to not interfere with the normal operation, function, seating, seating capacity, or leg room of the vehicle.

2. Rear vision must not be obscured in any way by any part of the system. The top of the enclosure must be no higher than the top of the rear seats when they are in the factory upright and latched position. Headrests are not considered part of the seat. If the headrest is molded into the seat, the top of the seat is considered the highest spot on the seat where there is a visible difference between the seat and headrest.

3. Pickup trucks: enclosure must not block any 2-way viewible glass. All equipment, excluding batteries, must be mounted in the cab of the truck.

a. Standard cab trucks: enclosure must fit behind seat in the most forward position. If aftermarket seats or factory replacement seats are added, and the factory brackets aren't used, then the brackets to hold said seats down must be made to line up with the rear factory bolts as to not increase the area behind said seats.

b. Extended cab trucks: enclosure cannot extend past front door jams, but, factory jump seats may be removed

c. Quad/Crew cab, with 4 full size doors: the back seat must stay in, but enclosure may sit in seat.

4. All 2 seat non-trunk vehicles: enclosure must be no higher than the bottom of the rear side glass but may not exceed 24" and must be no more than 26" from the center of the top rear door plastic panel. Plastic side panels may not be removed or altered. 5. No podiums allowed, however, head unit may be held outside the vehicle

6. Upgraded electrical and charging systems allowed, however, vehicle is restricted to only one (1) alternator and a maximum of 15.0 volts at the Subwoofer Amplifier(s).

7. Capacitors are allowed. There is no capacitance limit.

8. Only 12-volt batteries, in parallel, are permitted. There is no restriction on the number of batteries.

9. Primary battery may be relocated. All batteries must be securely mounted, and must be located either under the hood and/or in the trunk/hatch/cargo area only. Pick-up trucks may mount batteries in the bed provided they are covered and protected.



- Some unique situations may arise that disqualify vehicle, system, and/or competitor from **Sound Pressure League Street** Division, determined by MECA Judges.



**Modified** - Intended for Sound Pressure League vehicles that have non-permanent modifications behind the B-pillars that are designed to maximize sound pressure level. Includes vehicles with woofer walls and pick-up trucks with cut-throughs. Vehicles are still capable of being daily drivers.

5 Modified "Pressure Classes"

M1 0-550 M2 551-1000 M3 1001-2000 M4 2001-4000 M5 4001+

A. Vehicle Requirements

1. No modifications in front of the B-pillars, except for the limited modifications outlined in A.2 through A.13.

2.a. For M1, M2, and M3: only rubberized/asphalt type sound deadening material is allowed to be used in front the B-pillars, 2 layers maximum in any area.

2.b. For M4 and M5: only rubberized asphalt type sound deadening material is allowed to be used on the floor in front of the B-pillars, 2 layers maximum in any area.

3.a. For M1, M2, asd M3: spray foam, resins, duct tape, or any similar materials used to increase sound pressure score are prohibited in front of the B-pillars.

3.b. For M4 and M5: spray foam, resins, duct tape, or any similar materials used to increase sound pressure score are permitted throughout the vehicle as long as they do not violate any other rules.

4.a. For M1, M2, and M3: OEM headliner or functional equivalent must be in the vehicle in front of the B-pillars and may be reupholstered, but not built with fiberglass or any other hard rigid material. Headliners must be able to be removed, if necessary, to verify sound deadening on the roof of the vehicle.

4.b. For M4 and M5: OEM headliner may be removed or replaced, but may be no thicker than 3/4" in all locations. Meaurements will be taken from the original skin of the roof of the vehicle.

5.a. For M1, M2, and M3: OEM door panels may only be modified and/or rebuilt to accommodate front stage speakers. Modifications and/or rebuilds are limited to the area required for mounting of said speakers and must be finished and/or upholstered. Raw metal, wood, or fiberglass build-outs commonly used to increase sound pressure level are prohibited.

5.b. For M4 and M5: door panels may be modified, rebuilt, removed, or built out with a maximum depth of 3/4". Build-out will be measured from the original door skin forward. Modifications, in addition to the 3/4" build-out to accommodate mounting of front stage speakers are permitted, however, are limited to the area required for mounting said speaker(s).

6. OEM floor covering or functional equivalent must be in vehicle but may not built with fiberglass or any other hard rigid material. Floor Covering must be able to be removed, if necessary, to verify sound deadening on the floor of the vehicle.
7. Dash modifications are limited to mounting of; automotive gauges (i.e., tach or voltage gauge), for video system components (i.e., screen(s), DVD player, game console), relocation of source unit, and/or mounting front stage speakers for SQL applica-

tions.

8. Dash may only be recovered with a cloth type material. Painting to match a color scheme of the vehicle will also be allowed. 9. Vehicle must have automotive seats in the forward only position. Both driver's and passenger's front seats must be installed and properly bolted down. Racing seats or any type of DOT approved automotive seats only: no homemade, marine, or other types allowed.

10.a. For M1, M2, and M3: both driver's and passenger's front seats must be installed and properly bolted down.

10.b. For M4 and M5: the vehicle must have either the front driver's and/or passenger's seast installed and properly bolted down in order to provide a location for the sensor placement. Seat belts may be relocated or removed. However, improper relocation or removal will result in the vehicle not being street legal, and therefore, not eligible for competition in the "Drive0by SPL Parade" format.

11. Headrests may be placed in any factory position but may not be removed.

12. Center consoles may be removed or rebuilt as long as the design does not intentionally redirect pressure which may increase sound pressure score.



#### A. continued

13.a. For M1, M2, and M3: modifications behind the B-pillars are limited to Non-Permanent Modifications. Cutting of metal is prohibited, except for pick-up truck cut-through installations. Any brackets, panels, seats, and/or non-structural supports behind the B-pillars that can be unbolted and unscrewed may be removed, provided they can be reinstalled using factory fasteners.

13.b. For M4 and M5: modifications behind the B-pillars within the original skin of the vehicle are unlimited.

#### **B.** Judging Criteria

1. Any combination of open doors, windows, trunks, and/or hatches is allowed. Hood must be completely closed during pass. Sunroofs may be opened or removed provided they are factory designed to be removed by the user without the use of tools.

C. Sensor Placement

1. Placement per General Rules.

#### **D.** System Requirements

**1.a.** For M1, M2, and M3: the enclosure cannot extend past any part of the front door jambs, except in a standard cab pick-up truck where it must fit with the driver's seat in the most forward position.

**1.b.** For M4 and M5: the enclosure or anything attached to the enclosure cannot extend more than one inch (1") past any part of the front door jambs, except in a standard cab pick-up truck where it must fit with the driver's seat in the most forward position.

2. Standard Cab Pick-ups: If aftermarket seats or factory replacement seats are added, and the factory brackets aren't used, then the brackets to hold said seats down must be made to line up with the rear factory bolts as to not increase the area behind said seats.

3. Head units may be held outside the vehicle and podiums are permitted.

4. Upgraded electrical and charging systems allowed. Charging voltage is unlimited. The number of batteries are unlimited. Capacitors are allowed with no capacitance limit.

5.a. For M1, M2, and M3: only 12-volt batteries, in parallel, are permitted and a maximum of two (2) alternators may be installed under the hood.

5.b. For M4 and M5: there are no limits for battery voltage or alternators.

6. Primary battery may be relocated. All batteries must be securely mounted, and must be located either under the hood and/or be mounted anywhere behind the B-pillars, within the original skin of the vehicle. Pick-up trucks may mount batteries in the bed provided they are covered and protected.

7. For M4 and M5: batteries may also be mounted under the vehicle in a battery box. Battery box may be a separate unit mounted under the vehicle or be installed through a hole cut in the floor. Battery box must provide protection from the outside and may not hinder the vehicle's ability to be driven safely.

- Some unique situations may arise that disqualify vehicle, system, and/or competitor from Sound Pressure League Modified Division, determined by MECA Judges.



**RADICAL X**" - Intended for systems in vehicles with major modifications; for the HARD-CORE SPL Competitor.

2 "**Radical X**" "Pressure Classes" X1 0 - 4000 X2 4001+

A. Vehicle Requirements

1. Vehicle must be capable of driving through the judging lanes safely.

2. It is intended that a person of average size will be able to fit in the front compartment.

3. The height of a center console must remain parallel or below the top of the dashboard.

An open area must remain between the top of a center console and/or the dashboard to the roof. A headliner or ceiling, if used, may not be built out more than 3" past the bottom of the top of the door jamb. Bracing system, described in A.5, is allowed to be within this space.
 No more than 6" in total cross-sectional width bracing allowed.

6. Windshield may be replaced with clear acrylic or other appropriate material, and must have at least 500 square inches of unobstructed viewing area.

7. Side windows may be replaced with clear acrylic or other appropriate material, and must have at least 200 square inches of unobstructed viewing area per window. If the passenger window is replaced and the passenger door is not able to be opened, a 1" hole, with a stopper, is required for the sensor cable to pass through.

8. Foot pedals and shifter may be covered during the pass, but panels must be easily removed after the pass.

9. The top of the dashboard must remain at or below the horizontal plane created by the bottom of the windshield.

10. There must be minimum of 13" of free space between the vertical surfaces of the center console and each door panel surface, right and left sides.

11. If doors are bolted or clamped shut, a remote engine kill switch must be located within easy reach of a Competitor or Judge outside of the vehicle.

12. The minimum floor to ceiling measurement in all areas of the front cabin, forward of the subwoofer enclosure, must maintain a verticle measurement of 30". The only exceptions will be the area between the roof and the top of the center console, and the area between the roof and the top of the dash. If, when using the 30" measurement rod, it is impeded in the verticle measurement, then the vehicle will be disqualified.

13. The size (air volume) of the passenger compartment may not change during competition. For examples: the subwoofer enclosure may not move forward, airbags may not be deployed, etc.

**B. Judging Criteria** 

1. Windows, doors, hoods, hatches, and trunks must be closed during the entire pass.

2. Judges must be afforded a clear and unobstructed view into the vehicle at all times. Window tint, duct tape, etc. are considered obstructions, and not permitted.

#### **C. Sensor Placement**

1. In addition to the General Rules, sensor placement will be passenger side windshield location; sensor placed 6" from right pillar post and 4" above highest point of the dashboard.

No obstructions behind sensor, except seat or headrest.

#### D. System Requirements

Page 16

1. If the enclosure or anything attached to the enclosure extends in front of the B-pillars, then it must be at least 20" behind the closest point of the steering wheel. Any equipment attached to the enclosure is considered part of the enclosure.

2. All audio equipment must be installed within the vehicle and securely mounted, except podiums.

3. Batteries may be mounted externally to the vehicle, but must be properly secured, protected and safe.

4. Fully encapsulated or "caged" alternators located above the hood, in front of the grille, or underneath the vehicle are permitted.

- Some unique situations may arise that disqualify vehicle, system, and/or competitor from "**Radical X**" Division, determined by MECA Judges.



**DRIVE-BY SPL PARADE** - Intended to be a format for all daily driven vehicles to test their ability to impress listeners as they drive by on the street, measuring SPL outside the vehicle.

5 "Drive-by SPL Parade" "Pressure Classes"

DB1 0 - 550 DB2 551 - 1000 DB3 1001 - 2000 DB4 2001 - 4000 DB5 4001+

A. Vehicle/Owner Requirements

1. No one may be in the vehicle during pass. System must be operated by remote, external head unit, or podium.

2. Vehicle is to be driven into the lanes and parked. Vehicle may not be put in reverse or re-positioned once it begins the approach into the lane.

3. Once parked the Competitor has two (2) minutes to get out of the vehicle, shut the door, set-up, and begin their official pass.

4. Once the pass has started, the doors may not be opened, the pass will be disqualified.

5. As long as they are properly wearing hearing protection and their head remains outside the vehicle, the Competitor may lean in the window to adjust volume, change, or pause the track but may not manipulate any other equipment nor change fuses.

#### **B. Judging Criteria**

 Windows may be open. Windows in front of B-pillars may be removed. Doors, trunk/hatch, and hood must be closed. T-tops may be removed; sunroofs/ moonroofs may be open or removed (if designed to be removed without tools), convertible tops may be down. Soft top vehicles will be considered convertibles.
 Competitor must play musical track(s), (i.e. songs) in which the bass notes vary and are not sustained for the entire pass. No tones, sweeps, and/or bass only tracks. The TermLab "spectrum analyzer" will be displayed and used to determine that bass notes are not sustained.

3. Competitors must use commerically available music tracks. Burnt CD's, iPods, MP3 players, etc. will be allowed at 1X, 2X, and 3X contests, however, at MECA World Finals ONLY original mass produced CD's may be used.

4. Competitors who opt to use a CD Changer or Multi CD head unit must remove all other CD's to ensure that the Judges are able to verify the CD being used for their "Drive-by SPL Parade" test.

5. Competitors may only use one source unit during pass. The Mids and Highs being played must be from the same source as the bass from the subwoofers. 6. Mids and highs must be able to be heard outside the vehicle.

7. Lyrics in song may not include any foul or offensive language.

8. No bracing teams allowed

9. Peak frequency must not exceed 100hz, as verified by TermLab metering system.

#### **C. Sensor Placement**

1. In addition to the General Rules, sensor will be placed 72" (6') from the outside edge of a marker on the ground (usually a cone), on passenger side of the vehicle; 54" (4.5') off the ground on MECA approved stand.

2. Competitors who hit the marker either entering or exiting the judging lane will have their pass disqualified. In the event of a minor hit (i.e. running over the base of a cone) the competitor may be granted a retry at the Judge's discretion.

#### **D.** System Requirements

1. For DB1, DB2, DB3, and DB4 there are no modifications to the front of the vehicle with the intent to increase sound pressure level score, except for the modifications outlined in D.2. through D.9. As an unlimted class, DB5 will follow sections A&D of the Radical X Rules and allow Radical X vehicles which still meet sections A and B of the DBSPL Rules to compete in DBSPL.

2. Enclosure or anything attached to the enclosure cannot extend more than one inch (1") past any part of the front door jambs, except in a standard cab truck where it must fit with the driver's seat in the most forward position.

3. Door panels may be modified, rebuilt, removed, or built out (3/4" maximum).

4. Headliner may be removed or replaced, but may be no thicker than 3/4".

5. Dash modifications are limited to mounting of; automotive gauges (i.e., tach or voltage gauge), for video system components (i.e., screen(s), DVD player, game console), relocation of source unit, and/or mounting front stage speakers for SQL applications.

6. Dash may only be recovered with a cloth type material. Painting to match a color scheme of the vehicle will also be allowed.

7. Only rubberized/asphalt type sound deadening material is allowed to be used on the floor in front the B-pillars, 2 layers maximum in any area.

8. Vehicle must have automotive seats in the forward only position. Both front seats must be properly mounted in the vehicle. Seats may be replaced, providing they are still a DOT approved automotive seat; no homemade, marine, or other types allowed.

9. Standard Cab Pick-ups: If aftermarket seats or factory replacement seats are added, and the factory brackets aren't used, then the brackets to hold said seats down must be made to line up with the rear factory bolts as to not increase the area behind said seats.

10. Center consoles may be removed or rebuilt as long as the design does not intentionally redirect pressure, which may increase SPL score.

11. Upgraded electrical & charging systems allowed. Unlimited batteries, capacitance, alternators, and voltage allowed.

12. Batteries must be securely mounted, and must be located either under the hood and/or be mounted anywhere behind the B-pillars, within the original skin of the vehicle, or be mounted under the vehicle in a battery box. Battery box may be a separate unit mounted under the vehicle or be installed through a hole cut in the floor. Battery box must provide protection from the outside and may not hinder the vehicle's ability to be driven safely.

-Some unique situations may arise that disqualify vehicle, system, and/or competitor from "**Drive-by SPL Parade**" Format, determined by MECA judges.

Intentional cheating and/or manipulation of the rules will result in suspension from MECA competitions and events.

Alcohol, drugs, weapons, and violence of any nature prohibited at MECA events.

Page 17

Hearing protection required and provided at all events.



**"SPLite**" - Intended as an alternative SPL contest with limited classes and awards. These contests are always 1X Single Point events, and points will count toward State Champion program and Finals Soundfest. The scores do not count for State Champion program. Any meter may be used for testing at these contests.

2 Formats: SPLite & Drive-by SPL Parade

**SPL Format -** 9 "Pressure Classes": 3 "Amateur Street", 3 Street, 3 Modified "**Drive-by SPL Parade**" Format - 3 "Pressure Classes"

9 Phat Medallions (optional, or can be trophies)

Extra Classes can be added, if desired by Retail Member, Club, Host, Sponsor, or Promoter: i.e., a Trunk class, a Pickup Truck class, etc. When special classes are added that are not part of the MECA program, competitors' scores will not be eligible for any club points in those classes.

Division/Pressure Class # Amateur Street AS1 0-550 AS2 551-1000 AS3 1001-2000	<i>Street</i> S1 0-550 S2 551-1000 S3 1001+	<i>Modified</i> M1 0-550 M2 551-1000 M3 1001 +	Drive-by SPL Parade DB1 0-550 DB2 551-1000 DB3 1001+	<i>Phat Medallion</i> Phat Car Phat Truck Phat Install Most Improved	ns Phat 10 Phat 12 Phat 15 Phat 18 Best of Show
	X				
			Law	14. 14. 14	

- Some unique situations may arise that disqualify vehicle, system, and/or competitor from **SPLite** Format, determined by MECA Judges.

Intentional cheating and/or manipulation of the rules will result in permanent suspension from MECA competitions and events. Alcohol, drugs, weapons and violence of any nature prohibited at MECA events. Hearing protection required at all events.



Sound Pressure League **Phat Awards** are intended to recognize special vehicles and systems in the contest. They are picked by the Judge Team and the following criteria are used:

SPL Phat Car - The best car involved in SPL contests at the event. Judges look for best paint, aftermarket accessories including wheels and tires, audio system integrated into the vehicle, audio system performance, and overall cleanliness and appearance. This would be the car that most people would choose from all the others, if they were able to own it themselves.

SPL Phat Truck - The best truck involved in SPL contests at the event. This would include all SUV's, vans, pickups, Jeeps, Hummers, and minivans. Judges look for best paint, aftermarket accessories including wheels and tires, audio system integrated into the vehicle, audio system performance, and overall cleanliness and appearance. This would be the truck that most people would choose from all the others, if they were able to own it themselves.

SPL Phat Install - The best audio system installation in a vehicle involved in SPL contests at the event. Judges look for integration into the vehicle, cosmetic appearance, degree of difficulty, and performance of the system as criteria for selection. This would be the flashiest, most remarkable installation at the event.

SPL Most Improved - The Competitor that has raised their *Sound Pressure* score the most since their last MECA contest is the "SPL Most Improved".

Phat 10 - The loudest single 10" woofer system in the contest.

Phat 12 - The loudest single 12" woofer system in the contest.

Phat 15 - The loudest single 15" (or 13.5") woofer system in the contest.

Phat 18 - The loudest single 18" woofer system in the contest.

MECA Phat ICE Award - All vehicles are eligible for this award.

The best in-car entertainment system involved in any contests at the event. This includes monitor screen(s), audio system, game system(s), and all equipment relating to a sophisticated entertainment experience. Judges look for integration into the vehicle, cosmetic appearance, degree of difficulty, and performance of the system as criteria for selection. This would be the flashiest, most remarkable entertainment system at the event.



# I. Purpose & Intent

MECA is the sanctioning body for Competitors involved with car audio sports. MECA is a membership association formed to encourage, support, and reward Competitors involved in car audio sports. This Rule Book is intended to outline the specifics of competition in the Sound Quality League (SQL). It is the responsibility of each Competitor to review, comply, and honor the rules in cooperation with event officials. MECA strives to present every Competitor with a fair and unbiased forum in which competition is regarded as worthwhile and enjoyable.

# **II.** Objective

The Sound Quality League (SQL) working with the established criteria in the MECA Rule Book, will objectively evaluate each Competitor's vehicle and system. Appropriate and individual attention is given to Sound Quality (SQ), Installation (Install), and Real Time Analysis (RTA Freq Out). MECA's SQL philosophy reflects the importance and regard for the best sound quality presented to the Judges. Seven (7) SQ classes will be offered at Double Point (2X) events with the full SQL Event Menu (Seven (7) SQ, Four (4) Install, and One (1) RTA Freq Out class being offered at larger 2X events and Triple Point (3X) Soundfests. SQ2, 2 seat judging will be offered at host's discretion. The vehicles with the best sound quality will win the *SQ* awards. The vehicles that have the best RTA scores will win the *RTA Freq Out* awards. The vehicles with the best scores, indicating the best sound quality judged from 2 seats, will win the the SQ2 contests.

# **III. Format and Class Guidelines**

Sound Quality Format Stock

Street Modified Street Modified Modex Extreme Master

# **Installation Format**

Street: Includes Stock, and Street SQ Classes Modified: Includes Modified Street and Modified SQ Classes Modex: Includes Modex SQ Class Extreme: Includes Extreme and Master SQ Classes

# RTA Freq Out Format

One open class for all Sound Quality League Competitors.

**SQ2 Format** 2 seat SQ judging. One open class for all Sound Quality League Competitors





## Stock

Other than the Head Unit and an optional pair of tweeters, vehicles in Stock should retain a stock appearance through-out the vehicle. Stock is open to Consumer, Sponsored, and Professional Competitors. Manufacturer Vehicles are not permitted in Stock.

The full 100 Point MECA Sound Quality score sheet will be used to evaluate the system.

#### Verification Criteria

A) Vehicle will be Judged from the Driver's Seat with the engine off.

B) All items originally provided from the manufacturer within the vehicle must keep their original location, access, and functional ability, including but not limited to: center console, glove box, folding and/or stow away seating, and spare tire.

C) Modifications or upgrades to a vehicle's interior, exterior, engine, or related components do not necessarily move a vehicle to a higher class unless those modifications or upgrades are done to improve the sound quality system beyond the limits outlined in the Verification Criteria.

D) Upgraded electrical and charging systems allowed, however, vehicle is restricted to only one (1) alternator and one (1) 12-volt battery (per the SPL General Rules) in the factory location. System voltage is limited to a maximum of 13.0 volts at the Amplifier(s) with the vehicle off. E) Head unit may be replaced, but must remain in the factory location. Aftermarket radio installation kits may be used, including converting a double DIN to a single DIN with pocket, however the opening for mounting the radio may not be altered in any other ways. Source unit will only be an in-dash unit or any controlled multi-disc unit. Computers or remotely located faceplates are not permitted.

F) Class is limited to 16 bands of mono or stereo (L & R) equalization.

G) Head units with internal Digital Sound Processors (DSP's) may be used, but still must conform to Rule F.

Amplifiers with simple Hi/Lo pass crossovers and/or bass boost may be integrated into the system. Stand alone Analog Equalizers and/or stand alone Analog (Passive or Active) Crossovers may be integrated into the system. These must be car audio specific equipment designed to operate on 12VDC. 120VAC power supplies or converted equipment are not permitted.

H) External DSP's are not permitted. Amplifiers with built-in DSP's are not permitted.

I) All speakers (except for subwoofer(s) and 1 pair of tweeters less than 2" in diameter) will be placed in stock locations as originally provided from the manufacturer without making any alterations and will not hinder the vehicle's operation or visual appearance.

Tweeters may be mounted on door panels, dash, or A-pillars with basic hardware, but no tweeter pods or build-outs are permitted. Door panels may not be modified in any way. Venting speakers outside the vehicle is not permitted.

J) All car audio equipment, including amps, speakers, subs, enclosures, etc. must be safely and securely mounted. When possible,

amplifiers will be hidden from view, and integrated as much as possible into the vehicle, without hindering the vehicle's operation

K) Commercial Sound Deadener (i.e. asphalt or rubberized) may be used through out the vehicle behind panels or in other non-visable areas.L) No sound absorbing materials may be used in the interior of the vehicle, i.e., no dash pads, towels, foam padding, acoustic treatments, etc.M) Except for tinting, Line-of-Sight through any window glass may not be obscured in any way, however the use of window coverings placed on the exterior of the vehicle for judging will be allowed.

N) Waveguides and/or additions of horns are not permitted. Cutting of metal is not allowed.

O) Unless mounted in a factory location, subwoofer(s) must be installed in the trunk / cargo area, except for systems that include subwoofers as part of original factory equipment.

## Street

A step up from Stock Class, Street includes Competitors that still choose not to modify their vehicle's interior or overall aesthetics for sound quality purposes, but allows a little more flexibility with installation and equipment. Street follows Stock Verification Criteria with the following exceptions:

A) The spare tire is no longer considered a functional component of the vehicle and may be removed.

B) Dash Pads may be installed, but must be OEM specific and no more than 1/2" thick.

C) Competitors may install multiple batteries but only 12-volt batteries, in parallel, are permitted. There is no restriction on the number of batteries. Primary battery may be relocated. All batteries must be securely mounted, and must be located either under the hood and/or in the trunk/hatch/cargo area only. Pick-up trucks may mount batteries in the bed provided they are covered and protected.

D) Equalizers, Crossover Networks, DSP's and/or amplifiers with built in processing may be integrated into the system. There is no limit on bands of equalization. These must be car audio specific equipment designed to operate on 12VDC.

E) Cutting of door sheet metal is not allowed, except as needed for the door to accept an aftermarket driver the same size as the stock driver. In no case can more than 1/2 inch of total diameter be added or removed.

F) Tweeters may be mounted in custom pods designed to provide a factory look to the install.

G) Dash may not be modified, however the factory radio opening may be modified to accept up to a double din radio but must maintain a factory appearance.



# **IV. Sound Quality (SQ) Class Definitions**

continued

# **Modified Street**

Stepping up from Street Class, Modified Street allows increased flexibility with speaker mounting and adds the ability to use kick panels. Overall installation in front of the B-Pillar should still retain a stock appearance but items installed behind the B-Pillar do not have to. Modified Street follows Street Verification Criteria with the following exceptions.

A) Items located behind the B-Pillar are no longer considered functional components of the vehicle and may be removed.

B) Stock speaker locations may be modified, altered, or cut to accommodate aftermarket drivers. Door panels, grill covers, etc., must still retain a factory appearance and speakers may not be externally vented.

C) Kick Panels may be used to mount one (1) additional pair of speakers up to  $6-\frac{1}{2}$ ". The optional pair of tweeters allowed in Stock and Street may also be mounted in the kicks if the Competitor so desires. Kick panels may not be externally vented.

- D) Line of sight may be obscured by equipment behind the B-Pillar.
- E) Unless mounted in a factory location, subwoofer(s) must be installed behind the B-pillar.

# Modified

Modified is for Competitors who have chosen to make modifications to the vehicle's interior and/or electrical system that can still be returned to stock at any time for the purpose of improving sound quality and component performance. Additional or alternate speaker locations will be accepted as long as vehicle integrity is retained, area can be returned to stock integrity, and the locations only utilize the original air space within the vehicle. Modified follows Modified Street Verification Criteria with the following exceptions.

A) Functional Components of the vehicle may be utilized as the Competitor sees fit. Windows must still be able to roll down, Dash may not be rebuilt or altered. Speaker pods may be added to the dash, pillars, or floors.

B) Acoustical Treatments and/or Dash Pads are limited to 1" thick.

C) Door Panels, grill covers, etc. may be modified or rebuilt to accommodate speakers, Kick Panels may accommodate any size speaker and Floor Speakers may be added, however they may not be cut into the floor. Speakers may not be externally vented.D) Except for in the dash, Subwoofer(s) may be mounted anywhere in the vehicle so long as they do not hinder operation of the

vehicle. E) Electrical System upgrades are unlimited, however voltage is limited to 14.4 volts at the amplifiers with the engine off.

F) Source Unit may consist of the head unit, remotely located faceplate, permanently installed remote control or computer.

# Modex

This class will include Competitors who have put forth the effort to enhance their installation and system performance with modifications that cannot be returned back to stock in an effort to redesign the interior to enhance the vehicle's sound signature. The vehicle's interior must still feel like it is a vehicle. Modex follows Modified Verification Criteria with the following exceptions.

A) Windows do not have to roll down. Dash may not be completely rebuilt but may be altered, however all original instruments must remain in the factory location.

B) Cutting of metal is permitted, enclosures may be externally mounted (example. under car, fender well etc.), speakers may be vented externally.

C) Subwoofer(s) may be mounted in the dash.

D) Driver's seat may be relocated, but it must still be securely mounted and able to be used to operate the vehicle.

E) Electrical System Upgrades are Unlimited.

F) 120 VAC equipment, power supplies, or converted equipment may be integrated into the system.

# Extreme

Extreme will showcase the most radical of vehicles with the sole purpose of gaining every advantage possible for Sound Quality in a mobile environment. At this level, the vehicle must still run and drive and be able to do so from the driver's seat.

# Master

A Master Class Competitor is anyone who works for a 12-Volt Manufacturer in any way. Any vehicle that is regarded as a "factory demo vehicle" or owned by a manufacturer belongs in this class. Anyone who believes that they have the experience and abilities to compete in the Master class may do so. This is an expert class that gives Competitors and vehicles that have an "unfair" advantage over other Competitors the opportunity to be part of MECA.

Trophies may or may not be awarded, depending on the sponsor or event status.



# V. Best of the Best of Show (BOBOS) Award

The winner of this award will be the Competitor with the best overall audio system performance at an event based on their competition results, determined by the following scoring system.

Using the Competitor's true individual scores (not placement) in SPL, DBSPL, SQL, RTA (score X 2), and Install, those scores will be averaged to get an overall average score, with the highest overall average score winning BOBOS.

If a show does not offer all five (5) formats then the score will be averaged based on the formats that are offered.

SPL offers a maximum score of 150 dB, Drive-by SPL Parade offers a maximum score of 130 dB, SQ is a maximum of 100 points, RTA is a maximum of 80 points (perfect score of 40 X 2), and Install has a maximum of 100 points. If a Competitor does not compete in an SPL or SQL contest offered at the event, the Competitor gets no points, so the score is "0" - zero for that contest.

For example, if a Competitor has a 152.5 in SPL, 126.1 in DBSPL, a 78 in SQ, a 32 in RTA, and 81 in Install, then it would be calculated as: SPL is capped at 150 dB and the RTA Freq out score is doubled. So, 150+126.1+78+64+81 = 499.1 then divide by 5 to get an average score of 99.82.

Tie-breakers: 1st SQ Score; 2nd Install Score; 3rd SPL Score; 4th Drive-by SPL Score; 5th RTA Freq Out Score

Even if they are offered, Ride the Light and Boom and Zoom are not factored into the BOBOS scoring.

Phat Awards and Best of Show awards are not factored into the BOBOS scoring.



#### A. Vehicle/Owner Requirements

- 1. No part of the vehicle or the installation will compromise the Judge, passenger, or spectator safety in any way.
- 2. Vehicle and audio system subject to inspection by Judges at any time.
- 3. Vehicle and install must pass safety inspection. Safety inspection will consist of checking wires and connections under the hood and solid mounting of amps and amp fuses.
- 4. Any member vehicle that is determined to be unsafe may compete at the first event and receive points, but must have safety issues resolved at the next event. Failure to resolve safety issues after the first event may prohibit participation at future events.
- 5. Any safety issues or judging calls made during an event will be recorded on a log sheet. This sheet will be passed to the MECA R&E Committee to give final approval of any issues that arise which may not be clearly identified in the rules.
- 6. Competitor and Team must accord all Judges proper respect and courtesy. Any unsportsmanlike conduct may result in disqualification and/or suspension.

#### **B. Judging Criteria**

- 1. The Judge will sit in the driver's seat and will be the only person allowed in the vehicle during scoring.
- 2. Judging will be performed with the engine off, with the exception of noise testing.
- 3. Noise is to be judged with music at reasonable volume and from normal listening position. Only system related noise will be deducted; for example, alternator whine, on/off pop, etc. Points should not be deducted for fans running, relays turning on/off, CD spinning inside the head unit UNLESS they can be heard coming through the system.
- 4. Driver's seat may be positioned however the Competitor wishes. Seat rails may only be relocated in Modex, Extreme, and Master classes. All other classes may not modify the factory position of the seats.
- 5. The Judge's competition CD, the Chesky Ultimate Demonstration Disc, will be used during scoring. Judges may use 2 songs from the popular domain, stipulated at the beginning of the season, in additon to the Chesky CD. The 2 songs selected for the 2010 season are Track 2 "Alberta" by Bad Influence and Track 7 "Blues For Danny Gatton" by Joe Stanley Sextet from the "Mapleshade Music Festival" CD. These tracks are optional. Judges are not required to use them, but are encouraged to do so.
- 6. Judge's listening level will vary (80-115 dB) during judging to assess all system criteria.
- 7. Score breakdowns are to be used as a guide. In order to place in a certain point category, a system does not have to represent all criteria defined; it is used as a majority ruling. Common sense and objectivity should be used when viewing the score definitions.
- 8. Sound Quality class assignments are based on the complexity of the system and installation.
- 9. When a system failure occurs, the Competitor will be given 5 minutes to make adjustments and present system to the Judge.
- 10. The Sound Quality "SQ Best of Show" award will be presented to the Competitor who receives the highest SQ score in the Sound Quality contest.. The "Install Best of Show" award will be presented to the Competitor with the highest Install score. The Sound Quality League "SQL Best of Show" award will be presented to the Competitor who received the highest total score among all SQL formats (SQ, Install, and RTA Freq Out)..
- 11. Competitors must be MECA members and obtain a minimum of 40 points to qualify for State Champion and World Finals Soundfest. The member must compete in at least 2 events with the vehicle intended for World Finals Soundfest competition.
- 12. Points will be awarded for the purpose of State Champions and National Points Champions. The points will be as follows: For single (1X) points contests: 1st = 5 points, 2nd = 4 points, 3rd = 3 points, 4th = 2 points, 5th = 1 point. There will be double (2X) points contests and Soundfests will be triple (3X) points.
- 13. Any disputes or protests are to be respectfully presented to the Head Judge prior to the start of judging so that the Competitor being protested has time to correct any problems and comply with the rules. Protests may only be filed by another Competitor in the same class as the vehicle/system protested.
- 14. Judges decisions are final. If a Compettor has questions concerning misplacement in class or any other irregularity, the Competitor may contact the MECA R&E Committee for review.



# 2010 Sound Quality Format General Rules

#### **C. System Requirements**

- 1. Use of equipment that has been converted to 12-volt power is allowed only in Modex, Extreme, and Master classes.
- 2. Power, volume, and track functions must be accessible and viewable from the Judge's listening position.
- 3. No modifications or additions to audio or electrical systems after verification. Replacement of same make and model equipment is allowed.

#### **D. Sound Quality Contests and Classes**

- 1. Sound Quality classes offered are determined by the Commissioner and the host, promoter, and/or sponsor. Sound Quality classes will be listed prior to the event on the event flyer and the web site schedule.
- 2. For single point (1X) SQL Events: Stock, Street, Modified Street, and Modified classes will be offered. Modex, Extreme and Master classes are optional.
- 3. For Double Point (2X) and all Soundfest Triple Point (3X) SQL events, all SQ classes will be offered: Stock, Street, Modified, Modified Street, Modex, Extreme, and Master.
- 4. The Competitor must make sure that their correct class is listed on their score sheet, so that points can be tracked accordingly.
- 5. SQ2 will be an open class, with sound quality score sheets for driver and passenger seats judged simultaneously. Both score sheets are added together. Highest score wins. MECA Members must compete in two (2) SQ2 contests to qualify for State Championships and SQ2 entry at Finals.





# Safety Inspection (Pass or Fail)

The verification Judge will perform the safety inspection. The following may disqualify a vehicle:

1. Improper electrical overload protection, terminations, cabling, or routing of any part of the system that could cause harm to the Judge, Competitor, passengers, or spectators.

2. Improper mounting of any piece of the system that could cause harm to the Judge, Competitor, passengers, or spectators.

3. Any portion of the install that does not meet with the class verification rules.

# A. System Noise

(Maximum points deducted: -5)

Scoring for each criteria:

0 points deducted	No Noise
25 point	Barely audible at certain volume level.
50 point	Audible at certain volume levels
75 point	Barely audible at most volume levels
- 1 point	Audible at most volume levels

There will be a points deduction from the total score for each instance of the following, heard through the speakers:

1. Alternator/engine noise (while engine is running and source unit is on. If alternator/engine noise is still present with the source unit completely off, point will not be deducted)

- 2. Hiss
- 3. Turn on pop or thump

4. Turn off pop or thump

5. Misc. System Noise. Examples: Excess switching noise when changing source from tuner, CD, etc. or noise introduced when turning on/off headlights

000000

# **B.** Tonality

### 1. Low Frequencies (<20Hz - 60Hz)

(Maximum points awarded: 10 each) Competition disc examples: Tracks 3, 9, 15, 17, 19, 25

1. This frequency range is comprised of the lowest notes of music. These will be immediately recognizable, realistically weighted, having realistic extension, articulate, and free of blurred or exaggerated decay.

2. This frequency range includes the lower harmonics of the bass, organ, bass sax, accordion, harp, kick drum, piano, etc.

## **2. Lower Midrange Frequencies** (60Hz – 200Hz)

*(Maximum points awarded: 10)* Competition disc examples: Tracks 3, 15, 17, 19, 21, 23

- 1. These frequencies will be free of resonance; they will be realistically defined and without distortion. Attack and decay of instruments, such as the drum or guitar, are important in this range.
- 2. This frequency range includes: the French horn, bass, baritone, and tenor vocals, viola, tuba, trombone, bassoon, clarinet, saxophone, timpani, guitar, accordion, harp, piano, etc.

### 3. Midrange Frequencies (200Hz – 3kHz)

*(Maximum points awarded: 10)* Competition disc examples: Tracks 9, 15, 17, 19

1. These frequencies will be full, without the presence of harshness, dullness, or distortion.

2. The frequency range includes: stringed instruments, woodwinds, brass instruments, drums, most vocals, guitar, piano, etc.

## 4. High Frequencies (3kHz - >20kHz)

*(Maximum points awarded: 10)* Competition disc examples: Tracks 3, 9, 11, 15, 17, 19, 21

- 1. These frequencies will be neither too harsh nor too dull, with the presence of sibilance, resonance, or distortion.
- 2. This frequency range included the upper harmonics of woodwinds, chimes, xylophone, some stringed instruments, cymbal, high hat, some vocals, piano, etc.

	Realism of Frequencies Points Scoring
1-2	Frequencies are not proportional to each other, extremely harsh or dull; musical quality is little to none; little or no tonal accuracy; extreme resonance or reflection; and distortion is common at low (80- 90dB) levels, or not apparent.
3 - 4	Frequencies are proportionate to each other, but are moderately harsh or dull; musical quality is lacking; very poor tonal accuracy; resonance or reflection prominent; and distortion occurs at moderate (85-95 dB) levels.
5 – 7	Frequencies are proportionate to each other, but are slightly harsh or dull; musical quality is moderate; poor tonal accuracy; resonance or reflection occurs; distortion occurs at peaks of 90-105 dB.
8 – 9	Frequencies are closely proportionate to each other, but a small amount of harshness or dullness occurs; instruments and vocals are reproduced with good musical qualities; tonal accuracy is slightly off; very little resonance or reflection; will not distort at peaks of 105 dB
10	Frequencies are accurately proportionate to each other, no harshness or dullness occurs; instruments and vocals are reproduced with realistic musical qualities; tonal accuracy is perfectly presented; no resonance or reflection; no distortion occurs at peaks of up to 110 dB.



# C. Musical Realism

# 1. Dynamics/Impact

*(Maximum points awarded: 10)* Competition disc examples: Tracks 3, 17, 19, 25, 29

1. The reproduction of dynamics is the element of musical expression relating to the degree of loudness or softness of a sound. The dynamic range pertains to the useable range of extremes between loud and soft portions of the reproduction. These differences should be smooth, transient, and accurate. No distortion will occur at either loud or soft portions of the reproduction.

	<b>Realism of Dynamics Points Scoring</b>
1	Soft portions lack detail or are not at all apparent; attack is weak; decay is extremely inaccurate; distortion occurs at low to moderate (80-95 dB) levels. Transience from soft to loud levels is extremely unstable.
2	Soft portions lack detail; attack is weak; decay is inaccurate; distortion occurs at low to moderate (80- 95 dB) levels. Transience from soft to loud levels is unstable.
3	Soft portions are not detailed; attack is weak; distortion occurs at peaks of 90 - 105 dB. Transience from soft to loud levels has peaks and/or dips.
4	Soft portions are detailed; attack is accurate; little distortion at peaks of 105 dB. Transience from soft to loud levels is accurate with very little perception of peaks and/or dips.
5	Soft portions are perfectly accurate; attack is accurate; no distortion occurring at peaks of up to 110 dB. Transience from soft to loud levels is accurate and has no peaks and/or dips.

# 2. Linearity (Medium volume 80 - 90 dB)

# 3. Linearity (High volume 95-115 dB)

(Maximum points awarded: 5 each) Competition disc examples: Track 17

1. The proportion and relationship of all musical frequencies are examined at a medium or normal listening level (80 – 90 dB) and loud listening level (95 – 115 dB). Bass, midbass, midrange, and high frequencies should be relatively proportional at these 2 volume levels.

	Realism of Linearity Points Scoring
1	Frequencies are not proportional as volume is increased or decreased.
2	Frequencies are somewhat proportional, but vary as volume is increased or decreased.
3	Frequencies are somewhat proportional, and vary slightly as volume is increased or decreased.
4	Frequencies are defined and proportional, and vary only slightly as volume is increased or decreased.
5	Frequencies are defined and proportional, and do not vary as volume is increased or decreased.



## 4. Ambience

*(Maximum points awarded: 5)* Competition disc examples: Tracks 3, 11

1. Ambience is part of the listening environment that is not a direct result of the musical source. The music should appear to originate in front of the listener, yet there should be a sense of space around the listener. The room size, treatment, and room noise all combine as part of the illusion of being in the audience or in the same room where and how the music was originally recorded. The ideal perception will have full detail with no distortion or confusion.

	Realism of Ambience Points Scoring
1	Reproduction of room size is inaccurate and/or ambience is either completely lacking, or overtly manipulated.
2	Room size is somewhat defined but inaccurately reproduced.
3	Room size is defined but inaccurately reproduced.
4	Room size is very defined but somewhat inaccurately reproduced.
5	Room size is extremely defined and reproduced in an extremely accurate manner.

## 5. Realism/Believability

## (Maximum points awarded: 5)

1. This relates to the excitement and emotional reaction experienced by the listener. There is a suspension of disbelief that the listener is in a vehicle. The test tracks are believable and enjoyable.

	Realism/Believability Points Scoring
1	Reproduction is not believable
2	Reproduction is slightly believable
3	Reproduction is somewhat believable
4	Reproduction is almost believable
5	Reproduction is amazing and believable

# **D.** Staging

## 1. Stage Width

(Maximum points awarded: 6) Competition disc examples: Tracks 3, 9

1. The realism of depth will be judged in relation to the spatial area of the vehicle. Ideally, it will reach beyond the limits of the vehicle, from a-pillar to a-pillar or beyond, and not be hindered by the vehicle area in relation to the a-pillars or side glass.



# 2. Stage Depth

(Maximum points awarded: 6)

Competition disc examples: Tracks 3, 5, 13

1. The realism of depth will be judged in relation to the spatial area of the vehicle. Ideally, it will reach beyond the limits of the vehicle, beyond the glass or apparent constraints of the vehicle, and not be hindered by the vehicle area in front of the listener.

	Realism of Stage Width & Stage Depth Points Scoring
1 – 2	Is well within the a-pillars, side or front glass, and other boundaries of the vehicle, and is unstable
3-4	Is within, and/or meeting the a-pillars, side or front glass, and other boundaries of the vehicle, and is somewhat unstable
5-6	Is outside the a-pillars, side or front glass, and other boundaries, and is stable

# 3. Stage Height

*(Maximum points awarded: 6)* Competition disc examples: Tracks 3, 23

1. The realism of height will be judged based on the spatial vehicle area. Stage height should be correct in relation to the horizon, placed between the top of the dashboard and rear view mirror, and not too high or too low.

	And a second sec
	Realism of Stage Height Points Scoring
1 point:	Is well below dash top level, unstable, and undefined to the far limits of the stage.
2 points:	Is well below dash top level, somewhat stable, and defined to the far limits of the stage.
3 points:	Is above or below horizon level, unstable, and undefined to the far limits of the stage.
4 points:	Is above or below horizon level, somewhat stable, and defined to the far limits of the stage.
5 points:	Is close to horizon level, stable, and defined to the far limits of the stage.
6 points	Is at horizon level, extremely stable, and defined to the far limits of the stage.

# E. Stage Placement

# 1. Center

*(Maximum points awarded: 5)* Competition disc examples: Tracks 3, 5, 9

1. The placement of center stage will be judged based on the horizontal plane on which it sits, equidistant from the physical boundaries of the vehicle (A-pillars, side glass, etc.). It will not be too far left or right in relation to the original recording. It will be correctly sized in relation to the original recording. Movement will be produced accurately.

	Realism of Center Stage Placement Points Scoring
1 point:	Center is extremely undefined and it is extremely difficult to determine its location.
2 points:	Center is undefined. It is very difficult to determine its size, and the location is misplaced.
3 points:	Center is mostly defined. Size is inaccurate, and placement is inaccurate and unstable. Movement is sensed.
4 points:	Center is defined. Size is somewhat accurate, and placement is accurate but somewhat unstable. Movement is somewhat accurate.
5 points:	Center is extremely defined. Size is accurate, and placement is accurate and perfectly stable. Movement is very accurate.

### 2. Left

3. Right

- 4. Left-Center
- 5. Right-Center

*(Maximum points awarded: 3 each)* Competition disc examples: Tracks 3, 5, 9

1. The placement of the stage positions will be judged based on the horizontal plane on which it sits, in relation to the physical boundaries of the vehicle (A-pillars, side glass, etc.). It will not be too far left or right in relation to the original recording. It will be correctly sized in relation to the original recording. Movement will be produced accurately.

	Realism of Left & Right Stage Placement Points Scoring				
1 point:	Placement cannot be determined and is completely undefined and unstable.				
2 points:	Placement is somewhat accurate and slightly unstable, and movement is somewhat accurate. Definition is lacking and size is not accurate.				
3 points:	Placement is accurate and stable, and movement is highly accurate. Definition is apparent, stable, and accurate.				





# 2010 Installation Format Rules

# Security

### **A. Existence and Function**

(Maximum points awarded: 3) 1. Gives credit for having a functioning observable security system.

	Security Points Scoring				
0 points	No security system.				
1 point	A basic electronic security system has been installed.				
2 points	There is a functioning electronic visual indicator.				
3 points	All entry points are electronically protected.				

# Safety

## A. Power Flow

(Maximum points awarded: 10)

1. All components are mounted securely and attention has been given to ensuring that system design is safe. These include: batteries, fuse holders and circuit breakers, capacitors, alternators, and other power reinforcement and power overload protection equipment.

2. Fusing or manual reset circuit breaker(s) must be located within 18" of battery termination.

## **B.** Cabling

(Maximum points awarded: 10)

All wires and connections are appropriate size, secure, routed correctly, and protected throughout the system and vehicle.
 Use of picture book is encouraged to demonstrate proper attention to safety practices. Considerations are: proper use of grommets, additional sheathing or loom of the cable in high stress areas, no compromise in the performance of the cabling, and overall integrity of cabling installation.

	Power Flow & Cabling Safety Points Scoring				
0 points:	Installation is of the poorest quality and is dangerous in every aspect.				
1-3 points:	Installation of all system components is somewhat dangerous and presents safety problems.				
4-6 points:	Installation of some system components is borderline dangerous and could present safety problems.				
7-9 points:	Overall installation of system components is safe and secure, and few safety problems are apparent.				
10 points:	Overall safety of system components is determined to be commendable and of the highest quality.				

# C. Equipment

(Maximum points awarded: 12)

1. Audio system components are safely and securely integrated into the vehicle. These include: Head units, source units, amplifiers, all speakers, any speaker enclosure or panel, processors and other electronic 12-volt equipment.

	Equipment Safety Points Scoring					
0 points:	ints: Installation of all system equipment is of the poores quality and dangerous in every aspect.					
1-3 point:	Very little attention paid to the planning and system design using audio equipment safety in the vehicle					
4-6 points:	Some preparation is evident in planning and system design using audio equipment safely in the vehicle.					
<b>7-10 points:</b> Obvious preparation is evident in planning and system design using audio equipment safely in the vehicle.						
11-12 points:	As above with extra effort and attention to details given to ensuring that audio equipment is used safely in the vehicle.					

# Execution

## A. Maintenance

#### (Maximum points awarded: 5)

1. All components in the system may be easily accessed for adjustment, trouble-shooting, replacement of fuses, etc.. All access panels are well integrated, easily removed, and secure.

-101	Maintenance Points Scoring					
0 points:	No system design indicated for ease of maintaining audio and electrical components. Equipment is not accessible for service.					
1-2 point:	Little system design indicated for ease of maintaining audio and electrical components.					
3-4 points:	Obvious effort given to provide access for service in a reasonable amount of time.					
5 points:	Extensive effort given to provide access for service in a minimal amount of time.					

## **B.** Functionality

(Maximum points awarded: 10)

1. All equipment is easily reached, seen, and manipulated as needed by the user.

2. Points awarded for extra effort taken to maintain the usability of the vehicle, i.e. spare tire, glove box, back seat, etc.

Dise	Functionality Points Scoring				
0 points:	Equipment is not accessible.				
1-3 point:	Little effort given to provide functional access to equipment that requires viewing and manipulation from the listener's position.				
4-6 points:	Some effort given to provide functional access to equipment that requires viewing and manipulation from the listener's position.				
7-9 points:	Extensive effort given to provide functional access to equipment that requires viewing and manipulation of equipment from the listener's position.				
10 points:	Functionality given the highest priority. Extensive effort demonstrated to provide maximum ease of viewing and manipulation of equipment from the listener's position.				



# C. Craftsmanship

(Maximum points awarded: 10)

1. Installation skills are evident in all aspects of the system design.

2. Points awarded for more complex and detailed installation skills.

	Craftmanship Points Scoring				
0 points:	No installation skills are evident in any aspect of the system design.				
1-3 point:	Some installation skills are evident in the system design, but they are poorly executed.				
4-6 points:	Installation skills are evident and of average level of competency and detail.				
7-9 points:	Installation skills displayed are above average and demonstrate dedicated effort for quality and detail.				
10 points:	Installation skills are superior and demonstrate dedicated effort for quality and detail in every aspect of the system design and presentation.				

### **D.** Appearance

(Maximum points awarded: 15)

- 1. All aspects of the vehicle, system equipment, system design and integration, and system maintenance are considered.
- 2. Extensive effort is demonstrated in all portions of the installation to improve the overall aesthetics of the system.
- 3. Difficulty of use of materials necessary for dramatic appearance is considered.
- 4. Installation and vehicle should be polished and clean for maximum points.

	Appearance Points Scoring			
0 points:	No preparation or planning, maintenance, cleaning, or care is apparent.			
<b>1-3 point:</b> Little preparation or planning, maintenance, cleaning,, or care is apparent.				
4-6 points:	Some preparation or planning, maintenance, cleaning, or care of the vehicle and system is apparent.			
7-10 points:	Obvious preparation and planning for vehicle and audio system display is apparent. Vehicle is clean and audio system equipment is integrated into the vehicle, with evident effort made on competitor's part			
<b>11-13 points:</b> As above, with vehicle and audio system preservity with attention to details apparent.				
14-15 points:	Vehicle and audio system are pristine. Impression of display has impact and memorable features, and indicates pride and pursuit of perfection.			

## **E.** Creativity

(Maximum points awarded: 10)

1. Recognizes innovative design achievements; the introduction of something new, unique, or unusual to the installation. A concept, medium, or theme has been introduced that is unique and visually pleasing or striking.

2. Points awarded for creative items. Examples: fabricating a location in the vehicle ( dash, door, quarter panel), integrating computers into the vehicle and system, imaginative wiring theme, intricate vinyl, fiberglass, or other medium design,

integrating a spare tire into the vehicle or system, design and production of a custom dash, etc.

	<b>Creativity Points Scoring</b>				
0 points:	There is no special, innovative, or unique approach applied to the system design or display.				
1-3 point:	<b>3 point:</b> Very little thought was given to creating a special, innovative, or unique approach to system design or display.				
4-6 points:	Some attempt(s) to make the system design and display innovative are apparent.				
7-9 points:	Creative item(s) are evident and given due points for their uniqueness and overall system design impact.				
10 points:	System design and display characteristics are novel, unique, and are of the highest caliber.				

# Presentation

## A. Knowledge of System

(Maximum points awarded: 15)

1. Presentation limited to 10 minutes.

2. During the presentation, the overall knowledge of the performance, installation, and use of the entire audio system is displayed.

3. Presentation begins at the front of the vehicle and moves toward the rear, pointing out relevant design, equipment, custom work, and attention to detail.

#### **Presentation Points Scoring** Competitor knows nothing about the audio system 0 points: and it's integration into the vehicle. Competitor demonstrates little knowledge about the 1-3 point: audio system and it's integration into the vehicle Competitor demonstrates some knowledge about the audio system and it's integration into the vehicle. Highlights of the audio system, installation, and 4-6 points: vehicle are touched upon briefly, but not described in detail Competitor demonstrates working knowledge of audio system, installation, and vehicle integration, and takes time to explain brand names, model 7-10 points: numbers, power ratings, speaker placement, design of woofer(s) enclosure, power flow, and security system, if present. As above with extra effort taken to enhance the details and understanding o the entire system and it's 11-13 points: integration into the vehicle, i.e. video presentation, diagrams, picture book, descriptive placards, etc. As above with absolute knowledge and understanding 14-15 points: of the audio system and it's integration into the vehicle.





Intended for Sound Quality League Competitors to Rank Real Time Analysis Scores

#### A. Vehicle/Owner Requirements

1. Vehicle must be street legal (registered and licensed, with seat belts, automotive seats, glass in vehicle, brakes, lights, etc).

- 2. Audio system must qualify for Sound Quality League formats.
- 3. Only the owner/member or Support Team member may sit in the passenger seat during the test.
- 4. Test may be performed with Competitor outside of the vehicle.

#### **B.** General Judging Criteria

1. Any RTA meter may be used for Single (1X) and Double (2X) Point Events. The AudioControl SA-3055 is the official MECA "RTA Freq Out" meter for all Triple (3X) point Soundfest events and MECA World Finals. The MECA approved software (with a 40 point scale) in the RTA analysis program will be used at 3X Events and World Finals to determine score.

- 2. Doors and windows are to be closed, Engine must be off.
- 3. Test source is Mono Pink Noise, MECA SPL Test CD track #14.
- 4. Competitor, with Judge's help, sets reference level at 90 dB using the number scale.

5. Competitor is given 2 minutes to make adjustments. Adjustments can only be made one time. If there is a tie, the tiebreakers are made with no additional adjustments, other than the main volume control.

- 6. Testing interval is determined by the scoring program, but not to be more than 30 seconds.
- 7. Judge takes 3 tests per round and the Competitor keeps the highest score in that round.
- 8. Scores are ranked from highest to lowest. Highest score wins.

9. Ties for 1st, 2nd, and/or 3rd place will be settled by a re-test. For the first re-test, volume is increased to 96 dB. Each round of re-tests, thereafter, will be performed at increases of 3 dB i.e. 1st tiebreaker would be at 96 dB, 2nd tiebreaker (if necessary) would be at 99 dB, 3rd would be at 102 dB, etc. Highest score wins tiebreaker. Scores in tie breakers do not effect scores set in 1st passes and cannot be used to earn a place higher than the tie for which the tie breaker was done.

### C. Additional Judging Criteria for 3X Events and World Finals (SA-3055)

1. The dB Input Sensitivity is to be set at 80 dB with the calibration (CAL) set at zero (0) and the dB per Step set at 3. Settings should never me moved or adjusted during a round.

- 2. Using the SPL portion of the SA-3055, the competitor, with Judge's help, sets reference level at 90 dB.
- 3. The Competitor is then given 2 minutes to make adjustments with the SA-3055 set at Medium speed.

4. Still set at Medium speed, the Judge takes 3 tests by freezing the read-out on the screen. Competitor keeps the highest score.

5. For tiebreakers, the dB Input Sensitivity on the SA-3055 is to be set at 90 dB with the calibration (CAL) set at zero (0), the dB per Step set at 3, and the speed in increased to Fast. Competitor then begins a 2nd and 3rd round if necessary.

6. If a 4th and/or 5th round tie breaker is necessary, the dB Input Sensitivity on the SA-3055 is to be set at 100 dB with all other settings remaining the same.

#### **D.** Microphone/sensor Placement

- 1. Standardized microphone/sensor placement: 26" high in the center of the driver's seat.
- 2. Microphone/sensor placed on MECA approved mic/sensor stand.
- 3. The Mic/Sensor Stand will be placed in the Driver's seat with the stand slid to the rear of the seat as close to the seat back as possible and sitting flush against the seat bottom.

- Some unique situations may arise that disqualify vehicle or system from "RTA Freq Out", determined by MECA Judges



Sound Quality League **Phat Awards** are intended to recognize special vehicles and systems in the contest. They are picked by the Judge Team and the following criteria are used:

SQL Phat Car - The best car involved in SQL contests at the event. Judges look for best paint, aftermarket accessories including wheels and tires, audio system integrated into the vehicle, audio system performance, and overall cleanliness and appearance. This would be the car that most people would choose from all the others, if they were able to own it themselves.

SQL Phat Truck - The best truck involved in SQL contests at the event. This would include all SUV's, vans, pickups, Jeeps, Hummers, and minivans. Judges look for best paint, aftermarket accessories including wheels and tires, audio system integrated into the vehicle, audio system performance, and overall cleanliness and appearance. This would be the truck that most people would choose from all the others, if they were able to own it themselves.

SQL Phat Install - The best audio system installation in a vehicle involved in SQL contests at the event. Judges look for integration into the vehicle, cosmetic appearance, degree of difficulty, and performance of the system as criteria for selection. This would be the flashiest, most remarkable installation at the event.

SQL Most Improved - The Competitor that has raised their *Sound Quality* score the most since their last MECA contest is the "SQL Most Improved".

MECA **Phat ICE** Award - All vehicles are eligible for this award.

The best in-car entertainment system involved in any contests at the event. This includes monitor screen(s), audio system, game system(s), and all equipment relating to a sophisticated entertainment experience. Judges look for integration into the vehicle, cosmetic appearance, degree of difficulty, and performance of the system as criteria for selection. This would be the flashiest, most remarkable entertainment system at the event.





#### Audibility (of flaws)

From best to worst: Inaudible, subtle, slight, moderate, significant, conspicuous, severe, extreme, intolerable

Accuracy: This is a very positive term, generally referred to as Fidelity to the recorded sound. It may sound like a recording (bad microphone, poor engineering etc.)

Aggressive: Negative term for sound that is excessively assertive, bold, and energetic

Analytical: This is a negative term where the detail of the music is over emphasized, similar to turning up the sharpness on a television.

Articulation/ Muddy: The reproduction of inner detail in complex sounds, which makes it easy to follow an individual sound among many complex sounds. Poor articulation would be congested: smeared, confused, muddy, and unexciting

Attack: Refers to the initial of sound an instrument makes (usually percussive but not always), which is followed by decay. This is a large part of pace and rhythm and is describing transient speed.

Boomy: Excessive accentuation on the midbass "akin to singing into a barrel" (New York Times). One-note bass is another example.

Closed-in: The spatial characteristics of a musical event are lost due to a HF roll off.

Coloration: A tonal 'sameness' to reproduced sound. Every track has the same deviation from tonal neutrality

Cupped-hands: coloration similar to speaking through cupped hands

Damping: Similar to the Damping factor in amplifier specifications, under-damping causes loose, heavy bass; over-damping yields very tight but lean bass either covers a broad frequency range.

Detail: Refers to the amount of low-level resolution a system is capable of during solo or soft passages, similar to articulation. Poor detail would be Haze/ Fog.

Effortless: During loud passages the system shows no signs of audible stress. A positive term that implies power, headroom, proper system design and proper enclosure volumes.

Euphonic: Deviation from tonal neutrality that is pleasing to the ear.

Focus: The audible version of the optic term, or the distinctness or clarity of an image.

Forward/ foreshortening: The instruments appear closer than they should and can affect the illusion of depth.

Harsh: A negative term. Unpleasant. Disagreeable; causes discomfort.

Hooty: Resonant colorations may cause some lower-midrange notes (human voice) to jump forward or "hoot" at the listener.

Hot: Very tipped-up frequency range, USUALLY high frequencies.

Imaging: A term for the ability to pinpoint the actual sizes and locations of the instruments.

Lean: Slightly bass-shy. This is the effect of a bass roll off below around 500 Hz.

Musical, musicality: A term for a pleasant sound that resembles live music, not necessarily accurate or realistic.

Nasal: Pinch your nose shut and talk ... that's the sound. Sound that comes from the nose.

Palpable: Describes reproduction that is so realistic you feel you could reach out and touch the instruments or singers.

Realism: The nature of an audio system to reproduce an actual musical event in your vehicle. Similar to accurate but this is a judgment on how the system compares to the original event not the recorded event. The combination of realism with accuracy is the ultimate goal of sound reproduction. This will not sound like a recording.

Sibilance: A coloration that resembles or exaggerates the vocal "s" or "sh" sound.

Stable Imaging: Very desirable. A lack of movement of an instrument as it plays different notes.

Strained: Sounds like the system is on the verge of overload (i.e. cone breakup, possible clipping).

Suck-out: A deep, usually narrow frequency-response dip.

Timbre: The combination of qualities of a sound that distinguishes it from other sounds of the same pitch and volume (a piano, clarinet, oboe, and violin can hit the same tone but not the same timbre).

Visceral: Viscera is "The soft internal organs of the body, especially those contained within the abdominal and thoracic cavities" so visceral impact is... a gut shot. A sensation of the body relating to pressure or concussion from bass dynamics.



**NEON & ACCESSORY LIGHTING CONTEST** - Intended to evaluate and select Best Interior and Best Exterior lighting displays.

### 2 "Ride the Light" Classes

**Best Interior** - All doors and hatches are open for inspection. Judged by the number of lights and scenes, the integrity of the installation, creativity, and the overall impression of the lighting display.

**Best Exterior** - Includes body, under vehicle, under hood, and all factory and non-factory illumination accessories. Judged by the number of highlights and scenes, the integrity of the installation, creativity, and the overall impression of the lighting display.

- A. Vehicle/Owner Requirements
- 1. Vehicle must be driven into judging area by owner/member or Support Team Member.
- 2. Lighting system(s) must be operated by owner/member or Support Team Member
- 3. Vehicle must be operated in a safe and cautious manner.
- 4. Vehicle parked during judging.
- 5. Competitor and team must accord all judges proper courtesy, respect, and cooperation. Any unsportsmanlike conduct will result in disqualification and/or suspension.
- B. Judging Criteria
- 1. MECA judge(s) inspect Interior and Exterior of vehicle.
- 2. All doors, hatches, hoods, trunks, and compartments that are part of the lighting display must be open and viewable. Judges can only judge what is working and viewable.
- 3. Competitor may present vehicle to judge(s) and indicate and explain lighting source(s).
- 4. Contest must start at or after dusk, unless prior notification is given.
- 5. Points are awarded for each display light.
- 6. All vehicles scored on installation practices and viewability.
- 7. Judge's decisions are final.
- 8. 100 points possible for each class; lights counted per B5:
- 20 Front Number of lights. Exterior judged from windshield to front bumper. Interior judged in front of B-pillars.
- 20 Rear Number of lights. Exterior judged from passenger compartment to rear bumper. Interior judged behind B-pillars.

20 Sides - Number of lights. Exterior judged on right and left full body views. Interior judged on right and left doors and side panels. 10 Install - Integrity of installation with 10 points being a perfect install.

- 10 Creativity Unique arrangement, installation, pattern, and use of lights.
- 20 Theme Imagery showing a theatrical type display, color co-ordinated, symmetrical, from front to back.
- C. System Requirements
- 1. Electrical power for all accessories is to be provided by a 12-volt system source that is located in the vehicle, and not by any other physical or mechanical means.
- 2. All lighting systems, whether original factory or aftermarket, should be installed in a safe and secure manner.

Intentional cheating and/or manipulation of the rules will result in permanent suspension from MECA competitions and events. Alcohol, drugs, weapons, and violence of any nature prohibited at all MECA events.





#### I. Purpose & Intent

MECA, Inc. is a sanctioning body for competitors involved with car audio sports. MECA, Inc. is a membership association formed to encourage, support, and reward competitors in car audio sports. These rules are intended to outline the specifics of competition in Boom & Zoom contests. It is the responsibility of each competitor to review the rules, comply with the rules, and honor the rules in cooperation with event officials. MECA, Inc. strives to present each competitor with a fair and unbiased forum in which competition is regarded as worthwhile and enjoyable.

#### II. Objectives

The contest determines the loudest SPL (Boom) and fastest (Zoom) vehicles tested by professional equipment. The judges, working with criteria established here, will objectively evaluate each competitor's vehicle and assign it to the correct competition class. Four classes are based on vehicle performance potential. The loudest vehicles in each competition class will be ranked according to sound pressure level (dB = Boom) indicated by the TermLab decibel meter. The fastest vehicles in each competition class will be ranked according to reaction time plus elapsed time [(RT + ET)10 = Zoom] indicated by track timing equipment. Each class is examined carefully to produce overall ranking in the Boom & Zoom contest, and the top three in each class will receive awards. The fastest vehicle in each class will receive an award.

#### III. Description of Classes

BZ1 - 4 or less cylinder motor naturally aspirated (No power adders)

- BZ2 4 or less cylinder motor using forced induction or 5/6 cylinder motor naturally aspirated
- BZ3 5/6 cylinder motor using forced induction or 8 cylinder motor naturally aspirated
- BZ4 8 cylinder motor using forced induction or more than 8 cylinders, any configuration

#### IV. Classification Guidelines

a) For purposes of the classifications above, a vehicle using a rotary engine shall be classed as follows:

single rotary - 6 cylinder, twin rotary = 8 cylinder (e.g. 1993+ Mazda RX-7 Turbo would be in BZ4 class).

b) "Naturally Aspirated" shall be defined as using a motor with no external power adders such as Turbochargers, Superchargers, or Nitrous Oxide Injection. Some special circumstances may require a naturally aspirated vehicle to be classed in a Forced Induction class. All decisions made in this regard by the Head Judge are final.

c) "Forced Induction" shall be defined as using a motor which has external power adders such as Turbochargers, Superchargers, or Nitrous Oxide Injection. A vehicle that uses Nitro methane, or any fuel other than gasoline or DOT approved fuel, will be classed in a Forced Induction class. All decisions made in this regard by the Head Judge are final.

d) Vehicles must pass the technical inspection required by each specific racetrack. All rules of the host track must be followed at all times. Decisions made by the track management are final.

e) To be eligible to compete in Boom & Zoom the vehicle must contain an audio system powered by the charging system of the vehicle.

The audio system must be capable of producing an SPL score of more than 100 dB (the lower limit of test equipment).

Note: Any attempt to hide or conceal a form of forced induction will result in immediate disqualification and forfeiture of all results and fees.

#### V. Testing Procedure

- a) Vehicle must be operated by the registered contestant. Hearing protection must be used by competitor for SPL test.
- b) Competitor provides software or source for SPL test, i.e. CD, Cassette, MP3, AM/FM Radio, etc.
- c) Boom test performed in pre-stage area, or other assigned area of track.
- d) Sensor is placed in standard position: passenger side in seat, 26" in height, near the headrest.
- e) Once sensor is placed into position, judge gives start signal, and Boom test is taken for 15 seconds.
- f) Any combination of open door and/or windows on driver side and/or front passenger side may be used.
- g) Upon completion of Boom test, sensor is removed, door is closed, and vehicle moves into position for Zoom test.
- h) Competitor takes standard drag pass and brings timing slip to Judge.
- 1) Judge completes Boom & Zoom score sheet using the SPL score and timing slip data to compute the SPLeed score.

#### VI. Scoring

Rankings of competitors are established by determining the loudest SPL score measured in decibels (dB = Boom) and the fastest vehicle measured by elapsed time plus reaction time times a factor of 10 [(RT + ET)10 = Zoom] to determine the SPLeed score. The points from Zoom are subtracted from Boom points to determine the SPLeed score. The competitors' SPLeed scores are ranked from highest to lowest. The competitor with the highest SPLeed score wins the class. Awards are given to the remaining competitors for 2nd and 3rd places, based on SPLeed scores. Special awards are given in each class to the "Loudest" and also the "Fastest" competitors.

#### VII. Tie-breaker

When there is a tie in SPLeed points, the Boom score (dB) will serve as the tie-breaker. If that doesn't break the tie, the speed in MPH will serve as that tie-breaker.

	Mobile Electronics Competition Asso	ociation, Inc.
mecacaraudio@comcast.net	5308 Brick Church Pike	www.boomandzoom.com
inceacai audio a concastinet	Goodlettsville, TN 37072	www.boomana2oom.com
	615-851-PHAT Office 615-855-3460	) Fax



"MECA Kids" - Intended for MECA Members and their "MECA Kids" to share club activities and learn about club and sports competition interactions.

#### 3 "MECA Kids" Classes

MK1 - Ages 5 and Under: 1 - 8" Woofer and 1 - 20 Amp AGU Fuse MK2 - Ages 6+: 1 Woofer and 1 - 40 Amp AGU Fuse MKDB - All "MECA Kids" with qualifying vehicles and systems

#### **Basic Rules**

1. The vehicle must be a commercially available electric toy. In other words: no custom built rides

2. The vehicle must be able to pull its own weight and maintain all the factory designed functions. In other words: it must drive, turn, etc.

3. The vehicle must be operated from a 12-volt battery source that must also power the vehicle, except for vehicles that are of some other voltage nature; i.e. 6 volt vehicles. The 12-volt source must be mounted to the vehicle in a secure fashion and must remain within the confines of the vehicle.

4. The source unit must be mounted externally from the vehicle and must be powered by the vehicle. The source unit must be operated by the child, but an adult may help the younger children.

5. The vehicle must pass a basic safety inspection.

6. Sensor placement will be in some type of floorboard area. The front of the sensor will be placed 1" from the nearest surface,

7. No body modifications will be made with the intent of increasing the sound pressure level score. Body modifications include; but not exclusively, fiberglass or adding panels that were not there originally; i.e. doors, roof, etc.

8. Source material must be of a musical track nature. Please see source material rules for "Drive-by SPL Parade".

9. Children of MECA members will be given a free "MECA Kids" membership to the club.

10. The entry fee will be \$5 and will include 1 pass for the sound pressure test. "MECA Kids" may also take a free "Drive-by SPL Parade" test.

11. The highest score wins, measured in dB by the TermLab meter. Tie-breaker tests will be given when necessary.

12. If a parent is caught cheating in any way, the entry will be disqualified. This is intended to teach children about competition and fun, not how to cheat.

13. Hearing protection is required at all times during competition.

14. The system must play without blowing a fuse. If the fuse blows, the child will be given the opportunity to repair the malfunction and make another pass. If the fuse blows again, the pass is disqualified.

#### **System Requirements**

#### MK1 (MECA Kids 1) (Ages 5 & Under)

1. The system is restricted to 1 - 8" woofer and 1 - 20 amp AGU fuse.

2. Due to space restrictions on certain electric toys, seats may be relocated as long as the vehicle can be driven by the average child. A seat may be reduced in size as long as a child can still drive the vehicle.

3. All aspects of the system must remain in the confines of the vehicle, except the source unit. No build-outs or adding extensions on the body. In this class, the con-

fines of the vehicle will be defined as the body. No part of the system can extend further then the aspects of the body of the vehicle

4. The enclosure can be no taller than 16" or the highest portion of the vehicle that comes from the factory.

5. The vehicle must have some form of full range speaker in order to verify that musical tracks are being played.

#### MK2 (MECA Kids 2) (Ages 6+)

1. The system is restricted to 1 woofer and 1 - 40 amp AGU fuse.

2. Due to space restrictions on certain electric toys, seats may be removed. Due to the the weight and size of the children of this class, the vehicle doesn't have to be driven into the lanes, but the vehicle must drive by remote or outside control; i.e. push button throttle.

3. All aspects of the system must remain within the confines of the vehicle, except the source unit. No build-outs or adding extensions on the body. The confines of the vehicle will be defined as all aspects of the vehicle. Width is defined from tire to opposite tire, and length is defined from front bumper to rear bumper.

4. The enclosure can be no taller than 20", including anything mounted to the enclosure.

5. All parts of the enclosure must be at least 8" from the steering wheel of the vehicle. No modifications to the steering wheel will be allowed in order to place the enclosure closer to the front end.

6. The vehicle must have some form of full range speaker in order to verify that musical tracks are being played.

#### "Drive-by SPL Parade" Rules for 'MECA Kids"

1. All "MECA Kids" will be eligible to compete in one division known as MKDB unless the show promoter wishes to divide the class, in which case the classes will mirror standard "MECA Kids" SPL classes.

2. All rules will mirror MECA's" Drive-by SPL Parade" rules, except sensor placement. Sensor placement will be 3' from the vehicles right side, with standardized height that will be 26" (a "Reality SPL" sensor stand) from the ground.

- Some unique situations may arise that disqualify vehicle, system, and/or competitor from "MECA Kids" Format, determined by MECA Judges.



# **Show & Shine Judging Guidelines**

8 Classes:

Domestic Car Mild Domestic Car Wild Import Car Mild Import Car Wild Truck Mild Truck Wild SUV / Van Vintage

# **Class Definitions:**

#### Domestic Car Mild

Manufacturers: Dodge, Chrysler, Plymouth, Chevy, GM, Pontiac, Buick, Oldsmobile, Ford, Lincoln, Mercury, or any vehicle produced in the United States.

Modifications Allowed:

Aftermarket paint

Rims and Tires (without suspension or body modifications in order to house them)

Body Kits (as long as it was an original item from the manufacturer)

Engine Modifications or Swaps (as long as no body modifications are required to house said engine or modifications)

Interior Modifications (limited to seat replacement or recovering as long as it is a cloth type recovering or replacement & interior panels may be replaced or painted as long as fiberglass or body fillers are not used for over 25% of the interior)

#### **Domestic Car Wild**

Manufacturers: SAME AS ABOVE Modifications Allowed: OPEN

#### **Import Car Mild**

Manufacturers: Acura, Honda, Infiniti, Nissan, Lexus, Toyota, Volkswagen, or any other manufacturer outside the United States Modifications Allowed: SAME AS DOMESTIC MILD

#### **Import Car Wild**

Manufacturers: SAME AS ABOVE Modifications Allowed: OPEN

#### **Truck Mild**

Manufacturers: Any vehicle listed as a pick up including Chevy Avalanche, Honda Ridgeline, and Ford Explorer Sport Trac Modifications Allowed: SAME AS DOMESTIC MILD Frame C Notching is not allowed in Mild

#### **Truck Wild**

Manufacturers: SAME AS ABOVE Modifications Allowed: OPEN

#### SUV / Van

Manufacturers: Any vehicle listed as a SUV or Van including Crossover vehicles such as Ford Edge. Modifications Allowed: OPEN

#### Vintage

Manufacturers: Any vehicles 20 years and older. Modifications Allowed: OPEN If modifications have not been made, use the vehicle's vintage accuracy for Integration of Aftermarket Equipment.

#### Judging Criteria:

All vehicles are judged on cleanliness and attention to detail. Modifications are only taken into account in classifications and scoring for Integration of Aftermarket Equipment and Consistency.



# **Show & Shine Judging Guidelines**

# **Definitions of Scoresheet**

## Interior

All aspects are judged on cleanliness and attention to detail. No modifications are to be taken into account on this part of the score sheet.

## Exterior

All aspects are judged on cleanliness and attention to detail. No modifications are to be taken into account on this part of the score sheet.

## **Engine / Trunk**

All aspects are judged on cleanliness and attention to detail. No modifications are to be taken into account on this part of the score sheet.

## Integration of Aftermarket Equipment

Modifications are scored in this category. Vehicles are given points for not only modifications, but also, how the modifications are installed. For example:

• Is the speaker enclosure flushed into the trunk and covered in fabric to match the vehicle or is it a simple prefab box?

• Is the aftermarket ground effects kit painted to match the car or is it primer and attached with sheet metal screws?

Are the aftermarket seats professionally installed with modified seat rails or factory seat rails?

## **Overall Vehicle Appearance**

This category critiques the overall appearance of the vehicle by two divisions.

• Consistency of the Vehicle deals with the overall modifications of the vehicle as it contributes to a theme of the work. Theme can be easily defined as "What look was the owner going for?" Was the owner going to a low rider, import tuner, muscle car, and something different? This can also be defined as "Do the modifications flow with the vehicle's appearance?" When you look at the vehicle, does everything have its place and does it belong there?

Creativity deals with the owner's ability to try to make the vehicle stand out amongst others.



# Microphone & Sensor Stands

SQL "RTA Freq Out" Stand and SPL Sensor Stand

5/8" thick wood for base and arm. Recommended base measurements 12" X 8.25". FIG 1 Arm at 10 degree angle, 26.75" long for the SPL Sensor, and 22.75" long for the RTA Mic. Some variation is allowed as long as the sensor height is 26".

Material to secure the sensor: One piece of wood or plexiglass, at right angle, has been used with Velcro to hold the sensor, which can be removed and replaced easily. FIG 2

The sensor hole on the sensor, and microphone tip is 26" high, measured from the seat's surface (bottom of the sensor stand). FIG 3 and FIG 4

Standard microphone holder accessory is secured to the top for RTA. FIG 4

Microphone tip and sensor hole always face toward the front of the vehicle. FIG 1 and FIG 5

SPL sensor placed 20" from windshield on horizontal plane FIG 7

Sand bags may be used to secure SPL sensor stand at 20" from windshield FIG 6



MECA, Inc. Mobile Electronics Competition Association, Inc. 5308 Brick Church Pike Goodlettsville, TN 37072-9014 615-851-PHAT Office 615-855-3460 Fax www.mecacaraudio.com www.boomandzoom.com www.boomandzoom.com mecacaraudio@comcast.net



						-
	8	10	12	13.5	15	18
1	50.2655	78.53982	113.0973	143.1388	176.7146	254.469
2	100.531	157.0796	226.1947	286.2776	353.4292	508.938
3	150.796	235.6194	339.292	429.4164	530.1438	763.407
4	201.062	314.1593	452.3893	572.5553	706.8583	1017.876
5	251.327	392.6991	565.4867	715.6941	883.5729	1272.345
6	301.593	471.2389	678.584	858.8329	1060.288	1526.814
7	351.858	549.7787	791.6813	1001.972	1237.002	1781.283
8	402.124	628.3185	904.7787	1145.111	1413.717	2035.752
9	452.389	706.8583	1017.876	1288.249	1590.431	2290.221
10	502.655	785.3982	1130.973	1431.388	1767.146	2544.69
11	552.92	863.938	1244.071	1574.527	1943.86	2799.159
12	603.186	942.4778	1357.168	1717.666	2120.575	3053.628
13	653.451	1021.018	1470.265	1860.805	2297.29	3308.097
14	703.717	1099.557	1583.363	2003.943	2474.004	3562.566
15	753.982	1178.097	1696.46	2147.082	2650.719	3817.035
16	804.248	1256.637	1809.557	2290.221	2827.433	4071.504
17	854.513	1335.177	1922.655	2433.36	3004.148	4325.973
18	904.779	1413.717	2035.752	2576.499	3180.863	4580.442
19	955.044	1492.257	2148.849	2719.637	3357.577	4834.911
20	1005.31	1570.796	2261.947	2862.776	3534.292	5089.38

	3	192	300	432	675
	4	256	400	576	900
	5	320	500	720	1125
	6	384	600	864	1350
	7	448	700	1008	1575
	8	512	800	1152	1800
	9	576	900	1296	2025
	10	640	1000	1440	2250
	11	704	1100	1584	2475
	12	768	1200	1728	2700
<b>HITCH</b>	13	832	1300	1872	2925
ןנים נביון	14	896	1400	2016	3150
	15	960	1500	2160	3375
	16	1024	1600	2304	3600
	17	1088	1700	2448	3825
	18	1152	1800	2592	4050

F

¢

E

L

╞





MECA's main goals are FAIR & FUN events for Competitors involved on the event day. These guidelines are intended to ensure that our Competitors are treated ethically and respectfully. When the events are fair the Competitors can have more fun, knowing that the Judge Team is following the Rule Book and treating everyone the same, in accordance with the Rules. Judges are at the event to evaluate and help the Competitors and to make sure that safety issues are handled properly. A copy of the 2010 Rule Book should be at every MECA event.

### Judge Definitions for Sound Pressure League and Sound Quality League

Meter Operator - Training on operating the computer or meter is required. Anyone may do it, supervised by the Head Judge. Sensor/Mic Stand Placer - Responsible for most fair and proper stand and sensor placement under direction of Head Judge. 1X - No formal Judge Training is required. This is for Retail Members, Hosts, and Promoters who judge their events.

2X - Judge Training and experience required.

**3X - Judge Training and experience required** 

Head Judge - SPL Head Judge is responsible for all SPL contests. SQL Head Judge is responsible for all SQL contests. Event Director - Responsible for all contests and MECA related activities at the event.

Event Co-ordinator - Sets up events and oversees all aspects of scheduling and promotion, working closely with the Commissioner. Responsible for all contests and MECA related activities at the event.

#### Guidelines

1. Judges will make decisions fairly, with no regard for personality, system budget, brand name of equipment, vehicle, place of business, installer, or personal biases.

2. When in a compromised position, the Judge will inform the Head Judge. A Judge will not judge family, friends, Team members, customers, or their own vehicle when another more independent Judge is available.

3. All Judges are required to print their name or initials on all score sheets for every Competitor at every event.

- 4. Judges do not wear apparel (shirts, hats, etc.) that advertises any brand names. MECA Judge shirts & hats are preferred.
- 5. Judges do not eat, drink, or smoke in Competitors' vehicles.

6. Judges will use all due care and consideration for the Competitors' vehicles, equipment, and property. For example, Judges must remove key chains before the event begins to prevent scratching a vehicle's interior or exterior.

7. Judges use all due care when placing or removing the sensor/mic stand.

- 8. Judges do not drive, or move, a Competitor's vehicle without permission.
- 9. Judges stress safety at all times, especially when driving through the lanes and event area.

10. Judges do not make any adjustments to the Competitors' equipment. Judges may assist Competitors with adjustments during Cliniques only, making recommendations but not touching the equipment.

11. Judges will have Competitors move wires, or property, when necessary. When a lose wire is noticed, the Competitor will be informed as soon as possible.

12. When a verification or rule is questioned, the Head Judge should be involved for resolution.

13. In case of a protest, it will be handled by the Head Judge, who will fill out the Protest Form and direct the investigation.

14. Judges will not promote or solicit business or side-jobs during the event. If asked, the proper response would be to pass on a business card and ask to be contacted after the event.

15. MECA's leagues, formats, contests, and events have unique names, i.e. Sound Pressure League, Sound Quality League, Boom & Zoom, Ride the Light, MECA Kids, Drive-by SPL Parade, Modex, Radical X, RTA Freq Out, etc. MECA officials should only use MECA names for club contests. The use of trademarked or copywritten intellectual property names from other organizations at our club contests is not permitted.

16. SQL Judges may compete in SPL contests, and SPL Judges may compete in SQL contests, but should never be involved in verification, testing, or scoring their own vehicles.

17. Violations and concerns should be reported to the Head Judge or Event Director at the show. If necessary, please inform the Commissioner via mecacaraudio@comcast.net or 615-851-PHAT.