



## **2024 NHRA RULE AMENDMENTS**

**(THESE RULE AMENDMENTS COVER RULE CHANGES MADE TO THE INITIAL RELEASE OF THE 2024 RULEBOOK)**

***(UNLESS OTHERWISE NOTED, RULE CHANGES BECOME EFFECTIVE IMMEDIATELY)***

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Deletions are ~~Red strikethrough~~

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**SECTION 4: JR. DRAG RACING LEAGUE, ENGINE: 1, CAMSHAFT (Page 6)  
(01/23/2024)**

Any camshaft permitted; ~~no overhead valves, no overhead cams.~~ Any size valve permitted. Any valve spring permitted.

**SECTION 4: JR. DRAG RACING LEAGUE, ENGINE: 1, ENGINE (Page 6)  
(01/23/2024)**

Novice, Intermediate, Advance, and Master classes restricted to a maximum of one rear-mounted — based on a five horsepower, single-cylinder, single-spark-plug, flathead-configured, four cycle engine or ~~factory-sealed Briggs & Stratton 206 crate engine~~ any OHV engine 212CC or smaller single cylinder— engine from a recognized OEM or NHRA-accepted aftermarket supplier. Must be NHRA accepted. NHRA accepted aftermarket block permitted. Must retain original five-horsepower engine block configuration. Porting, polishing, and relieving of block; boring of cylinder; machining of deck surface permitted. Aftermarket head permitted. Adding material to deck surface, installing a spacer between the block and cylinder head, or any other modification designed to increase the effective deck height of the cylinder prohibited. ~~Briggs & Stratton 206 crate engine must maintain untampered hologram seal installed at the factory. No alterations or modifications to Briggs & Stratton 206 crate engine permitted except for installation of exhaust header and air filter.~~

JR ROADSTER: maximum engine height measured from the ground to top of cylinder head not to exceed 36”

Accepted aftermarket engines for Novice, Intermediate, Advanced and Master classes: Metro Racing flathead, McGee Racing flathead, Tecumseh flathead, LPW Racing Products monster racing block, JR Race Car flathead, Pure Power Racing flathead, M-1 Machine racing block, SR71 Racing Block by Soltz Racing, Huddleston Performance Sniper, R&S Machine Terminator, TRS block, and ~~Briggs & Stratton 206 factory-sealed engine (with a red, blue or black slide valve)~~ any OHV engine 212CC or smaller single cylinder or an electric powered motor meeting the rules found in the Electric-Powered Jr. Dragster section of this rulebook. All accepted aftermarket flathead engines must not exceed 10 11/16 inches from base to deck. Any measurement that exceeds that limit is prohibited. See Trainee and Youth Class Designations for their engine requirements.

**SECTION 4: JR. DRAG RACING LEAGUE, ELECTRIC-POWERED JR. DRAGSTER (Page 20) (01/19/2024)**

**Electric-Powered Jr. Dragster**

Requirements and specifications for electric-powered Jr. Dragster vehicles are the same as those for the NHRA Summit Racing Jr. Drag Racing League with the following exceptions:

## DESIGNATIONS

EPJD, preceded by competition number.

Competition is designed to be conducted on an e.t. dial-your-own format or a preset index on a heads-up breakout basis. Actual class or age-group breaks may vary from track to track. Contact your local track for information on class structure.

## REQUIREMENTS & SPECIFICATIONS

A list of all electrical components along with their specification information utilized in the build of car must be kept and available to a tech inspector upon request. This documentation must contain documentation from the battery cell/pack producer specifying relevant safety data. A contingency plan must also be provided describing how to handle the battery pack in case of overheating and/or crash. This documentation must include:

- Weight of battery pack and hold down bolt specifications
- Logbook documenting number of runs on battery system, dates, and times of each battery charging/balancing event along with high low and average voltage including cell number.
- Pictures of HV terminals under and around the car showing insulation
- Fuses used and blow curve chart (provided by fuse manufacturer or vehicle builder)

### MOTOR: 1

#### MOTOR

All vehicles are restricted to a maximum of one (1) rear-mounted electric motor. Motor must be mounted in conventional position. Motor with exposed armatures must have a shield of .024-inch steel, .032-inch aluminum, or .120-inch Lexan.

### FRAME: 4

#### DEFLECTOR PLATE

A deflector plate of minimum .125-inch steel must be installed between roll cage and battery pack extending from lower frame rail to the top of driver's helmet. Portion between lower and upper shoulder hoop must extend and attach to the body panel. Two-piece plate permitted with no gaps. Portion between shoulder hoop and top of helmet must be minimum 7 inches wide, may be narrowed or rounded above the helmet. Two-piece plate permitted with no air gap between the two. Carbon fiber, titanium and all other materials prohibited. IF using the .125-inch steel plate forward of the battery per the mounting requirements in the "Battery mounting section" The standard .0625-inch deflector plate can be used.

## **WEIGHT**

Minimum weight less driver 225 pounds; weight greater than 400 pounds less driver with all batteries requires SFI chassis specification 2.7.

## **ELECTRICAL: 8**

### **ONBOARD BATTERY MANAGEMENT SYSTEM (BMS) MANDATORY**

Beginning July 1, 2024, The BMS system will become mandatory and the below listed functions must be incorporated in the BMS system. BMS is a battery management system connected to the battery cells and provides automatic charging and discharging control to maintain the battery system within the battery manufactures specifications. The onboard BMS system must at least be able to enable and disabling charging based on the battery manufacturers' specifications while monitoring the individual or parallel cell groups. It must also have the capability of derating or disabling vehicle based on pack voltage limit by either BMS and/or controller. The BMS must also have the proper pack and cell high/low voltage settings programmed per the battery manufacturer's specifications. BMS system must have the ability to balance individual cells.

There are 6 basic functions the BMS must be capable of doing:

1. Monitor individual cells or parallel cell group voltage.
2. Balance individual cells or parallel cell groups.
3. Control charger function, on/off.
4. Control load (motor) function, on/off.
5. Control indicator light function, green for able to run/charge, good; red for stop functions, bad.
6. Be pre-programmed and "locked out" of end user adjustability.

### **NHRA (National Hot Rod Association) approved vendors**

[www.Mleracecars.com](http://www.Mleracecars.com) for BMS part number BMSBasic

[www.orionbms.com](http://www.orionbms.com) for BMS part number Orion BMS 2

All potential vendors are encouraged to submit their BMS system to NHRA technical department for consideration.

## **BATTERY MOUNTING**

All HV batteries must be securely mounted outside of and completely sealed from the driver compartment and located in a battery containment box. Batteries must be installed to withstand a force four times (vertical) and eight times (horizontal) the weight of the battery pack, and each battery or battery pack must be secured with bolts and straps appropriate for the size and weight of the battery (see chart). Battery containment box must be securely mounted between frame rails or enclosed in chromoly round tube frame minimum 1 1/8 x .058 chromoly tubing or if mounting battery on the rear behind the axle of the dragster it must be in a steel containment box constructed of .040-inch steel. Rear mounted battery box horizontal midline cannot be higher than the rear tires and must be centered directly behind the rear tires. Battery containment box must be

constructed of Lexan (min. .120 inch) or aluminum (min. .050 inch) with a nonmetallic insulation lining or; steel (min. .040") with a nonmetallic insulation lining. Bottom and sides battery containment box must be solid. If battery is mounted directly behind driver, the forward side of the battery, facing the driver area, must be shielded with a steel plate (min. .125" inch) and must extend the entire inside width of the frame rails or minimum 1" beyond the width of the battery box. Be positioned no further than 1 inch forward of the battery and be tall enough to extend from the base of the battery box to at least 6 inches above the top of the battery. The battery box top must contain water access holes covering at least 25% of the surface area.

## **BATTERIES**

Beginning January 1, 2024, all new and reconditioned batteries must have an inspection date (original date of manufacturer and/or inspection date) stamped on the battery by the inspecting manufacturer. The Battery may be comprised of one or more Battery Packs connected together with suitably protected cables/connectors/fuses between the packs. A battery pack may be comprised of multiple Battery Cells connected in series and parallel to form the total battery voltage and amperage required. Battery cells must be starved electrolyte having little to no free liquids in them whether they are Lead/Acid, Lithium Ion, or NiCad. No solid lithium metal battery cells permitted. The battery cell manufacturers maximum charged voltage and minimum sag voltage ratings must be kept in the vehicle logbook for reference. Mounting: Each battery pack must be secured with bolts and/or straps commensurate with its size and weight and installed to withstand a force four times (vertical) and eight times (horizontal) the battery pack's weight. (Contact NHRA for requirements) Battery packs may not be located directly above the top of rear or drive tires in open wheeled cars.

## **BATTERY CHARGING**

Batteries may be recharged in pits or other designated areas only. Batteries must be charged outside of trailers or enclosed areas and must not be left unattended during the charging process. Batteries must be charged utilizing either the original unaltered OEM Charger, or an unaltered commercially available charging system, that will watch individual cell levels and have redundant ways to shut off the charging system in case of an overcharged condition. All battery cells should be balanced prior to charging. All battery chargers must be equipped with an output fuse rated above the maximum charger voltage capability and at least 125 percent of maximum charger DC output. Charging systems must connect earth ground potential to vehicle ground. The BMS system must be utilized during all system charging events. Cars must not be stored, during an event, at top of charge.

<b>Battery on Flat Surface with Two-Bolt Strap Only</b>			
<b>Bolt Size</b>	<b>Grade 1 Battery</b>	<b>Grade 5 Battery</b>	<b>Grade 8 Battery</b>
#8		16	22
#10		20	28
1/4	14	36	50
5/16	23	58	82
3/8	34	86	121
7/16	46	117	166
1/2	61	157	222
9/16	78	201	284
5/8	97	250	353
<b>Battery in Rack or Box-Mounted</b>			
<b>Bolt Size</b>	<b>Grade 1 Battery</b>	<b>Grade 5 Battery</b>	<b>Grade 8 Battery</b>
#8	15	39	55
#10	19	49	69
1/4	35	88	124
5/16	57	145	205
3/8	83	214	302
7/16	114	293	413
1/2	152	392	553
9/16	195	503	710
5/8	243	624	881

### **FUSING OF BATTERIES**

All battery packs must have over-current protection. Circuit breaker(s) or fuse(s) permitted. Such protection devices must have a DC voltage rating equal to or greater than nominal pack voltage. The current rating must be lower than master disconnect contactor, cabling, and battery pack can carry without damage. Each battery pack must be individually fused and located on or in the battery pack. Fuses must not be wired in parallel. Fuses must be properly rated for application. Drive system (motor controller/inverter) must be fused either before or after the main contactor.

### **IGNITION**

All vehicles must be equipped with a switch, attached to the driver with a lanyard, capable of shutting off all power to the motor. Switch may actuate relay or contactor. Solid state switch prohibited. A flashing yellow light must be affixed to the top of the roll cage indicating that the HV system is ready to run.

### **READY LIGHT AND HIGH VOLTAGE INDICATOR LIGHTS:**

Mandatory – all cars must have an LED or LED's that can illuminate red/green. The red/green LED light must also be affixed to top of the roll cage. Green/Red light must be functional during charging, balancing, and driving. The light(s) must illuminate GREEN in color if BMS system is active and all systems are functioning properly (SAFE). The LED(s) light must illuminate RED in color if the IMD or any other monitoring system has triggered a fault (DANGER). Safety Indicator lights must remain illuminated after Master Cutoff Switch has been pushed off. A minimum of 1/2" LED required. LED lighting must be clearly visible at a minimum of 100 feet from vehicle in direct sunlight.

### **MASTER CUTOFF SWITCH**

All vehicles must incorporate a master electrical disconnect switch that will disengage the contactor on the high voltage system, disabling the high voltage



for the drive system. The low voltage system must, at a minimum, continue to illuminate the high voltage safety indicator lights, BMS, VCU and IMD (if installed). Master Cutoff Switch must be on the deflector plate no more than three inches from the roll cage's top. Must be clearly labeled as to "off" position.

### **IMD**

An IMD (Insulation Monitoring Device) is suggested. The IMD monitors the chassis for high voltage shorting. The IMD may be stand alone or part of the electronic subsystem. The IMD must be capable of commanding, either directly or indirectly through the Vehicle Control Unit (VCU) or other computer systems, the vehicle status lights to turn red if high voltage is present on the chassis. The IMD must stay powered even when the Master Battery Disconnect is deactivated (pushed off) to alert track officials of a potential high voltage short on the vehicle. The owner/driver is responsible for understanding the IMD system and for testing and demonstrating its functionality upon request.

### **VOLTAGE**

Maximum permitted design voltage 144 Vdc nominal. Voltage verified through readings or display of BMS. Maximum fully charged battery-pack voltage of 150 Vdc.

### **CABLE TERMINATIONS and TERMINALS**

- All areas of the driver's compartment from the deflector plate to the end of the pedal box area must be free of any high voltage wiring to provide safety personnel with a safe area to cut around the driver in the event of an accident.
- Electrical cables and electrical equipment must be protected against mechanical failure, etc.).
- Cables, connectors, and wiring utilized in the HV system must have an insulation rating at or above the maximum fully charged voltage of the HV battery system being used.
- All cable terminations and splices must be properly terminated and covered with insulation at least equal to that of the maximum fully charged voltage of the HV battery system being used to protect against accidental contact.
- All traction wiring must be isolated from vehicle chassis.

### **SECTION 5H: ELECTRIC-POWERED VEHICLE, ELECTRICAL: 8, BATTERY CONTAINER DIMENSIONS (Page 34) (01/30/2024)**

- Original OEM Battery packs/boxes maybe used if unaltered and utilizing original OEM battery pack/box components
- Purpose build battery box(es) dimensions must each be less than 5 cubic feet (8,640 cubic inches) in size.

**ALL VEHICLES (WITH EXCEPTION OF DRAGSTERS AND OPENED BODIED VEHICLES)**

- All battery cells must be completely sealed and isolated from the drivers compartment in a solid vented battery container.
- Battery container construction requirements
  - Must be made of Lexan (min .120”) or; aluminum (min.032”) **with a nonmetallic insulation lining** or steel (.024-inch) with a nonmetallic insulation lining
- Water Access
  - Each sealed container must contain a water inlet located at both the drivers and passenger side of the vehicle. The sealed box must also contain a water outlet which must be vented to the bottom or rear of the vehicle. Each water inlet and the water outlet must utilize the Pyrotech billet flapper valve part number FV350 (<https://www.pyrotechstore.com>) or an NHRA Accepted valve.
- Ventilation
  - All battery packs whether they are located underneath the floor, in front of the front firewall or behind a rear firewall must be vented to the bottom and outside of the vehicle away from the drivers compartment and rescue access.
    - All sealed boxes must be vented to the bottom or rear of the vehicle, must not be vented to either the driver or passenger side of the vehicle.
    - Ventilation tube must be a minimum of 2” diameter.
    - Vent must contain a one-way pressure relief valve or flap with a minimum opening size of 2”.

**DRAGSTERS/OPEN BODIED VEHICLES**

- Batteries must be located behind the driver’s compartment
- Driver deflector plate must be installed between driver and battery pack(s). See deflector plate under Frame:4
- Battery container construction requirements
  - Must be mounted between framerrails and enclosed in a round tube frame, minimum 1 1/4-inch O.D. x .065-inch chromoly tubing
  - Must be made of Lexan (min .120”) or; aluminum (min.032”) **with a nonmetallic insulation lining** or steel (.024-inch) with a nonmetallic insulation lining
  - Bottom and sides must be solid
  - Top cover must contain water access holes covering approximately 30% of the surface area.

**SECTION 6: NHRA PRO MOD, DESIGNATIONS (Page 1)**  
**(12/22/2023)(01/23/2024)**

PM, preceded by car number. Classes of competition within Pro Modified are for supercharged, methanol-burning, turbocharged methanol or gasoline-burning, or nitrous-assisted, gasoline- burning full-bodied cars.

Minimum weight at the conclusion of run, including driver:

Nitrous-assisted entries (910 cid) - 2,515 pounds

Nitrous-assisted entries (960 cid) - 2,565 pounds

Nitrous-assisted entries (961 cid and larger) – 2,615

Roots supercharged entries (526 cid) – 2,635 pounds

Centrifugal supercharged entries (526 cid) - 2,740 pounds

Screw Supercharged entries (526 cid) – 2,640 pounds

Turbocharged entries (526 cid) - 2,590 pounds

Nostalgia body styles (1937-1938 Chevy, 1941 Willys, 1949-50 Mercury, 1953 Studebaker, 1953-1962 Corvette, 1955-1957 Chevy and Buick and 1968-1972 Chevelle) may deduct 50 pounds from minimum weight.

Nostalgia body styles (1959 and older) may deduct 75 pounds from minimum weight. Nostalgia body styles (1969-2000) may deduct 50 pounds from minimum weight. 1968-1972 Chevelle may deduct 30 pounds. 1<sup>st</sup> Generation Firebird or Camaro may deduct 15 pounds.

NHRA reserves the right to amend rules as performance dictates. Any competitor who causes an oildown while participating at an NHRA Mission Foods event will be subject to fines and penalties as outlined in Section 2 – Oildown Penalties.

## **SECTION 6: NHRA PRO MOD, ENGINE: 1, CYLINDER HEADS (Page 2) (01/23/2024)**

Hemi, canted-valve, or wedge heads permitted. Billet heads permitted. Maximum one spark plug per cylinder. Maximum two valves per cylinder. Supercharged valve sizes greater than: intake 2.400 inches; exhaust 1.900 inches, add 25 pounds. Turbocharged valve sizes greater than: intake 2.450 inches; exhaust 1.900 inches, add 25 pounds. Excluding Nitrous, any valve size greater than 2.521 add an additional 15 pounds for a total of 40 pounds added to combination weight. Supercharged intake valve sizes 2.400 to 2.521 add 25 lbs. Valve sizes greater than 2.521 add 40 lbs. Turbocharged intake valve sizes 2.450 to 2.521 add 25 lbs. Valve sizes greater than 2.521 add 40 lbs.

## **SECTION 11B: NHRA FACTORY STOCK SHOWDOWN, DESIGNATIONS (Page 15) (12/22/2023)(01/23/2024)**

Designation: FSS

Reserved for 2008 and newer Chevrolet COPO, Dodge Drag Pak, and Ford Cobra Jet with the following factory production engine of the same make. Year of engine optional. Only those engines and/or bodies listed in this section are eligible for the NHRA Factory Stock Showdown.

Minimum weight for all pre-2019 Chevrolet COPO and Ford Cobra Jet combinations 3,450 pounds except for all Ford Cobra Jet combinations with 2.3L Eaton superchargers 3,275 pounds.

Minimum weight for the 2015 Drag Pak combination 3,500 pounds.

Minimum weight for 2021 Drag Pak combinations 3,525 pounds.

Minimum weight for 2019, 2020, 2022 and 2023 Chevrolet COPO combinations ~~3,550~~ 3,525 pounds.

Minimum weight for the 2019 Ford Cobra Jet combinations 3525 pounds.

Maximum weight on all combinations 3,600 pounds.

Note: NHRA may make adjustments to (minimum weights, supercharger pulley ratios, etc.) at any time to control performance and maintain parity within the category.

Permitted Combinations:

**All previously approved NHRA Factory Stock Showdown bodies are eligible to be used with the approved engine combinations listed below. Engine must be same make as body.**

**2017-2018 Camaro COPO 350**

- 590 HP Supercharged 2.9L Whipple

**2019, ~~2020, 2022-2023~~ Camaro COPO 350**

- 630 HP Supercharged 2.65L Magnuson
  - Upper supercharger pulley size: ~~(3.375)~~(3.625) inches
  - Supercharger rear jack shaft cog pulley 32 teeth
  - Supercharger rear cog pulley 34 teeth

~~**2020 Camaro COPO 350**~~

- ~~- 630 HP Supercharged 2.65L Magnuson
  - ~~- Upper supercharger pulley size: (3.375) inches~~
  - ~~- Supercharger rear jack shaft cog pulley 32 teeth~~
  - ~~- Supercharger rear cog pulley 34 teeth~~~~

~~**2022-2023 Camaro COPO 350**~~

- ~~- 630 HP Supercharged 2.65L Magnuson
  - ~~- Upper supercharger pulley size: (3.375) inches~~
  - ~~- Supercharger rear jack shaft cog pulley 32 teeth~~
  - ~~- Supercharger rear cog pulley 34 teeth~~~~

**2015 Challenger Drag Pak 354**

- 540 HP Supercharged 2.9L Whipple
  - Upper supercharger pulley size: (3.000) inches

**2021 Challenger Drag Pak 354**

- 630 HP Supercharged 3.0L Whipple
  - Upper supercharger pulley size: (3.750) inches
  - Lower engine pulley (8.000) inches

**2010 Mustang Cobra Jet 330**

- 435 HP Supercharged 2.3L Eaton

**2012 Mustang Cobra Jet 330**

- 450 HP Supercharged 2.3L Eaton

**2016 Mustang Cobra Jet 302**

- 575 HP Supercharged 2.9L Whipple

**2019 Mustang Cobra Jet 327**

- 610 HP Supercharged 3.0L Whipple
  - Upper supercharger pulley size: ~~(3.500)~~(3.750) inches
  - Upper supercharger pulley size with iron block: ~~(3.750)~~(3.875) inches
  - Lower engine pulley 6.938 inches

**2019 Mustang Cobra Jet 351**

- 570 HP Supercharged Whipple
- Upper supercharger pulley size: (3.500) inches

**SECTION 13A: COMP, GAS DRAGSTER, CLASSES (Page 6) (12/20/2023)**

A/D: 3.40 to 3.99 pounds per cubic inch; 1,350-pound minimum; V-8 only

A/DA: 3.40 to 3.99 pounds per cubic inch; 1,350-pound minimum; V-8 only, automatic transmission with converter only

B/D: 4.00 to 4.49 pounds per cubic inch; 1,350-pound minimum; V-8 only

B/DA: 4.00 to 4.99 pounds per cubic inch; 1,350-pound minimum; V-8 only, automatic transmission with converter only

C/D: 4.50 or more pounds per cubic inch, with true wedge cylinder heads (with inline and parallel valves) only; 1,350-pound minimum; V-8 only

C/DA: 4.50 or more pounds per cubic inch, with true wedge cylinder heads (with inline and parallel valves) only; 1,350-pound minimum; V-8 only, automatic transmission with converter only

D/D: 5.00 or more pounds per cubic inch; V-6, V-4 engines only; 1,000-pound minimum

D/DA: 5.00 or more pounds per cubic inch; 1,000-pound minimum; V-6, V-4 engines only, automatic transmission with converter only

E/D: 4.50 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines 4.40 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines with stock production heads

E/DA: 4.50 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines, automatic transmission with converter only 4.40 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines with stock production heads, automatic transmission with converter only

F/D: 7.00 or more pounds per cubic inch; inline 4-cylinder, 2-valve engines only

~~7.50 or more pounds per cubic inch; for inline 4-valve,~~

~~4 cylinder engines only~~; 850-pound minimum

F/DA: 7.00 or more pounds per cubic inch; inline 4-cylinder, 2-valve engines only, automatic transmission with converter only

~~7.50 or more pounds per cubic inch; for inline 4-valve,~~

~~4 cylinder engines only, automatic transmission with converter only~~; 850-pound minimum

G/D: 8.40 or more pounds per cubic inch; opposed 4-cylinder engines only, 155-cubic-inch maximum as produced; 850-pound minimum

G/DA: 8.40 or more pounds per cubic inch; opposed 4-cylinder engines only, 155-cubic-inch maximum as produced; automatic transmission with converter only; 850-pound minimum

H/D: 9.80 or more pounds per cubic inch; 1,800-pound minimum; turbocharged 6- or 8-cylinder, 2- and 4-valve engines only

I/D: 11.50 or more pounds per cubic inch; 1,500-pound minimum; turbocharged, 4-cylinder, 2- and 4-valve engines only

J/D: 5.50 or more pounds per cubic inch; inline or opposed 5- or 6- cylinder, 4-valve engines only

J/DA: 5.50 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder, 4-valve engines only; automatic transmission with converter only

K/D: 4.50 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines with with OEM generally available cylinder heads only 4.40 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines with stock production heads

K/DA: 4.50 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines, with OEM generally available cylinder heads only, automatic transmission with converter only 4.40 or more pounds per cubic inch; inline or opposed 5- or 6-cylinder engines with stock production heads, automatic transmission with converter only.

L/D: 7.50 or more pounds per cubic inch; inline 4-cylinder,

4-valve engines only; 850-pound minimum  
L/DA: 7.50 or more pounds per cubic inch; inline 4-cylinder.  
4-valve engines only, automatic transmission with  
converter only; 850-pound minimum

**SECTION 13K: HOLLEY EFI FACTORY X, DESIGNATIONS (Page 45)**  
**(12/22/2023)**

FX preceded by car number.

Reserved for Late Model Manufactured Automobiles with Factory production engine of the same make. Manufacturer engines and bodies not listed in this section may be submitted for acceptance in Factory X.

Currently Accepted makes/models:

Chevrolet 2016 & up (6th Gen Camaro – COPO) – minimum weight 2,650 lbs.

Chevrolet 2014 - 2019 (Corvette) - minimum weight 2,650 lbs.

Dodge 2015 & up (Challenger – Drag Pak) – minimum weight 2,650 lbs.

Ford 2015 & up (Mustang – Cobra Jet) – minimum weight 2,650 lbs.

**All minimum weights listed above include driver.**

Note: NHRA may adjust (minimum weights, supercharger pulley ratios, etc.) at any time to control performance and maintain parity within the category.

Currently Accepted Combinations:

**All accepted FACTORY X bodies are eligible to be used with the accepted engine combinations listed below. Engine must be same make as body.**

**2020 Camaro COPO 350**

- 630 HP Supercharged 2.65L Magnuson
- Upper supercharger pulley size: ~~(3.125)~~ (3.375) inches
- Supercharger rear jack shaft cog pulley 32 teeth
- Supercharger rear cog pulley 34 teeth
- Lower Engine Pulley (8.000) inches

**2021 Challenger Drag Pak 354**

- 630 HP Supercharged 3.0L Whipple
- Upper supercharger pulley size: ~~(3.375)~~ (3.500) inches
- Lower Engine Pulley (8.000) inches

**2019 Mustang Cobra Jet 327**

- 610 HP Supercharged 3.0L Whipple
- Upper supercharger pulley size: (3.750 Iron Block) (3.500 Alum Block) inches
- Lower engine pulley 6.938 inches.



Body, drivetrain, chassis, etc. may not be altered, modified, or relocated, except as outlined in Requirements & Specifications.

Minimum weight on the rear axle at conclusion of run: 1,300 pounds, including driver. Once an engine is used in a vehicle at an event, that engine cannot be used in another vehicle for the duration of the event. Engine shall consist of short block and heads which must be serialized or otherwise identified at each event.

### **SECTION 16: PRO STOCK MOTORCYCLE, RIDER: 10, PROTECTIVE EQUIPMENT (Page 6) (12/20/2023)**

Beginning March 1st, 2024, full all-leathers or non-leather suits meeting SFI Spec 40.1/2 mandatory. ~~leather boots that completely cover the ankle, and leather gloves are mandatory.~~ Minimum leather suit thickness: 3oz. An additional layer of protection, consisting of a second layer of leather, separated by a layer of Kevlar (totaling 2 layers of leather and 1 layer of Kevlar) is mandatory in the following areas: Shoulders, Elbows, Forearms, Hips, Butt, and Knees. CE Level 2-certified back protector mandatory. Leather riding boots mandatory. Boots must be a minimum of 7in tall, measured at the heel from the ground. Boots must have additional protection made of hard composite, plastic, or steel in the following areas: Toe Box, Forefoot area, and Ankle area. Sole of boots must be sewn on. ~~Gloves~~ Leather gloves are mandatory and must be Kevlar-lined or equipped with slide buttons. Suits may be one-piece design or joined with a metal 360-degree zipper at the waist. Beginning January 1st, 2024, all-leathers must have the manufactured date sewn into the suit, and will have an expiration period of 5 years, including the year on the tag. **All jewelry prohibited, with the exception of a high temperature rated silicone wedding band.** See General Regulations 10:10.

### **SECTION 18: FUNNY CAR, DRIVER: 10, FRESH AIR SYSTEM (Page 12) (01/23/2024)**

~~A 3000 PSI, 112 cubic inches minimum capacity fresh air breathing system mandatory.~~ Fresh air breathing system of at least 3000PSI, 112 cubic inch capacity required. System must be manufactured and installed by the original helmet manufacturer or with written authorization of the original helmet manufacturer. Helmet must meet applicable FIA, SFI and/or Snell specs with fresh air system installed. Compressed air only. Air must be supplied by constant pressure. Bottle must meet and be engraved as meeting, DOT-1800 pound minimum Spec. Bottle must be securely mounted (hose clamps and/or tie wraps prohibited). See General Regulations 9:8.



**SECTION 19: TOP FUEL DRAGSTER, DRIVER: 10, FRESH AIR SYSTEM  
(Page 15) (01/23/2024)**

~~A 3000 PSI, 112 cubic inches minimum capacity fresh air breathing system mandatory.~~ Fresh air breathing system of at least 3000PSI, 112 cubic inch capacity required. System must be manufactured and installed by the original helmet manufacturer or with written authorization of the original helmet manufacturer. Helmet must meet applicable FIA, SFI and/or Snell specs with fresh air system installed. Compressed air only. Air must be supplied by constant pressure. Bottle must meet and be engraved as meeting, DOT-1800 pound minimum Spec. Bottle must be securely mounted (hose clamps and/or tie wraps prohibited). See General Regulations 9:8.