



2016-2019

**V8 STOCK
RULE BOOK**

www.delawarespeedway.com

Important Note Regarding the Definition of “Stock”: The word **stock** shall be defined as any part for that particular make, model, and year as found in the manufactures catalogue. Unless specifically noted, all stock parts shall be mounted in both the **stock** location and stock position as engineered by the manufacturer. In addition to the location and mounting, only parts identified in the manufacturers catalogue for that particular make, model, and year shall be eligible. Any deviation to the above mentioned rule shall be superseded by written updates and duly noted in the specific sub-section of the rules and in accordance with the rules.

Important Note Regarding Engine Claim: Any driver, car owner, chief mechanic who refuses a claim will surrender all prize money and points for that race and may subject themselves to an immediate and indefinite suspension and or fine.

1. VEHICLE ELIGIBILITY:

The Delaware Speedway V8 STOCK Series is designed to be a safety conscious, lower cost, entry level racing class aimed at providing a place to enjoy racing & develop your racing program.

1. Open to any make or model of North American built 2 or 4 door sedan, having a factory listed wheelbase of 108” or more, for the make, model and year being raced. Rear wheel drive only.
2. Race cars must be in complete and presentable in appearance at the beginning of each race.
3. Car must have four-point roll cage with rear hoop to protect fuel cell.
4. No Fuel-injected engines.
5. Any vehicle that is deemed to be unsafe will be denied access to the facility until such time as the necessary repairs have been made.

2. BATTERY:

1. Must be securely fastened. (If mounted in the interior of the car, battery must be fastened securely to the floor behind driver’s seat.
2. Battery must be covered. Cover must be fastened independent of the battery hold down.
3. Battery must be held down with a minimum of 2 5/16th bolts.

3. BODY AND APPEARANCE:

1. Must be stock style body, newer style body maybe install on chassis. Ex. Newer style Monte Carlo body on older Monte Carlo frame. Must be same manufacturer, Gm to Gm, NOT Ford to Gm chassis.
2. Aftermarket nose panels permitted. Excessive bumper bracing is NOT permitted.
3. OE trunk/Hood hinges can be replaced. Hood/trunk cannot be “pinned at four corners”
4. Full stock hood/trunk bracing must be retained.
5. Body must be stock appearing and in stock position on frame.
6. Stock floor must be retained.
7. All doors must be welded or bolted. Original wheel arches must be retained.
8. Side rub rails permitted

9. All body panels and or parts must be constructed of 22 gauge magnetic steel.
10. Stock rear spoilers only.
11. A non-functional hood scoop is allowed and will be a maximum of 16" x 16" x 2".
12. Stock bumpers originally installed on that year/model of car only in stock position. No cutting of bumpers.
13. All holes in firewall must be filled with 22 gauge magnetic steel. Stock firewall must be retained.
14. All holes in floor must be covered with a minimum of 22 gauge magnetic steel.
15. Grills must be full stock production for the body used.
16. All interior of car that is flammable (plastic and fabric) must be removed.
17. Excessive gutting of interior will not be allowed.
18. A minimum of 22 gauge magnetic steel is to be used in the construction, repair, and or replacement of parts.

4. Lettering:

1. Numbers will be assigned by the track officials at the time of entry.
2. Doors and roof must be clear of any lettering other than numbers.

5. MIRRORS:

1. Optional: no exterior mirrors.
2. Mirror must be in stock location. A side mirror mounted to the "A" post inside the plane of the vehicle is allowed, if either a full containment seat, and or a head/neck restraint support system are used. The side mirror shall be no larger than 4" (four) in diameter. Mirror will not protrude outside of the plane of the body.

6. Chassis/Suspension & Brakes:

1. All suspension parts are to be stock (see definition of stock) with no modifying.
2. ALL chassis suspension mounting points must be in stock location.
3. Spindles, upper control arms, lower control arms & ball joints MUST be the same side to side.
4. Shocks, upper control arms, lower control arms, and other suspension mounting points must be in stock location.
5. NO Mono balls allowed in any suspension/steering components.
6. Coil springs, leaf springs and sway bars may be interchanged provided they fit original mounting and are not altered from stock appearance and position.
7. Shock absorbers (one per wheel), must be sealed steel with stock-type fixed mounts, and no altering of shock and/or painting allowed. \$80.00 maximum per shock. Shocks will have be non-rebuildable. Stock type shocks, must be non-adjustable.
8. NO spring spacers are allowed between coil winding.
9. No fiberglass leaf springs.
10. No bump stop devices allowed on or in any suspension and or chassis component.
11. All suspension components MUST constructed of magnetic steel.
12. Adjustable spring pockets permitted. Frame maybe be notched to provide access for adjustment. NO LOAD BOLTS.
13. Any part of chassis that has fabricated frame sections from front clip to rear

axle must be constructed of 2 X 3 X .100.

7. Brakes:

1. Four wheel hydraulic brakes are mandatory.
2. Lightening of backing plates brake drums and/or shoes by cutting or trimming metal is not permitted.
3. Factory disc brakes allowed on the year and models available.
4. Stock type master cylinder.
5. Stock type brake system components. Ex Calipers, rotors, etc.
6. Adjustable brake valve permitted but it must be mounted under hood.

8. Wheels:

1. SEE TIRE PROGRAM RULE BOOK.
2. Approved racing rims only.
3. 15" diameter wheels. Maximum width is measured from bead seat to bead seat.
4. Minimum offset allowed is 3". Same offset wheels must be used on left and right side (not necessarily front to rear.).
5. Same offset wheels must be used from left side to right not necessarily front to rear.
6. Aftermarket larger racing-type wheel studs & wheel nuts HIGHLY RECOMMENDED.
7. No wheel spacers allowed.

9. Tires:

1. See "TIRE PROGRAM IN RULE BOOK"
2. All tires are subject to approval of official in charge.
3. No altering tire compound or softness.

10. Safety Equipment:

1. **Fire Control:** Race Cars must have an approved fire extinguisher, with a recharge slip dated back no older than January of the current race season. Fire extinguisher must be mounted on the right side and within reach of the driver when seat belts are fastened, and in an approved mounting bracket.
2. **Helmet and Apparel:** Drivers are required to wear full coverage; one or two piece Nomex multi-layered firesuits which are S.F.I. rated. Fire retardant undergarments are mandatory with a single-layered suit. Fire retardant gloves and shoes are mandatory. Driver helmets must conform to Snell SA2010 or higher SA standards and have a certification sticker visible inside the helmet. SA-2015 highly recommended. It is highly recommended that drivers wear eye protection designed for auto racing.
3. **Belts and Harness:** A quick-release 5-point belt (shoulder and lap) of no less than 2" in width, and 2" width anti-submarine harness in good condition are mandatory. Shoulder harnesses must be mounted and secured at the driver's

shoulder height. Belts must be securely fastened to the frame, cross- member or roll cage by means of a suitable reinforced mounting, in such a manner that all fittings are in direct line with the direction of pull. Belts may not be any older than 3 years (manufacturer's date). All belts and mounting will be subject to inspection.

4. **Window Net:** An approved nylon mesh net must be installed in driver's side window opening. Net sizing must be at least 16" x 18". Net must be installed so it is tight. Window net anchors must be attached to roll bars, not body. Window net must be quick-release type. Net must be permanently anchored at the bottom and release at the top. Wide mesh nets and lever- latch releases are highly recommended.
5. **Seats and head rest:** Approved aluminum bucket seat is mandatory. NO home-made seats allowed. Seats must be bolted or secured solid so that the seat will not shift or loosen on impact. All retainer bolts (minimum of 6) must be min. 3/8". Seat must completely to the left of the centerline of the car and inside the frame rail. An approved padded headrest is mandatory and must be securely mounted. Full containment seat highly recommended.
6. **Roll Bar Padding:** All roll bars within driver's area must be covered with approved roll bar padding.

11. Radios:

1. Approved 1-way radio receiver mandatory. Must receive frequency UHF 451.7125
2. Two- way radio communication strictly prohibited!

12. Roll Bars:

1. Minimum size of tubing is 1 3/4" O.D 0.95 thickness.
2. Any bar that connects to that greenhouse must also be constructed of 1 3/4"X .095" OD magnetic steel.
3. Main greenhouse loop may not exceed 3" inward from either the A, B, or C pillar. Front window bars may not exceed 3" inward from windshield post. Side bars are compulsory.
4. Minimum of 4 bars on left side, 3 bars on the right side, and must extend into the door panel. A diagonal bar must be added to the roof hoop as well as the main hoop (behind the driver seat). Top door bar must be within one (1) inch of the top of door panel, and the remaining bars must be equally spaced down. The bay bar must be inline with the top door bar.
5. Both front and rear hoops are required, hoops are not to be outside the inside of the tires, and anybody supports off these hoops are to be no larger than 1" o.d.
6. All support bars extending to the body panels must be at 90 degrees and welded at both ends.
7. Threaded pipe, Pipe fillings, lap weld pipe, magnesium or aluminum are NOT permitted. No square tubing, channel and angle iron will be permitted in the construction of the roll cage or bracing.
8. Flush grinding welds are not permitted.

13. Heights & Weights:

1. Minimum ground clearance of 5" (with driver) must be maintained on every part of the vehicle with the exception of tires, exhaust, and flange of safety bell housing. If a flat occurs, no part of the chassis may touch the ground.
2. Lead ballast weight must be double bolted and painted white with the car number marked on each piece so that the number is visible when installed. No tungsten, lead shot, ball bearing type, or liquid type ballast permitted.
3. Weights must weigh a minimum of 10 lbs. and be in block form.
4. Lead ballast weight must be double bolted with 1/2 inch diameter bolts and painted white with the car number marked on each piece so that the number is visible when installed.
5. All ballast weight must be bolted to or encased within the frame rail and not mounted lower than the bottom of the frame rail.
6. If stacked or bolted weight exceeds thirty (30LBS) pounds it must be bolted into an approved weight tray.
7. No weight to be added forward of front firewall or rearward of the fuel cell. All weight added behind the rear axle assembly must be bolted to the stock frame.
8. Cars will not be allowed to add gas, oil, and or water after an event to make the minimum weight.
9. Loss of add-on weight will result in a severe penalty.
10. All Heights & weights are taken with driver sitting in driver seat.
11. MAX rear weight 48%
12. Weights:

Crate Engine	3200 Lbs Total	52% Left
Built Engine	3300 Lbs Total	52% Left

Engine/Drivetrain, etc

14. Air Cleaner:

1. Any type permitted. Must fit under the hood. No ram tubes or ducting allowed.
2. Cars must have air cleaner to act as a flame arrestor.
3. No cowl induction system allowed.
4. No high velocity or stack type air cleaner assembly.
5. Maximum air cleaner size 14" x 4-1/2". Must have solid air cleaner top.

15. Carburetor:

1. One Holley 500 CFM Two Barrel Part #0-4412-S or HP equivalent. Main metering jets and power valve may be changed for tuning. Choke components may be removed. Accelerator pump discharge nozzles may be changes utilizing straight type only. NO other modifications may be

made and all parts are to remain stock. No grinding, cutting, polishing, acid dipping or modifying of parts. Carburetor subject to "go, no go" gauge test.

2. No screens allowed in and or under the carburetor. No altering of the intake manifold with respect to the fuel atomization is allowed.
3. Two throttle returns springs mandatory. One spring pulling in each direction.
4. CARBURETOR ADAPTER: Adapter May only use two 1/8" maximum gaskets The adapter to be used is Canton Racing Products part #85-060 or #85-060A or, Bicknell #BRP375 or Wilson #041111). No tapered bore adapters.

16. Cooling System:

1. Radiators must be in stock location.
2. WATER PUMP -- Stock O.E.M. water pumps only (refer to stock definition for further clarification).
3. Rad must include liquid overflow container minimum of 1 liter mounted ahead of engine firewall. WATER ONLY permitted in cooling system.
4. The overflow tube must exit the body at the base of the windshield.
5. Aluminum radiators allowed.
6. Electric fans permitted.

17. Clutch and Flywheel:

1. Stock O.E.M. type friction disc steel clutch units utilizing dampening springs only.
2. Clutch disc diameter minimum 10 inches. If hydraulic clutch is utilized only one slave cylinder is allowed.
3. Flywheels may not weigh less than 13 lbs. Clutch and pressure plate assembly may not weigh less than 17 lbs.
4. Must have an NHRA steel bell housing, Sema 6.1 flywheel shield or scatter shield of 1/4" magnetic steel.
5. An inspection hole of no less than one (1") inch in diameter must be drilled in the bellhousing to allow for flywheel and clutch assembly inspection.

18. Drive Line:

1. Drive shaft and universals MUST be stock steel standard production type.
2. Steel, 360-degree retainer loops, 1/4 inch thick x 2 inches wide, must be positioned at the front and rear of shaft, and within 12 inches of each U- joint.
3. Drive shaft must be painted white.
4. Minimum driveshaft OD is 2 1/2 inches.
5. All driveshafts must be constructed of magnetic steel. No light weight material allowed.

19. Exhaust System:

1. Stock type mufflers mandatory.

2. Exhaust pipe must exit behind driver and in front of rear wheel well.
3. Muffler inlets and outlets may not be in a direct line (e.g. straight through not permitted).
4. No "X" pipes allowed in exhaust system.
5. ALL STAR Part # ALL34200 SB Chevy "Ram Horn" Exhaust Manifolds optional
- No headers.
6. Maximum pipe size is 2 ¼ O.D. (Two and one quarter inches outside diameter)
Must be reduced to 2 ¼ inch O.D. within 6 inches of manifold.

20. Fuel System:

1. Stock-appearing mechanical pump only. Absolutely no electric fuel pumps. No plastic or glass fuel filters allowed.
2. The gasoline shall not be blended with alcohols, ethers, or other oxygenates and it shall not be blended with aniline or its derivatives, nitro compounds or other nitrogen containing compounds. Unleaded fuel only. 5.0% oxygen content Max.
3. Safety cell mandatory, and the cell must be contained in a magnetic steel container constructed of no less than 22 gauge magnetic steel.
4. Fuel cell and container is to be securely mounted in trunk compartment, behind rear firewall, between frame rails, forward as near as possible to the rear axle-housing hump, but no lower than the center of rear axle-housing tube.
5. Only high pressure neoprene line and or braided/kevlar fuel line will be allowed.
6. Line must run through cab, and must run through a steel conduit. This conduit shall be painted a contrasting colour of the car, and will extend beyond each firewall by two (2) inches. The conduit in addition to the colour will also be labeled " **FUEL LINE DO NOT CUT**"
7. In-Line fuel Safety Check Valve MANDATORY. Ex. Part # OBERG FILTERS SV-0828 FUEL SAFETY CHECK VALVE.

21. Ignition & Electrical:

Any tampering, alterations, or violations with respect to the ignition box and related components will result in the severe penalties from Delaware Speedway. All penalties will be at the discretion of Delaware Speedway officials. The tampered components, which must be removed at the team's expense, will be impounded at both the team's expense and risk until the ruling is finalized. The speedway reserves the right to destroy all tampered with parts.

1. Car must be self-starting.
2. Stock distributor and stock coil allowed. NO dual points.
3. All engines must have MSD soft touch rev control part #8728 installed on right-hand side of dash, out of driver's reach within 6" of right-hand A-post bar. GM weather pack connectors required within 6" of the ignition box. An operational 6000 rpm chip must be installed. The installed chip must be accessible from the right side window. All MSD and ignition wiring to remain open and clearly visible for inspection.

4. 6000 REV chip mandatory for all engines.
5. GM-type HEI distributor from DUI optional.

22. Transmission:

AUTOMATIC TRANSMISSION:

1. Any stock type factory produced transmission maybe used in those manufactured vehicles.
2. Transmission oil coolers are allowed but NOT in the drivers cab.
3. Oil coolers MUST be mounted ahead of firewall.
4. Stock-type working torque converter must be retained, and will measure a minimum 10 inches to a maximum of 12". Minimum torque converter weight of 30 lbs. wet applies.
5. No "LOCKED UP" torque convertors.
6. Automatic transmission MUST retain stock shift pattern.
7. NOTE: A torque converter stall test to check torque converter may be performed in forward and reverse gears.

MANUAL TRANSMISSION:

6. Stock O.E.M. type friction disc steel clutch units utilizing dampening springs only.
7. NO triple disc, NO double disc.
8. NO extensively modified stock units allowed.
9. NO turned, NO drilled, NO aluminum, NO special speed equipment flywheels permitted.
10. Clutch disc diameter minimum 10 inches. If hydraulic clutch is utilized only one slave cylinder is allowed.
11. Flywheels may not weigh less than 13 lbs. Clutch and pressure plate assembly may not weigh less than 17 lbs.
12. Must have an NHRA steel bell housing, Sema 6.1 flywheel shield or scatter shield of ¼" magnetic steel.
13. An inspection hole of no less than one (1") inch in diameter must be drilled in the bellhousing to allow for flywheel and clutch assembly inspection.

ENGINE OPTIONS:

Any tampering, alterations, or violations with respect to the crate engine program will result in the immediate suspension of the driver, car owner, and chief mechanic for a minimum of 1 year (365 days) from the date of the infraction. Further monetary fines and reduction of points will be assessed by the technical committee. The tampered engine which must be removed at the team's expense will be impounded at both the team's expense and risk until the ruling is finalized. The speedway reserves the right to destroy all tampered with parts

23. Option A: GM "602" Crate Engine:

1. GM 602 may be used in any approved make or model of car in competition. If at any time when the engine is being repaired and or the oil pan is removed an inspection plug of 1 ¼" must be installed prior to the engine being re-sealed either by an approved Delaware speedway vendor or the Speedway itself.
2. Only approved, sealed, unaltered engines.
3. No changes, substitutions or modifications to engine.
4. All Chevrolet crate engines to be purchased from dealer approved by Delaware Speedway.
5. New and repaired crate engines must be sealed by a Delaware Speedway approved engine builder.
6. It is the competitor's responsibility to have paperwork of where the engine was purchased and competitors will be held accountable for alterations to engine.
7. Approved engine part replacement: A double roller timing chain set may be install by an approved Delaware Speedway Engine repair facility. The timing chain set must be installed to factory timing settings. Engine must be sealed by Delaware Speedway approved engine repair facility. Engine seals must be obtained from Tech Director

24. Option B: Built Engine:

1. No interchange of engine between makes (i.e., must be a Ford engine in Ford, Chev in Chev and Dodge in Dodge etc.).

MAKE OF CAR	ENGINE	MAXIMUM OVERBORE	MAXIMUM DISPLACEMENT
Chev	350 Cu In	.045	358 Cu In
Dodge	360 Cu In	.045	368 Cu In
Ford	351 Cu In	.045	360 Cu In

24.1 Cylinder Block:

Cylinder Block:

1. All engine blocks must be product of the manufacturer of the make for the engine being used in competition. Aftermarket engine blocks will not be permitted.
2. The engine block must retain all engine dimensions with the exception of the maximum allowable overbore and the surfacing of the engine block deck.
3. Angle cutting of the engine block will not be permitted.

4. Aluminum blocks will not be permitted.
5. Only iron cylinder sleeves may be used to repair.
6. Must maintain stock lifter bore: Dodge .904 inch, Ford .875 inch, Chevrolet .842 inch.
7. Repair sleeving of lifter bores permitted to a maximum of 4.
8. Deburring of block permitted. Excessive grinding, lightening, polishing, painting or coating internally, screening or vent stacking is not allowed.
9. Crankshaft must be stock OEM-type. Must have factory I.D. numbers that are legible through inspection hole in oil pan (except Chrysler). Only standard magnetic steel or cast-iron production design crankshafts will be permitted. No lightening, knife edging or polishing allowed. Balancing okay.
10. Harmonic balancer stock iron elastomer-type only. No aftermarket or aluminum. Must maintain stock dimensions and weight.
11. Connecting rods. Stock-type I-Beam rods only of stock length for manufacturer: General Motors 5.7 inches, Ford 5.956 inches, Chrysler 6.125 inches. Must be magnetic steel, iron or powdered metal. No titanium, aluminum, stainless or exotics.
12. Must use OE-type insert bearings. No rollers.
13. Piston. Stock-type or flat-top three ring pistons with all rings in place. Must use stock pin and mounting (i.e., pressed fit if equipped). Must not protrude through deck.
14. Head Gasket: Any composite gasket allowed. **MUST MAINTAIN 9.5:1 COMPRESSION RATIO MAXIMUM.** To be determined by tech officials.

24.2 Camshaft:

1. Mandatory flat tappet hydraulic camshafts. Maximum valve lift .500 inch measured at valve with zero lash.
2. No mushroom lifters. No rocker rollers.
3. Must use stock-type timing chain and gears.
4. Must use manufacturer's firing order.

24.3 Cylinder Heads:

1. Only stock O.E.M. cast iron heads allowed. Absolutely no deburring, grinding, acid dipping, acid porting or polishing of intake or exhaust ports allowed.
2. Must use 11/32" stem. No undercut valves. No hollow valves. No titanium. No Sodium.
3. Maximum valve size: General Motors 1.94" intake and 1.50" exhaust, Ford and Chrysler 1.94" intake and 1.60" exhaust
4. Must use OE-type valve spring and retainers. Maximum diameter 1.255" for standard spring 1.310 for beehive spring.
5. Stock rockers, push rods and valve train to be used. Guide plates on Ford and GM optional. Shafts mandatory on Chrysler. No aluminum, titanium exotic metals allowed.
6. Ford may use Windsor Jr. 180 #053030 or stock iron heads.
7. No GM camelback or angle plug heads. No aluminum heads. GM MAY USE ENGINE QUEST CH350C OR RHS 12407 or Dart Iron Eagle S/S165.

24.4 Intake Manifold:

1. Chevrolet engines must use Edelbrock part#7101 or #7116 or GM part #

- 12366573 or STOCK cast iron 2bbl intake manifold (NO marine intake manifolds)
2. Dodge Engines must use Edelbrock part # 7176 or mopar part #P4876335 or STOCK cast iron intake manifold
 3. Ford engines must use Edelbrock part# 7181 or STOCK cast iron intake manifold
 4. Manifold must remain stock and unaltered. No port matching, grinding, acid dipping or porting.
 5. Two adjacent intake bolts on each side of manifold must be drilled for sealing.
 6. No foreign materials allowed that will alter the atomization of the fuel.

24.5 Oil Pan:

1. Option 1: Any O.E.M. factory production oil pan permitted. No altering of stock oil pan permitted. Windage tray may be used. Oil filter must be directly attached to block. Minimum ground clearance must be retained.
2. Option 2: Aftermarket racing-type kickout oil pan permitted. The oil pan must be wet-sump type and must be manufactured using a production-type pan with only a wet sump reservoir added to the bottom. All bolt holes and bolt hole flanges must be visible. Kickouts will not be permitted between the bolt-on flanges and the top of the added sump. Spacers other than sealing gaskets will not be permitted between the oil pan side rails and the engine block surface. Must be made of magnetic steel only.
3. 1-1/4"-inch NPT inspection hole mandatory or oil pan may be subject to removal for inspection. Inspection hole must be located so crank shaft numbers can be inspected.

25. Engine Claim: See Delaware Speedway General Regulations rule book for engine claim procedures.

Claim amounts:

1. 602: \$4,100 plus H.S.T. Subject to G.M. price changes.
2. Delaware Built: \$5,800 plus H.S.T.
3. All claims also require \$500 cheque payable to Delaware Speedway to cover costs of transporting and checking of engine claimed.

NOTE: Interpretation of these rules will be solely up to the judgment of the officials in charge of the area in question. DELAWARE SPEEDWAY reserves the right to impound non-complying components with no compensation to the owner(s). Noncompliance with the specifications outlined herein may subject violating teams to disqualification, loss of points and moneys and/or fine.

NOTE: IF IT DOESN'T SAY YOU CAN DO IT, ASK THE TECH DIRECTOR ALL

DECISIONS BY PIT STEWARDS, CHIEF TECHNICAL INSPECTOR OR DELAWARE SPEEDWAY EXECUTIVE COMMITTEE MEMBERS WILL BE FINAL. ALL RULES SUBJECT TO INTERPRETATION BY DELAWARE SPEEDWAY OFFICIALS. RULE BOOKS WILL BE ISSUED TO MEMBERS. ALL EQUIPMENT NOT GOVERNED BY THE AFOREMENTIONED RULES ARE TO BE SUBMITTED TO DELAWARE SPEEDWAY, NOT LESS THAN 30 DAYS PRIOR TO THE DATE OF INTENDED USAGE. NO EQUIPMENT WILL BE CONSIDERED APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION UNOBSERVED. RULES

APPLY TO ALL RACE EVENTS.

DELAWARE SPEEDWAY RESERVES THE RIGHT TO CHANGE ANY RULES

**For all tech related questions, please contact Darryl Timmermans –
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