

## Backdraft Roadster Specification

Build No : 1745

Vin No : AE9BMAAH8J1MT1009

Color : Guardsman Blue Paint Manufacturer: PPG

Stripe : Wimbeldon White Paint Manufacturer: PPG

Trim : Black

Date of Completion : 4/11/2018

Engine Make : Roush 427

Engine Installer : Speed Fanatix, Inc

Engine Supplier : Roush Industries

Engine Number: 427R-1424

Transmission : Tremec TKO 600 (5 speed)

Dealer Information : Jonathan Motorcars  
4185 Route 130 South  
Edgewater Park, NJ 08010

R73  
Build # : 1745





**ROUSH**

**ENGINE HAS NO OIL**

**ENGINE HAS BEEN TESTED  
HORSE POWER**

552


**TORQUE**

529

**OIL PRESSURE**

61 PSI

**ENGINE HAS NO LEAKS**



**ENGINE HAS NO OIL**

**FUEL LINES SHOULD BE  
CHECKED FOR TIGHTNESS  
AFTER INSTALLATION**





## Roush Engines - North

12319 Levan Rd.  
Livonia, MI 48150  
(734) 779-7006  
(734) 779-7085

"Torque and Power" from test 427R-1424-8.sfd

### Test Information:

File name: 427R-1424-8.sfd (Roush14.cfa)  
Data page: Torque and Power - 33 lines total  
Tested on:

### Test Description:

Roush Crate  
ENG# 427R-1424  
Bore 4.125  
Stroke 4.000  
Job# MFGEUBU  
WO# 190956  
2/26/18 Timing 32°

EngSpd RPM	EngTrq lbs-ft	STPTrq Clb-ft	EngPwr Hp	STPIPw CHp	CoolOu deg F	TC20 deg F	Oil_P psi	FuelP psi
3,000	413.4	431.2	236.1	251.4	157	213	56.1	3.7
3,100	431.6	450.2	254.8	274.9	156	213	56.2	3.8
3,200	451.5	470.8	275.1	298.1	157	213	56.5	3.9
3,300	463.0	482.9	290.9	316.0	157	213	56.8	3.9
3,400	469.6	489.7	304.0	330.7	157	213	57.1	3.9
3,500	474.2	494.6	316.0	344.1	156	213	57.4	3.8
3,600	477.9	498.5	327.5	356.6	156	213	57.6	3.8
3,700	480.0	500.8	338.2	368.7	156	213	57.6	3.8
3,800	481.5	502.3	348.3	380.3	156	213	57.6	3.8
3,900	483.5	504.5	359.0	392.2	156	213	57.7	3.8
4,000	486.8	508.0	370.8	404.8	156	213	57.9	3.7
4,100	491.4	512.8	383.6	418.4	156	213	58.2	3.7
4,200	496.3	518.0	396.9	432.2	156	214	58.4	3.7
4,300	501.2	523.2	410.4	446.4	156	214	58.6	3.6
4,400	504.7	526.9	422.9	459.7	156	214	58.7	3.5
4,500	506.4	528.7	433.9	471.9	156	214	58.8	3.5
4,600	506.8	529.2	443.9	483.1	155	214	58.9	3.4
4,700	506.3	528.7	453.1	493.4	155	214	59.2	3.4
4,800	505.6	528.1	462.1	503.2	155	214	59.4	3.4
4,900	504.4	526.9	470.6	512.7	155	214	59.8	3.5
5,000	502.9	525.4	478.8	521.4	155	214	60.0	3.6
5,100	500.9	523.3	486.4	529.5	155	214	60.0	3.5
5,200	497.4	519.7	492.4	535.9	155	214	60.1	3.4
5,300	493.0	515.3	497.5	541.7	155	214	60.1	3.3
5,400	486.8	509.0	500.6	546.1	155	214	60.2	3.2
5,500	480.4	502.5	503.1	550.1	155	214	60.2	3.1
5,600	472.9	494.8	504.3	552.3	155	214	60.4	3.1
5,700	464.7	486.3	504.4	552.8	155	214	60.6	3.1
5,800	456.0	477.4	503.6	552.3	155	215	60.8	3.1
5,900	447.2	468.4	502.3	551.9	155	215	61.0	3.2
6,000	438.5	459.4	500.9	551.7	154	215	61.2	3.2
6,100	428.7	449.4	497.9	549.8	154	215	61.3	3.2
6,200	418.6	439.1	494.2	547.2	155	215	61.5	3.2

# ROUSH PERFORMANCE ENGINES

Engine Information  
402R/402SR, 427R/427SR/427SRX

## Roush Performance Engines - Engine Service Parts

Part Description	Part Number	Supplier	Notes
Oil Filter	FL1-HP	Motorcraft	
Engine Oil	10w30		Conventional w/ ZDDP Recommended
Air Filter	SP2992	Roush	2.5" Height
Fuel Filter	162-500	Holley	
PCV Valve	PC-84	Motorcraft/StanoPro	2 PC. Covers Use EV-79
Spark Plugs	7556	Bosch	Gasketed Seat
Spark Plugs	605	Autolite	Tapered Seat
Spark Plug Wires	SPW02BLK	Roush	
Distributor Cap	84313	MSD	Color - Black
Distributor Rotor	8467	MSD	
Valve Cover Gaskets	P1645	FelPro	
Fuel Pump - Polished	1725	Edelbrock	
Fuel Pump - Unpolished	M60454	Carter	
Breather Cap	WA9171	Wysco	

## Engine Specifications

Description	Specification
Spark Plug Gap	.035"
Ignition Timing - Idle	16 BTDC @ 900 RPM
Ignition Timing - Total	32 BTDC @ 3,000 RPM
Idle Speed	900 RPM
Fuel Requirement	91-94 Octane (R+M/2) Unleaded
Fuel Pressure	6-7 PSI
Fuel Feed Line Size	3/8" or -6 AN
Engine Oil Fill (Inc. Filter)	Front Sump - 8 Qts
	Dual Sump - 7 Qts.
	GT40/Coupe - 9 Qts.
Remote Oil Filter Lines	5/8" or -10 AN In/Out

### NOTES:

- Do not use forged 45 or 90 degree hose ends or fittings on any remote oil filter and/or cooler lines. Use only bent/radius hose ends to minimize pressure loss.
- Your engine is equipped with a 160 degree thermostat. It is your responsibility to provide an engine cooling system that maintains a maximum coolant outlet temperature of 220 degrees F under any and all operating conditions.
- To obtain any information not outlined, please call Customer Service at 1-800-59-ROUSH.
- This information was deemed accurate and complete on the date this engine was sold. Specifications are subject to change without notice or liability. Roush may alter or change this information at any time.



# MSD INSTALLATION INSTRUCTIONS

## MSD Blaster SS Coil PN 8207

**ONLINE PRODUCT REGISTRATION:** Register your MSD product online. Registering will help if there is ever a warranty issue with your product and helps the MSD R&D new products that you ask for! Go to [www.msperformance.com/registration](http://www.msperformance.com/registration).

**IMPORTANT:** Read instructions before attempting the installation.

### Parts Included:

- 1 - Blaster SS Coil, PN 8207
- 3 - Vibration Mounts and Hardware
- 2 - Male Faston Connectors

- 1 - 90° MSD Spark Plug Boot
- 1 - 90° Dual Crimp Terminal

**WARNING:** During installation, disconnect the battery cables. When disconnecting the battery, always remove the Negative cable first and install it last.

**Note:** If installing the Blaster SS Coil to a points distributor or a non-current limiting ignition system without an MSD Ignition, a 0.8 ohm ballast resistor is required (MSD PN 8214). The resistor should wire in series along with any factory resistors on the positive coil wire.

1. Find a suitable mounting location for the coil. It can be mounted in any position as long as it is away from direct engine heat sources.
2. Use the coil as a template and mark the mounting holes using a punch.
3. Using a 3/16" drill bit, drill the three holes to mount the coil.
4. Install the vibration mounts and mount the coil.
5. Install the Faston connectors to the coil terminals. Connect the coil wires from the MSD or stock ignition and the secondary coil wire.

### MSD 6 or 7 Series Ignition Control

The Orange wire connects to the coil positive terminal and the Black connects to the coil negative terminal. These are the only two wires that connect to the coil terminals.

### MSD 5 or Blaster Ignition

The Red wire connects to coil positive and the Orange connects to coil negative.

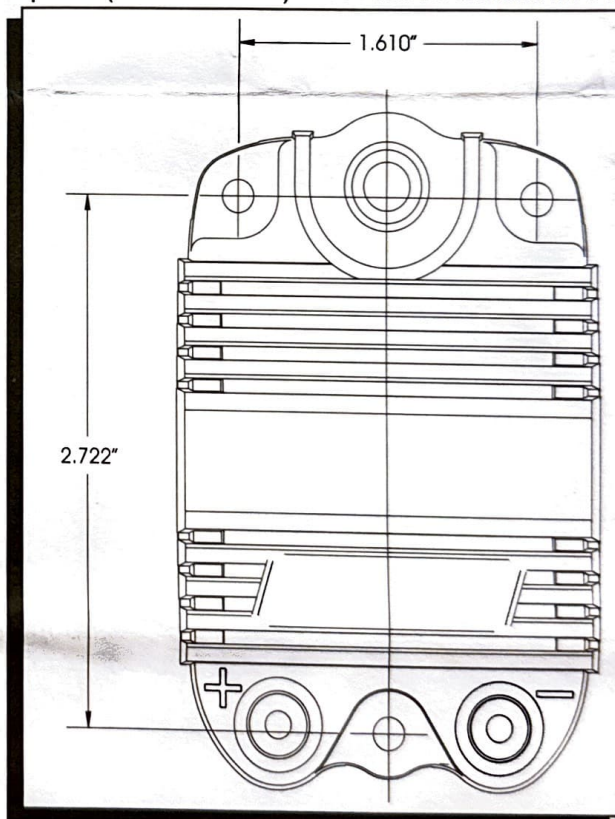


Figure 1 Mounting Template.

**WARNING:** The Blaster SS and MSD Ignition Controls produce very high voltages. Never short the battery or coil terminals. Use caution during installation and while working near the ignition or coil.

This vehicle is equipped with one of the following  
MSD Blaster Coils: PN 8200, 8202, 8203, 8205,  
8207, 8222, 8223, 8224, 8225, 8226, 8227, 8228, 8229,  
8231, 8239, 8241, 8252.  
Legal for sale and installation  
in California  
MSD CARB EXECUTIVE  
ORDER D-40-37  
MSDPERFORMANCE.COM







## Installation Tips

Thank you for your recent purchase of a TREMEC TKO transmission. All TREMEC transmissions are manufactured under strict ISO and QS 9000 quality standards, ensuring that you receive a quality product. Proper installation, maintenance and appropriate driving techniques will provide years of enjoyment from your new TREMEC transmission. The transmission installation should be performed by an ASE Certified Mechanic with appropriate tools, lifts and follow standard safety precautions.

### Pre-Installation

While unlikely, the transmission may be stuck between gears if the transmission was placed on end during shipment. **Before installing the transmission into the vehicle**, make sure that the transmission turns freely. Simply turn the input shaft by hand and attempt to shift the transmission into each gear. If you are unable to turn, or shift the transmission, please contact the distributor where you purchased your transmission for further instructions.

### Oil

**Caution: NO OIL IN TRANSMISSION.** Due to various synchronizer materials used in TREMEC transmission, and different climates and applications, no one single fluid will work for all transmissions. We recommend GM synchromesh part # 12345349, or Dexron III / Mercon Spec ATF fluid for all TKO transmissions. The transmission should be filled through the fill plug located on the passenger side of the transmission. Proper fill level is achieved when oil reaches the fill plughole when level (approximately 5.28 pints)

### Clutch housing

The clutch housing must be properly installed and aligned using a dial indicator. The centerline of the transmission must match the crankshaft, or severe damage to the transmission will occur. The clutch housing must also be perpendicular to the rear of the engine block. A maximum run-out of .005" is allowable. Specific dial indicating instructions should be included with your clutch housing.

### Clutch disc

Proper clutch adjustment is necessary; usually between 0.30 to 0.85 inch, air gap is required. (Please see clutch manufactures recommendations). The clutch disc must have an "air gap" to break torque to make a clash-free shift and prevent damage to the transmission. An adjustable clutch cable with a solid mount at the firewall, or a hydraulic system is desirable.

### Drive shaft

It is extremely important to maintain the original driveline angle. Excessive driveline angles will cause vibrations and may damage the transmission. All TKO transmissions use a standard 31-spline slip-yoke part # 2-3-6041X, which is available from authorized TREMEC distributors. When installing the slip-yoke, be careful not to damage the rear-seal, as this will result in oil leakage. There is a rubber donut on the output-shaft that is used to prevent any remaining oil in the transmission from leaking during shipment. While you may remove this donut, it is not necessary. It will simply slide forward on the shaft when the slip-yoke is installed. If you do remove the donut, use extreme caution to avoid damaging the rear seal. The slip-yoke must be able to stroke freely on the transmissions output shaft without bottoming out while maintaining maximum spline contact. Therefore proper driveshaft length is critical.

### Crossmember & Mount

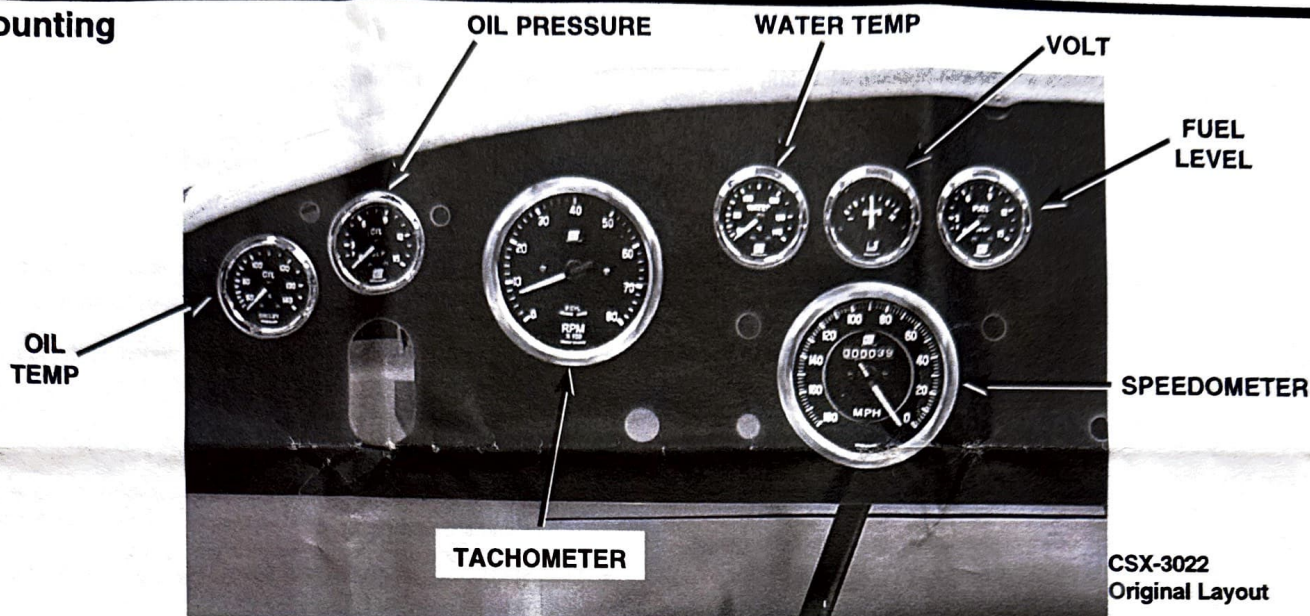
It is important to have the crossmember located properly to the rear mount location on the transmission. Modifications that result in an "overhang" or cantilevered mount will result in a vibration and potential to cause severe damage to the transmission. Proper mount height and crossmember location are very important to maintain correct driveline angle.



# 2-1/16" INCH GAUGES INSTALLATION INSTRUCTIONS



## Mounting



CSX-3022  
Original Layout

## Preliminary Steps

1. Read instructions thoroughly for the gauge(s) you purchased. The installation of each gauge requires the expertise of a trained mechanic. Please consult a qualified technician if you have not had training on instrument installation.
2. Consult your vehicle's repair manual to locate the appropriate port in the firewall for the gauge you are installing. Also locate the appropriate 12V ignition switch wiring or fuse box.
3. Determine the best route for tubing to follow. Choose a path free of hazards of moving parts or hot engine components.
4. Determine correct mounting location illustrated above. **Note:** It is important that each gauge be placed as indicated except for the optional Fuel Level gauge (explained later), each gauge is designed with its own hardware to fit the designated position.

5. All efforts have been made to determine the correct gauge location for Shelby Cobras. Although many cars were built differently (special orders), the gauge locations indicated above are logical and vintage original photos of CSX 3022 indicate this layout. We suggest you follow this pattern. If you chose to install your gauges in different locations Auto Meter Products will not be responsible for any unfortunate results that may occur. In order to retain our suggested original integrity, follow the instructions correctly for the gauge(s) you purchased.

6. Assemble tools and parts required for installation.

**WARNING** – If you have purchased more than one gauge **DO NOT** mix assembly parts between gauges.

7. Disconnect positive (+) battery cable from the battery during gauge installation.
8. See each gauge installation instructions on the following pages.

## AMMETER – Model 201012

**Note:** Must use 10 gauge wire.

The amp meter gauge is installed directly above the speedometer. Use only the installation components provided with the gauge. **CAUTION!** Do not install Ammeter in the dashboard hole designated for fuel pressure. The rear connections (wires and case studs) will short out on the steel support tubes.

**WARNING!** Improper ammeter rating, wire size and/or any loose connections can cause dangerous overheating. This could cause a fire in your vehicle. Ammeter and wire should have a capacity of at least 10 amps more than your vehicle's maximum alternator output. Have your maximum alternator output tested by a qualified mechanic before proceeding. This gauge should be installed by a qualified technician.

1. Make sure the (+) positive terminal has been disconnected from the battery.
2. The light bulb assembly comes installed on the rear gauge case housing. The bulb does not have a boot in order to maintain authentic color compensation with other gauges with boots. Mechanical gauges have the blue light boot while electric gauges do not.

3. Route the ammeter wires through the grommet and install in the firewall. **CAUTION! DO NOT CONNECT THE AMMETER ACROSS THE BATTERY.** Connect it on the secondary positive (+) wire after it has passed through the key switch. The secondary wire (+) is the 10 gauge wire that originates on the positive battery terminal.
4. **IMPORTANT!** Ring terminals must be both crimped and soldered to the circuit wires. Verify that the base nuts on both meter terminals are tight. Route the ammeter wires through the gauge hole on the dashboard. Attach the ring terminals to the gauge terminals followed by a cut lock washer and brass nut. Make sure the brass nut is secure aligning the ring terminals down and away from the bracket studs. Place the gauge through the dashboard opening, hold the bracket up behind the dash and align the studs through the bracket holes. When the studs are through, install a star lock washer and thread a thumbnut on each stud. As you tighten the thumbnuts make sure the gauge is aligned properly.
5. Reconnect battery, start engine and check meter performance.