

2021 Model Year Police Vehicle Evaluation - Addendum

Production delays due to the Covid-19 quarantine period were experienced prior to the 2021 Model Year Police Vehicle Evaluation. During our annual May manufacturers meeting, the offer was made to all manufacturers to test any pursuit rated vehicle that could not meet the October 9, 2020, deadline in May of 2021. The 2021 Ford F150 Police Responder was not available for testing at that time.

On May 8, 2021, the Ford F150 Police Responder was tested for braking, acceleration, and top speed at the Ford Michigan Proving Grounds. It should be noted that the ambient temperatures during this testing were considerably colder than the temperatures experienced during the October testing. The roadway surface used to test the F-150's braking performance had a different surface than the roadway used in October. There was not enough data available to compare one surface to the other therefore, we cannot calculate what the 60 – 0 mph projected stopping distance would have been if it had been tested in the same temperature environment at the Chelsea Proving Grounds.

On May 12, 2021, the Ford F150 Police Responder was tested for Vehicle Dynamics at the Grattan Raceway. The weather on this date was noticeably warmer (66° high compared to 51° high) than experienced on October 20, 2020. Between October 2020 and May 2021 turn one of the racetrack had been repaved. The eight lap timed series occurred at 10 a.m., 11 a.m., 12 p.m., and 1 p.m. allowing the vehicle to idle between runs to approximate the run and soak cycles the vehicle would have experienced had it been tested on October 20, 2020.

Ford F150 Police Responder



MAKE & MODEL	2021 Ford F-150 Police Responder
SALES CODE	W1P
POWERTRAIN INFORMATION	
CUBIC INCHES	213
LITERS	3.5L
DRIVE SYSTEM	Four Wheel Drive
HORSEPOWER	400 HP
TORQUE	500 ft./lbs.
ALTERNATOR	240 AMP
BATTERY	800 CCA
TRANSMISSION	10-Speed SelectShift Automatic
AXLE RATIO	3.31:1
TURNING RADIUS	47.8 ft.
TIRE SIZE, LOAD & SPEED RATING	LT265/70R18 113H
GROUND CLEARANCE, MINIMUM	9.4 inches
BRAKE SYSTEM	4-wheel vented disc ABS with electronically controlled brake boost
FUEL CAPACITY	26 Gallons/98 Liters
GENERAL MEASUREMENTS	
WHEELBASE	145.4 inches
LENGTH	231.7 inches
CURB WEIGHT	5016 lbs.
GVWR	7050 lbs.
HEIGHT	77.2 inches
INTERIOR VOLUME	
FRONT	79.9 cu. ft.
REAR	52.0 cu. ft.
COMBINED	131.9 cu. ft.
TRUNK	52.8 cu. ft.
MAXIMUM PAYLOAD CAPACITY (INCLUDING PASSENGERS)	2030 lbs.
EPA MILEAGE EST. (MPG)	
CITY	TBD
HIGHWAY	TBD
COMBINED	TBD

MANUFACTURER VEHICLE HIGHLIGHTS

NEW FEATURES:

The all-new 2021 Ford F-150 Police Responder® continues to be the only pursuit-rated pickup truck on the market and combines on-road pursuit performance with Built Ford Tough off-road capability. The F-150 Police Responder increases top speed to 120 mph and offers a new torque-on-demand 4x4 transfer case with a new "4-auto" mode that features "set it and forget it" capability. Optional Police Engine Idle feature permits officers to quickly remove the key from the ignition and exit the vehicle, while allowing the vehicle to remain securely idling to support lights, sirens, and other on-board equipment.

SAFETY:

- Standard built-in steel intrusion plates in front seat backs
- Rear View Camera with Dynamic Hitch Assist
- Available Pre-Collision Assist with Automatic Emergency Braking (includes Law Enforcement temporary disable switch)
- Available BLIS (Blind Spot Information System) with Cross-traffic Alert

DURABILITY:

- Standard FX4 Off-Road package featuring off-road tuned shocks, underbody skid plates and electronic locking rear axle
- Severe duty brake pads and brake calipers
- Police-grade heavy-duty cloth front seats

PERFORMANCE:

- Standard 3.5L EcoBoost® engine generating 400 horsepower and 500 lb.-ft. of torque
- Improved 120 mph top speed
- Most payload (2,030 lbs.), standard towing (7,000 lbs.) and optional towing (11,200 lbs.) of any pursuit-rated police vehicle

Acceleration and Top Speed

Ford F150 Police Responder

BEGINNING TIME: 10:40 a.m.	TEMPERATURE: 41° F
WIND VELOCITY: 8 mph	WIND DIRECTION: 312°

SPEEDS	RUN 1	RUN 2	RUN 3	RUN 4	AVERAGE (seconds)
0-60	5.42	5.38	5.42	5.39	5.40
0-80	8.57	8.43	8.60	8.49	8.52
0-100	13.28	12.74	13.40	12.92	13.09

AVERAGE DISTANCE TO REACH 100 MPH: 0.23 mile

AVERAGE DISTANCE TO REACH 120 MPH: 0.51 mile

TOP SPEED ATTAINED: 120 mph

RUN FOUR DISTANCE TO REACH TOP SPEED: 0.49 mile

RUN FOUR TIME TO REACH TOP SPEED: 21.46 seconds

Vehicle Dynamics

Ford F150 Police Responder

Vehicle	Drivers	Lap 1	Lap 2	Lap 3	Lap 4	Lap 5	Average
Ford F-150 Police Responder	DARLINGTON	01:38.26	01:38.13	01:38.63	01:38.22	01:38.72	01:38.39
	MERCER	01:37.35	01:37.70	01:37.62	01:37.70	01:37.61	01:37.66
	AGEMA	01:38.10	01:38.31	01:38.42	01:38.06	01:38.38	01:38.25
	MCCARTHY	01:37.87	01:37.80	01:37.97	01:37.90	01:37.78	01:37.86
OVERALL AVERAGE							01:38.04

Brake Testing

Ford F150 Police Responder

TEST LOCATION: Ford Michigan Proving Grounds
BEGINNING TIME: 12:42 p.m.

DATE: May 8, 2021
TEMPERATURE: 50° F

Phase I

(Ten 60-0 mph full ABS maximum deceleration stops)

Stop #	Initial Velocity (mph)	Stopping Distance (feet)	Deceleration Rate (ft/s ²)
1	60.20	153.76	25.35
2	59.40	146.26	25.95
3	60.10	152.74	25.44
4	59.40	147.15	25.79
5	60.00	154.88	25.00
6	59.80	151.94	25.32
7	59.40	153.68	24.69
8	59.70	150.98	25.39
9	59.60	153.12	24.95
10	59.40	149.89	25.32
AVERAGE DECELERATION RATE:			25.32 ft/s ²

(One cool down lap at 45 mph)

Phase II

(Ten 60-0 mph full ABS maximum deceleration stops)

Stop #	Initial Velocity (mph)	Stopping Distance (feet)	Deceleration Rate (ft/s ²)
1	59.70	157.78	24.30
2	59.50	156.80	24.29
3	59.60	148.46	25.74
4	60.70	159.04	24.92
5	59.90	150.30	25.68
6	59.80	159.57	24.10
7	59.40	143.49	26.45
8	59.80	149.96	25.65
9	59.30	145.27	26.04
10	59.60	154.63	24.71
AVERAGE DECELERATION RATE:			25.24 ft/s ²

Phase III

OVERALL AVERAGE DECELERATION RATE:	25.28 ft/s ²
PROJECTED STOPPING DISTANCE FROM 60 mph:	153.2 feet

Evidence of severe fading?	No
Vehicle stopped in straight line?	Yes
Vehicle stopped within correct lane?	Yes

*All vehicles tested are equipped with Anti-lock brakes (ABS)