



SNOWPLOW
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SNOWPLOW REQUIRED & RECOMMENDED EQUIPMENT F-150

MINIMUM REQUIRED EQUIPMENT – SNOW PLOW PREP PACKAGE (68P)

NOTE: The engine Outside Air Temperature (OAT) sensor is subject to error unless relocated to unblocked airflow.

- 4x4 only
- Requires 5.0L V8 engine (995)
- XL trim (only) – requires Rear-window, Fixed Privacy Glass with Defroster (924/57Q)
- XLT 300A Base – requires Rear-window Defroster (57Q)
- Lariat trim (only) – Electronic Shift-On-The-Fly (ESOF) replaces standard 2-speed automatic 4WD
- Lariat Technology Package (68T) not available with Snowplow Prep Package (68P)
- Available on Regular Cab, SuperCab and SuperCrew models (5.5', 6.5' and 8.0' boxes)
- Available with XL, XLT and Lariat Trim
- Both regular and heavy duty payload packages
- "Snow Plow" mode button on instrument panel will disable (load shed) the following features to maintain required electrical charge margins during plow operation / use: 110V inverter, fog lamps, heated steering wheel, heated front/rear seats, and massaging seats. Snow Plow mode button also activates relay to snow plow controls.

WARRANTY

NOTE: The F-150, snowplow installation is intended for **residential / personal use only**

The Ford New Vehicle Limited Warranty applies to vehicles with snowplows installed in accordance with these guidelines. Consult your Ford dealer or the *Owner Guide* for any further questions.

COMPLETED VEHICLE WEIGHT

Recommended plow assembly and aft-of-rear axle ballast weight limits are shown in the attached chart. These snowplow weight limits are based upon a vehicle built with noted trim levels with no additional Ford option content, a total of 300 lb. for a driver plus one front seat passenger (150 lbs. each), ballast weight rearward of the rear axle, and additional assumptions for commercially available snowplow assembly weights and mounting location.

The vehicle must not be operated when over-loaded. A vehicle is over-loaded when the weight of the completed vehicle with aftermarket equipment installed, plus driver, passengers, and cargo, exceeds either the FGAWR, RGAWR, or GVWR established by Ford Motor Company and displayed on the Safety Compliance Certification Label.

The addition of ballast weight placed rearward of the rear axle is required to prevent exceeding FGAWR, and to provide good vehicle braking and handling. The ballast should be attached securely to the vehicle with consideration for the normal driving dynamics of snowplowing, and occupant safety in accidents.

TOTAL ACCESSORY RESERVE CAPACITY

For Ford completed vehicles of 10,000 GVWR or less, the weight of permanently attached aftermarket equipment must not exceed the Total Accessory Reserve Capacity (T.A.R.C.) displayed on the Safety Compliance Certification Label to maintain the compliance representation that came with the Ford-built vehicle. Exceeding T.A.R.C. will require re-certification. This applies only to the permanently attached equipment, such as the snowplow frame mounting hardware, and not to the removable portion of the snowplow blade assembly.

FRONT END WHEEL ALIGNMENT AND HEADLIGHT AIM

Front end wheel alignment (toe) and headlight aim may require readjustment after installation of snowplow equipment. Failure to reset front wheel alignment may cause premature uneven tire wear. If required, reset to chassis manufacturer's specifications found in the *Ford Shop Manual*.

ELECTRICAL CONNECTIONS

Installation of any inductive load devices such as electric motors, or electric clutches for clutch pumps, must not be connected to Ford vehicle wiring or fuse panels. Power for such devices should be taken directly from the battery or starter motor relay power terminal. Control of these devices should be achieved via relays. No direct current path should exist between Ford vehicle wiring and the installed load that is not filtered by the battery. These recommendations are intended to eliminate or minimize any induced reverse voltage into the Ford circuitry. Refer to [SVE Bulletin Q-277](#) "Under Hood Electrical Equipment Mounting" for clearance guidance applicable to the F-150 and Super Duty series vehicles.

WARNING:

Starting in 2015MY, the F-150 battery charge state is determined with a Hall Effect sensor on the negative battery lead. All negative current must pass through this sensor – failure to do so will result in malfunction of the vehicle charging system and shortened battery life. **Do not make direct to battery connections at the negative battery post.** See [SVE Bulletin Q-231](#) "F-150 Aftermarket Direct to Battery Connections" for additional guidance.

Weight Table shown on next page

Vehicles equipped with the Snowplow Prep option will include a Snowplow Mode switch located on the dash panel. Activating the Snowplow Mode will provide 10 Amp B+ power to a dedicated feed for the snowplow controller – it is a blunt cut Yellow/ Orange wire and is found taped to the headlamp switch harness behind the left side of the driver's side dash panel. When activated, the vehicle will enter a special load shedding strategy to ensure continuous operation of the snowplow during periods of high electrical demand.

It is recommended that added snowplow dedicated LH and RH headlamps not be combined, i.e., powering both headlamps from a single circuit. The OEM chassis LH and RH headlamps are individually powered via separate circuits out of the Body Control Module (BCM). The snowplow dedicated headlamps must not be directly powered by these circuits, rather, they should only use the individual BCM headlamp output circuits as signals to separate snowplow headlamp relays incorporated within the snowplow circuitry. Wired in this manner, a single BCM headlamp circuit failure would allow the remaining snowplow headlamp to function in a normal manner.



SNOWPLOW REQUIRED & RECOMMENDED EQUIPMENT F-150 (Cont'd)

F150 Snow Plow Weight Analysis / Summary (Standard Front Springs / Maximum Ballast)												
Vehicle Description	Engine	WB (in)	GVWR (lbs)	Front GAWR (lbs)	Rear GAWR (lbs)	Trim	Trim Level	Base Curb Weight (lb)		Mounting Hardware Weight (lb)	Plow Blade Capability @ F/GAWR (lb)	Ballast (lb)
								Front	Total		Total	Total
Standard Payload	606 Regular Cab	5.0L	122.4	6400	3000	XL	lightest	2727	4517	70	224	1200
				6400	3150		heaviest	2824	4877	70	211	900
				6400	3000	XLT	lightest	2737	4523	70	217	1200
				6400	3150		heaviest	2828	4884	70	208	900
	606 Regular Cab	5.0L	141.1	6950	3225	XL	lightest	2845	4613	70	270	1200
				6950	3375		heaviest	2962	5041	70	293	1200
				6950	3225	XLT	lightest	2855	4619	70	263	1200
				6950	3375		heaviest	2966	5048	70	290	1200
	606 Super Cab	5.0L	145.0	7050	3375	XL	lightest	2912	4798	70	324	1200
				7050	3525		heaviest	3045	5247	70	314	1050
				7050	3375	XLT	lightest	2901	4772	70	332	1200
				7050	3600		heaviest	3115	5393	70	295	900
	606 Super Cab	5.0L	163.7	7000	3525	XL	lightest	2913	4929	70	402	1100
				7000	3750		heaviest	3044	5382	70	423	750
				7000	3525	XLT	lightest	2902	4903	70	423	1200
				7000	3750		heaviest	3114	5528	70	358	650
	606 Crew Cab	5.0L	145.0	7000	3600	Lariat	lightest	2968	5028	70	417	1200
				7000	3750		heaviest	3140	5570	70	339	650
				7000	3375	XL	lightest	2918	4867	70	320	1200
				7000	3525		heaviest	3053	5316	70	294	950
	606 Crew Cab	5.0L	156.8	7000	3375	XLT	lightest	2907	4843	70	327	1200
				7000	3600		heaviest	3132	5477	70	269	800
				7000	3450	Lariat	lightest	2974	4971	70	333	1200
				7000	3600		heaviest	3169	5542	70	235	750
Heavy Payload Package (HPP)	606 Regular Cab HPP	5.0L	141.1	7850	3400	XL	lightest	2908	4760	70	349	1200
				7850	3400		heaviest	2974	5029	70	302	1200
				7850	3400	XLT	lightest	2928	4804	70	335	1200
				7850	3400		heaviest	2990	5074	70	291	1200
	606 Super Cab HPP	5.0L	163.7	7850	3750	XL	lightest	3005	5066	70	513	1200
				7850	3750		heaviest	3085	5360	70	454	1200
				7850	3750	XLT	lightest	3004	5077	70	514	1200
				7850	3750		heaviest	3141	5480	70	413	1200
	606 Crew Cab HPP	5.0L	156.8	7850	3750	Lariat	lightest	3064	5181	70	470	1200
				7850	3750		heaviest	3170	5564	70	391	1200
				7850	3750	XL	lightest	3104	5151	70	445	1200
				7850	3750		heaviest	3190	5452	70	382	1200
	606 Crew Cab HPP	5.0L	156.8	7850	3750	XLT	lightest	3103	5164	70	446	1200
				7850	3750		heaviest	3257	5591	70	334	1200
				7850	3750	Lariat	lightest	3164	5271	70	401	1200
				7850	3750		heaviest	3295	5694	70	306	1200



SNOWPLOW REQUIRED & RECOMMENDED EQUIPMENT SUPER DUTY F-250/350/450/550

The Super Duty F Series vehicles tabled below are available for snowplow usage. Plow and attaching hardware weights listed in tabled below

Minimum Required Equipment

- » 4x4 (all pickups, F350 chassis cab)
- » Snowplow Prep Package (473) which includes: Computer Selected Springs for Snow Plow Application
- » Gas engine 750 –CCA 78 Amp hour battery (standard snow plow prep)
- » Diesel engine 750 –CCA 78 Amp hour dual battery
- » 6.2L Gasoline: 200 amp alternator
- » 7.3L Gasoline: 240 amp alternator
- » 6.7L Diesel Pickup: 240 amp alternator
- » 6.7L Diesel Chassis Cab: 332 amp dual alternators

Recommended Equipment

- » All terrain tires
- » Roof clearance lights (optional with SRW Pickup models, included on DRW Pickups and all Chassis Cabs).
- » 6.2L Gasoline: Optional 240 amp (67E) and dual batteries (86M)
- » 7.3L Gasoline: Optional 397 amp dual alternators (67B) and dual batteries (86M)
- » 6.7L Diesel Pickup: Optional 397 amp dual alternators (67B)

Standard Equipment

- » Front and rear stabilizer bar (rear standard on Chassis Cab and DRW pickup models)
- » Roof clearance lights standard on Chassis Cab and DRW Pickups
- » Steering damper
- » Engine oil cooler, automatic transmission oil cooler and maximum capacity engine coolant radiator are standard
- » All available axle ratios are acceptable

Completed Vehicle Weight

Snowplow weights (maximum recommended): Refer to the tables below

The vehicle must not be operated when over loaded. A vehicle is over loaded when the weight of the completed vehicle with aftermarket equipment installed, plus driver, passengers and cargo, exceeds either the FGAWR, RGAWR or GVWR displayed on the Safety Compliance Certification Label.

The addition of ballast (up to a maximum of 1500lbs) weight placed rearward of the rear axle may be required to prevent exceeding the FGAWR, and provide good vehicle braking and handling. The ballast should be attached securely to the vehicle with consideration for the normal driving dynamics of snowplowing and occupant safety in accidents.

For Ford completed vehicles of 10,000 lb. GVWR or less, the weight of permanently attached aftermarket equipment must not exceed the Total Accessory Reserve Capacity (TARC) displayed on the Safety Compliance Certification Label to maintain the compliance representation that came with the Ford built vehicle. Exceeding TARC may require re certification. This applies only to the permanently attached equipment, such as the snowplow frame mounting hardware, and not to the removable portion of the snowplow blade assembly.

Front End Wheel Alignment and Headlight Aim

Front end wheel alignment (toe) and headlight aim may require readjustment after installation of snowplow equipment. Failure to reset front wheel alignment may cause premature uneven tire wear. If required, reset to chassis manufacturer's specifications found in the Ford Work shop Manual.

Electrical Connections

Installation of any inductive load devices, such as electric motors or electric clutches for clutch pumps, must not be connected to Ford vehicle wiring or fuse panels. Power for such devices should be taken directly from the battery or starter motor relay power terminal. Control of these devices should be achieved via relays. No direct current path should exist between Ford vehicle wiring and the installed load that is not filtered by the battery. These recommendations are intended to eliminate or minimize any induced reverse voltage into the Ford circuitry. Refer to [SVE Bulletin Q 277](#) "Under Hood Electrical Equipment Mounting" for clearance guidance.

Warranty

The Ford New Vehicle Limited Warranty applies to vehicles with snowplows installed in accordance with these guidelines. Consult your Ford dealer or the *Owner's Guide* for any further questions.

Pickup ⁽¹⁾ Driver and one Passenger			Permanent Hardware / Max Removable Plow Weight ⁽²⁾⁽⁴⁾			
			250 SRW 4X4 (3)	350 SRW 4X4 (3)	350 DRW 4X4 (3)	450 DRW 4X4 (3)
Regular Cab	141.6"	6.2L Gas	100/1300	100/1300	100/1300	/
		7.3L Gas	100/1300	100/1300	100/1300	/
		6.7 Diesel	100/1155	100/1185	100/1190	100/1005
Super Cab	148.0"	6.2L Gas	100/1300	100/1285	/	/
		7.3L Gas	100/1300	100/1285	/	/
		6.7 Diesel	100/1005	100/1080	/	/
	164.2"	6.2L Gas	100/1285	100/1300	100/1300	/
		7.3L Gas	100/1280	100/1300	100/1300	/
Crew Cab	159.8"	6.7 Diesel	100/905	100/965	100/945	/
		6.2L Gas	100/1300	100/1300	/	/
		7.3L Gas	100/1300	100/1300	/	/
	176.0"	6.7 Diesel	100/925	100/985	/	/
		6.2L Gas	100/1300	100/1300	100/1300	/
		7.3L Gas	100/1300	100/1300	100/1300	/
		6.7 Diesel	100/755	100/835	100/815	100/675

(1) Includes Pickups ordered with Pickup Box Delete option.

(2) 100/750 = 100 maximum lb. of permanently attached hardware and maximum 750 lb. of removable plow blade and hardware. The plow and hardware weight limits shown are based upon a vehicle with 33% Ford Option content and a total of 300 lb. for the driver and one front seat passenger (150 lb each).

(3) Considering maximum GVWR offered (variable)

(4) This chart only shows the Maximum Recommended values.

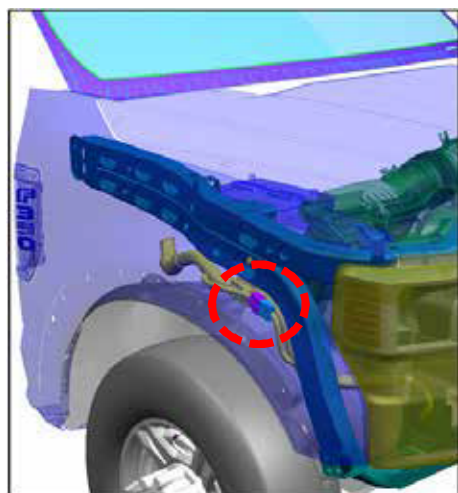
Chassis Cab Driver and One Passenger			Permanent Hardware / Max Removable Plow Weight ⁽²⁾⁽⁴⁾							
			F350 SRW 4x4 (3)	F350 DRW 4x4 14,000 LB GVWR	F450 DRW 4x2	F450 DRW 4x4	F550 DRW 4x2	F550 DRW 4x4	F550+ DRW 4x2	F550+ DRW 4x4
Regular Cab	145.0"	6.2L Gas	100/1350	100/1350	/	/	/	/	/	/
		7.3L Gas	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	100/1225	100/1200	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
	169.0"	6.2L Gas	/	100/1350	/	/	/	/	/	/
		7.3L Gas	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	/	100/1100	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
	193.0"	6.2L Gas	/	/	/	/	/	/	/	/
		7.3L Gas	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
	205.0"	6.2L Gas	/	/	/	/	/	/	/	/
		7.3L Gas	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
Super Cab	167.5"	6.2L Gas	100/1350	100/1350	/	/	/	/	/	/
		7.3L Gas	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	100/1075	100/1075	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
	191.5"	6.2L Gas	/	/	/	/	/	/	/	/
		7.3L Gas	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
Crew Cab	179.4"	6.2L Gas	100/1350	100/1350	/	/	/	/	/	/
		7.3L Gas	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	100/950	100/975	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
	203.4"	6.2L Gas	/	/	/	/	/	/	/	/
		7.3L Gas	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350
		6.7 Diesel	/	/	100/1350	100/1350	100/1350	100/1350	100/1350	100/1350

Model Not Available

SNOWPLOW REQUIRED & RECOMMENDED EQUIPMENT SUPER DUTY F-250/350/450/550

CNUM: C11-S1-PJ

Connector #: 4L3T-14A464-WA

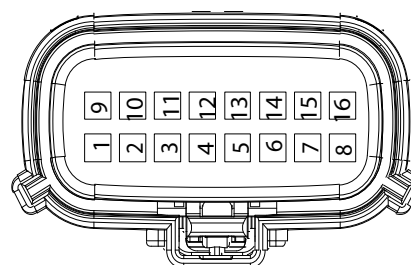


Cavity	Circuit	Circuit Description	Option
1	GD131	GND	Halogen or LED Headlamps
2	CAT17	TT Park Lamp Relay Control	TBC or Less TBC
3	CLF05	RF Low Beam	Halogen or LED Headlamps
4	CLF04	LF Low Beam	Halogen or LED Headlamps
5	CLF04	LF Low Beam Lwr	Halogen Headlamps
6	CLF05	RF Low Beam Lwr	Halogen Headlamps
7	CLF03	RF High Beam	Halogen or LED Headlamps
8	CLF03	RF High Beam Lwr	Halogen or LED Headlamps
9	CLF02	LF High Beam	Halogen or LED Headlamps
10	CLF02	LF High Beam Lwr	Halogen or LED Headlamps
11	GD129	GND	Halogen or LED Headlamps
12	N/A	N/A	N/A
13	CDP03	R/S Snow Plow Fuse (10A)	Halogen or LED Headlamps
14	CLS05	Park Lamps	Halogen or LED Headlamps
15	CLS25	RF Turn	Halogen or LED Headlamps
16	CLS21	LF Turn	Halogen or LED Headlamps

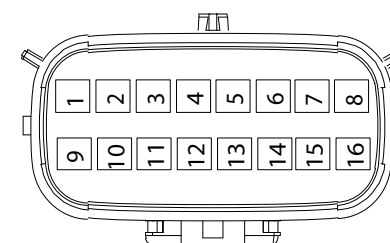
CNUM: C11-S2-PJ

Connector #: 4L3T-14A624-XB

Cavity	Circuit	Circuit Description	Option
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	CLF05	RF Low Beam	Halogen or LED Headlamps
4	CLF04	LF Low Beam	Halogen or LED Headlamps
5	CLF04	LF Low Beam Lwr	Halogen Headlamps
6	CLF05	RF Low Beam Lwr	Halogen Headlamps
7	CLF03	RF High Beam	Halogen or LED Headlamps
8	CLF03	RF High Beam Lwr	Halogen Headlamps
9	CLF02	LF High Beam	Halogen or LED Headlamps
10	CLF02	LF High Beam Lwr	Halogen Headlamps
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	N/A	N/A	N/A
16	N/A	N/A	N/A



4L3T-14A464-WA



4L3T-14A624-XB

Cold Weather Battery Performance

- Cold weather slows down battery charge rate acceptance. Batteries can accept only 2 to 5 amp-hours of charge during cold ambient temperatures (20F or less).
- Cold-weather snowplow operations can reduce battery charge level significantly (on the order 5 to 20 amp-hours) during a typical plowing session.
- Deep-cycling of the batteries is especially detrimental to battery longevity.
- Cold weather increases viscosity of the hydraulic fluid, causing even larger electrical draw on the truck.
- Snowplow kits (plow hydraulics, lighting, salt-spreaders, etc.) use more energy than alternators can keep up with (during low-speed operations), resulting in batteries having depleted charge levels.
- Batteries in trucks that sit (unused) for long periods of time (~3-4 weeks) will experience lower states of charge due to normal parasitic electrical loads in the vehicle.
- Short-duration and/or low-speed plowing operations do not allow for battery charge level to be adequately replenished.
- Drive your truck (at speed) will not fully be able to replenish battery state of charge in cold temps (<20F).
- Weak batteries will result in slower movement of the plow, dimming lights and possible radio drop-outs and other functional issues.
- Other vocations or installed equipment, such as Lift-gates, winches, etc. may result in similar low-battery issues.

Best-Practices for Battery Health

- Keep all battery connections tight and clean. Loose or dirty connections require higher power consumption.
- Prior to the snow season, check to make sure your battery levels are at full state-of-charge. 12.7-12.8V with vehicle off is a healthy battery. Beginning the snowplow season with a depleted battery results in deep-cycle depletion of battery charge.
- Avoid parking (unused) your truck for long periods of time (~3-4 weeks) after plow operations as the battery will develop lower states of charge due to normal parasitic electrical loads in the vehicle.
- Parking the truck after snowplow operations, with battery in discharged state of charge, can lead to sulfation and/or stratification of the acid resulting in irreparable internal damage to the battery.
- Avoid operating the plow with engine not running.
- If you suspect your battery is in a state of discharge, hook a battery charger up when the truck is not in use. If the battery still cannot achieve or maintain adequate charge, the battery should be replaced.
- On a dual-battery truck, if one battery goes bad, always replace in pairs (same size, same capacity).