

2013 RAM SNOWPLOW INSTALLATION

INTRODUCTION

The factory-installed Snowplow Preparation Groups (or their equivalent components) are recommended and listed for each vehicle. The normal warranty applies to Dodge Ram trucks that have after market snowplows installed in accordance with these guidelines.

Maximum Vehicle Loading Requirements:

Installation of snowplows and their mounting hardware may result in a vehicle weight distribution or a front axle loading which is detrimental to brake performance or which exceeds the front GAWR. The following load requirements are applicable:

1. The loaded vehicle, including all after market accessories, the snowplow system, passengers, and cargo, must not exceed the gross vehicle weight (GVW), front or rear gross axle weight (GAW) ratings specified on the Safety Compliance Certification label located in the driver's side door opening.
2. The empty truck with all permanently attached accessories and snowplow components must not exceed 62 percent of its total weight on the front axle to comply with FMVSS/CMVSR 105 Brake Certification. Permanently attached snowplow parts are those parts not easily removed when the blade is removed. The permanently attached parts are: sub-frame, hydraulic pump, hydraulic lift cylinder, lamps, wiring, snowplow controls, etc.

If the front axle loading exceeds either 62 percent of the empty truck total weight, or the front GAWR, ballast-compensating weight must be securely attached at the rear of the truck to bring front axle weight within weight specifications as defined above.

Applications – 4x4 Only (Package Code AHD)

Model	Wheel Base	P/U Box	GVWR Low/High	Front GAWR	Engine
2500 Reg. Cab	140.5"	8.0'	8,650 / 9,000	*	EZC, ETK
3500 Reg. Cab	140.5"	8.0'	10,300 / 14,000	*	ETK
2500 Crew Cab	149.5"	6.5'	8,800 / 10,000	*	EZC, ETK
2500 Crew Cab	169.5"	8.0'	8,800 / 10,000	*	EZC, ETK
3500 Crew Cab	149.5"	6.5'	10,700 / 14,000	*	ETK
3500 Crew Cab	169.5"	8.0'	11,300 / 14,000	*	ETK

* Front GAWR 5,200 Gas / 5,500 Diesel 2500


* Front GAWR 5,250 Gas / 6,000 Diesel 3500

Engine Codes: EZC: 5.7L V8 Gas
ETK: 6.7L Diesel

Notes for Heavy Duty Snowplows:

- At any time, the maximum number of occupants in the truck must not exceed two
- Under Any Circumstances, vehicles should NOT exceed GVWR (Gross Vehicle Weight Rating), Front or Rear GAWRs (Gross Axle Weight Ratings)
- Snowplow prep packages are NOT available with Sport (AAG) package
- Cargo capacity will be reduced by the addition of options.
- Ballast should be securely attached inside the box at 9 inches from the rear tailgate for pickups.
- The total weight of permanently attached hardware should not exceed 125 lbs.
- Max snowplow weight should not exceed values for models shown in this section.

The snowplow weights shown in the charts on the next page are the manufacturer recommendations based on maximum vehicle option content. Other plow weight values may be possible, based on the specific capability of the vehicle being modified (actual weight, GVWR, front and rear GAWR). The maximum allowable plow weight can be determined by the dealer /supplier / manufacturer. In all cases, the loaded vehicle weight, including the snowplow system, all aftermarket accessories, driver, passengers, options, and cargo, must not exceed either the Gross Vehicle Weight (GVWR) or Gross Axle Weight (GAWR) ratings. The GVWR and GAWR weights are specified on the Safety Compliance Certification Label on the driver's side door opening.

MFD BY CHRYSLER GROUP LLC		DATE OF MFR: 03-03
GVWR 2062 KG 04544 LB	GAWR 1154 KG FRONT 2543 LB	GAWR 0931 KG REAR 2051 LB
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY, BUMPER AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.		
VIN: 11111111111111111111	TYPE: TYPE UNKNOWN	
		
MDH: 030903	PNT:PKJT	VEHICLE MADE IN U.S.A. TRM:BFVU 4648102

Safety Compliance Certification Label

2013 RAM SNOWPLOW INSTALLATION

Snowplow Packages (AHD) Availability on 2013 HD RAM 4x4 Pickup Models

ST Model

4X4 Pickup			FGAWR All	2500				
w/Driver				Manual	Automatic	GVWR	Code	
7L62 Regular Cab	140.5"	5.7L V8	5,200		1265	8,650	Z7A	SRW
		6.7L Turbo Diesel	5,500	750	820	9,000	Z7C	SRW
7L91 Crew Cab	149.5"	5.7L V8	5,200		1170	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	725	760	10,000	Z7F	SRW
7L92 Crew Cab	169.5"	5.7L V8	5,200		1040	8,800	Z7B	SRW
		5.7L V8 CNG	5,200		815	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500		615	9,900	Z7H	SRW
		6.7L Turbo Diesel	5,500	540	615	10000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

SLT Model

4X4 Pickup			FGAWR All	2500				
w/Driver				Manual	Automatic	GVWR	Code	
7H62 Regular Cab	140.5"	5.7L V8	5,200		1225	8,650	Z7A	SRW
		6.7L Turbo Diesel	5,500	710	775	9,000	Z7C	SRW
7H91 Crew Cab	149.5"	5.7L V8	5,200		1040	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	615	635	10,000	Z7F	SRW
7H92 Crew Cab	169.5"	5.7L V8	5,200		950	8,800	Z7B	SRW
		5.7L V8 CNG	5,200		755	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	N/R	545	10,000	Z7F	SRW
		6.7L Turbo Diesel	5,500		545	9,900	Z7H	SRW
7H81 Mega Cab	160.5"	5.7L V8	5,200		945	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	525	560	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

Laramie Model

4X4 Pickup			FGAWR All	2500				
w/Driver				Manual	Automatic	GVWR	Code	
7P91 Crew Cab	149.5"	5.7L V8	5,200		1065	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	635	665	8,800	Z7F	SRW
7P92 Crew Cab	169.5"	5.7L V8	5,200		970	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	N/R	555	10,000	Z7F	SRW
7P81 Mega Cab	160.5"	5.7L V8	5,200		975	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500	530	560	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

Longhorn Model

4X4 Pickup			FGAWR All	2500				
w/Driver				Manual	Automatic	GVWR	Code	
7R91 Crew Cab	149.5"	5.7L V8	5,200		1065	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500		675	10,000	Z7F	SRW
7R92 Crew Cab	169.5"	5.7L V8	5,200		950	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500		545	10,000	Z7F	SRW
7R81 Mega Cab	160.5"	5.7L V8	5,200		965	8,800	Z7B	SRW
		6.7L Turbo Diesel	5,500		540	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

2013 RAM SNOWPLOW INSTALLATION

Snowplow Packages (AHD) Availability on 2013 HD RAM 4x4 Ram Box Models

ST Rambox Model

4X4 Pickup w/Driver			FGAWR All	2500				
				Manual	Automatic	GVWR	Code	
7L91		5.7L V8	5,200		1155	8,800	Z7B	SRW
Crew Cab	149.5"	6.7L Turbo Diesel	5,500	720	760	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

SLT Rambox Model

4X4 Pickup w/Driver			FGAWR All	2500				
				Manual	Automatic	GVWR	Code	
7H91		5.7L V8	5,200		1005	8,800	Z7B	SRW
Crew Cab	149.5"	6.7L Turbo Diesel	5,500	635	655	10,000	Z7F	SRW
7H81		5.7L V8	5,200		920	8,800	Z7B	SRW
Mega Cab	160.5"	6.7L Turbo Diesel	5,500	520	550	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

Laramie Rambox Model

4X4 Pickup w/Driver			FGAWR All	2500				
				Manual	Automatic	GVWR	Code	
7P91		5.7L V8	5,200		1035	8,800	Z7B	SRW
Crew Cab	149.5"	6.7L Turbo Diesel	5,500	650	680	10,000	Z7F	SRW
7P81		5.7L V8	5,200		940	8,800	Z7B	SRW
Mega Cab	160.5"	6.7L Turbo Diesel	5,500	510	545	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

Longhorn Rambox Model

4X4 Pickup w/Driver			FGAWR All	2500				
				Manual	Automatic	GVWR	Code	
7R91		5.7L V8	5,200		1065	8,800	Z7B	SRW
Crew Cab	149.5"	6.7L Turbo Diesel	5,500		685	10,000	Z7F	SRW
7R81		5.7L V8	5,200		940	8,800	Z7B	SRW
Mega Cab	160.5"	6.7L Turbo Diesel	5,500		545	10,000	Z7F	SRW

Note:

- Snowplow Weight include attaching hardware.
- Calculations are based upon vehicle with maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow is 500 lbs

2013 RAM SNOWPLOW INSTALLATION

Snowplow Packages (AHD) Availability on 2013 RAM 3500 4x4 Pickup Models

ST / Tradesman Model

4X4 Pickup w/Driver Only			FGAWR	3500 SRW					3500 DRW				
				Manual	Automatic	HD Trans	GVWR	Code	Manual	Automatic	HD Trans	GVWR	Code
8L62 Regular Cab	140.5"	6.7L Turbo Diesel	6,000	1,000	1,040	960	11,500	Z8E	910	940	860	14,000	Z8M
		5.7L HEMI Gas	5,500		1,320		10,300	Z8A					
8L91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000	980	1,010	920	11,700	Z8K					
		5.7L HEMI Gas	5,500		1,290		10,700	Z8C					
8L92 Crew Cab	169.5"	6.7L Turbo Diesel	6,000	740	780	690	12,300	Z8H	680	710	620	14,000	Z8M
		5.7L HEMI Gas	5,500		1,100		11,300	Z8J					

SLT Model

4X4 Pickup w/Driver Only			FGAWR	3500 SRW					3500 DRW				
				Manual	Automatic	HD Trans	GVWR	GVWR	Manual	Automatic	HD Trans	GVWR	GVWR
8H62 Regular Cab	140.5"	6.7L Turbo Diesel	6,000	970	1,010	930	11,500	Z8E	890	920	840	14,000	Z8M
		5.7L HEMI Gas	5,500		1,290		10,300	Z8A					
8H81 Mega Cab	160.5"	6.7L Turbo Diesel	6,000	850	890	790	12,400	Z8L	830	870	780	14,000	Z8M
		5.7L HEMI Gas	5,500		1,160		11,300	Z8J					
8H91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000	910	940	860	11,700	Z8K					
		5.7L HEMI Gas	5,500		1,210		10,700	Z8C					
8H92 Crew Cab	169.5"	6.7L Turbo Diesel	6,000	670	710	620	12,300	Z8H	610	650	560	14,000	Z8M
		5.7L HEMI Gas	5,500		1,030		11,300	Z8J					

Note:

- Snowplow Kit Weight includes a 100 lbs. attaching hardware.
- Calculations are based upon vehicle with driver only, worst case seating and maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow Kit is 500 lbs
- Rounded down to the nearest 10 lbs.

Laramie Model

4X4 Pickup w/Driver Only			FGAWR	3500 SRW					3500 DRW				
				Manual	Automatic	HD Trans	GVWR	GVWR	Manual	Automatic	HD Trans	GVWR	GVWR
8P81 Mega Cab	160.5"	6.7L Turbo Diesel	6,000	820	860	770	12,400	Z8L	830	870	780	14,000	Z8M
		5.7L HEMI Gas	5,500		1,140		11,300	Z8J					
8P91 Crew Cab	149.5"	6.7L Turbo Diesel	FGAWR	910	950	860	11,700	Z8K					
		5.7L HEMI Gas	5,500		1,210		10,700	Z8C					
8P92 Crew Cab	169.5"	6.7L Turbo Diesel	6,000	670	710	610	12,300	Z8H	610	650	560	14,000	Z8M
		5.7L HEMI Gas	5,500		1,030		11,300	Z8J					

Longhorn Model

4X4 Pickup w/Driver Only			FGAWR	3500 SRW					3500 DRW				
				Manual	Automatic	HD Trans	GVWR	GVWR	Manual	Automatic	HD Trans	GVWR	GVWR
8R81 Mega Cab	160.5"	6.7L Turbo Diesel	6,000		830	740	12,400	Z8L		840	750	14,000	Z8M
		5.7L HEMI Gas	5,500		1,110		11,300	Z8J					
8R91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000		930	840	11,700	Z8K					
		5.7L HEMI Gas	5,500		1,200		10,700	Z8C					
8R92 Crew Cab	169.5"	6.7L Turbo Diesel	6,000		680	590	12,300	Z8H		630	530	14,000	Z8M
		5.7L HEMI Gas	5,500		1,010		11,300	Z8J					

Note:

- Snowplow Kit Weight includes a 100 lbs. attaching hardware.
- Calculations are based upon vehicle with driver only, worst case seating and maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow Kit is 500 lbs
- Rounded down to the nearest 10 lbs.

2013 RAM SNOWPLOW INSTALLATION

Snowplow Packages (AHD) Availability on 2013 RAM 3500 4x4 Pickup Models

ST / Tradesman Rambox Model

4X4 Pickup			FGAWR	3500 SRW				
w/Driver Only				Manual	Automatic	HD Trans	GVWR	Code
8L91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000	970	1000	920	11,700	Z8K
		5.7 HEMI Gas	5,500		1290		10,700	Z8C

SLT Rambox Model

4X4 Pickup			FGAWR	3500 SRW				
w/Driver Only				Manual	Automatic	HD Trans	GVWR	Code
8H81 Mega Cab	160.5"	6.7L Turbo Diesel	6,000	850	890	800	12,400	Z8L
		5.7 HEMI Gas	5,500		1170		11,300	Z8J
8H91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000	920	960	870	11,700	Z8K
		5.7 HEMI Gas	5,500		1220		10,700	Z8C

Note:

- Snowplow Kit Weight includes a 100 lbs. attaching hardware.
- Calculations are based upon vehicle with driver only, worst case seating and maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow Kit is 500 lbs
- Rounded down to the nearest 10 lbs.

Laramie Rambox Model

4X4 Pickup			FGAWR	3500 SRW				
w/Driver Only				Manual	Automatic	HD Trans	GVWR	Code
8P81 Mega Cab	160.5"	5.7 HEMI Gas	5,500		1140		11,300	Z8J
8P91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000	920	950	860	11,700	Z8K
		5.7 HEMI Gas	5,500		1220		10,700	Z8C

Longhorn Rambox Model

4X4 Pickup			FGAWR	3500 SRW				
w/Driver Only				Manual	Automatic	HD Trans	GVWR	Code
8R81 Mega Cab	160.5"	6.7L Turbo Diesel	6,000		840	750	12,400	Z8L
		5.7 HEMI Gas	5,500		1120		11,300	Z8J
8R91 Crew Cab	149.5"	6.7L Turbo Diesel	6,000		930	840	11,700	Z8K
		5.7 HEMI Gas	5,500		1200		10,700	Z8C

Note:

- Snowplow Kit Weight includes a 100 lbs. attaching hardware.
- Calculations are based upon vehicle with driver only, worst case seating and maximum options.
- N/R = Not Recommended for snowplow application
- SRW = Single Rear Wheel.
- DRW = Dual Rear Wheel.
- Minimum Plow Kit is 500 lbs
- Rounded down to the nearest 10 lbs.

2013 RAM SNOWPLOW INSTALLATION

ELECTRICAL CONSIDERATIONS

HEADLAMPS

Each headlamp bulb is independently Pulse Width Modulated (PWM) controlled by an electronic control module. This module also monitors each bulb to detect failures (i.e. bulb burned out) on both the high beam and low beam filaments. When this failure occurs, the "LAMP OUT" telltale indicator in the instrument cluster will illuminate whenever the ignition is in the RUN position. The module also provides the DRL function when required and therefore there is no separate DRL controller.

Therefore, the any aftermarket wiring kits should use the following guidelines:

- Disconnection of the OEM headlamps will be interpreted by the electronic module as a burned out bulb therefore; it is recommended that the aftermarket lamps utilize the OEM headlamp circuits. NOTE – the aftermarket bulbs must draw no more current than the OEM bulbs (9007QL).
- Provide a means of allowing the customer to manually switch between the OEM headlamps and the aftermarket headlamps. Connection of both the OEM and aftermarket lamps at the same time will cause the control module to disable the circuit due to an overload condition and illuminate the "LAMP OUT" indicator in the instrument cluster.
- Also, assure that the OEM headlamps cannot be inadvertently disabled when the aftermarket lamps are disconnected (i.e. when the snowplow is not on the vehicle).
- Do NOT splice the right and left headlamp circuits together. Connection of both lamps to the same circuit will cause the control module to disable the circuit due to an overload condition and illuminate the "LAMP OUT" indicator in the instrument cluster.

TURN LAMPS

Each turn lamp - front driver, front passenger, rear driver, and rear passenger is independently controlled by an electronic control module. This module also monitors each bulb to detect failures (i.e. bulb burned out). When this failure occurs the "LAMP OUT" tell tale indicator in the instrument cluster will illuminate whenever the ignition is in the RUN position.

In order to successfully connect the plows turn signal lamps to the vehicle's wiring the following must be done:

- The front driver circuit is L61, 18 gauge WT/LG
- The front passenger circuit is L60, 18 gauge WT/TN

- Both L60 & L61 need to be spliced into in order to control a set of relays (please see attached drawing on page 5). These relays are necessary for proper function of the turn signals while the plow lamps are attached to the vehicle's electrical system. Failure to do so will cause the front turn signals to be inoperable or intermittent.

NOTE: The electronic module is only capable of detecting bulb failure in the vehicles lamps.

PARK LAMPS

The vehicle park/tail/license/marker/tailgate lamps are partitioned into three subsets – driver side, passenger side, and trailer tow connectors with the total vehicle load balanced between the driver and passenger side. Aftermarket wiring kits must have provisions that:

- Maintain separation between all three subsets. The preferred method for aftermarket park lamps is to use one of these circuits as a sense line to control a relay to activate aftermarket lamps. The relays power feed needs to be a fused battery feed provided by the kit
- If aftermarket park lamps need to be wired directly to the vehicle circuits. The load should be balanced between driver and passenger side, with neither side sourcing more than 2A of additional load current.
 - The driver side circuit is L161, 20 gauge WT/YL wire – see wiring schematics. The easiest place to find and splice into this circuit is in the harness bundle near the connection to the driver headlamp assembly
 - The passenger side circuit is L160, 20 gauge WT/GY wire – see wiring schematics. The easiest place to find and splice into this circuit is in the harness bundle near the connection to the passenger headlamp assembly

IGNITION RUN FEED

If required, the only location to obtain an ignition run feed is to splice into circuit F306. Circuit F306 18 gauge PK/YL is a dedicated Ignition Run feed to the Cigar Lighter.

The best location to splice into F306 is right at the connection into the back of the Cigar Lighter. This connection can be accessed by removing the center stack trim piece which the Cigar Lighter is mounted into. There will be two wires going into the connector. Circuit F306 is the 18

2013 RAM SNOWPLOW INSTALLATION

gauge PK/YL wire. The other wire will be (Z736) BK/YL tracer.

The spliced in aftermarket wire should be a minimum 18 gauge high temperature rated wire due to the 20A fuse for the Cigar lighter.

The load placed on the aftermarket circuit should not exceed 2A. Exceeding 2A will potentially blow the Cigar Lighter fuse when activating the Cigar lighter and the aftermarket load simultaneously.

Note: Circuit F306 is an Ignition Run and ACCESSORY feed, meaning it will be hot with the ignition key in the Run position and also the Accessory position.

Note: If more than a 2A ignition feed is required, then the aftermarket application will have to add an external relay, with appropriate battery fusing and use the recommended F306 circuit to turn the relay on and off.

Note: There is no other acceptable place to find a vehicle Ignition Run source, in cab or underhood.

2013 RAM SNOWPLOW INSTALLATION

