

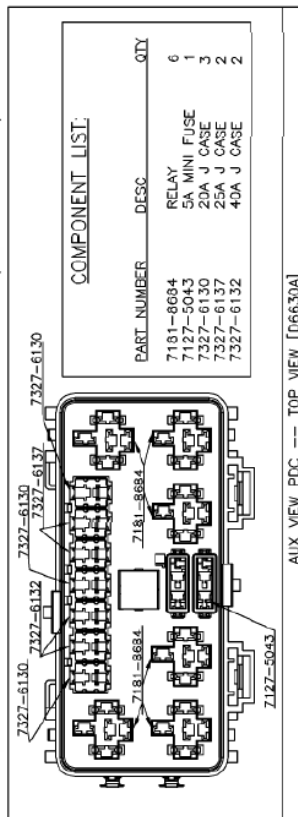
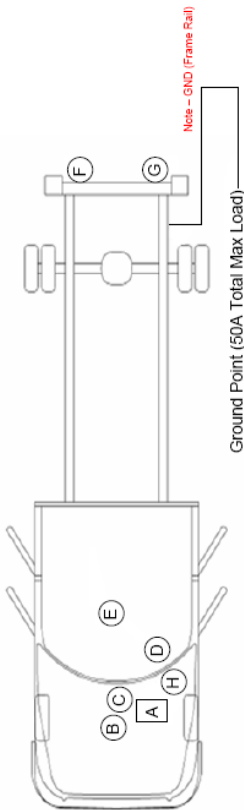
2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS

CAB CHASSIS UPFITTER SCHEMATIC

2012 3500/4500/5500
RAM Truck Upfitter
Schematic



Vehicle power and data solutions



Note - Auxiliary PDC Underhood (Dash Harness)

Note - 2 Upfitter Connectors Located (Dash Harness)

Note - Heat Shrink wires located in the engine compartment, to the right and slightly lower than the AUX PDC

Note - Port Upfitters Connectors, Under Dash Board near Steering Column

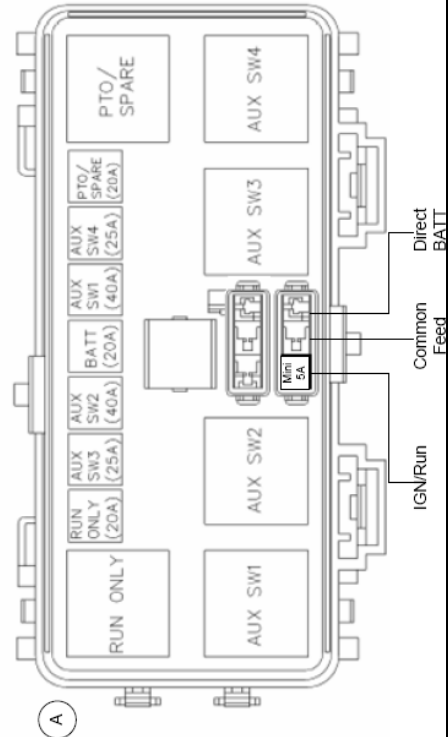
Note - PTO Connector Wires located Transmission Bellhousing, Drivers Side

Note - Vehicle Wiring, Heat Shrink Rear of Frame

Note - Heat Shrink wires located on the Frame Rail, and slightly lower than the AUX PDC

5A Mini Fuse can be swapped between Battery and Ignition. This changes the function of AUX SW1 and AUX SW2 from Battery operated to Ignition/Run operated.

Page 1



Note -

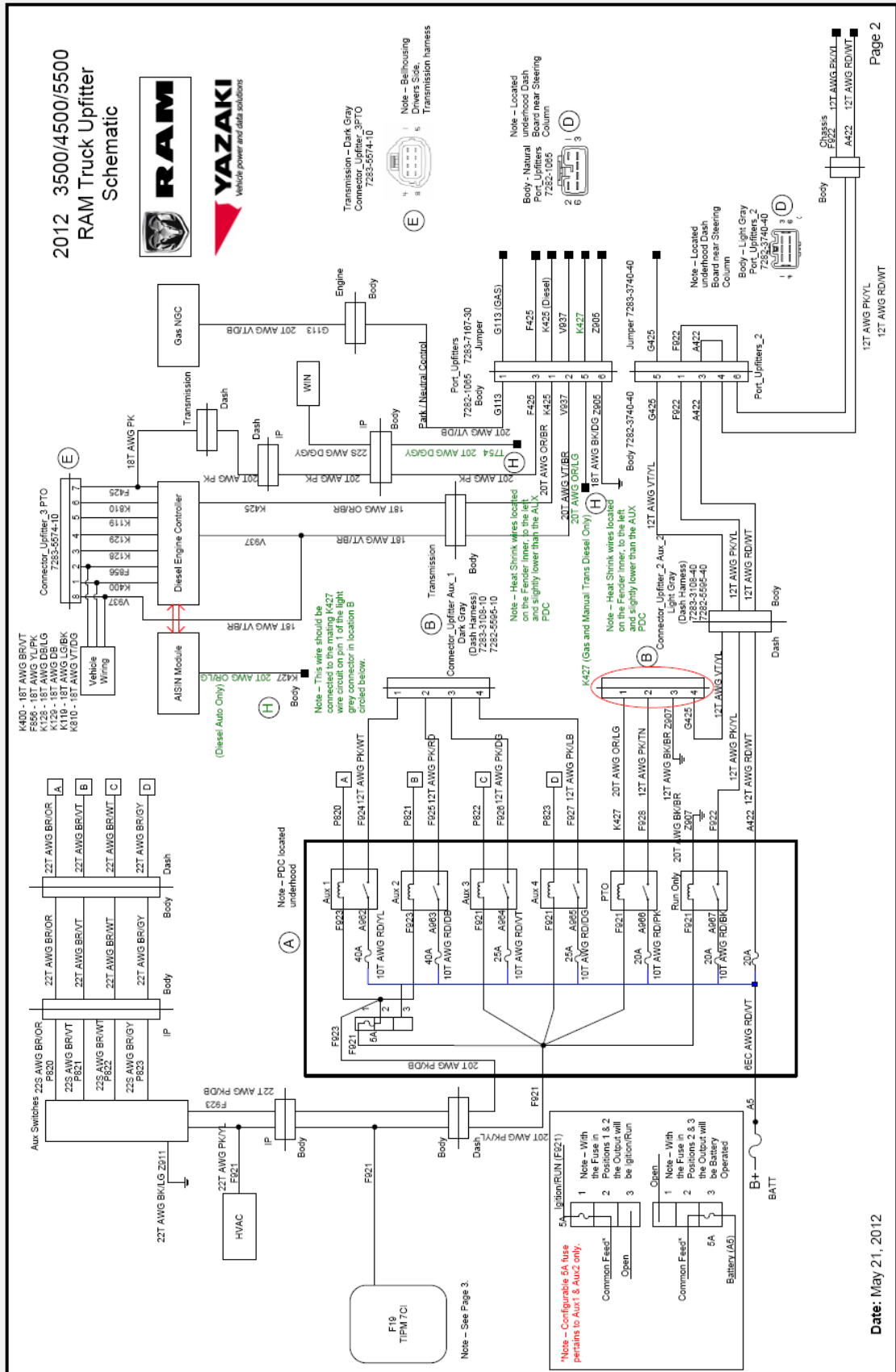
Max Combined Fuse size allowed in box is 190A. Fuses can be relocated in box as necessary.

Max fuse size in any one location is 40A.

*The upfitter/customer is responsible for placing the correct fuse in the correct location depending on the actual load.
The fuses shown in schematics are for fuselinks as installed for the vehicle as sold and will change as fuses are reconfigured.

Date: May 21, 2012

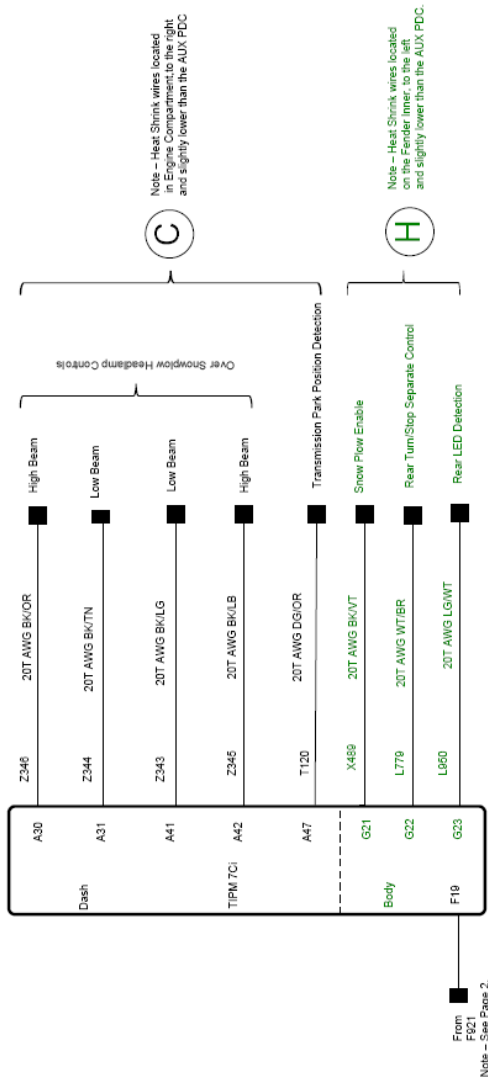
2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS



2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS

2012 3500/4500/5500
RAM Truck Upfitter
Schematic

Upfitter Circuits



Trailer Tow and Upfitter Circuits

F & G

Vehicle Wiring	
L1	18T AWG WT/RO
A603	12T AWG RD/VT
B40	14T AWG DG
L678	14T AWG BR
L656	18T AWG WT/DB
L655	18T AWG WT/OR
Z214	14T AWG BK/GY
L17	18T AWG WT/LG
L56	20T AWG WT/VT

Note - Customer added wires must be Hi-Temp Insulation such as Cross-Link Polyethylene meeting standard SAE J1128 Insulation Thickness SXL

Note - Vehicle wiring, heat shrunk rear of chassis.

Note - Circuits A422, F322, L17 and L56 are the Upfitter circuits.

Note - Circuits Z214, L678, L666, L655, L1, B40 and A603 are the Trailer Tow circuits.

Date: May 21, 2012

Page 3



2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS

2012 3500/4500/5500
RAM Truck Upfitter
Schematic



Upfitter Jumper 68049500AC

Note: Each circuit can handle 40A. Combined Load for AUX Switches is 130A.
Note: The upfitter/customer is responsible for placing the correct wire and correct location depending on the actual load.

Dash - Dark Gray
Connector, Upfitter Aux_1
7283-3108-10
7282-6666-10



PTO Connector
7283-5574-10



- 1 K426 (ENG - ACCEL PEDAL POS. SNR RTN.) 18T AWG BR/VT
- 2 F425 (ENG - 5V ENGINE SNR FEED SEC.) 18T AWG YL/PK
- 3 K128 (ENG - REMOTE THROTTLE SWITCH SIGNAL) 18T AWG DB/LG
- 4 K128 (ENG - REMOTE THROTTLE SWITCH) 18T AWG DB
- 5 K119 (ENG - MAXIMUM OPERATING SPEED SWITCH) 18T AWG LG/BK
- 6 K810 (ENG - ACCELERATOR INTERLOCK SWITCH) 18T AWG VT/DG
- 7 F425 (PWR - POWER TAKEOFF SWITCH) 18T AWG PK
- 8 V837 (SCS - SPEED CTRL SW RTN.) 18T AWG VT/BR

Jumper
Port, Upfitters_2
7283-7167-30



- 1 K426 (DESEL) 20T AWG OR/BR
- 3 F425 (PWR) 20T AWG PK
- 1 G113 (GAS) 20T AWG VT/DB
- 2 V837 (SCS - SPEED CTRL SW RTN.) 20T AWG VT/BR
- 5 K427 (ENG - POWER TAKEOFF RELAY ENABLE) 20T AWG OR/LG
- 6 Z2005 (GND) 18T AWG BK/DG

- 1 F424 (PWR - IGN FEED) (Output - 40A) 12T AWG PK/WT
- 2 F425 (PWR - IGN FEED) (Output - 40A) 12T AWG PK/RO
- 3 F426 (PWR - BATT FEED) (Output - 25A) 12T AWG PK/DG
- 4 F427 (PWR - BATT FEED) (Output - 25A) 12T AWG PK/LB

Jumper
Port, Upfitters_2
7283-3740-40



- 5 G425 (GGS - POWER TAKEOFF SYSTEM STATUS BULB) 12T AWG VT/YL
- 1 F422 (PWR - IGN RUN 22) (Output - 20A) 12T AWG PK/YL
- 3 A452 (PWR - BATT FEED 12) 12T AWG RD/WT
- 4
- 6

Dash - Light Gray
Connector, Upfitter_2 Aux_2
7283-3108-40
7282-6666-40



- 1 K427 (ENG - POWER TAKEOFF RELAY ENABLE) 20T AWG OR/LG
- 2 F428 (PWR - PTO 12V power output) (Output - 20A) 12T AWG PK/TN
- 3 Z2007 (GND) 12T AWG BK/BR 40A
- 4 G425 (GGS - POWER TAKEOFF SYSTEM STATUS BULB) 12T AWG VT/YL

Date: May 21, 2012

Page 4



2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS

2012 3500/4500/5500
RAM Truck Upfitter
Schematic



Circuit Definition

F Trailer Tow Circuits

(Heat Shrink Rear of Chassis/Frame)

Circuit	Gauge (AWG)	Color	Circuit Function
A903 12T		RD/WT	PWR
B40 14T		DG	ELT - Electric Brake Feed
L 13T		WT/RD	ELT - Backup Lamps Feed
L655 18T		WT/OR	Trailer Tow Stop/Turn Lamp - Left
L656 18T		WT/OR	Trailer Tow Stop/Turn Lamp - Right
L678 14T		BR	ELT - Trailer Tow Park Lamp Sig
Z914 14T		BK/GY	GND

G Upfitter Circuits

(Heat Shrink Rear of Chassis/Frame)

*Note - Circuits A422 and F922 require the grey upfitter jumper in location 'D' to be installed to be active.

Circuit	Gauge (AWG)	Color	Circuit Function
A422 12T		RD/WT	PWR - Batt Feed
F922 12T		BK/WT	PWR - IGN Feed
L17 18T		WT/LG	ELT - Park/Tail/L.O.Run/Retr Lamps
L55 12T		WT/WT	ELT - Stop Lamp S/C/Ch/MSL Feed

C Upfitter Circuits

(Heat Shrink wires located in the Engine Compartment, to the right and slightly lower than the AUX PDC)

Circuit	Gauge (AWG)	Color	Circuit Function
Z940 20T		BK/OR	ELT - Headlamps High Beam RT
Z944 20T		BK/WT	ELT - Headlamps Low Beam RT
Z943 20T		BK/LG	ELT - Headlamps L.O Beam LT
Z945 20T		BK/LB	ELT - Headlamps HI Beam LT
T120 20T		DE/OR	TRX - ATX-Park Position Detection

H Upfitter Circuits

(Heat Shrink wires located on the Fender Inner, to the left and slightly lower than the AUX PDC)

Circuit	Gauge (AWG)	Color	Circuit Function
L779 20T		WT/BR	Rear Turn/Stop Separate Control
L950 20T		LG/WT	Rear LED Detection
K427 20T		OR/LG	ENG - Power rakeoff Relay Enable
T764 20T		DG/GY	Remote Start
K499 20T		BK/VT	AUX - Aux Connection Detect

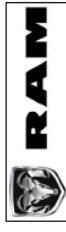
Date: May 21, 2012

Page 5



2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS

2012 3500/4500/5500
RAM Truck Upfitter
Schematic



Circuit Definition PTO Connector and Pin Out (Transmission Bellhousing, Driver's Side)

PTO Connector and Pin Out

1	K400 (ENG - ACCEL PEDAL POS SNR RTN2)	K400 - 18T AMG BRVT
2	F856 (ENG - 5V ENGINE SNR FEED SEC)	F856 - 18T AMG YLPK
3	K128 (ENG - REMOTE THROTTLE SWITCH SIGNAL)	K128 - 18T AMG DBLG
4	K129 (ENG - REMOTE THROTTLE SWITCH)	K129 - 18T AMG DB
5	K119 (ENG - MAXIMUM OPERATING SPEED SWITCH)	K119 - 18T AMG LGBK
6	K810 (ENG - ACCELERATOR INTERLOCK SWITCH)	K810 - 18T AMG VTIDG
7	F425 (PMR - POWER TAKEOFF SWITCH-I)	18T AMG PK
8	V937 (SCS - SPEED CTRL SW RTN)	18T AMG VT/BR



Diesel Engine Controller

Date: May 21, 2012

Page 6

2012 CHASSIS CAB UPFITTER WIRING INTERFACE INSTRUCTIONS

2012 3500/4500/5500
RAM Truck Upfitter
Schematic



Cab Chassis Upfitter Kit Detail

KIT PN 68049500AD

*Reference Sheet PN 68049873AD.

*1 Upfitter Jumper PN 68049501AB:

- a) 8 – 12 GA Circuits for AUX Connectors 1 & 2
- b) 8 – 20 GA Circuits for the Transmission PTO Connector
- c) 2 – Port Upfitter connectors with blank cut wires.

The Vehicle has been equipped to ease the insulation of a PTO by allowing convenient access to circuits needed without having to splice into the main harness. Two (2) of the upfitter connections are beneath the steering wheel near the engine compartment grommet (LT Side).

In the rear of the vehicle, you can find all required T-TOW circuits, and two (2) additional power circuits (1 Battery and 1 Ignition)

In the Engine compartment you will find two (2) (Light Grey and Dark Grey) Upfitter connectors which allow easy access to the switch bank and fuse box outputs, mating terminated circuits are included in the kit as needed.

On the upper left (driver's) side of the transmission you will find one (1) Upfitter connector which allows easy access to the PTO functions. Mating terminated circuits are included in the kit. Use as needed.

A J1939 connector has been provided. It is located in engine compartment (driver's side) on engine harness across from the battery. This will allow read only access to various vehicle Bus messages.

The Battery line to the AUX PDC is protected by a wire fuse link.

Warning about adding auxiliary batteries:

An auxiliary battery may be used. However a battery isolation unit is not supplied and the auxiliary battery may discharge the truck battery when the engine is not running.

Ground Studs on the chassis/frame may be utilized as a grounding point with a 50A Maximum total load, see "Vehicle Ground Locations" section in the RAM Body Builder Guide, Electrical/Wiring Information.

Date: May 23, 2012

Page 7

