

2012 BMW 3 Series (F30/F31)



Wiring Information

Item	Wire Color	Polarity	Wire Location
12 Volts	red/blue (40A)	+	Front Electronic Module in pass kick, black 54 pin plug (3B), pin 33
Second 12 Volts	red (125A)	+	Front Electronic Module, blk 1 pin plg (1B), pin 1
Starter	black (for starter kill only)	+ low curr	Front Electronic Module in pass kick, black 42 pin plug (2B), pin 1
Second Starter	green/blue (SS1); white/blue (SS2)	- resistor	start/stop button or Front Electronic Mod, wh 54 pin plg(7B), pins45,49
Ignition	green/gray (for ignition sense only)	+ low curr	Front Electronic Module in pass kick, black 54 pin plug (3B), pin 4
Second Ignition	N/A		
Third Ignition	N/A		
Accessory	N/A		
Second Accessory	N/A		
Third Accessory	N/A		
Key Sense	N/A		
Data Bus	(immobilizer antenna ring is in steering column)		
Can Bus High	orange/green (K CAN)	data	Front Electronic Module in pass kick, black 54 pin plug (8B), pin 52
Can Bus Low	green (K CAN)	data	Front Electronic Module in pass kick, black 54 pin plug (8B), pin 51
Can Bus Sw	white/blue (keyless LIN bus)	data	Front Electronic Module in pass kick, white 54 pin plug (4B), pin 15
Power Lock	yellow/brown (center dash switch)	-	Front Electronic Module in pass kick, white 54 pin plug (7B), pin 27
Power Unlock	(same as power lock)		
Lock Motor	white or black	5 wire	Front Electronic Mod in pass kick, wht 54 pin plug (4B), pin 30 or 20
Unlock Motor	blue	5 wire	Front Electronic Module in pass kick, white 54 pin plug (4B), pin 29
Disarm Defeat	blue	5 wire	Front Electronic Module in pass kick, white 54 pin plug (4B), pin 28
Parking Lights (+)	black/green (LF); black/blue (RF)	+	Front Electronic Mod in pass kick, black 54 pin plug (3B), pins 51, 39
Parking Lights (-)	(LIN bus)		
Hazards	brown/blue	-	Front Electronic Module in pass kick, white 54 pin plug (7B), pin 31
Turn Signal (Left)	blue/green (F); black/white (R)	+	Frt Elct Mod, 54P plg (3B), pin 48; Rr Elct Mod, 26P plg (12B), pin 17

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DirectWire Vehicle Information	12/2/2013 5:55:07 AM	Frt Elct Mod, 54P plg (3B), pin 36; Rr Elct Mod, 54P plg (14B), pin 12
Turn Signal (Right)	blue/brown (F); black/gray (R)	

Wiring Information (Continued)

Item	Wire Color	Polarity	Wire Location
Headlight	yellow/green (L); yellow/blue (R)	+	Front Electronic Mod, 54 pin plug (3B), pin 35; 42 pin plg(2B), pin25
AutoLights	(LIN bus)		
Reverse Light	black/purple	+	Rear Electronic Module in trunk R side, wht 26 pin plug (13B), pin 16
Left Front Door Trigger	gray/white	-	Front Electronic Module in pass kick, black 42 pin plug (2B), pin 30
Right Front Door Trigger	brown/yellow	-	Front Electronic Mod, blk 42 pin plug (2B), pin 31
Left Rear Door Trigger	brown/purple	-	Front Electronic Mod, blk 42 pin plug (2B), pin 38
Right Rear Door Trigger	brown/white	-	Front Electronic Mod, blk 42 pin plug (2B), pin 39
Dome Supervision	gray/purple	-	Front Electronic Module in pass kick, black 54 pin plug (3B), pin 21
Trunk/Hatch Pin	brown/green	-	Rear Electronic Module in trunk R side, wht 26 pin plug (13B), pin 26
Rear Glass Pin	N/A		
Hood Pin	purple/green	-	Front Electronic Module in pass kick, black 42 pin plug (2B), pin 40
Trunk Hatch/Release	green/black	-	release switch or Front Electronic Mod, blk 42 pin plug (2B), pin 37
Trunk Release Motor	gray/green	5 wire	Rear Electronic Module in trunk R side, wht 26 pin plug (13B), pin 19
Fuel Door Release	blue (unlock only)	5 wire	Front Electronic Module in pass kick, white 54 pin plug (4B), pin 45
Power Sliding Door (Left)	N/A		
Power Sliding Door (Right)	N/A		
Factory Alarm Arm	(factory remote only)		
Factory Alarm Disarm	(see disarm no unlock)		
Disarm No Unlock	(transponder and push-button start)		
Trunk Alarm Shunt	N/A		
Tachometer	black/red	ac	data link connector, 16 pin plug, pin 9
Wait to Start	N/A		
Neutral Safety	N/A		
Clutch Pedal	blue/brown		Front Electronic Mod, blk 54 pin plug (3B), pin 23
Fuel Pump	red/green	+	rear fuse holder in trunk R side, plg (11B), pin 2
Rear Defroster	red	+ latched	Rear Electronic Module in trunk R side, blk 26 pin plug (12B), pin 26
Mirror Defroster	(LIN bus)		
Left Front Heated Seat	(LIN bus or K CAN)		
Right Front Heated Seat	(LIN bus or K CAN)		

Wiring Information (Continued)

Item	Wire Color	Polarity	Wire Location
Speed Sense	(wheel speed sensor)		
Brake Wire	blue/red	-	brake switch or Front Electronic Mod, blk 54 pin plug (3B), pin 22
Parking Brake	yellow/blue	-	park brake sw or Front Electronic Mod, blk 54 pin plug (3B), pin 10
Horn Trigger	purple/blue (L); purple/blue (H)	+	Front Electronic Mod in pass kick, black 42 pin plug (2B), pins 2, 3
Wipers	red/green (L); red/yellow (H)	+	Front Electronic Mod in pass kick, black 42 pin plug (2B), pins 22, 23
Left Front Window (Up/Down)	(not recommended because of factory auto up/down)		
Right Front Window (Up/Down)	(not recommended because of factory auto up/down)		
Left Rear Window (Up/Down)	(not recommended because of factory auto up/down)		
Right Rear Window (Up/Down)	(not recommended because of factory auto up/down)		
Sun Roof (Open/Close)	green - blue	reverse	overhead console, plug (3B), pins 3 - 4
Sun Roof (Limit/Close)	N/A		
Memory Seat 1			
Memory Seat 2			
Memory Seat 3			
Radio 12V	red/yellow	+	radio, 40 pin plug, pin 15
Radio Ground	brown	-	radio, 40 pin plug, pin 12
Radio Ignition	(K CAN)		
Radio Illumination	gray/red (dimmer)	+	radio, 40 pin plug, pin 14
Factory Amp Turn-on	(same as power ant - HiFi); (MOST bus - Top HiFi)		
Power Antenna	black	+	radio, 40 pin plug, pin 13
Left Front Speaker (+/-)	black/red - black/brown or yellow/red - yellow/brn	+,-	radio, 40 pin plug, pins 3 - 7
Right Front Speaker (+/-)	blue/red - blue/brown or purple/red - purple/brown	+,-	radio, 40 pin plug, pins 2 - 6
Left Rear Speaker (+/-)	white/red - white/brown or brown/blue - brown/red	+,-	radio, 40 pin plug, pins 4 - 8
Right Rear Speaker (+/-)	gray/red - gray/brown or green/brown - green/red	+,-	radio, 40 pin plug, pins 1 - 5
Center Channel (+/-)	black/white - black/purple	+,-	amp, 42 pin plg, pins 39-40 (HiFi), or 20 pin plg, pins 5-15 (Top HiFi)
Subwoofer (+/-)	N/A		
Aux. Audio Input Left (+/-)	white/red - purple or gray - brown	+,-	radio, 40 pin plug, pins 30 - 36
Aux. Audio Input Right (+/-)	white/green - purple or blue - brown	+,-	radio, 40 pin plug, pins 35 - 36

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DirectWire Vehicle Information	12/3/2013 5:55:07 AM	+, -	
RSE Video (+/-)	white (shield) (DVD changer)		radio, 40 pin plug, pins 24 - 23
RSE Audio Left (+/-)	(MOST bus)		
RSE Audio Right (+/-)	(MOST bus)		
Satellite Radio 12 Volts	N/A		
Satellite Radio Ground	N/A		
Satellite Radio Ignition	N/A		
Satellite Radio Antenna	N/A		
Satellite Audio Left (+/-)	N/A		
Satellite Audio Right (+/-)	N/A		

What Fits

Item	Size	Depth	Location
Headunit			
Left Front Speaker			
Left Front Tweeter			
Right Front Speaker			
Right Front Tweeter			
Left Rear Speaker			
Left Rear Tweeter			
Right Rear Speaker			
Right Rear Tweeter			
Center Channel			
Subwoofer			
Left Front Headrest			
Right Front Headrest			
Left Right Headrest			
Right Rear Headrest			
Satellite Radio Tuner			

Additional Wiring Notes

Item	Note
Parking Lights (+)	The LR - RR are gray/purple - gray/yellow at the Rear Electronic Module in trunk R side, black 26 pin plug (12B), pin 12; black 54 pin plug (14B), pin 24.
Left Front Speaker (+/-)	On models with amplifier, the speaker wire are black/red - black/brown (woofer); black/red - black/brown (tweeter/midrange) at the amplifier in trunk L side, 42 pin plug, pins 4 - 3; 33 - 34 (HiFi), or 20 pin plug, pins 8 - 18; 19 - 9 (Top HiFi).
Right Front Speaker (+/-)	On models with amplifier, the speaker wire are blue/red - blue/brown (woofer); blue/red - blue/brown (tweeter/midrange) at the amplifier in trunk L side, 42 pin plug, pins 23 - 22; 11 - 12 (HiFi), or 20 pin plug, pins 6 - 16; 17 - 7 (Top HiFi).
Left Rear Speaker (+/-)	On models with amplifier, the speaker wire are white/red - white/brown at the amplifier in trunk L side, 42 pin plug, pins 31 - 32 (HiFi), or 20 pin plug, pins 1 - 11 (Top HiFi). The speaker 2 wires are yellow/red - yellow/brown at the amplifier, 20 pin plug, pins 14 - 4 (Top HiFi).
Right Rear Speaker (+/-)	On models with amplifier, the speaker wire are gray/red - gray/brown at the amplifier in trunk L side, 42 pin plug, pins 13 - 21 (HiFi), or 20 pin plug, pins 12 - 2 (Top HiFi). The speaker 2 wires are purple/red - purple/brown at the amplifier, 20 pin plug, pins 13 - 3 (Top HiFi).