Wiring Information

ltem	Wire Color	Polarity	Wire Location
12 Volts	red (50A)	+	dash fuse box, white 4 pin plug (B), pin 4
Ground	(chassis ground)		
Starter	pink	+	driver kick, white or red 58 pin plug, pin 7
Ignition	green	+	driver kick, white or red 58 pin plug, pin 25 or 58
Accessory	yellow	+	driver kick, white or red 58 pin plug, pin 19
Second Accessory	brown	+	driver kick, white or red 58 pin plug, pin 30
PTS 1	yellow/orange	-	start stop button switch, black 16 pin plug, pin 2
PTS 2	orange/black	-	start stop button switch, black 16 pin plug, pin 3
CAN Bus High	green (C-CAN)	data	OBD-data link connector, black 16 pin plug, pin 6
CAN Bus Low	orange (C-CAN)	data	OBD-data link connector, black 16 pin plug, pin 14
CAN Bus High 2	blue (B-CAN)	data	driver kick, white or blue 68 pin plug, pin 29
CAN Bus Low 2	red (B-CAN)	data	driver kick, white or blue 68 pin plug, pin 39
OBD 12 Volts	gray/black (7.5A)	+	OBD-data link connector, black 16 pin plug, pin 16
OBD Ground	black	-	OBD-data link connector, black 16 pin plug, pin 4
IMMO Data	white/orange (EMS COM)	data	driver kick, white or red 58 pin plug, pin 36
K Line	white	data	OBD-data link connector, black 16 pin plug, pin 12
Power Lock	brown/orange	-	dash fuse box, rear, white 32 pin plug (E), pin 5
Power Unlock	yellow/black (passenger doors)	-	dash fuse box, rear, white 32 pin plug (E), pin 6
Power Unlock - Driver Door	(use driver unlock motor) or white	-	relay box behind glove box, white 24 pin plug, pin 21
Lock Motor	orange	5 wire	dash fuse box, gray or black 51 pin plug (C), pin 48
Driver Unlock Motor	blue	5 wire	driver kick, white or blue 68 pin plug, pin 21
Passenger Unlock Motor	green	5 wire	dash fuse box, gray or black 51 pin plug (C), pin 47
Factory Alarm Arm	brown/black (key lock); red/orange (detection) (see Tech Doc 1300)	- and open	power window main switch, white 32 pin plug, pins 22, 24
Factory Alarm Disarm	pink/black (key unlock); red/orange (detection) (see Tech Doc 1300)	both -	power window main switch, white 32 pin plug, pins 23, 24
Disarm No Unlock	(see factory alarm disarm)		
Parking Lights	green/black (L); yellow/black (R)	+	dash fuse box, white 24 pin plug (D), pins 14, 16
Parking Lights -	pink	-	headlight switch, white 16 pin plug, pin 15
Hazards	pink	-	dash fuse box, rear, white 24 pin plug (H), pin 13
Turn Signal (Left)	yellow (F); gray (R)	+	dash fuse box, blue 31 pin plug (A), pin 6; white 24 pin plug (D), pin 21
Turn Signal (Right)	white (F); white/black (R)	+	dash fuse box, blue 31 pin plug (A), pin 2; white 24 pin plug (D), pin 1
Headlight	blue/orange	-	headlight switch, white 16 pin plug, pin 16
AutoLights	yellow	cut	headlight switch, white 16 pin plug, pin 14
Reverse Light	red	+	dash fuse box, gray or black 51 pin plug (C), pin 41
Left Front Door Trigger	gray/orange	-	power window main switch, white 32 pin plug, pin 21
Right Front Door Trigger	yellow/black	-	passenger power window switch, white 20 pin plug, pin 20
Left Rear Door Trigger	white	-	dash fuse box, white 24 pin plug (D), pin 9
Right Rear Door Trigger	brown/black	-	dash fuse box, white 24 pin plug (D), pin 8
Dome Light	brown	-	left front pillar, white 36 pin plug, pin 23
Trunk/Hatch Pin	white	-	dash fuse box, white 24 pin plug (D), pin 24
Hood Pin	pink/black	-	dash fuse box, blue 31 pin plug (A), pin 4
Power Liftgate	green/black	-	driver kick, white or blue 68 pin plug, pin 11
Trunk/Hatch Release	gray/black (rear handle switch)	-	dash fuse box, white 24 pin plug (D), pin 3
Trunk Release Motor	blue	+	dash fuse box, gray or black 51 pin plug (C), pin 19
	blue		driver kick, harness to rear
Fuel Door Release	I DIUE	+	

DirectWire 2018 Hyundai Santa Fe (Smart Key) - North America				
Item	Wire Color	Polarity	Wire Location	
Fuel Pump	pink	+	driver kick, white 25 pin plug, pin 2	
Rear Defroster	green/orange	- latched	dash fuse box, blue 31 pin plug (A), pin 14	
Mirror Defroster	(B-CAN)			
Wiper Deicer	blue/orange or blue	- latched	dash fuse box, blue 31 pin plug (A), pin 12	
Left Front Heated Seat	gray/black or brown/black	+	left seat warmer switch, white 26 pin plug, pin 2	
Right Front Heated Seat	brown/black or gray/black	+	right seat warmer switch, green 26 pin plug, pin 2	
Speed Sense	brown/orange	4-Pulse	radio, white 38 pin plug, pin 38 or white 24 pin plug, pin 16	
Brake Wire	red/orange	+	driver kick, white or red 58 pin plug, pin 5	
Parking Brake	gray/orange	-	dash fuse box, white 24 pin plug (D), pin 2	
Horn Trigger	gray	-	driver kick, white or red 58 pin plug, pin 57	
Wipers	orange/black	+	driver kick, white or red 58 pin plug, pin 52 or 29	
Left Front Window (Up/Down)	white - pink (without auto up AND down only)	А	power window main switch, white 18 pin plug, pins 11 - 12	
Right Front Window (Up/Down)	white - pink (without auto up AND down only)	А	passenger power window switch, white 18 pin plug, pins 11 - 12	
Left Rear Window (Up/Down)	pink - brown	A	left rear power window switch, white 14 pin plug, pins 9 - 12	
Right Rear Window (Up/Down)	blue - orange	A	right rear power window switch, white 14 pin plug, pins 9 - 12	
Sun Roof (Open/Close)	gray/black - brown/black (function with ignition on only)	-	sunroof switch, white or black 6 pin plug, pins 2 - 3	
Memory Seat 1	blue	-	power window main switch, white 32 pin plug, pin 19	
Memory Seat 2	red/black	-	power window main switch, white 32 pin plug, pin 18	
Radio 12V	pink or red	+	radio, white 24 pin plug, pin 12 or white 35 pin plug, pin 10	
Radio Ground	black	-	radio, white 24 pin plug, pin 24 or white 35 pin plug, pin 12	
Radio Ignition	brown	+	radio, white 24 pin plug, pin 11 or 18 or white 35 pin plug, pin 22	
Radio Illumination	red/orange (parking lights); blue/orange (dimmer)	+,-	radio, white 18 pin plug, pins 8, 17 or white 35 pin plug, pins 6, 19	
Factory Amp Turn-on	(M-CAN)			
Power Antenna	green	+	radio, white 18 pin plug, pin 18 or white 35 pin plug, pin 5	
Left Front Speaker (+/-)	brown - white	+,-	radio, white 18 pin plug, pins 2 - 11 or white 38 pin plug, pins 13 - 14	
Right Front Speaker (+/-)	red - blue	+,-	radio, white 18 pin plug, pins 3 - 12 or white 38 pin plug, pins 16 - 15	
Left Rear Speaker (+/-)	yellow - black	+,-	radio, white 18 pin plug, pins 1 - 10 or white 38 pin plug, pins 1 - 2	
Right Rear Speaker (+/-)	green - orange	+,-	radio, white 18 pin plug, pins 4 - 13 or white 38 pin plug, pins 28 - 27	
Center Channel (+/-)	white - black	+,-	amplifier under passenger seat, white 28 pin plug, pins 28 - 27 or 14 - 27	
Subwoofer (+/-)	green - orange (1); blue - red (2)	+,-	amplifier under passenger seat, black 28 pin plug, pins 16 - 17; 18 - 19 or 2 - 17; 1 - 16	
Aux. Audio Input Left (+/-)	green - black/orange or yellow - black/orange	+,-	radio, white 24 pin plug, pins 21 - 9 or white 38 pin plug, pins 24 - 25	
Aux. Audio Input Right (+/-)	white - black/orange or brown - black/orange	+,-	radio, white 24 pin plug, pins 8 - 9 or white 38 pin plug, pins 10 - 25	
Rearview Camera Video	red - black	+,-	radio, white 16 pin plug, pins 4 - 3 or white 38 pin plug, pins 7 - 21 or white 24 pin plug, pins 23 - 22	
Satellite Radio 12 Volts	(built into radio)			

What Fits

Item	Size	Depth	Location
Headunit	irregular		center of dash
Left Front Speaker			left front door
Left Front Tweeter			left front door
Right Front Speaker			right front door
Right Front Tweeter			right front door
Left Rear Speaker			left rear door
Left Rear Tweeter			left rear quarter panel (surround)
Right Rear Speaker			right rear door
Right Rear Tweeter			right rear quarter panel (surround)
Center Channel			top center of dash
Subwoofer			left rear quarter panel
Satellite Radio Tuner	(built into radio)		

Additional Wiring Notes

ltem	Note
Left Front Speaker (+/-)	On models with amplifier, the speaker wires are brown - white at the amplifier under passenger seat, black 28 pin plug, pins 26 - 25 or 4 - 19. The tweeter wires are black - white at the amplifier, black 28 pin plug, pins 3 - 4 or white 28 pin plug, pins 13 - 26.
Right Front Speaker (+/-)	On models with amplifier, the speaker wires are red - blue at the amplifier under passenger seat, black 28 pin plug, pins 28 - 27 or 3 - 18. The tweeter wires are orange - blue at the amplifier, black 28 pin plug, pins 1 - 2 or white 28 pin plug, pins 12 - 25.
Left Rear Speaker (+/-)	On models with amplifier, the speaker wires are yellow - black at the amplifier under passenger seat, black 28 pin plug, pins 15 - 14 or 13 - 26. The surround wires are yellow - black at the amplifier, white 28 pin plug, pins 15 - 14 or black 28 pin plug, pins 15 - 28.
Right Rear Speaker (+/-)	On models with amplifier, the speaker wires are green - orange at the amplifier under passenger seat, black 28 pin plug, pins 13 - 12 or 12 - 25. The surround wires are green - orange at the amplifier, white 28 pin plug, pins 13 - 12 or black 28 pin plug, pins 14 - 27.