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### Wiring Information

Item	Wire Color	Polarity	Wire Location
12 Volts	White (50A)	+	Driver Kick Fuse Box, rear, white 1 pin plug, pin 1
Ground	(chassis ground)		
Starter	Brown	+	Start Stop Unit in steering column, white 24 pin plug, pin 23
Ignition	Pink	+	Start Stop Unit in steering column, white 24 pin plug, pin 10
Accessory	Yellow	+	Start Stop Unit in steering column, white 24 pin plug, pin 2
Second Accessory	Pink	+	Start Stop Unit in steering column, white 24 pin plug, pin 14
Ignition Interrupt	Brown	Cut	Start Stop Unit in steering column, white 32 pin plug, pin 3
Ignition Interrupt 2	Violet	Cut	Start Stop Unit in steering column, white 32 pin plug, pin 17
PTS 1	Lt. Green	-	Start Stop Unit in steering column, white 32 pin plug, pin 20
PTS 2	Red	-	Start Stop Unit in steering column, white 24 pin plug, pin 17
CAN Bus High	White (HS CAN)	Data	Start Stop Unit in steering column, white 24 pin plug, pin 7
CAN Bus Low	Red (HS CAN)	Data	Start Stop Unit in steering column, white 24 pin plug, pin 8
CAN Bus High 2	White (HS CAN)	Data	OBD-Data Link Connector, white 16 pin plug, pin 6
CAN Bus Low 2	Red (HS CAN)	Data	OBD-Data Link Connector, white 16 pin plug, pin 14
CAN Bus High 3	Pink (MS CAN)	Data	OBD-Data Link Connector, white 16 pin plug, pin 3
CAN Bus Low 3	Blue (MS CAN)	Data	OBD-Data Link Connector, white 16 pin plug, pin 11

## 2020 Mazda CX-5(SmartKey) - Requested by: ampire.de



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Item	Wire Color	Polarity	Wire Location
OBD 12 Volts	Brown (7.5A)	+	OBD-Data Link Connector, white 16 pin plug, pin 16
OBD Ground	Black	-	OBD-Data Link Connector, white 16 pin plug, pin 4
IMMO Antenna	(immobilizer antenna is in the push button start)		
Keyless Data	Green	Data	Start Stop Unit in steering column, white 32 pin plug, pin 9
Power Lock	Blue	- 1000 Ohms	Driver Kick, harness to rear --or-- Rear BCM in left rear quarter panel, white 24 pin plug, pin 15
Power Unlock	(same as power lock)	-	
Lock Motor	Pink	Reverse	Driver Kick, harness to rear --or-- Rear BCM in left rear quarter panel, white 16 pin plug, pin 2
Driver Unlock Motor	Lt. Blue	Reverse	Driver Kick, harness to rear --or-- Rear BCM in left rear quarter panel, white 16 pin plug, pin 3
Passenger Unlock Motor	Blue	Reverse	Rear BCM in left rear quarter panel, white 16 pin plug, pin 4
Factory Alarm Arm	White (key lock)	- 1000 Ohms	Driver Kick, harness to rear --or-- Rear BCM in left rear quarter panel, white 24 pin plug, pin 16
Factory Alarm Disarm	(same as factory alarm arm)	Double -	
Disarm No Unlock	(proximity key and push button)		
Parking Lights	Pink	+	Driver Kick, harness to rear
Parking Lights -	Yellow	-	Parking Light Switch Assembly inside steering column, white 6 pin plug, pin 3
Parking Lights Interrupt	Green	Cut	Parking Light Switch Assembly inside steering column, white 6 pin plug, pin 4
Hazards	White	-	Start Stop Unit in steering column, white 32 pin plug, pin 4
Turn Signal (Left)	White (LF); Lt. Blue (LR)	+	Front BCM in underhood fuse box, white 28 pin plug, pin 15 (LF); Driver Kick, harness to rear (LR)

## 2020 Mazda CX-5(SmartKey) - Requested by: amfire.de


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Item	Wire Color	Polarity	Wire Location
Turn Signal (Right)	White (RF); Blue (RR)	+	Front BCM in underhood fuse box, blue 18 pin plug, pin 4 (RF); Driver Kick, harness to rear (RR)
Headlight	Green	-	Start Stop Unit in steering column, white 32 pin plug, pin 28
AutoLights	(switch is plugged into Start Stop Unit; no wires)		
Reverse Light	Brown	+	Rear BCM in left rear quarter panel, blue 18 pin plug, pin 10
Left Front Door Trigger	Lt. Blue	-	Driver Kick, harness to rear --or-- Rear BCM in left rear quarter panel, white 24 pin plug, pin 12
Right Front Door Trigger	Brown	-	Rear BCM in left rear quarter panel, white 24 pin plug, pin 11
Left Rear Door Trigger	Brown	-	Rear BCM in left rear quarter panel, white 24 pin plug, pin 10
Right Rear Door Trigger	Brown	-	Rear BCM in left rear quarter panel, white 24 pin plug, pin 9
Dome Light	Violet	-	Rear BCM in left rear quarter panel, white 8 pin plug, pin 3
Trunk/Hatch Pin	Brown	-	Rear BCM in left rear quarter panel, blue 18 pin plug, pin 6
Hood Pin	Blue	- N.C.	Driver Kick, harness to rear --or-- Rear BCM in left rear quarter panel, white 24 pin plug, pin 18
Power Liftgate	Green and Red	Connect With Relay	Power Liftgate Front Switch, white 10 pin plug, pins 7, 8
Trunk/Hatch Release	White (rear handle switch)	-	Rear BCM in left rear quarter panel, blue 18 pin plug, pin 7
Trunk Release Motor	Green (w/o power liftgate)	Reverse	Rear BCM in left rear quarter panel, blue 18 pin plug, pin 2
Tachometer	Green	AC	Camshaft Position Sensor, engine driver side, gray 3 pin plug, pin 1
Neutral Safety	Violet (M/T)	-	PCM next to underhood fuse box, black 140 pin plug, pin 33

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Item	Wire Color	Polarity	Wire Location
Clutch Pedal	Yellow	-	Start Stop Unit in steering column, white 32 pin plug, pin 19
Clutch Pedal 2	White	-	Start Stop Unit in steering column, white 24 pin plug, pin 3
Fuel Pump	Gray	+	Above Driver Kick, black 18 pin plug, pin 1
Rear Defroster	Blue	+ Latched	Driver Kick, harness to rear
Mirror Defroster	(same as rear defroster)		
Wiper Deicer	(same as rear defroster)		
Left Front Heated Seat	(serial data)		
Right Front Heated Seat	(serial data)		
Speed Sense	Lt. Blue (without Bose only)	AC	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pin 19
Brake Wire	Red	+	Start Stop Unit in steering column, white 32 pin plug, pin 2
Parking Brake	Blue (electric parking brake indicator)	-	Electric Parking Brake Switch, white 12 pin plug, pin 12
Horn Trigger	Blue	-	Horn Switch-Clock Spring, white 14 pin plug, pin 1
Wipers	Yellow	-	Start Stop Unit in steering column, white 32 pin plug, pin 27
Left Front Window (Up/Down)	Brown - Gray	A	Power Window Main Switch, white 12 pin plug, pins 11 - 10
Right Front Window (Up/Down)	Green - White	A	Driver Kick, door harness
Left Rear Window (Up/Down)	Blue - Red	A	Driver Kick, door harness
Right Rear Window (Up/Down)	Blue - Red	A	Driver Kick, door harness
Sun Roof (Open/Close)	Red - White (function with ignition on only)	-	Sunroof Switch, white 4 pin plug, pins 1 - 2
Sun Roof (Limit/Close)	Blue (tilt up) (functions with ignition on only)	-	Sunroof Switch, white 4 pin plug, pin 3
Memory Seat 1	(no wire color listed in service manual)	-	Memory Switch, white 4 pin plug, pin 3
Memory Seat 2	(no wire color listed in service manual)	-	Memory Switch, white 4 pin plug, pin 4

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Item	Wire Color	Polarity	Wire Location
Radio 12V	Yellow	+	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pin 9
Radio Ground	Black	-	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pin 16
Radio Ignition	Violet	+	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pin 24
Radio Illumination	Lt. Green (parking lights); Pink (dimmer)	+,-	Radio in dash, white 24 pin plug, pin 17 (parking lights); pin 18 (dimmer)
Factory Amp Turn-on	White	+	Tuner above passenger kick, white 24 pin plug, pin 10
Power Antenna	(no wire color listed in service manual)	+	Radio in dash --or-- Tuner above passenger kick, white 2 pin plug, pin 1
Left Front Speaker (+/-)	Brown - Green or Black - White	+,-	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pins 1 - 2
Right Front Speaker (+/-)	Yellow - Lt. Green or Red - Green	+,-	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pins 3 - 4
Left Rear Speaker (+/-)	Brown - Green or Pink - Lt. Green	+,-	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pins 5 - 6
Right Rear Speaker (+/-)	Yellow - Lt. Green or Gray - Blue	+,-	Radio in dash --or-- Tuner above passenger kick, white 24 pin plug, pins 7 - 8
Left Front Speaker - With Amp	Brown - Green	+,-	Amplifier under passenger seat, black 8 pin plug, pins 2 - 6
Right Front Speaker - With Amp	Yellow - Lt. Green	+,-	Amplifier under passenger seat, black 8 pin plug, pins 8 - 4
Left Rear Speaker - With Amp	Brown - Green	+,-	Amplifier under passenger seat, green 16 pin plug, pins 3 - 2
Right Rear Speaker - With Amp	Yellow - Lt. Green	+,-	Amplifier under passenger seat, green 16 pin plug, pins 7 - 6
Left Rear Surround - With Amp	Pink - Violet	+,-	Amplifier under passenger seat, green 16 pin plug, pins 8 - 16
Right Rear Surround - With Amp	(same as left rear surround)		



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Item	Wire Color	Polarity	Wire Location
Center Channel - With Amp	Gray - Blue	+,-	Amplifier under passenger seat, green 16 pin plug, pins 4 - 5
Subwoofer - With Amp	Violet - Pink	+,-	Amplifier under passenger seat, black 8 pin plug, pins 3 - 7
Aux. Audio Input Left (+/-)	White - Black or Green - Black	+,-	Radio in dash, white 24 pin plug (B), pins 5 - 17 -- or-- Tuner above passenger kick, white 32 pin plug, pins 5 - 21
Aux. Audio Input Right (+/-)	Red - Black	+,-	Radio in dash, white 24 pin plug (B), pins 6 - 17 -- or-- Tuner above passenger kick, white 32 pin plug, pins 6 - 21
Rearview Camera Video	Black - White	+,-	Connectivity Master Unit-Display, white 28 pin plug, pins 1 - 15



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### ***What Fits***

Item	Size	Depth	Location
Headunit	Double DIN		Center of Dash
Left Front Speaker	6.5 or 8.86		Left Front Door
Left Front Tweeter	1		Left Front Pillar
Right Front Speaker	6.5 or 8.86		Right Front Door
Right Front Tweeter	1		Right Front Pillar
Left Rear Speaker	6.5 or 5.25		Left Rear Door
Left Rear Tweeter	3 (surround)		Left Rear Pillar
Right Rear Speaker	6.5 or 5.25		Right Rear Door
Right Rear Tweeter	3 (surround)		Right Rear Pillar
Center Channel	3		Top Center of Dash



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***Additional Wiring Notes***

Item	Note
Ignition Interrupt	Do this to enable OEM remote during remote start runtime.
Ignition Interrupt 2	Do this to enable OEM remote during remote start runtime.