

ADVANCED KEYS

Smart Keyless Entry System

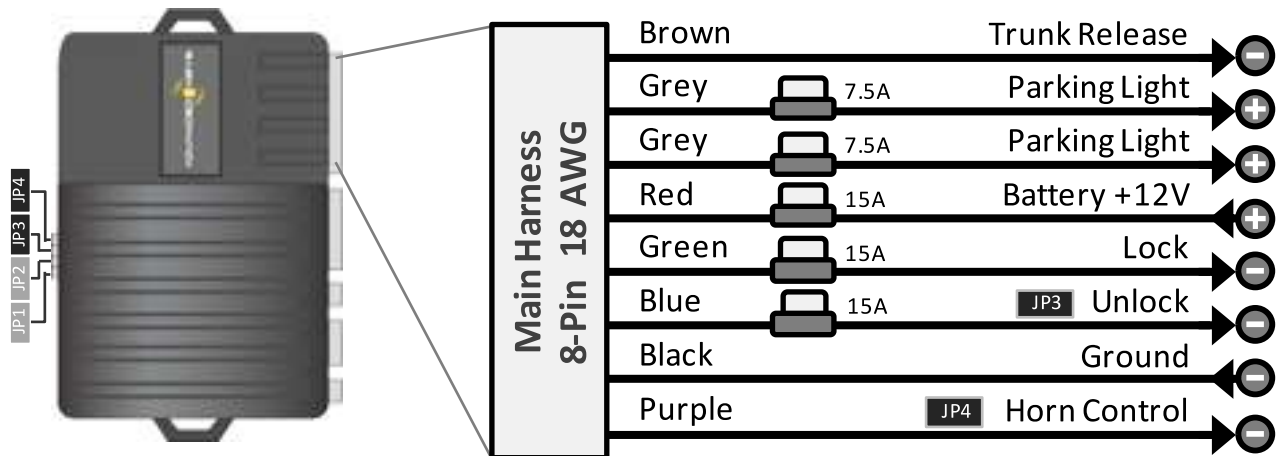
INSTALLATION GUIDE



Product Features:

- Smart Keyless Locking/Unlocking
- Compact Sized Smart Keys
- Dual-Antenna Setup
- Bypass Transponder RFID Cards
- Vehicle Anti-Theft Function
- Ignition Controlled Lock / Unlock
- Auto Vehicle Battery Power Saving
- Door-Not-Closed Reminder
- Smart Key Battery Low Reminder
- Locking-Delay Function
- Compatible with Push-Start Ignition
- Auto Window Closing Output

MAIN HARNESS WIRING DESCRIPTIONS



Wiring Description:

Brown	OUTPUT	-	500mA	Trunk Release
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Connect to the negative side of the trunk release trigger. This output will provide 1 second pulse when UNLOCK button is pressed for 2 seconds. (This function is disabled when ACC input is ON)

Grey	OUTPUT	+	7.5A	Parking Light x2
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Connect to the positive side of parking lights or the hazard light switch for same effect.

Red	OUTPUT	+	15A	Battery +12V
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Connect to a +12v source. Ensure that the OEM source wire used is fused for more than 15A.
Note: When no suitable +12V source available (where current capacity is less than 15A) use vehicle's interior fuse junction box or route directly from battery B+ connection.

Green	OUTPUT	-	15A	Lock
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Connect this output directly to the negative-triggered door **lock** signal wire.

Blue	OUTPUT	-	15A	Unlock JP3
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Connect this output directly to a negative-triggered door **unlock** signal wire.

Note: This system outputs a single unlock pulse by default. Jumper (**JP3**) provides a double unlock pulses output option for vehicles that require a two consecutive unlock-pulse to unlock/disarm or to bypass the Driver Door Priority Unlock function to unlock all doors.

Black	OUTPUT	-	15A	Ground
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Connected to bare, unpainted metal on chassis. It is recommended to use a factory ground bolt rather than a self-tapping screw. Screws tend to get loose or rusted over time and lead to erratic electrical problems.

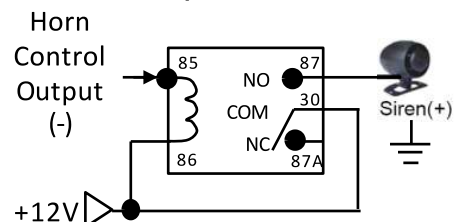
Purple	OUTPUT	-	500mA	Horn Control JP4
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Connect to the negative side of horn for audio notification.

Note: This system is programmed for muted Lock/Unlock operation by default. If audio notification is desired for arming and disarming; connect Horn Control output to a siren* and change the jumper setting (**JP4**) to Siren Output option (Refer to Horn or Siren Mode in Programmable Features).

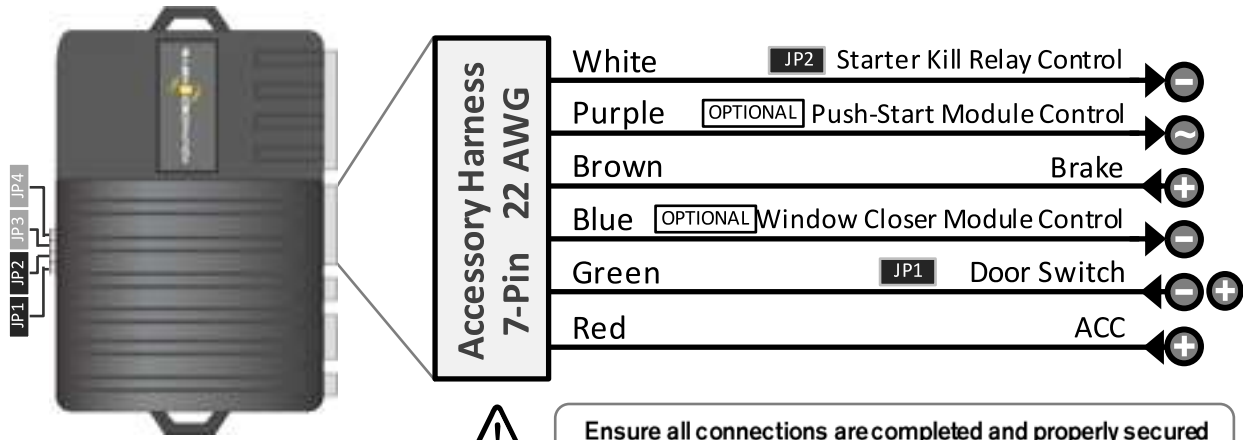
Note: If siren control is a positive type or require more than 500mA to operate; add a relay according to the diagram on the right to convert output to a positive type.

Negative (-) to Positive (+) Output Conversion



*Siren not included

ACCESSORY HARNESS WIRING DESCRIPTIONS



NOTE Ensure all connections are completed and properly secured prior to connecting the wire harnesses to the module.

Wiring Description:

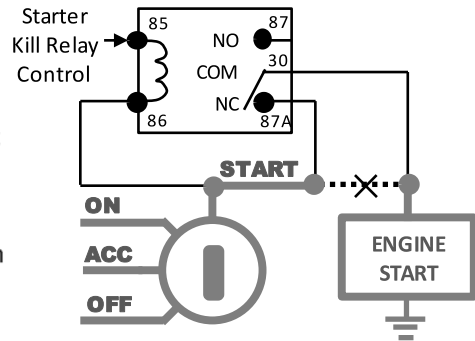
White	OUTPUT	—	500mA	Starter Kill Relay Control	JP2
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Optional output when installing Push-Start with this System
Depending on jumper (JP2) selection this output can be used for:

Starter Kill Relay Control (Default) – Also known as Ground-When-Armed. While armed (Smart Key not detected or LOCK button pressed) this output provides a constant GND to disable the starter circuit when an unauthorized ignition is commenced. Connect the Starter Kill Relay according to the wiring diagram on the right.

Ground-When-Disarmed – Provides a GND signal while disarmed. (Smart Key is detected or UNLOCK button pressed) This output can be used as an enable signal to an immobilizer bypass or known as Ground-When-Running. Alternatively this output can connect to any system that requires an input signal when a Smart Key is sensed.

Starter Kill Relay (Included)



Purple	OUTPUT	~	100mA	Push-Start Module Control
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Connect to the “Controller Enable Input” on the optional Engine Push-Start Ignition controller. This output provides an encrypted signal to the Engine Push-Start Ignition controller only when system sense a valid Smart Key or disarmed via the UNLOCK button.

Brown	INPUT	+		Brake
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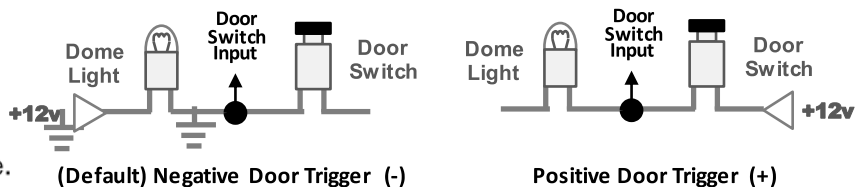
Connect to the brake pedal switch that output +12v when brake is applied, GND or float when released. Note: This input is required for Smart Key programming and Ignition-Controlled Lock function.

Blue	OUTPUT	—	100mA	Window Closer Module Control
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Connect to the optional Auto Window Closer Module trigger input.

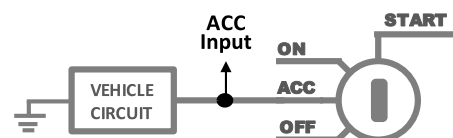
Green	INPUT	—		Door Switch	JP1
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Connect to vehicle’s negative-triggered “door open” signal wire directly. Change jumper (JP1) to Positive Door Trigger if door switch is a positive-triggered type.



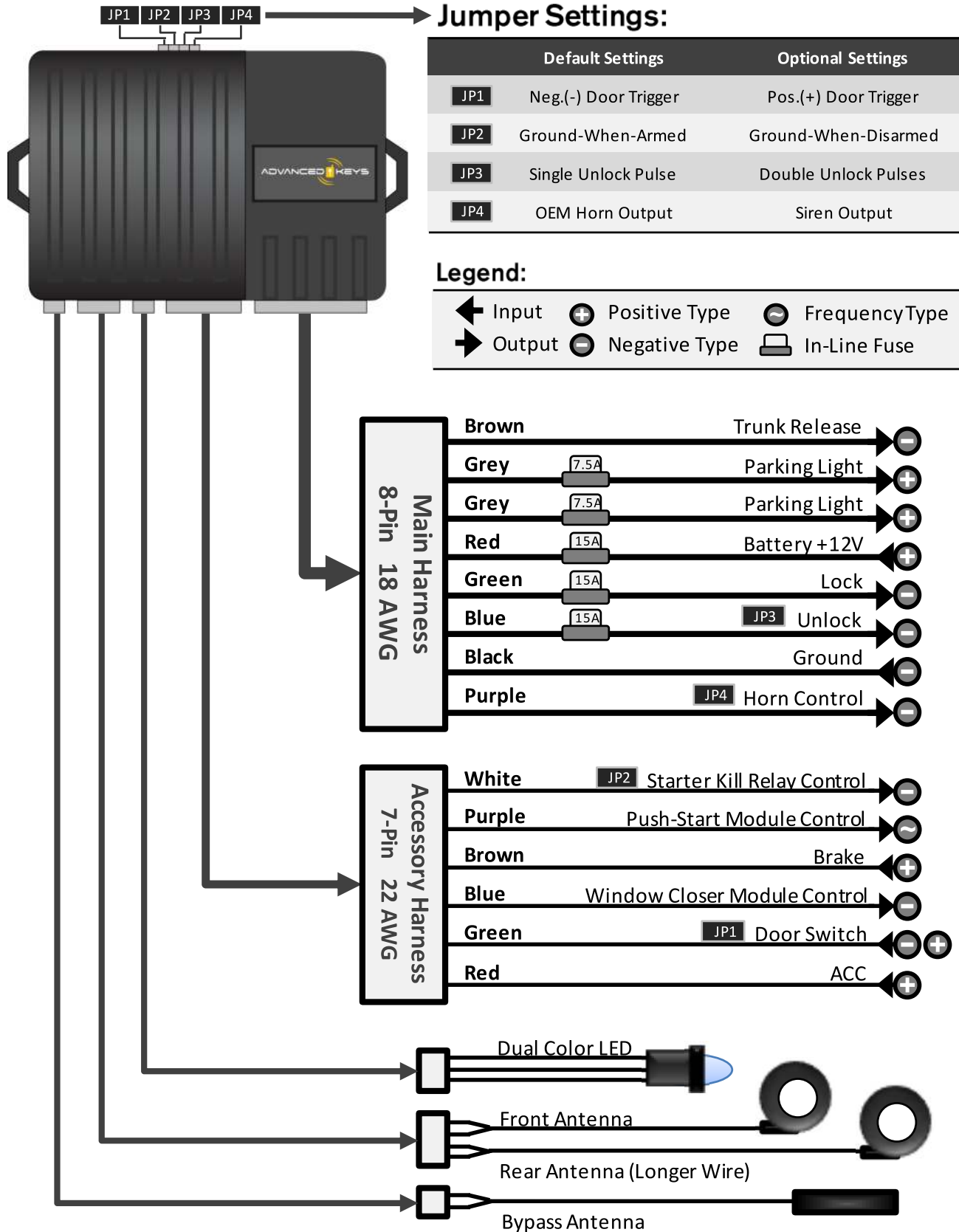
Red	INPUT	+		ACC
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****Required for Remote Start option**** This input must be connected to a +12v source when ignition key is in the ACC position. **Note:** With this input active, controller will stop search for the Smart Keys to conserve key’s battery and avoid unintended lock actuation while the vehicle is running.



CONNECTIONS

CONTROLLER WIRING DIAGRAM

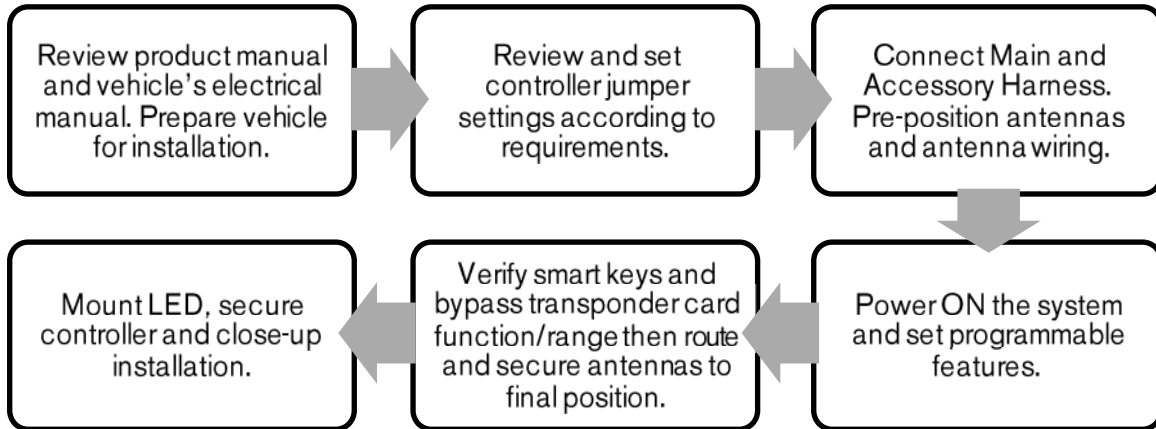


WARNING: Manufacturer/Distributors of this product will not be responsible for any electrical damage resulting from improper installation of this product, be that either damage to the vehicle itself or to the device. This device must be installed by a certified technician for this guide has been written for properly trained technicians; a certain level of skill & knowledge is therefore assumed. Review this installation guide and vehicle's service manuals before install.

INSTALLATION

INSTALLATION OVERVIEW

Use following steps as a guide to install this system:



INSTALLATION NOTES

- For vehicles equipped with factory or aftermarket alarm/remote start, it is possible to install this system without the anti-theft alarm and remote start functions. (Refer to User Manual on how to disable Alarm Function) Connect **BATTERY, GROUND, LOCK, UNLOCK, ACC, BRAKE** and **ANTENNAS** for Smart Keyless Entry function only.
- Ensure the **ACC(+)** input is connected. It is required for remote-start function and to conserve the Smart Key's battery while vehicle is running. **Avoid** leaving the Smart Key inside or near the detection range for extended periods of time, for it will remain in constant communication with the controller while vehicle is not running, thus shorten Smart Key's battery life.
- It is recommended to connect the **DOOR SWITCH** input to the vehicle. This system will have a better remote sensing performance when it is aware of the door status.

PROGRAMMABLE FEATURES

The following features can be adjusted according to customer's requirements:

Horn or Siren Mode

Under default JP4 "OEM Horn" setting, system will stay muted when locking or unlocking. Horn output will only sound in alarming and programming mode. If the customer desires audio chirp notifications for vehicle's arming status, connect a siren to the horn output (see Wiring Description) and change JP4 to "Siren Output" setting. Siren and Parking Lights output as following:

	Horn Output	Siren Output	Parking Light
Unlock	-	2 x	2 x
Lock	-	1 x	1 x
Remote Start	-	1 x	1 x

PROGRAMMABLE FEATURES (CONT.)

Ignition-Controlled Door Lock

Enabled by default and controlled by Brake input, this function will provide:

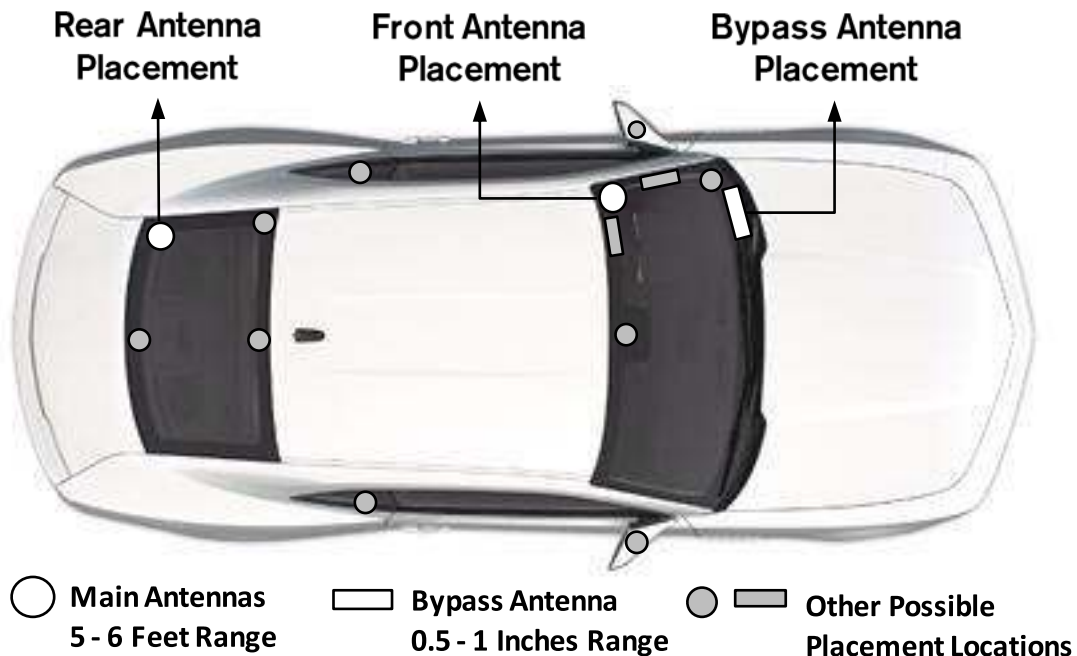
- Auto Door **Locking** when ACC is turned ON while brake is applied.
- Auto Door **Re-Locking** when brake applied after door opened-then-closed.
- Auto Door **Unlocking** when ACC is OFF.

To **disable** Ignition-Controlled Door Lock feature, press and hold the brake pedal when powering ON the controller. Horn output will sound 2x if this feature is disabled or 1x if this feature enabled.

ANTENNAS INSTALLATION

Antennas should be mounted on a **Non-Enclosed** and **Non-Metallic** material such as clear glass or plastic trim panels. Recommended placements for the Front-Antenna is on the top-left corner of the front windshield and bottom-left corner of the rear windshield for the Rear-Antenna. The Bypass-Antenna can be placed around the edge of the front windshield so it can sense the Bypass Transponder Card within one inch away from outside of the vehicle. Do not place antenna in locations that will be shield by metallic material.

Test for coverage and range after installation to determine the optimal locations for the antennas. You may adjust antenna positions to other possible placement locations as illustrated in the diagram. Use double sided tape to secure antennas after final positions are confirmed.



Antenna needs to be positioned away from any type of metallic material to achieve the best reception in all directions. Avoid strain/pull on antenna wiring and do not bend or overlap Main antenna with Bypass antenna.