SOLACE

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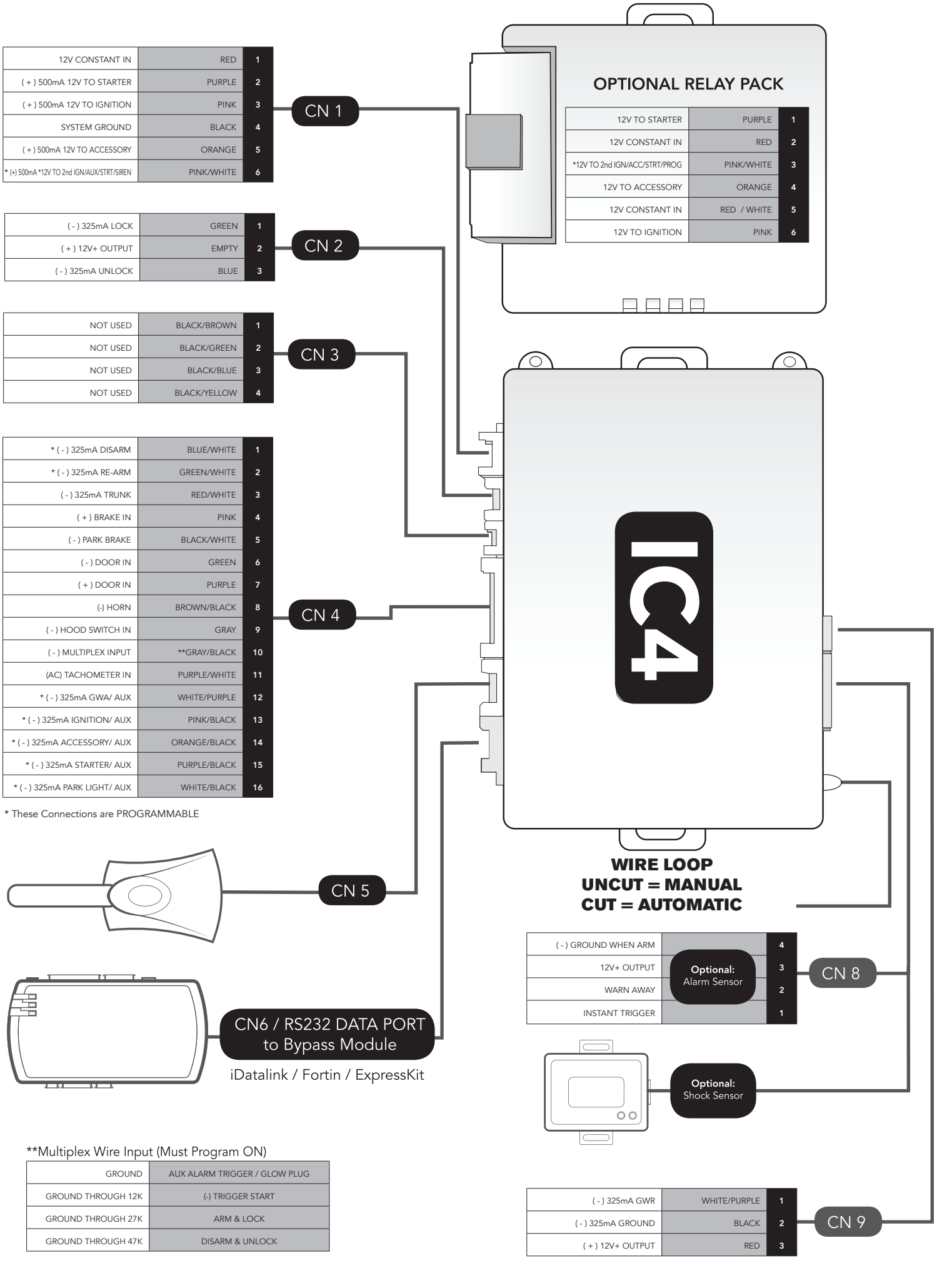
AUTOMATIC/MANUAL TRANSMISSION REMOTE STARTER

EXTENDED INSTALL GUIDE

iSeries

Revision 4.02 - 08/2015 FW 51+


CN 1
12V CONSTANT IN RED 1
(+) 500mA 12V TO STARTER PURPLE 2
(+) 500mA 12V TO IGNITION PINK 3
SYSTEM GROUND BLACK 4
(+) 500mA 12V TO ACCESSORY ORANGE 5
* (+) 500mA *12V TO 2nd IGN/AUX/STRT/SIREN PINK/WHITE 6
OPTIONAL RELAY PACK
12V TO STARTER PURPLE 1
12V CONSTANT IN RED 2
*12V TO 2nd IGN/ACC/STRT/PROG PINK/WHITE 3
12V TO ACCESSORY ORANGE 4
12V CONSTANT IN RED / WHITE 5
12V TO IGNITION PINK 6
CN 2
(-) 325mA LOCK GREEN 1
(+) 12V+ OUTPUT EMPTY 2
(-) 325mA UNLOCK BLUE 3
CN 3
NOT USED BLACK/BROWN 1
NOT USED BLACK/GREEN 2
NOT USED BLACK/BLUE 3
NOT USED BLACK/YELLOW 4
CN 4
* (-) 325mA DISARM BLUE/WHITE 1
* (-) 325mA RE-ARM GREEN/WHITE 2
(-) 325mA TRUNK RED/WHITE 3
(+) BRAKE IN PINK 4
(-) PARK BRAKE BLACK/WHITE 5
(-) DOOR IN GREEN 6
(+) DOOR IN PURPLE 7
(-) HORN BROWN/BLACK 8
(-) HOOD SWITCH IN GRAY 9
(-) MULTIPLEX INPUT **GRAY/BLACK 10
(AC) TACHOMETER IN PURPLE/WHITE 11
* (-) 325mA GWA/ AUX WHITE/PURPLE 12
* (-) 325mA IGNITION/ AUX PINK/BLACK 13
* (-) 325mA ACCESSORY/ AUX ORANGE/BLACK 14
* (-) 325mA STARTER/ AUX PURPLE/BLACK 15
* (-) 325mA PARK LIGHT/ AUX WHITE/BLACK 16
* These Connections are PROGRAMMABLE
IQ4
CN 5
WIRE LOOP
UNCUT = MANUAL
CUT = AUTOMATIC
(-) GROUND WHEN ARM 4
12V+ OUTPUT 3
WARN AWAY 2
INSTANT TRIGGER 1
Optional: Alarm Sensor
CN 8
CN6 / RS232 DATA PORT to Bypass Module
iDatalink / Fortin / ExpressKit
Optional: Shock Sensor
**Multiplex Wire Input (Must Program ON)
GROUND AUX ALARM TRIGGER / GLOW PLUG
GROUND THROUGH 12K (-) TRIGGER START
GROUND THROUGH 27K ARM & LOCK
GROUND THROUGH 47K DISARM & UNLOCK
(-) 325mA GWR WHITE/PURPLE 1
(-) 325mA GROUND BLACK 2
(+) 12V+ OUTPUT RED 3
CN 9

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Installation Guide Wiring Reference (SEE HOW TO TEST VEHICLE WIRES AT THE END OF THIS MANUAL)

CN1 (MAIN)

These Wires are limited to 1 amp. Do not connect to High Current vehicle wires. If you are installing to a vehicle where high current is needed please use Plug in Relay Pack.

RED - (+) 12V INPUT **- This wire is the 12V(+) input for the remote starter. Connect this wire to a 12V(+) Constant wire on the vehicle.**

BLACK **- This wire is the system ground input. Connect this wire to bare metal on the vehicle chassis. Solace recommends a kick panel and scraping away any paint. All your ground connections from the remote starter and any add-ons such as alarm sensors, or bypass module should be grounded at the same point.**

PURPLE - (+) START OUTPUT **- This wire will send out a 12V(+) pulse during crank. Connect this wire to the (+) Starter wire on the vehicle.**

ORANGE - (+) ACCESSORY OUTPUT **- This wire sends out 12V(+) signal but shuts off during the crank cycle. Connect this wire to the (+) Accessory wire on the vehicle.**

PINK - (+) IGNITION INPUT/OUTPUT **- This wire sends out 12V(+) signal during remote start and during the crank cycle. This wire is also the ignition feed for the remote starter and is required for programming. Connect this wire to the (+) Ignition wire on the vehicle.**

PINK/WHITE - (+) SELECTABLE OUTPUT **- This wire is programmable in Menu 2-01. Whatever it is programmed for it will duplicate the output for a 2nd wire. It is default set to (+) Ignition. Connect this wire to either 2nd Ignition, 2nd Starter, or 2nd Accessory. Please be sure to program for the according wire on vehicle. This wire can also be programmed to control a (+) Positive trunk release, (+) PUSH TO START BRAKE output, or SIREN. Connect to a positive trunk release circuit if needed and program Menu 2-19 to the desired setting.**

CN2 (LOCKS)

GREEN- (-) 325mA LOCK OUTPUT **- This wire will send a (-) pulse whenever lock is pressed. Connect this wire to the vehicle's NEGATIVE lock wire. DO NOT connect to any wire other than negative. This is a programmable output that can be programmed for timing, number of pulses, and when it turns on. Please see Menu 1-02, 1-03, 1-05, 1-12, and 1-13**

EMPTY- (+) 1 AMP POSITIVE OUTPUT **- This empty spot will send a constant 12V(+) output that can be used to trip a relay or a Power Door Lock Module. DO NOT use this wire to drive reverse polarity door locks. DO NOT connect to a high amperage circuit as damage may occur.**

BLUE- (-) 325mA UNLOCK OUTPUT **- This wire will send a (-) pulse whenever unlock is pressed. Connect this wire to the vehicle's NEGATIVE unlock wire. DO NOT connect to any wire other than negative. This is a programmable output that can be programmed for timing, number of pulses, and when it turns on. Please see Menu 1-02, 1-04, and 1-05.**

CN3 (AUXILIARY)

NOT USED FOR REMOTE START

CN4 (INPUT / OUTPUT)

BLUE/WHITE - (-) 325mA DISARM **- This wire sends a pulse to disarm the factory content alarm system before the remote start sequence begins, with every unlock command, and trunk release. This wire can be programmed in Menu 1-06, 1-08, and 1-10 for different functions, it can also be programmed in Menu 4-02 for different outputs. Connect this wire to either the factory disarm wire or door pin wire to control the factory alarm systems on most vehicles. This wire can also be connected to the factory door pin wire to wake up a BCM on some vehicles that require this.**

GREEN/WHITE - (-) 325mA REARM **- This wire sends a pulse to rearm the factory content alarm system after the remote start sequence ends, and with every lock command. This wire can be programmed in Menu 1-08 for different functions, it can also be programmed in Menu 4-03 for different outputs. Connect this wire to the factory rearm wire to control the factory alarm on most vehicles. This wire can also be used to pulse door pins to shut off auto lights, or rearm security on some vehicles.**

RED/WHITE - (-) 325mA TRUNK RELEASE **- This wire will send out a negative pulse when the trunk command is received. As default the doors will unlock before the trunk pulse is sent. This wire can be programmed in Menu 1-08, and 1-09 for different timing and features. It can also be changed to a latched output in Menu 4-01. Connect this wire to a negative trunk wire on the vehicle. If the vehicle has a positive trunk release circuit please either use a relay or the PINK/ WHITE wire on CN1 and program Menu 2-01 to (+)Trunk.**

PINK - (+) FOOT BRAKE STATUS INPUT **- This wire is the brake shutdown wire and MUST be connected to the vehicle's (+) brake light wire when the foot brake is depressed. This wire will disengage the remote starter when 12V is applied, it also is used for the tach learning process. NOTE - Some newer vehicles must have the ignition on for the brake lights to be activated.**

BLACK/WHITE - (-) PARK BRAKE STATUS INPUT **- This wire is the emergency brake input wire and is required for MANUAL TRANSMISSION installations. Connect this wire to the (-) emergency brake wire on the vehicle that goes to ground when the emergency brake is engaged. This wire is used to set the remote starter into "reservation mode" and/or "turbo timer" mode.**

GREEN - (-) DOOR STATUS INPUT **- This wire is the negative door status trigger input to the remote start and detects when the door(s) are open. This wire MUST be connected to all doors on the vehicle when installed into a manual transmission vehicle (or the (+) door status wire). Connect this wire to the vehicle's wire that goes to ground when the door is open.**

PURPLE - (+) DOOR STATUS INPUT **- This wire is the positive door status trigger input to the remote start and detects when the door(s) are open. This wire MUST be connected to all doors on the vehicle when installed into a manual transmission vehicle (or the (-) door status wire). Connect this wire to the vehicle's wire that goes to positive (12V+) when the door is open.**

GRAY - (-) HOOD STATUS INPUT **- This wire is the hood status trigger input to the remote start and detects when the hood is open. This wire MUST be connected so that the remote start cannot engage when the hood is open or the vehicle is being serviced. Connect this wire to the supplied hood pin switch and test to ensure that there is ground when the hood is open and neutral when the hood is closed.**

GRAY/BLACK - (+/-) WAIT TO START/MULTIPLEX INPUT **- This wire is used to detect the Glo Plug light on diesel engines. With this wire connected, the crank will be delayed until the glow plug light goes out. This wire will monitor either a (+) or (-) glow plug light and wait up to 30 seconds before cranking. If you wish to set a specific timed delay do not connect this wire and program the desired time in Menu 2-04. When used a multiplex input his wire is a multipurpose resistance input wire that has the capabilities to allow multiple inputs from trunk status to disarm in. Please follow the multiplex chart for more info, must be programmed in Menu 2-05**

PURPLE/WHITE - (AC) TACHOMETER/RPM INPUT **- This wire is the tachometer or RPM signal input. Connect this wire to a valid tach source, i.e. coil pack or injector. This wire is monitored by the remote starter and disengages the crank output once the vehicle is running. Once this wire is connected you must perform a "tach learn" by starting the vehicle by key and holding the brake while pressing the program button once. If you wish to use a tachless setting or tach through data link DO NOT connect this wire and perform a "tach learn" and the module will automatically detect which tach setting is best for the vehicle. You can also program this setting in Menu 2-13.**

WHITE/PURPLE - (-) 325mA GROUND WHEN ARMED OUTPUT **- This is a programmable output wire. It is set to default as a Ground When Armed, meaning when the remote starter is in a locked state this wire will have a ground output. When the remote starter is in the unlocked state this wire will be in a neutral state. This wire can be programmed to perform multiple other features. Please see Menu 4-04 for a selection of outputs that can be programmed to.**

PINK/BLACK - (-) 325mA IGNITION OUTPUT **- This is a programmable output wire. It is set to default as a (-)Ignition output that will duplicate what the Pink (+) Ignition wire on CN1 does. NOTE this is a 325mA (-) output and can be used with a relay to convert to a (+) Positive output (see relay guide). This wire can be programmed to perform multiple other features. Please see Menu 4-05 for a selection of outputs that can be programmed to.**

ORANGE/BLACK - (-) 325mA ACCESSORY OUTPUT **- This is a programmable output wire. It is set to default as a (-) Accessory output that will duplicate what the Orange (+) Accessory wire on CN1 does. NOTE this is a 325mA (-) output and can be used with a relay to convert to a (+) Positive output (see relay guide). This wire can be programmed to perform multiple other features. Please see Menu 4-06 for a selection of outputs that can be programmed to.**

PURPLE/BLACK - (-) 325mA STARTER OUTPUT **- This is a programmable output wire. It is set to default as a (-) Starter output that will duplicate what the Purple (+) Starter wire on CN1 does. NOTE this is a 325mA (-) output and can be used with a relay to convert to a (+) Positive output (see relay guide). This wire can be programmed to perform multiple other features. Please see Menu 4-07 for a selection of outputs that can be programmed to.**

WHITE/BLACK - (-) 325mA PARK LIGHT OUTPUT **- This is a programmable output wire. NOTE this is a 325mA (-) output and can be used with a relay to convert to a (+) Positive output (see relay guide). This wire can be programmed to perform multiple other features. Please see Menu 4-08 for a selection of outputs that can be programmed to.**

BROWN/BLACK - (-) 325mA HORN OUTPUT **- This wire is sends out a 325mA output to control the vehicles horn. Connect this wire to the (-) Horn wire on the vehicle. This wire can also be used as (-) Siren wire. This wire is programmable for multiple features and it's timing can be changed in Menu 3-06, 3-07, and 3-08.**

CN5 (ANTENNA)

This connector is used for the antenna, Solace PC Cable (SPCC) for firmware updates, and also the Solace Handheld Programmer (SHHP) which can be used to program all features of this remote starter.

CN6 (RS232 BYPASS)

This connector is used to plug in Fortin, iDatalink, and/or Expresskit bypass modules. Solace remote starters are 2-Way datalink compatible with all manufacturers. Please see either manufacturer installation guides for more info. The required data protocol must be selected in Menu 2-11. It is set to 2-Way iDatalink protocol at default. An optional cable is required when using Expresskit Bypass modules.

CN7 (SHOCK SENSOR)

PIN 1 - (-) INSTANT TRIGGER INPUT **- If this wire receives a ground signal from any sensor the alarm will go into full trigger mode. Connect this wire to the instant trigger wire of an external alarm sensor.**

PIN 2 - (-) WARN AWAY TRIGGER INPUT **- If this wire receives a ground signal from any sensor the alarm give's a warn away consisting of 3 siren chirps/horn honks, notifying the individual the car is equipped with an alarm system. This also monitors the exterior zone of a proximity sensor. Connect this wire to the pre-warn or pre-shock to an eternal alarm sensor.**

PIN 3 - 12V (+) POSITIVE OUTPUT **- This wire supplies a 12V (+) output is can be used for auxiliary alarm sensors such as shock, tilt, audio, and proximity.**

PIN 4 - (-) GROUND OUTPUT **- This wire supplies a ground (-) output is can be used for auxiliary alarm sensors such as shock, tilt, audio, and proximity.**

CN8 (BYPASS SUPPLY)

WHITE/PURPLE - (-) 325mA GROUND WHEN RUNNING **- This wire will send a (-) output whenever the remote start is engaged This wire can be used in multiple scenarios, the most common is connecting to a bypass module so that it turns on when remote starting.**

RED - (+) 1 AMP POSITIVE OUTPUT **- This wire supplies a 12V (+) output that can be used for a bypass module input, the coil side of a relay, or optional low amperage accessories such as GPS modules, or alarm sensors. DO NOT connect to a high amperage circuit as damage may occur.**

BLACK- (-) 325mA GROUND OUTPUT **- This wire supplies a (-) ground output that can be used for a bypass module ground input, the coil side of a relay, or optional low amperage accessories such as GPS modules, or alarm sensors.**

OPTIONAL RELAY PACK

The optional relay pack is used when High Current Output is required on older vehicles. The Relay Pack snaps in and can only be removed by removing 2 screws on bottom of relay pack and separating the case.

See Relay Pack Installation sheet included for wire descriptions.

PROGRAMMING

TRANSMITTER LEARNING

Important! The remote starter will hold 3 transmitter codes. It is recommended that when programming in transmitters, you fill up all three transmitter codes, even if only using one or two transmitters. This will clear all other transmitter coding from the unit and prevent stray coding or possible interference from other remote transmitters.

1. Turn Ignition ON-OFF-ON.
2. Press the valet switch TWICE (button) in the antenna, siren/horn (optional) will chirp once each time button is pressed.
3. Press and hold the valet switch, siren/horn will chirp 3 times & parking lights will turn on to indicate you have entered Transmitter Learning Mode.
4. Press Button 1 (Lock) of every transmitter to be coded. For 2-Button Remotes press both buttons together, for 1 Button remotes press the Start button. The siren/horn will chirp once and the parking lights will flash once to indicate successfully learning. System will exit Learn Mode and lights will turn off after 15 seconds of no activity.
5. Turn ignition OFF and the unit will exit code-learning mode.

TACH LEARNING

1. Start the vehicle with the key.
2. Press foot brake and hold down.
3. Within 10 seconds, press and release the valet switch. The unit will enter Tach Learning Mode automatically.
4. If a Tach signal is detected, the parking light will flash and siren/horn will chirp according to Chart below.

2 FLASHES -	Tach Learn - Hard wired Tach Source from vehicle or hard wired output from bypass module
3 FLASHES -	Data Tach Learn - Tach signal from bypass module through 2-Way Datalink
4 FLASHES -	Tachless Mode - No tach wire is connected and remote starter monitors the vehicle system to ensure it is running
10 FLASHES -	Tachless Mode Not allowed in Manual Transmission

ENTERING PROGRAM MODE

1. Turn ignition ON-OFF-ON. (Leaving Key is ON position)
2. Press the valet switch 1 time and release.
   The parking lights will flash and the siren/horn will chirp once to confirm.
3. Press and Hold valet button for 3 seconds. The system confirms with 1 siren/horn pulse and park light flash to confirm that it is now in Program Mode.

Selecting Program Menu

1. Once Program mode has been entered, pressing the remote will select the different program menus as below.
   Button 1 (Lock) will select MENU 1 – 1 light flash siren / horn chirp
   Button 2 (Unlock) will select MENU 2 - 2 light flashes siren / horn chirps

Once a MENU is selected by remote, the system will be in at Setting 0, which is the reset to default for that Menu

Selecting Program Feature Menu

1. Enter Program Mode and select Menu.
2. Press and release the Valet (Program) Button the correct number of times to select the desired Feature. The park lights will flash once and the siren/horn will chirp each time the programming button is pressed. The LEDs in the antenna will flash in sets to indicate which Feature Menu has been selected. (e.g. 3 flashes = Feature 3)

Changing a Feature Setting

1. Once the correct Feature Menu has been selected, press and hold the Program Button until the park lights flash and the siren/horn chirps to confirm the desired setting. For example:
   1 park light flash and 1 chirp= Setting 1;
   2 park light flashes and 2 chirps= Setting 2, etc...
   The LEDs will continue to flash indicating which Feature Menu you are in (Note: LEDs turn off when the programming button is held down).

NOTE: Turning the ignition key to the off position or 15 seconds of no activity will exit program mode. Specific Output Times can only be programmed with the Solace Hand Held Programmer.

MASTER RESET (To reset ALL menus)

1. Turn ignition ON-OFF-ON. (Leaving Key in the ON position)
2. Press and release the valet switch 3 times.
   The parking lights will flash and the siren/horn will chirp 3 times.
3. Press and Hold valet button for 3 seconds. The system confirm with 5 siren/horn pulses & park light flashes to confirm system reset was performed.
4. To exit turn ignition off

Menu 1 (Lock Features)

Sub Menu	Feature	Option 1 (Default)	Option 2	Option 3	Option 4	Option 5	Option 6
1 - 00	Menu Reset						
1 - 01	Ignition Locks	Disabled	Enabled	Both - Lock Only with Tach	Unlock Only		
1 - 02	Lock / Unlock Options	Lock x 1 / Unlock x 1	Lock x 1 / Unlock x 2	Lock x 2 / Unlock x 1	Lock x 2 / Unlock x 2		
1 - 03	Lock Pulse Timing	800 ms	100 ms	3 Seconds	8 Seconds	1 - 255 Seconds**	
1 - 04	Unlock Pulse Timing	800 ms	100 ms	3 Seconds	8 Seconds	1 - 255 Seconds**	
1 - 05	Special Doorlock Options	Normal	Unlock Before & Lock After Start	Lock After Shutdown Only	Unlock Before / Lock After Start and Shutdown	Lock After Start Only	Delayed Door Lock After Shutdown (Ignore Open Door)
1 - 06	Disarm Options	Normal and With Unlock	Ignition / Accessory / GWR with Unlock	Disarm x 2			
1 - 07	Rearm Options	Normal and With Lock	With Lock Only	Only After Shutdown	With Lock / After Start / After Shutdown		
1 - 08	Trunk Disarm	Disarm & Unlock Before	Disarm Only Before	Smart Disarm (Trunk Pin Monitoring)	Trunk Only		
1 - 09	Trunk Pulse Timing	800 ms	100 ms	3 Seconds	8 Seconds	1 - 255 Seconds**	
1 - 10	Auxiliary Disarm	Auxiliary only	Disarm Only Before	Disarm & Unlock Before			
1 - 11	Passive Arming (Door Sense Required)	Disabled	GWA On (30 Seconds)	Lock and GWA (30 Seconds)	Lock and GWA (60 Seconds)		
1 - 12	Auto Relock (Door Sense Required)	Disabled	30 Seconds	1 Minute	2 Minutes	1 - 255 Seconds**	
1 - 13	Reservation Mode Setup	Press Lock on Remote to Shut off Vehicle	After Last Door Shut (No Lock)	After Last Door Shut (With Lock)	After Last Door Shut (5 Second Delay With Lock)		
1 - 14	Reservation Mode Activation	Emergency Brake	Foot Brake Twice	Remote Activation	Option 1 Silent	Option 2 Silent	Option 3 Silent
1 - 15	Data Status Input Disable	Door Status	Hood Status	Trunk Status	Tach Status	E-Brake Status	Foot Brake Status
1 - 16	Data Alarm Input Disable	Ignition Status	Pre-Warn Shock Status	Trigger Shock Status	Tilt Status		
1 - 17	Takeover Unlock	Unlock with Takeover	No Unlock with Takeover				
1 - 18	PTS Routine (Auto Only) (Door Sense Required)	Disabled	Enabled (No Takeover Available)				
1 - 19	PTS Timing	0.5 Second 1x ON / OFF	1 Second 1x ON / OFF	2 Second 1x ON / OFF	0.5 Second 2x ON / 1x OFF	1 Second 2x ON / 1x OFF	

Menu 2 (Start Features)

Sub Menu	Feature	Option 1 (Default)	Option 2	Option 3	Option 4	Option 5	Option 6 - 7
2 - 00	Menu Reset						
2 - 01	Selectable (+) Output CN1 & Relay Pack	(+) Ignition	(+) Accessory	(+) Starter	(+) Trunk	(+) Brake Output for PTS Start Sequence	Option 6 - (+) Siren Option 7 - (+) Park Light
2 - 02	Remote Start Runtime	15 Minutes	3 Minutes	45 Minutes	25 Minutes	1 - 255 Minutes**	
2 - 03	Tach Delay (Undercrank)	No Delay	0.2 Second	0.5 Second	0.7 Second	1 Second	
2 - 04	Diesel Start Delay	Gas / Glow Plug Wire For IC4 use Multiplex Wire	8 Second Delay	15 Second Delay	10 Second Delay Twice with Crank on 2nd Cycle	1 - 255 Seconds**	
2 - 05	Multiplex Input	Disabled (Aux Trigger ON)	On with 1x Pulse Start / Stop	On with 2x Pulse Start / Stop	On with 3x Pulse Start / Stop	Glo Plug Wire Delay Input	
2 - 06	Defrost Pulse Timing	500ms	3.5 Second	4 Minute Latch	On for Runtime	1 - 255 Seconds**	
2 - 07	Defrost Control Temperature	On with Remote Start	Below 41 F / 5 C	Below 23 F / -5 C	Below 5 F / -15 C		
2 - 08	Cold Temperature Start	14 F / -10 C	23 F / -5 C	5 F / -15 C	-4 F / -20 C		
2 - 09	Cold Start Check Time	2 Hour	3 hour	4 Hour	24 Hour	1 - 255 Hours**	
2 - 10	Cold Start Runtime	10 Minutes	3 Minutes	15 Minutes	45 Minutes	1 - 255 Minutes**	
2 - 11	Bypass Module Selection	iDatalink (ADS) 2-Way	iDatalink (ADS) 1-Way	Fortin 2-Way (Auto Detect)	Fortin 1-Way	Expresskit	
2 - 12	Engine Sensing	Tach Wire Detect	Tachless / Voltage Sense (Automatic Only)	Data Tach (Bypass Module)	Hybrid Start 2.5 Sec Crank (No Monitoring)		
2 - 13	Turbo Timer Activation	Remote (2 Minutes)	Remote (1 minute)	E-Brake (2 Minutes)	E-Brake (1 Minute)		
2 - 14	ECO-RUN Temp. (Anti-Idle)	Disabled	23 F / -5 C	32 F / 0 C	41 F / 5 C		
2 - 15	ECO-RUN Runtime (Anti-Idle)	Disabled	5 Minutes	2 Minutes	7 Minutes	1 - 255 Minutes**	
2 - 16	ECO-RUN Shutdown Temperature	Disabled	50 F / 10 C	68 F / 20 C	77 F / 25 C		
2 - 17	Max Crank Time in Tach Mode	5 Seconds	1 Second	2 Seconds	3 Seconds	7 Seconds	10 Seconds
2 - 18	Selectable (+) Output IC4 (CN1)	(+) Ignition	(+) Accessory	(+) Starter	(+) Trunk	(+) Brake Output for PTS Start Sequence	(+) Siren
2 - 19	Crank Time (Voltage Sense Mode)	1 Second	0.6 Seconds	0.8 Seconds	1.2 Seconds	1.5 Seconds	3 Seconds

Menu 3 (Alarm Features)**SHHP ONLY							
Sub Menu	Feature	Option 1 (Default)	Option 2	Option 3	Option 4	Option 5	Option 6
3 - 00	Menu Reset						
3 - 01	Park Light Output	Normal Flashes	30 Seconds After Unlock	1 minute After Unlock	1 Minute After Ignition Off		
3 - 02	Door Fault Delay	1 Second	10 Seconds	30 Seconds	Auto (1 Minute Max)	1 - 255 Seconds**	
3 - 03	Alarm Options	Remote Starter Only	Remote Starter with Alarm	Alarm Only			
3 - 04	Alarm Duration	1 Minute	30 Seconds	2 Minutes	1 Minute Pulsing	1 - 255 Seconds**	
3 - 05	Siren Output	Enabled	Alarm Trigger Only	Silent Lock / Unlock	Program and Valet Only		
3 - 06	Horn Output	Enabled	Alarm Trigger Only	2nd Press Lock and Alarm	Silent Lock / Unlock	Program and Valet Only	
3 - 07	Horn Output on Alarm	Pulsed for Duration	5 Second Pulsed Output	Constant (- 2nd Siren)			
3 - 08	Horn Pulse Timing	10 ms	20 ms	30 ms	50 ms	1 - 2550 ms**	
3 - 09	Hood Pin Type	Ground When Opened	Ground When Closed				
3 - 10	LED Status	Enabled	Disabled				
3 - 11	Safe Start (1 - Way Remotes Only)	Press Start Button 1x	Press Start Button 2x				
3 - 12	OEM Remote Start Control	Disabled	OEM RF Lock 3x to Start				
3 - 13	2 Button Remote Function	Lock and Start	Lock / Unlock Toggle and Start	Unlock and Start			

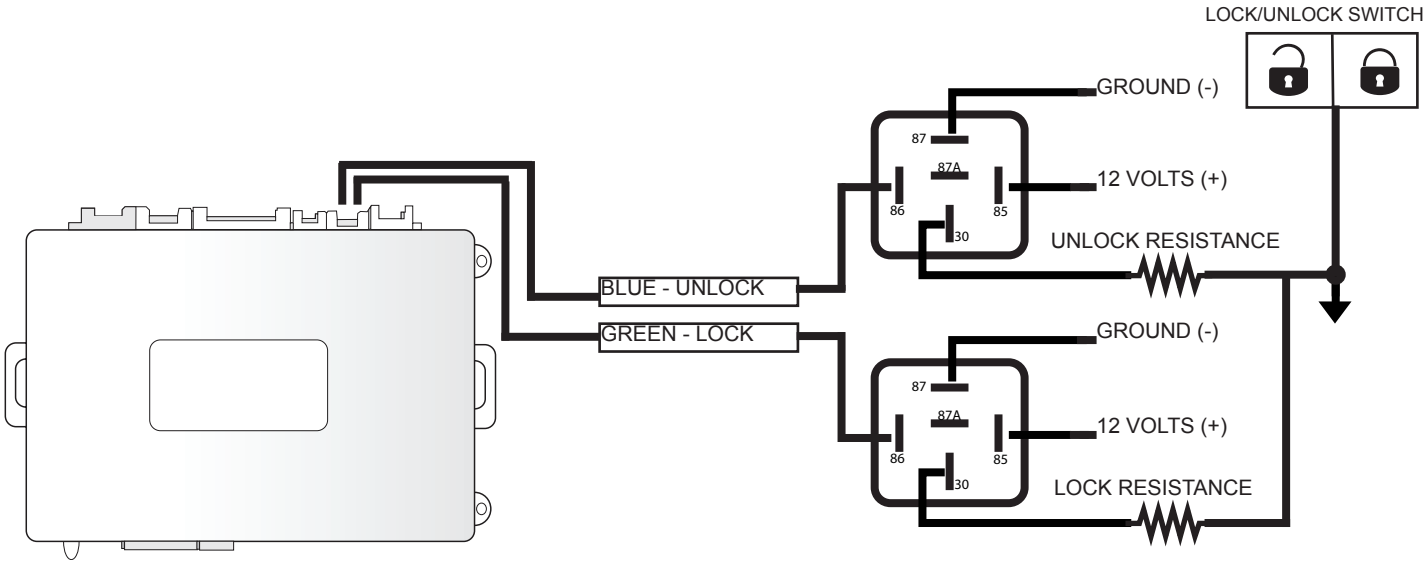
Menu 4 (Programmable Outputs)** SHHP ONLY							
Sub Menu	Feature	Option 1 (Default)	Option 2	Option 3	Option 4	Option 5	Option 6 - 19
4 - 00	Menu Reset						
4 - 01	Trunk Release Function	Pulsed Output	Latched Output				
4 - 02	(-) Disarm Output PIN 1 (CN3)	(-) Disarm	(-) Rearm	(-) Lock	(-) Unlock	(-) 2nd Unlock	
4 - 03	(-) Rearm Output PIN 2 (CN3)	(-) Rearm	(-) Disarm	(-) Lock	(-) Unlock	(-) 2nd Unlock	
4 - 04	(-) GWA Output PIN 12 (CN3)	(-) Ground While Armed	(-) Ground While Running	(-) Accessory	(-) Starter	See Chart Below	
4 - 05	(-) Ignition Output PIN 13 (CN3)	(-) Ignition	(-) Accessory	(-) Starter	(-) Push-to-Start Button Output	See Chart Below*	
4 - 06	(-) Accessory Output PIN 14 (CN3)	(-) Accessory	(-) Ignition	(-) Starter	(-) Push-to-Start Button Output	See Chart Below*	
4 - 07	(-) Starter Output PIN 15 (CN3)	(-) Starter	(-) Ignition	(-) Accessory	(-) Push-to-Start Button Output	See Chart Below*	
4 - 08	(-) Park Light Output PIN 16 (CN3)	(-) Park Light	(-) Ignition	(-) Accessory	(-) Push-to-Start Button Output	See Chart Below*	
4 - 09	AUX 1 Pulse Timing	800ms	Latched Output	2 Second	4 Second	1 - 255 Seconds**	
4 - 10	AUX 2 Pulse Timing	800ms	Latched Output	2 Second	4 Second	1 - 255 Seconds**	
4 - 11	AUX 3 Pulse Timing	800ms	Latched Output	2 Second	4 Second	1 - 255 Seconds**	
4 - 12	AUX 4 Pulse Timing	800ms	Latched Output	2 Second	4 Second	1 - 255 Seconds**	
4 - 13	AUX 1 Control	Remote	With Lock	With Unlock	On 30 Seconds After Unlock	On 30 Seconds After Lock	
4 - 14	AUX 2 Control	Remote	With Lock	With Unlock	On 30 Seconds After Unlock	On 30 Seconds After Lock	
4 - 15	AUX 3 Control	Remote (LCD Only)	With Lock	With Unlock	On 30 Seconds After Unlock	On 30 Seconds After Lock	Programmable Outputs**
4 - 16	AUX 4 Control	Remote (LCD Only)	With Lock	With Unlock	On 30 Seconds After Unlock	On 30 Seconds After Lock	Programmable Outputs**

For Menu 4-04 to 4-08 Options are below			
Option 5 - (-) GWR	Option 6 - (-) GWA	Option 7 - (-) Park Light	Option 8 - (-) 2nd Unlock
Option 9 - (-) Defrost	Option 10 - (-) Horn	Option 11 - (-) Siren	Option 12 - (-) Dome Light
Option 13 - (-) LED Output	Option 14 - (-) Disarm	Option 15 - (-) Rearm	Option 16- (-) AUX 1
Option 17 - (-) AUX 2	Option 18 - (-) AUX 3	Option 19 - (-) AUX 4	

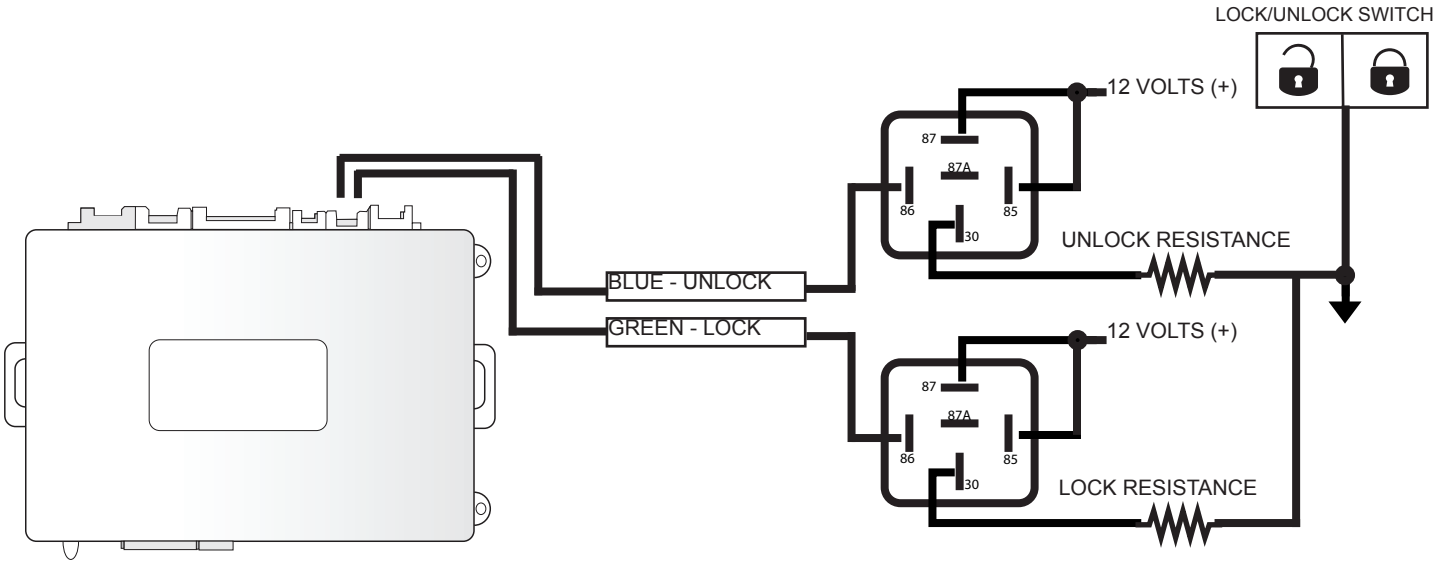
** Note – Specific times and features can only be programmed with the SHHP (Solace Handheld Programmer)**

DOOR LOCK RELAY DIAGRAMS

NEGATIVE ONE WIRE RESISTANCE TYPE DOOR LOCKS

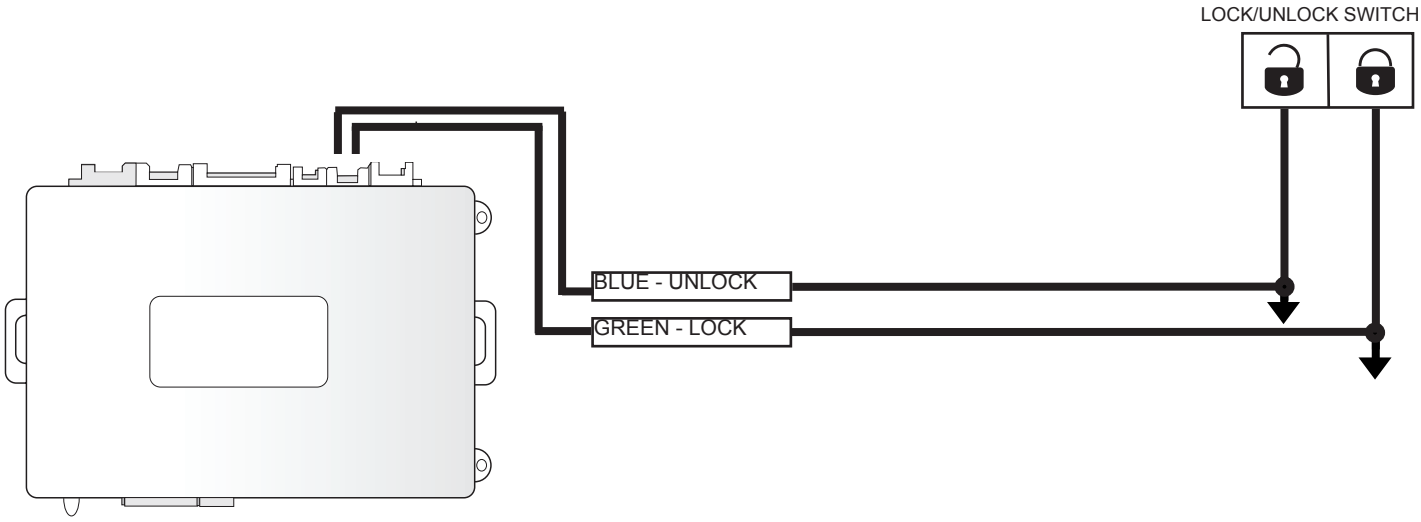


POSITIVE ONE WIRE RESISTANCE TYPE DOOR LOCKS

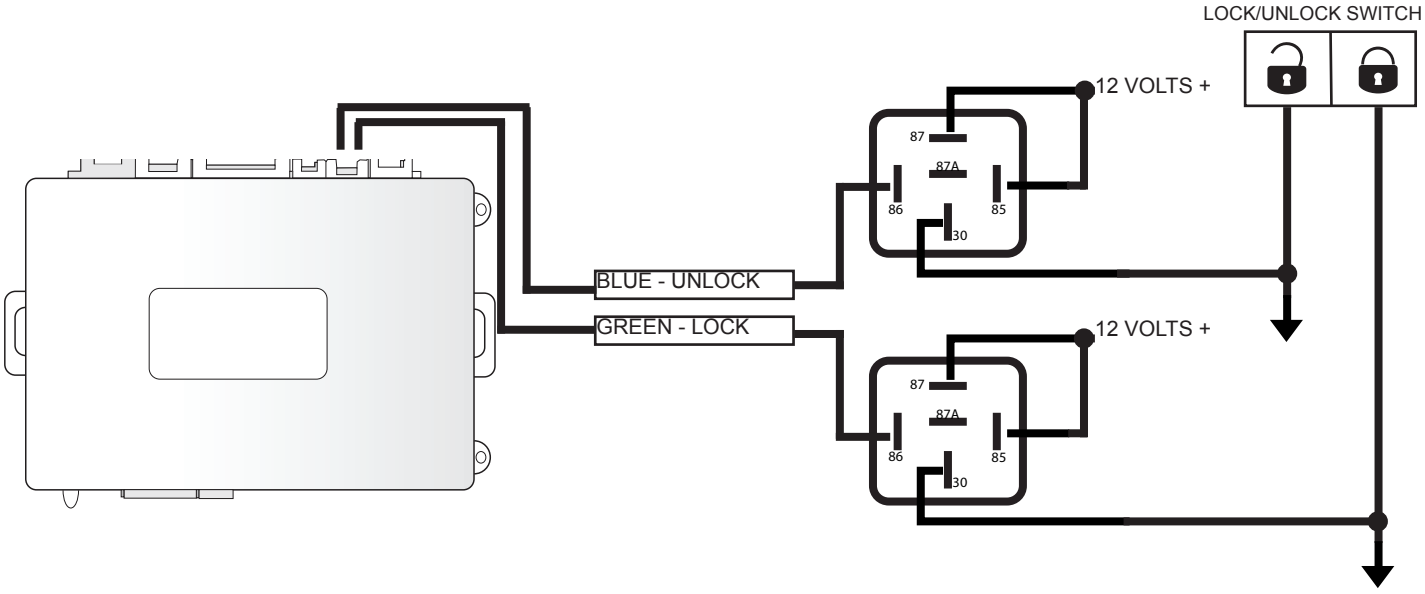


DOOR LOCK RELAY DIAGRAMS CONTINUED

NEGATIVE TYPE DOOR LOCKS

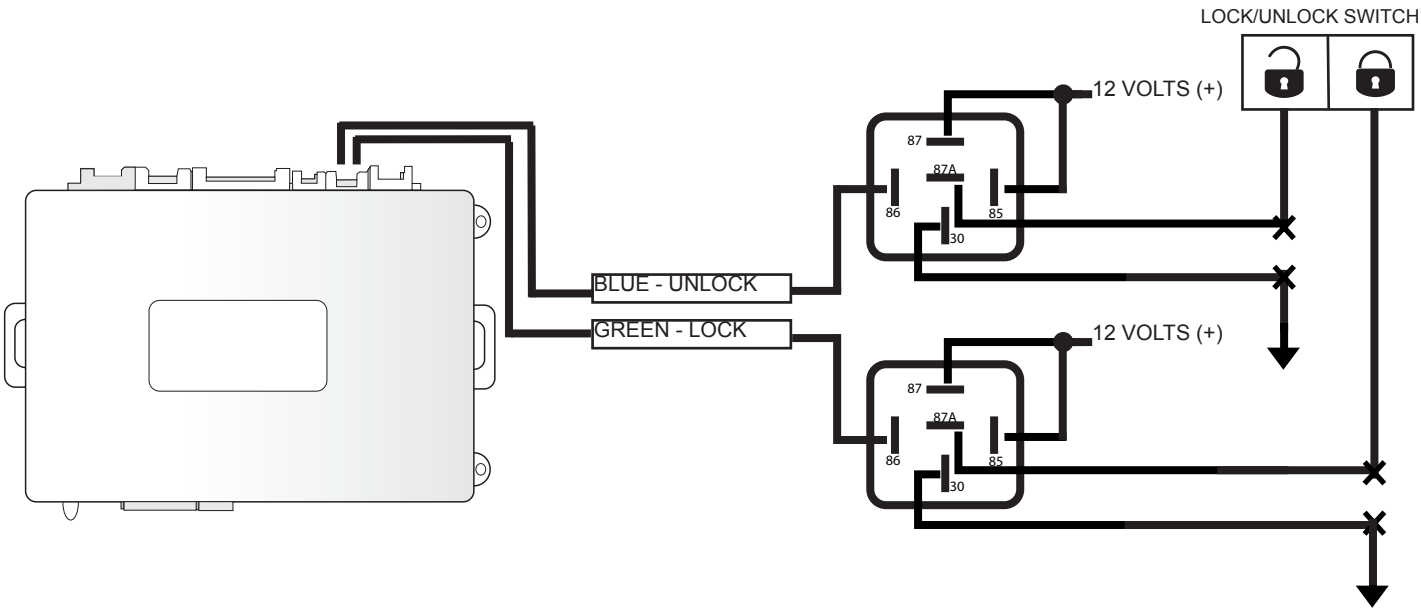


POSITIVE TYPE DOOR LOCKS

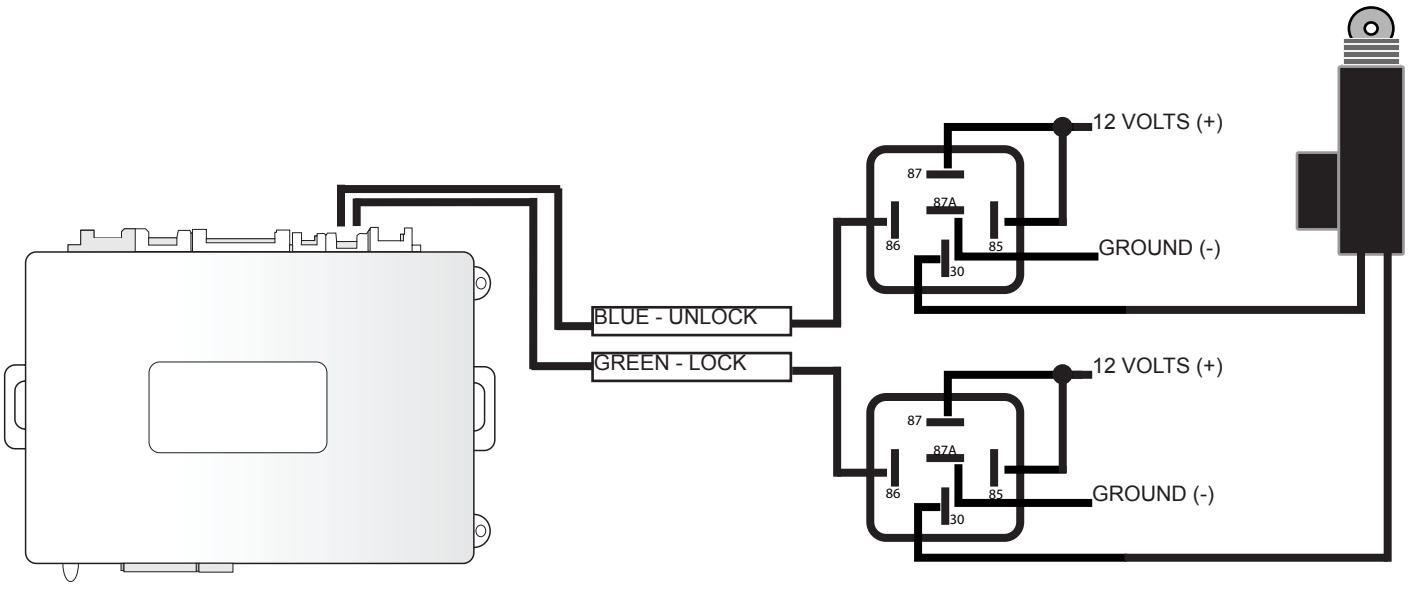


DOOR LOCK RELAY DIAGRAMS CONTINUED

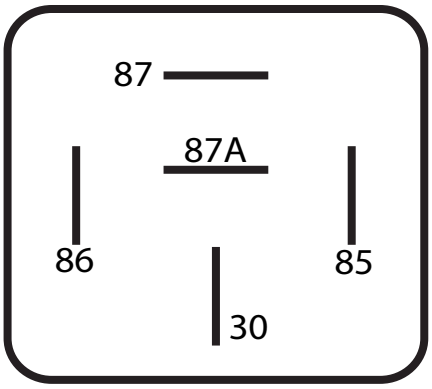
REVERSE POLARITY TYPE DOOR LOCKS



ADDING AFTER-MARKET DOOR LOCK ACTUATORS



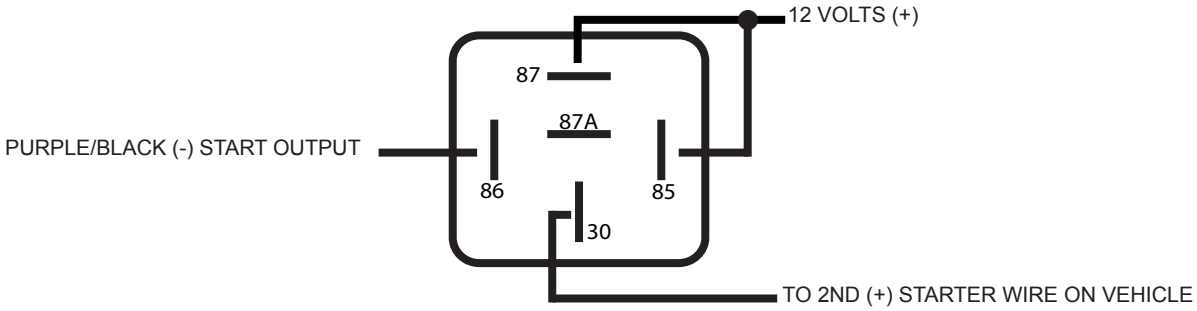
RELAY DIAGRAMS



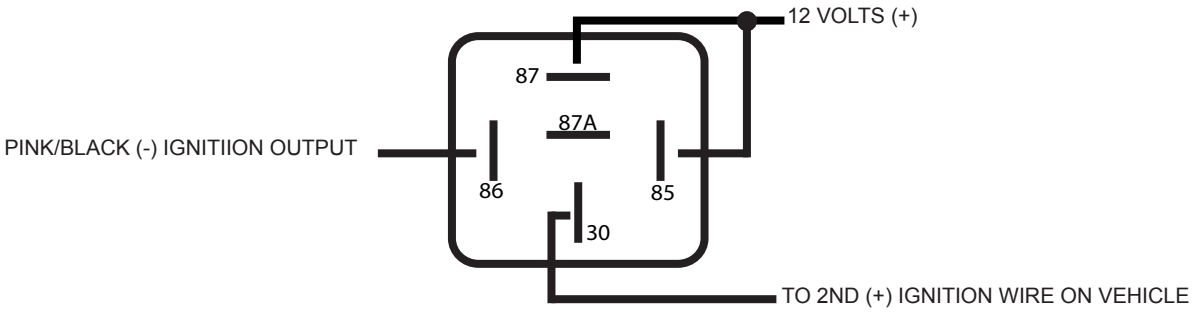
RELAY PIN IDENTIFICATION AND DESCRIPTION

PIN 86 - RELAY COIL GROUND
PIN 85 - RELAY COIL FEED (TRIGGER)
PIN 87 - NORMALLY OPEN CONTACT (CONNECTED TO PIN 30 WHEN RELAY COIL IS ENGAGED)
PIN 87A - NORMALLY CLOSED CONTACT (CONNECTED TO PIN 30 WHEN COIL IS NOT ENGAGED)
PIN 30 - COMMON FEED

SWITCHING A NEGATIVE (-) START TO A POSITIVE (+) START

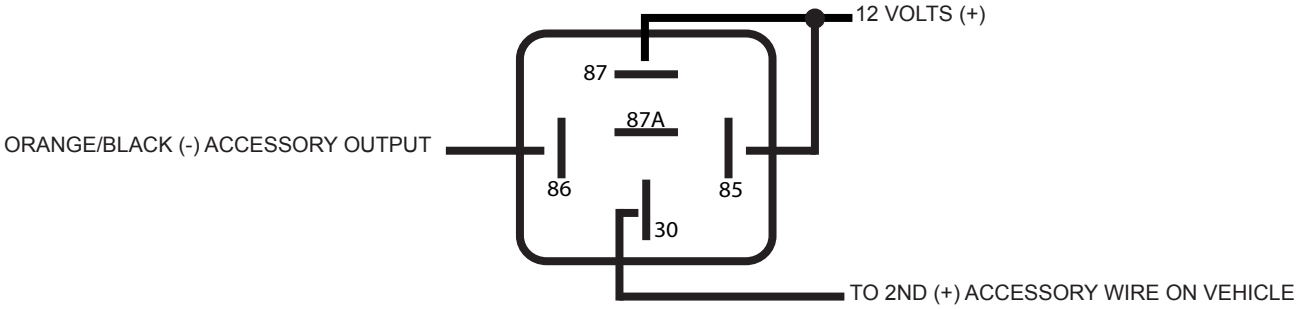


SWITCHING A NEGATIVE (-) IGNITIION TO A POSITIVE (+) IGNITION

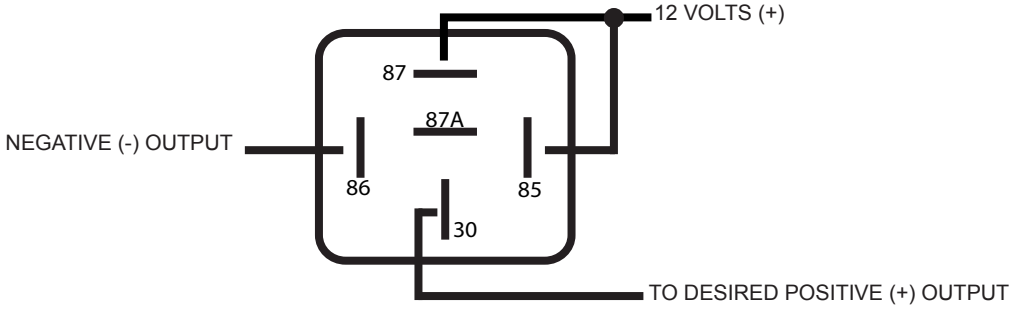


RELAY DIAGRAMS CONTINUED

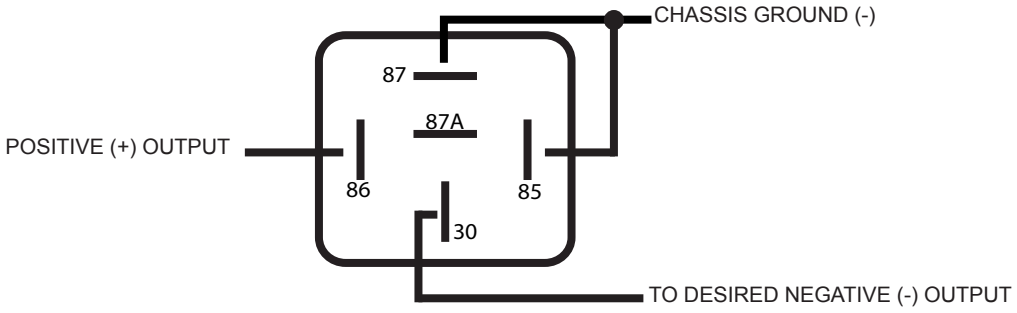
SWITCHING A NEGATIVE (-) ACCESSORY TO A POSITIVE (+) ACCESSORY



SWITCHING A NEGATIVE (-) OUTPUT TO A POSITIVE (+) OUTPUT

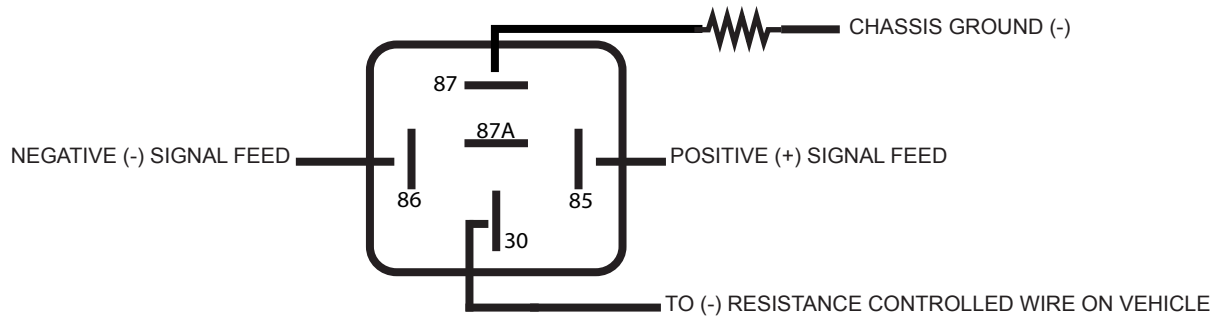


SWITCHING A POSITIVE (+) OUTPUT TO A NEGATIVE (-) OUTPUT

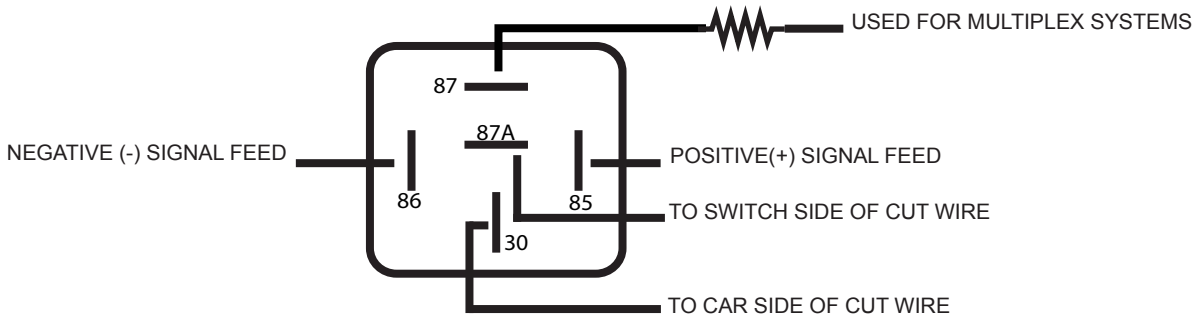


RELAY DIAGRAMS CONTINUED

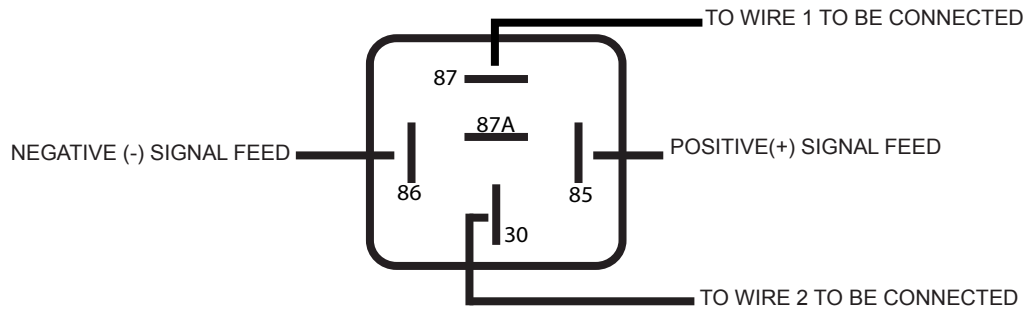
ADDING RESISTANCE THROUGH GROUND



ISOLATING A WIRE (5 WIRE) ALSO FOR MULTIPLEX SYSTEMS

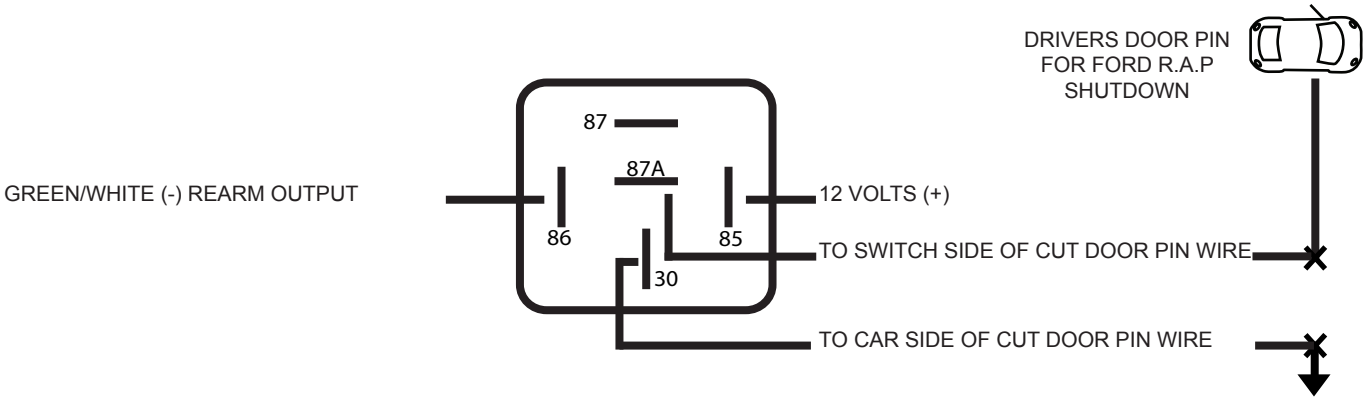


CLOSING A WIRE (CONNECTING 2 WIRES)

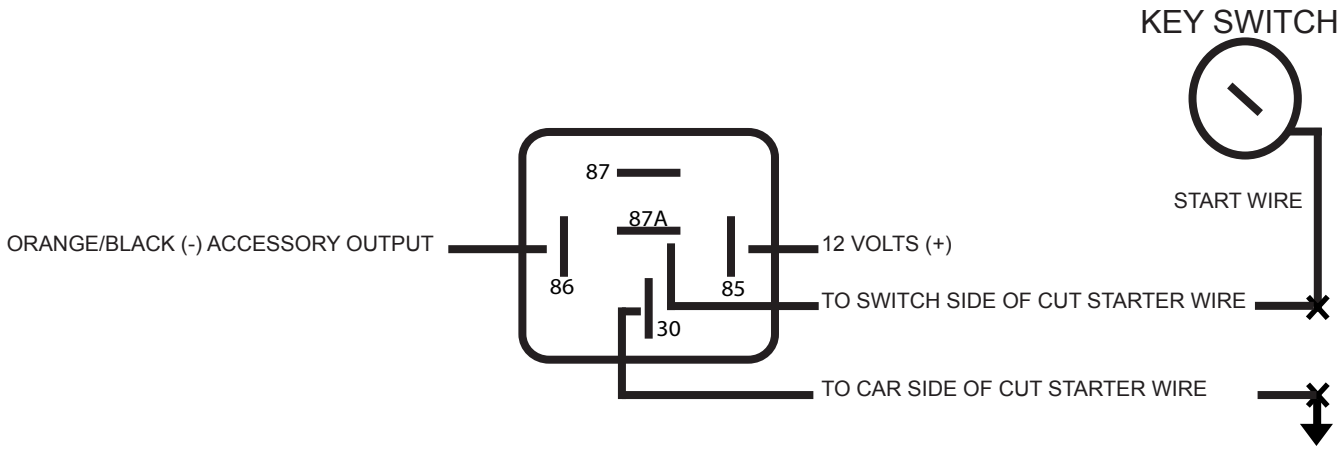


RELAY DIAGRAMS CONTINUED

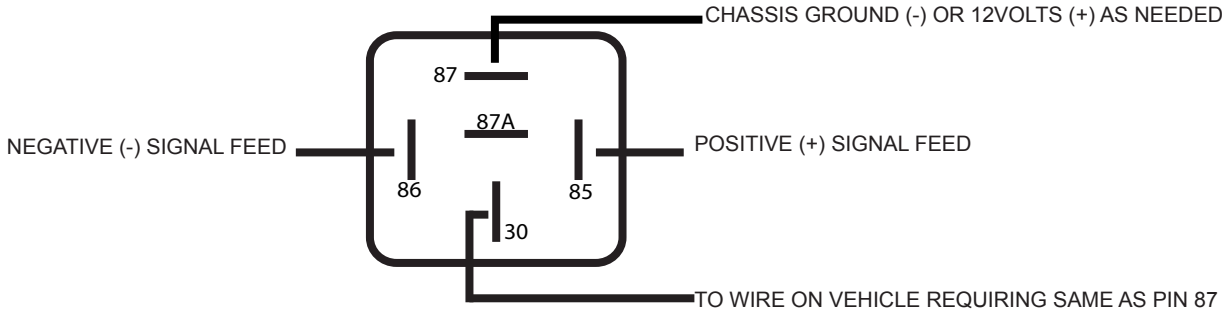
OPENING A WIRE (CUTTING) ALSO FORD OPEN DOOR R.A.P. (RADIO SHUTDOWN)



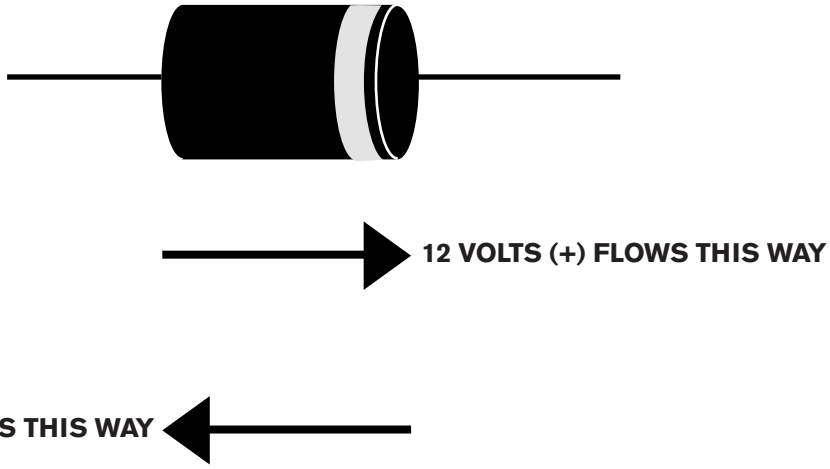
STARTER KILL/ANTI-GRIND



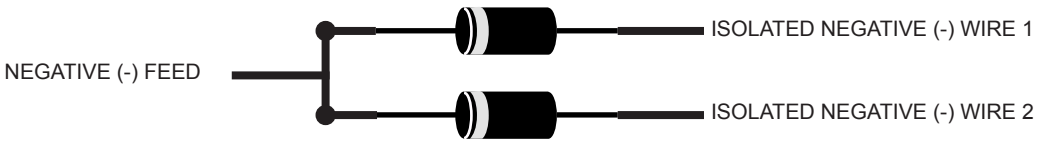
HIGH CURRENT GROUND OR POSITIVE



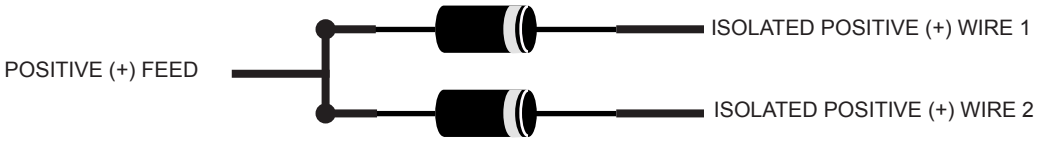
DIODE DIAGRAMS



SWITCHING 1 NEGATIVE (-) WIRE TO 2 NEGATIVE (-) ISOLATED WIRES

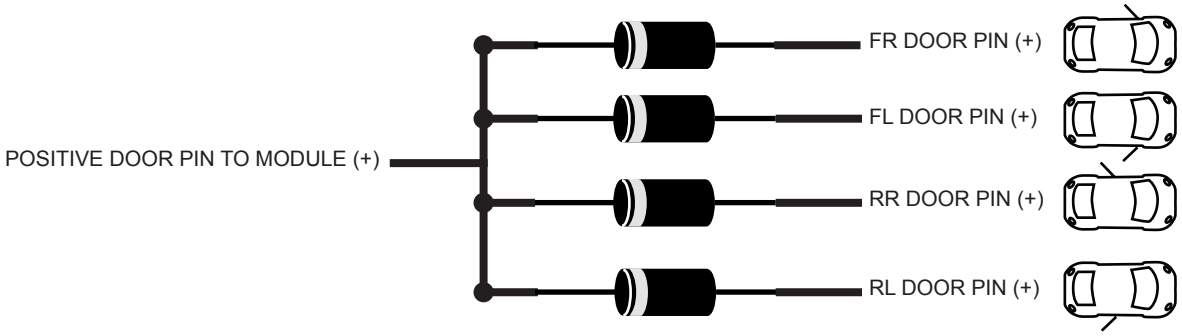


SWITCHING 1 POSITIVE (-) WIRE TO 2 POSITIVE (+) ISOLATED WIRES

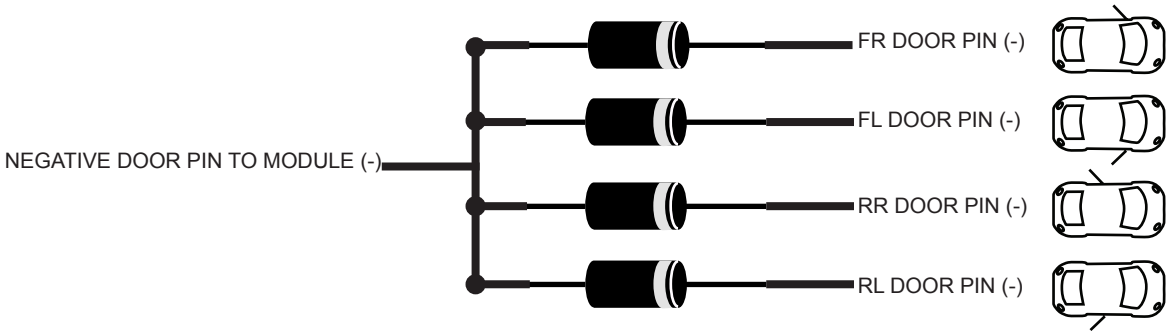


DIODE DIAGRAMS CONTINUED

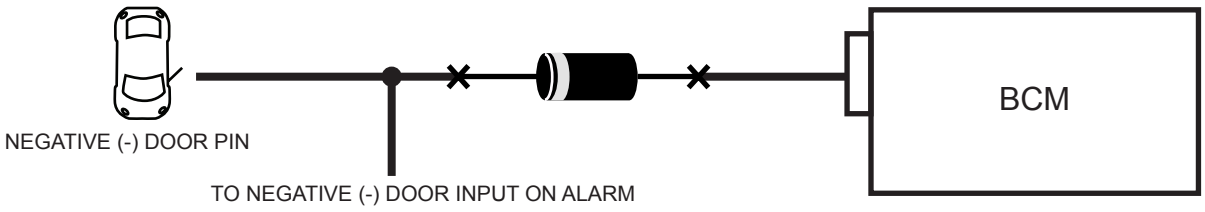
MONITORING MULTIPLE WIRE POSITIVE (+) DOOR PINS



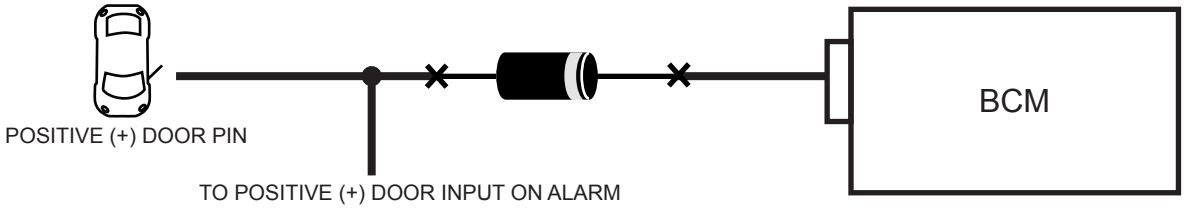
MONITORING MULTIPLE WIRE NEGATIVE (-) DOOR PINS



ISOLATING A NEGATIVE FALSING DOOR PIN WIRE FOR ALARM

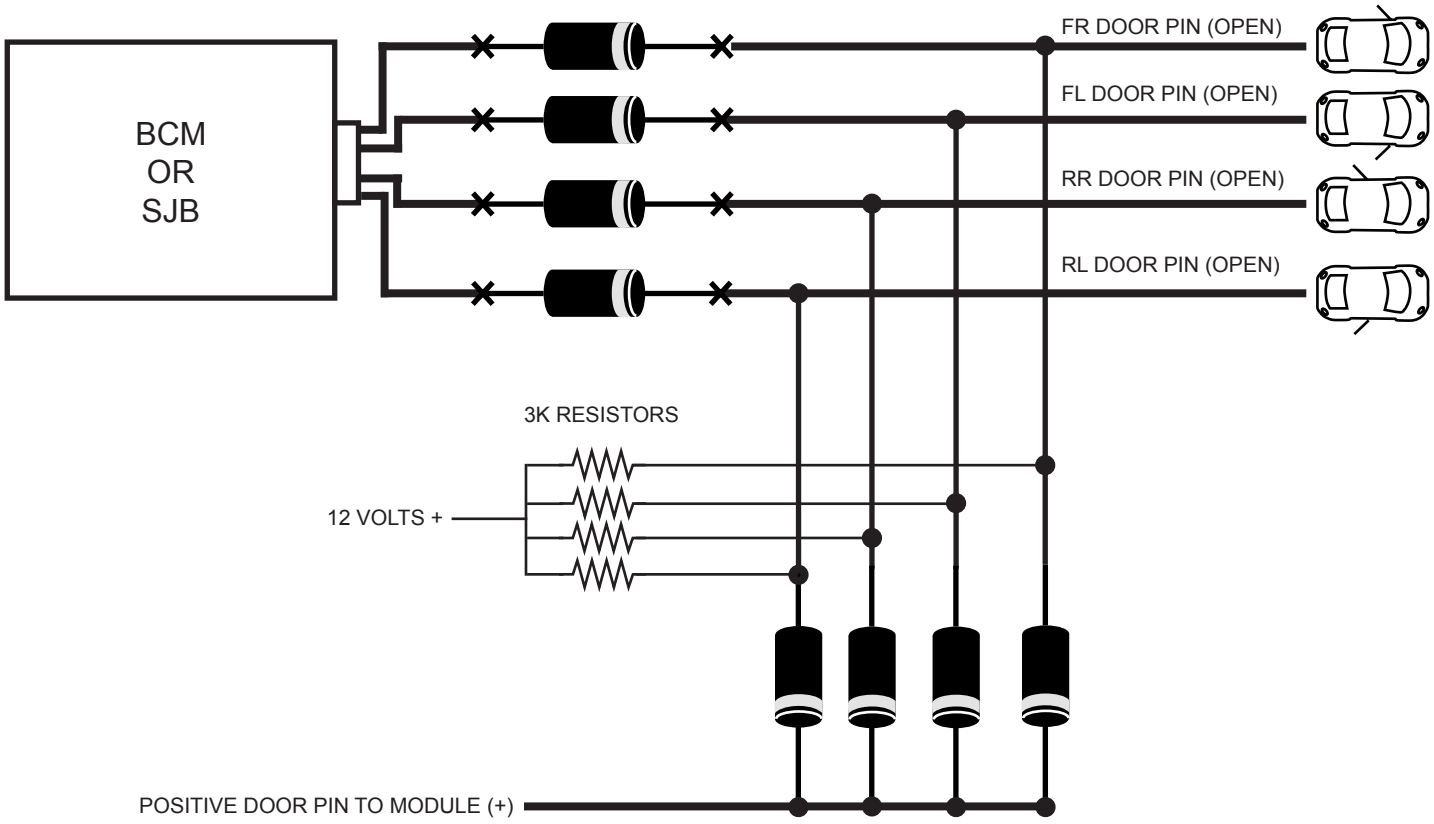


ISOLATING A POSITIVE FALSING DOOR PIN WIRE FOR ALARM



DIODE DIAGRAMS CONTINUED

MONITORING OPEN DOOR CIRCUIT FOR ALARM OR MANUAL TRANSMISSION (FORD, MAZDA)
(DIAGRAM COURTESY OF FORTIN ELECTRONICS)



PRIOR TO INSTALLATION

We recommend using a digital multi meter to test all wires in the vehicle as on-board computer systems can be damaged by using low resistance testing devices including, test lights, and even computer safe test lights (logic test probe). Notice Air Bag systems and do not disconnect these systems as it may turn on a "check air bag system" light or code that may need a dealer scan tool to clear the fault.
We also recommend testing all functions of the vehicle such as power windows, locks, HVAC systems. Check for any instrument cluster lights that are on such as "Check Engine", "Air Bag", "TPMS" lights. Also check that all lights work on the vehicle such as brake lights, headlights, interior lights, etc. Also check the interior and exterior for any damage including scuffs, dents, fingerprints, etc. Be sure to note all deficiencies or other problems and make customer aware of these before starting the installation.

TESTING VEHICLE WIRES

WHEN LOOKING FOR A POSITIVE (+) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A CHASSIS GROUND.

WHEN LOOKING FOR A NEGATIVE (-) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A 12V (+) CONSTANT SOURCE

12 VOLTS (+) CONSTANT **- You can find different locations for 12V(+) constant. You can use either the (+) Battery Terminal or the (+) Constant feed to the ignition switch.**
To test for this wire use multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) no matter the position of the key switch. This wire will also be powering the locks, bypass modules and other circuits so we recommend you DO NOT remove or change the supplied 30Amp Fuses on the 12V(+) Remote Starter wires. Connect the Red and Red/White wires on CN1 to this wire. If there are 2 12V(+) constant wires at the ignition switch, we recommend connecting the Red wire from CN1 to one and the Red/White wire from CN1 to the other.

STARTER (+) **- This wire provides a 12V(+) Source to the starter directly or to the starter circuit on the vehicle.**
To test for this wire use a multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) when the key is in the Start (Crank) position in the key switch. Connect the Purple wire on CN1 to this wire. If there are more than 1 starter wires on the vehicle then you can use the Pink/White from CN1 and program for 2nd Starter in Menu 2-01 or use the Purple/Black on CN4 through a Relay to power this wire. See relay guide.
STARTER (-) **- This wire provides a Negative(-) Source to the starter circuit on the vehicle.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the key is in the Start (Crank) position in the key switch. Connect the Purple/Black wire on CN4 to this wire.

ACCESSORY (+) **- This wire provides a 12V(+) Source to the HVAC circuits on the vehicle.**
To test for this wire use a multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) when the key is in the ACC and Run position in the key switch. This wire will NOT show a positive feed in the Start (Crank) position. Connect the Orange wire on CN1 to this wire. If there are more than 1 starter wires on the vehicle then you can use the Pink/White from CN1 and program for 2nd Accessory in Menu 2-01 or use the Orange/Black on CN4 through a Relay to power this wire. See relay guide.
ACCESSORY (-) **- This wire provides a Negative(-) Source to the HVAC circuits on the vehicle.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the key is in the ACC and Run position in the key switch. This wire will NOT show a negative feed in the Start (Crank) position. Connect the Orange/Black wire on CN4 to this wire

TESTING VEHICLE WIRES CONTINUED

WHEN LOOKING FOR A POSITIVE (+) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A CHASSIS GROUND.

WHEN LOOKING FOR A NEGATIVE (-) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A 12V (+) CONSTANT SOURCE

IGNITION (+) **- This wire provides a 12V(+) Source to the Ignition circuit on the vehicle.**
To test for this wire use a multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) when the key is in the run and STAYS ON during Start (Crank) position in the key switch. Connect the Pink wire on CN1 to this wire. If there are more than 1 starter wires on the vehicle then you can use the Pink/White from CN1 and program for 2nd Ignition in Menu 2-01 or use the Pink/Black on CN3 through a Relay to power this wire. See relay guide.
IGNITION (-) **- This wire provides a Negative(-) Source to the Ignition circuit on the vehicle.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the key is in the Run position and STAYS ON during Start (Crank) position in the key switch. Connect the Pink/Black wire on CN4 to this wire.

PARK LIGHTS (+) **- This wire will usually be found at the park light switch but on most vehicles can be found at the Fuse Box or Driver's Kick panel. To test for this wire use a multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) when just the park lights are turned on by the switch. If there is more than 1 park light wire on the vehicle you can isolate them by using 2 6 amp diodes or relays. See Diode and/or Relay Guide for installation.**
PARK LIGHTS (-) **- This wire will usually be found at the park light switch.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when just the park lights are turned on by the switch. Connect the White/Black wire on CN4 to this wire to. It may be possible that a negative park light wire be Multiplexed. In this case please refer to the Relay Diagram for installation.

HORN (-) **- This wire will be usually found at the clock spring or in the harness coming from the steering wheel.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the horn is on, it will most likely rest at 12V (+). Connect the Brown/Black wire on CN4 to this wire. It is possible that some vehicles may need a shorter or longer timing output to sound the horn. The timing of the pulsed output on this wire can be adjusted in Menu 3-08

DISARM AND REARM (-) **-Test the vehicle for a OEM Content Alarm System (Factory Alarm). There a number of ways to test if the vehicle has a OEM Alarm System.**

1. **Sit in the vehicle with all doors shut and press lock on the OEM Keyless remote, or**
   With the door open press lock on the door panel lock switch and shut the door, or
   Shut the door and turn the key in the lock key cylinder on the exterior of the door.
2. **Wait approximately 1 minute then manually unlock the door and open. If the horn starts to sound then the vehicle has a OEM Alarm System and proceed to Step 2. If there is no horn honks then the vehicle is not equipped with an OEM Alarm System and you can move on to testing wires**
3. **To shut off the alarm follow this sequence, turn the key to the unlock position in the door cylinder. If the horn stops honking then this is the way to disarm the OEM Alarm System, if this doesn't work then try,**
   Starting the vehicle by key, if the horn stops honking then this is the way to disarm the OEM Alarm System, if this doesn't work then try,
   Pressing unlock on the OEM Keyless Remote, if the horn stops honking then this is how to disarm the OEM Alarm System

TESTING VEHICLE WIRES CONTINUED

WHEN LOOKING FOR A POSITIVE (+) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A CHASSIS GROUND.

WHEN LOOKING FOR A NEGATIVE (-) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A 12V (+) CONSTANT SOURCE

DISARM (-) **- Refer to Step 3 of Testing for Alarm.**
If it disarms by the key in the door cylinder then find the wire that duplicates this.
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the key is turned to the unlock position in the door cylinder. Connect the Blue/White wire on CN3 to this wire.
In the case the vehicle needs to be started to disarm the alarm please program special disarm options in Menu 1-06 to option 2. Whenever unlock is pressed the remote starter will automatically simulate turning the ignition on for 1 second, in turn disarming the OEM Alarm system. No extra wire connections are required for this type.
It is also possible that the OEM Alarm can only be disarmed by the factory OEM Keyless remote. In this case please check for bypass module compatibility.

REARM (-) **- Refer to Step 1 of Testing for Alarm.**
If it rearms by the key in the door cylinder then find the wire that duplicates this.
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the key is turned to the lock position in the door cylinder. Connect the Green/White wire on CN3 to this wire.
In the case the vehicle needs have the door open while pressing lock on the door panel switch please refer to finding a door pin wire in this part of the guide and connect the wire accordingly.

TACHOMETER OR RPM (AC) **- There are multiple locations to get a tach signal. Most common is either at an ignition coil or fuel injector. Other locations include camshaft or crank position sensor, and the instrument cluster, At either a coil or an injector there most likely will be an uncommon wire color across all of them.**
To test this wire START THE VEHICLE and use a multi meter set to AC Voltage with one lead to chassis ground and the other lead to probe for a wire that will read between 1-6Volts and will normally change with increase and decrease of engine RPM. Connect the Purple/White wire on CN3 to this wire.

Solace remote starters also have the capability of running in tachless mode where there is no connection required to monitor if the vehicle is running or not. Please refer to the Tach Learning procedure for more information.

BRAKE SWITCH (-) **- This wire can usually always be found at the brake switch but on most vehicles can be found at the fuse box or Driver's Kick Panel.**
To test for this wire use a multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) when the foot brake is depressed and neutral or negative when the brake is not depressed. Connect the Pink wire on CN3 to this wire.

PARK BRAKE(-) **- This wire can usually always be found at the emergency brake switch or at the instrument cluster. On some vehicles it can also be found at the Daytime Running Light module behind the dash.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the park brake is engaged and neutral or negative when the park brake is not engaged. *NOTE some vehicles may have to be running to test this wire properly. Connect the Black/White wire on CN3 to this wire.

TESTING VEHICLE WIRES CONTINUED

WHEN LOOKING FOR A POSITIVE (+) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A CHASSIS GROUND.

WHEN LOOKING FOR A NEGATIVE (-) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A 12V (+) CONSTANT SOURCE

TRUNK RELEASE (-) **- This wire can usually always be found at the trunk release switch.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the trunk release is engaged. Connect this wire to the Red/White wire on CN4. The output time can be adjusted in Menu 1-09
TRUNK RELEASE (+) **- This wire is usually coming from the BCM and is controlled from the factory keyless entry remote.**
To test for this wire use a multi meter set to DC Voltage with one lead to chassis ground and the other lead to probe for a wire that reads between 10-16Volts (+) when the trunk release is engaged. We recommend that when connecting trunk in this way to isolate the switch with a relay. See Relay Guide. If the trunk release is (+) directly from a trunk release switch then you can connect this wire to the Pink/White wire on CN1 and program for Positive Trunk in Menu 2-01.

WAIT TO START/GLOW PLUG LIGHT (+/-) **- This wire can usually always be found at the instrument cluster or at the ECM.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) with the ignition switch turned on and the Wait to Start bulb is on. Once the Wait to Start Bulb goes out and the meter no longer reads 12V(-) this is a Negative (-) Wait to Start Wire. If the Wait to Start wire reads 12V(-) when the light goes out then this wire is Positive (+). Connect this wire to the Gray/Black wire on CN4. You can also set a desired Time delay in Menu 2-04

DOOR PIN (-) **- This wire can usually always be found at the door pin switch and can usually be found at the BCM or at the instrument cluster.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for the door pin wire. If the wire reads between 10-16Volts (-) when the door is open then the door pin is negative (-) and you can connect the Green wire on CN4 to this wire.
DOOR PIN (+) **- This wire can usually always be found at the door pin switch and can usually be found at the BCM or at the instrument cluster.**
To test for this wire use a multi meter set to DC Voltage with one lead to Chassis Ground and the other lead to probe for the door pin wire. If the wire reads between 10-16Volts (+) when the door is open then the door pin is positive (+) and you can connect the Purple wire on CN4 to this wire.
DOOR PIN (OPEN) **- This wire can always be found at the door pin switch and can usually be found at the BCM or at the instrument cluster.**
To test for this wire use a multi meter set to DC Voltage with one lead to Chassis Ground and the other lead to probe for the door pin wire. If the wire reads between 2-7 Volts when the door is open and nothing when it is closed then the door pin is an open circuit and you need to follow the OPEN DOOR CIRCUIT DIAGRAM in the DIODE GUIDE and connect the (+) wire to the Purple Wire on CN4.

***If connecting to circuit with a delay you can set the desired delay time in Menu 3-02.**
****Also be sure to check that all doors are monitored and there are multiple wires please isolate with diodes. Please see DIODE GUIDE for install.**
*****For Rearm Situations when a door needs to be opened you can connect the Green/White wire on CN4 directly to a Negative (-) door pin, or to a relay to switch to a positive for a Positive (+) door pin, or use the Green/White wire on CN4 to cut the wire with a relay for Open Door circuit. Please refer to RELAY GUIDE for installation.**
******All doors must be connected when installing into a MANUAL TRANSMISSION VEHICLE**

TESTING VEHICLE WIRES CONTINUED

WHEN LOOKING FOR A POSITIVE (+) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A CHASSIS GROUND.

WHEN LOOKING FOR A NEGATIVE (-) WIRE CONNECT ONE LEAD OF YOUR MULTI METER TO A 12V (+) CONSTANT SOURCE

HOOD SWITCH (-) **- This wire is usually connected to the supplied Pin Switch with each starter. In the case that a vehicle has an OEM hood switch that is negative (-) this can be connected instead of the Pin Switch.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the hood switch is open. Connect this wire to the Gray/White wire on CN4.

AUXILIARIES (SLIDING DOORS, ETC.) (-) **- This wire can usually always be found at the desired auxiliary release switch.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the auxiliary switch is engaged. Connect this wire to the any of the following wires on CN4, Black/Brown for AUX 1 Control from remote, Black/Green for AUX 2 Control from remote, Black/Blue for AUX 3 Control from remote, Black/Yellow for AUX 4 Control from remote. These wires can be also control multiple other functions like sunroof open/close, window roll up/down, gas traps, etc. Test these wires the same as testing for Auxiliary sliding controls. **Please Note that only AUX 1 and 2 are controllable from all 1-Way remotes, AUX 3 and 4 are only controllable from the 2-Way LCD remote. The output times and function control can also be controlled from Menu 4-9 to 4-16

LOCK (-) **- This wire can usually always be found at the door panel lock/unlock switch, and on most cars at the BCM. It is becoming more popular that locks can be controlled using a bypass module.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the lock button is pressed. Connect the Green wire on CN2 to this wire. There are multiple changes that can be made to the way this wire functions in Menu 1-01 to 1-05.

UNLOCK (-) **- This wire can usually always be found at the door panel lock/unlock switch, and on most cars at the BCM. It is becoming more popular that locks can be controlled using a bypass module.**
To test for this wire use a multi meter set to DC Voltage with one lead to 12V(+) Constant and the other lead to probe for a wire that reads between 10-16Volts (-) when the unlock button is pressed. Connect the Blue wire on CN2 to this wire. There are multiple changes that can be made to the way this wire functions in Menu 1-01 to 1-05.

****For Positive, Reverse Polarity, and Resistance Lock or Unlock, or adding Door Lock Actuators please see the Relay Guide for Install.**

BYPASS MODULE **- It is getting more and more popular that vehicles functions can be controlled by bypass modules. The features can include some or all of the following. Lock, Unlock, Alarm Arm, Alarm Disarm, Tach, Foot Brake Status, Emergency Brake Status, Ignition Status, Hood Status, Door Status, Trunk Status, Trunk Release, Auxiliary Outputs, Ignition Output, Start Output, Accessory Output, Park Light Output, Horn Output, Window Roll Up/Down, and more. These wires can be hard wired directly from the bypass module to the remote starter module saving time. When using a bypass module with 2-Way communication most of these wires do not need to be connected, in 1-Way communication some wires may be connected. Please see installation guide of bypass module for more information. Solace is both 2-Way and 1-Way Data Compatible for both Fortin and iDatalink bypass modules.**

VEHICLE INSPECTION SHEET

SOLACE
the evolution of auto-connectivity™

INVOICE #: _____ DATE: _____

MAKE: _____ MODEL: _____ YEAR: _____

STARTER: _____ DROP OFF: _____ PICK UP: _____

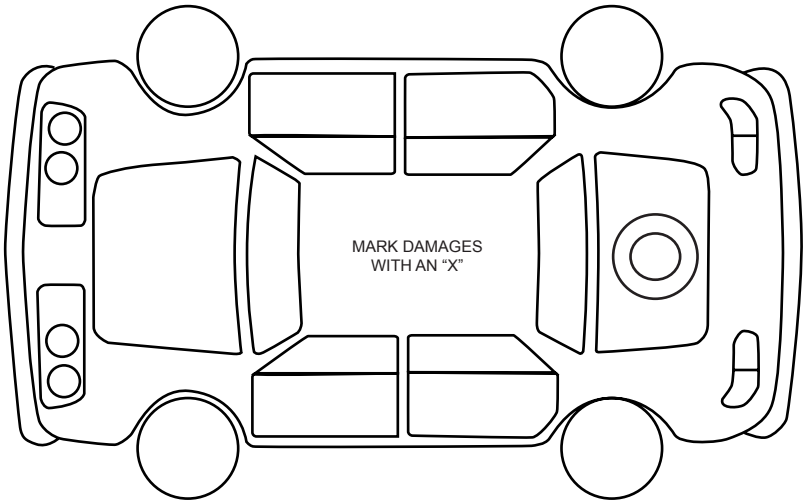
INSTALL OPTIONS:

STARTER ☐	LOCK ☐	AUX 4 ☐
STARTER/ALARM ☐	UNLOCK ☐	DEFROST ☐
ALARM ONLY ☐	OEM ALARM ☐	HEATED SEATS ☐
AUTOMATIC TRANS ☐	TRUNK RELEASE ☐	TRUNK PIN ☐
MANUAL TRANS ☐	AUX 1 ☐	AUX ALARM SENSORS ☐ _____
TRANSPONDER ☐	AUX 2 ☐	AC200/200 GPS ☐ _____
DIESEL ☐	AUX 3 ☐	BYPASS: ☐ _____

OTHER INSTALL NOTES: _____

VEHICLE NOTES AND DAMAGE:

	CHECK IN	OUT		CHECK IN	OUT
PWR WINDOWS	☐	☐	PWR/HEAT SEATS	☐	☐
PWR LOCKS	☐	☐	HORN	☐	☐
WIPERS	☐	☐	REAR DEFROST	☐	☐
PWR TRUNK	☐	☐	LIGHTER	☐	☐
PARK LIGHTS	☐	☐	CRUISE	☐	☐
HEADLIGHTS	☐	☐	SWC	☐	☐
TURN SIGNALS	☐	☐	RADIO	☐	☐
BRAKE LIGHTS	☐	☐	MAINTENANCE	☐	☐
HAZARD LIGHTS	☐	☐	SERV. BATTERY	☐	☐
DASH LIGHTS	☐	☐	SERV. AIR BAG	☐	☐
DOMELIGHT	☐	☐	SERV. ABS	☐	☐
HEATER + A/C	☐	☐	SERV. ENGINE	☐	☐



NOTES: _____

CUSTOMER SIGNATURE: _____

DATE: _____ **INSTALLER:** _____

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