TARANTULA

REV.5

by **SO**UND**STREAM**

RS.1
REMOTE VEHICLE STARTER

INSTALLATION GUIDE

www.security.soundstream.com

OUTPUT TO ACTIVATE THE STARTER CIRCUIT	PURPLE
OUTPUT TO ACTIVATE THE ACCESSORY CIRCUIT	ORANGE
12VOLT/ 30 AMP MAIN POWER INPUT	RED
12VOLT/ 30 AMP MAIN POWER INPUT	RED
SELECTABLE OUTPUT* (DEFAULT 2ND IGNITION)	PINK/WHITE
OUTPUT TO ACTIVATE THE PRIMARY IGNITION CIRCUIT	PINK

| SYSTEM GROUND INPUT/ CHASSIS GROUND | BLACK |
| SELECTABLE PARK LIGHT OUTPUT (DEFAULT POSITIVE) | WHITE |

(-) REARM OUTPUT - (PULSE WITH LOCK AND AFTER START)	GREEN/WHITE	1
(-) DISARM OUTPUT (PULSE WITH UNLOCK & BEFORE START)	GREEN/BLACK	2
(-) AUX 1 OUTPUT - (HOLD UNLOCK & START	ORANGE/BLACK	3
N/A	RED/WHITE	4
(-) HORN OUTPUT - *PROGRAMMABLE*	BROWN/WHITE	5
(+) BRAKE SWITCH INPUT (12VOLT WHEN BRAKE IS PRESSED)	BROWN	6
(-) HOOD PIN SWITCH INPUT (GROUND WHEN HOOD IS OPENED)	GRAY	7
(AC) TACH DETECTION INPUT (CONNECT TO COIL, INJECTOR...)	PURPLE/WHITE	8
(+/-) GLOW PLUG/ WAIT TO START TIMER/ TRIGGER TO START	GRAY/BLACK	9

STATUS LED   **PROGRAM / VALET BUTTON**

DO NOT INSTALL THIS SYSTEM INTO A MANUAL TRANSMISSION VEHICLE!!

OUTPUT TO ACTIVATE DOOR LOCK CIRCUIT (-)	GREEN
OUTPUT FOR VOLTAGE INVERTER*	N/A*
OUTPUT TO ACTIVATE DOOR UNLOCK CIRCUIT (-)	BLUE
GROUND WHEN RUNNING (BYPASS TURN ON)	ORANGE
GROUND FOR BYPASS MODULE	BLACK
N/A	N/A
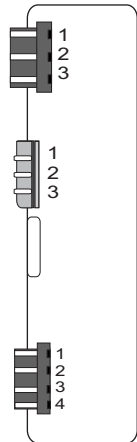
BYPASS MODULE DATA COMMUNICATION PORT
*The default setting is set for FORTIN™ Bypass Modules.*

* THE CENTER PIN OF THE KEYLESS CONNECTOR IS LOW CURRENT AND IS DESIGNED TO SUPPLY POWER TO DOOR LOCK MODULES (DO NOT CONNECT TO RELAYS) OVERLOADING THIS OUTPUT WILL DAMAGE THE MODULE!
** FOR USE WITH COMPATIBLE BYPASS MODULES ONLY.

SELECTABLE PARK LIGHT OUTPUT

BY DEFAULT THE SYSTEM COMES WITH THE PARK LIGHT JUMPER SET FOR POSITIVE PARK LIGHT OUTPUT. TO CHANGE THE SYSTEM TO A NEGATIVE PARK LIGHT OUTPUT, PLACE THE JUMPER IN THE NEGATIVE PARK LIGHT POSITION SHOWN IN THE DIAGRAM. **(Position 2)**

*THE PARK LIGHT RELAY WILL NOT "CLICK" WHEN SET FOR NEGATIVE PARK LIGHTS.

Position 1 or Position 2
POSITIVE PARK LIGHT
NEGATIVE PARK LIGHT
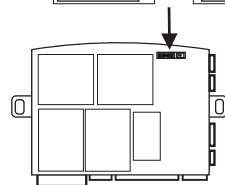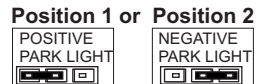
AUTO TACH/ TACHLESS LEARNING

Start the vehicle with the ignition key.

2 CHIRPS/ 2 FLASHES = TACH MODE
3 CHIRPS/ 3 FLASHES = DATA TACH MODE
4 CHIRPS/ 4 FLASHES = TACHLESS MODE

NOTES:
When tach learning the system first sends out a request for tach from the data port. If it gets a valid rpm response over 750 rpm then it goes into data tach mode (3 flashes). If there is no response, the unit will look for the tach/tachless.

Once the starter goes on then off, the unit will learn tach, if there is no tach detected within a few seconds after starting, the system will learn in Tachless mode after 20 seconds.

If there is no starter detected, the system learns tach after 30 seconds. If no tach is detected the system will learn tachless after an additional 10 seconds.

HYBRID MODE'S

Hybrid mode 1 - This option requires a tach connection. Once the vehicle starts the system will not monitor the tach input and stay running for 15 minutes.

Hybrid Mode 2- (No Tach wire connection)This setting will power up the ignition wires, pulse the start output for 2 seconds then stay on/ run for 15 minutes. See Program Menu 4, Hybrid Mode 1& 2. Hybrid mode 2 was designed for "Push to Start" systems and hybrid vehicles that may not actually start until the battery voltage drops.

**Hybrid Mode 2 is also ideal for vehicles with no starter wire or "Automatic Starting". This is when the vehicle's starter motor will continue to crank and start the vehicle even if the key is only turned to the start position momentarily.

LOW IDLE LEARNING

Hold the brake then start the vehicle with the key. Place the transmission into reverse to lower the RPM. Press and release the button on the antenna twice. The system will chirp the Horn and flash the park lights two times to confirm Tach Mode or chirp 4 times/ 4 flashes to indicate Tachless Mode re-learn.

WIRE DESCRIPTION

6-PIN CONNECTOR

PIN 1	PURPLE	STARTER OUTPUT	This wire will test 0V with the key off, in the Accessory position and when the Ignition is in the on. This wire is 12volts in the start/ crank position only.
PIN 2	ORANGE	HEATER OUTPUT	This wire will test 0V when key is off, 12volts in the ACC and IGN positions and off during the start/ crank position
PIN 3	RED	12v INPUT 30A	Connect to constant 12volts. This input supplies the 12volt power for the IGN 1, IGN 2 and Park Light output.
PIN 4	RED	12v INPUT 30A	Connect to constant 12volts. This input supplies the 12volt power for the Accessory and Starter output.
PIN 5	PINK/ WHITE	SELECTABLE OUTPUT	2nd Ignition, Accessory or Start output. Programmable. Note: This output does not switch to default when the system is reset.
PIN 6	PINK	IGNITION OUTPUT	This wire will test 0V in the off and Accessory positions then switch to12volts in the Ignition and Start and run position.

2-PIN CONNECTOR

PIN 1	BLACK	SYSTEM GROUND	Connect to chassis ground.
PIN 2	WHITE	PARK LIGHT OUTPUT *(SELECTABLE)*	Connect to the vehicles positive park light wire or change the jumper and connect to the vehicle negative park light wire. The default position of the jumper is **Positive Park Light Output.**

3 PIN DOOR LOCK CONNECTOR

PIN 1	GREEN	(-) LOCK OUTPUT	Connect to lock wire from the switch on vehicles with a negative type switch. **LOW CURRENT ONLY**
PIN 2	N / A	12V + DOOR LOCK INVERTER	This output will supply 12volts for a plug-in type door lock module. Do not use this input to power-up relays **LOW CURRENT ONLY**
PIN 3	BLUE	(-) UNLOCK OUTPUT	Connect to unlock wire from the switch on vehicles with a negative type switch. **LOW CURRENT ONLY**

3 PIN BYPASS MODULE CONNECTOR

PIN 1	ORANGE	GROUND WHEN RUNNING	This wire is used for bypass module activation or adding additional relays to be triggered only when the remote starter activates.
PIN 2	BLACK	GROUND	This wire can be used to supply ground to your bypass module.
PIN 3	N/A		

9-PIN CONNECTOR

PIN 1	**GREEN/ WHITE**	RE-ARM (-) *PROGRAMMABLE*	Supplies one .75 second pulse when locked and one .75 second pulse after remote start shutdown. Factory alarm re-arm/ RAP shutdown.
PIN 2	**GREEN/ BLACK**	DISARM (-)	Supplies one .75 second pulse when the unlock button is pressed and one .75 second pulse before remote start activation. For factory alarm disarm/ or as computer "wake up".
PIN 3	**ORANGE/ BLACK**	AUX #1 OUTPUT (-) *PROGRAMMABLE*	Default- AUX channel output when the Unlock and START buttons are held (no car finder) Programmable for a (-) Ignition or (-) Dome Light output with the Unlock and START buttons activating car finder mode.
PIN 4	**RED/ WHITE**	N/A	N/A
PIN 5	**BROWN/ WHITE**	HORN OUTPUT (-) *PROGRAMMABLE*	Connect this wire to the factory horn wire of the vehicle. This connection will provide audible confirmation when programming and when a function is performed.
PIN 6	**BROWN**	BRAKE SWITCH INPUT (+)	This wire must be connected to the wire at the brake switch that changes to 12volts when the brake is pressed.
PIN 7	**GRAY**	HOOD PIN INPUT (-)	Connect this wire to the supplied hood pin switch. If ground is detected on this input the remote starter will not activate. Programmable for N/C hood pin type (Factory hood pin)
PIN 8	**VIOLET/ WHITE**	TACH WIRE INPUT (A/C)	This wire is used to to detect when the vehicle has started. The Tach source is typically taken from a fuel injector, coil, coil pack or crank position sensor. The Tach wire is generally found as the opposite from the common wire at the coil or fuel injector.
PIN 9	**GRAY**	GLOW PLUG INPUT (+)	Default Gas Mode/ Positive Glow Plug. Programmable.

PROGRAMMING ADDITIONAL TRANSMITTERS

The system can lean up to 4 different remote's. Each remote to be used MUST be programmed together during the same sequence. For security, when a new remote is programmed all previous remote's are deleted.

ENTERING REMOTE PROGRAM MODE

**Cycle the Ignition Key - ON/OFF ON/OFF ON
(Leaving the key ON)**

**Press and HOLD the valet switch (The Park Light will turn on)
If connected the Horn will Honk once
Continue Holding until the lights turn off and the honk honks 5 times**

**1 Honk confirms program mode was entered followed by
5 Honks confirming transmitter program mode.**

**Press and release the Lock/ Unlock button on each of the
transmitter's to be programmed. The park lights will flash once for
each added transmitter code.**

The horn will also confirm each new transmitter by honking once.

**Release the valet switch once all transmitter's are entered.
*Maximum 4 remote's**

**Turn ignition key OFF to exit remote program mode when all
required remote's have been programmed.**

PROGRAMMING

ENTERING PROGRAM MODE

1 - Cycle the Ignition Key On/Off On/Off On (Leaving the key ON)
2 - Press and release the Program Switch 1 time. The park lights will turn on and the horn will honk to confirm entering program mode.
3 - Select the Program Menu by pressing...

Press Antenna	Press Unlock	Press Start	Unlock & Start
MENU 1	MENU 2	MENU 3	MENU 4

The system will confirm the program menu by flashing the park lights and with horn honks.
4 - <u>Press and Release the Program Switch</u> to advance through the settings.
(*Confirmed by Park Lights/ Horn Honks & LED flashes*)
5 - <u>Press and Hold the Program Switch</u> to change the setting.
(*Confirmed by Park Lights/ Horn Honks & LED flashes*)
6 - To exit Program Mode, turn the key off.
(Confirmed by Long Horn Honk)

Example- Programming Menu 1, Setting 3 to Double Lock Pulse.
1 - Cycle the Ignition Key On/Off On/Off On
2 - Press and release the Program Switch 1 time. (1 Honk/ Park Lights ON)
3- Press and release the Antenna button to advance in Menu 1. (1 Honk/ 1 flash)
4- Press and release the program button until the LEDs on the antenna flash 3 times.
**The park lights will flash and the Horn will Honk 3 times to confirm the current setting)
5- Press and hold the program button. The Park Light will flash once (option 1), pause then flash twice to confirm option 2 has been selected. The Horn will also Honk 1 time (option 1) then 2 times to confirm the option 2.
6- Release the program switch and turn off key to exit.

SYSTEM RESET

1 - Cycle the Ignition Key On/Off On/Off On (**Leaving the key ON**)
2 - Press and **RELEASE** the Program Switch 1 time and the park light will turn on.
(Horn will honk to confirm program mode has been entered)
3 - Press and **HOLD** the Program Switch for 5 seconds or until the Park Lights flash 3 times.
(*Confirmed by 3 Park Lights flashes/ Horn Honks)*
4 - Turn the ignition key **OFF** to exit.

PROGRAM MENU 1 & 2

Press and release the Valet Button to advance through Menu 1 settings.

PROGRAM MODE 1

SETTING # LED FLASHES	SETTING DESCRIPTION	OPTION 1 1 CHIRP	OPTION 2 2 CHIRPS	OPTION 3 3 CHIRPS
1	IGNITION AUTO-LOCK	IGNITION AUTO-LOCK / UNLOCK	IGNITION AUTO-LOCK ONLY	IGNITION AUTO-LOCKS DISABLED
2	HORN SETTINGS	HORN CHIRPS DISABLED	HORN CHIRPS ENABLED	
3	DOOR LOCK PULSE OPTIONS	DOUBLE UNLOCK & SINGLE LOCK	DOUBLE LOCK & SINGLE UNLOCK	SINGLE LOCK & SINGLE UNLOCK
4	DOOR LOCK / UNLOCK PULSES	0.25 SEC PULSES	3 SEC PULSES	0.75 SEC PULSES
5	AUX OUTPUT 1	(-) IGNITION OUTPUT UNLOCK & TRUNK ACTIVATES CAR FINDER	(-) DOME LIGHT OUTPUT UNLOCK & TRUNK ACTIVATES CAR FINDER	AUX CHANNEL HOLD UNLOCK & TRUNK
6-9 NA	N/A	N/A	N/A	N/A

PROGRAM MODE 2

SETTING # LED FLASHES	SETTING DESCRIPTION	OPTION 1 1 CHIRP	OPTION 2 2 CHIRPS	OPTION 3 3 CHIRPS
1	VALET SETTINGS	SECURE VALET 15 SECONDS	STANDARD VALET 5 SECONDS	
2	PARK LIGHT OUTPUT	30 SECONDS ON DISARM	NORMAL OPERATION	
3	HORN TIMING	5MS PULSED OUTPUT	50MS PULSED OUTPUT	10MS PULSED OUTPUT
4	N/A	N/A	N/A	N/A
5	HOOD PIN TYPE	N/C FACTORY TYPE	AFTER MARKET TYPE	
6	N/A	N/A	N/A	N/A

PROGRAM MODE 3

SETTING # LED FLASHES	SETTING DESCRIPTION	OPTION 1 1 CHIRP	OPTION 2 2 CHIRPS	OPTION 3 3 CHIRPS
1	SELECTABLE RELAY	2ND STARTER	2ND ACCESSORY	2ND IGNITION
2	SPECIAL DOOR LOCK OPTIONS	UNLOCK BEFORE / LOCK AFTER START	LOCK AFTER STARTER SHUT OFF	NO ADDITIONAL PULSES
3	GLOW PLUG/ START TRIGGER	(-) GLOW PLUG OR 20 SECONDS DELAY	(+) START TRIGGER (2 PULSES)10 SECOND DELAY TO START	GAS/ POSITIVE GLOW PLUG
4	RE-ARM OPTIONS	PULSE WITH LOCK	PULSE AFTER START (DEFROST / SEAT)	PULSE WITH LOCK & AFTER SHUTDOWN
5	RUNTIME	4 MINUTE RUNTIME	45 MINUTE RUNTIME	15 MINUTE RUNTIME
6	REMOTE START ACTIVATION	PRESS BUTTON TWICE TO START	PRESS BUTTON ONCE TO START	
7	LED FLASHES	LEDS DO NOT FLASH WHEN LOCKED/ ARMED	LEDS FLASH WHEN LOCKED/ ARMED	
8	SPECIAL DISARM	PULSES ACC & GWR WHEN UNLOCKED	NORMAL DISARM	
9	UNLOCK BUTTON 1 / 2 BUTTON REMOTE ONLY	UNLOCK AND START FOR TIMER MODE & MENU 4	UNLOCK / LOCK TOGGLE UNLOCK AND START FOR TIMER MODE & MENU 4	UNLOCK OUTPUT

+ PROGRAM MODE 4

SETTING # LED FLASHES	SETTING DESCRIPTION	OPTION 1 1 CHIRP	OPTION 2 2 CHIRPS	OPTION 3 3 CHIRPS
1	TACH OPTIONS	HYBRID MODE 1	HYBRID MODE TWO	AUTO TACH / TACHLESS
2	ADJUST FOR OVER-CRANK	INCREASES TACH SETTING BY 10%		
3	ADJUST FOR UNDER-CRANK	DECREASE TACH SETTING BY 10%		
4	TACH WAIT SETTINGS	300ms TACH CHECK DELAY	750ms TACH CHECK DELAY	NO TACH CHECK DELAY
5	BYPASS MODULE	IDATA™ LINK BYPASS	FORTIN™ BYPASS	

DIAGNOSTICS CHART

If the remote starter does not activate when the start button is pressed the park lights will flash a diagnostic to indicate what shutdown input has been triggered. For example: *If the start button is pressed the park lights flash 3 times slowly.* Looking at the chart below this would indicate that the system is in Service Mode, simply follow the instructions listed in the owners manual on exiting Service Mode and the remote starter will begin to function as normal.

PARK LIGHTS	STATUS LED	DIAGNOSTIC CODE
3 Slow Flashes	LEDs "ON" Solid	System Is In Service Mode
4 Slow Flashes	Series of 4 Flashes	Not in Reservation Mode
5 Flashes	Series of 5 Flashes	Hood Open
5 Slow Flashes	Series of 5 Flashes	Ignition On During Start Attempt
6 Flashes	Series of 6 Flashes	Brake Pedal Shutdown
7 Flashes	Series of 7 Flashes	Tach Lock-Out
8 Flashes	Series of 8 Flashes	3 Start Attempts Without Starting

TO ENTER DIAGNOSTIC MEMORY

Step 1- Turn the ignition ON then OFF. Press and release the Program Button.
Step 2- The system will respond with three park light flashes and the HORN (optional) will honk the same number of times as the events in memory.
****Maximum four events, four honks****
NOTE: If the HORN does not honk, there are no events in memory.
Step 3- Press the Program Button once to view the last shut down code. The HORN (optional)will honk once to confirm code one.
****If the HORN does not honk, there are no codes in memory.****
Step 4- The LEDs on the antenna will flash a code corresponding to a shut down trigger. Press the Program Button again for the second code.
The HORN will honk twice to confirm code two three time for code three...
Step 5- To **Clear Diagnostic Memory.** While in Diagnostic Mode press and hold the Program Button for five seconds. The park lights will flash and the HORN (optional) will honk once.

****Once diagnostic memory has 4 shutdown events in memory, the system will not record any further shutdown events until the system memory has been cleared.****

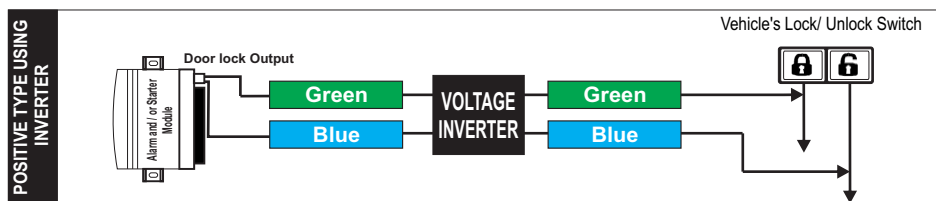| LED Flashes	Diagnostic
5 Flashes	The system was shutdown by the brake switch input
6 Flashes	The system was shutdown by the hood pin input
7 Flashes	The system did not detect the Tach signal.
8 Flashes	The system made 3 start attempts without starting

2 BUTTON REMOTE

WHEN PROGRAMMED FOR 2 BUTTON OR LOCK/UNLOCK TOGGLE PRESSING UNLOCK AND START AT THE SAME TIME WILL SELECT MENU 4 WHILE IN PROGRAM MODE.

THE SYSTEM MUST BE PROGRAMMED FOR 2 BUTTON REMOTE LOCK/UNLOCK TOGGLE TO OPERATE THE LOCK FEATURE ON THE VEHICLE. PRESSING THE UNLOCK BUTTON WILL UNLOCK THE DOORS THEN THE NEXT TIME YOU PRESS THE BUTTON THE DOORS WILL LOCK.
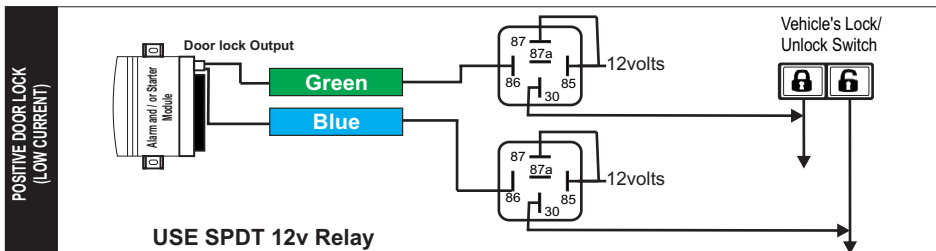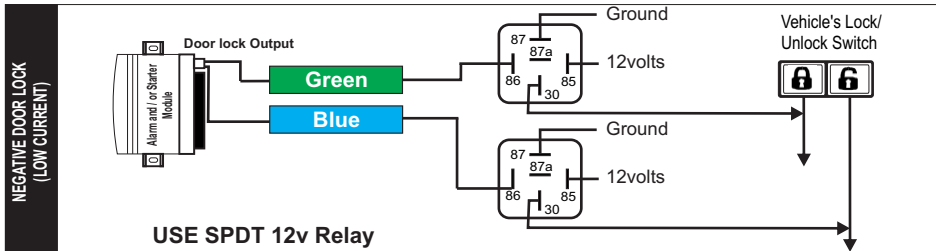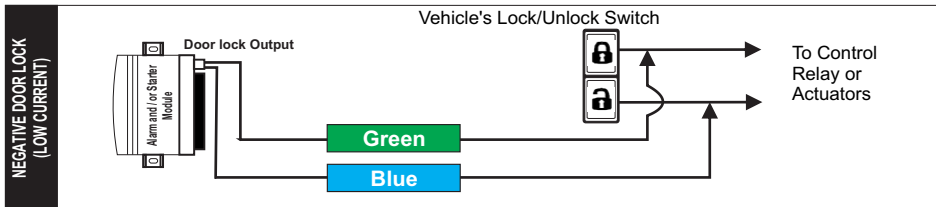
WHEN PROGRAMMED FOR 2 BUTTON OR LOCK/UNLOCK TOGGLE PRESSING UNLOCK AND START AT THE SAME TIME WILL SELECT 4 HOUR TIMER IN COLD START MODE*.

TO ACCESS TIMER MODE AND FOUR HOUR TIMER. HOLD THE UNLOCK AND START BUTTONS TO ENTER COLD START MODE. PRESS UNLOCK TO SET 2 HOUR, START WILL SET THREE HOUR AND UNLOCK AND START TOGETHER WILL SET THE FOUR TIMER. PRESS AND RELEASE UNLOCK AND START TO CANCEL TIMER MODE ONCE SET.
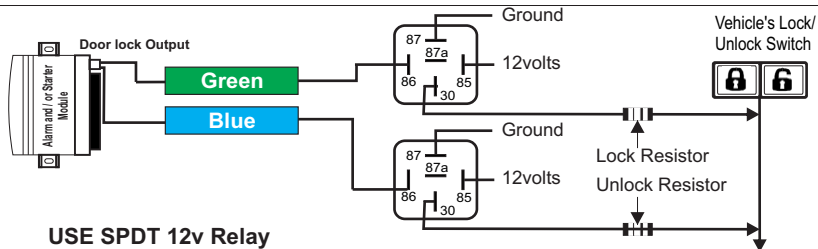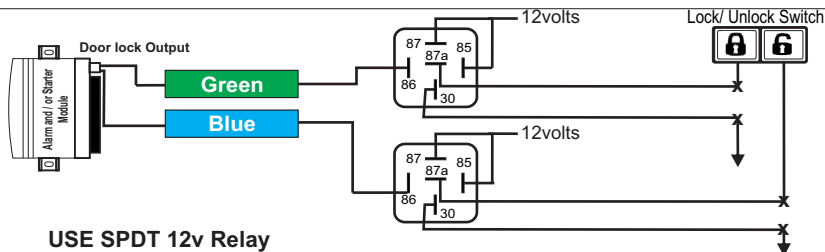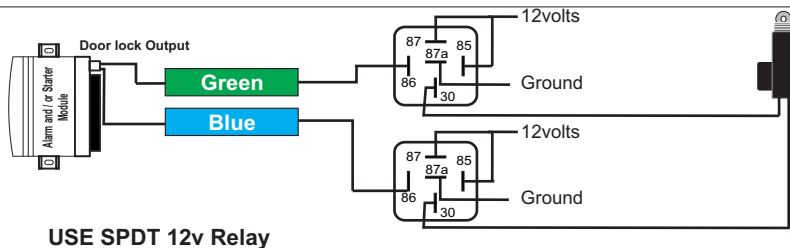
*ONE HOUR TIMER MODE IS NOT AVAILABLE WITH 2 BUTTON REMOTE'S.

INSTALLER NOTES

DOOR LOCK DIAGRAMS

DOOR LOCK DIAGRAMS

NEGATIVE ONE WIRE DOOR LOCKS

Door lock Output
Alarm and / or Starter Module
Green
Blue
87 87a
86 85 30
Ground
12volts
Vehicle's Lock/ Unlock Switch
87 87a
86 85 30
Ground
12volts
Lock Resistor
Unlock Resistor
USE SPDT 12v Relay

REVERSE POLARITY DOOR LOCK SYSTEM

Door lock Output
Alarm and / or Starter Module
Green
Blue
87 87a
86 85 30
12volts
Lock/ Unlock Switch
87 87a
86 85 30
12volts
USE SPDT 12v Relay

AFTER-MARKET DOOR LOCK ACTUATORS

Door lock Output
Alarm and / or Starter Module
Green
Blue
87 87a
86 85 30
12volts
Ground
87 87a
86 85 30
12volts
Ground
USE SPDT 12v Relay

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by **SO**UND STREAM

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