

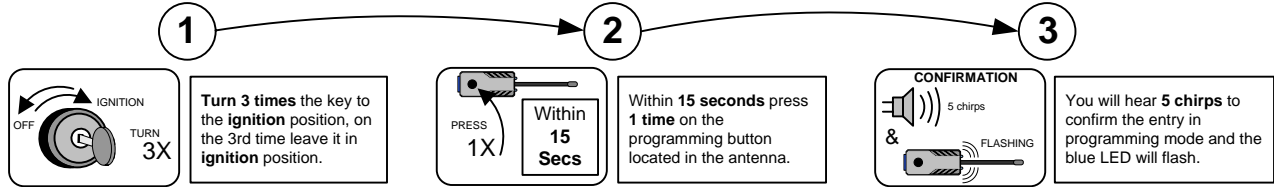
POWERstart

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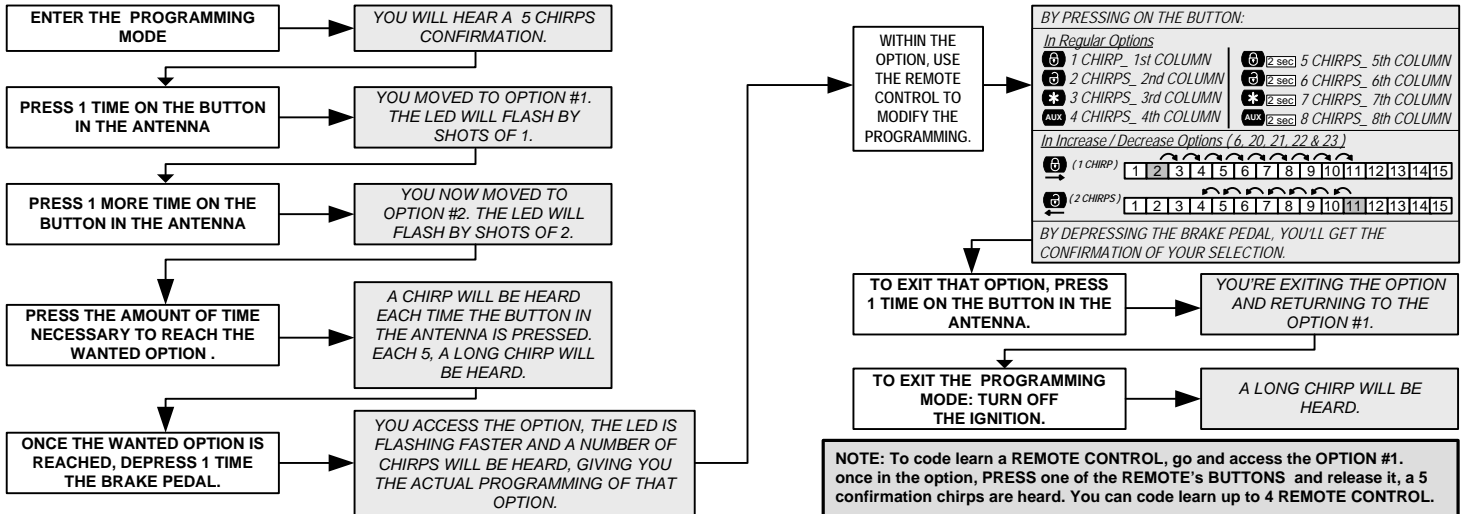
PS-2011 / 2015 1w or 2w Platform QUICK INSTALLATION MANUAL

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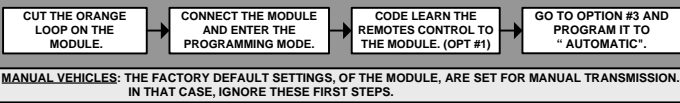
TO ENTER THE PROGRAMMING MODE



TO MODIFY AN OPTION



FIRST STEPS for AUTOMATIC VEHICLES



MANUAL VEHICLES restrictions

THE TYPE SELECTION IN OPTION #2 WILL ALLOW MANUAL TRANSMISSION TO WORK WITH TYPES THAT ARE USING NORMAL TACH, TACH DC or TACH FROM DATALINK.

DATALINK priorities

ON THE DATALINK THE TACH (DATA) AS PRIORITY OVER THE WIRED TACH. TO USE THE WIRED TACH, YOU HAVE TO DISABLE THE TACH (DATA) IN OPTION #5.

ALL OTHER AVAILABLE SIGNALS ON THE DATALINK, WORK IN PARALLEL WITH THE HARD WIRE SIGNALS. YOU CAN ALSO DISABLE ONE OR MORE IN OPTIONS #4, #5 AND #24

REMOTE ENGINE STARTER & ALARM DIAGNOSTIC

DIAGNOSTIC FOR REMOTE STARTER:

Each time you try to remote start and the vehicle doesn't start, the parking lights will flash to indicate the diagnostic of the system. Please refer to this chart and locate the issues. You can also get the diagnostic code by pressing once on the antenna's button, with the system disarmed.

DIAGNOSTIC FOR ALARM:

When the alarm is triggered, the system will keep in memory the last event. This chart will help you find out which defective zone has triggered the system. First, the system must be disarmed by pressing the unlock button. Leave the hood open then press once on the antenna's button pedal, count the number of flashes from the parking lights to locate the issue. To repeat the flashes, depress the brake pedal again.

1 Flash	Brake pedal is depressed
2 Flashes	Valet mode is ON
3 Flashes	Hood is opened
4 Flashes	System shut down via transmitter
5 Flashes	Reserved
6 Flashes	Running time expired
7 Flashes	Starting time expired, but engine not running
8 Flashes	Reserved
9 Flashes	TACH cancelled the sequence (manual transmission only)
10 Flashes	H-Brake not pulled or cancelled Seq. (manual transmission only)
11 Flashes	Door is opened or cancelled Seq. (manual transmission only)
12 Flashes	Ignition is ON when remote start
0 Flash	No false alarm
1 Flash	Door has been opened
2 Flashes	Shock sensor has been triggered
3 Flashes	Hood has been opened
4 Flashes	Panic mode has been triggered via transmitter
5 Flashes	Trunk input has been triggered

WARRANTY

The manufacturer guarantees to the purchaser of origin the remote starter and alarm to be free of defect material and labor. However, if it is proven that the product is defective, inside the two year period as from the original date of purchase, the manufacturer will repair or replace, without expenses towards the purchaser, any part (excluding any expenses incurred to deliver the product to the manufacturer) remote starter or alarm which the manufacturer considers defective. After the initial warranty period of 2 years, the manufacturer must repair or replace the defective products with a forwarding costs of 30.00€/US\$. All the guarantees apply to the original purchaser and ONLY to the vehicle in which it is initially installed. The manufacturer does not guarantee that the product is proof against loss and vandalism and the human error or an inadequate use. The manufacturer does not accept any responsibility for any damage occurring any kind that it is caused by a vehicle in which the product is installed or resulting from damage from its use. The manufacturer does not accept any responsibility for any damage resulting from the loss of the vehicle or its contents, caused or claimed caused, directly or indirectly, by a failure of the product.

This guarantee does not cover the following elements: expenses for labor of removal or reinstallation, transport charges, abuse, misuse or accidental damage of the remote starter and the alarm or parts of the latter. This guarantee is cancelled in the event of amendments, repairs or deteriorations of a part of the product. The manufacturer does not guarantee or does not insure against the loss of the vehicle or its contents. The models of alarm are used only as discussion against any possible loss. This alarm can be considered for a reduction of the insurances; premiums please contact your insurance agent for more details. The manufacturer should not be held responsible for any consequent damage connected to a violation of this or any other guarantee express or implicit. This guarantee gives you specific statutory duties. These rights vary according to the area in which you reside.

CERTAIN DAMAGE IS EXCLUDED. The manufacturer declines any responsibility for additional damage caused by the product, including a financial loss, loss of use of the product, hiring of vehicle or all other expenses connected to the maintenance and the guard of the product. The manufacturer declines any responsibility for any additional damage caused by the product or resulting from his use, including the expenses of repair or replacement of other goods damaged or caused by his use, even if the product functions correctly. This product is designed to disuade from an unauthorized use of the vehicles in which it is installed. The manufacturer does not guarantee that the product is proof against loss and vandalism and the human error or an inadequate use. The manufacturer does not accept any responsibility for any damage occurring any kind that it is caused by a vehicle in which the product is installed or resulting from damage from its use. The manufacturer does not accept any responsibility for any damage resulting from the loss of the vehicle or its contents, caused or claimed caused, directly or indirectly, by a failure of the product.

STARTER WITH MANUAL SHEET - the installation of a remote starter MUST be carried out with an indicated manual transmission remote starter. It is the sole responsibility of the operator of the vehicle to make sure that the vehicle is left with the transmission in neutral when the remote starter is used. The manual transmission remote starter is designed as supplementary measure of safety ONLY! The manufacturer does not guarantee or does not insure against any damage or loss of life, which can result from remote starting the remote starter when the vehicle is in gear. The models for manual transmission are only designed to act as a preventive measure against starting in gear; it remains the sole responsibility of the operator or the owner of the vehicle to make sure the transmission is in neutral.

When the module is in PUSH START mode

CONTINUES MODE NOT AVAILABLE

START by REMOTE

This wire is use to activate the brake. 1 second after GWR is ON, this wire turns ON until a tach is detected, then turns OFF.

This wire is in READ ONLY state to monitor car's ignition.

This wire monitor car's brake pedal and is momentarily bypassed while J4_YELLOW is ON.

This wire turns ON 1 second after J4_YELLOW was turned ON. It will turn OFF when a tach is detected.

STOP the REMOTE STARTER

This wire will pulse 500 ms before Shut Down by Remote or by pressing the brake (with system armed) or when Running Time is completed.

TAKE OVER CONDITIONS

In all condition, if the system is ARMED pressing the brake will make the Push Start to be trigged to stop the engine.

With DOORS not connected	With DOORS connected
If the system is DISARMED, pressing the brake will not cause the Push Start to be trigged and will not stop the engine, unless the SK mode is enabled.	If the system is ARMED, Opening the DOOR will cause the Push Start to be trigged and to stop the engine.
	If the system is DISARMED, when the DOOR is detected a 60 seconds countdown is initiate. the brake needs to be press within that delay to avoid the Push Start to be trigged and to stop the engine, unless the SK mode is enabled. .

When the module is in NORMAL or DC TACH mode

START by REMOTE

Will initiate a standard remote start.

CONTINUES MODE / STOP the REMOTE STARTER

	STATE	Engine is running by key	Engine is running by Remote
AUTOMATIC	ACTION	Access Continues Mode	Shut Down the Engine
		Press once	
MANUAL	Hand-Brake ON in sequence and door open	Put system In sequence	Shut Down the Engine
		Press once	
		Press once	
		Access Continues Mode	Shut Down the Engine
		Press once	

ENGINE SHUT DOWN / SK mode

SK mode OFF and OPT. #27 at 1	SK mode ON and OPT. #27 at 1
Push Start is pulsed 500 ms before Shut Down by Remote	Push Start is pulsed 500 ms before Shut Down by Remote or by pressing the brake
Continues Mode is Possible.	Continues Mode is Disabled.

When the module is in TIMED CRANK TACH mode

THIS MODE WORKS ONLY WITH AUTOMATIC TRANSMISSION SETTED, CONTINUES MODE NOT AVAILABLE

START by REMOTE

Will initiate a remote start, as a Normal or a Push Start sequence.

TACH DETECTION

This wire has to be connected to the vehicle's ignition. The module, after the timed crank is ended, will consider the tach ON when it sees the Ignition ON.

Normal TACH and TACHLESS AUTO LEARNING

ENTER THE PROGRAMMING MODE → Go and access the **OPTION #2** to select the type of tach to be used. → Then access the **OPTION #6** → You will hear the value at which is setted the actual tuning.

IMPORTANT

In **TACHLESS** mode, it is necessary to do an **Auto Learn** prior to a manual tuning. In the **NORMAL TACH** and **TACH UART** mode a manual tuning can be made without a previously done Auto Learn.

NORMAL TACH → PRESS ON * 2 sec → You will hear 3 chirps. → Turn OFF the ignition to exit the programming mode. → Wait for the LED in the antenna to flash slowly. → Disarm the system with the remote button.

START the engine with the key. → LED in the antenna will flash rapidly for 30 seconds → After 30 seconds, the LED will stop flashing and a long chirp will be heard confirming the end of the tach learning.

TACHLESS → PRESS ON * 2 sec → You will hear 5 chirps. → Turn OFF the ignition to exit the programming mode. → Wait for the TACH LED on the module to turn ON. → Turn ON the ignition (Do not start the engine yet).

the TACH LED on the module turns OFF. → Wait for the TACH LED to start Flashing Fast. (Do not start the engine before). → When the LED is flashing, START the engine with the key. → The TACH LED will turn OFF during the crank. → After the crank is released and the engine is running The TACH LED will Flash slowly for 10 seconds.

After 10 seconds the TACH LED will turn ON steady, you can now turn OFF the engine. → The TACH LED will remain ON steady for 10 seconds and then turn OFF while a long chirp is heard, confirming the end of the tachless learning.

IMPORTANT

In **TACHLESS** mode, the YELLOW wire in J1 (STARTER) needs to be CONNECTED in the car in order to do the Auto Learn.

Normal TACH, TACHLESS, TIMED CRANK and TACH UART manual tuning

ENTER THE PROGRAMMING MODE → Go and access the **OPTION #6** → You will hear the value at which is setted the actual tuning.

IMPORTANT

In **TACHLESS** mode, it is necessary to do an **Auto Learn** prior to a manual tuning. In the **NORMAL TACH** mode and **TACH UART** a manual tuning can be made without a previously done Auto Learn. In **TIMED CRANK** mode there is **NO** Auto Learning, only the manual tuning.

Depending of the type of TACH detection you selected, the **(B)** and **(C)** buttons will allow you to tune each type with different effects (as described in the chart beside).

- In **Normal TACH** detection, you can fine tune the amount of pulses by reading windows.
- In **TACHLESS** detection, you can fine tune the level at which the voltage should be before releasing the starter from cranking.
- In **TIMED CRANK** detection, you can fine tune the time delay for holding the starter to crank.
- In **TACH UART** detection, you can fine tune the RPM level at which the starter should stop to crank.

Tach Tuning	1	2	3	4	5	6	7	8	9
Tachless Tuning	-240 mV	-180 mV	-120 mV	-60 mV	Normal	+60 mV	+120 mV	+180 mV	+240 mV
Timed Crank Tuning	200 mS	400 mS	600 mS	800 mS	1.0 Sec	1.5 Sec	2.0 Sec	2.5 Sec	3.0 Sec
Tach UART (DataLink)	700 RPM	750 RPM	800 RPM	850 RPM	900 RPM	950 RPM	1000 RPM	1050 RPM	1100 RPM

RECOMMENDATIONS for TACHLESS

TEST to see if TACHLESS applies to the Vehicle

The TACHLESS feature refers to the reading of the voltage generated by the alternator. Therefore the alternator must be in good working condition as well as the battery. It is suitable that you run a couple of test on the vehicle before using the TACHLESS feature:

- 1_ Connect a Voltmeter Directly Across the battery Terminals.
- 2_ Start the Car and run at a normal idle. Within 20 seconds after starting the Car, the Voltage should raise over 13.4 Volts.
- 3_ Turn on Headlights to High Beam.
- 4_ check the battery Voltage.
 - _ The Battery voltage Should read between about 13.8 to 14.2 Volts. (Possibly up to 14.5 Volts.)
- 5_ Increase motor speed to about 1500 RPM. The Alternator should now produce a battery voltage between 14.2 and 14.6 Volts.
 - _ If it is Lower than 14.2 volts, the Alternator probably has one or more Bad Diodes.
- 6_ Now, Maintain the 1500 RPM and Turn off the Headlights. Run this test for One Full Minute.
 - "The Battery Voltage should NEVER Exceed about 14.8 Volts".
 - _ If it Does, the Alternators Voltage Regulator is probably Faulty, OVER CHARGING the Battery.
- 7_ At all time, with defrost ON and fan inside at high speed, the voltage should not drop under 13.2 Volt.

TACHLESS Cranking adjustment.

The OPTION #6, manual adjustment, applies only for the cranking duration.

The TACH monitoring LED on the module, as 2 types of flashing in TACHLESS mode.

- 1_ When the starter was release without any calculated overcrank based on the learned voltage when the starter is released in the auto learning procedure. The LED will flash 50% ON / 50% OFF on the first and the second start.
- 2_ When the starter was release with calculated overcrank . The LED will flash 20% ON / 80% OFF on the first start, and 80% ON / 20% OFF. On the second start.

If by cold weather the vehicle does not start because it under cranks, try first to increase the voltage level in OPTION #6.
If this does not work, put back OPTION #6 to default value and go to OPTION #7 to force an over crank.

Note: It is important, during the learning to apply a good starter duration, because the module will learn that duration and this will be it's default crank duration.

TACHLESS detection ON / OFF

If the system, after 20 seconds stops the running engine. After it tries to do a second start and 20 seconds after shuts down the running engine again, that means that the TACHLESS detection level is to high.

The TACHLESS detection ON / OFF depends on the voltage recorded in the learning procedure during the last 10 seconds, after Ignition is OFF. If this level is to high the remote starter could shut down during the running time as if the TACH was OFF. In that case you have to return to the learning procedure and during these last 10 seconds, after Ignition is OFF, find a wait to drop the voltage (ex: turn ON High Beam) in order to get around 12.8 Volts.

These 10 seconds , after Ignition is OFF, can be cut short by pressing once the button in the antenna.




SPECIAL FEATURES

MULTIPLE SETTINGS OPTIONS.

Few OPTIONS will set 2 or 3 settings at the time. It's the case for OPTIONS #4, #5, #8, #10, #12, #18, #24.

EXAMPLE #12: This OPTION will set at the time, the LOCK when BRAKE mode ON / OFF, the ANTENNA LED ON / OFF and the SK mode ON / OFF.

Some other OPTIONS offers you different operations within the same OPTION. It's the case for OPTIONS #3, #6.

EXAMPLE #6: This OPTION will set the manual tuning when using the  and  buttons. It will also enable the AUTO LEARNING for the proper type of TACH and if available for that type, when using  button.

SK mode and Push Start output.


The SK mode feature will force a PULSE on the Push Start wire output _AUX3 and 6th RELAY (if set)_ before the system shuts down when the BRAKE is trigged. It will, as well, cancel the continues mode.


The Push Start wire output (AUX3 and 6th RELAY if set) will be PULSED, before the system shuts down, at the end the running time and when the system is stopped by the remote. This output is active in NORMAL start sequences and in Push Start sequences.


In Push Start sequences this output is used, as well, at the start up of the engine.

DOOR PRIORITY UNLOCK _ OPTION #28-8

This feature is set at OPTION #26_8. It affects 2 outputs, WHITE / GREEN and BLUE / RED wires.

When not set: The GREEN / WHITE wire follows the setting of OPTION #13 when the  button is pressed.

When set: The BLUE / RED wire gives a 400 mS pulse when the  button is pressed.

When the  button is pressed, the BLUE / RED wire gives a 400 mS pulse and at the same


time the WHITE / GREEN wire does what is settled in OPTION #13.


So if OPTION #13 is set to 400 mS with double pulse, the result would be that during the first pulse the 2 wires will be trigged and during the second pulse only the WHITE / GREEN will be trigged.

Note: This feature does not affect the sequences set in OPTION #14. The WHITE / GREEN will still work normally with all other OPTIONS.

AUDIBLE and SHOCK SENSOR ON / OFF

This 2 features are accessible by the user. Both are disable by default.

Audible ON / OFF: With ignition ON, press ONCE on the  button. This will toggle the feature ON / OFF.

Shock Sensor ON / OFF: With ignition ON, press TWICE on the  button. This will toggle the feature ON / OFF.

