

USER GUIDE AND INSTALLATION MANUAL
RS1050 - REMOTE START ADD-ON

RS1050

Engine Start + Turbo Timer Module

Owner's & Installer's Manual

SYSTEM FEATURES

- Tach or Tachless Start(Alternator)
- Smart RPM Learning Adjustor
- Optional +/- Glow Plug Input
- Turbo Timer
- Timer Start
- Programmable Engine Running Time
- Programmable Cranking Time
- Bypass Output
- Safety Wire
- Compatible with Auto or Manual Transmission
- Anti-grind

OPERATION

Starting & Stopping the Engine:

- a.** Feed Activation Input (PINK) with three negative pulses within 5 seconds to start or stop the engine running alternately.
- b.** During the turbo timer mode, feeding Activation Input (PINK) with two negative pulses will stop the turbo timer, and the timed start will not be started.
- c.** During timer start mode, feeding Activation Input (PINK) with two negative pulses will stop the timer start, and ignition engine. Timer start will be re-started until the engine shut down
- d.** During a timed start and with the engine running, feeding Activation Input (PINK) with two negative pulses will shut down engine and timer start will re-start.

With the Engine Running, (or in turbo timer mode):

- 1 Disarm the car alarm
 2. Insert the car key into the ignition then switch to On position.
 3. Step on the footbrake or pull down the handbrake, then go.
- * The engine will shut down if the footbrake is tapped or handbrake is pulled down before switching the ignition on.

ByPass Output (RED/BLACK)

This wire is designed for bypassing the external device when the engine is started by the RS1050.

- a.** Bypass Output (RED/BLACK) will send the solid negative signal during the engine start or turbo timer mode.
- b.** The solid negative signal will halt when the engine start or turbo timer mode is stopped.

Glow Plug

(wait-to-start inputs, -GREEN/WHITE or +PURPLE/WHITE)

These wires are designed for a diesel engine. Select negative or positive depending on your needs.

- a.** For the car equipped with diesel engine, this wire must be connected to the wait-to-start light in the dashboard. Connect negative (GREEN/WHITE) to the wait-to-start light if the light is negative trigger or connect +(PURPLE/WHITE) to the light if positive trigger.
- b.** For the car equipped with gasoline engine, connect one of them to the ground or +12v source.

Safety Wire-Hood Pin(BLUE)

- a.** Connect this wire to the hood pin switch. The switch must provide a ground output when switch is opened.
- b.** The engine will stop running or not be started when this wire provides a ground output.

Footbrake & Handbrake(BLACK/RED)

Connect Hand or Footbrake (BLACK/RED) to the Handbrake for the car equipped with manual transmission or to the footbrake for auto transmission vehicle. Brake must send out 12v signal. If it is a negative output, you will need to use a relay to reverse polarity.

OPTIONAL FEATURES

Number	Feature	1 Flash	2 Flashes	3 Flashes	4 Flashes
1	Engine Sense Mode	Alternator	Tachometer		
2	Cranking Time	600ms	800ms	1000ms	
3	Engine Run Time	10 min.	20 min.	30 min.	
4	Turbo Timer	Disable	2 min.	3 min.	
5	Timer Start	4 Hour	8 Hour	12 Hour	24 Hour

Program the Optional Features

Follow the steps below to program the optional features:

- a. Turn the ignition on then off with RS1050 deactivated.
 - b. Within 10 sec., press the valet switch on-off-on-off-on-off.
 - c. Then, parking lights will be on for 1 sec. to confirm the module has been in programming mode.
 - d. Within 10 sec., press the valet switch #1 ~ #5 times to select the items.
 - e. The parking lights will flash the same number of times as the item being selected to confirm the selection.
 - g. Then, press and hold the valet switch and the parking lights will flash 1 ~ 4 times as per the optional features.
 - h. Release the valet switch when the parking lights flashed the times as the desired feature.
 - i. Press the valet switch to select #1 ~ #5 times to select the next items for programming.
- *During the programming mode, if the valet is not pressed within 10 sec. or turn the ignition on then the system will leave the programming mode and the parking lights flash once to confirm.

EXPLANATION OF OPTIONAL FEATURES

#1 Engine Sense Mode.

Default: Alternator(auto-detection and no need to wire Tach(GREEN)).

When: Tach

Connect W2-6 to the ignition coil(-) and the RPM learning has to be done as follows before initial operation:

- a. Turn off all the devices such as Stereo, Radio, and air condition...etc.
 - b. Shift the gear to neutral or parking position (and pull up the handbrake if connected).
 - c. Switch the ignition on, start the engine and release the footbrake until idling.
 - d. Press and hold the valet switch for 2 sec. when the tachometer is about 800rpm and the LED is on.
 - e. Release the valet switch when the parking lights turn on to confirm the RPM learning is completed.
- *if the LED is still off when the tachometer is about 800rpm then turn the RPM adjust knob until the LED is just on.

#2 Cranking Time

Default: 600ms

If the engine doesn't start smoothly, then set the crank time longer.

#3 Engine Running Time

Default: 10 minutes

The engine will run for 10, 20 or 30 minutes as programmed and then shut down automatically

#4 Turbo Timer

Default: Disable

The turbo timer will not be activated.

When: 2 or 3 minutes

a. The engine will be delayed 2 or 3 minutes to shut down as programmed.

b. The operation is as follows:

- Keep the engine running
 - Pull up the handbrake(or release the footbrake)
 - Switch the ignition off, the ACC. and ignition will keep on running for 2 or 3 minutes as programmed, then shut down automatically
- *The turbo timer would be functional only when the engine has been running for at least 10 sec.

c. The turbo timer mode will be interrupted

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- when any one of the following have happened:
- The wire HoodPin (BLUE) shows a negative input.
 - The wire Hand or Foot Brake (BLCK/RED) shows +12V.
 - The wire Activation Input (PINK) shows a negative pulse.

#5 Timer Start

Default: 4 hour

The engine will start automatically per 4 hour

When: 12 or 24 hour

The engine will start automatically per 12 or 24 hour as programmed.

The clocking(4, 12 or 24 hours) of timer start has to be turned on as follows before initial operation

-Switch the ignition on then off.

-Press and hold the valet switch and release after the parking lights flash twice to confirm the timer start feature is turned on and the system starts to count time(4, 12 or 24 as programmed).

*Repeat above steps to turn on the timer start feature if the footbrake has been tapped or handbrake has been pull down with the engine running.

WIRING DIAGRAM

