USER GUIDE AND INSTALLATION MANUAL

RFI TAG PASSIVE KEYLESS ENGINE START BUTTON SYSTEM

Part No: BWALC-020PKS

Our RFI Engine Start system adds the luxury of a keyless Remote and push button start system to your Street Car or custom Hot Rod.

IMPORTANT INFORMATION!

Disconnect the battery before fitting.

Always best fitted by a professional auto electrician.

Unit Installation

Engine Start

When the module unit receive signal from the transmitter, pull the hand brake, step on the footbrake, then start the engine, the icon "ENGINE START/STOP" and LED indicator gleam blue, ACC ON output at the same time, after 2.5 seconds the engine start. When start successfully, the LED indicator in "ENGINE START/STOP" button turn from red to pink, it will cut-off if the start unsuccessfully.

Engine Stop

When the engine in working status, pull the handbrake and step on the footbrake, press the button "ENGINE START/STOP" to turn the engine, all indicator in ENGINE START/STOP" button will cut off.

Open Radio Power Output

When the module receives the signal from the transmitter, press the button "ENGINE START/STOP", icon of ENGINE START/STOP indicator will light up and LED indicator in red. This time you can open radio without key.

There is one hour for Radio Power output, after 1 hour it will close automatically. If have not reached 1 hour, brain unit cannot receive signal from the transmitter, buzzer chirp "Beep Beep Beep Beep" for 4 times to remind you that didn't receive signal. After 15 minutes, radio closed automatically, ENGINE START/STOP indicator cut-off at the same time.

Keep on press the button ENIGNE START/STOP twice in one hour to close radio output, then all the indicators will cut-off. ENGINE START/STOP indicator cut-off at the same time.

During listening to the radio, when got signal from the transmitter, step on the footbrake, pull up the handbrake, then press button "ENGINE START/STOP" to start the engine, when engine start successfully LED indicator turn from red to pink.

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PASSIVE KEYLESS ENGINE START BUTTON SYSTEM

Open Inside power of car

When module unit received signal from the transmitter, press the button "ENGINE START/STOP" to open radio power; then press button "ENGINE START/STOP" again, ACC ON output 10 minutes, that will convenient to operate other functions before driving, LED indicator turn from red to blue at the same time.

If module unit have not receive signal on the transmitter within 10 minutes, buzzer will keep chirping for 4 seconds to remind receiving signal have been failed. After 3 minutes it will closed all functions output. The entire indicator cut off at the same time.

Start Mode Conversion Function

When engine started by original car alarm or key, "ENGINE START/STOP" indicator gleam red, the time "when receive signal from the transmitter" press button "ENGINE START/STOP", start mode converted into passive keyless entry control mode. "ENGINE START/STOP" indicator gleaming and LED indicator gleam pink at the same time.

Night Indicator Function

In case of the car does not start, open the door then close, press the button "ENGINE START/STOP" will keep gleaming for 6 minutes 30 seconds, make car owner convenient to see the engine start/stop button. If car door opened all the time, ENGINE START/STOP indicator will keep lighting up.

Ways for Handbrake Option using JS1 pin

JS1 pin is for handbrake option, when pull in 1 position means have handbrake, when pull in 2 position means no handbrake. (Pull down means have handbrake, pull up means no handbrake)

When select handbrake, handbrake and footbrake should be triggered together, so that engine start/stop can control the car.

When have no signal for handbrake option, only step the footbrake to sue start button to start the car.

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Remote Tag Code Learning

Press the code leaning key on brain unit, buzzer chirp for 0.8 seconds enter into coding learning status, then press the button on the transmitter within 10 minutes, if succeed, buzzer will chirp "Beep Beep Beep" for 3 times. You can learn code for 5 transmitter continuously. After entered into code learning status for 10 seconds or press the code learning key on the brain unit to exit code learning. Each time learning code successfully, brain unit would clean out the former code automatically.

Button Start up Sequence

- First Press: LED indicator lights red, character ENGINE START/STOP show with blue, audio output.

- Second Press: LED indicator gleam with blue, character ENGINE START/STOP showed with blue, AUDIO, ACC ON output.

- Third Press: **A.** LED indicator gleam with blue, the ENGINE START/STOP showed with blue: When engine started successfully, LED indicator gleam pink. (Under the situation of stepping on the foot-brake and pull the handbrake.)   **B.** If didn't step on the footbrake and pull the handbrake, it would turn to power off function (close all working status.)

Technical Data

Working Voltage: 9-15V

Working Current: < 72mA

Static Current : < 12mA

Working Temperature: -40C ~+85C

Note:

- Press button Engine start/stop for 2.5 seconds begin to ignite, ignite time is 2 seconds.

- When you have no button triggered, the module would scan shock sensor each minute.

- Do not keep the RFI remote tag with the car if not used, will flatten the RFI remote tag battery

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PASSIVE KEYLESS ENGINE START BUTTON SYSTEM

<u>Wiring Installation</u>

Brown Wire: To Start jack plug relay system (Neg out -)

Yellow/Green Wire: To Start jack plug relay system (Neg out -)

Grey Wire: To Start jack plug relay system (Neg out -)

Yellow Wire: Connect to Oil light trigger or also works if coiled around one spark plug to let the system know the car has running, if that is not an option use the (*Digital Engine Start Crank Time Speed Module - (Not Included in kit—Part No: BWAESCT)*

White/Blue Wire: Connect to the foot brake switch on the cold side, Triggered when the brake is depress 12volts to brake light (+) *(See Wire Diagram)*

Blue Wire: Connect to the handbrake switch to cold Neg— trigger when hand brake is on.

White Wire: Connect to Dome Light or Door switch Neg— trigger

Purple 01 Wire: RFI Antenna, Place somewhere near to drivers seat, Behind dash near the steering wheel.

Purple 02 Wire: RFI Antenna, Place somewhere near to drivers seat, Behind dash near the steering wheel.

Black Wire: To Neg/Chassis or Battery earth -

Red Wire: To Positive 12volts Battery +

Green Wire: Connect to pin36 on a 30/40amp relay to power up your stereo & audio *(See Wire Diagram)*

RELAY STARTER BANK

Yellow Wire: ON1: Connect to Coil/Ignition/MSD to power up the engine ready to start.
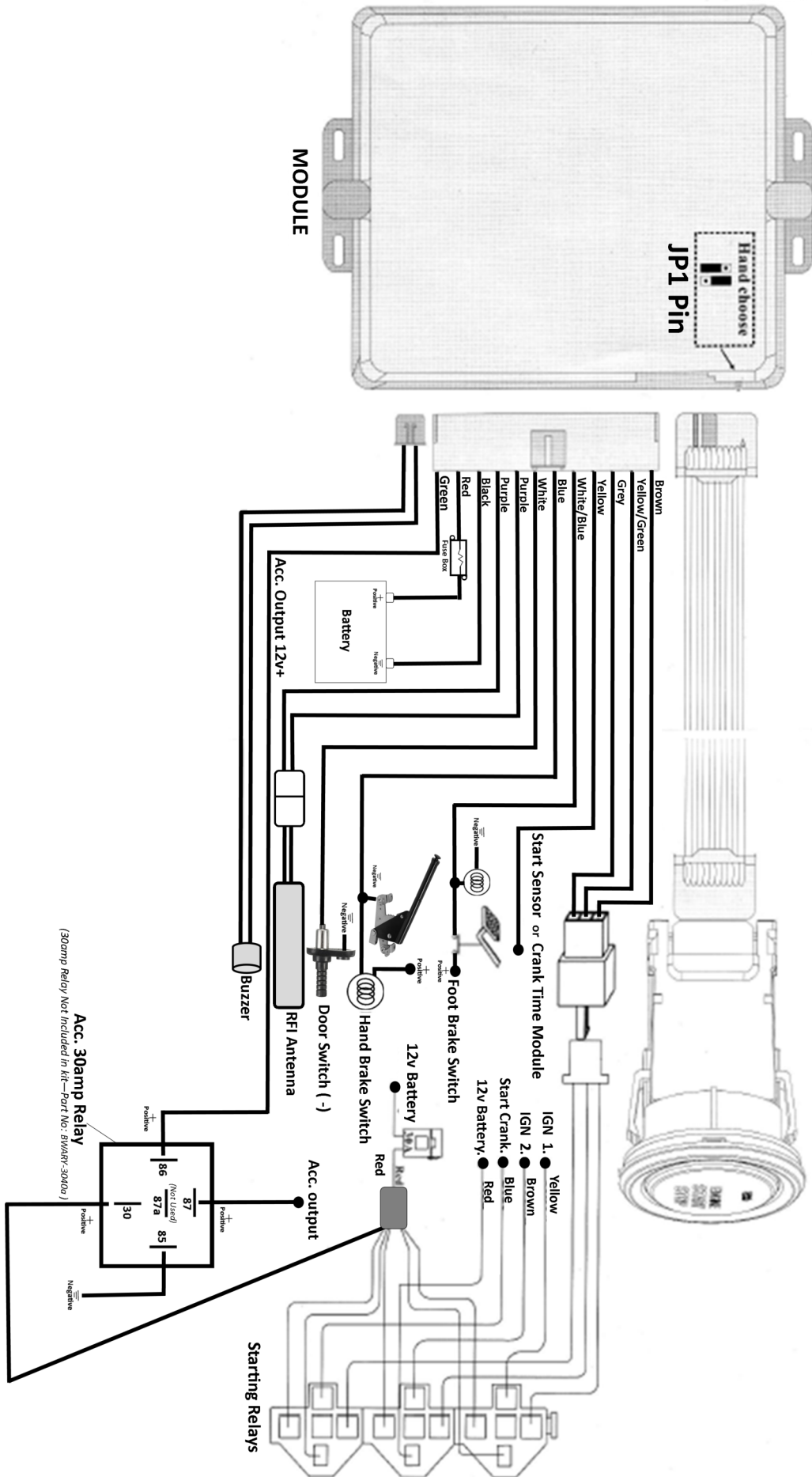
Brown Wire: ON2: Connect to ignition dash to power up Air Con, Instruments Gauges, Heater ect:
(ATT: If there is only one ignition wire in the car, connect the Yellow wire & Brown wire together)

Blue Wire: START: Connect to start trigger wire for starter motor. Must have

Red Wire: BATTERY: Connect to good 12volt supply on battery or ignition switch *(Must be constant live)*

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WIRING DIAGRAM

MODULE

JP1 Pin

Hand choose

Green
Red
Black
Purple
Purple
White
Blue
White/Blue
Yellow
Grey
Yellow/Green
Brown

Acc. Output 12v+

Fuse Box

Battery
- Positive
- Negative

Negative
Negative
Negative

Positive
Positive

Start Sensor or Crank Time Module

Buzzer

RFI Antenna

Door Switch (-)

Hand Brake Switch

Foot Brake Switch

12v Battery

Acc. 30amp Relay
(30amp Relay Not Included in kit—Part No: BWARY-3040a)

86
87
87a *(Not Used)*
30
85

Acc. output

Positive
Positive
Negative

Red
Red

Start Crank.
12v Battery
Red

IGN 1.   Yellow
IGN 2.   Brown
Blue

Starting Relays

DIGITAL ENGINE START CRANK TIME SPEED MODULE

Part No: BWAESCT   (Not Included)

This system is for cars that don't have an Alternator light or Oil Pressure light to send the signal to the Engine Start Module. The Digital Engine Start Crank Time Speed Module helps with your cranking time with Engine Start Kits to help by giving the Signal to the Engine Start Module to stop engine crank by the time you sett.
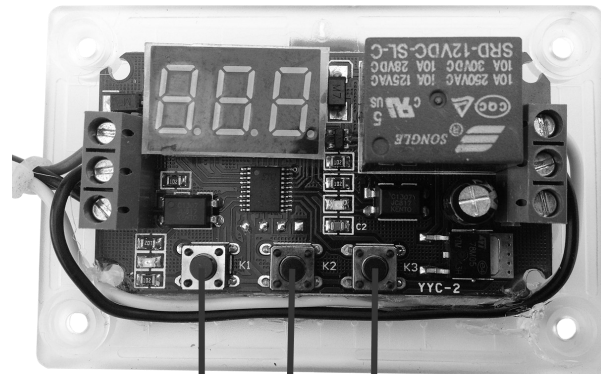
Module Wiring:

Red - 12v Ignition Wire

Black - Neg Battery

Blue - Starter Crank Wire

Yellow - Signal to Engine Start Module

K1   K2   K3

K1—Function Selection Button

K2 K3 Time Adjustment Button

After Power is on:

Press **K1** for 2 seconds to get into the select function mode, P1-1~P1- 4 for choose. P1-1 operating modes: a signal to trigger relay, time is up, the relay disconnect users, You can set relay time

Click **K2** the hundred digital tube starts flashing, then press **K3**, the hundred digital change; click **K2** ten digital tube starts flashing, then press **K3**, ten digit changes; click **K2** bit digital tube starts flashing, then press **K3**, single-digit change; then click **K2**, digital pipe does not blink, then press the **K3**, shifting the decimal point, the decimal point in a bit indicates 0 -999 minutes in ten represents 0 to 99.9 seconds without ta decimal point represents 0—999 seconds; good choice, bringing the time setting is completed.

Short press **K1**, enter function offline-tuning settings, trigger the default delay period is invalid, press **K1**, during the delay trigger active (re-timing), click on the **K1**, during the delay reset *(timer turned off, the relay reset)* press again to repeat the default settings for the first time.

P1-2 operating modes: signal trigger, digital countdown begins seconds after, there lay open Y seconds, then close.

Users can set the relay time X,Y; P1-1 different time settings similar to the blue lights that set the relay time, blue light indicates setting relay off time.

Short press **K1**, enter function offline-tuning the set, the default trigger is invalid during the delay, press **K1**, during the delay trigger active (re-timing), then click the first repeat default settings. P1-3 operating modes: Open X seconds, disconnect Seconds, infinite loop.

Users can set the relay time X,Y; time setting similar to P1-2. Short press K1,enter function offline-tuning set, The default function is: set up an electric circuit the relay first open, press the K1,there lay first close. Press again to repeat the default functionality.

P1-4 operating modes: a signal to trigger the relay open but do not start the timer, when the trigger signal disappears, digital count down begins time after, the relay close; During the delay, again to the signal, digital count down cancelled, stays energized, the signal disappears, restart count down; (equivalent to release the button to start timing, commonly used in power-off delay).