## Autostrada @-Cruise

Installation instructions for Nissan Patrol 2.8 & 3.0 Di L/H Stalk.



All wire connections must be soldered.

#### Please note the following warnings.

- 1. This product should only be installed by a suitably qualified installer.
- 2. In some installations, the drivers SRS air-bag is required to be removed.

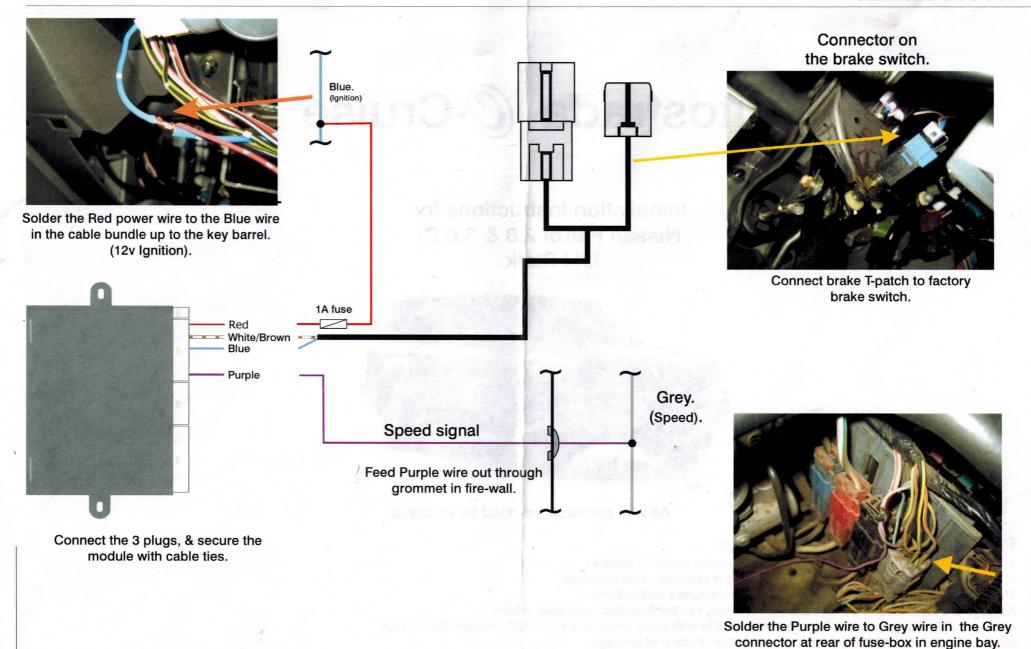
This must be done in accordance with the manufacturers instructions.

Air-bags are an explosive device, & failure to adhere to the manufacturers instructions, could result in injury or death. If you are not familiar with these instructions, DO NOT remove the air-bag. Seek a professional installer, who is trained in the removal of air-bags.

3. All connections to the vehicle must be done as per these instructions.

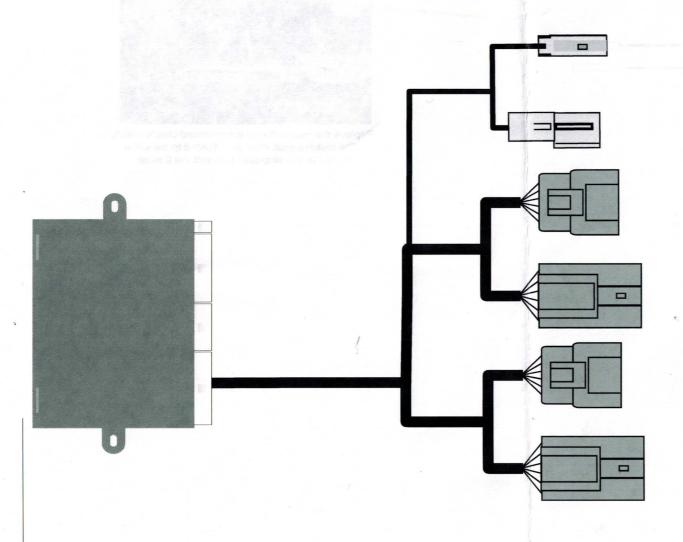
Failure to do so, could result in damage to sensitive vehicle electronics, or damage to the control module.

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(drivers side).

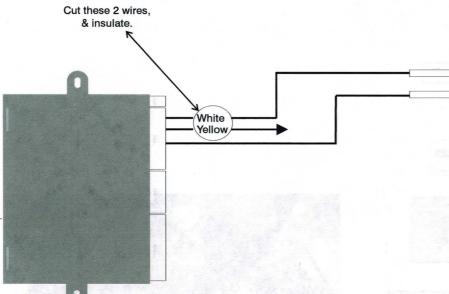
## Connect the pedal interface harness.





Connect the throttle pedal interface harness between the throttle pedal & the vehicles harness. (Connect all 3 pairs of connectors).

### For Auto.

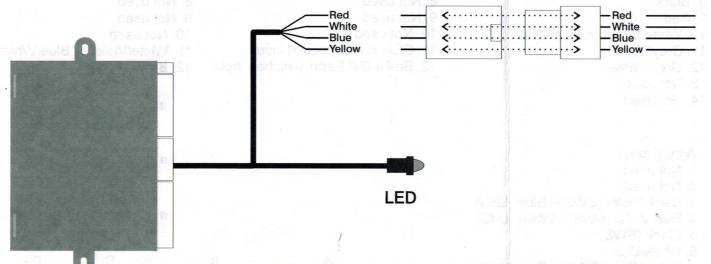


## For Manual only.



Replace the stop-bolt with the enclosed clutch switch.

The clutch switch must be adjusted to the same height as the stop-bolt. Connect the 2 wires.



RESUME A ACCEL A ON OFF Cruise

E-Cruise control switch is mounted on the left side of the steering column with the supplied hardware. Check for clearance on inside of lower steering column shroud, drill a 9mm hole in a suitable position, & mount the control switch.

Terminate the wires to match colour for colour.

Drill 8mm hole in a suitable position, (eg. switch-blank), mount the LED & bezel, & apply the cruise-control sticker. Secure all wiring with cable-ties to avoid contact with sharp or moving parts.

Road-test & check all functions.

## Autostrada E-Cruise-II wire/function description

NOTE: Only use a multi-meter for testing. Using a test-light can damage some circuits.

#### 14 Position Connector A

- 1. Output Pedal switch
- 2. Output pedal switch/PWM to accl pedal
- 3. Output pedal switch/PWM to ECU
- 4. Output circuit 2 to accl. pedal
- 5. Output circuit 2 to ECU
- 6. Output circuit 1 to accl. pedal
- 7. Output circuit1 to ECU
- 8. Ground input
- 9. Power +12v Ignition input
- 10. OEM control switch input
- 11. Output circuit 3 to accl. pedal
- 12. Output circuit 3 to ECU
- 13. Not used
- 14. Not used

#### Wire Colour

- 1. Blue/Black
- 2. Yellow/White
- 3. Yellow
- 4. Red/Black (or Red)
- 5. Yellow/Black (or Yellow)
- 6. White/Orange (or White)
- 7. Orange/Green (or Green)
- 8. Black
- 9. Red
- 10. White/Violet or Blue/White
- 11. Grey/Black
- 12. Grey/White
- 13. Not used
- 14. Not used

#### 12 Position Connector C

- 1. Clutch +12v input
- 2. Clutch 0V/Earth input
- 3. Brake +12V input
- 4. VSS input
- 5. Power +12V Ignition input
- 6. Ground Input
- 7. LED output (SET)
- 8. Not used
- 9. Not used
- Not used
- 11. OEM control switch input
- 12. Brake 0V/ Earth switched input

#### Wire Colour

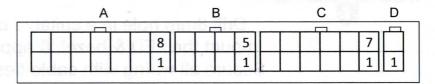
- Yellow
- 2. White
- 3. Blue
- 4. Violet
- 5. Red
- 6. Black
- 6. Black
- 7. Green
- 8. Not used
- 9. Not used
- 10. Not used
- 11. White/Violet or Blue/White
- 12. Brown/White

#### **8 Position Connector B**

- 1. Not used
- 2. Not used
- 3. On/accl/resume input function
- 4. Set/dec input function
- 5. Ground output
- 6. LED output (ON)
- 7. Power +12V output
- 8. Off input function

#### **Wire Colour**

- 1. Not used
- 2. Not used
- 3. Black/Violet (SWS) Blue (LHS)
- 4. Red/Violet (SWS) White (LHS)
- 5. Black (SWS)
- 6. White/Blue
- 7. Yellow/Blue (SWS) Red (LHS)
- 8. Violet/Green (SWS) Yellow (LHS)



<sup>\*</sup>SWS - Steering Wheel Switch

<sup>\*</sup>LHS - Lefthand Stalk

## Trouble shooting guide.

**Enable Diagnostic mode:** 

There is a 3 colour service LED surface-mounted on the circuit board next to the programming port on the back of the module. (opposite side from the connectors). To enter Diagnostic Mode, use the following instructions.



Turn on ignition.

Within 2 seconds, press and hold the ON function



Wait until test LED lights up in RED color

Release ON function



Within 2 seconds

Press and hold SET function



The test LED lights up in ORANGE color

Release SET function



Within 2 seconds

Press RES function



The test LED will flash in all 3 colours, provided that no inputs are activated. (ie; brakes, clutch).

Otherwise the test LED will light up red.

Enter test 1 - Brake function.

Activate RES briefly. Test LED will flash orange 1 time.

- 1. If both brake wires are installed correctly, the test LED will light up green.
- 2. Hot side of brake is defective = test LED lights up red.
- 3. Cold side of brake is defective = test LED lights up orange.
- 4. Both sides of brake defective = test LED flashes all 3 colors.
- 5. When brake pedal is depressed, the test LED lights up orange.

Enter test 2 - Clutch function.

Activate RES briefly. Test LED will flash orange 2 times.

- 1. If clutch wires are installed correctly, the test LED lights up green.
- 2. If clutch is defective, the test LED lights up red.
- 3. When clutch pedal is depressed, the test LED lights up red.

Enter test 3 - Accelerator pedal function (engine off).

- 1. Activate RES briefly. Test LED will flash orange 3 times.
- 2. The test LED will slowly flash red/green.
- 3. Depressing the accelerator pedal will increase the freq. of the flashing.

Enter test 4 - VSS function (the engine must be running).
Activate RES briefly. Test LED will flash orange 4 times.

1. The test LED should flash green when vehicle is moved.

# **@-Cruise**Instructions

E-Cruise will maintain the selected speed within the range of performance offered by the vehicle.

It is not recommended to use E-Cruise at speeds below 50 km/h.

#### **Operating E-Cruise:**

On/Off:

Activate ON-OFF to turn E-Cruise On and Off.

E-Cruise automatically turns off when the ignition is switched off. NOTE; There is a 3 second delay to turn the cruise  $\bf ON$ , after the

key is turned to ignition, or the cruise is turned OFF.

Set:

Drive at constant speed and briefly activate **SET**. Remove your foot from the accelerator pedal as E-Cruise takes control of the accelerator

function

Disconnection: To de-activate E-Cruise, press the brake or the clutch pedal. E-Cruise

will remember the last selected speed.

Resume: Activate RESUME and the vehicle will return to the speed last selected,

unless the ignition has been switched off, or, OFF has been activated

in the meantime.

**Decelerate:** Activate and hold **COAST** for more than one second and E-Cruise will

gradually decrease speed until COAST is released. The speed when

COAST is released will then be the new speed selected.

Accelerate: Activate and hold ACCEL for more than one second and E-Cruise will

gradually increase speed until ACCEL is released. Activate SET to

select the new speed.

A quick tap on **SET** will increase speed by approximately

3 km/h per touch.

WARNING: E-Cruise should only be used where road conditions allow, and

should not be used on winding or undulating roads, or in

adverse weather conditions.

NOTE: Set speed may vary, depending on, engine load, gear

selected, or terrain the cruise is used on.

