ACC-001 ULTRASONIC SENSOR INSTALLATION GUIDE

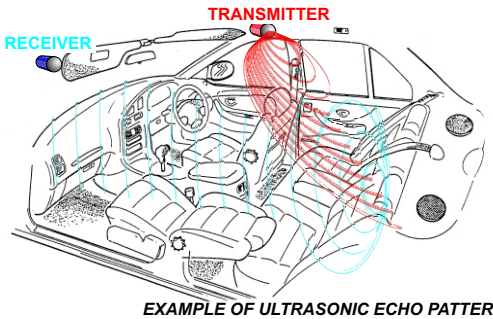
WITH BROWN TRIGGER WIRE as of 19/03/2004

INTRODUCTION

Congratulations on choosing to install the ACC-001single stage ultrasonic sensor. The sensor provides movement detection by bouncing sound waves off surfaces in the vehicle. By producing it's sound at 40KHz, the sensor is undetectable by human ears.

INSTALLATION

Mount one of each of the heads on either side of the cabin of the vehicle. The sound waves are produced by the transmit head, reflected by the car, then the echo is detected by the receive head. Any change in the shape of the reflected sound pattern will cause the sensor to trigger.



EXAMPLE OF ULTRASONIC ECHO PATTERN

PRECAUTIONS

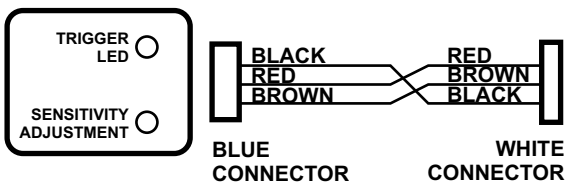
- Ultrasonic waves will not penetrate any physical obstacles. Car seats and cargo nets will reflect nearly all wave and render all areas behind them at risk.
- Open windows will allow wind to flow through the protected space. The change in air density will trigger the alarm.
- Soft-top vehicles and convertibles will not produce a stable reflection, the sensor will constantly trigger (use a microwave sensor in this situation).

CONNECTION

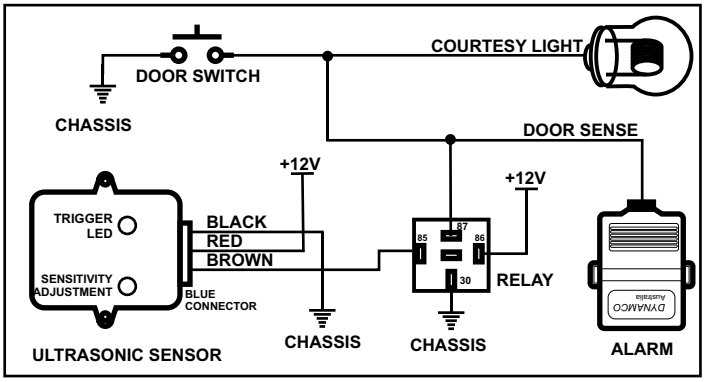
Wire colour	Purpose	Destination
Black	Ground	Chassis
Brown	Full trigger	Aux trigger
Red	Power	+12VDC

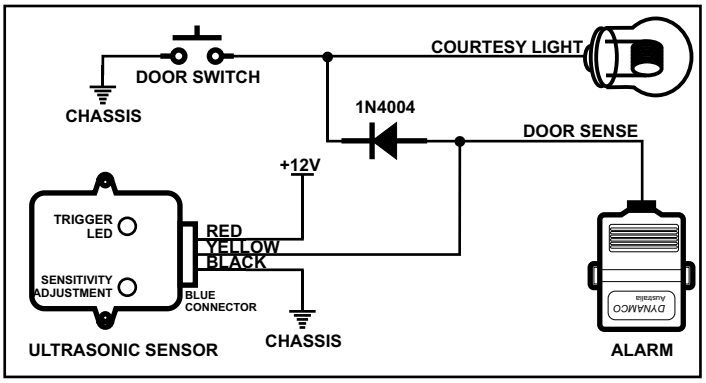
IMPORTANT: Ensure that the Blue plug on the loom is connected to the Sensor, the WHITE plug will plug into Dynamco alarm systems.

PLUG CONFIGURATION



The ACC-001 ultrasonic sensor power cable will plug directly into a 3pin socket of a Dynamco alarm. Where another manufacturer's alarm is used, installation may involve connection of the three wires to external wires. When installing onto a system that only provides a negative door trigger, ***special consideration must be made to prevent the dome light from overloading the sensor's output transistor***.

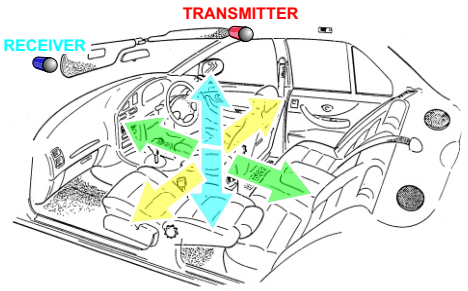




ADJUSTMENT PROCEDURE

The sensitivity adjustment potentiometer can be seen through a hole in the top of the plastic case.

- Use a small flat-blade screwdriver to adjust. Turn the adjustment clockwise for more sensitivity, anti clockwise for less.
- The red LED light will illuminate when movement is detected.
- As you check the reaction from further towards the rear of the interior of the vehicle, the sensitivity may need to be adjusted to a higher level.



Sensitivity is dependent on direction of movement.

- Forward-backward movement (green arrows) produces most intense echo change - easily picked up by sensor.
- Left-Right movement (yellow arrows) produces medium intensity echo change - not as easy to pickup - may need more sensitivity if detecting this movement is crucial.
- Up-down movement (blue arrows) - same as Left-Right.

Procedure

1. Open driver's side window 150mm, ensure all other windows are shut.
2. Allow the red status LED on the sensor to extinguish.
3. Insert arm through open window and move arm from front to back of cabin. Ensure LED lights up (sensor triggers).
4. Close the open window and repeat with each other window. Adjust sensitivity to cover all requirements.

Note: Inadequate adjustment / sensor location will cause false alarms!!

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