

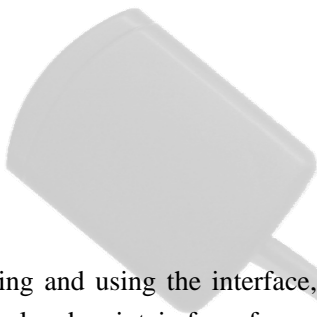
**The Third Generation of**

# **Universal Audio Interface**

Between Original Steering Wheel  
& Aftermarket Head Unit

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## **User's Manual**



Before installing and using the interface, please read this manual and maintain for reference.

Date: 05-16-2006



# **Welcome!**

Congratulations on your purchase of this Universal Audio Interface. This is the third generation product and it is available for all vehicles and works with all head units. With this universal audio interface you can connect your aftermarket head unit to your original steering wheel. You will soon enjoy the convenience of controlling your head unit from the steering wheel.

## **Notes:**

1. The installation for this interface is a professional job, so please go to nearby installation shop for help.
2. Before tearing down the steering wheel, contact the local dealer or the factory first.. For installation with 95% of vehicles, it is very simple and you just need to connect 4 wires.

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### First: Let's Learn about the Interface

1. Eight wires in the interface:

- **White** wire: Input/1, Connect this wire to steering wheel audio control system signal output wire SW1 ( For the resistance is larger than 9K, such as car from Korea and USA)
- **Green** wire: Input/2 Connect this wire to steering wheel audio control system signal output wire SW2 ( For the resistance is less than 9K, such as car from Europe and Japan)
- **Blue** wire: Input/3 Connect this wire to steering wheel audio control system signal output wire SW3 ( For the resistance is less than 9K, such as car from Europe and Japan)
- **Orange** wire: Input/4 Connect this wire to

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steering wheel audio control system signal output wire SW4 ( For +12V input cars, such as Regal. **Note: Please don't connect to the +12V ACC Wire)**

- **Violet** wire: DIN Connect this wire to steering wheel audio control system signal output wire DIN ( For +5V signal output wires, such as VW, Kreislser, and Nissan)
- **Red** wire: ACC +12V Connect this wire to the ACC wire
- **Black** (thick) wire: GND Connect this wire to the GND
- **Black** (thin) wire: GND of input, Connect this wire to steering wheel audio control system's GND-S wire.
- **Yellow/Brown** wire: IR+ \ Brown: IR-, Connect to the external wire (3M) for IR transmitter

2 . IR receive/send out window:





### **Second: Connect Interface to the steering wheel**

1. Find out the signal output wire and GND-S wire of the steering wheel audio control system
2. Use multimeter to test the change of resistance.
3. Keep the system don't connect to any other place and keep **no voltage** between the two wires. If there are any other wires connecting to any other place, please snip the wires.
4. Test the two wires, there should be no voltage between the two wires, if there are Voltage between them, please re-check if there are any other wires connecting to other place. Find it, snip the connection.
5. Connect GND and ACC

**Notes:** If the car has more than one signal output wires, check resistance between signal output wire and GND-S wire. If the biggest resistance is larger than 9K, please use the white wire SW1. If



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less than 9K, please use the blue wire SW3 or green wire SW2.

### **Third: Make the Interface Learn the IR Remote Signal**

1. After connecting the wires, press one button in the steering wheel and hold on
2. Power on the ACC. **Release the button at once**
3. LED of the Interface **flashes fast**, and comes to learn mode.

**Notes:** If in normal using mode, the LED flash very slow, it will flash at one time in 3 Second. If the LED flashes very slow in this mode, please repeat the above 2 steps, until the LED flash very fast

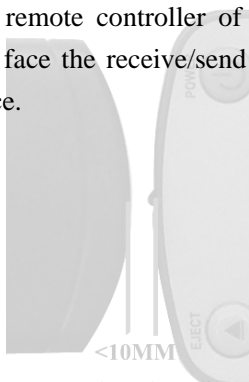
4. Press one button of steer wheel you want to

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learn at one time

5. Keep the remote controller of the learning head unit face the receive/send out window of interface.



**Notes:** please make the distance between remote and the LED of interface less than **10MM**, and make the remote **just in the front** of the LED

6. Press the corresponding function key in the remote and hold on.
7. The LED light flashes fast.
- 8. Release the function button after the LED flashed 3 seconds.**
9. The LED keeps on light, which tells the interface is storing.

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10. The LED comes back to flashing fast condition after stored the learned function.

**Notes:** If the LED turns off, it means the learning process is not complete. Please re-learn after the LED light comes to flash fast again.

11. Press the button on the steering wheel and repeat above steps until having learned all the functions.

### **Forth: Test your steering wheel control system with your new audio system**

1. Power off ACC after having learned all the functions
2. Power on the ACC
3. The LED in the interface flashes slowly, which means it works normally.

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4. Power on your audio, and press all buttons in the steering wheel to test all the functions.

**Note:** Don't press the button on the steering wheel before you power on the ACC. Otherwise, it may lose the stored functions in the interface.

### **Fifth: Complete Installation**


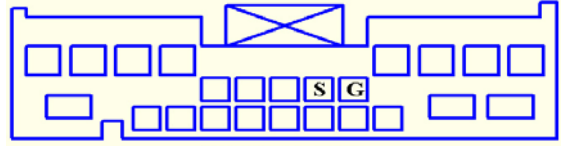


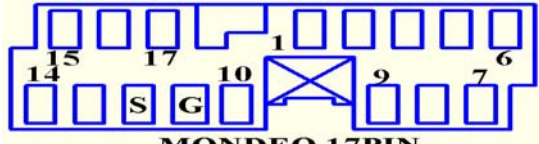
1. Install the interface in a suitable place.
2. Make the front of the interface face the head unit and make sure the head unit can receive signal easily.
3. Or you can use the extensional IR transmitter wire (3M) to send out the signal(make the IR transmitter eye face head unit). You can hide the transmitter in a place, such as under head unit, over the real view mirror, in the ceiling light shell or some other place

### Troubleshooting

1. The LED light doesn't flash after powered on:
  - Please check whether the ACC power is OK and check whether wire is connected right
2. Cannot come to learn mode:
  - Please release the button in 1~2 seconds after ACC powered on. Don't hold the button too long after the ACC powered on.
3. Cannot control head unit:
  - Please make sure head unit can receive signal from transmitter, or you have to change the position of transmitter.
4. There are two or more than two function buttons that can not work or some of them are with the same function:
  - Please check whether you have connected the right signal output wire (Green, Blue or white), please change another wire and try again.

● **Appendix One: The Connection way for most familiar cars:**

Take the connector of the steering wheel control system and make it face to yourself. Then you can get the position of the wires that you need to connect to the interface. S in the picture is for the original steering wheel signal out put wire (SW), G is for the original steering wheel's GND-S.

Brand	Vehicle Connector	Mark
Honda: Accord, Odyssey, CRV, S2000	 <p style="text-align: center;"><b>HONDA / ACURA 20PIN</b></p>	S: to Green wire (SW2) or Blue wire (SW3). G1, G2, G3 to Black(thin) wire (GND-S) Honda has three kind of GND-s, so please have a check and confirm which is right.
Mazda: M2,M3, M6, MPV	 <p style="text-align: center;"><b>MAZDA 24PIN</b></p>	S: to Green wire (SW2) or Blue wire. (SW3) G to Black(thin) wire (GND-s)
Mazda: PREMACY	 <p style="text-align: center;"><b>MAZDA 14PIN</b></p>	S: to Green wire (SW2) or Blue wire. (SW3) G to Black(thin) wire (GND-S) Black wire (GND-S) connects to ACC's GND or connects to the ground.
Toyota	 <p style="text-align: center;"><b>TOYOTA 20PIN</b></p>	S1 to Green wire (SW2) or Blue wire. (SW3) S2 to White wire(SW1) G to Black(thin) wire (GND-s)
Ford: Mondeo Focus	 <p style="text-align: center;"><b>MONDEO 17PIN</b></p>	S: to Green wire (SW2) or Blue wire(SW3). G to Black(thin) wire (GND-s) Reference Color: S: Brown/Yellow G: White/Black

# Appendix Two: Theory for Installation of Interface of Steering Wheel for Special Vehicle

Notes:

1. Below diagram is for special vehicle, most vehicles have no so much buttons
2. Snip the wire which mark with a "X", broken line is the new line,
3. If you have no way to change the original circuit, please add some resistances as diagram 3, diagram 4, them connect to the interface.

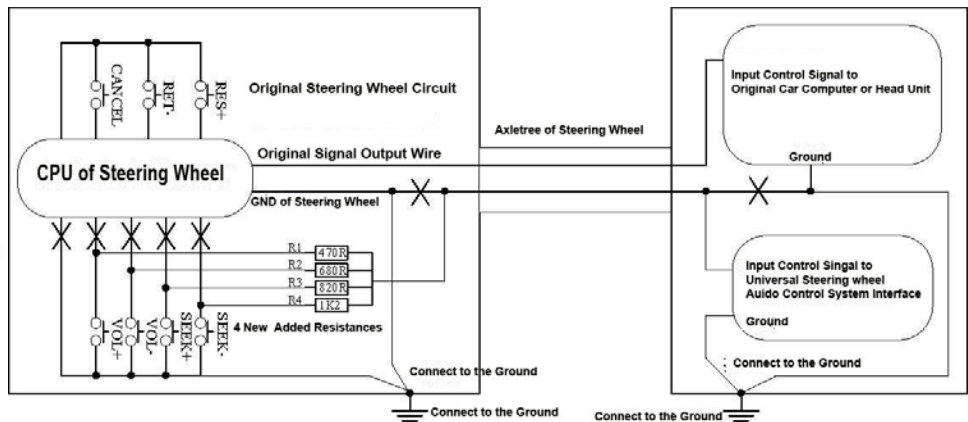
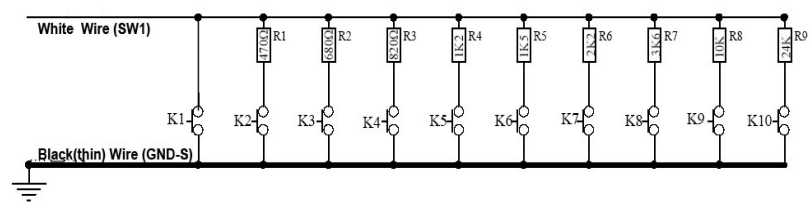
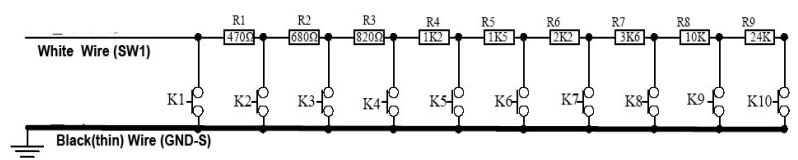
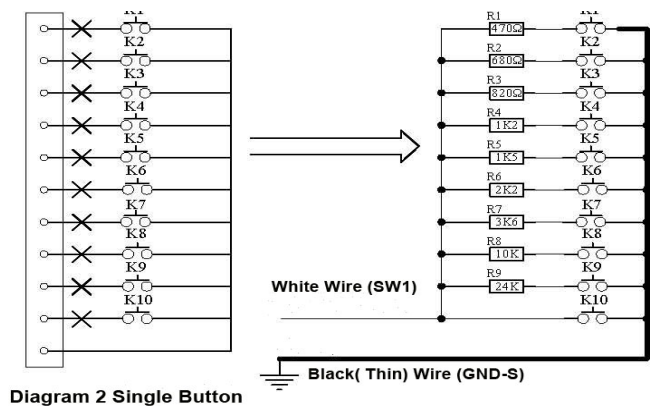
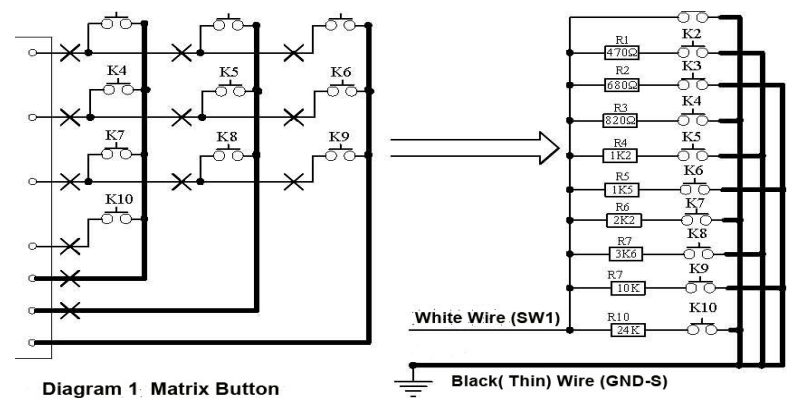


Diagram 5 Installation Theory of Steering Wheel Control System with CPU