

# Knowledge Note KN1044

## CarPC JoyCon Exr(Ex)

### Where to get the signal of steering wheel control?

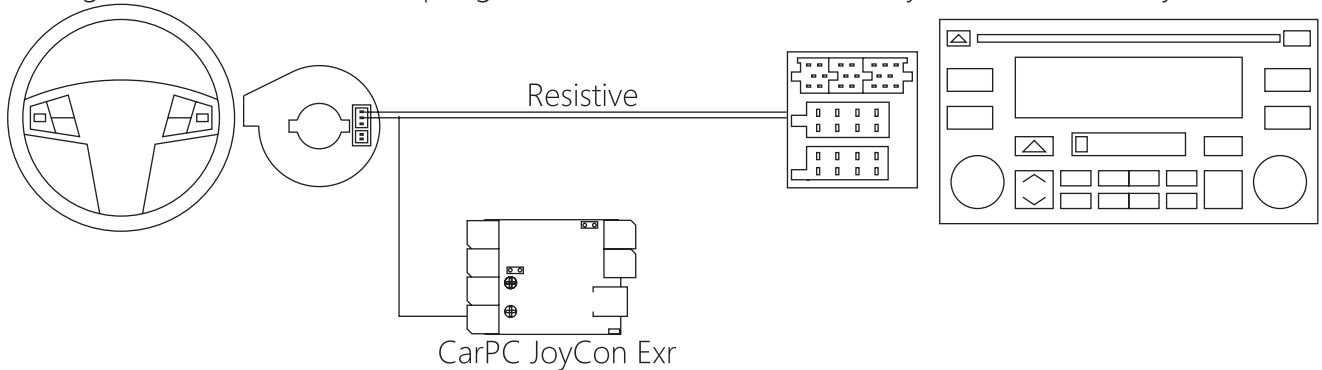
When you install CarPC JoyCon Exr(Ex) on your vehicle, you need to get the signal wires of steering wheel controls. There is two point where you can get the signal wire for CarPC JoyCon Exr(Ex).

1. From clock spring
2. From connector of radio

#### 1. Get the wire from the clock spring

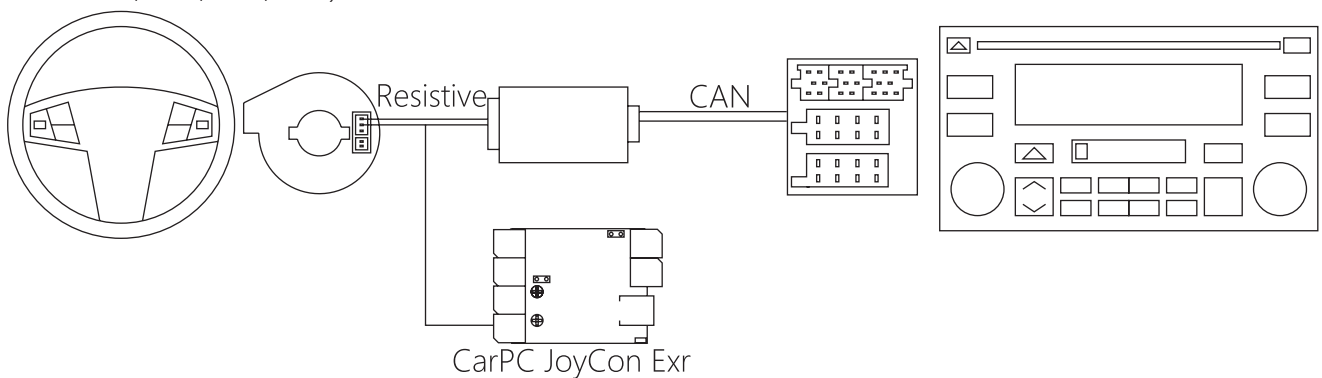
##### 1-A. If the radio connector signal is same with the clock spring signal, and if the signal is resistive.

The signal wire from the clock spring can be connected to CarPC JoyCon Exr(Ex) directly.



##### 1-B. If the radio connector signal is different from the clock spring signal.

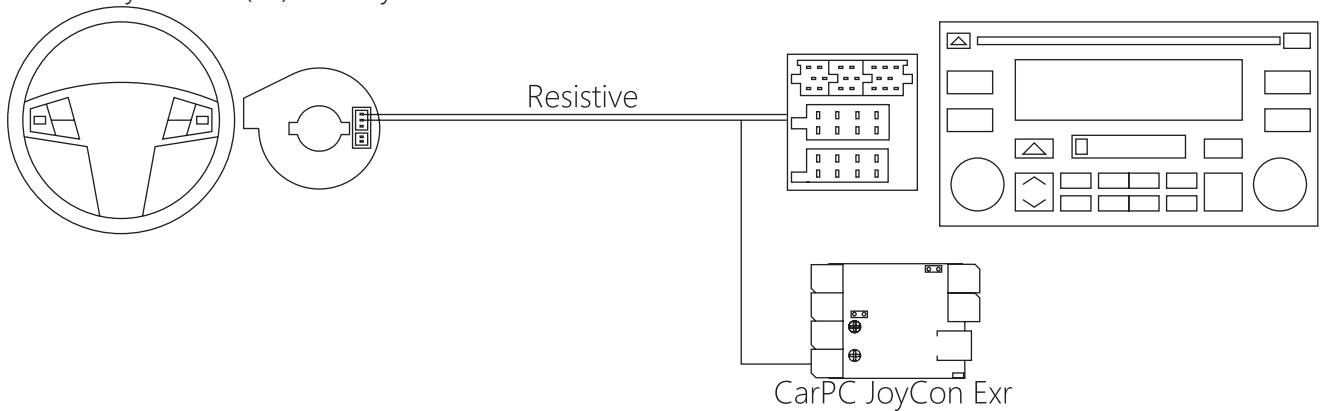
If the output of the steering wheel control is resistive, the signal wire from the clock spring can be connected to CarPC JoyCon Exr(Ex) directly. You don't need additional stalk adaptor. (For example, BMW E90, E91, E81, E87)



## 2. Get the wire from the radio connector

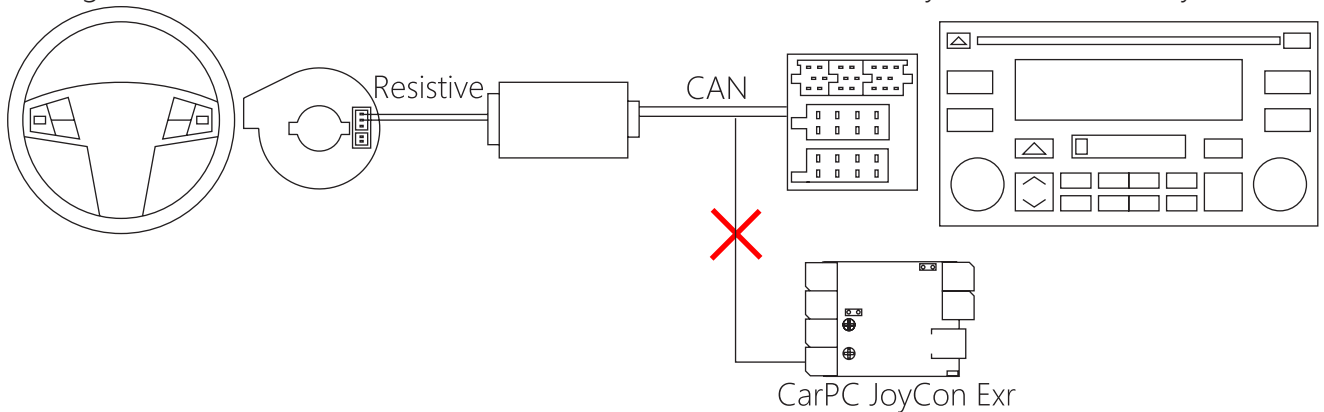
### 2-A. If the radio connector signal is same with the clock spring signal, and if the signal is resistive.

This is same with 1-A above. If the signal of the radio connector is resistive, it can be connected to CarPC JoyCon Exr(Ex) directly.

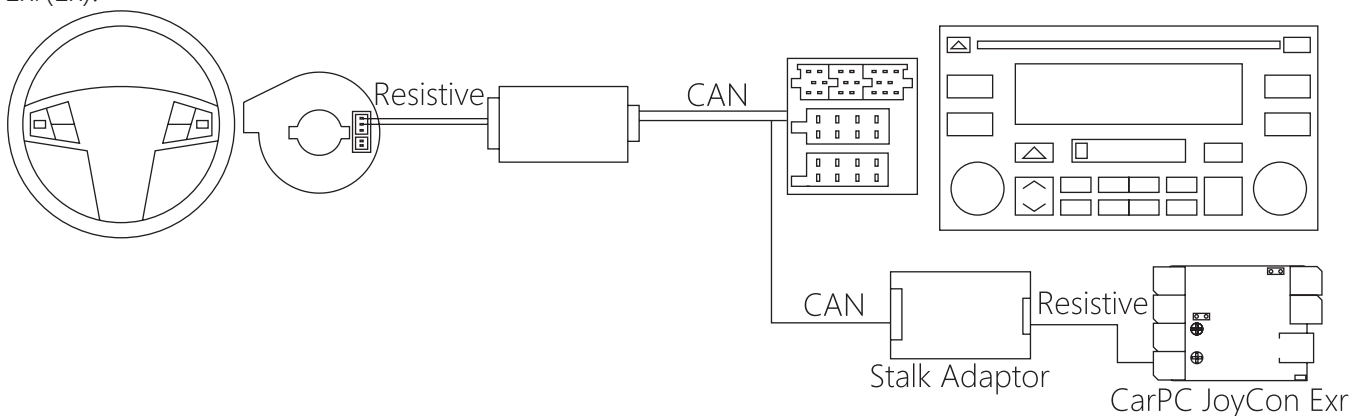


### 2-B. If the radio connector signal is different from the clock spring signal.

The signal wire of radio connector can not be connected to CarPC JoyCon Exr(Ex) directly.



An adaptor that converts CAN signal into resistive is required. The adaptor is usually called "Stalk Adaptor". A stalk adaptor for Sony(or Pioneer) outputs resistive(voltage) signal for CarPC JoyCon Exr(Ex).



For example,

Antara needs "Vauxhall Antara Steering Wheel Stalk Adaptor for Sony".

Fiat Grande Punto 500 needs "Fiat Grande Punto 500 Steering Wheel Stalk Adaptor for Sony".

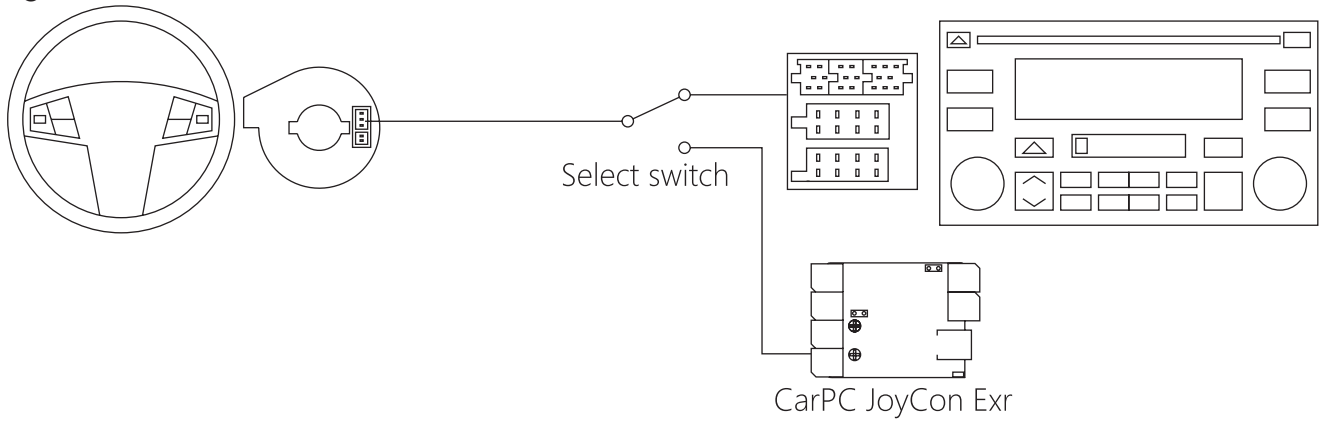
BMW E90 needs "BMW 3 Series E90 Stalk Adaptor Steering Wheel Interface for Sony".

(Check if the stalk adaptor meets the year of your vehicle.)

If you don't want to use additional stalk adaptor, see 1-B above.

### 3. Switching between original control and car pc

If you want to switch between original control and Car PC JoyCon Exr(Ex), put a select switch on the signal wire.



This is some select switch.

