

# SWI-7

rev 8-24-01

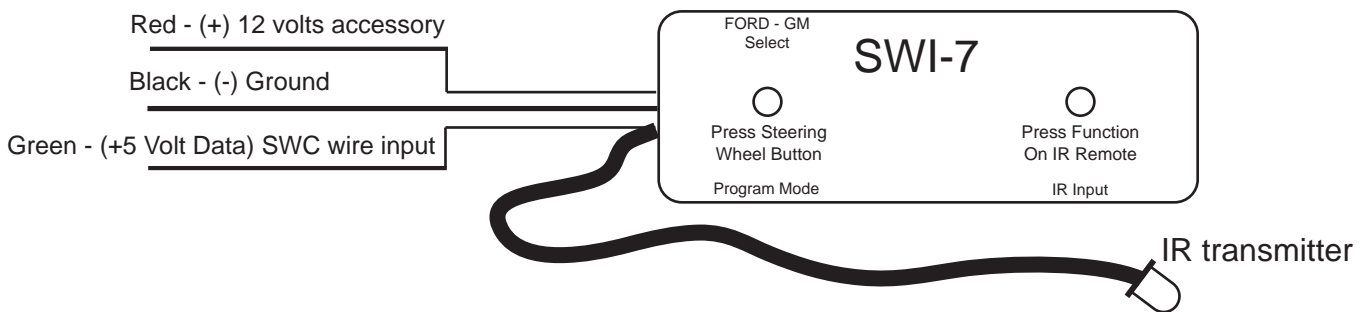
## Steering Wheel Radio Control Interface Installation instructions.

- Audi A6 2000, VW Jetta, Passat, Golf/GTI 2001
- Ford, Lincoln and Mercury vehicles: Navigator 1997-1998, Explorer 1995-1997, Windstar 1999-2000, Town Car and Grand Marquis 1996-97

**Note:** front steering wheel controls on Explorer, Mountaineer, Expedition 1998-2001, and Navigator 1999-2001 will require an SWI-3.

The Steering Wheel Interface (SWI) will control most aftermarket head units with an infrared remote by still utilizing the factory steering wheel radio control buttons. The SWI has non-volatile memory which can store from between 1 to 17 functions from the steering wheel and wireless remote. \*The SWI interfaces will only work with infrared remotes that use a 40kHz carrier frequency. Consult with equipment manufacture to determine the carrier frequency.

### WIRING DIAGRAM



RED (+) switched power input: Connect to a fused source accessory 12v.

BLACK (-) chassis ground input: Connect this to the vehicle chassis.

GREEN (+) SWC input: Connect this to the steering wheel button control wire. This wire reads data from the steering wheel. DO NOT connect directly to 12v.

### IMPORTANT!

**How to verify input control wire from steering wheel or rear seat controls:** The correct wire can be verified by connecting a voltmeter to the suspected wire (+) and to vehicle ground (-). The meter should read close to 5 volts with no buttons pressed. Whenever a button is held down, the voltage should drop 1-2 volts. Make measurements without the SWI-7 connected. VW may be difficult to verify... do not connect SWI-7 to any wire with more than 5VDC.

### Steering wheel button control wire

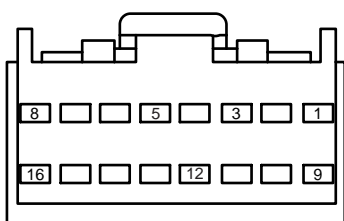
**Ford 16 pin connector:** Connect Lt. grn/blk (pin# 3 or pin# 5) to 12 volts accessory. This supplies power to buttons on steering wheel. Connect Lt. blu/pink (pin# 16 or pin# 12) to green wire of SWI-7.

**Ford 20 pin connector:** Rear seat controls. Connect pin# 5 to 12 volts accessory. This supplies power to the rear controls. Connect pin# 6 to green wire of SWI-7.

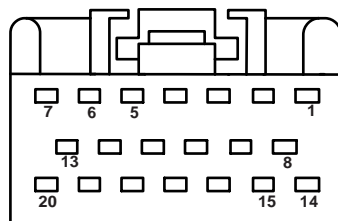
**GM 5 pin connector:** Connect pin#1 (org/blk) to green wire of SWI-7.

**Audi/VW 20 pin connector:** Connect pin# 11 (Audi - wht/yel)(VW - color varies) to green wire of SWI-7. Set switch to GM.

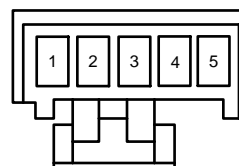
### Front view of plugs removed from the back of radio



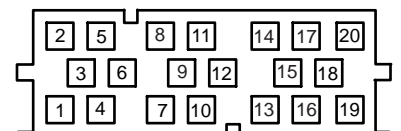
Ford 16 pin plug



Ford 20 pin plug



GM 5 pin plug



Audi/VW

# Programming

**Do not mount the IR LED at this time. Wait until the SWI-7 is programmed and operation is verified.**

**Programming the SWI-7 to control the new aftermarket head unit:** After terminating the red, black and green wires the interface is ready to be programmed. First check that the IR remote that was supplied with the new head unit works properly. If the remote does not properly control the head unit, the interface cannot be programmed. Weak batteries in the remote may cause programming errors, even if the remote seems to operate properly.

- 1) Move the GM-Ford select switch on the side of the SWI-7 to the correct position depending on the make of vehicle you are working on.
- 2) Turn on the ignition to supply power to the SWI-7 and the steering wheel/ rear seat radio controls.
- 3) Use a pen to depress the “program mode” button. Remove pen when left LED light comes on.
- 4) Within 8 seconds press one of the steering wheel or rear seat control function buttons. Do not hold the function button, simply press and release as you would normally do when operating the factory radio. The right LED should light indicating the interface is ready to learn the IR remote control’s command.
- 5) Place the stereo’s IR remote within 3” of the “IR Input” port on the side of the SWI-7 next to the program button. Press and hold the remote’s button that corresponds to the steering wheel button that was pressed. Continue to hold the remote’s button until the right LED turns off. Release the button and the left LED will turn on.
- 6) Repeat steps 4 and 5 until all radio steering wheel and or rear seat functions are programmed.
- 7) When all buttons have been programmed and the left LED is still on, wait 8 seconds and both LED’s will flash 3 times. This indicates an automatic program exit. Do not stop for more than 8 seconds while programming or there will be an automatic program exit and you will have to start over at step number 2 above. Turning off ignition before the automatic exit will also require starting over at step 2 above.

If the left LED turns off and the right LED turns on, before you have pressed a button on the steering wheel or rear seat control then an invalid command was received by the SWI-7 and must be erased. Press the “program” button on the side of the SWI-7 before pressing the button on the IR remote. This will turn off the right LED and turn on the left LED for you to again press a button on the steering wheel or rear seat control. This erase or backup feature can be used as many times as needed but it only erases the last command sent from the vehicle data buss.

This feature can also be used if the last button pressed on any vehicle steering wheel was not the intended button.

## Testing

- Test the SWI-7 by holding it’s infrared LED (LED on the end of 4’ lead) close to the front of the stereo and verifies that it works properly. Experiment with various locations for the LED. You should be able to find a hidden and convenient mounting location. Try along the top front and /or bottom of the stereo as well as it’s sides. Many times a location behind the dome light lens or on the vehicle console works well also. The LED can be replaced with most any IR LED, like Radio Shack’s # 276-143. The longest lead of the LED connects to the blue wire of the 4’ cable. The cable can also be lengthened if needed.

**Troubleshooting:** If the SWI-7 does not work properly try the following:

- The SWI-7 controls the radio without pressing a button. Reprogram the SWI-7 and be sure the left LED does not turn off before you have pressed a button on the steering wheel. If the LED does turn off before pressing a button on the steering wheel use the erase feature described above in the programming section.
- The MUTE button works intermittently. Program the MUTE function button on the steering wheel 2 times. In some applications there are 2 different signals sent by the steering wheel control pad every other time it is pressed. The SWI-7 must learn these 2 signals for it to work properly.
- Some times a function works intermittently. Check that the IR remote used to program the SWI-7 has new batteries.