

"It is a dimension as vast as empty wallets and as timeless as supercars. It is the middle ground between classic and modern, between boosted and natural aspiration, and it lies between the pit of a man's garage and the summit of his horsepower. This is the dimension of creation. It is an area which we call the Project Car."

#### **DISCLAIMER:**

You are about to rip your entire car apart, this is one of the most difficult and involved processes with these cars and its very easy to screw everything up. You will be completely gutting two cars using the guts from one to power another. Investing all of your time and money into this process is costly both physically and mentally so read through this and decide if your actually up for it. Many enthusiasts and vendors are giving up doing these merges over the years, if you use this guide for your harness please give me feedback to improve this for others.

#### Wire guide page contents:

Page 1: You're looking at it

Page 3-4: How to add in or repair existing wires / tools you need

Page 2: How to read connectors and wires

Page 5 and 6: Steps to remove and prep harnesses

#### Wire guide revision contents:

#### Version 1.3 12/5/2024:

2002-2005 WRX 2.0 (EJ205) donor pinouts and wire colors to 93-97 1.8/2.2 L/LX

2002-2005 WRX 2.0 (EJ205) donor pinouts and wire colors to 1998 2.5RS

2002-2005 WRX 2.0 (EJ205) donor pinouts and wire colors to 99-01 2.5RS

2004 STI EJ257 donor pinouts and wire colors to 99-01 2.5RS

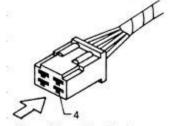
#### **Currently in the works:**

05-07 STI EJ257 to 93-01 Impreza models

EG33 to 93-01 Impreza models

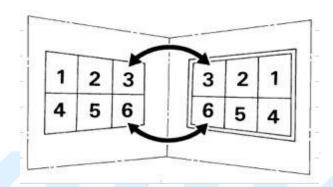
#### NOTE:

Each connector and its terminal position are indicated by a sketch of the connector in a disconnected state which is viewed from the front, as shown to the right





Viewed from this direction

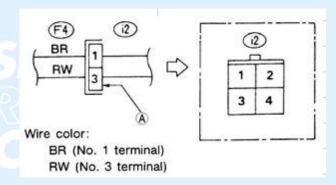


#### NOTE:

When one set of connectors is viewed from the front side, the pole numbers of one connector are symmetrical to those of the other. When these two connectors are connected as a unit, the poles which have the same number are joined.

#### NOTE:

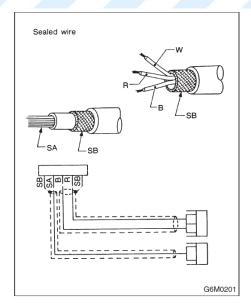
The sketch of each connector in the wiring diagram usually shows the "A" side of the connector. The relationship between the wire color, terminal number and connector is described in figure. NOTE: A wire which runs in one direction from a connector terminal sometimes may have a different color from that which runs in the other direction from that terminal.



#### NOTE:

The wire color code, which consists of two letters (or three letters including Br or Lg), indicates the standard color (base color of the wire covering) by its first letter and the stripe marking by its second letter.

Color code	Color
L	Blue
В	Black
Υ	Yellow
G	Green
R	Red
W	White
Br	Brown
Lg	Light green
Gr	Gray
Р	Pink
Or	Orange
Lb	Light Blue
V	Violet
SA	Sealed (Inner)
SB	Sealed (Outer)



When replacing or repairing a wire, be sure to use the same size and type of the wire which was originally used. The allowable current in this table is tolerable amperage per wire @ 104\*F ( 40\*C) this can change with ambient temperature and bundles of multiple wires.

Nominal sectional area mm²	No. of strands/ strand diameter	Outside diameter of finished wiring mm	Allowable current Amps/40°C
0.3	7/0.26	1.8	7
0.5	7/0.32	2.2 (or 2.0)	12
0.75	30/0.18	2.6 (or 2.4)	16
0.85	11/0.32	2.4 (or 2.2)	16
1.25	16/0.32	2.7 (or 2.5)	21
2	26/0.32	3.1 (or 2.9)	28
3	41/0.32	3.8 (or 3.6)	38
5	65/0.32	4.6 (or 4.4)	51
8	50/0.45	5.5	67

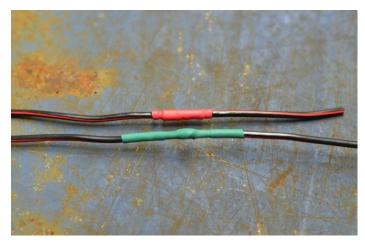
The most critical part of this whole process is your actual "splice" or merge of each wire. For those of you who just want a turbo'ed GC for daily driver duty, having a splice fail will most likely lead you to an expensive ride on a flat bed and a day of chasing electrical gremlins to find out what failed. For those of you who will take your car on track the way the good lord intended, having a splice fail can lead to your car crashing, you getting hit on track and you being hurt in the process. Consequences are often overlooked on miniscule things like this.

#### Solder or crimp?

Both methods are 100% perfectly fine. However, you must be aware that solder is a poor conductor when used inline with a wire like this and is only meant to hold a physical connection, the electrical connection of your twisted wires is what will pass a signal so make sure its a good one. Poor connections here will give you problems ranging from altered sensor signals, misfires, phantom check engine lights and more. If you want to wait to connect wires till the end, just zip tie or tape the wires together so you can make your connections in one shot.

#### How to properly solder splice your wires:

Again: I dont recommend soldering wires! Start with a nice cleanly stripped wire on both ends then put a small piece of heat shrink tubing over one side of your splice. Don't twist the wires yet, you'll need to push both wire ends together first, then twist them gently to make a secure connection. At this point you can now solder the connection. Keep the length of your splice short, around 10-14mm is plenty. Slide the heatshrink over and seal your splice, now your done!



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#### **INTRODUCTION: ADDING OR REPAIRING WIRES CONTINUED**

#### How to properly crimp splice your wires

the wires leave the strands straight, you should then insert each wire into each end of the crimp. Make note of the gap between your insulation on the wire and the face of the crimp itself, this allows for flex and a more reliable connection. Also note, to save valuable space inside your harness, use un-insulated crimps which can be bought separately, or you can remove the colored plastic jackets from those parts store kits. At this point you can now crimp the connection. If your using a manual crimper, be careful to not over or under tighten your crimp, if your using a ratcheting crimper for un-insulated connectors, you probably dont need to read this. Slide the heatshrink over and seal your splice, now your done! Give the connection a light tug to make sure its tight.



Uninsulated barrel crimps should be used for connecting cut ends of wire, stepped crimps can be used to connect different gauges or multiple wires as well

Open barrel crimps can also be used to join multiple legs of a circuit





Note, a 3rd but expensive option is the use of solder-shrink or crimp-shrink connectors. These cost quite a bit more than a normal uninsulated barrel crimp but have the solder to secure your splice along with heatshrink included in one step, they usually run about \$1+ a pop. However im not a fan of slder versions, as you have no control over flow of solder and if not checked properly, you can easily have a loose connection. The crimp versions are worth the money.



#### INTRODUCTION: TOOLS AND STUFF

#### **Electrical tools:**

Wire stripper - Any stripper will do, but a quality one will be worth the money :)

**Soldering iron** - Any cheap iron is fine, one with a stand is helpful. Use an old wet sponge to clean the iron tip too

Wire snips / flush cut pliers

Box cutter / razor knife

Electrical tape - Buy quality tape, the harbor frieght tape sucks

**Heat gun** - Anything to shrink tubing will work, the yellow wagner from home depot is super cheap and works great

**Wire crimp tool** - Please don't use insulated crimps from a crappy kit, go buy non-insulated crimps and a proper tool

#### Misc supplies:

**Rubber gloves** - The old tape residue will get everywhere and its nasty

**Rubbing alcohol** - To clean old tape residue off everything you will touch

#### **Zip Ties**

Masking tape - Make flags on your wire ends to label the connection

#### Marker / pen

**Beer** - Always important, if your underage go get some Capri

Wire sheathing/wrap - This comes in many varietys, you can reuse everything you take off, or replace some (or all) of it with new material its up to you.

### 4 INTRODUCTION: THE MERGE PROCESS

Step 1: Take a deep breath

Step 2: That's it your done!

Step 3: lol rip the whole car apart



Assuming you have the motor and dashboard out of the car



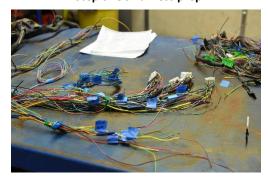
Step 4: Pull the harness



Step 5: Donor harness prep



Step 6: GC harness prep



already, remove your HVAC assemblies. You will have coolant/refridgerant oil inside so don't make a mess. Next pull the steering column if you want, lower interior kick trim and fenders.

Once everything is off the harness, begin unplugging everything.

I prefer to start at the passenger side and work towards the left, once you get to the chassis you'll find the SMJ plugs and you can undo those and pull the dash harness out. Next work your way down the drivers fender removing the fusebox and engine connections, then under the rad support past the fans and then to the passenger side fender where ABS plugs will be, then finally your fender light. Finally, work from the pass floor backwards to the trunk pulling your fuel harness where the WRX pump controller will go.

You'll need space for this, a big table or floor. Start with the donor harness from the turbo car, unwrap everything from the ECU to about halfway across the harness, once youre in start to work through the pinout chart and cutting wires. Anything going to the body side of the harness wont be needed so leave 2-3ft of wire attached to the ECU which is what you'll merge later on. Label your wires. At the end, you should be left with the ECU and a handful of cut wires, and the uncut connected wiring to the engine and the firewall grommet with sensors. Again, if it goes to the engine DONT CUT IT. If you do, just crimp it together, not the end of the world.

Now take the GC harness and unwrap everything. Wherever theres a juntion/lead to a plug/switch etc, use a zip tie to keep the harness in shape and youll be able to easily wrap it up later. Similar to the turbo ECU and harness, you don't need anything from the original GC ECU or engine wiring. So work through the pinouts and cut your body side wiring, when your done you should have the body harness with a bunch of cut wires that will go to the turbo ECU. Its important to keep all your branches and bends in place, LOTS of people forget this and your harness will fit like shit going back in which will rub, squeak, rattle forever and ever.

#### Final steps:

Now add in extras like fuel pump controllers that run to the rear, merge it with your GC pump harness. Double check OBD/SSM wiring. Cover bare cut wire ends. Anything that's car-specific for the merge will be on the associated page for it.

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#### **INTRODUCTION: USEFUL LINKS**

**Vendors with replacement OEM connectors** 

http://www.cycleterminal.com/

https://www.corsa-technic.com/index.php

https://www.iwireservices.com/

Vendors with wiring services

https://www.iwireservices.com/

https://racespeconline.com/

http://www.eastcoastswappers.com

https://www.rywire.com/

https://racespeconline.com/

https://www.bmotorsports.com/shop/

https://connectorexperts.com/

Vendors with aftermarket wiring products

https://www.prowireusa.com/

https://racespeconline.com/

https://www.iwireservices.com/

https://www.rywire.com/

**Helpful links** 

Brydon teaches you to merge a harness

https://www.rs25.com

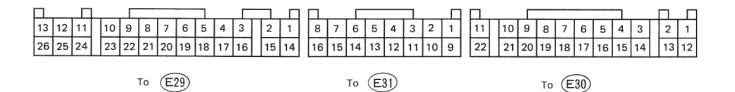
https://forums.nasioc.com

# BANSHEE'S Wire Merge Guide Version 1.3

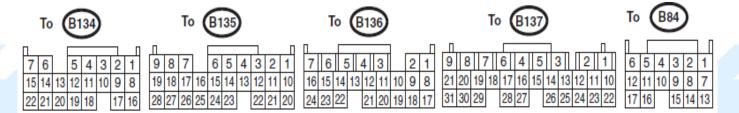
CIRCUIT	West bing		ec pins	NOTES
SPEED SENSOR	B134 / 1 (GRN-YLW)	<b>→</b>	E29 / 4 (GRN-BLK)	
STARTER SWITCH	B134 / 16 (YLW)	$\rightarrow$	E29 / 12 (RED-YLW)	
A/C SWITCH	B134 / 2 (BLU-YLW)	<b>→</b>	E29 / 11 (GRN-RED)	
IGNITION / COIL 12V	B134 / 5 (GRN-RED)	<b>→</b>	E29 / 10 (YLW)	"T" into WRX GRN-RED wire for 12V
NEUTRAL POS. SWITCH	B134 / 8 (GRN-BLK)	<b>→</b>	E29 / 16 (BLU-YLW)	
TEST MODE CONNECTOR	B134 / 14 (ORN)	$\rightarrow$	E29 / 20 (ORN)	
BACKUP 12V POWER	B137 / 10 (BLK-RED)	$\rightarrow$	E29 / 26 (YLW-GRN)	
CONTROL (ECU) POWER 12V	B137 / 2 (YLW-BLU)	$\rightarrow$	E29 / 13 (YLW-GRN)	
CONTROL (ECU) POWER 12V	B137 / 3 (YLW-BLU)	→	E29 / 13 (YLW-GRN)	
SENSOR (FUEL PRESSURE ) 12V	B135 / 9 (SHIELDED)	→	X	Not found in 1995 1.8 ECU
LINE END CHECK #1	B134 / 10 (RED-WHT)	<b>→</b>	X	Connect to OBD-2 pin 6
LINE END CHECK #2	B134 / 20 (YLW-GRN)	$\rightarrow$	X	Connect to OBD-2 pin 8
FUEL PUMP CONTROLLER SIGNAL 1	B134 / 13 (VLT-WHT)	$\rightarrow$	X	To fuel pump controller
FUEL PUMP CONTROLLER SIGNAL 2	B134 / 15 (LGRN-RED)	$\rightarrow$	X	To fuel pump controller
A/C RELAY	B137 / 27 (BROWN)	<b>→</b>	E29 / 9 (BLU)	
FAN #1 RELAY	B137 / 17 (RED-BLU)	$\rightarrow$	E29 / 23 (RED-BLU)	
FAN #2 RELAY	B137 / 28 (GRN-RED)	<b>→</b>	E29 / 7 (GRN-RED)	
CEL LIGHT	B137 / 15 (RED-WHT)	$\rightarrow$	E29 / 22 (RED-WHT)	
TACH SIGNAL	B136 / 9 (GRN)	$\rightarrow$	E29 / 3 (RED)	
FUEL TEMP SENSOR	B135 / 6 (BLU-BLK)	$\rightarrow$	E31 / 8 (RED-YLW)	See note A below
FUEL TANK PRESSURE SENSOR	B135 / 15 (GRN-ORN)	<b>→</b>	E31 / 5 (YLW-WHT)	See note A below
FUEL TANK PRES SOLENOID VALVE	B137 / 22 (LGRN-BLK)	$\rightarrow$	E29 / 21 (LGN-BLU)	See note A below
FUEL TANK DRAIN VALVE	B137 / 11 (BRW-YLW)	$\rightarrow$	X	Not found in 1995 1.8 ECU
FUEL LEVEL SENSOR	B135 / 25 (BRW-WHT)	$\rightarrow$	X	Not found in 1995 1.8 ECU
SMALL LIGHT	B134 / 17 (BLK-WHT)	$\rightarrow$	X	Not found in 1995 1.8 ECU
BLOWER FAN SWITCH	B134 / 9 (GRN-RED)	$\rightarrow$	X	Not found in 1995 1.8 ECU
REAR DEFOGGER SWITCH	B134 / 3 (BLU)	$\rightarrow$	X	Not found in 1995 1.8 ECU
SSM/GST COM LINE	B134 / 21 (LGRN-BLK)	$\rightarrow$	E29 / 5 (GRN-WHT)&6(LBLU-RED)	
GROUND (SENSORS)	B135 / 19 (RED / GREEN)	$\rightarrow$	E30 / 11 (RED-GRN)	
GROUND (POWER SUPPLY)	B136 / 17&22 (BLK-WHT)	$\rightarrow$	E29 / 25 (BLK-BRN)	
GROUND (CONTROL SYSTEMS)	B134 / 7&15 (BLK-RED)	$\rightarrow$	E30 / 22 (BLK-RED)	
SELF SHUTOFF CONTROL	B134 / 6 (LGRN-WHT)	$\rightarrow$	E29 / 86 (LGRN-WHT)	
FUEL PUMP RELAY CONTROL	X	$\rightarrow$	E29 / 8 (LGRN-BLK)	Not found on WRX, cut/tape off
INJECTORS 12V+	(YELLOW / GREEN)	<b>→</b>	(YELLOW / GREEN)	Needs 12V from main relay
WATER TEMP SIGNAL	(WHITE / GREEN)	$\rightarrow$	(WHITE / GREEN)	Merge these together
OIL PRESSURE SIGNAL	(GREEN / WHITE)	$\rightarrow$	(GREEN /WHITE )	Merge these together

#### 2002-2005 WRX MERGE INTO 1993 - 1996 IMPREZA 1.8

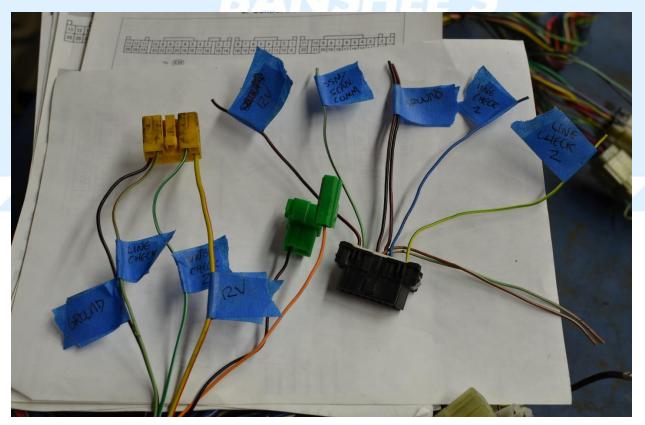
#### Impreza 1.8 ECU pinout



#### **2002-2005 WRX ECU pinout**



#### Adding the OBD2 port to phase one cars as seen below



#### Merge notes:

A: This is included only on FWD California models

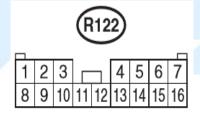
2002-2005 WRX MERGE INTO 1995 IMPREZA 1.8							
WRX (2002-2005) Impreza 1.8 (1995)							
2002 WRX FUEL PUMP CONTROLLER							
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	Х	CONNECT TO FUEL PUMP GROUND (BLK) PUMP SIDE				
ECU SIGNAL	R122 / 8 VIOLET- WHITE	X	WIRED DIRECTLY TO ECU				
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	X	CONNECT TO FUEL PUMP 12V+ (BLK- RED) PUMP SIDE				
CONTROLLER GROUND	R122 / 6 BLACK	X	CONNECT TO GROUND (BLK) CHASSIS				
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	X	WIRED DIRECTLY TO ECU				
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	X	CONNECT TO 12V+ (BLK-RED) FROM CAR SIDE				

R122

**FUEL PUMP CONTROLLER PINOUT** 

1 2 3 4 5 6 7 8 9 10

2003-2005 WRX FUEL PUMP CONTROLLER						
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	X CONNE Y PUMP	CT TO FUEL PUMP GROUND (BLK) SIDE			
ECU SIGNAL	R122 / 8 VIOLET- WHITE	X WIRED	DIRECTLY TO ECU			
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	X	CT TO FUEL PUMP 12V+ (BLK- UMP SIDE			
CONTROLLER GROUND	R122 / 5 BLACK	X CONNE	CT TO GROUND (BLK) CHASSIS			
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	X WIRED	DIRECTLY TO ECU			
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	X CONNE SIDE	CT TO 12V+ (BLK-RED) FROM CAR			



FUEL PUMP CONTROLLER PINOUT

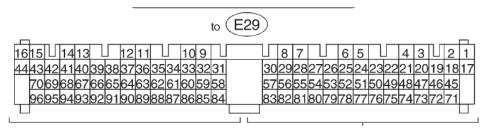
	2002-2007 WRX / STI O	BD2 CONNECTOR PINS
PIN 1	12V+	PIN 10 SCAN TOOL SIGNAL
PIN 6	LINE CHECK / TEST MODE #1	PIN 12 GROUND
PIN 8	LINE CHECK / TEST MODE #2	PIN 13 GROUND
	OBD-2 CONNECTOR PINOUT	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

CIRCUIT	net pins		ec pins	NOTES
SPEED SENSOR	B134 / 1 (GRN-YLW)	$\rightarrow$	E29 / 83 (GRN-BLK)	
STARTER SWITCH	B134 / 16 (YLW)	$\rightarrow$	E29 / 86 (RED-YLW)	
A/C SWITCH	B134 / 2 (BLU-YLW)	$\rightarrow$	E29 / 60 (RED-GRN)	
IGNITION / COIL 12V	B134 / 5 (GRN-RED)	$\rightarrow$	E29 / 85 (YLW)	
NEUTRAL POS. SWITCH	B134 / 8 (GRN-BLK)	$\rightarrow$	E29 / 82 (LGRN-YLW)	
TEST MODE CONNECTOR	B134 / 14 (ORN)	$\rightarrow$	E29 / 84 (ORN)	
BACKUP 12V POWER	B137 / 10 (BLK-RED)	$\rightarrow$	E29 / 39 (YLW-GRN)	
CONTROL (ECU) POWER 12V	B137 / 2 (YLW-BLU)	$\rightarrow$	E29 / 1 (GRN)	
CONTROL (ECU) POWER 12V	B137 / 3 (YLW-BLU)	$\rightarrow$	E29 / 2 (GRN)	
SENSOR (FUEL PRESSURE ) 12V	B135 / 9 (SHIELDED)	$\rightarrow$	E29 / 21 (BLK-RED)	
LINE END CHECK #1	B134 / 10 (RED-WHT)	→	E29 / 81 (BLK-RED)	
LINE END CHECK #2	B134 / 20 (YLW-GRN)	$\rightarrow$	E29 / 84 (ORN)	
FUEL PUMP CONTROLLER SIGNAL 1	B134 / 13 (VLT-WHT)	$\rightarrow$	X	To fuel pump controller
FUEL PUMP CONTROLLER SIGNAL 2	B134 / 15 (LGRN-RED)	$\rightarrow$	X	To fuel pump controller
A/C RELAY	B137 / 27 (BROWN)	<b>→</b>	E29 / 31 (GRN)	
FAN #1 RELAY	B137 / 17 (RED-BLU)	$\rightarrow$	E29 / 74 (RED-BLU)	
FAN #2 RELAY	B137 / 28 (GRN-RED)	<b>→</b>	E29/ 73 (GRN-RED)	
CEL LIGHT	B137 / 15 (RED-WHT)	$\rightarrow$	E29 / 58 (RED-WHT)	
TACH SIGNAL	B136 / 9 (GRN)	$\rightarrow$	E29 / 64 (RED)	
FUEL TEMP SENSOR	B135 / 6 (BLU-BLK)	$\rightarrow$	E29 / 25 (RED-YLW)	
FUEL TANK PRESSURE SENSOR	B135 / 15 (GRN-ORN)	<b>→</b>	E29/4 (RED-YLW)	
FUEL TANK PRES SOLENOID VALVE	B137 / 22 (LGRN-BLK)	$\rightarrow$	E29 / 10 (LGRN-BLK)	
FUEL TANK DRAIN VALVE	B137 / 11 (BRW-YLW)	$\rightarrow$	Х	Not found on 2.2 L, cut/tape off
FUEL LEVEL SENSOR	B135 / 25 (BRW-WHT)	$\rightarrow$	E29 / 27 (BRW-YLW)	
SMALL LIGHT	B134 / 17 (BLK-WHT)	$\rightarrow$	X	
BLOWER FAN SWITCH	B134 / 9 (GRN-RED)	$\rightarrow$	X	
REAR DEFOGGER SWITCH	B134 / 3 (BLU)	$\rightarrow$	X	
SSM/GST COM LINE	B134 / 21 (LGRN-BLK)	$\rightarrow$		Move this to pin 10 on OBD-2 port
GROUND (SENSORS)	B135 / 19 (RED / GREEN)	$\rightarrow$	E29/ 20 (RED-GRN)	
GROUND (POWER SUPPLY)	B136 / 17&22 (BLK-WHT)	$\rightarrow$	E29/ 19 & 46 (BLK-BLU)	
GROUND (CONTROL SYSTEMS)	B134 / 7&15 (BLK-RED)	$\rightarrow$	E29/ 17 & 18 (BLK-RED)	
SELF SHUTOFF CONTROL	B134 / 6 (LGRN-WHT)	$\rightarrow$	E29 / 63 (LGRN-WHT)	
FUEL PUMP RELAY CONTROL	х	$\rightarrow$	E29 / 32 (LGRN-BLK)	Not found on WRX, cut/tape off
INJECTORS 12V+	(YELLOW / GREEN)	$\rightarrow$	(GREEN)	
WATER TEMP SIGNAL	(WHITE / GREEN)	$\rightarrow$	(WHITE / GREEN)	
OIL PRESSURE SIGNAL	(GREEN / WHITE)	$\rightarrow$	(GREEN / WHITE)	

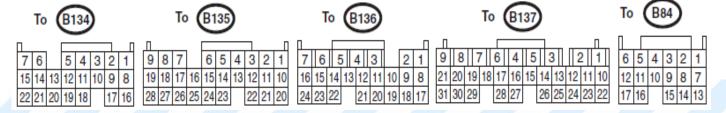
#### **2002-2005 WRX MERGE INTO 1996 IMPREZA 2.2**

#### 1996 Impreza 2.2 ECU pinout

\*\*NOTE: 1996 ECU plugs are referenced as ( E29 ) and 1997 plugs as ( B84 ) these are identical \*\*



#### **2002-2005 WRX ECU pinout**

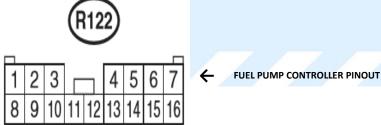


# BANSHEE'S WIRE MERGE GUIDE VERSION 1.3

#### **2002-2005 WRX MERGE INTO 1996 IMPREZA 1.8** WRX (2002-2005) Impreza 2.2 (1996) **2002 WRX FUEL PUMP CONTROLLER** CONNECT TO FUEL PUMP GROUND (BLK) **FUEL PUMP GROUND** R122 / 6 BLACK-WHITE Χ PUMP SIDE **ECU SIGNAL** R122 / 8 VIOLET- WHITE Χ WIRED DIRECTLY TO ECU CONNECT TO FUEL PUMP 12V+ (BLK-**FUEL PUMP 12V+** R122 / 7 BLACK-ORANGE Χ RED) PUMP SIDE CONNECT TO GROUND (BLK) CHASSIS **CONTROLLER GROUND** R122 / 6 BLACK **ECU SIGNAL** R122 / 9 LIGHT GREEN-RED WIRED DIRECTLY TO ECU Χ CONNECT TO 12V+ (BLK-RED) FROM CAR **CONTROLLER 12V+** R122 / 10 BLACK-YELLOW

FUEL PUMP CONTROLLER PINOUT → 1 2 3 4 5 6 7 8 9 10

2003-2005 WRX FUEL PUMP CONTROLLER						
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	Х	CONNECT TO FUEL PUMP GROUND (BLK) PUMP SIDE			
ECU SIGNAL	R122 / 8 VIOLET- WHITE	х	WIRED DIRECTLY TO ECU			
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	x	CONNECT TO FUEL PUMP 12V+ (BLK- RED) PUMP SIDE			
CONTROLLER GROUND	R122 / 5 BLACK	X	CONNECT TO GROUND (BLK) CHASSIS			
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	x	WIRED DIRECTLY TO ECU			
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	Х	CONNECT TO 12V+ (BLK-RED) FROM CAR SIDE			



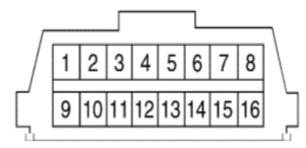
**OBD-2 CONNECTOR PINOUT** 

 2002-2007 WRX / STI OBD2 CONNECTOR PINS

 PIN 1
 12V+
 PIN 10
 SCAN TOOL SIGNAL

 PIN 6
 LINE CHECK / TEST MODE #1
 PIN 12
 GROUND

 PIN 8
 LINE CHECK / TEST MODE #2
 PIN 13
 GROUND

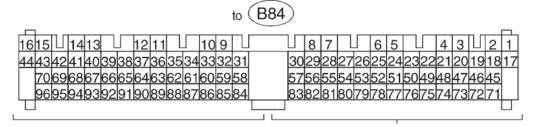


CIRCLIF	and ones		ec pins	NOTES
SPEED SENSOR	B134 / 1 (GRN-YLW)	$\rightarrow$	B84 / 83 (GRN-BLK)	
STARTER SWITCH	B134 / 16 (YLW)	$\rightarrow$	B84 / 86 (RED-YLW)	
A/C SWITCH	B134 / 2 (BLU-YLW)	$\rightarrow$	B84 / 60 (RED-GRN)	
IGNITION / COIL 12V	B134 / 5 (GRN-RED)	$\rightarrow$	B84 / 85 (YLW)	
NEUTRAL POS. SWITCH	B134 / 8 (GRN-BLK)	$\rightarrow$	B84 / 82 (LGRN-YLW)	
TEST MODE CONNECTOR	B134 / 14 (ORN)	$\rightarrow$	B84 / 84 (ORN)	
BACKUP 12V POWER	B137 / 10 (BLK-RED)	$\rightarrow$	B84 / 39 (YLW-GRN)	
CONTROL (ECU) POWER 12V	B137 / 2 (YLW-BLU)	$\rightarrow$	B84 / 1 (GRN)	
CONTROL (ECU) POWER 12V	B137 / 3 (YLW-BLU)	$\rightarrow$	B84 / 2 (GRN)	
SENSOR (FUEL PRESSURE ) 12V	B135 / 9 (SHIELDED)	$\rightarrow$	B84 / 21 (BLK-RED)	
LINE END CHECK #1	B134 / 10 (RED-WHT)	$\rightarrow$	B84 / 81 (BLK-RED)	
LINE END CHECK #2	B134 / 20 (YLW-GRN)	$\rightarrow$	B84 / 84 (ORN)	
FUEL PUMP CONTROLLER SIGNAL 1	B134 / 13 (VLT-WHT)	$\rightarrow$	Х	To fuel pump controller
FUEL PUMP CONTROLLER SIGNAL 2	B134 / 15 (LGRN-RED)	$\rightarrow$	X	To fuel pump controller
A/C RELAY	B137 / 27 (BROWN)	<b>→</b>	B84 / 31 (GRN)	
FAN #1 RELAY	B137 / 17 (RED-BLU)	$\rightarrow$	B84 / 74 (RED-BLU)	
FAN #2 RELAY	B137 / 28 (GRN-RED)	<b>→</b>	B84 / 73 (GRN-RED)	
CEL LIGHT	B137 / 15 (RED-WHT)	$\rightarrow$	B84 / 58 (RED-WHT)	
TACH SIGNAL	B136 / 9 (GRN)	$\rightarrow$	B84 / 64 (RED)	
FUEL TEMP SENSOR	B135 / 6 (BLU-BLK)	$\rightarrow$	B84 / 25 (RED-YLW)	
FUEL TANK PRESSURE SENSOR	B135 / 15 (GRN-ORN)	<b>→</b>	B84 /4 (RED-YLW)	
FUEL TANK PRES SOLENOID VALVE	B137 / 22 (LGRN-BLK)	$\rightarrow$	B84 / 10 (LGRN-BLK)	
FUEL TANK DRAIN VALVE	B137 / 11 (BRW-YLW)	$\rightarrow$	X	Not found on 2.2 L, cut/tape off
FUEL LEVEL SENSOR	B135 / 25 (BRW-WHT)	$\rightarrow$	B84 / 27 (BRW-YLW)	
SMALL LIGHT	B134 / 17 (BLK-WHT)	$\rightarrow$	Χ	
BLOWER FAN SWITCH	B134 / 9 (GRN-RED)	$\rightarrow$	Х	
REAR DEFOGGER SWITCH	B134 / 3 (BLU)	$\rightarrow$	Х	
SSM/GST COM LINE	B134 / 21 (LGRN-BLK)	$\rightarrow$		Move this to pin 10 on OBD-2 port
GROUND (SENSORS)	B135 / 19 (RED / GREEN)	$\rightarrow$	B84 / 20 (RED-GRN)	
GROUND (POWER SUPPLY)	B136 / 17&22 (BLK-WHT)	$\rightarrow$	B84 / 19 & 46 (BLK-BLU)	
GROUND (CONTROL SYSTEMS)	B134 / 7&15 (BLK-RED)	$\rightarrow$	B84 / 17 & 18 (BLK-RED)	
SELF SHUTOFF CONTROL	B134 / 6 (LGRN-WHT)	→	B84 / 63 (LGRN-WHT)	
FUEL PUMP RELAY CONTROL	Х	÷	B84 / 32 (LGRN-BLK)	Not found on WRX, cut/tape off
INJECTORS 12V+	(YELLOW / GREEN)	÷	(GREEN)	
WATER TEMP SIGNAL	(WHITE / GREEN)	÷	(WHITE / GREEN)	
OIL PRESSURE SIGNAL	(GREEN / WHITE)	$\rightarrow$	(GREEN / WHITE)	

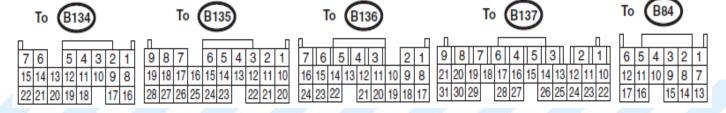
#### **2002-2005 WRX MERGE INTO 1997 IMPREZA 2.2**

#### 1996-1997 Impreza 2.2 ECU pinout

\*\*NOTE: 1996 ECU plugs are referenced as ( E29 ) and 1997 plugs as ( B84 ) these are identical \*\*



#### **2002-2005 WRX ECU pinout**



# BANSHEE'S Wire Merge Guide Version 1.3

#### WRX (2002-2005) Impreza 1.8 (1995) **2002 WRX FUEL PUMP CONTROLLER** CONNECT TO FUEL PUMP GROUND (BLK) **FUEL PUMP GROUND** R122 / 6 BLACK-WHITE Χ PUMP SIDE **ECU SIGNAL** R122 / 8 VIOLET- WHITE Χ WIRED DIRECTLY TO ECU CONNECT TO FUEL PUMP 12V+ (BLK-**FUEL PUMP 12V+** R122 / 7 BLACK-ORANGE Χ RED) PUMP SIDE CONNECT TO GROUND (BLK) CHASSIS **CONTROLLER GROUND** R122 / 6 BLACK **ECU SIGNAL** R122 / 9 LIGHT GREEN-RED WIRED DIRECTLY TO ECU Χ CONNECT TO 12V+ (BLK-RED) FROM CAR **CONTROLLER 12V+** R122 / 10 BLACK-YELLOW

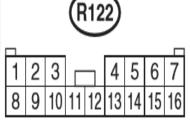
**2002-2005 WRX MERGE INTO 1997 IMPREZA 2.2** 

R122

**FUEL PUMP CONTROLLER PINOUT** 

$\rightarrow$	1	2		$\neg$	3	4
	5	6	7	8	9	10

2003-2005 WRX FUEL PUMP CONTROLLER						
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	Х	CONNECT TO FUEL PUMP GROUND (BLK) PUMP SIDE			
ECU SIGNAL	R122 / 8 VIOLET- WHITE	Χ	WIRED DIRECTLY TO ECU			
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	x	CONNECT TO FUEL PUMP 12V+ (BLK- RED) PUMP SIDE			
CONTROLLER GROUND	R122 / 5 BLACK	X	CONNECT TO GROUND (BLK) CHASSIS			
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	X	WIRED DIRECTLY TO ECU			
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	X	CONNECT TO 12V+ (BLK-RED) FROM CAR SIDE			



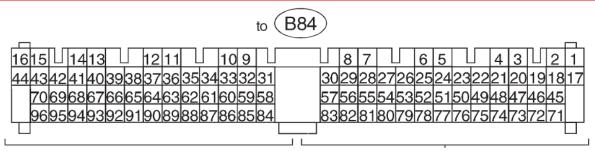
**FUEL PUMP CONTROLLER PINOUT** 

# 2002-2007 WRX / STI OBD2 CONNECTOR PINS PIN 1 12V+ PIN 10 SCAN TOOL SIGNAL PIN 6 LINE CHECK / TEST MODE #1 PIN 12 GROUND PIN 8 LINE CHECK / TEST MODE #2 PIN 13 GROUND OBD-2 CONNECTOR PINOUT → 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

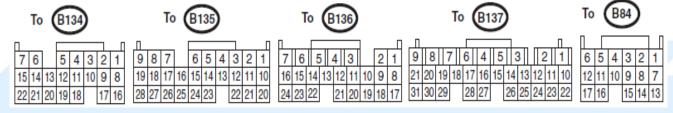
ωт	$^{n}$	3 31	30E 1	WOVI	MERGE	INITO 44	200 18	ADDCJA	 ~

	O 1998 IMPREZA 2.5 RS			
CRCUIT	Wextown		<sup>GC PIN'S</sup>	NOTES
SPEED SENSOR	B134 / 1 (GRN-YLW)	→	B84 / 83 (GRN-BLK)	
STARTER SWITCH	B134 / 16 (YLW)	$\rightarrow$	B84 / 86 (WHT-RED)	
A/C SWITCH	B134 / 2 (BLU-YLW)	→	B84 / 60 (BRW-WHT)	
IGNITION / COIL 12V	B134 / 5 (GRN-RED)	$\rightarrow$	B84 / 85 (GRN-RED)	
NEUTRAL POS. SWITCH	B134 / 8 (GRN-BLK)	→	B84 / 82 (BLK-RED)	
TEST MODE CONNECTOR	B134 / 14 (ORN)	$\rightarrow$	B84 / 84 (ORN)	
BACKUP 12V POWER	B137 / 10 (BLK-RED)	$\rightarrow$	B84 / 39 (BLK-RED)	
CONTROL (ECU) POWER 12V	B137 / 2 (YLW-BLU)	$\rightarrow$	B84 / 1 (YLW-GRN)	
CONTROL (ECU) POWER 12V	B137 / 3 (YLW-BLU)	$\rightarrow$	B84 / 2 (YLW-GRN)	
SENSOR (FUEL PRESSURE ) 12V	B135 / 9 (SHIELDED)	$\rightarrow$	B84 / 21 (RED)	
LINE END CHECK #1	B134 / 10 (RED-WHT)	<b>→</b>	X	RS OBD2 pin #5 must move to pin #6
LINE END CHECK #2	B134 / 20 (YLW-GRN)	$\rightarrow$	X	RS OBD2 pin #4 must move to pin #8
FUEL PUMP CONTROLLER SIGNAL 1	B134 / 13 (VLT-WHT)	$\rightarrow$	X	To fuel pump controller
FUEL PUMP CONTROLLER SIGNAL 2	B134 / 15 (LGRN-RED)	$\rightarrow$	X	To fuel pump controller
A/C RELAY	B137 / 27 (BROWN)	→	B84 / 31 (BROWN)	
FAN #1 RELAY	B137 / 17 (RED-BLU)	$\rightarrow$	B84 / 74 (RED-BLU)	
FAN #2 RELAY	B137 / 28 (GRN-RED)	→	B84 / 73 (GRN-RED)	
CEL LIGHT	B137 / 15 (RED-WHT)	$\rightarrow$	B84 / 58 (RED-WHT)	
TACH SIGNAL	B136 / 9 (GRN)	$\rightarrow$	B84 / 64 (BLU-GRN)	
FUEL TEMP SENSOR	B135 / 6 (BLU-BLK)	$\rightarrow$	B84 / 25 (BLU-BLK)	
FUEL TANK PRESSURE SENSOR	B135 / 15 (GRN-ORN)	<b>→</b>	B84 / 4 (GRN-ORN)	
FUEL TANK PRES SOLENOID VALVE	B137 / 22 (LGRN-BLK)	$\rightarrow$	B84 / 10 (LGRN-BLK)	
FUEL TANK DRAIN VALVE	B137 / 11 (BRW-YLW)	$\rightarrow$	B84 / 35 (BRW-YLW)	
FUEL LEVEL SENSOR	B135 / 25 (BRW-WHT)	$\rightarrow$	B84 / 27 (BRW-WHT)	
SMALL LIGHT	B134 / 17 (BLK-WHT)	$\rightarrow$	X	Not used in 1998 RS
BLOWER FAN SWITCH	B134 / 9 (GRN-RED)	$\rightarrow$	X	Not used in 1998 RS
REAR DEFOGGER SWITCH	B134 / 3 (BLU)	$\rightarrow$	X	Not used in 1998 RS
SSM/GST COM LINE	B134 / 21 (LGRN-BLK)	$\rightarrow$	B84 / 93 (GRN-BLK)	
GROUND (SENSORS)	B135 / 19 (RED / GREEN)	$\rightarrow$	BLACK / YELLOW	*Check color?
GROUND (POWER SUPPLY)	B136 / 17&22 (BLK-WHT)	$\rightarrow$	B84 / 19&46 (BLK-YLW)	
GROUND (CONTROL SYSTEMS)	B134 / 7&15 (BLK-RED)	$\rightarrow$	B84 / 17&18 (BLK-RED)	
SELF SHUTOFF CONTROL	B134 / 6 (LGRN-WHT)	→	B84 / 63 (LGRN-WHT)	
FUEL PUMP RELAY CONTROL	х	→	B134 / 32 (LGRN-RED)	Not found on WRX, cut/tape off
INJECTORS 12V+	(YELLOW / GREEN)	$\rightarrow$	(YELLOW / GREEN)	Needs switched 12V+
WATER TEMP SIGNAL	(WHITE / GREEN)	<b>→</b>	(WHITE / GREEN)	Just merge these two together
OIL PRESSURE SIGNAL	(GREEN / WHITE)	$\rightarrow$	GREEN /WHITE OR GREEN / BLUE	Just merge these two together

#### 1998 Impreza 2.5RS ECU pinout



#### **2002-2005 WRX ECU pinout**



Color code	Color			
L	Blue			
В	Black			
Υ	Yellow			
G	Green			
R	Red			
W	White			
Br	Brown			
Lg	Light green			
Gr	Gray			
P	Pink			
Or	Orange			
Lb	Light Blue			
V	Violet			
SA	Sealed (Inner)			
SB	Sealed (Outer)			

Notes:		

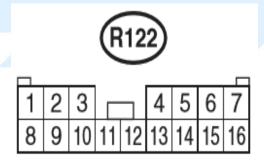
#### WRX (2002-2005) Impreza 1.8 (1995) 2002 WRX FUEL PUMP CONTROLLER CONNECT TO FUEL PUMP GROUND (BLK) **FUEL PUMP GROUND** R122 / 6 BLACK-WHITE Χ PUMP SIDE **ECU SIGNAL** R122 / 8 VIOLET- WHITE Χ WIRED DIRECTLY TO ECU CONNECT TO FUEL PUMP 12V+ (BLK-**FUEL PUMP 12V+** R122 / 7 BLACK-ORANGE Χ RED) PUMP SIDE **CONTROLLER GROUND** CONNECT TO GROUND (BLK) CHASSIS R122 / 6 BLACK **ECU SIGNAL** R122 / 9 LIGHT GREEN-RED WIRED DIRECTLY TO ECU Χ CONNECT TO 12V+ (BLK-RED) FROM CAR CONTROLLER 12V+ R122 / 10 BLACK-YELLOW

**2002-2005 WRX MERGE INTO 1998 IMPREZA 2.5 RS** 

FUEL PUMP CONTROLLER PINOUT

R122 1 2 3 4 5 6 7 8 9 10

2003-2005 WRX FUEL PUMP CONTROLLER							
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	S/_//_x_//S	CONNECT TO FUEL PUMP GROUND (BLK) PUMP SIDE				
ECU SIGNAL	R122 / 8 VIOLET- WHITE	X	WIRED DIRECTLY TO ECU				
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	RGIZ GI	CONNECT TO FUEL PUMP 12V+ (BLK- RED) PUMP SIDE				
CONTROLLER GROUND	R122 / 5 BLACK	X	CONNECT TO GROUND (BLK) CHASSIS				
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	х	WIRED DIRECTLY TO ECU				
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	Х	CONNECT TO 12V+ (BLK-RED) FROM CAR SIDE				



FUEL PUMP CONTROLLER PINOUT

	2002-2007 WRX / STI (	OBD2 CONNECTOR PINS
PIN 1	12V+	PIN 10 SCAN TOOL SIGNAL
PIN 6	LINE CHECK / TEST MODE #1	PIN 12 GROUND
PIN 8	LINE CHECK / TEST MODE #2	PIN 13 GROUND
	OBD-2 CONNECTOR PINOUT -	9 10 11 12 13 14 15 16

CIRCUIT	WRT PIRE		g c pros	<sub>N</sub> OTES
SPEED SENSOR	B134 / 1 (GRN-YLW)	→	B135 / 24 (GRN-YLW)	These wires have 3-way junctions, check and cut to create 1 wire
STARTER SWITCH	B134 / 16 (YLW)	$\rightarrow$	B135 / 28 (WHT-PNK)	These wires have 3-way junctions, check and cut to create 1 wire
A/C SWITCH	B134 / 2 (BLU-YLW)	÷	B135 / 27 (BRW-WHT)	and car to create 1 mile
IGNITION / COIL 12V	B134 / 5 (GRN-RED)	$\rightarrow$	B135 / 7 (GRN-RED)	These wires have 3-way junctions, check and cut to create 1 wire
NEUTRAL POS. SWITCH	B134 / 8 (GRN-BLK)	÷	B135 / 26 (GRN-BLK)	
TEST MODE CONNECTOR	B134 / 14 (ORN)	$\rightarrow$	B135 / 14 (ORN)	These wires have 3-way junctions, check and cut to create 1 wire
BACKUP 12V POWER	B137 / 10 (BLK-RED)	$\rightarrow$	B136 / 9 (BLK-RED) X2	The two wires from the RS can be merged into the single WRX wire
CONTROL (ECU) POWER 12V	B137 / 2 (YLW-BLU)	$\rightarrow$	B136 / 1 (YLW-BLU)	YLW/BLU Injector power wire can be merged with either control 12V+
CONTROL (ECU) POWER 12V	B137 / 3 (YLW-BLU)	$\rightarrow$	B136 / 2 (YLW-BLU)	
SENSOR (FUEL PRESSURE ) 12V	B135 / 9 (SHIELDED)	$\rightarrow$	B136 /15 (RED)	These wires have 3-way junctions, check and cut to create 1 wire
LINE END CHECK #1	B134 / 10 (RED-WHT)	÷	B135/120 (RED-WHT)	
LINE END CHECK #2	B134 / 20 (YLW-GRN)	$\rightarrow$	B135 / 12 (RED-BLU)	RS OBD-2 pin #5 must be moved to pin #8
FUEL PUMP CONTROLLER SIGNAL 1	B134 / 13 (VLT-WHT)	÷	X	To fuel pump controller
FUEL PUMP CONTROLLER SIGNAL 2	B134 / 15 (LGRN-RED)	$\rightarrow$	X	To fuel pump controller
A/C RELAY	B137 / 27 (BROWN)	$\rightarrow$	B134 / 17 (BROWN)	
FAN #1 RELAY	B137 / 17 (RED-BLU)	$\rightarrow$	B134 / 3 (RED-BLU)	
FAN #2 RELAY	B137 / 28 (GRN-RED)	÷	B134 / 12 (GRN-RED)	
CEL LIGHT	B137 / 15 (RED-WHT)	$\rightarrow$	B134 / 11 (RED-WHT)	
TACH SIGNAL	B136 / 9 (GRN)	→	B134 / 30 (BLU)	
FUEL TEMP SENSOR	B135 / 6 (BLU-BLK)	$\rightarrow$	B136 / 26 (BLU-BLK)	
FUEL TANK PRESSURE SENSOR	B135 / 15 (GRN-ORN)	<b>→</b>	B136 / 12 (GRN-ORN)	
FUEL TANK PRES SOLENOID VALVE	B137 / 22 (LGRN-BLK)	$\rightarrow$	B134 / 1 (LGRN-BLU)	
FUEL TANK DRAIN VALVE	B137 / 11 (BRW-YLW)	$\rightarrow$	B134 / 10 (BRW-YLW)	
FUEL LEVEL SENSOR	B135 / 25 (BRW-WHT)	$\rightarrow$	B136 / 27 (BRW-WHT)	These wires have 3-way junctions, check and cut to create 1 wire
SMALL LIGHT	B134 / 17 (BLK-WHT)	$\rightarrow$	B136/3	Only on MY2000 and newer
BLOWER FAN RELAY	B134 / 9 (GRN-RED)	$\rightarrow$	B136 / 30 (GRN-RED)	Only on MY2000 and newer
REAR DEFOGGER SWITCH	B134 / 3 (BLU)	$\rightarrow$	B135 / 21 (WHT-RED)	Only on MY2000 and newer
SSM/GST COM LINE	B134 / 21 (LGRN-BLK)	$\rightarrow$	B135 / 3 (GRN-BLK)	
GROUND (SENSORS)	B135 / 19 (RED / GREEN)	$\rightarrow$	B136 / 16 (RED-GRN)	
GROUND (POWER SUPPLY)	B136 / 17&22 (BLK-WHT)	$\rightarrow$	B134 / 8 (BLK-WHT)	
GROUND (CONTROL SYSTEMS)	B134 / 7&15 (BLK-RED)	$\rightarrow$	B135 / 6&25 + B136 / 21&22	All wire colors are (BLK-RED)
SELF SHUTOFF CONTROL	B134 / 6 (LGRN-WHT)	$\rightarrow$	B135 / 19 (LGN-WHT)	
FUEL PUMP RELAY CONTROL	X	$\rightarrow$	B134 / 16 (LGRN-BLK)	Needs ground, WRX B134 / 19 is ok
INJECTORS 12V+	(YELLOW / GREEN)	$\rightarrow$	(YELLOW / GREEN)	Needs 12V from main relay
WATER TEMP SIGNAL	(WHITE / GREEN)	$\rightarrow$	(WHITE / GREEN)	Just merge these two together
OIL PRESSURE SIGNAL	(GREEN / WHITE)	$\rightarrow$	(GREEN /WHITE )	Just merge these two together

#### 1999-2001 Impreza 2.5 RS ECU pinout



to (B135)

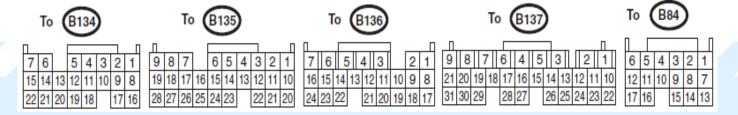
to (B136)

8	7		6	5						4	3		2	1
23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
35	34		33	32	31	30		29	28	27	26		25	24

	6								3	2	1
19	18	17	16	15	14	13	12	11	10	9	8
28	27		26	25	24		23	22		21	20

7	6		5	4						3	2	1
20	19	18	17	16	15	14	13	12	11	10	9	8
30	29	28		27	26		25	24	23		22	21

#### **2002-2005 WRX ECU pinout**



# BANSHEE'S Wire Merge Guide Version 1.3

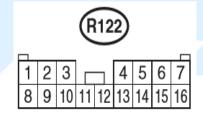
#### WRX (2002-2005) Impreza 2.5 RS **2002 WRX FUEL PUMP CONTROLLER** CONNECT TO FUEL PUMP GROUND (BLK) **FUEL PUMP GROUND** R122 / 6 BLACK-WHITE Χ PUMP SIDE **ECU SIGNAL** R122 / 8 VIOLET- WHITE Χ WIRED DIRECTLY TO ECU CONNECT TO FUEL PUMP 12V+ (BLK-**FUEL PUMP 12V+** R122 / 7 BLACK-ORANGE Χ RED) PUMP SIDE **CONTROLLER GROUND** CONNECT TO GROUND (BLK) CHASSIS R122 / 6 BLACK **ECU SIGNAL** R122 / 9 LIGHT GREEN-RED WIRED DIRECTLY TO ECU Χ CONNECT TO 12V+ (BLK-RED) FROM CAR **CONTROLLER 12V+** R122 / 10 BLACK-YELLOW

2002-2005 WRX MERGE INTO 1999+ IMPREZA 2.5 RS

**FUEL PUMP CONTROLLER PINOUT** 

$\rightarrow$	1	2			3	4
	5	6	7	8	9	10
						_

	2003-2005 WRX FUEL P	UMP CONTROLLER	
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	Х	CONNECT TO FUEL PUMP GROUND (BLK) PUMP SIDE
ECU SIGNAL	R122 / 8 VIOLET- WHITE	X	WIRED DIRECTLY TO ECU
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	x	CONNECT TO FUEL PUMP 12V+ (BLK- RED) PUMP SIDE
CONTROLLER GROUND	R122 / 5 BLACK	X	CONNECT TO GROUND (BLK) CHASSIS
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	x	WIRED DIRECTLY TO ECU
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	Х	CONNECT TO 12V+ (BLK-RED) FROM CAR SIDE



**FUEL PUMP CONTROLLER PINOUT** 

	2002-2007 WRX / STI OBD	2 CONNECTOR PINS
PIN 1	12V+	PIN 10 SCAN TOOL SIGNAL
PIN 6	LINE CHECK / TEST MODE #1	PIN 12 GROUND
PIN 8	LINE CHECK / TEST MODE #2	PIN 13 GROUND
	OBD-2 CONNECTOR PINOUT →	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

#### **2004 STI MERGE INTO 1999-2001 IMPREZA 2.5 RS**

CRCUT	STIPMS		ec pins	NOTES
SPEED SENSOR	B135 / 27 (GRN-YLW)	<b>→</b>	B135 / 24 (GRN-YLW)	These wires have 3-way junctions, check and cut to create 1 wire
STARTER SWITCH	B137 / 8 (YLW)	<b>→</b>	B135 / 28 (WHT-PNK)	These wires have 3-way junctions, check and cut to create 1 wire
A/C SWITCH	B137 / 16 (BLU-YLW)	→	B135 / 27 (BRW-WHT)	
IGNITION SWITCH	B137 / 15 (GRN-RED)	<b>→</b>	B135 / 7 (GRN-RED)	These wires have 3-way junctions, check and cut to create 1 wire
NEUTRAL POS. SWITCH	B137 / 9 (GRN-BLK)	→	B135 / 26 (GRN-BLK)	
TEST MODE CONNECTOR	B137 / 14 (ORN)	→	B135 / 14 (ORN)	These wires have 3-way junctions, check and cut to create 1 wire
BACKUP 12V POWER	B135 / 19 (BLU-RED)	→	B136 / 9 (BLK-RED) X2	The two wires from the RS can be merged into the single WRX wire
CONTROL POWER +	B135 / 5 (YLW-BLU)	<b>→</b>	B136 / 1 (YLW-BLU)	YLW/BLU Injector power wire can be merged with either control 12V+
CONTROL POWER +	B135 / 6 (YLW-BLU)	<b>→</b>	B136 / 2 (YLW-BLU)	
SENSOR 12V SUPPLY +	B136 / 16 (SHIELDED-RED)	<b>→</b>	B136 /15 (RED)	These wires have 3-way junctions, check and cut to create 1 wire
EVAP THERMO SWITCH	B135 / 7 (BLU-YLW)	<b>→</b>	B135 / 27	
SELF SHUTOFF CONTROL	?	<b>→</b>	?	
LINE END CHECK #1	?	→	B135/120 (RED-WHT)	
A/C RELAY	B135 / 33 (BROWN)	<b>→</b>	B134 / 17 (BROWN)	
FAN #1 RELAY	B135 / 25 (RED-WHT)	<b>→</b>	B134 / 3 (RED-BLU)	
FAN #2 RELAY	B135 / 24 (GRN-RED)	<b>→</b>	B134 / 12 (GRN-RED)	
CEL LIGHT	B134 / 17 (RED-WHT)	<b>→</b>	B134 / 11 (RED-WHT)	
TACH SIGNAL	B134 / 23 (GREEN)	<b>→</b>	B134 / 30 (BLU)	
FUEL TANK PRESSURE	B136 / 21 (GRN-ORN)	<b>→</b>	B136 / 12 (GRN-ORN)	
FUEL TANK PRES SOLENOID	B134 / 12 (LGRN-BLU)	<b>→</b>	B134 / 1 (LGRN-BLU)	
FUEL TANK DRAIN VALVE	B134 / 13 (RED-BLU)	<b>→</b>	B134 / 10 (BRW-YLW)	
FUEL LEVEL SENSOR	B136 / 20 (LGRN-BLK)	<b>→</b>	B136 / 27 (BRW-WHT)	These wires have 3-way junctions, check and cut to create 1 wire
FUEL TEMP SENSOR	B136 / 12 (BLU-BLK)	<b>→</b>	B136 / 26 (BLU-BLK)	
SMALL LIGHT	B137 / 12 (BLK-WHT)	<b>→</b>	B136/3	Not used on 99 RS only on 2000+
BLOWER FAN SWITCH	B137 / 13 (GRN-RED)	$\rightarrow$	B136 / 30 (GRN-RED)	Not used on 99 RS only on 2000+
REAR DEFOGGER SWITCH	B137 / 11 (BLU)	→	B135 / 21 (WHT-RED)	Not used on 99 RS only on 2000+
SSM/GST COM LINE	B137 / 20 (LGRN-BLK)	→	B135 / 3 (GRN-BLK)	
OBD2 PIN 4	Х	→	B135 / 11 (GRN-WHT)	Not used in WRX/STI
OBD2 PIN 5	Х	<b>→</b>	B135 / 12 (LGRN-RED)	Not used in WRX/STI
OBD2 PIN 8	Х	→	B135 / 21 (WHT-RED)	Not used in WRX/STI
FUEL PUMP RELAY CONTROL	Х	<b>→</b>	B134 / 16 (LGRN-BLK)	Needs ground
SENSOR GROUND JOINT	GREEN / YELLOW	<b>→</b>		Connector B83 page WI-111 in manual
WATER TEMP SIGNAL	WHITE / GREEN	<b>→</b>	WHITE / GREEN	
OIL PRESSURE SIGNAL	GREEN / WHITE	<b>→</b>	GREEN / WHITE	
INJECTORS		<b>→</b>	Х	Needs switched 12V+
IGNITION		<b>→</b>	Х	Needs switched 12V+

#### 1999-2001 Impreza 2.5 RS ECU pinout

to (B134)

to (B135)

to (B136)

8	7		6	5						4	3		2	1
23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
35	34		33	32	31	30		29	28	27	26		25	24

7	6	5	4	15					3	2	1
19	18	17	16	15	14	13	12	11	10	9	8
28	27		26	25	24		23	22		21	20

-	7	6		5	4						3	2	1
	20	19	18	17	16	15	14	13	12	11	10	9	8
	30	29	28		27	26		25	24	23		22	21

#### 2004 STI ECU pinout

To B134

7			6	3	5		4	1		3	2		1
17	1	6	П	15	14	I	13		12	11	10	9	8
27	2	6	П	25	24	Ī	23	Γ	22	21	20	19	18
34	3	3	Γ						32	31	30	29	28

To B135

7		6	5		4	3				2		1
19	18	17	16	15	14	13	12	2	11	10	9	8
27	26			25	24			7	23	22	21	20
35	34			33	32				31	30	29	28
		-						•				

To B136

6			5		4			3	2			1	
16	1	5	14	13	12	1	1	10	9	8		7	
27	2	6	25	24	23	2	2	21	20	19	9	18	17
35	3	4	33	32	31	Г				3	0	29	28

To B137

7			6	5			4	L	3		2	2		1
17	1	6	15	14	1	3	12		11	1	0		9	8
25	2	4			2	3	22	Π	21	2	20	ı	19	18
31	3	0			2	9	28	ľ				1	27	26

<b>STI DBW</b>	THROTTL	E RELAY
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GROUNDED AT ECU	B309 / 1 (YLW-BLU)	$\rightarrow$	B135 / 5 (YLW-BLU)
12V+	B309 / 2 (YLW/BLK)	÷	12V+ FROM FUSE BOX
12V+	B309 / 3 (YLW-RED)	÷	B135 / 35 (YLW-RED)
GROUNDED AT ECU	B309 / 4 (YLW-GRN)	<b>→</b>	B137 / 6 (YLW-GRN)



1	2
3	4

	04 STI FU	EL PUMP CONTROLLER	
FUEL PUMP GROUND	R122 / 6 BLACK-WHITE	<b>→</b> X	CONNECT TO FUEL PUMP GROUND (BLK) PUMP SIDE
ECU SIGNAL	R122 / 8 VIOLET- WHITE	<b>→</b> X	WIRED DIRECTLY TO ECU
FUEL PUMP 12V+	R122 / 7 BLACK-ORANGE	→ X	CONNECT TO FUEL PUMP 12V+ (BLK- RED) PUMP SIDE
CONTROLLER GROUND	R122 / 5 BLACK	<b>→</b> X	CONNECT TO GROUND (BLK) CHASSIS
ECU SIGNAL	R122 / 9 LIGHT GREEN-RED	<b>→</b> X	WIRED DIRECTLY TO ECU
CONTROLLER 12V+	R122 / 10 BLACK-YELLOW	<b>→</b> X	CONNECT TO 12V+ (BLK-RED) FROM CAR

04 STI FPC PINOUT →



8

STI CRUISE CONTROL				
SPEED SENSOR	B135 / 27 (GRN-BLK)	<b>→</b>	B94 / 18 (GRN-YLW)	
CLUTCH SWITCH	B134 / 1 (YLW-RED)	→	B94 / 9 (BLU-ORN)	
BRAKE SWITCH 1	B136 / 9 (RED-YLW)	→	B94 / 8 (RED-YLW)	
BRAKE SWITCH 2	B136 / 8 (WHT-BLK)	→	B94 / 19 (WHT-BLK)	
RESUME/ACCEL SWITCH	B136 / 10 (RED-WHT)	→	B94 / 7 (RED-WHT)	
SET/COAST SWITCH	B136 / 11 (LGRN-BLK)	→	B94 / 6 (LGRN-BLK)	
CANCEL SWITCH	B136 / 7 (GRN-BLU)	$\rightarrow$	B94 /1 (RED-BLU)	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

← GC CRUISE MODULE B94

#### OBD2 CONNECTOR

	STI PINS		ECU PINS	
12V+	B40 / 1 (BLK-RED)	$\rightarrow$	12V+	12V FROM FUSE BOX
ECU COMM LINE	B40 / 6 (RED-WHT)	$\rightarrow$	B137 / 29	
ECU COMM LINE	B40 / 10 (LGRN-BLK)	$\rightarrow$	B137 / 20	
GROUND	B40 / 12 (BLK-RED)		<b>→</b>	Pin 12/13 tied with test connector ground, through neutral pos switch to B137 / 9 (GRN-BLK) and ground B122
GROUND	B40 / 13 (BLK-RED)		→	

