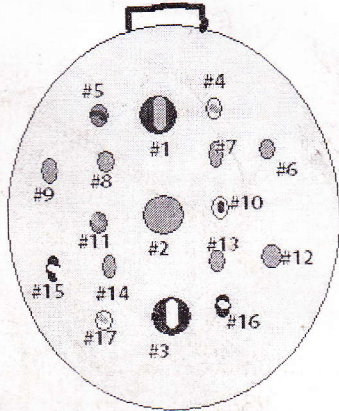
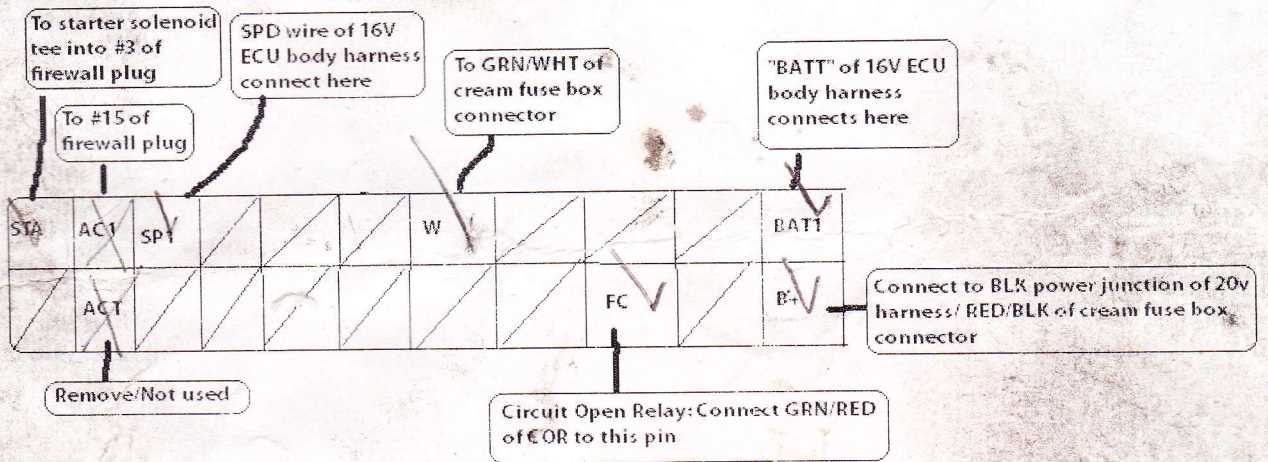


Black Firewall plug wiring:



- #1- BLK/ORG- Wire to BLK/WHT power junction of the 20V harness
- #2- BLK - Remove from plug
- #3- BLK/WHT- Wire to Starter Solenoid wire
- #4- YEL/GRN- Wire to the Single Wire 20V water temp sensor (gauge cluster temp)
- #5- RED/BLK- Reverse Lights
- #6- empty
- #7- empty
- #8- empty
- #9- empty
- #10- YEL/BLK- Wire to oil pressure sensor (gauge cluster oil press.)
- #11- RED/BLU- Reverse lights
- #12- empty
- #13- empty
- #14- empty
- #15- BLK/WHT- To 20V 22pin ECU "ACT"
- #16- BLK -To 20V ignitor BLK wire
- #17- WHT/BLU- not used



For some reason this information is not all in one place on this site, if at all. so hopefully this can help you guy's in your searching and researching.

This is using a complete ae111 wiring harness and ECU, and a complete gt-s - ae86 engine harness. i used ae86 alternator, starter, and a/c.

you should have a good understanding of how to do wiring, soddering and the basic understanding of how a cerciut works.

Start by marking every plug as you pull the harness off the motor, then remove all the wire lume from harness, rap electrical tape once or twice around the wires every 6 inches or so, also where ever wires split off or come in. this is to keep the wires neat.

Do the same for the ae111 wiring harness, where the harness passes through the fire wall there is a cast ruber lume compression thing going on, be real easy and cut the rubber as you pull each wire out individually, try not to cut the wires, after marking all the wires you can start removing what is not needed, just go slow and trace where stuff is going and where it came from.

after you have both of the harnesses out and labled, and the ae111 harness reduced to what you need, you basicy cut the wires out of the ae86 -gts harness and sodder them in the ae111 harness where needed.

Heres what worked for me

There are six conectors that you are dealing with when doing a b/t to ae86, gts swap.

- (1.) ae111 ecu plug 1 , 26 pin conector
- (2.) ae111 ecu plug 2 , 16 pin conector
- (3.) ae111 ecu plug 3 , 22 pin conector
- (4.) ae86 ecu plug t , 14 pin conector - comes off in car harness
- (5.) ae86 fire wall harness , 11 pin conector
- (6.) ae86 engine harness "not ecu" , ~~13~~¹⁴ pin conector - goes to fuse and relay box near ecu.

to simplify thing, i'll refer to these plugs as stated above.

✓ In the ae111 swap to the ae86 most of the wire for the (1.) ae111 ecu plug 1 , 26 pin conector are unchanged except for the els1, els2, els3 and cf pins witch are not needed in this application.

?? ✓ in the (2.) ae111 ecu plug 2 , 16 pin conector els4 is not needed, and i hooked e2 to (4.) ae86 ecu plug t , 14 pin conector pin, e2 sensor ground. all the others are unchanged

on the (3.) ae111 ecu plug 3 , 22 pin conector there are 6 wires that needs to be hooked up to it's place on the ae86 wireing.

starting at the start. this is first (3.) ae111 ecu pin then where it hooks to on ae86

✓ sta, blk-w - to (5.) ae86 fire wall harness blk-w wire also - spit to starter signal wire blk-w

✓ ac1
act are not needed, you do however cut the wire for the a/c magnetic clutch for the ae86 ecu. my car does blow cold air

✓ sp1, purple/w - to (4.)ae86 ecu plug t, blue/w - for speed sensor

can this hook up to 14 pin relay box p its on the same wire.

w, r/y - to (6.) ae86 engine harness "not ecu" g/w - for warning light

FC, g/r - to g/r circuit open relay, sits above where the ecu sits in the ae86

BATT, r/w - to (4.)ae86 ecu plug t r/w - battery +

+B, blk, split that goes every where - to (4.)ae86 ecu plug t r/blk - main relay

(4.) covered above 3 wires go to (3.) ae111 ecu plug 3, 22 pin conector, one goes to (2.) ae111 ecu plug 2. the rest are not used. you only need one main relay wire, so one is not used, and 2 wires are for the afm - not needed
i have a question about THA inlet air temp, where does it go? my car does run fine without this hooked up.
2 wires are for the afm - not needed
the ground i think i run to ae111 ecu plug 2 just for safety

as for (5.) ae86 fire wall harness

blk/orange - to ae111 coil, and to the blk/w on the igniter that goes to a split-where it meets all four injector positive wires. there will be a sixth wire you can run back to where the blk/orange meets the coil.

blk/ red dots - to ae11 igniter...whatch out there is 2blk/red dots

blk/w - to (3.)ae111 ecu plug 3 sta, splt to starter signal... already covered above

y/g - to coolant temp sensor

a/c wires you shouldn't have cut unless removing a/c

this is (6.) not ecu, most of them are for the wipers/washer 5 wires in total. and 5 are for afm - one is g/r that go to curcuit open relay,

another way to look at it

location location
ae86 color on ae86 purpose on ae111 ae111 color

y-blk fire wall oil pres. oil pres. sender - y-blk
use ae86 sender

y-g fire wall colant temp. coolant temp sender - y-g
side of thermostat hosing

blk-w fire wall starter starter, split to ecu 3 - blk-w

blk-r fire wall igniter igniter - blk

blk-orange fire wall coil/igniter coil - blk-w

brown ecu plug t ground ecu plug 2 brown

red-blk ecu plug t +B ecu plug 3 blk

red-w ecu plug t battery + ecu plug 3 red-w

blue-w ecu plug t speed sensor ecu plug 3 purple-w

g-w not ecu plug warning light ecu plug 3 red-yellow

?

There's no r/blk => its blk/r you fucking retard!

can use the ae111 air temp sensor, the ae86 one is not needed anymore you dumbass

what 6th wire??

?? check with Banana go where? to blk on igniter (according to another thread)

wasn't in previous section

blk/red dots

don't leave this wire

g-r circuit open relay COR ecu plug 3 g-r

Please let me know if i mest up anywhere, my car fired right up with this set up. and has run for 20 thousand miles as of 2/08.. and sold the car with no problem had

if i have any more information i'll revise this post, good luck.

i added a diagram and 2 pics of some of the notes i took... i spent as much time reaserching and figureing this out as i did on the rest of the swap. i haave 5 more pages of notes, but there contents are in this post. ecu pin outs for the ae86 are in the tech referance section of this club

V Plug
10P

AE86 ECU PIN-OUTS
U Plug
18P

T Plug
14P

E01	NO. 10	ST	VF			W	T	IDL	IGF	G-	G+		NE			VC	VS	THA	Batt+B1
E02	NO. 20	IGT	E1	VSV	I/up			A/C	E21	OX	VCC	VTA	THW			E2		SPD	+B

Pinout by: Woody

V Connector

Pin No.	Symbol	Color	Terminal
1			
2	VF	R-L	Check connector
3	ST	B-W	Starter switch
	(STA)		
4	No. 10	Y	No. 3, 4 injector
5	E01	BR	Engine ground (Power)
6	VSV- (S/TH)	R-W	Vacuum switching valve (S/TH)
7	E1	BR	Engine ground
8	IGT	B	Igniter
9	No. 20	G	No. 1, 2 injector
10	E02	BR	Engine ground (Power)

U Connector

Pin No.	Symbol	Color	Terminal
1	NE	R	Engine revolution sensor
2			
3	G+	B	Engine revolution sensor
4	G-	W	Engine revolution sensor
5	IGF	B-Y	Igniter
6	IDL	L	Throttle sensor
7	T	LG-B	Check connector
8	WAN	G-W	Warning light
9			
10	THW	G	Water temp. sensor
11	VTA	R	Throttle sensor
12	VCC	L-R	Throttle sensor
13	OX	B	Oxygen sensor
14	E21	BR	Sensor Earth
15	A/C	B-W	A/C Magnet clutch
16			
17			
18	I/UP (VISC)	B	Vacuum switching valve [Idle up]

T Connector

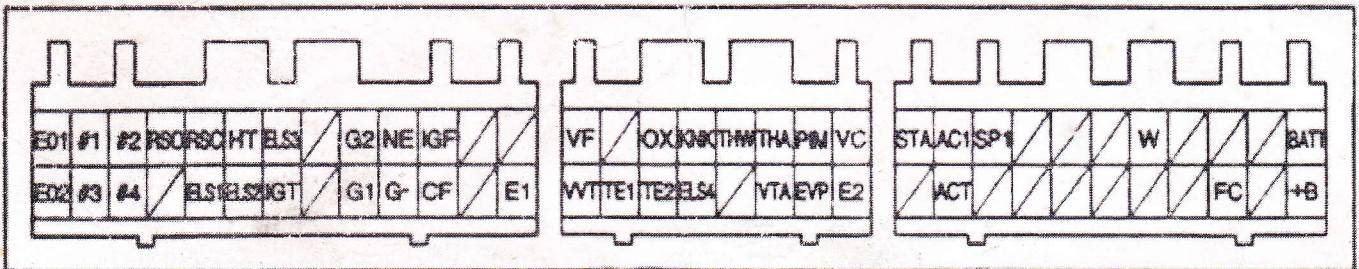
Pin No.	Symbol	Color	Terminal
1	+B1	B-R	Main relay
2	BaTT	R-W	Battery
3	THA	Y	Inlet air temp. sensor
4	VS	Y-L	Air flow meter
5	VC	L-R	Air flow meter
6			
7			
8	+B	B-R	Main relay
9			
10	SPD	L-W	Speedometer
11			
12	E2	B-R	Sensor earth
13			
14			

AE111

Engine ECU Terminals

Symbol	Terminal Name	Symbol	Terminal Name	Symbol	Terminal Name
E01	POWER GROUND	/	—	AC1	A/C AMPLIFIER
E02	POWER GROUND	/	—	ACT	A/C AMPLIFIER
#1	INJECTOR	/	—	SP1	SPEED SENSOR
#3	INJECTOR	E1	ENGINE GROUND	/	—
#2	INJECTOR	VF	CHECK CONNECTOR	/	—
#4	INJECTOR	VVT	CAMSHAFT OIL CONTROL VALVE	/	—
RSO	ISC VALVE	/	—	/	—
/	—	TE1	CHECK CONNECTOR	/	—
RSC	ISC VALVE	OX	OXYGEN SENSOR	/	—
ELS1	ELECTRIC COOLING FAN RELAY	TE2	CHECK CONNECTOR	/	—
HT	HEATED OXYGEN SENSOR	KNK	KNOCK SENSOR	W	WARNING LIGHT
ELS2	BLOWER RELAY	ELS4	DEFROGGER SWITCH	/	—
ELS3	TAILLIGHT RELAY	THW	WATER TEMP. SENSOR	/	—
IGT	IGNITER	/	—	/	—
/	—	THA	INTAKE AIR TEMP. SENSOR	/	—
/	—	VTA	THROTTLE POSITION SENSOR	FC	CIRCUIT OPENING RELAY
G2	CRANKSHAFT POSITION SENSOR	PIM	VACUUM SENSOR	/	—
G1	CRANKSHAFT POSITION SENSOR	EVP	EVAP	/	—
NE	CRANKSHAFT POSITION SENSOR	VC	VACUUM SENSOR, THROTTLE POSITION SENSOR	BATT	BATTERY
G-	CRANKSHAFT POSITION SENSOR ⊖	E2	SENSOR GROUND	+B	BATTERY
IGF	IGNITER	STA	STARTER RELAY		
CF	COOLING FAN RELAY	/	—		

Engine ECU Terminals



Parts that need to be sourced from 16V harness:

- Black 17pin Firewall plug
- Cream 14pin Fuse box connector for wiper operations/CEL

Page #1

Wiper Motor Prep Section:

-Locate the cream 14pin connector of 16V harness. This connector plugs into the passenger side fuse box and contains the wiring for the wiper operation, MIL light, Circuit Open Relay, and Battery power. Remove the tape from the 16V harness and separate the wires of this plug from the rest of the 16V harness, creating a prep harness. After doing so cut the GRN/WHT, GRN/RED, and BLK/RED wires of the cream plug allowing about 6-8 inches of wire still attached to the cream plug. The wiper prep harness should look like this:



With the prep section completed, remove the GRN/RED wire of the prep harness. This is the old COR wire and is not needed. The GRN/WHT wire will become the MIL light wire. Connect the GRN/WHT wire to pin "W" of the 20V 22pin ECU plug. The BLK/RED wire will go to the BLK wire power junction located in the 20v harness that also connects to "B+" of the 20V 22pin ECU plug. With wires connected the cream fuse box plug should exit the wiring harness with the ECU plugs as the fuse box is next to the ECU.

