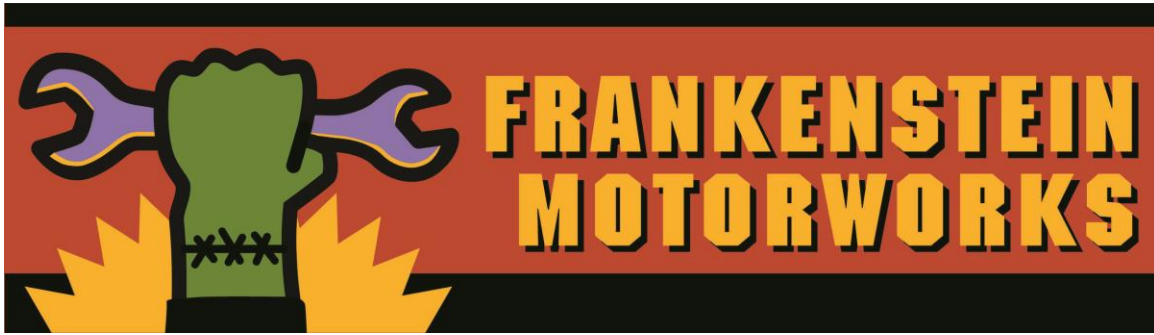
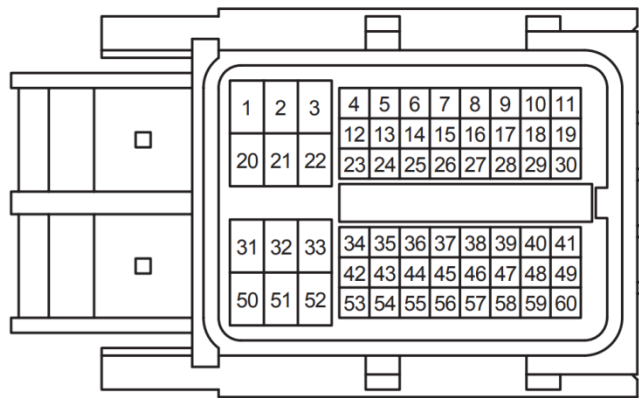


## "A35" 2-plug Pigtail



This pigtail can be used with the 2AR-FE and 2GR-FE 2-plug ECUs. The wires are not inserted since both applications use a slightly different pinout.

Before inserting any pins you need to reach into the housing and move the white locking bar over to unlock it.



Pin numbering when connector is viewed from the side that plugs into the ECU.  
Pin numbers are also written on the connector itself to verify

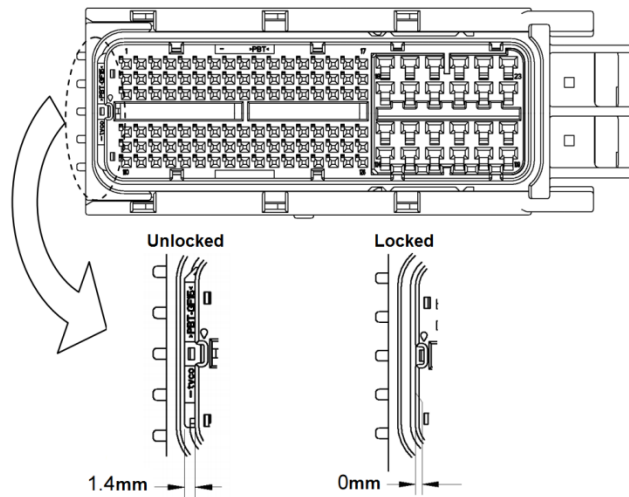
### Large Cavity Pins

Function	2GR-FE Sienna Pin	2GR-FE Rav4 Pin	2AR-FE Pin	Color
" +B2 MREL switched power	2	1	1	Orange
" +B MREL switched power	3	2	2	Orange
" BM+ Constant battery power	-NA-	3	3	Red
Batt Constant Battery Power	1	20	20	Red
FAN Low Speed	-NA-	-NA-	21	Blue
FAN High Speed	-NA-	-NA-	22	Blue
EC earth	-NA-	32	32	Black
ELS1 "exterior light system" (Optional)	33	31	31	Yellow

## Small Cavity Pins

Function	2GR-FE Sienna Pin	2GR-FE Rav4 Pin	2AR-FE Pin	Color
IGSW - ignition switch	28	28	28	Red
MREL main relay control	34	44	6	Blue
FC Fuel pump control	52	7	8	Brown
Tach	15	15	26	Brown
W - Check engine light	24	24	36	Pink
CANL	11	49	5	Pink
CANH	10	41	13	Yellow
VPA - DBW	55	55	55	Orange
VPA2 - DBW	56	56	56	Gray
VCPA - DBW	57	57	57	Violet
VCP2 - DBW	59	58	58	Violet
EPA - DBW	58	59	59	Black
EPA2 - DBW	60	60	60	Black
TC - OBDII connector (optional)	16	27	7	White
Speed signal input (optional)	13	8	15	White
STP Stop Lights (optional)	36	36	29	White
ST1- Inverted Stop Lights (optional)	35	35	39	White
CCS - cruise input to ECU (optional)	45	40	40	White
ELS3 - Marker lights (optional)	-NA-	33	41	White
SPARE	-NA-	-NA-	-NA-	White

Connector Locking detail



The full wiring diagram for the sienna 2GR-FE can be found here:

<https://FrankensteinMotorworks.com/2GRFE/diagrams/%2715%20sienna%20ENGINECONTROL.pdf>

The full wiring diagram for the rav4 2GR-FE can be found here:

<https://FrankensteinMotorworks.com/2GRFE/diagrams/Toyota%20RAV4%20Electrical%20Wiring%20Diagrams%20%28EWD%29.pdf>

The full wiring diagram for the 2AR-FE can be found here:

<https://FrankensteinMotorworks.com/MKIII/2ARSwap/ECU/2AR-FE%20DIAGRAM.pdf>

If you have any issues or questions please reach out to me directly: [Marc@FrankensteinMotorworks.com](mailto:Marc@FrankensteinMotorworks.com)