



## LS2 Coil Pack Upgrade Kit from BEAVIS Motorsport!



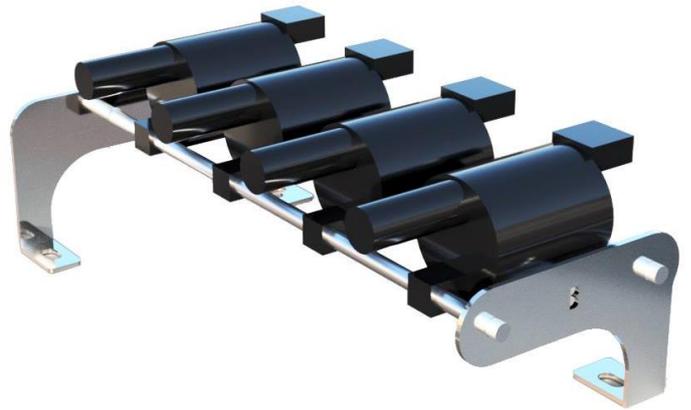
# INTRODUCTION

Hello and thank you for purchasing your complete LS2 Coil Pack Upgrade Kit from BEAVIS Motorsport!

We at **BEAVIS Motorsport** hope that your new Coil Packs installation is as straight forward as possible, however we always recommend that you please read and follow these instructions carefully BEFORE you complete your installation or tuning. There are now only a few things that stand between you and the power and performance of LS2 awesomeness. If any of these steps are confusing, or if you run into issues, see our full guide at [www.beavismotorsport.com/guides-tech/](http://www.beavismotorsport.com/guides-tech/) or you can contact [info@beavismotorsport.com](mailto:info@beavismotorsport.com) for support.

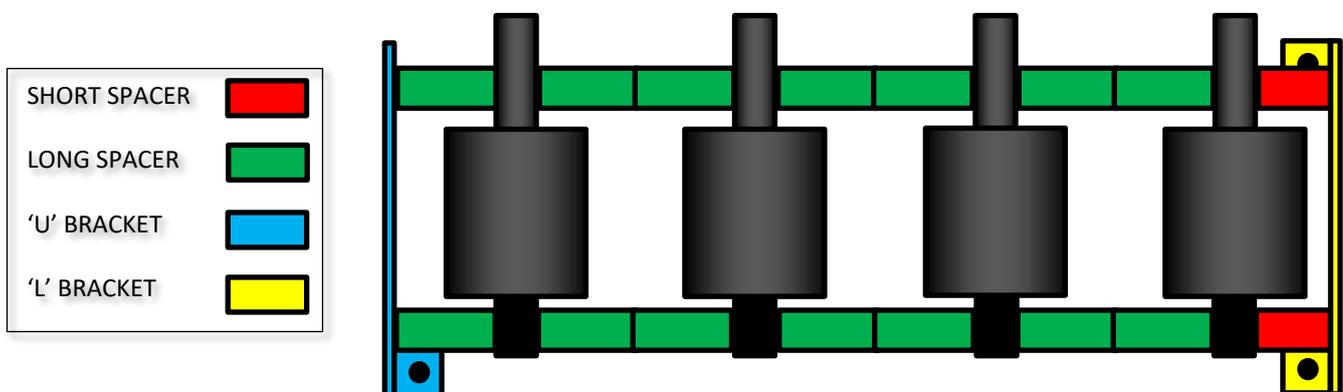
## WHAT'S INCLUDED

1. Coil Pack Mounting Bracket
2. 4x GM LS2 Coil Packs
3. Wiring Harness
4. 2x Long MSD Ignition leads (cyl 1 & 2)
5. 2x Short MSD Ignition leads (cyl 3 & 4)



## ASSEMBLY

We recommend the bracket and coils be fully assembled off the car, with nuts done up loosely, and installed as a single complete package. Start by, removing the protective plastic film from the stainless brackets. Next, slide the long bolts through the 'L' bracket onto which we can begin to assemble the coil packs. Slide on coil packs on by one, with a long spacer either side of each coil pack. The final two spacers are the Short spacers, after coil pack 4. Tighten the long bolts down with the nuts but leave it slightly loose for now. Your kit should look like the following image **before** attempting to install onto the car.



# INSTALLATION

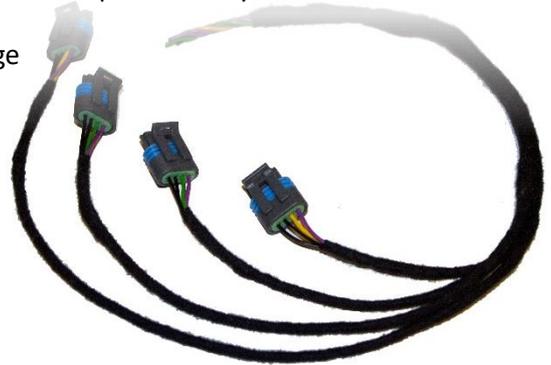
You will need to remove **3 of the valve cover bolts** to install the kit as shown by the **image to the right**. Place the assembled coil kit over the valve cover and secure the factory valve cover bolts back in place **LOOSELY**. Now, tighten the two coil bracket long bolts. Finally tighten the valve cover bolts and, if possible, you should torque your valve cover bolts to **7 Newton-Metres**. Congratulations your LS2 coils are now installed!



# WIRING HARNESS

Please refer to the supplementary documentation for the correct installation process for your chosen harness.

**WARNING:** If you wire this incorrectly you can damage the coil packs, we DO NOT warrant coil packs.



# TUNING & DWELL TIMES

To get the most out of your LS2 coil packs, you will want to configure your ECU to **set the ignition nominal dwell time to no more than 3.5ms** with a **spark duration of 1.0ms** and if possible, **matching the Dwell table below**. Most vehicles will NOT require a re-tune however it is highly recommended to have someone who really knows what they are doing tune your vehicle.

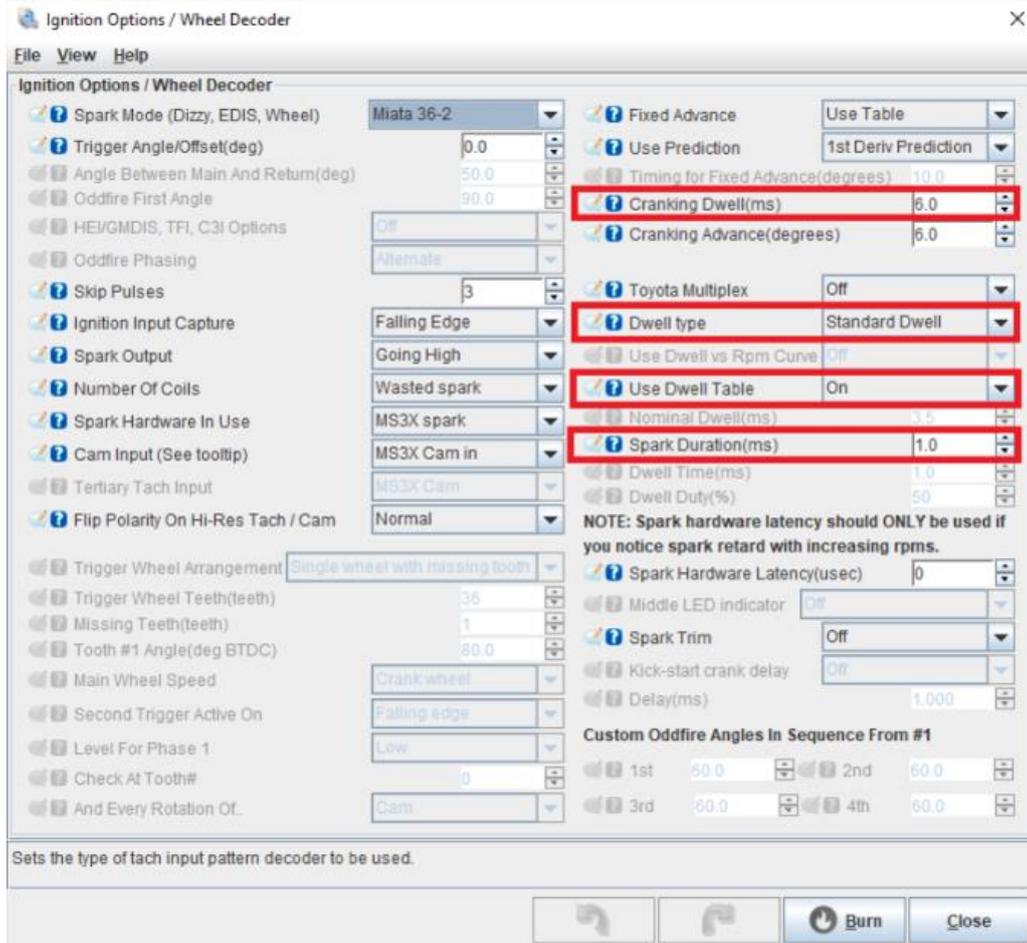
%age	228	162	126	100	84	70
Voltage	6.0	8.0	10.0	12.0	14.0	16.0

rpm	500	1000	1500	2000	3000	4000	6000	8000
255.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
200.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
150.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
100.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
80.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
60.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
40.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0
20.0	3.4	3.4	3.3	3.2	3.0	2.8	2.6	2.0

*For the Megasquirt:  
Ignition Options > Dwell Battery Correction  
Ignition Options > Dwell Table*

*For the Megasquirt:  
Ignition Options > Ignition Options/Wheel Decoder*

## Megasquirt :



## ME221 ECU recommended dwell table:

Motorsport Electronics Integrated Tuning Environment | 1.9.42.24859

File ECU View Logging Help

START Sensor Cals Crank\_ASE Warmup Mapping Idle Accel Lambda Wideband AC/Fan/Alt. Boost Limiters ALS/Launch Knock

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  - Ign. Adv. Sec. Load Mod
  - AC Ctrl Adv Add
  - Spark Scatter Adv Add
  - Ignition Adv. Angle (Final)
  - Ignition Dwell
  - Dwell Table**
  - Ignition Table (Pri 1)
  - Ignition Table (Sec)
  - Ignition Sec. Load Trim
  - Ignition Table (Pri 2)
  - Aux - Ignition Table
- Knock Control
- Environmental

Dwell Table [RPM X Battery Voltage (V) -> Current Dwell (ms)]

X	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7600	7800	8000
6	6.9	6.736	6.572	6.408	6.244	6.08	5.915	5.751	5.587	5.423	5.259	5.095	4.931	4.734	4.668	4.603
6.6	6.639	6.481	6.323	6.165	6.008	5.85	5.692	5.534	5.376	5.218	5.06	4.902	4.745	4.555	4.492	4.429
7.2	6.379	6.227	6.076	5.924	5.772	5.62	5.469	5.317	5.165	5.014	4.862	4.71	4.558	4.376	4.316	4.255
7.8	6.118	5.973	5.827	5.682	5.536	5.391	5.245	5.1	4.954	4.809	4.663	4.518	4.372	4.198	4.139	4.081
8.4	5.857	5.718	5.578	5.439	5.3	5.161	5.021	4.882	4.743	4.604	4.464	4.325	4.186	4.019	3.963	3.907
9	5.597	5.464	5.331	5.198	5.065	4.931	4.798	4.665	4.532	4.399	4.266	4.133	4	3.84	3.787	3.734
9.6	5.336	5.209	5.082	4.955	4.828	4.702	4.575	4.448	4.321	4.194	4.067	3.94	3.813	3.661	3.61	3.56
10.2	5.075	4.954	4.834	4.713	4.592	4.471	4.351	4.23	4.109	3.988	3.868	3.747	3.626	3.481	3.433	3.385
10.8	4.815	4.701	4.586	4.472	4.357	4.243	4.128	4.014	3.899	3.784	3.67	3.555	3.441	3.304	3.258	3.212
11.4	4.554	4.446	4.337	4.229	4.121	4.013	3.904	3.796	3.688	3.579	3.471	3.363	3.255	3.125	3.081	3.038
12	4.293	4.191	4.089	3.987	3.884	3.782	3.68	3.578	3.476	3.374	3.272	3.17	3.068	2.945	2.904	2.863
12.6	4.033	3.937	3.841	3.745	3.649	3.554	3.458	3.362	3.266	3.17	3.074	2.978	2.882	2.767	2.729	2.69
13.2	3.772	3.682	3.593	3.503	3.413	3.324	3.234	3.144	3.055	2.965	2.875	2.786	2.696	2.588	2.552	2.517
13.8	3.511	3.427	3.344	3.26	3.177	3.093	3.01	2.926	2.843	2.759	2.676	2.592	2.509	2.409	2.375	2.342
14.4	3.251	3.174	3.096	3.019	2.942	2.865	2.787	2.71	2.633	2.555	2.478	2.401	2.323	2.231	2.2	2.169
15	2.99	2.919	2.848	2.777	2.706	2.635	2.564	2.493	2.421	2.35	2.279	2.208	2.137	2.052	2.023	1.995

Thank you from BEAVIS Motorsport team – enjoy!

For the ME221:  
Ignition > Dwell Table