

# Instruction Manual



## 30-3805-09 Core Harness System GM Coil Adapter Harness AEM IGBT Smart Coils



### STOP!

**THIS PRODUCT HAS LEGAL RESTRICTIONS.**  
**READ THIS BEFORE INSTALLING/USING!**

**WARNING!** THIS IS A RACE ONLY PRODUCT MANUFACTURED AND SOLD FOR INSTALLATION ON VEHICLES DESIGNED TO BE USED SOLELY FOR COMPETITION PURPOSES. ONCE THIS PART IS INSTALLED, THE VEHICLE MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, ON A PUBLIC ROAD OR HIGHWAY. IF YOU INSTALL THIS PART ON YOUR VEHICLE AND USE THE VEHICLE ON A PUBLIC ROAD OR HIGHWAY, YOU WILL VIOLATE THE CLEAN AIR ACT AND MAY BE SUBJECT TO PERSONAL CIVIL OR CRIMINAL LIABILITY, INCLUDING FINES OF UP TO \$4,819 PER DAY.

IT IS THE RESPONSIBILITY OF THE INSTALLER AND/OR USER OF THIS PRODUCT TO ENSURE THAT IT IS USED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IF THIS PRODUCT WAS PURCHASED IN ERROR, DO NOT INSTALL AND/OR USE IT. THE PURCHASER MUST ARRANGE TO RETURN THE PRODUCT FOR A FULL REFUND.

THIS POLICY ONLY APPLIES TO INSTALLERS AND/OR USERS WHO ARE LOCATED IN THE UNITED STATES; HOWEVER CUSTOMERS WHO RESIDE IN OTHER COUNTRIES SHOULD ACT IN ACCORDANCE WITH THEIR LOCAL LAWS AND REGULATIONS.

### **WARNING!**

**Improper installation and/or adjustment of this product can result in major engine/vehicle damage. For technical assistance visit our dealer locator to find a professional installer/tuner near you.**

**Note: AEM holds no responsibility for any engine damage or personal injury that results from the misuse of this product, including but not limited to injury or death.**

AEM Performance Electronics  
AEM Performance Electronics, 2205 126th Street Unit A, Hawthorne, CA 90250  
Phone: (310) 484-2322 Fax: (310) 484-0152  
<http://www.aemelectronics.com>  
Instruction Part Number: 10-3805-09  
Document Build 1/26/2021

## Introduction

Some harness user manuals contain active hyperlinks that point to specific sections or even launch additional documents such as wiring diagrams. Recommend viewing this document electronically to take advantage of all features.

Several universal wiring harness options are available for Infinity products. They range in complexity from simple plug and pin kits to complete engine harness assemblies that include power distribution centers. Custom wiring harness projects should only be undertaken by experienced harness builders. If in doubt, please contact AEM for recommendations.

### **30-3805 Universal V8 harness system for Infinity Series 7**

The Infinity Universal V8 Harness system consists of a universal core harness and optional application specific extensions. It was designed with flexibility in mind. The harness system includes many features and it can be used in many different applications.

### **30-3809 Universal V8 harness system for Infinity Series 5**

The Infinity Universal V8 Harness system consists of a universal core harness and optional application specific extensions. It was designed with flexibility in mind. It includes throttle body and pedal interfaces for DBW applications. The harness system includes many features and it can be used in many different applications.

### **30-3705 Universal Mini Harness for Infinity Series 5**

This harness is intended to be used as a starting point by experienced harness builders. It saves time by including basic power distribution features that can be expanded to suit many application requirements. It allows the harness builder to populate the ECU connector with only the features needed by the application.

### **30-3706 Mini Flying Lead Harness for Infinity Series 5**

This harness is intended to be used as a starting point by experienced harness builders. It saves time by including flying leads that can be terminated by the harness builder at the sensor and actuator connectors.

### **30-3707 Mini Flying Lead Harness for Infinity Series 3**

This harness is intended to be used as a starting point by experienced harness builders. It saves time by including flying leads that can be terminated by the harness builder at the sensor and actuator connectors.

### **30-3702 Infinity Series 7 Mini-harness**

This harness is intended to be used as a starting point by experienced harness builders. It saves time by including basic power distribution features that can be expanded to suit many application requirements. It allows the harness builder to populate the ECU connector with only the features needed by the application. Includes 100 96" pre-terminated leads.

### **30-3703 Infinity Series 7 Mini-harness**

This harness is intended to be used as a starting point by experienced harness builders. It saves time by including basic power distribution features that can be expanded to suit many application requirements. It allows the harness builder to populate the ECU connector with only the features needed by the application.

### **30-3701 Infinity Series 7 Plug & Pin Kit**

Bare necessities to begin a custom wire harness design. Includes 73 and 56 pin Molex MX123 harness connectors, terminals and sealing plugs, main relay and relay socket.

### **30-3704 Infinity Series 5 Plug & Pin Kit**

Bare necessities to begin a custom wire harness design. Includes 80 pin Molex MX123 harness connector, terminals and sealing plugs, main relay and relay socket.

### **30-3708 Infinity Series 3 Plug & Pin Kit**

Bare necessities to begin a custom wire harness design. Includes 73 pin Molex MX123 harness connector, terminals and sealing plugs, main relay and relay socket.

*Please read the entire User Manual prior to beginning any installation.*

## Kit Contents

AEM P/N	Description	Qty
36-3805-09	Coil Extension, AEM IGBT Smart Coils (GM Cylinder Order)	1
10-3805-09	Instruction Sheet	1



## Harness Pinout

C1				DT Receptacle, 12 Way
Pin	Wire Color	Gauge	Destination	
			1	
C1-1	BLK	20	C9-A	Coil1
C1-2	BLK	20	C5-A	Coil2
C1-3	BLK	20	C8-A	Coil3
C1-4	BLK	20	C4-A	Coil4
C1-5	BLK	20	SP1	Sensor Ground
C1-6	BLK	14	SP4	+12V Power
C1-7	BLK	14	SP5	+12V Power
C1-8	BLK	14	SP6	Battery Ground

C1-9	BLK	20	C7-A	Coil5
C1-10	BLK	20	C3-A	Coil6
C1-11	BLK	20	C6-A	Coil7
C1-12	BLK	20	C2-A	Coil8

C2				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil8
			1	
A	BLK	20	C1-12	Coil8
B	BLK	20	SP2	Sensor Ground
C	BLK	20	R1	Cylinder Head Ground
D	BLK	20	SP7	Battery Ground
E	BLK	20	SP5	+12V Power

C3				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil6
			1	
A	BLK	20	C1-10	Coil6
B	BLK	20	SP2	Sensor Ground
C	BLK	20	R1	Cylinder Head Ground
D	BLK	20	SP7	Battery Ground
E	BLK	20	SP5	+12V Power

C4				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil4
			1	
A	BLK	20	C1-4	Coil4
B	BLK	20	SP2	Sensor Ground
C	BLK	20	R1	Cylinder Head Ground
D	BLK	20	SP7	Battery Ground
E	BLK	20	SP5	+12V Power

C5				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil2
			1	

A	BLK	20	C1-2	Coil2
B	BLK	20	SP2	Sensor Ground
C	BLK	20	R1	Cylinder Head Ground
D	BLK	20	SP7	Battery Ground
E	BLK	20	SP5	+12V Power

C6				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil7
			1	
A	BLK	20	C1-11	Coil7
B	BLK	20	SP3	Sensor Ground
C	BLK	20	R2	Cylinder Head Ground
D	BLK	20	SP8	Battery Ground
E	BLK	20	SP4	+12V Power

C7				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil5
			1	
A	BLK	20	C1-9	Coil5
B	BLK	20	SP3	Sensor Ground
C	BLK	20	R2	Cylinder Head Ground
D	BLK	20	SP8	Battery Ground
E	BLK	20	SP4	+12V Power

C8				Metri-Pack 150.2 5-Way
Pin	Wire Color	Gauge	Destination	Coil3
			1	
A	BLK	20	C1-3	Coil3
B	BLK	20	SP3	Sensor Ground
C	BLK	20	R2	Cylinder Head Ground
D	BLK	20	SP8	Battery Ground
E	BLK	20	SP4	+12V Power

C9				Metri-Pack 150.2 5-Way
----	--	--	--	------------------------

Pin	Wire Color	Gauge	Destination	Coil1
			1	
A	BLK	20	C1-1	Coil1
B	BLK	20	SP3	Sensor Ground
C	BLK	20	R2	Cylinder Head Ground
D	BLK	20	SP8	Battery Ground
E	BLK	20	SP4	+12V Power

R1				Ring Terminal
Pin	Wire Color	Gauge	Destination	GND
			1	
1	BLK	20	C2-C	Cylinder Head Ground
2	BLK	20	C3-C	Cylinder Head Ground
3	BLK	20	C4-C	Cylinder Head Ground
4	BLK	20	C5-C	Cylinder Head Ground

R2				Ring Terminal
Pin	Wire Color	Gauge	Destination	GND
			1	
1	BLK	20	C6-C	Cylinder Head Ground
2	BLK	20	C7-C	Cylinder Head Ground
3	BLK	20	C8-C	Cylinder Head Ground
4	BLK	20	C9-C	Cylinder Head Ground

S1				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	SP2	Sensor Ground
L	BLK	20	SP3	Sensor Ground
R	BLK	20	C1-5	Sensor Ground

S2				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	C2-B	Sensor Ground

L	BLK	20	C3-B	Sensor Ground
L	BLK	20	C4-B	Sensor Ground
L	BLK	20	C5-B	Sensor Ground
R	BLK	20	SP1	Sensor Ground

S3				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	C6-B	Sensor Ground
L	BLK	20	C7-B	Sensor Ground
L	BLK	20	C8-B	Sensor Ground
L	BLK	20	C9-B	Sensor Ground
R	BLK	20	SP1	Sensor Ground

S4				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	C6-E	+12V Power
L	BLK	20	C7-E	+12V Power
L	BLK	20	C8-E	+12V Power
L	BLK	20	C9-E	+12V Power
R	BLK	14	C1-6	+12V Power

S5				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	C2-E	+12V Power
L	BLK	20	C3-E	+12V Power
L	BLK	20	C4-E	+12V Power
L	BLK	20	C5-E	+12V Power
R	BLK	14	C1-7	+12V Power

S6				Splice
Pin	Wire Color	Gauge	Destination	
			1	

L	BLK	20	SP7	Battery Ground
L	BLK	20	SP8	Battery Ground
R	BLK	14	C1-8	Battery Ground

S7				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	C2-D	Battery Ground
L	BLK	20	C3-D	Battery Ground
L	BLK	20	C4-D	Battery Ground
R	BLK	20	C5-D	Battery Ground
R	BLK	20	SP6	Battery Ground

S8				Splice
Pin	Wire Color	Gauge	Destination	
			1	
L	BLK	20	C6-D	Battery Ground
L	BLK	20	C7-D	Battery Ground
L	BLK	20	C8-D	Battery Ground
R	BLK	20	C9-D	Battery Ground
R	BLK	20	SP6	Battery Ground

## Harness Installation Tips