



## CDI 8 CHANNEL CAPACITOR DISCHARGE IGNITION SYSTEM (M1)

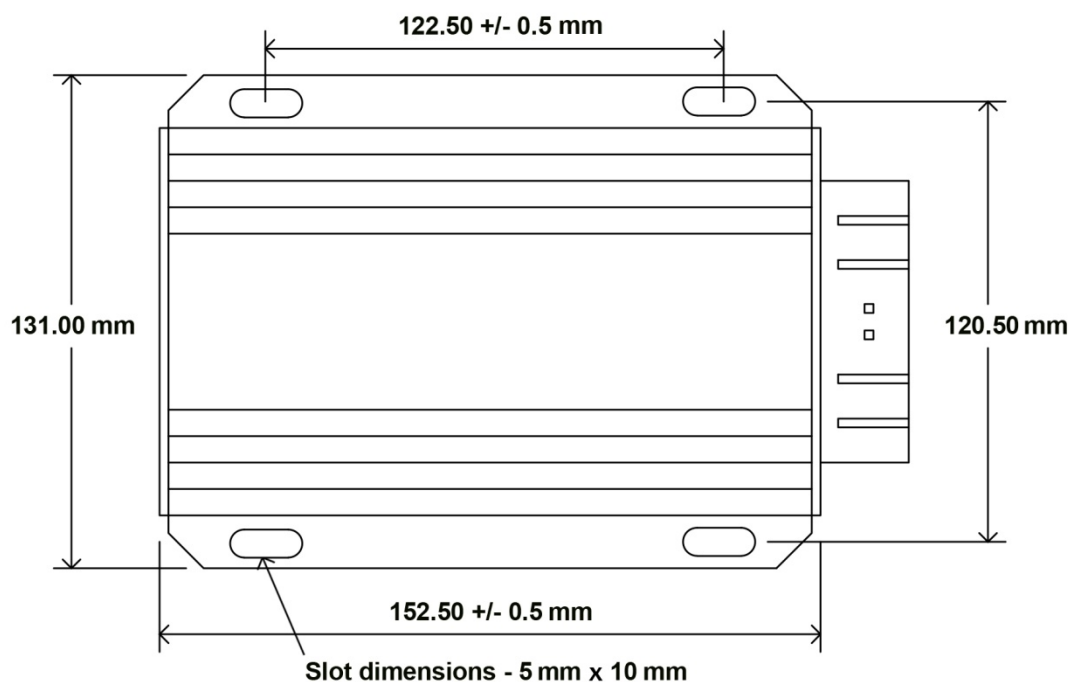


This 8 Channel CDI has been specifically designed for use with MoTeC M1 ECUs.

### ► SPECIFICATIONS

- Optimal Operating Voltage: 13 -18 V DC negative ground
- Startup Voltage: +6 V
- Max. Supply Current: 7.0 A
- Power Off Current: < 700 uA
- Max Ignition Frequency: 1,200 Hz
- Maximum Energy Limit: 750 Hz
- Coil Primary Voltage: 480 V
- Spark Energy: 115 mJ @ 750 Hz
- Trigger: 10 mA falling edge
- Ignition Delay: 25 uS
- Tacho: 12 V, 100 mA square wave
- Maximum Case Temp: 85° C

### ► MOUNTING DIMENSIONS



- Do not mount the unit where it will be exposed to water or other liquids.
- Ensure the bottom condensation slots are unobstructed and oriented to permit gravity drain.
- Select a location away from intense heat and, if required, provide a source of cooling air to remove internally generated heat.

**Do not mount using Velcro, failure to use supplied rubber mounts will void warranty.**



## ► PINOUT

Pin	Function
1	Ignition 3
2	Ignition Switch
3	Ignition 8
4	Ignition 7
5	Ignition 4
6	Not used
7	Not used
8	Not used
9	Coil 8 +
10	Coil 6 +
11	Coil 4 +
12	Coil 2 +
13	Ground (Battery)
14	Ground (Battery)
15	Ignition 5
16	Ignition 2
17	Not used
18	Not used

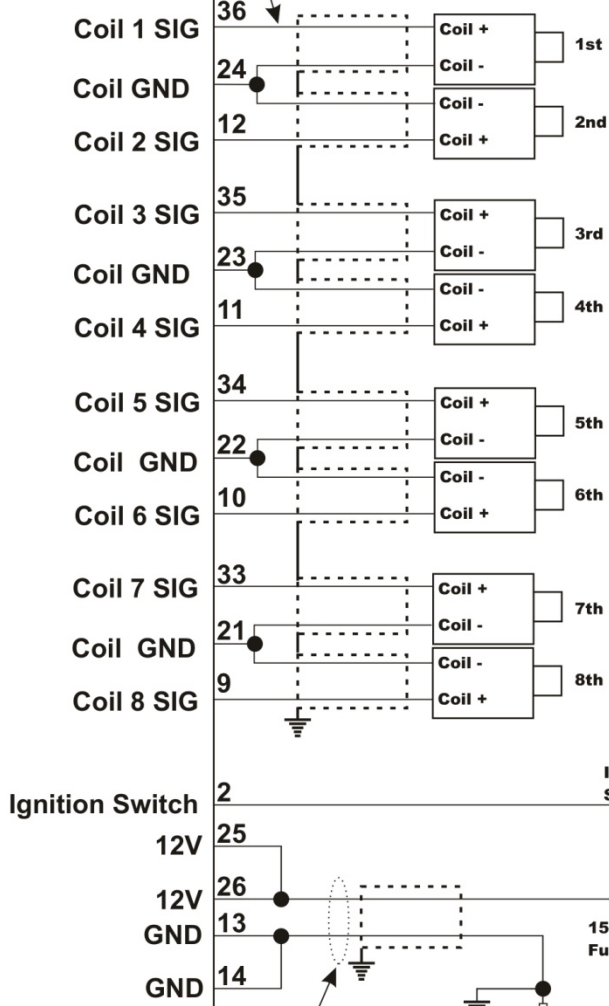
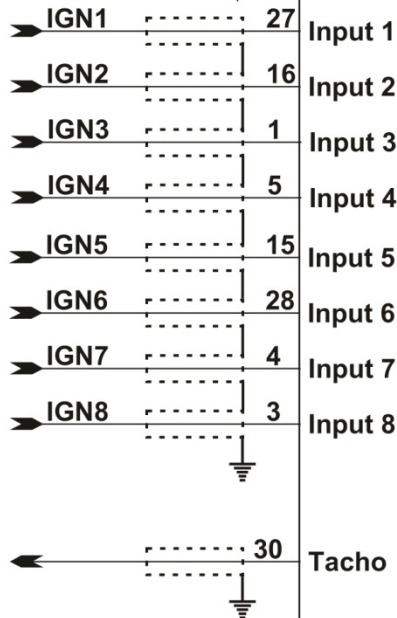
Pin	Function
19	Not used
20	Not used
21	Coil 7 and 8 -
22	Coil 5 and 6 -
23	Coil 3 and 4 -
24	Coil 1 and 2 -
25	+12 V (Battery)
26	+12 V (Battery)
27	Ignition 1
28	Ignition 6
29	Not used
30	Tacho
31	Not used
32	Not used
33	Coil 7 +
34	Coil 5 +
35	Coil 3 +
36	Coil 1 +

Note: To meet Australian EMC standards all wires marked should use Shielded cable and be connected to ground at one end.

Note: Use 20 gauge wire for coils twisted 1 turn in 20mm. Maximum wire length 2.0 meters. Keep coil wires away from input wires to CDI and all other wires. On 4 cyl engines use a separate ground for each coil. Keep HT wires away from CDI coil primary wiring.

Note: Keep input wires away from coil output wires

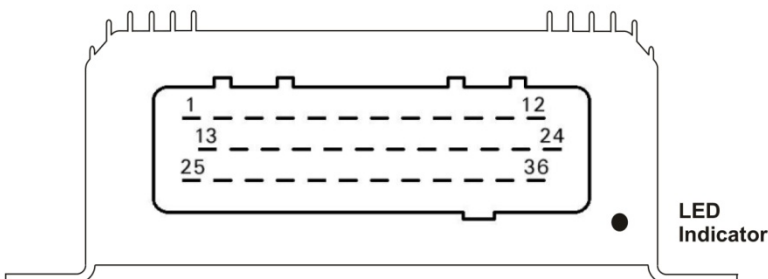
### CDI-8 (M1)



**Disconnect power before working on unit.**

#### Pinout Looking into connector on CDI

MoTeC Connector Kit #65036



Note: The LED indicator will illuminate for one second when power is applied to the switch input. The LED will flash briefly for each consecutive trigger input. A repeated double flash may indicate a possible faulty coil, wiring, low supply voltage or damage to the CDI.

**Installation Note:** Do not mount where CDI will be exposed to high temperatures, water or other liquids. Ensure bottom condensation slots are unobstructed and orient to permit liquid drain. Please use supplied rubber mounts to help isolate CDI from vibration. Also use supplied contact grease on spark plug insulators and coil/plug boots to increase insulation properties.

Note: Use 20 gauge twisted wire. Maximum power wiring length 2.50 meters. If a longer run is needed connect pins 25 & 26, pins 13 & 14 together 100mm from the CDI connector and splice to 14 gauge twisted wire.

#### Specifications:

- Supply Voltage: 13V - 18V DC negative ground
- Startup Voltage: 6V
- Supply Current: 7A
- Ignition off current: <700uA
- Maximum input frequency: 1200Hz
- Maximum Energy: 115 millijoules @<750Hz
- Ignition Trigger Type: Falling Edge
- Ignition Delay: 25uS
- Tacho output: 12V, 100mA Squarewave
- Maximum case temperature: 85C