



# EVM-DCIM3

## Dodge Charger Interface Module

Series A – 2008+ models

### *General*

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The **EVM-DCIM3** Dodge Interface Module provides 8 primary and 3 auxiliary functions through the module with direct hook-up connections. The interface module is a device to communicate with the 2008+ Dodge Charger equipped with the police package. To minimize the number of complex hook ups, the control lead functions are wired to the interface module. The information is converted and communicated to the vehicle via the vehicles' police/taxi interface module (PTIM).

### *Unpacking*

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The interface module can be identified by part number EVM-DCIM3 on the nameplate located on the unit.

Contents:

1	EVM-DCIM3	Dodge Charger Interface module
1	EVM-DCIHA08-b	18 in., 12-conductor vehicle interface harness
1	EVM-DCUHA-a	3 ft., 20-conductor user interface harness
1	EVM-PWR	Red/black 2-pin power harness
1	Police accessories connector	12-way connector kit
1	Audio interface connector	3-way connector kit

### *Installing the EVM-DCIM3*

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When selecting a mounting location for the EVM-DCIM3, it is necessary to plan all wiring and cable routing before performing any installation.

Use the EVM-DCIM3 as a template and scribe two drill positioning marks at the selected mounting location. Mounting centers are 3.5" (89 mm).

It is recommended that the EVM-DCIM3 be mounted near the instrument panel center stack area.

**⚠ CAUTION**

**Before drilling holes in ANY part of a vehicle, be sure that both sides of the mounting surface are clear of parts that could be damaged, such as brake lines, fuel lines, electrical wiring or other vital parts.**

**⚠ WARNING**

**DO NOT** drill holes in ANY part of the module. Damage to the unit, serious injury or death to you or others may result.

**NOTICE**

Powering multiple devices with a common control lead may cause one or more units to briefly remain functional after signal power is removed. For example, due to the high input filter capacitance, a strobe supply can briefly supply the current required to signal the rear flashing light to remain ON. If necessary, use a relay to isolate devices with large filter capacitors. See figure 2 for the schematic. All components/wires are user-supplied.

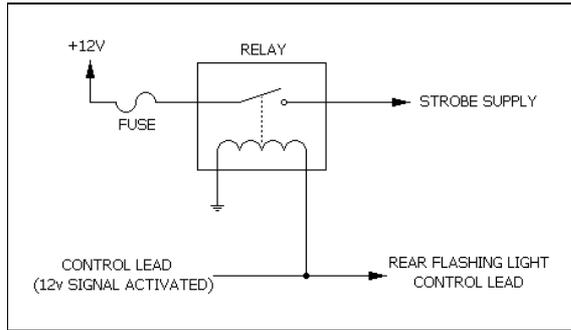


Figure 2

**CAUTION**

Insulate all unused wires to prevent short circuits.

**Wiring the EVM-DCIM3**

EVM-PWR

Attach the red power wire to a positive ignition source with a 5a fuse (customer supplied). Attach the black wire to a good clean negative ground. If additional wire is necessary, use 18 AWG wire or larger.

EVM-DCIHA08-a

**CAUTION**

The EVM-DCIM3 module is designed for Dodge Chargers 2008 & up. Damage to the vehicle's BCM may result for installing the incorrect module & interface harness. Contact EVModules for information on module availability for 2006 & 2007 models.

See Table 1 to verify the correct harness with the correct model year.

Table 1

VIN DECODING INFORMATION			
POSITION	INTERPRETATION	CODE = DESCRIPTION	INTERFACE HARNESS
10	Model Year	7 = 2007	EVM-DCIHA07
10	Model Year	8 = 2008	EVM-DCIHA08-a
10	Model Year	9 = 2009	EVM-DCIHA08-a

EVM-DCUHA-a

See table 2 for wiring the controller's functions to the cable harness supplied with the unit. If additional wire is necessary for the harness, use 22 AWG wire or larger.

**REAR FLASHING LIGHTS**

When 12vdc (+BAT) is applied to the REAR FLASHING LIGHTS control wire, the vehicle's flasher for the rear tail lights will activate.

**FRONT FLASHING LIGHTS**

When 12vdc (+BAT) is applied to the FRONT FLASHING LIGHTS control wire, the vehicle's flasher for the front high beam headlights will activate. You can program this feature to be independent of the PARK SENSE circuit. Refer to table 3 for the DIP switch settings.

**PARK SENSE**

When the vehicle transmission is in park, a 5a, 12vdc (-BAT) ground signal will be present on the PARK SENSE NC wire. When the vehicle transmission is not in park, a 5a, 12vdc (-BAT) ground signal will be present on the PARK SENSE NO wire.

## NOTICE

A user supplied relay or solenoid is necessary when using either PARK SENSE NC or PARK SENSE NO for loads more than 5a.

## WARNING

In all installations where the PARK SENSE is being connected to an external relay or solenoid, fly-back voltage protection (from the collapsing electromagnetic field) **MUST** be installed at the relay or solenoid. This is to protect the EVM-DCIM3 from the voltage spike that occurs and extends the life of the module.

### ISOLATED PARK SENSE RELAY

An isolated common, normally open, & normally closed circuit (10a max) is provided and controlled by the park sense circuit.

### VEHICLE SPEED SENSE

A 12vdc, 1a, 10Hz/mpH signal will be present on the VEHICLE SPEED SENSE wire when the vehicle is in motion.

### BRAKE SENSE

A 12vdc, 1a signal will be present on the BRAKE SENSE wire when the brake pedal is depressed.

## NOTICE

This signal may not be appropriate for aftermarket vehicle idle security systems such as Secure-idle, Ignition Security Systems, etc. due to the nature which these systems may rely on the ground signal to operate properly.

### DIMMER SENSE

A 12vdc, 1a, 100Hz, pulse width modulated (PWM) signal will be present on the DIMMER SENSE wire and will correspond with instrument panel lighting levels.

### HORN / HORN RING

HORN & HORN RING wires allows direct connection to aftermarket sirens with separate horn & horn ring connections in either positive or negative switching configuration. For alternative configurations of this feature, refer to table 3 for the DIP switch settings.

When using the EVM-DCIM3 to connect to sirens without automatic horn ring transfer circuits, it is necessary to use a relay to transfer connections, allowing proper operation of the horn ring to the user supplied siren manual input. See Figure 3.

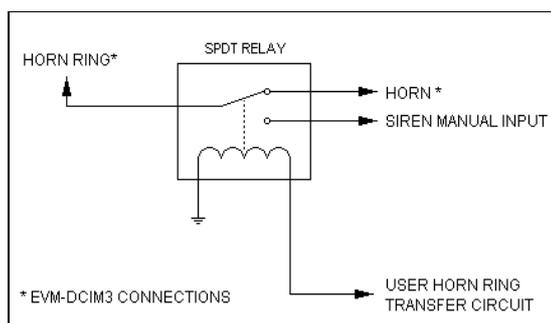


Figure 3

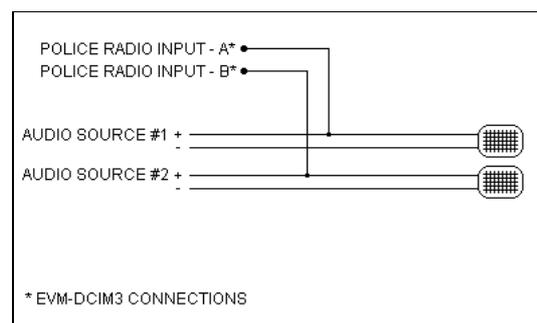


Figure 4

### POLICE RADIO INPUTS

Refer to “Wiring the Audio Interface Connector” if desired to broadcast audio through vehicle speakers.

An audio signal to either POLICE RADIO INPUT control lead will activate the vehicle’s radio mute function. Only one control lead per audio is necessary. Connect to high output speaker lead for best performance. See figure 4. The AM/FM radio power setting does not have to be on for this feature to operate. The AM/FM radio will return to its previous state after a delay from 0 to 6 seconds. Four programmable delay settings are available from 0, 2, 4, or 6 seconds. Refer to table 4 for the DIP switch settings.

**CAUTION**

Using two audio signals through the vehicle police radio mating connector without optional EVM-CDAI from EVModules or isolation transformers may cause damage to customer supplied audio equipments. Audio through the vehicle radio interface will deactivate when ignition is turned off. It is advised to retain customer supplied audio speakers for uninterrupted communications.

**Wiring the Audio Interface Connector (optional)**

Table 2

Police Radio Connector		
Cavity	Circuit	Function
1	X703 20DG/OR	Left Audio Output
2	X704 20DG/YL	Right Audio Output
3	X795 20DG	Common Audio Output

Use the supplied pins & connector for interfacing audio to the vehicle speakers. For proper operation, connection to POLICE RADIO INPUT A or B is necessary. See table 2.

Table 3

USER INTERFACE	WIRE COLOR	DESCRIPTION
REAR FLASHING LIGHTS	BLUE	Turns on rear flashing lights
FRONT FLASHING LIGHTS- PARK CUTOFF	ORANGE/BLACK	Turns on front flashing lights, auto off in park
FRONT FLASHING LIGHTS- PARK DISABLE		Turns on front flashing lights
PARK SENSE NC	WHITE/RED	Ground signal when transmission is in park No ground signal when shifted out of park
PARK SENSE NO	ORANGE/RED	No ground signal when transmission is in park, Ground signal when shifted out of park
ISOLATED PARK SENSE RELAY - COMMON	WHITE/BLACK	Isolated park kill circuit - common feed
ISOLATED PARK SENSE RELAY - NO	WHITE	Isolated park kill circuit - common to normally open
ISOLATED PARK SENSE RELAY - NC	BLACK/RED	Isolated park kill circuit - common to normally closed
VEHICLE SPEED	BLUE/BLACK	1a, 12vdc 10Hz/mph signal feed
BRAKE	BLUE/RED	1a, 12vdc signal feed
DIMMER	BLUE/WHITE	1a, 12vdc 100Hz PWM, corresponds with dash lighting levels
HORN	RED	Return feed from Horn Ring
HORN RING - NEGATIVE	RED/GREEN	Negative signal when horn is pressed
HORN RING - POSITIVE		Positive signal when horn is pressed
POLICE RADIO INPUT - A	ORANGE	Direct connection to audio source #1
POLICE RADIO INPUT - B	BLACK/WHITE	Direct connection to audio source #2
CIRCUIT 9 POS	RED/WHITE	Positive signal when headlights are on
CIRCUIT 9 NEG	RED/BLACK	Negative signal when headlights are on
CIRCUIT 10 COM	GREEN	No connection
CIRCUIT 10 NO	GREEN/WHITE	No connection
CIRCUIT 10 NC	GREEN/BLACK	No connection
N/A	BLACK	No connection

POWER HARNESS	
RED	Ignition power- includes power in the cranking position
BLACK	Ground

Table 4

Switch Number	Switch Setting		Function
	Up (ON)	Down (OFF)	
1	✓		Front Flashing Lights independent of Park Sense
1		✓	Front Flashing Lights cut off on Park Sense
2	✓		Positive Horn Ring
2		✓	Negative Horn Ring
3		✓	6 second Police Radio Input turn-off delay
4		✓	
3	✓		4 second Police Radio Input turn-off delay
4		✓	
3		✓	2 second Police Radio Input turn-off delay
4	✓		
3	✓		0 second Police Radio Input turn-off delay
4	✓		