

IGNITION E.C.U. EZ 200 K**Principle of the autodiagnosis**

The EZ 200 K ignition E.C.U. (171) incorporates an "AUTODIAGNOSTIC" feature which enables it to identify some of the eventual faults which may occur in the system during operation. By the same token, it is also able to alert the driver of the existence of this fault. This is done through the indicator (173) in the lower left corner of the instrument cluster (orange LED).

The number of blinks of this indicator will determine which component within the system presents the fault.

Detection range of the ignition E.C.U. EZ 200 K

It controls and checks the following :

- continued detonation,
- battery voltage **(12)**,
- electronic circuit which corrects detonation (internal to the E.C.U. (171).
- the detonation sensor (172A),
- the potentiometer and its electrical connections (194),
- the engine load input signal emanating from the injection E.C.U. (181).

Operation of the LED

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|---------------------|---|---------|---|------------------|
| — Ignition key "ON" | → | LED ON | } | normal operation |
| — Engine starter | → | LED OFF | | |

If the LED remains ON or OFF : check its power supply and its ground.

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|--|---|------------------------------|
| — Occasional sporadic "flashes" of the LED | → | NORMAL OPERATION |
| — Constant blinking of the LED | → | FAULT IN THE IGNITION SYSTEM |

As a safety measure, as soon as a fault in the system is detected, the system will automatically post a retard to the spark advance (-20° to -22°).

This retard will be reflected by a lack of power and performance of the engine.

The repair technician will be able to locate the failed component, based on the LED's number of blinks per cycle and the corresponding table.

NOTE - The speed of the display of the blink cycles will relate directly to engine rpm. It is therefore IMPERATIVE to make the determination of the diagnostic cycle at idle by counting the number of blinks.

**176.(—) ENGINE
IGNITION
CHECKS**



G2.025

Fault*	Spark advance correction	Causes	Checks						
1	-22°	Continued detonation Maximum correction reached	Cooling system Distributor timing (23) Boost pressure						
2	-20°	Battery voltage is under 10.5 volts.	Battery (12) Charging circuit						
3	-20° non-reversible until ignition switch is turned off	Detonation correction circuit in the ignition E.C.U. defective.	Try with a new ignition E.C.U. (171) .						
4		Erroneous signal received from detonation sensor (Check for engine speed above 3 200 rpm).	Detonation sensor (172A) (see corresponding chapter). Electrical circuit continuity.						
5		Signal from potentiometer is greater than 4.3 volts.	Try with a new potentiometer (194)						
A		Connections and wiring between ignition E.C.U. and potentiometer defective.	Continuity of the potentiometer's (194) electrical circuit.						
6	<table><tr><td>Micro-switch</td><td>Advance</td></tr><tr><td>Open</td><td>Full Load</td></tr><tr><td>Closed</td><td>Idle</td></tr></table>	Micro-switch	Advance	Open	Full Load	Closed	Idle	NO LOAD SIGNAL EMANATING FROM THE INJECTION E.C.U.	Electrical circuit continuity between pin 8 of the ignition E.C.U. (171) and pin 6 of the injection E.C.U. (181) (wire 6). Check with a new ignition E.C.U. (171) . Check with a new injection E.C.U. (181) .
Micro-switch	Advance								
Open	Full Load								
Closed	Idle								

*The number of the FAULT represents the number of blinks per cycle of the LED (173) on the instrument cluster.

NOTE - For the "irreversible" faults (3, 4, 5, 6A), it is necessary to turn ignition key "OFF" to "erase" the fault entered in memory.

N9TE

IGNITION E.C.U. EZ 200 K

Principle of the autodiagnosis

The EZ 200 K ignition E.C.U. (H96) incorporates an "AUTODIAGNOSTIC" feature which enables it to identify some of the eventual faults which may occur in the system during operation. By the same token, it is also able to alert the driver of the existence of this fault. This is done through the indicator in the lower left corner of the instrument cluster (orange LED). (L32).

The number of blinks of this indicator will determine which component within the system is at fault.

Detection range of the ignition E.C.U. EZ 200 K

It controls and checks the following:

- continued detonation,
- battery voltage (M45),
- electronic circuit which corrects detonation (internal to the E.C.U. (H75)),
- the detonation sensor (M132),
- the potentiometer and its electrical connections (M669),
- the engine load input signal emanating from the injection E.C.U. (H58).

Operation of the LED

- | | | | | |
|---------------------|---|---------|---|------------------|
| – Ignition key "ON" | → | LED ON | } | normal operation |
| – Engine started | → | LED OFF | | |

If the LED remains ON or OFF: check its power supply and its ground

- | | | |
|--|---|------------------------------|
| – Occasional sporadic "flashes" of the LED | → | NORMAL OPERATION |
| – Constant blinking of the LED | → | FAULT IN THE IGNITION SYSTEM |

As a safety measure, as soon as a fault in the system is detected, the system will automatically post a retard to the spark advance (-15°)

This retard will be reflected by a lack of power and performance of the engine.

The repair technician will be able to locate the failed component, based on the LED's number of blinks per cycle and the corresponding table.

NOTE - The speed of the display of the blink cycles will relate directly to engine rpm. It is therefore **IMPERATIVE** to make the determination of the diagnostic cycle at idle by counting the number of blinks.

**176.(—) ENGINE
IGNITION
CHECKS**

1

G2.053(1

N9TE

Fault"		Spark advance correction	Causes	Checks
1		— 22°	Continued detonation Maximum correction reached	Cooling system Distributor timing (M130) Boost pressure
2		— 15°	Battery voltage is under 10.5 volts.	Battery (M45) Charging circuit
3			Detonation correction circuit in the ignition E.C.U. defective.	Try with a new ignition E.C.U. (H75)
4		— 15° non- reversible until ignition switch is turned off	Erroneous signal received from deto- nation sensor (Check for engine speed above 3 200 rpm).	Detonation sensor (MI 32) (see p. G2.032) Electrical circuit continuity.
5			Signal from potentiometer is greater than 4.3 volts.	Try with a new potentiometer (M669)
6	A		Connections and wiring between igni- tion E.C.U. and potentiometer defec- tive.	Continuity of the potentiometer's (M669) electrical circuit
	B		No load signal emanating from the injection E.C.U.	Electrical circuit continuity between pin 8 of the ignition E.C.U. (H75) and pin 6 of the injection E.C.U. (H58) (wire 6). Check with a new ignition E.C.U. (H75) Check with a new injection E.C.U. (H58)
		Micro- switch		
		Open	Full Load	
		Closed	Idle	

* The number of the FAULT represents the number of blinks per cycle of the LED (L32) on the instrument cluster.

NOTE - For the "irreversible" faults (3, 4, 5, 6A), it is necessary to turn ignition key "OFF" to "erase" the fault entered in memory.

N9TE

IGNITION E.C.U. EZ 200 K

Principle of the autodiagnosis

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The number of blinks of this indicator will determine which component within the system is at fault.

Detection range of the ignition E.C.U. EZ 200 K

It controls and checks the following:

- continued detonation,
- battery voltage (M45),
- electronic circuit which corrects detonation (internal to the E.C.U. (H75)),
- the detonation sensor (M132),
- the potentiometer and its electrical connections (M669),
- the engine load input signal emanating from the injection E.C.U. (H58).

Operation of the LED

- | | | | | |
|---------------------|---|---------|---|------------------|
| — Ignition key "ON" | → | LED ON | } | normal operation |
| — Engine started | → | LED OFF | | |

If the LED remains ON or OFF: check its power supply and its ground

- | | | |
|--|---|------------------------------|
| — Occasional sporadic "flashes" of the LED | → | NORMAL OPERATION |
| — Constant blinking of the LED | → | FAULT IN THE IGNITION SYSTEM |

As a safety measure, as soon as a fault in the system is detected, the system will automatically retard the spark advance.

This retard will be reflected by a lack of power and performance of the engine.

The repair technician will be able to locate the failed component, based on the LED's number of blinks per cycle and the corresponding table.

NOTE - The speed of the display of the blink cycles will relate directly to engine rpm. It is therefore **IMPERATIVE** to make the determination of the diagnostic cycle at idle by counting the number of blinks.

**176.(X) ENGINE
IGNITION
CHECKS**



G2.055(1)

N9TE

Fault*		Causes		Checks
1		Continued detonation Maximum correction reached		Cooling system Distributor timing (M130) Boost pressure
		Battery voltage is under 10.5 volts.		Battery (M45) Charging circuit
		Detonation correction circuit in the ignition E.C.U. defective.		Try with a new ignition E.C.U. (H75)
4		Erroneous signal received from detonation sensor (Check for engine speed above 3 200 rpm).		Detonation sensor (M132) (see p. G2.032) Electrical circuit continuity.
5		Signal from potentiometer is greater than 4.3 volts.		Try with a new potentiometer (M669)
6	A	Connections and wiring between ignition E.C.U. and potentiometer defective.		Continuity of the potentiometer's (M669) electrical circuit
	B	Micro-switch	Advance	Electrical circuit continuity between pin 8 of the ignition E.C.U. (H75) and pin 6 of the injection E.C.U. (H58) (wire 6). Check with a new ignition E.C.U. (H75) Check with a new injection E.C.U. (H58)
		Open	Full Load	
		Closed	Idle	
		No load signal emanating from the injection E.C.U.		

* The number of the FAULT represents the number of blinks per cycle of the LED (L32) on the instrument cluster.

NOTE - For the "irreversible" faults (3, 4, 5, 6A), it is necessary to turn ignition key "OFF" to "erase" the fault entered in memory.

N9TEA

IGNITION E.C.U EZ 200 K

The EZ 200 K ignition E.C.U. (H75) incorporates an «AUTODIAGNOSTIC» feature which enables it to identify some of the eventual faults which may occur in the system during operation.

This is done through the indicator in the lower left corner of the instrument cluster (orange LED) (L32)

The number of blinks of this indicator will determine which component within the system is at fault.

interpreting the LED (L32)

The different codes are transmitted by two series of blinks on the instrument cluster LED

- 1 st series of blinks = tens digit
- 2 nd series of blinks = units digit

EXAMPLE : defect code 2.3 : LED ...XX... X.X.X. ... X.X ... X.X.X. ...

As a safety measure, the E.C.U. will automatically retard the advance as soon as it records a defect. This retard will be reflected by a lack of power and performance of the engine.

**176.(-) ENGINE
IGNITION
CHECKS**

1

G2.057

N9TEA

Defect Code	CAUSES	CHECKS TO BE PERFORMED
1.1	maximum correction reached (retard) continued detonation	Boost pressure - Electrovalve M328
1.2	Battery voltage < 9.4 volts	<ul style="list-style-type: none"> - Battery - Charging circuit
2.1 2.2	Erroneous signal received from detonation sensor	<ul style="list-style-type: none"> - Continuity of the electrical circuit - Try with a new detonation sensor
2.3	Detonation correction circuit within the E.C.U. (H75) defective	<ul style="list-style-type: none"> - Continuity of the electrical circuit between the injection E.C.U. (pin 6) and the ignition E.C.U (pin 8) - Boost pressure and electrovalve M328 - Potentiometer and its electrical circuit - Try again with a new injection E.C.U. - Try again with a new ignition E.C.U.
3.1 3.2	Basic injection duration input	
4.1 4.2	No load signal emanating from injection E.C.U.	
5.1	Defective N.T.C. sensor (No effect on advance - No cancelling of Turbo monitoring)	

Operation of the LED

- Ignition key «ON»	→	LED ON	} normal operation
- Engine started	→	LED OFF	

If the LED remains ON or OFF : check its power supply and its ground

When the E.C.U registers a defect, the LED (L32) comes on at the instrument cluster :

- It will stay on permanently if the engine speed is above 1550 rpm
- It will flash the code corresponding to the defect registered if the engine speed is below 1550 rpm

The engine must be at idle in order to interpret the defect code