

VEHICLE WARNING SIGNAL SYSTEM

Having a good warning signal system in your vehicle is crucial to the safety of the driver and the passengers. From producing friendly beeping signals to remind the drivers to refill the gas tank or to change the tires, to producing serious beeping warning signals to remind the drivers and passengers to fasten their seat belts and close the vehicle doors and tailgate, a good warning signal system is extremely important in the design of a comfortable and safe vehicle.

DB has a wide variety of transducers that may fit in different vehicles warning signal system designs. Below are some suggested applications to apply our magnetic transducers into your vehicle warning signal system designs.

How can our products be applied in a warning system in a vehicle?

1. Beeping signals can be produced when the seat belts are not fastened, to remind the passengers and drivers to buckle their seat belts.
2. Beeping signals can be produced, when the door or tailgate is not shut, to remind the passengers or drivers to shut their doors and tailgate properly
3. Beeping signals can be produced when the gas tank is almost emptied, to remind the drivers to fill up the tank.
4. Beeping signals can be produced when the tire's pressure is too low, to remind the drivers to seek services for changing tires.

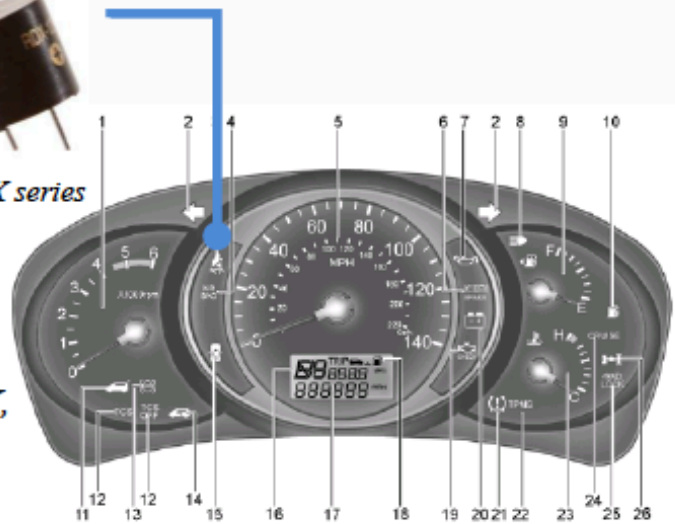
What are the advantages of having signal notice function in a vehicle?

1. **Assurance:** For absent-minded or busy user, it is a good function to remind them to fasten their seat belts, close the doors and tailgate properly, fill up the gas tanks, and even change the tires.
2. **Safety:** Avoid accidents happened because of the seat belt is unfastened or the doors are unclosed, or even having a tire has too low pressure.
3. **Better reputation, more competitive:** The better the warning systems your products have, the better the reputation they are in the market; making your vehicle be more competitive and attractive in the automobile market.

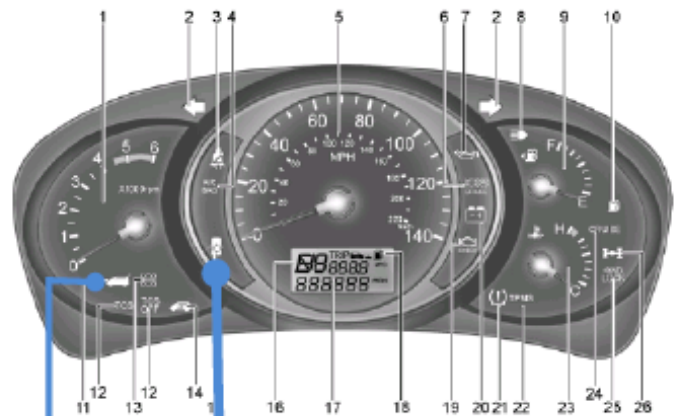
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Should the passengers or driver's seat belt is unfastened during the trip, the warning light and sound signals will be turned on. Our *DBX*, *TDX*, *SDBX*, and *RDX series* magnetic transducers can be installed to produce warning signals, with accelerating speed, to remind the passengers and drivers to fasten their seat belts.



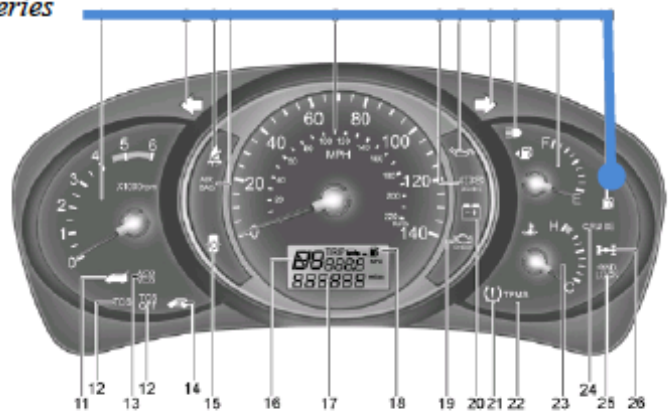
Should the vehicle doors or tail gate is ajar during the trip, the warning lights and sound signals will be turned on. Our *DBX*, *TDX*, *SDBX*, and *RDX series* magnetic transducers can be installed to produce warning signals, with accelerating speed, to remind the passengers and drivers to shut their doors properly.



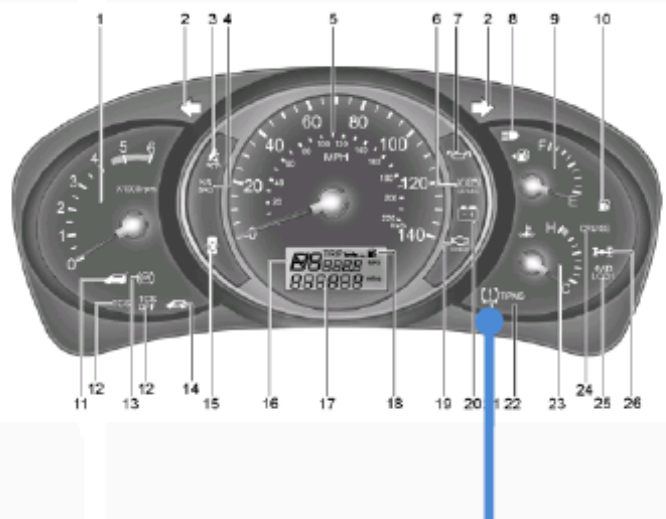
VEHICLE WARNING SIGNAL SYSTEM



Should the gas tank is closed to be empty, the warning light and sound signals will be turned on. Our *DBX*, *TDX*, *SDBX*, and *RDX series* magnetic transducers can be installed to produce warning signals, with constant speed, to remind drivers to fill up the gas tank.



Should the tie pressure is too low, the warning light and sound signals will be turned on. Our *DBX*, *TDX*, *SDBX*, and *RDX series* magnetic transducers can be installed to produce warning signals, with constant speed, to remind drivers to pump the air into the tires or to change the tires.



VEHICLE WARNING SIGNAL SYSTEM

- DBX series:
- Diameter: 12.0 mm, Height: 8.5 mm
- Specification:

MODEL NO.		DBX05BLFPN	DBX12LFPN
<i>OPERATING VOLTAGE RANGE</i>	(V)	3.0 ~ 8.0	6.0 ~ 15.0
<i>RATED VOLTAGE</i>	(V)	5.0	12.0
<i>MAX. RATED CURRENT</i>	(mA)	40.0	40.0
<i>COIL RESISTANCE</i>	(Ω)	47.0 ± 5.0	140.0 +/- 14.0
<i>COIL IMPEDANCE</i>	(Ω)	80	240
<i>MIN. SOUND OUTPUT AT 10 cm</i>	(dBA)	85	85.0
<i>RESONANT FREQUENCY</i>	(Hz)	2400	2400
<i>OPERATING TEMPERATURE</i>	(°C)	- 40 ~ + 85	- 20.0 ~ + 80.0
<i>TERMINAL</i>		PIN	PIN
<i>HOUSING MATERIAL</i>		NORYL	NORYL
<i>WEIGHT</i>	(g)	2.0	2.0

- TDX series:
- Diameter: 25.0 mm, Height: 12.0 mm
- Specification:

MODEL NO.		TDX06LFPN
<i>OPERATING VOLTAGE RANGE</i>	(V)	3.0 ~ 5.0
<i>RATED VOLTAGE</i>	(V)	5
<i>MAX. RATED CURRENT</i>	(mA)	80
<i>COIL RESISTANCE</i>	(Ω)	27 ± 4
<i>COIL IMPEDANCE</i>	(Ω)	38
<i>MIN. SOUND OUTPUT AT 10 cm</i>	(dBA)	85.0
<i>RESONANT FREQUENCY</i>	(Hz)	730
<i>OPERATING TEMPERATURE</i>	(°C)	- 40 ~ + 85
<i>TERMINAL</i>		PIN
<i>HOUSING MATERIAL</i>		NORYL
<i>WEIGHT</i>	(g)	10.0

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- SDBX series:

- Diameter: 12.8 mm x 12.8mm Height: 10.5 mm SMD

- Specification:

MODEL NO.		SDBX05LFMP	SDBX12LFMP
<i>OPERATING VOLTAGE RANGE</i>	(V)	4.0 ~ 8.0	8.0 ~ 16.0
<i>RATED VOLTAGE</i>	(V)	5.0	12.0
<i>MAX. RATED CURRENT</i>	(mA)	40.0	40.0
<i>COIL RESISTANCE</i>	(Ω)	47.0 ± 5.0	140.0 ± 14.0
<i>MIN. SOUND OUTPUT AT 10 cm</i>	(dBA)	85.0	85.0
<i>RESONANT FREQUENCY</i>	(Hz)	2400	2400
<i>OPERATING TEMPERATURE</i>	(° C)	- 40 ~ + 85	- 40 ~ + 85
<i>TERMINAL</i>		SMD	SMD
<i>HOUSING MATERIAL</i>		PPS	PPS
<i>WEIGHT</i>	(g)	2.0	2.0

- RDX series:

- Diameter: 16.0 mm, Height: 14.0 mm

- Specification:

MODEL NO.		RDX06LFPN	RDX12LFPN
<i>OPERATING VOLTAGE RANGE</i>	(V)	3.0 ~ 12.0	8.0 ~ 16.0
<i>RATED VOLTAGE</i>	(V)	6.0	12.0
<i>MAX. RATED CURRENT</i>	(mA)	40	40.0
<i>COIL RESISTANCE</i>	(Ω)	45 ± 7	115.0 ± 17.0
<i>COIL IMPEDANCE</i>	(Ω)	110	200.0
<i>MIN. SOUND OUTPUT AT 10 cm</i>	(dBA)	85	85.0
<i>RESONANT FREQUENCY</i>	(Hz)	2048	2048
<i>REPRODUCED FREQUENCY</i>	(Hz)	2000 ~ 3000 (Min. 80 dBA)	2000 ~ 3000 (Min. 80 dBA)
<i>OPERATING TEMPERATURE</i>	(° C)	- 20 ~ + 60	- 30 ~ + 80
<i>TERMINAL</i>		PIN	PIN
<i>HOUSING MATERIAL</i>		NORYL	NORYL
<i>WEIGHT</i>	(g)	7.0	7.0