

AL-KO TOW ASSIST

Compatible Brake Controller Guidance

AL-KO has provided this document for guidance on selecting a suitable in cab trailer brake controller to be used in conjunction with AL-KO Tow Assist. Please read the document prior to selecting a in cab brake controller to be used with AL-KO Tow Assist.

FORWARD

Aftermarket (External) In Cab Trailer Brake Controllers

Aftermarket controllers are those that are installed into the vehicle after it has left the vehicle manufacturer premises. These products are divided into two functional operational categories.

1 Inertia Based Controllers

The majority of controllers on the market offer an inertia sensor as control. This allows the sensor to base its braking control level on the tow vehicles stopping inertia. Therefore lighter braking on the vehicle will not result in heavy braking on the trailer. Matching of braking levels on the trailer and tow vehicle are achieved more easily resulting in a more effective and comfortable braking.

AL-KO & Bosch have sought to test with as many of the available aftermarket inertia based brake controllers as possible, to ensure compatibility of the trailer brake controller operation with the AL-KO Tow Assist system. This guideline outlines the controllers which have been tested and the resulting compatibility. **Inertia brake controllers are the recommended choice for use with the AL-KO Tow Assist system.**

2 Time Based Controllers

These are typically the low-cost brake controller options with limited braking control and diagnostics. Although they will still brake the trailer, they are not as effective as inertia based controllers. The AL-KO Tow Assist system can work with a timed-based controller, however this brake control is not optimised and will likely result in increased activation of the ABS system. For this reason AL-KO & Bosch recommend that an inertia based controller is used with the AL-KO Tow Assist system. **Time based brake controllers are not recommended with the AL-KO Tow Assist system.**

Vehicle Integrated Trailer Brake Controllers

Vehicle integrated controllers are installed in the vehicle at the OEM during the vehicle manufacture. Typically these controller have more advanced brake control and diagnostics. Inertia is often the main brake control parameter however additional signals such as vehicle ABS active, driver braking level and vehicle brake modelling can be used to further adjust the brake signal level.

Brake Controller Compatibility Summary

In majority of cases the brake controllers monitor open connection to the trailer brakes. During ABS, TSM and EAC interventions the AL-KO Tow Assist ECU disconnects the electric brakes from the electric brake controller. To satisfy the electric brake controller connection diagnostic requirements, the AL-KO Tow Assist system utilizes a built-in load simulator.

Table 1

2.1 Aftermarket Trailer Brake Controller Compatibility

Manufacturer Brand	Manufacturer Models	Compatible
Dexter	Predator DX2	Yes
Tekonsha	Primus IQ	Yes
	Prodigy P2	Yes
	Prodigy P3	Yes
	Voyager	No
Hayes	Energize III	Yes
	Endeavour	Yes
	G2 Brake Boss	Yes
	Genesis	No
Red Arc	Tow-Pro (EBRH-ACC)	Yes
	Tow-Pro Elite (EBRH-ACC V2)	Yes
Hopkins	Agility	Yes
	Insight	Yes
GSL	RBC-12	Yes
	XLE-12	Yes
Hayman Reese	Compact IQ	Yes
Curt	Tri-flex	Yes

Table 2

2.2 Vehicle Integrated Trailer Brake Controller Compatibility

Manufacturer Brand	Compatible
GM	High Confidence
	A high level of compatibility confidence has been achieved for all GM vehicles containing Integrated Trailer Brake Controllers (ITBCs). AL-KO Tow Assist system was joint testing with GM ITBC engineering team has confirmed compatibility with all model years of GM ITBCs up to model year 2019.
Ford	High Confidence
	<p>A high level of compatibility confidence has been achieved for Ford vehicles with integrated brake controllers. Testing of Integrated Trailer Brake Controllers (ITBC) for model year range 2005 - 2018 has been undertaken.</p> <p>The AL-KO Tow Assist ECU has been tested to operate correctly with Ford ITBCs. It should be noted in some model years, the ITBC can on occasion detect the AL-KO Tow Assist operation, and momentarily warn the driver "Trailer Disconnected". This occurs typically on older Ford model years. Testing has confirmed that braking operation of both the vehicle, ITBC and AL-KO Tow Assist are not affected or changed by this warning appears.</p> <p>If a customer does encounter this warning and is concerned about this occurring during AL-KO Tow Assist interventions, there is an option to install and enable an additional external simulated load which will resolve this warning appearing.</p>
Dodge	High Confidence (from 2016)
	A high level of compatibility confidence has been achieved for Dodge Ram vehicles containing Integrated Trailer Brake Controller ITBC's. Testing has been performed on vehicle models from 2016.
Toyota	High Confidence
	A high level of compatibility confidence has been achieved for Toyota Integrated Trailer Brake Controller ITBC (single model) with extensive testing being carried out over the AL-KO Tow Assist ECU testing program on a Toyota Tundra.
Nissan	Untested
	From 2018 onwards Nissan Titan models are available with an optional Integrated Trailer Brake Controller ITBC package. Testing has not been performed on this IBTC due to the unavailability of a representative Titan model fitted with the ITBC package