

BOGAARD TURBO TIMERS - TRUCK AND ENGINE APPLICATIONS AND ORDERING GUIDE

- This guide should be read in conjunction with our **Conditions of Sale of Goods**.
- This guide lists the appropriate Bogaard Turbo Timer for many trucks & engines available in Australia. Where a vehicle is not listed or there is any doubt about the appropriate timer, contact your local dealer or Bogaard Distributors Pty Ltd (T: +61 2 94772497 F: +61 2 9482 1278 E: lynne@bogaard.com.au).
- For some vehicle makes and models it is necessary to know the vehicle manufacture date and/or model number to select the appropriate turbo timer model.
- Check the operating voltage of accessories. Trucks may be 24V start but run 12V.
- Check the shut down method. For our purposes, the primary division is between **electrical** and **non-electrical (cable)** shut down. Note that shut down by turning off the ignition switch does not necessarily indicate electrical shut down. For example, earlier Mitsubishi and Hino trucks have key stop but are, nevertheless, cable shut down. The second division is in the electrical shut down category; between **energise to run** and **energise to stop**.
If a vehicle is electrical shut down and energise to run, an **Energise to Run** Turbo Timer is required. Refer to this guide for the appropriate Bogaard Model.
If a vehicle is electrical shut down and energise to stop, a **Bogaard CTR-M5** Turbo Timer is required. This model is both 12V and 24V.
- Take nothing for granted. Check first. Owner ordering options and subsequent modifications can make any assumptions risky.
- The introduction of electronically managed engines **does** influence the choice of Turbo Timer model. In general, a **925/ST-4** Turbo Timer should be used on trucks with managed engines and as shown in this Guide.
- This guide is regularly updated. The issue date is shown at the base of each page. The current issue is available on our web site at www.bogaard.com.au
- For applications to passenger, off road and light commercial vehicles refer to the separate **Passenger, Off Road & Light Commercial Vehicle Ordering Guide**.

CATEGORY	MAKE	TRUCK/ENGINE MODEL TYPE	VOLTAGE	BOGAARD MODEL	NOTES
Engines	Caterpillar	3176		925/ST-4	
		3406B		925/ST-4	
		3406C		925/ST-4	
		3406E		925/ST-4	
		3126B		925/ST-4	
		C10		925/ST-4	
		C12		925/ST-4	
		C15		925/ST-4	
		C16		925/ST-4	
		Other Models		925/ST-1	Where engine is NOT electronically managed.
	Cummins	L10		925/ST-4	With Celect engine management.
		M11		925/ST-4	With Celect engine management.
		N14		925/ST-4	With Celect engine management.

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Engines (Continued)	Cummins (Continued)	Other Models		925/ST-1	Where engine is NOT electronically managed.	
		Detroit		925/ST-4		
		Other Models		925/ST-1		
		Perkins	Phaser 180 etc.	925/ST-1		
Trucks	Atkinson	F3870	12V	925/ST-1	Cummins engine.	
		F4870	12V	925/ST-1	Cummins engine.	
	DAF	Cummins engines	24V	925/ST-4		
		DAF engines	24V	925/ST-5	Euro 3.	
		DAF engines	24V	925/ST-4	Non-Euro 3	
	Ford	Cargo	24V	925/ST-1	Caterpillar 3208.	
		LNT9000	12V	925/ST-1	Cummins N Series.	
		LTF8000	12V	925/ST-1	Cummins C Series.	
		LTF9000	12V	925/ST-4		
		LTL	12V	925/ST-4	Caterpillar 3406B or Cummins.	
		LTLA	12V	925/ST-4		
		Trader	12V	925/ST-1	4 cylinder.	
		Trader	12V	925/ST-1	6 cylinder.	
		Transit	24V	925/ST-1		
		Refer also to the Engines category				
	Freightliner	FL80	12V	925/ST-1		
		FL106	12V	925/ST-4		
		FL112	12V	925/ST-4		
		C112	12V	925/ST-4		
		C120	12V	925/ST-4		
Argosy		12V	925/ST-4			
Hino	300 Series	24V	925/ST-4	Electronic engine. Includes Common Rail .		
	500 Series	24V	925/ST-4	Electronic engine. Includes Common Rail .		
	700 Series	24V	925/ST-4	Electronic engine. Includes Common Rail .		
	Dutro 5000	24V	925/ST-4	4.6 Litre.		

CATEGORY	MAKE	TRUCK/ENGINE MODEL TYPE	VOLTAGE	BOGAARD MODEL	NOTES
Trucks (Continued)		Electrical shut down models	24V	925/ST-3	To late 1986.
	Hino		24V	925/ST-3	Models from June 1991 on.
		Ranger 6	24V	925/ST-4	
		Ranger 7	24V	925/ST-4	
		Ranger 8	24V	925/ST-4	
		Ranger 9	24V	925/ST-4	
		Ranger 10	24V	925/ST-4	
		Ranger 14	24V	925/ST-4	
		Ranger 50	24V	925/ST-4	
	International	1630 FD6T engine	24V	925/ST-3	Re-badged UD.
		1650 FE6B engine	24V	925/ST-1	Re-badged UD.
		1750 FE6B engine	24V	925/ST-1	Re-badged UD.
		Cummins	12V	925/ST-1	Conventional.
		Caterpillar 3280	12V	925/ST-1	
		Caterpillar 3406A	12V	CTR-M5	
		Caterpillar 3408	12V	CTR-M5	
		6300 Curser Engine Powerstar	24V	925/ST-4	
		9200i	12V	925/ST-4	
		9900i	12V	925/ST-4	
		Refer also to the Engines category			
	Isuzu	Stepper or Edic motor system	24V	925/ST-3	Not C Series or JCR.
		Sitec engine with common rail technology	24V	925/ST-4	Electronic fuel injection.
		F Series with electronic fuel injection	24V	925/ST-4	Vehicles with Denzo Common Rail technology.
		N Series NPR and NQR	24V	925/ITN	1996-2005.
		N Series Common Rail Sitec 150	24V	925/INCR	Late 2005 to 2007.
		N Series Common Rail Sitec 150	24V	925/ST-4	2008 on.
		Contact us for other models			
	Iveco	3500 Series	12V	925/ST-4	
		4500 Series	12V	925/ST-4	

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Trucks (Continued)	Iveco (Continued)	4912	12V	925/ST-4	
		5500 Series	12V	925/ST-4	
		Eurocargo	12V	925/ST-4	
		Eurotech	12V	925/ST-4	
		Powerstar	12V	925/ST-4	
	Kenworth	C500T	12V	925/ST-4	
		C501	12V	925/ST-4	
		K100E	12V	925/ST-4	
		K104	12V	925/ST-4	
		L700	12V	925/ST-4	
		T400	12V	925/ST-4	
		T401	12V	925/ST-4	
		T404	12V	925/ST-4	
		T440	12V	925/ST-4	
		T450	12V	925/ST-4	
		T480	12V	925/ST-4	
		T600	12V	925/ST-4	
		T604	12V	925/ST-4	
		T650	12V	925/ST-4	
		T900	12V	925/ST-4	
		T904	12V	925/ST-4	
		T950	12V	925/ST-4	
		Other energise to run models	12V	925/ST-4	
		Energise to stop models	12V	CTR-M5	These are very old models with mechanical engines.
		Refer also to the Engines category			
	Leader	Caterpillar 3208	12V	925/ST-1	
		Caterpillar 3306	12V	925/ST-1	
		Caterpillar 3406	12V	CTR-M5	
	Mack	Bigfoot	12V	925/ST-4	

CATEGORY	MAKE	TRUCK/ENGINE MODEL TYPE	VOLTAGE	BOGAARD MODEL	NOTES	
Trucks (Continued)	Mack (Continued)	Caterpillar 3208	12V	925/ST-1		
		Caterpillar 3406	12V	CTR-M5		
		Caterpillar 3408	12V	CTR-M5		
		Fleet Liner	12V	925/ST-4		
		Magnum	12V	925/ST-4		
		Metro Liner	12V	925/ST-4		
		MHR	12V	925/ST-1		
		Midland	12V	925/ST-4		
		Quantum	12V	925/ST-4		
		Titan	12V	925/ST-4		
		Trident	12V	925/ST-4		
		Ultraliner 2	12V	925/ST-1		
		V Mack	12V	925/ST-4		
		Value Liner	12V	925/ST-4		
		Mazda	E4100	24V	925/ST-1	
			T3500	12V	925/ST-1	
T4000				Can not do mechanical shutdown.		
T4100	24V		925/ST-1			
MAN	Pre-Common rail engine models	24V	CTR-M5			
	Common rail engine models	24V	925/ST-4			
Mercedes Benz		24V	925/ST-4	Since November 1991, except Model 1517.		
Mitsubishi	6 Series and later electrical shut down models	24V	925/ST-4			
	Canter FE659	24V	925/ST-4	Approximately 2001.		
	Fighter FK617	24V	925/ST-4			
	Fighter FM62	24V	925/ST-4			
	Fighter FM657	24V	925/ST-4			
	Fighter FM677	24V	925/ST-4			
	Fighter FN61	24V	925/ST-4			
	Fighter FN62	24V	925/ST-4			

CATEGORY	MAKE	TRUCK/ENGINE MODEL TYPE	VOLTAGE	BOGAARD MODEL	NOTES
Trucks (Continued)	Mitsubishi (Continued)	Fighter FN64	24V	925/ST-4	
		Fighter FS527	24V	925/ST-4	
		Fighter FV417	24V	925/ST-4	
		Fighter FV517	24V	925/ST-4	
		Fighter FV547	24V	925/ST-4	
		Fuso	24V	925/ST-4	
		Rosa Bus	24V	925/ST-5	
	Nissan	Cabstar H40/FD33T	24V	925/ST-1	
	Scania	CW560	24V	925/ST-4	
		Other Scania EDC models	24V	925/ST-4	
	Sterling	All models	12V	925/ST-4	
	UD Nissan	Electrical shut down models	24V	925/ST-3	
		Electronic engines	24V	925/ST-5	2005 on.
	Volvo	F-16	24V	925/ST-4	
		FH-12	24V	925/ST-4	
		FH-16	24V	925/ST-4	
		FL-6	24V	925/ST-4	
		FL-7	24V	925/ST-4	
		FL-10	24V	925/ST-4	
		FL-12	24V	925/ST-4	
		FM-6	24V	925/ST-5	
		NH-12	24V	925/ST-4	
		Trucks with a chassis number beginning with 122 or higher	24V	925/ST-5	
	White	Caterpillar 3406A	12V	CTR-M5	
		Caterpillar 3306	12V	925/ST-1	
	Western Star	DET DDEC	12V	925/ST-1	
		Other electrical shut down models	12V	925/ST-4	
		Refer also to the Engines category			

CATEGORY	MAKE	TRUCK/ENGINE MODEL TYPE	VOLTAGE	BOGAARD MODEL	NOTES	
Earth Moving Equipment	Bobcat	Electric energise to stop	12V	925/ST-4		
		With 5 volt switching at the ignition switch	5V	SPECIAL	Contact us to arrange for supply.	
	Caterpillar	Electric energise to run	24V	925/ST-4		
		With 5 volt switching at the ignition switch	5V	SPECIAL	Contact us to arrange for supply.	
		Electric energise to stop	24V	CTR-M5		
	Daewoo	Electric energise to run	24V	925/ST-4	See also Doosan .	
	Doosan	DX340L	24V	925/ST-2		
		Electric energise to run	24V	925/ST-2	See also Daewoo .	
	Hitachi	Excavator	24V	925/ST-4		
	Hyundai	Excavator	24V	925/ST-4		
	JCB	Backhoe - Electric energise to run	24V	925/ST-4		
	Kato	Electric energise to run	24V	24/ST-2		
	Kawasaki	Loader	24V	24/ST-2		
	Komatsu	Electric battery isolator	24V	24/ST-2		
		Electronic engine control	24V	925/ST-5		
	Sumitomo	Loader	24V	24/ST-2		
	Volvo	Loader L120C	24V	24/ST-2		
	Tractors	Case	Electric energise to run	12V	925/ST-4	
		Fiat	Electric energise to run	12V	925/ST-4	
Ford		Electric energise to run	12V	925/ST-4		
Iseki		Electric energise to run	12V	925/ST-4		
John Deere		Electric energise to run	12V	925/ST-4		
Kubota		Electric energise to run	12V	925/ST-4		
Masey Ferguson		Electric energise to run	12V	925/ST-4		
New Holland		Electric energise to run	12V	925/ST-4		
Same		Electric energise to run	12V	925/ST-4		
Steyr		Electric energise to run	12V	925/ST-4		
Valmet	Electric energise to run	12V	925/ST-4			
Forklifts	-	Electric energise to run		925/ST-4		