

Wiper Motor WDA

Calibration Sheet

Bosch Engineering GmbH
 Motorsport
 Robert-Bosch-Allee 1
 74232 Abstatt
 Phone +49 7062 911-9101
 Fax +49 7062 911-79104
 Motorsport@bosch.com
 www.bosch-motorsport.com

Customer: _____

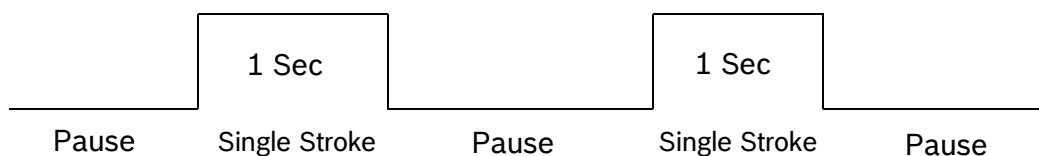
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Type	Position	Range	WDA-Analog	WDA-LIN
	First wiping position	0...160° (174°)	◦	◦
	Second wiping position	0...160° (174°)	◦	◦
	Wiping speed 1	0...60 cycles/min	40 cycles/min (fixed)	cycles/min
	Wiping speed 2	0...60 cycles/min	60 cycles/min (fixed)	cycles/min
	Park position *	0° or WP1...WP2°	◦	◦
	Driver seating position **	left or right		

Operating Modes	Available?	Available?
Stop	Yes	Yes
Interval	Yes	Yes, 4 selectable speeds (see below)
Speed 1	Yes	Yes
Speed 2	Yes	Yes
Single Stroke	Not available	Yes

Interval operation: Wiping frequency:



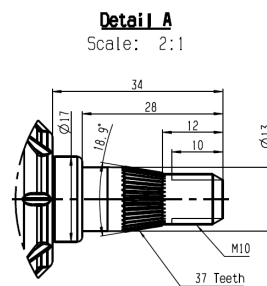
Interval Mode: Selectable Speeds (WDA-LIN)	
Interval Speed 1	Pause = 23 Sec
Interval Speed 2	Pause = 15 Sec
Interval Speed 3 (fixed speed Analog-Firmware)	Pause = 7 Sec
Interval Speed 4	Pause = 3 Sec

* **WP1:** Wiping Position 1, **WP2:** Wiping Position 2
 Select a park position between WP1 and WP2 to park **in the middle of the windscreen.**

** The driver seating position is important to define the direction of the first wiping stroke

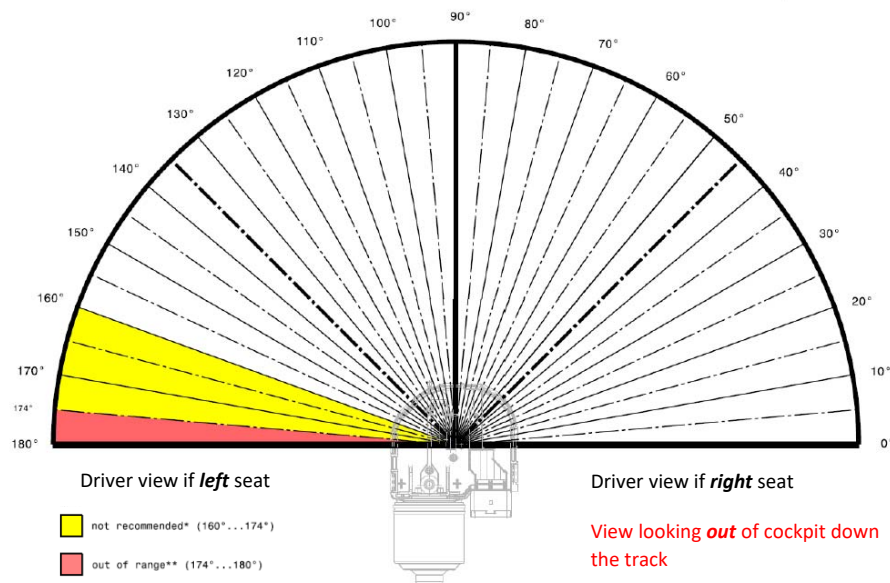
Bosch Motorsport WDA Quick Start Guide

- The maximum allowable **wiping range** for the WDA is 160°.
 - The first wiping position (the direction the arm will move to first) must be defined from 0° to 160°.
 - The second wiping position (the direction the arm will move to second) must be defined from 0° to 160°.
- The **park position** is where the wiper will remain when not in motion. This is defined from 0° to 160° but must fall within the total wiping range. For example, a vertical park in the middle of the wiping range would be defined as 80°.
- The **mounting** of the motor itself is independent of the wiper arm. Mount the motor in the orientation that fits your packaging and orient the arm as needed on the splined shaft. Wiper arms are typically a non-splined female taper. The splined shaft dimensions of the WDA are:



Shaft according to DIN 72783-A1

- This **seating position** is also selectable left or right. The following diagram is from the driver's view looking **out** of the cockpit down the track. For example, a driver sitting on the right may want a first wiping position of 0° whereas a driver sitting on the left may want 180°. The yellow and red zones refer to the total sweep angle recommendations of 160° or less.



* The internal mechanics of the WDA were not tested to work in this range. The maximal moment in the shaft of the motor could be too weak for your application. Please note, in this range and in case of too high wind resistance or too high friction between blade and windscreen the WDA would work improperly.
 ** Range excluded of operation to prevent overshooting problems. Working over 180°, the wiper motor would lose its internal reference.
 Please note, Make sure that the wiper is in its workspace when restarting after a power failure (upper and lower limit).