

Our wiper systems are engineered for reliability and performance - even in the worst conditions.

## 223BS/BD WIPER MOTOR

- 12VDC or 24VDC
- Choice of three bulkhead thicknesses
- 23Nm torque
- Drives arms to 29.5", blades to 31.5"
- Two Speed Settings:
  - Low (38 sweeps/min)
  - High (59 sweeps/min)
- Dynamic park (left or right)
- Amp Draw: 3A (12V) or 1.5A (24V)
- Recommended Fuse Size:
  - 12V: 6A Slow Blow
  - 24V: 4A Slow Blow

## TYPE 1 WIPER ARMS

- Three adj. lengths from 9.8" - 29.5"
- Adjustable spring gallery for easy wiper blade pressure adjustment
- Optional second spring
- Gallery covers for clean appearance
- 316 stainless steel construction with solid brass heads
- Arms fold back for easy windshield cleaning
- Coated with durable low-glare black polyester epoxy
- Optional arm-mounted washing jet

## TYPE 1 WIPER BLADES

- Stainless steel main support
- Stainless steel lower bridges (standard wiper blades)
- High-density synthetic lower bridges (heavy duty wiper blades)
- Replaceable rubber inserts
- 12 sizes from 9.8" - 31.5"



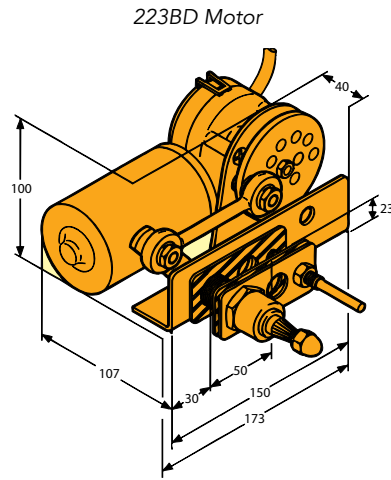
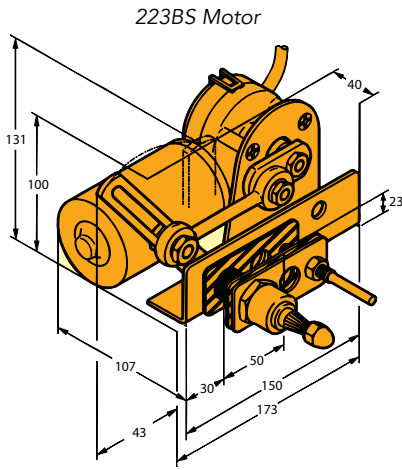

223BS Motor

## Features

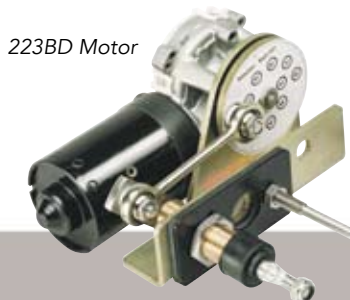
- Tapered drive shaft for secure motor/arm connection
- Durable galvanized steel bracket
- Choice of stepless sweep angle (223BS) or disk version in preset wipe angles and park positions (223BD)
- Sweep angle adjustable from 40-90°
- 316 stainless steel shafts, fasteners and components
- Optional motor cover for 223BD motor

## Benefits

- Long life in wet, corrosive environment
- Easy installation and wiring
- Wide range of arms and blades to fit most any window
- System has maximum wiper reach of up to 45"
- 3-Year warranty on motors & arms; 1-Year for blades



	MODEL	VOLTAGE	BULKHEAD THICKNESS	ITEM NO.	SWEEP ANGLE ADJUSTMENT
WIPER MOTORS	223BS	12V	3/4"	EX2167.30	40°-90° Slot stepless adj
			1-3/8"	EX2167.32	
	24V	2-1/8"	EX2167.35		
		3/4"	EX2168.30	40°-90° Disk 5° increments	
223BD	12V	1-3/8"	EX2168.32		
		2-1/8"	EX2168.35		
24V	12V	3/4"	EX2165.30		
		1-3/8"	EX2165.32		
			2-1/8"	EX2165.35	
			3/4"	EX2166.30	
			1-3/8"	EX2166.32	
			2-1/8"	EX2166.35	
ARM LENGTH			ITEM NO.	GALLERY SPRING	
WIPER ARMS	10.6 - 17.7" Adjustable Length			EX2133AS	Adjustable Spring Gallery with one spring
	17.7 - 23.6" Adjustable Length			EX2136AS	
23.6 - 29.5" Adjustable Length			EX2139AS		
WIPER ARMS	10.6 - 17.7" Adjustable Length			EX2133AS2	Adjustable Spring Gallery with dual springs
	17.7 - 23.6" Adjustable Length			EX2136AS2	
	23.6 - 29.5" Adjustable Length			EX2139AS2	
BLADE TYPE		LENGTH	ITEM NO.	CONSTRUCTION	
WIPER BLADES	Standard Blades	10"	EX2170	Stainless Steel main support with stainless steel bridges	
		11.8"	EX2171		
		13.8"	EX2172		
		15.8"	EX2173		
		17.7"	EX2174		
		19.7"	EX2175		
		21.7"	EX2176		
	Heavy Duty Blades	24"	EX216120	Stainless Steel main support with high-density synthetic bridges	
		25.5"	EX216121		
		27.5"	EX216122		
		29.5"	EX216123		
		29.5"	EX216124		
		31.5"	EX216124		



223BD Motor



223BD Motor Cover

[www.imtra.com](http://www.imtra.com)

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### Control Options

Imtra offers a wide range of switching options for your wiper system. The choices range from simple rotary switches to full featured electronic control panels that allow for fingertip control of the operation of entire banks of wipers. Ask for more information or visit [www.imtra.com](http://www.imtra.com) to see all the wiper switching options.



### Integrated Washing Systems

Complete your wiper installation with a proper window washing system. Imtra has everything that you need to customize a washing or rinse down solution for your application.

We have it all - solenoids, plumbing fittings, high quality tubing, bulkhead connects and manifolds for systems that plumb directly into the craft's pressure water system.



Or, choose a washing system that includes a dedicated fluid reservoir that allows for the use of anti-freeze or other additives for weather sensitive operation.



Request a copy of our washing system flyer to see all the options available. You can also see our offering at [www.imtra.com](http://www.imtra.com)