

**Exalto**  
WIPER TECHNOLOGIES

MARINE BROCHURE

# Durable and high quality wipers



**CLEARLY  
THE BEST**



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## Exalto Wiper Technologies

**Exalto produces the world's best professional marine wiper systems for all kind of vessels in the commercial and leisure sectors. Our wipers are designed for use in all marine environments.**

We offer a wide range of high performance motors, innovative arms, durable blades, controls and washing systems. In this way Exalto can compile a complete wiper system that fulfils the specific demands and wishes of the customer. Exalto wipers have stainless steel shafts and fixings. The drive shafts run in selflubricating brass bearings to ensure many hours of trouble-free performance. The wipers feature two speeds, self parking and offer in combination with one of our many control systems intermittent speeds, smart wipe/wash function and on certain system synchronized wiping.

All MD and HD wiper arms and blades are manufactured from T316SS (unless stated otherwise). Exalto Wiper Systems are made of high quality materials to assure many years of reliable work. The wiper systems are designed in our own Research and Development Centre and have undergone intensive testing.

Exalto offers complete systems. A typical wiper systems contains the following components:

- **Wiper motors**
- **Wiper arms**
- **Wiper blades**
- **Wiper controls**
- **Washing systems**

The size and shape of the glass that has to be wiped determine which motor, arm and blade are needed. The larger the wiping area, the larger the arms and blades have to be to cover that area. The larger the arms and blades are, the stronger the motor has to be. Therefore we divided our products in sections: large windows (1100-2500 mm in height), medium and small sized windows (till 1100 mm in height).

## Exalto Window wiper Systems

					
Window height	Between 1100-2500 mm		Up to 1600 mm	Up to 1100 mm	
	HD2	HD1	MD2	MD1	LD
Nm range	85-110	55	40	23-25	15
Motor series	2120 285	255	240	223 230 232 235	215
Arms series	HD2 (P12)	HD1 (P10)	MD2 (PF)	MD1	LD



## HD2 Wiper motors 2120BS

Self-parking wiper motor for bulkhead mounting. This wiper is only available in 24V. The 2120BS is our most powerful wiper. With a torque of 120 Nm and dual driven shafts this wiper motor can power arms up to 1.5 metres and blades up to 1.5 metres. This means windows of maximum 2250 mm in height can be cleared.



<b>Max. arm length</b>	1500 mm	<b>Centre distance</b>	60 mm
<b>Max. blade length</b>	1500 mm	<b>Driven shafts</b>	2
<b>Ø drive shaft</b>	27 mm	<b>Arm type</b>	P12
<b>Ø Idler spindle</b>	27 mm		

Voltage	Bulkhead thickness	Torque	Item no.
24 V	25 mm	120 Nm	2124120.25

## HD2 Wiper motors 285BS

Self-parking wiper motor for bulkhead mounting. This wiper is only available in 24V. The 285BS compact is a powerful wiper. With a torque of 85 Nm and dual driven shafts this wiper motor can power arms up to 1.2 metres and blades up to 1.5 metres. This means windows of maximum 2100 mm in height can be cleared. The motor is insulated earth as standard, The wiping arc of this wiper is steplessly variable from 40° to 90°.



<b>Max. armlength</b>	1200 mm	<b>Centre distance</b>	60 mm
<b>Max. bladlength</b>	1500 mm	<b>Driven shafts</b>	2
<b>Ø driveshaft</b>	27 mm		
<b>Ø Idler spindle</b>	27 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
24 V	25 mm	80 Nm	77 W	2178.085
	non std.			2181.02



## HD2 Wiper arms P12

The P12 arms are specially designed for the powerful 285BS and 2120BS wiper. The Exalto P12 arm will be manufactured to the required length. Please, note that therefore they have a longer delivery time. The P12 is not adjustable in length. The P12 arm is made of stainless steel 316 and has seawater resistant brass heads. A black coating is applied as a standard to prevent reflection. The Exalto P12 arms have two adjustable springs, to adjust the pressure on the glass steplessly. By means of the swivelling blade clip, you can park your blades parallel to the window. We advise you to use the Exalto Heavy Duty (HD) blades in combination with this arm.

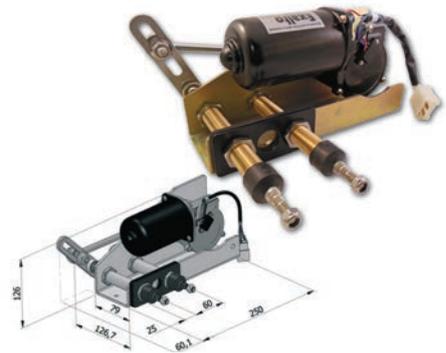


**Centre distance** 60 mm

Wiper arm length	Description	Nr. of springs	Blade length	Item no.
max. 1500 mm	Exalto wiper arm HD2 P12 with 2 adjustable springs	2	900-1500 mm	2144.B

## HD1 Wiper motors 255BS

This new model is the replacement for the 250BS. The motor is stronger and has an assembled plug. Self-parking wiper motor for bulkhead mounting. The 255BS is a powerful wiper with dual driven shafts. It can clean windows up to a height of 1600 mm. With a torque of 55 Nm, this wiper can drive arms upto 1 meter in length and blades upto 1.2 metres. This motor has insulated earth return as a standard. The wiping angle of this wiper motor is steplessly variable from 40° till 90°.



<b>Max. armlength</b>	1000 mm	<b>Centre distance</b>	60 mm
<b>Max. bladlength</b>	1200 mm	<b>Driven shafts</b>	2
<b>Ø driveshaft</b>	20 mm	<b>Arm type</b>	P10; HD1
<b>Ø Idler spindle</b>	20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	35 mm	55 Nm	84 W	211255.35
12 V	65 mm	55 Nm	84 W	211255.65
24 V	35 mm	55 Nm	96 W	212455.35
24 V	65 mm	55 Nm	96 W	212455.65
	non std.			2181.03



## HD1 Wiper motor cover 255BS

Cover for the wiper motor 255BS series.



Description	Color	Item no.
Cover for HD1 255BS Black	Black	2115.255

## HD1 Wiper arms P10

The P10 arms are specially designed for wiper motor 255BS. Exalto P10 arms are available for standard and H.D. blades till 800 mm in length, or for H.D. blades from 850 till 1200 mm in length. The arm is manufactured from stainless steel 316 and has brass, seawater resistant heads. The P10 arms have two fixed springs as a standard. If you want to adjust the pressure on the glass yourself, P10 arms with two steplessly adjustable springs are also available. The P10 arms have a swivelling blade clip, to adjust the position of the blade in relation to the window configuration easily. The arm has a black coating to prevent reflection as a standard. However, these arms with fixed springs are also available in high polished stainless steel.



**Centre distance**      60 mm

Pos	Wiper arm length	Description	Nr. of springs	Blade length	Item no.
1	750-1000 mm	Black coated arm with fixed springs	2	850-1200 mm	2142.B
2	750-1000 mm	Polished arm with fixed springs	2	850-1200 mm	2142.BP
3	750-1000 mm	Black coated arm with adj. springs	2	850-1200 mm	2142.BAS
1	750-1000 mm	Black coated arm with fixed springs	2	300-800 mm	2142.S
2	750-1000 mm	Polished arm with fixed springs	2	300-800 mm	2142.SP
3	750-1000 mm	Black coated arm with adj. springs	2	300-800 mm	2142.SAS



## HD Wiper blades SS316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty (HD) blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The HD blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.

**HD1 max 1200mm blade, 1000mm arm. HD2 max 1500mm blade, 1500mm arm.**



Pos	Description	Blade length	Item no.
1	Exalto Wiper blade	250 mm	2170.HP
1	Exalto Wiper blade	300 mm	2171.HP
1	Exalto Wiper blade	350 mm	2172.HP
1	Exalto Wiper blade	400 mm	2173.HP
1	Exalto Wiper blade	450 mm	2174.HP
1	Exalto Wiper blade	500 mm	2175.HP
1	Exalto Wiper blade	550 mm	2176.HP
1	Exalto Wiper blade	600 mm	2177.HP
1	Exalto Wiper blade	650 mm	2178.HP
1	Exalto Wiper blade	700 mm	2179.HP
1	Exalto Wiper blade	750 mm	2195.HP
1	Exalto Wiper blade	800 mm	2196.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
2	Exalto Wiper blade HD	800 mm	216124
2	Exalto Wiper blade HD	850 mm	216125
2	Exalto Wiper blade HD	900 mm	216126
2	Exalto Wiper blade HD	950 mm	216127
2	Exalto Wiper blade HD	1000 mm	216128
2	Exalto Wiper blade HD-Fluorinated	1100 mm	216129.FL
2	Exalto Wiper blade HD-Fluorinated	1200 mm	216130.FL
3	Exalto Wiper blade HD polished	610 mm	216120P
3	Exalto Wiper blade HD polished	650 mm	216121P
3	Exalto Wiper blade HD polished	700 mm	216122P
3	Exalto Wiper blade HD polished	750 mm	216123P
3	Exalto Wiper blade HD polished	800 mm	216124P
3	Exalto Wiper blade HD polished	850 mm	216125P
3	Exalto Wiper blade HD polished	900 mm	216126P
3	Exalto Wiper blade HD polished	950 mm	216127P
3	Exalto Wiper blade HD polished	1000 mm	216128P
3	Exalto Wiper blade HD polished	1200 mm	216130P



## HD Wiper blades

These conventional style wipers are strong and durable for use in lengths 1000-1500 mm. Using carbon steel and an automotive surface finish makes the design more durable with longer performance.



	Description	Blade length	Item no.
	Exalto Wiper blade CN	1000 mm	2161000
	Exalto Wiper blade CN	1200 mm	2161200
	Exalto Wiper blade CN	1300 mm	2161300
	Exalto Wiper blade CN	1500 mm	2161500

## HD Washing jets P10 & P12

These washing jets can be fitted on Exalto pantograph arms MD2 PF, HD1 P10 and HD2 P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.



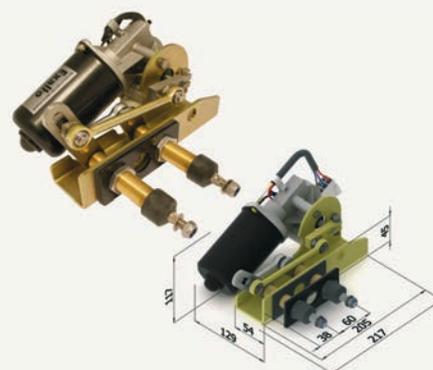
Pos	Description	Item no.
1	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L





## MD2 Wiper motors 240BS

Self-parking wiper motor for bulkhead mounting. The 240BS is a powerful wiper with dual driven shafts. It can clean windows up to a height of 1600 mm. With a torque of 40 Nm, this wiper motor powers arms and blades of 900mm in length. This motor is insulated earth return as a standard. The wiping angle of this wiper motor is steplessly variable from 40° to 90°.



<b>Max. armlength</b>	900 mm	<b>Centre distance</b>	60 mm
<b>Max. bladlength</b>	900 mm	<b>Driven shafts</b>	2
<b>Ø driveshaft</b>	20 mm	<b>Arm type</b>	P10; PF
<b>Ø Idler spindle</b>	20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	30 mm	40 Nm	36 W	211240.30
24 V	30 mm	40 Nm	48 W	212440.30
	non std.			2181.05



## MD2 Wiper arms PF

The PF arms are specially designed for wiper motor 240BS. Exalto PF arms are available for standard blades to 800 mm in length, or for H.D blades to 900 mm in length. The arm is manufactured from stainless steel 316 and has brass, seawater resistant heads. The PF arms are fixed length and fixed spring pressure as a standard. The PF arm as standard has a swiveling blade clip to allow easy adjustment of the position of the blade in relation to the window configuration. The arm has a black coating to prevent reflection as a standard. However, these arms with fixed springs are also available in high polished stainless steel. The PF arms with fixed springs can be folded back, which allows it easier to mount the arms, change the blades or clean the window. Alternatively HD1 P10 arms can be used.



**Centre distance**      60 mm

Description	Nr. of springs	Blade length	Wiper arm length	Item no.
Black coated wiper arm with fixed springs	2	300-800 mm	700 mm	2140.700.S
Black coated wiper arm with fixed springs	2	850-900 mm	700 mm	2140.700.B
Black coated wiper arm with fixed springs	2	300-800 mm	750 mm	2140.750.S
Black coated wiper arm with fixed springs	2	850-900 mm	750 mm	2140.750.B
Black coated arm with fixed springs	2	300-800 mm	800 mm	2140.800.S
Polished arm with fixed springs	2	300-800 mm	800 mm	2140.800.SP
Black coated arm with fixed springs	2	850-900 mm	800 mm	2140.800.B
Polished arm with fixed springs	2	850-900 mm	800 mm	2140.800.BP
Black coated arm with fixed springs	2	300- 800 mm	850 mm	2140.850.S
Polished arm with fixed springs	2	300- 800 mm	850 mm	2140.850.SP
Black coated arm with fixed springs	2	850-900 mm	850 mm	2140.850.B
Polished arm with fixed springs	2	850-900 mm	850 mm	2140.850.BP
Black coated arm with fixed springs	2	300-800 mm	900 mm	2140.900.S
Polished arm with fixed springs	2	300-800 mm	900 mm	2140.900.SP
Black coated arm with fixed springs	2	850-900 mm	900 mm	2140.900.B
Polished arm with fixed springs	2	850-900 mm	900 mm	2140.900.BP



## MD2 Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty (HD) blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The HD blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiperblade.



Pos	Description	Blade length	Item no.
1	Exalto Wiper blade	250 mm	2170.HP
1	Exalto Wiper blade	300 mm	2171.HP
1	Exalto Wiper blade	350 mm	2172.HP
1	Exalto Wiper blade	400 mm	2173.HP
1	Exalto Wiper blade	450 mm	2174.HP
1	Exalto Wiper blade	500 mm	2175.HP
1	Exalto Wiper blade	550 mm	2176.HP
1	Exalto Wiper blade	600 mm	2177.HP
1	Exalto Wiper blade	650 mm	2178.HP
1	Exalto Wiper blade	700 mm	2179.HP
1	Exalto Wiper blade	750 mm	2195.HP
1	Exalto Wiper blade	800 mm	2196.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
2	Exalto Wiper blade HD	800 mm	216124
2	Exalto Wiper blade HD	850 mm	216125
2	Exalto Wiper blade HD	900 mm	216126
3	Exalto Wiper blade HD polished	610 mm	216120P
3	Exalto Wiper blade HD polished	650 mm	216121P
3	Exalto Wiper blade HD polished	700 mm	216122P
3	Exalto Wiper blade HD polished	750 mm	216123P
3	Exalto Wiper blade HD polished	800 mm	216124P
3	Exalto Wiper blade HD polished	850 mm	216125P
3	Exalto Wiper blade HD polished	900 mm	216126P



## MD2 Washing jets PF & 2142-series

These washing jets can be fitted on Exalto pantograph arms PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

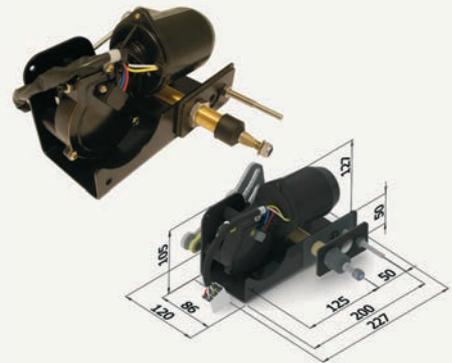


Pos	Description	Item no.
1	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl
2	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
3	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L

## MD1 Wiper motors 230XP

This self parking Exalto MD wiper is suitable for bulkhead mounting. This wiper is available in bulkhead thickness 25 and 50 mm. With a torque of 30 Nm, this wiper can handle arms up to 750mm and blades up to 800 mm. The motor is insulated earth return as standard. The wiping arc is adjustable from 45 up to 90 degrees.

<b>Max. arm length</b>	750 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	800 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	20 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

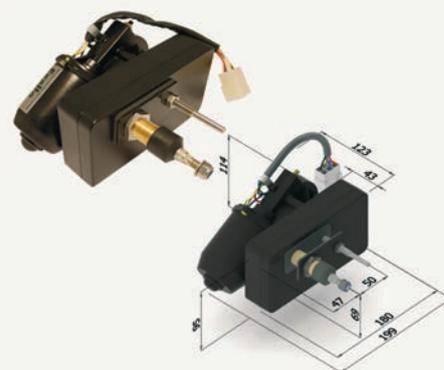


Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	25 mm	30 Nm	36 W	211230.25
12 V	50 mm	30 Nm	36 W	211230.50
24 V	25 mm	30 Nm	36 W	212430.25
24 V	50 mm	30 Nm	36 W	212430.50



## MD1 Wiper motors 232BD

Self-parking Exalto HD wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. All moving parts are protected by an aluminium housing. With a torque of 32 Nm, this wiper can handle arms up to 750 mm in length and blades up to 800 mm. The motor is insulated earth return as a standard. The wiping angle is adjustable from 40° to 90°, in 5° increments. This wiper is the correct replacement for the 235KK-HD.



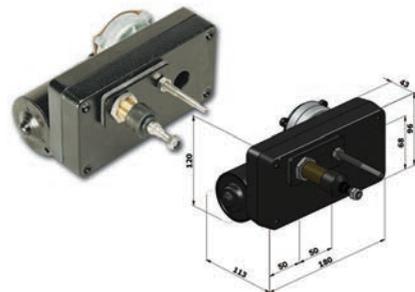
<b>Max. arm length</b>	750 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	800 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	20 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	32 Nm	40 W	2157.30
12 V	35 mm	32 Nm	40 W	2157.32
12 V	55 mm	32 Nm	40 W	2157.35
12 V	75 mm	32 Nm	40 W	2157.40
12 V	100 mm	32 Nm	40 W	2157.45
12 V	125 mm	32 Nm	40 W	2157.50
24 V	20 mm	32 Nm	40 W	2158.30
24 V	35 mm	32 Nm	40 W	2158.32
24 V	55 mm	32 Nm	40 W	2158.35
24 V	75 mm	32 Nm	40 W	2158.40
24 V	100 mm	32 Nm	40 W	2158.45
24 V	125 mm	32 Nm	40 W	2158.50
	non std.			2109.01



## MD1 Wiper motors 223BDC

This self-parking Exalto MD1 wiper is suitable for bulkhead mounting. This wiper is available in 12V and 24V. All moving parts are protected by an aluminium housing. With a torque of 23 Nm, this wiper can handle arms up to 750 mm in length and blades up to 750 mm. The motor is insulated earth standard. The wiping angle is adjustable from 40 to 90 degrees in 5 degrees increments.



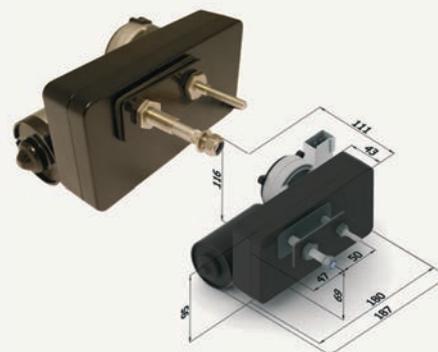
<b>Max. arm length</b>	750 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	750 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	20 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2151.30
12 V	35 mm	23 Nm	36 W	XA2151.32
12 V	55 mm	23 Nm	36 W	XA2151.35
12 V	75 mm	23 Nm	36 W	XA2151.40
12 V	100 mm	23 Nm	36 W	XA2151.45
12 V	125 mm	23 Nm	36 W	XA2151.50
24 V	20 mm	25 Nm	36 W	XA2152.30
24 V	35 mm	25 Nm	36 W	XA2152.32
24 V	55 mm	25 Nm	36 W	XA2152.35
24 V	75 mm	25 Nm	36 W	XA2152.40
24 V	100 mm	25 Nm	36 W	XA2152.45
24 V	125 mm	25 Nm	36 W	XA2152.50
	non std.			2109.01



## MD1 Wiper motors 223KGC

This self-parking Exalto MD1 wiper is suitable for glass mounting. All moving parts of the 223KGC are protected by an aluminium housing. These motors can handle arms up to 450 mm in length and blades up to 500 mm. As this wiper is to be fitted in the glass and has a different drive system from the other wipers, larger arms and blades are not recommended. The wipers have a standard insulated earth return. The wiping angle is adjustable from 40° to 90°, in 5° increments. The motors is insulated earth return standard as well. The 223KGC and 223KGO are only available for a glass thickness of 17 mm maximum.

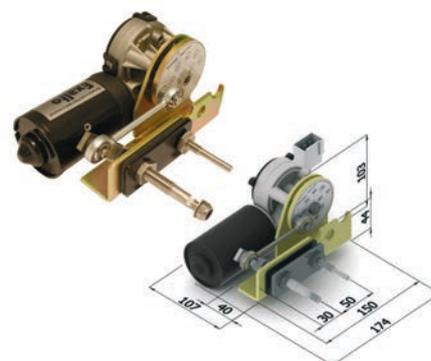


<b>Max. arm length</b>	450 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	500 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	11 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	17 mm	23 Nm	36 W	XA2123
24 V	17 mm	25 Nm	36 W	XA2124

## MD1 Wiper motors 223KGO

This self-parking Exalto MD1 wiper is suitable for glass mounting. All moving parts of the 223KGC are protected by an aluminium housing. For the 223KGO a white or black cover is available. These motors can handle arms up to 450 mm in length and blades up to 500 mm. As this wiper is to be fitted in the glass and has a different drive system from the other wipers, larger arms and blades are not recommended. The wipers have a standard insulated earth return. The wiping angle is adjustable from 40° to 90°, in 5° increments. The motors is insulated earth return standard as well. The 223KGC and 223KGO are only available for a glass thickness of 17 mm maximum.



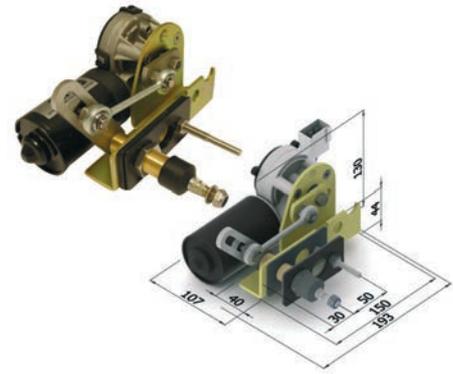
<b>Max. arm length</b>	450 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	500 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	11 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	17 mm	23 Nm	36 W	XA2125
24 V	17 mm	25 Nm	36 W	XA2126



## MD1 Wiper motors 223BS

Self-parking Exalto MD1 wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23/25 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 750 mm in length. The motor is insulated earth as standard. The 223BS differs from the 223BD and 223BDS by means of the adjustability of the wiping arc. Where the 223BD and BDS can adjust the wiping angle with 5° increments, the 223BS is infinitely variable. **The black or white cover does NOT fit on this wiper.**



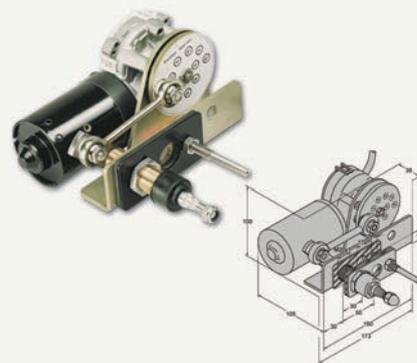
<b>Max. arm length</b>	750 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	750 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	20 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2167.30
12 V	35 mm	23 Nm	36 W	XA2167.32
12 V	55 mm	23 Nm	36 W	XA2167.35
12 V	75 mm	23 Nm	36 W	XA2167.40
12 V	100 mm	23 Nm	36 W	XA2167.45
12 V	125 mm	23 Nm	36 W	XA2167.50
24 V	20 mm	25 Nm	36 W	XA2168.30
24 V	35 mm	25 Nm	36 W	XA2168.32
24 V	55 mm	25 Nm	36 W	XA2168.35
24 V	75 mm	25 Nm	36 W	XA2168.40
24 V	100 mm	25 Nm	36 W	XA2168.45
24 V	125 mm	25 Nm	36 W	XA2168.50
	non std.			2181.04



## MD1 Wiper motors 223BD

Self-parking Exalto MD wiper for bulkhead mounting. This wiper is available in 12 and 24V and for several bulkhead thicknesses. With a torque of 23/25 Nm these wipers can handle arms up to 750 mm in length in combination with blades up to 750 mm in length. The 223BD is a pantograph wiper system. A black or white cover is available for protection. The motor is IER standard. The wiping arc is adjustable from 40° up to 90°, in 5° increments.



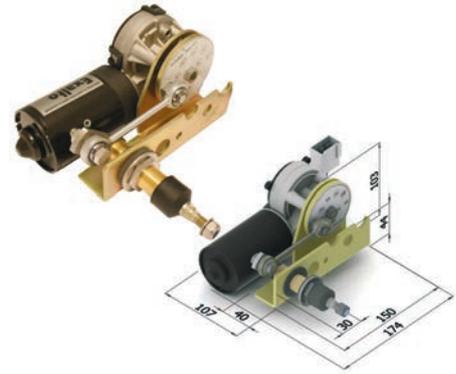
<b>Max. arm length</b>	750 mm	<b>Centre distance</b>	50 mm
<b>Max. blade length</b>	750 mm	<b>Driven shafts</b>	1
<b>Ø drive shaft</b>	20 mm	<b>Arm type</b>	PU; MD1
<b>Ø Idler spindle</b>	8 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2165.30
12 V	35 mm	23 Nm	36 W	XA2165.32
12 V	55 mm	23 Nm	36 W	XA2165.35
12 V	75 mm	23 Nm	36 W	XA2165.40
12 V	100 mm	23 Nm	36 W	XA2165.45
12 V	125 mm	23 Nm	36 W	XA2165.50
24 V	20 mm	25 Nm	36 W	XA2166.30
24 V	35 mm	25 Nm	36 W	XA2166.32
24 V	55 mm	25 Nm	36 W	XA2166.35
24 V	75 mm	25 Nm	36 W	XA2166.40
24 V	100 mm	25 Nm	36 W	XA2166.45
24 V	125 mm	25 Nm	36 W	XA2166.50
	non std.			2109.01



## MD1 Wiper motors 223BDS

Self-parking Exalto MD1 wiper for bulkhead mounting. This wiper is available in 12V and 24V and for several bulkhead thicknesses. With a torque of 23/25 Nm these wipers can drive arms up to 750 mm in length in combination with blades up to 750 mm in length. The 223BDS has only one shaft which makes this a pendulum wiper system. For these wipers a cover in black or white is available to protect the motor and keep all moving parts out of reach. The motor is IER standard. The wiping arc is adjustable from 40 to 90 degrees in 5 degrees increments.



<b>Max. arm length</b>	750 mm	<b>Driven shafts</b>	1
<b>Max. blade length</b>	750 mm	<b>Arm type</b>	KW; E
<b>Ø drive shaft</b>	20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2165.30S
12 V	35 mm	23 Nm	36 W	XA2165.32S
12 V	55 mm	23 Nm	36 W	XA2165.35S
12 V	75 mm	23 Nm	36 W	XA2165.40S
24 V	100 mm	23 Nm	36 W	XA2165.45S
12 V	125 mm	23 Nm	36 W	XA2165.50S
24 V	20 mm	25 Nm	36 W	XA2166.30S
24 V	35 mm	25 Nm	36 W	XA2166.32S
24 V	55 mm	25 Nm	36 W	XA2166.35S
24 V	75 mm	25 Nm	36 W	XA2166.40S
24 V	125 mm	25 Nm	36 W	XA2166.50S
24 V	100 mm	25 Nm	36 W	XA2166.45S
	non std.			2109.01



## MD1 Wiper motor covers 223KGO / BDO / BDS

Cover for the wiper motor 223BDO / KGO / BDS series.

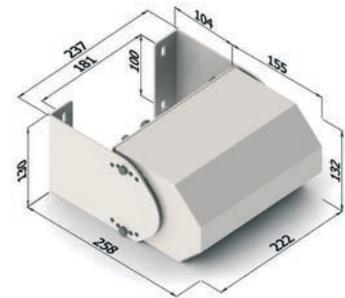
Description	Color	Item no.
Cover for MD1 223BDO/223KG White	White	2101
Cover for MD1 223BDO/223KG Black	Black	2115



## MD1 External wiper housing 223BDO

The Exalto External Wiper Housing is ideally suited for installations where internally installation-space is not sufficient and offer unmatched mounting flexibility and installation ease. The systems' easily adjustable sweep angles, wiper arm lengths and spring pressure make the Exalto External Wiper Housing easy to configure and install for a wide variety of window configurations.

**Please note** that you will need the special designed arms 2133.R, 2136.R or 2139.R for this installation. Also the 2197.301 Connector Kit is necessary to make a waterproof connection.



Description	Item no.
External Housing IP66 for 223BDO wipersystem	2197.300
Connector Kit for External Wiper Housing	2197.301



## MD1 Wiper arms PU

The Exalto PU arms are suitable for all MD wiper systems for small and medium sized windows up to 1100 mm in height. This means that they can be installed on all MD1 & MD2-series wiper motors. All PU arms have a fold back feature, so they can be placed in fixed position away from the windshield. This makes it easier to mount the arms, replace the blades or to clean the window. As a standard the PU arms also have adjustable spring pressure to regulate the pressure of the blade on the window steplessly.

The .01 version allows double spring pressure on high-speed vessels or raked windows. The position of the blade in relation to the window configuration can be adjusted by the swivelling blade clip. All Exalto wiper arms are made of stainless steel 316 and have bronze heads. A black coating is applied on all metal parts as a standard to prevent reflection. The polished arms are new, so you can choose which arm suits the look of your vessel most. The wiper arms are adjustable in length.



**Centre distance** 50 mm

Pos	Wiper arm length	Description	Nr. of springs	Max. blade length	Item no.
1	380-510 mm	Exalto MD1 arm type PU	1	800 mm	2133
2		Tubing retainer strip 190 mm			2133.03
3	380-510 mm	Exalto wiper arm MD1 PU with 2 adjustable springs	2	800 mm	2133.01
	380-510 mm	Exalto MD1 polished arm type PU	1	800 mm	2133.P
1	520-650 mm	Exalto MD1 arm type PU	1	800 mm	2136
2		Tubing retainer strip 430 mm			2136.03
3	520-650 mm	Exalto wiper arm MD1 PU with 2 adjustable springs	2	800 mm	2136.01
	520-650 mm	Exalto MD1 polished arm type PU	1	800 mm	2136.P
1	660-790 mm	Exalto MD1 arm type PU	1	800 mm	2139
2		Tubing retainer strip 480 mm			2139.03
3	660-790 mm	Exalto wiper arm MD1 PU with 2 adjustable springs	2	800 mm	2139.01
4	660-790 mm	Exalto MD1 polished arm type PU	1	800 mm	2139.P



## MD1 Wiper arms PU Reversed

These Exalto wiperarms are specially designed to fit the Exalto External Wiperhousing (PartNo 2197.300). The arms have a reversed head to fit the motor inside the External Wiperhousing. As a standard the PU arms also have adjustable spring pressure to regulate the pressure of the blade on the window steplessly. The position of the blade in relation to the window configuration can be adjusted by the swivelling blade clip. All Exalto wiper arms are made of stainless steel 316 and have bronze heads. A black coating is applied on all metal parts as a standard to prevent reflection. The wiper arms are adjustable in length.



**Centre distance** 50 mm

Wiper arm length	Description	Nr. of springs	Blade length	Item no.
380-510 mm	Exalto MD1 arm type PU reversed head	1	750 mm	2133.R
520-650 mm	Exalto MD1 arm type PU reversed head	1	750 mm	2136.R
660-790 mm	Exalto MD1 arm type PU reversed head	1	750 mm	2139.R

## MD1 Pendulum wiper arms for 223BDS

The E-arms are specially designed for the Exalto KW linked and single shaft (e.g. 223BDS) wiper systems. They are made of stainless steel and have a black coating. These pendulum arms have a stepless swivelling blade clip to allow the blade to be positioned parallel to the edge of the glass and are adjustable in length.



Wiper arm length	Description	Nr. of springs	Blade length	Item no.
380-510 mm	Single adjustable arm, Type KW E	1	750 mm	2103
520-650 mm	Single adjustable arm, Type KW E	1	750 mm	2106
660-790 mm	Single adjustable arm, Type KW E	1	750 mm	2109



## MD Wiper blades SS 316

These Exalto wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The MD Wiper blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The HD Wiper blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiper blade.



Pos	Description	Blade length	Item no.
1	Exalto Wiper blade	250 mm	2170.HP
1	Exalto Wiper blade	300 mm	2171.HP
1	Exalto Wiper blade	350 mm	2172.HP
1	Exalto Wiper blade	400 mm	2173.HP
1	Exalto Wiper blade	450 mm	2174.HP
1	Exalto Wiper blade	500 mm	2175.HP
1	Exalto Wiper blade	550 mm	2176.HP
1	Exalto Wiper blade	600 mm	2177.HP
1	Exalto Wiper blade	650 mm	2178.HP
1	Exalto Wiper blade	700 mm	2179.HP
1	Exalto Wiper blade	750 mm	2195.HP
1	Exalto Wiper blade	800 mm	2196.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
2	Exalto Wiper blade HD	800 mm	216124
3	Exalto Wiper blade HD polished	610 mm	216120P
3	Exalto Wiper blade HD polished	650 mm	216121P
3	Exalto Wiper blade HD polished	700 mm	216122P
3	Exalto Wiper blade HD polished	750 mm	216123P
3	Exalto Wiper blade HD polished	800 mm	216124P

## MD Washing jets PU

This washing jets can be fitted on Exalto pantograph arms type MD1 PU and 2108 arm. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.

Pos	Description	Item no.
1	Washing jet, 2 nozzles for MD1 PU arms	2184
2	Washing jet, 6 nozzles for MD1 PU and E-arms	2110.cpl





## LD Wiper motors 215BD

This self parking Light Duty wiper is suitable for either bulkhead or through glass mounting. The 215BD is a pendulum or single spindle unit. It can easily be converted to a pantograph system with the external pantograph plate that comes with the pantograph wiper arm. The wiper motor unit is fully enclosed in a waterproof housing (in white or black). The housing is rated at IP66, so the 215BD is suitable for both open and covered boats. Sweep angle is adjustable in 10° steps from 40° to 110°.

<b>Max. arm length</b>	600 mm	<b>Driven shafts</b>	1
<b>Max. blade length</b>	600 mm	<b>Arm type</b>	LD (215BD)
<b>Ø drive shaft</b>	16 mm		
<b>Ø Idler spindle</b>	6 mm		



Voltage	Bulkhead thickness	Shaft length	Torque	Power	Item no. white
12 V	0-15 mm	25 mm	15 Nm	15 W	2151225IER
12 V	15-40 mm	50 mm	15 Nm	15 W	2151250IER
12 V	40-65 mm	75 mm	15 Nm	15 W	2151275IER
24 V	0-15 mm	25 mm	15 Nm	15 W	2152425IER
24 V	15-40 mm	50 mm	15 Nm	15 W	2152450IER
24 V	40-65 mm	75 mm	15 Nm	15 W	2152475IER

Voltage	Bulkhead thickness	Shaft length	Torque	Power	Item no. black
12 V	0-15 mm	25 mm	15 Nm	15 W	2151225IERB
12 V	15-40 mm	50 mm	15 Nm	15 W	2151250IERB
12 V	40-65 mm	75 mm	15 Nm	15 W	2151275IERB
24 V	0-15 mm	25 mm	15 Nm	15 W	2152425IERB
24 V	15-40 mm	50 mm	15 Nm	15 W	2152450IERB
24 V	40-65 mm	75 mm	15 Nm	15 W	2152475IERB



## LD Wiper arms SS 304

The Exalto LD Wiper arms are special for the 215BD windscreen wiper. They are available in a black-coated version and a stainless steel polished version. The single arm is also available with an adjustable clip; This allows you to park the blade along the edge of the window. The parallel arms are available with 1 and 2 springs and the support shaft is supplied as standard.



Pos	Wiper arm length	Description	Nr. of springs	Blade length	Item no.
1	330-450 mm	Single arm adjustable	1	280-600 mm	21581118
1	450-600 mm	Single arm adjustable	1	280-600 mm	21581124
2	330-450 mm	Single arm adjustable + adjustable clip	1	280-600 mm	21581218
2	330-450 mm	Single arm adjustable, polished + adjustable clip	1	280-600 mm	21581218P
2	450-600 mm	Single arm adjustable, adjustable clip	1	280-600 mm	21581224
2	450-600 mm	Single arm adjustable, polished + adjustable clip	1	280-600 mm	21581224P
3	330-450 mm	Pantograph arm adjustable	1	280-600 mm	21581318
3	330-450 mm	Pantograph arm adjustable, polished	1	280-600 mm	21581318P
3	450-600 mm	Pantograph arm adjustable	1	280-600 mm	21581324
3	450-600 mm	Pantograph arm adjustable, polished	1	280-600 mm	21581324P
	330-450 mm	Pantograph arm adjustable, twin spring	2	280-600 mm	21581618
	330-450 mm	Pantograph arm, twin spring, stainless steel Polished	2	280-600 mm	21581618P
	450-600 mm	Pantograph arm, twin spring	2	280-600 mm	21581624
	450-600 mm	Pantograph arm, twin spring, stainless steel Polished	2	280-600 mm	21581624P



## LD Wiper blades

The Exalto LD Wiper blades are in SS304 steel with a high quality rubber profile. Available in length from 280mm till 600mm. Please check the maximum blade size of the wiper motor when you make a choice for your wiperblades.



Blade length	Material	Item no.
280 mm	SS 304	21582011-SS
300 mm	SS 304	21582012-SS
350 mm	SS 304	21582014-SS
400 mm	SS 304	21582016-SS
450 mm	SS 304	21582018-SS
500 mm	SS 304	21582020-SS
550 mm	SS 304	21582022-SS
600 mm	SS 304	21582024-SS

## LD Wiper arms SS 316

The Exalto LD Wiper arms are special for the 215BD windscreen wiper. They are available in a black-coated version and a stainless steel polished version.

The single arm is also available with an adjustable clip; This allows you to park the blade along the edge of the window. The parallel arms are available with 1 and 2 springs and the support shaft is supplied as standard.



Pos	Wiper arm length	Description	Nr. of springs	Blade length	Item no.
1	270-640 mm	Single arm black SS 316	1	280-600 mm	2107
2	270-640 mm	Pantograph arm black SS 316	1	280-600 mm	2108
		Outside thu-hull cover plate for use with 2108			2112
		Outside shaft cover plate for use with kit 2108			2113



## LD Wiper blades SS 316

These Exalto Wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The LD Wiper blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. Keep in mind that every motor has a maximum blade length when choosing your wiper blade.

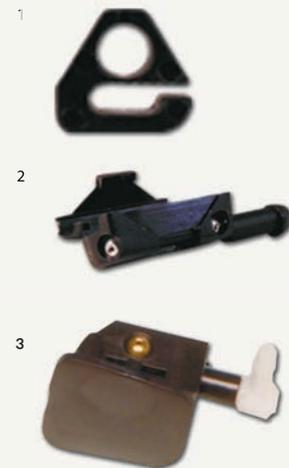


Description	Blade length	Material	Item no.
Exalto Wiper blade	250 mm	SS 316	2170.HP
Exalto Wiper blade	300 mm	SS 316	2171.HP
Exalto Wiper blade	350 mm	SS 316	2172.HP
Exalto Wiper blade	400 mm	SS 316	2173.HP
Exalto Wiper blade	450 mm	SS 316	2174.HP
Exalto Wiper blade	500 mm	SS 316	2175.HP
Exalto Wiper blade	550 mm	SS 316	2176.HP
Exalto Wiper blade	600 mm	SS 316	2177.HP

## LD Washing jets

Washing jet with 4 nozzles for LD Wiper motors 215BD. To install the washing jet on the arm you also need the clip (2154.clip). Suitable for all LD Wiper arms only.

Pos	Description	Item no.
1	Clip for tubing of 2108 and 215BD arms	2154.CLIP
2	Nozzle for 215BD arms	21000.326
3	Washing jet, 2 nozzles for MD1 PU arms	2184





## LD Wiper controls for 1 wiper

To complete your wiper system, we advise you to use our switch for LD Wiper motors which offers 2-speeds and self parking. The set includes a switch and frame.

**Installation dimensions** 36,5 x 21 x 90 mm



Description	Suitable for	Voltage	Item no.
Exalto Wiper control switch LD 215BD	LD 215 BD	12/24 V	70906425.SET

## LD Wiper controls for max. 3 wipers

Exalto Electronic Wiper control suitable for upto 3x LD Wiper motors. The control features 3 speed modes, intermittent, slow and fast speed, wash/wipe function and self park. The wipers can be switched in 2 groups = master motor or all motors. In operation the motors are synchronized. CE Approved.

**L x W x H** 115 x 115 x 30 mm



Description	Suitable for	Voltage	Item no.
Exalto Wiper control 12V (3)	215 BD	12 V	21591812
Exalto Wiper control 24V (3)	215 BD	24 V	21591824

## LD Wiper controls for max. 4 wipers

Dual voltage electronic Wiper control for up to four LD wipers. Wipers can be switched in two groups: group I and group II. These groups can be controlled individually but also together. The Wiper control with flush mount panel offers one continuous speed, selfparking, three step intermittent wipe and a wipe / wash feature. In the intermittent modes, all wipers run synchronised.



Description	Suitable for	Voltage	Item no.
Exalto Wiper control LD 215BD max. 4 wipers	LD 215BD	12/24 V	210604



## Wiper controls Retro

These switches offer two speeds, variable intermittent (2155/59 only) and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.

Pos	Description	Suitable for	Voltage	Item no.
1	2-speed Wiper control for 1 wiper	Exalto Wipers	12/24 V	2134
2	2-speed Wiper control for 2 wipers	Exalto Wipers	12/24 V	2135
3	2-speed, intermittent Wiper control	Exalto Wipers	12 V	2158
3	2-speed, intermittent Wiper control	Exalto Wipers	24 V	2159
4	Panel for 2-speed intermittent switch	2158, 2159		2159.01



## Wiper controls CT41 & CT42

These switches are micro-controller based “intelligent” switches for operating one or two Exalto Wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

**Installation dimensions** 36,5 x 21 x 90 mm  
**Cable length** 450 mm



Description	Suitable for	Voltage	Item no.
Wiper control for 1 wiper 3A	MD1, KW2	12/24 V	210341
Wiper control for 2 wipers 3A	MD1 232, 233, 235	12/24 V	210342
Wiper control for 2 wipers 4A (only synchronized mode)	MD1 232, 233, 235	12/24 V	210342S
Wiper control for 1 wiper 6A	MD2	12/24 V	210341J
Wiper control for 2 wipers 6A	MD2	12/24 V	210342J
Wiper switch 12 Amp 1 wiper	HD1, HD2, KW3/ KW4	12/24 V	210341P
Wiper switch 12 Amp 2 wipers	HD1, HD2	12/24 V	210342P



## Wiper control CT43

These switches are micro-controller based “intelligent” switches for operating three Exalto wiper motors 12/24 volt. The switches consist of 2 touch pads with a 45 cm connection cable to a control box. The first switch offers the speed functions two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. The second switch offers the function to control each wiper independently or in all movement LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V and are rated for 12A motors.



**Installation dimensions** 36,5 x 21 x 90 mm per switch  
**Cable length** 2 x 450 mm

Description	Suitable for	Voltage	Item no.
Wiper control for 3 wiper 12A	MD1, MD2, HD1, HD2	12/24 V	214303

## Wiper controls CT3EX

Electronic multivolt wiper control for up to three Exalto MD1 wipers. Wipers can be switched individually or in any combination. LED's indicate each setting. The complete wiper control consists of one flush mount panel of 72 x 72 mm and one junction box. The wiper control offers two continuous speeds, three-step intermittent speeds and a wipe/wash feature. All wipers are self-parking. The wipers run synchronised in all settings. To ease the mounting of the panel, we offer two different bulkhead mounts: a low and a high version. These mounts should be ordered separately. Not suitable for LD, MD2, HD1 and HD2 wipers



**L x W x H** 72 x 72 x 72 mm

Pos	Description	Suitable for	Voltage	L x W x H	Item no.
1	Exalto Wiper control CT3EX for max. 3 wipers	Exalto Wipers except LD(215BD), HD1 255, HD2 280, 2110	12/24 V	72 x 72 x 72 mm	216324
-	Exalto Wiper control CT3EX for max. 3 MD1 wipers, 12V / 24V. w 2 panels	216324	12/24 V	72 x 72 x 72 mm	216324.DCP
3	Low rim for Wiper control CT3EX	216324		88 x 88 x 3 mm	216883
2	High rim for Wiper control CT3EX	216324		88 x 88 x 6 mm	216886



### Wiper controls CT3N

Latest electronic multivolt wiper control for up to five Exalto Wipers. Now with a modern and sleek design and new extra features like:

- heater switch
- single sweep button
- back light dimmer (three level brightness)

Further you will find the basic features as CT2N series. Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, one junction box and a 5 m connection cable to connect the panel to the junction box. The wiper control offers two continuous speeds, three step intermittent wipe and a wipe/wash feature. In all speed modes wipers run synchronized and are self-parking as standard. LED indicators on the panel indicate the selected speed setting. (Old style control panel is still available).



Description	Suitable for	Voltage	L x W	Item no.
Exalto Wiper control for max. 2 wipers	Exalto Wipers	12/24 V	100 x 100 mm	210321224
Exalto Wiper control for max. 3 wipers	Exalto Wipers	12/24 V	100 x 100 mm	210331224
Exalto Wiper control for max. 4 wipers	Exalto Wipers	12/24 V	100 x 100 mm	210341224
Exalto Wiper control for max. 5 wipers	Exalto Wipers	12/24 V	100 x 100 mm	210351224

### Wiper controls CT3N extra panel

The Exalto Electronic Wiper control can easily turn into a dual control system by adding an extra panel. A 5m cable is included. (Old style control panel is still available).



Description	Suitable for	Voltage	L x W	Item no.
Extra Wiper control for 2 wipers	Exalto Wiper control CT3N	12/24 V	100 x 100 mm	210321224.P
Extra Wiper control for 3 wipers	Exalto Wiper control CT3N	12/24 V	100 x 100 mm	210331224.P
Extra Wiper control for 4 wipers	Exalto Wiper control CT3N	12/24 V	100 x 100 mm	210341224.P
Extra Wiper control for 5 wipers	Exalto Wiper control CT3N	12/24 V	100 x 100 mm	210351224.P



## Wiper controls CT3N special

Exalto Wiper control for more than 5 wipers. For grouped system over a 5 wiper installation. This can also be programmed according to your project. All other features as per standard CT3N system. Individual projects can be programmed according to number of wipers, grouping, wash grouping or individual heater programs etc.



	Description	Item no.
	Exalto Wiper control 12/24V - 6 wipers with 3 button panel	210361224.3B
	Exalto Wiper control 12/24V - 6 wipers with 5 button panel	210361224.5B
	Exalto Wiper control 12/24V - 7 wipers with 5 button panel	210371224.5B
	Exalto Wiper control 12/24V - 8 wipers with 3 button panel	210381224.3B





## KW2 Linked wiper systems

The Exalto KW2 Wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one motor 2 arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto HD blades.

**Features Exalto KW:**

- Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds
- Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm
- Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings
- Maximum wiping angle 100°

<b>Max. arm length</b>	600 mm	<b>Driven shafts</b>	2
<b>Max. blade length</b>	700 mm	<b>Arm type</b>	KWE
<b>Ø drive shaft</b>	20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	23 Nm	36 W	XA2123.02012
12 V	35 mm	23 Nm	36 W	XA2123.03512
12 V	55 mm	23 Nm	36 W	XA2123.05512
12 V	75 mm	23 Nm	36 W	XA2123.07512
12 V	100 mm	23 Nm	36 W	XA2123.10012
12 V	125 mm	23 Nm	36 W	XA2123.12512
24 V	20 mm	25 Nm	36 W	XA2123.02024
24 V	35 mm	25 Nm	36 W	XA2123.03524
24 V	55 mm	25 Nm	36 W	XA2123.05524
24 V	75 mm	25 Nm	36 W	XA2123.07524
24 V	100 mm	25 Nm	36 W	XA2123.10024
24 V	125 mm	25 Nm	36 W	XA2123.12524
	non std.			2181.04



## KW3 Linked wiper systems

The Exalto KW Wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one motor 3 arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in self-parking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto HD blades.



### Features Exalto KW:

- Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds
- Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm
- Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings
- Maximum wiping angle 100°

<b>Max. arm length</b>	600 mm	<b>Driven shafts</b>	3
<b>Max. blade length</b>	700 mm	<b>Arm type</b>	KWE
<b>Ø drive shaft</b>	20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
12 V	20 mm	55 Nm	30 W	2150.02012
12 V	35 mm	55 Nm	30 W	2150.03512
12 V	55 mm	55 Nm	30 W	2150.05512
12 V	75 mm	55 Nm	30 W	2150.07512
12 V	100 mm	55 Nm	30 W	2150.10012
12 V	125 mm	55 Nm	30 W	2150.12512
24 V	20 mm	55 Nm	30 W	2150.02024
24 V	35 mm	55 Nm	30 W	2150.03524
24 V	55 mm	55 Nm	30 W	2150.05524
24 V	75 mm	55 Nm	30 W	2150.07524
24 V	100 mm	55 Nm	30 W	2150.10024
24 V	125 mm	55 Nm	30 W	2150.12524



## KW4 Linked wiper systems

The Exalto KW Wiper system is custom-made, so in almost every situation the perfect solution can be offered. With one motor 4 arms can be driven. Main advantage of this wiper system is that the arms are easily adjustable in length. The arms have a swivelling blade clip, so in selfparking position the blade can be set parallel to the edge of the glass. The type E wiper arms are specially designed for the Exalto KW wiper systems. We advise you to use the Exalto HD blades.



### Features Exalto KW:

- Easy to mount • Insulated earth return • Noiseless • Self-parking • Two speeds
- Available for bulkhead thicknesses 20, 35, 55, 75, 100 and 125 mm
- Stainless steel shafts, bolts and nuts • Self-lubricating bronze bearings
- Maximum wiping angle 100°

<b>Max. arm length</b>	750 mm	<b>Driven shafts</b>	4
<b>Max. blade length</b>	750 mm	<b>Arm type</b>	KW E
<b>Ø drive shaft</b>	20 mm		

Voltage	Bulkhead thickness	Torque	Power	Item no.
24 V	20 mm	85 Nm	77 W	2180.02024
24 V	35 mm	85 Nm	77 W	2180.03524
24 V	55 mm	85 Nm	77 W	2180.05524
24 V	75 mm	85 Nm	77 W	2180.07524
24 V	100 mm	85 Nm	77 W	2180.10024
24 V	125 mm	85 Nm	77 W	2180.12524

## KW Wiper arms E

The E-arms are specially designed for the Exalto KW linked and single shaft (e.g. 223BDS) wiper systems. They are made of stainless steel and have a black coating. These pendulum arms have a stepless swivelling blade clip to allow the blade to be positioned parallel to the edge of the glass and are adjustable in length.



Wiper arm length	Description	Nr. of springs	Max. blade length	Item no.
380-510 mm	Single adjustable arm, Type KW E	1	250 - 750 mm	2103
520-650 mm	Single adjustable arm, Type KW E	1	250 - 750 mm	2106
660-790 mm	Single adjustable arm, Type KW E	1	250 - 750 mm	2109



## KW Wiper blades SS 316

These Exalto Wiper blades are manufactured of stainless steel 316. To prevent reflection, a black coating is applied on all metal parts. The Heavy Duty (HD) blades have a special profile that reduces lift. This makes them perfect for applications where a little more pressure is required. The HD blades are also more screen friendly due to the use of plastic lower bridges. In case of damaged rubber, these plastic bridges will not damage the screen. Keep in mind that every motor has a maximum blade length when choosing your wiper blade.



Pos	Description	Blade length	Item no.
1	Exalto Wiper blade	250 mm	2170.HP
1	Exalto Wiper blade	300 mm	2171.HP
1	Exalto Wiper blade	350 mm	2172.HP
1	Exalto Wiper blade	400 mm	2173.HP
1	Exalto Wiper blade	450 mm	2174.HP
1	Exalto Wiper blade	500 mm	2175.HP
1	Exalto Wiper blade	550 mm	2176.HP
1	Exalto Wiper blade	600 mm	2177.HP
1	Exalto Wiper blade	650 mm	2178.HP
1	Exalto Wiper blade	700 mm	2179.HP
1	Exalto Wiper blade	750 mm	2195.HP
2	Exalto Wiper blade HD	610 mm	216120
2	Exalto Wiper blade HD	650 mm	216121
2	Exalto Wiper blade HD	700 mm	216122
2	Exalto Wiper blade HD	750 mm	216123
3	Exalto Wiper blade HD polished	610 mm	216120P
3	Exalto Wiper blade HD polished	650 mm	216121P
3	Exalto Wiper blade HD polished	700 mm	216122P
3	Exalto Wiper blade HD polished	750 mm	216123P

## KW Washing jets E

These washing jets can be fitted on Exalto pantograph arms PU and also on the pendulum E-type arm. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.



Pos	Description	Item no.
4	Washing jet, 6 nozzles for MD1 PU and E-arms	2110.cpl



## KW Wiper controls Retro

These switches offer two speeds and self-parking controls with separate connections for pumps or solenoids giving wash/wipe facility.



Pos	Description	Suitable for	Voltage	Item no.
1	2-speed Wiper control for 1 wiper	Exalto Wipers	12/24 V	2134
2	2-speed Wiper control for 2 wipers	Exalto Wipers	12/24 V	2135
3	2-speed, intermittend Wiper control	Exalto Wipers	12 V	2158
3	2-speed, intermittent Wiper control	Exalto Wipers	24 V	2159
4	Panel for 2-speed intermittent switch	2158, 2159		2159.01

## KW Wiper controls CT41

These switches are micro-controller based “intelligent” switches for operating one or two Exalto Wiper motors. The switches consist of touch pads with a 45 cm connection cable. The switches offer two continuous speeds, three step intermittent, perfect self-parking due to dynamic break and a wipe/wash program. LEDs on the switch indicate the selected mode, speed and intermittent setting. The wiper switches operate with a power supply of 10 - 30V.

**Installation dimensions** 36,5 x 21 x 90 mm  
**Cable length** 450 mm



Description	Suitable for	Voltage	Item no.
Wiper control for 1 wiper 6A	MD1, MD2, KW2	12/24 V	210341J
Wiper switch 12 Amp 1 wiper	HD1, HD2, KW3/KW4	12/24 V	210341P



## Fittings for high pressure systems

For use with on board pressure supply.

Pos	Description	B.S.P. x Ø mm	Item no.
1	Elbow 6 x 6 mm		2129
2	Bulkhead fitting		2130
3	T-coupling		2166
4	Elbow connector		2131
5	Straight coupling	1/8 B.S.P. x 6 inch x mm	2118
6	Straight coupling	1/4 B.S.P. x 6 inch x mm	2119
7	Plasticized nylon tubing (grey)		2157.N
8	High pressure PVC bulkhead fitting for washing jet		2180
9	High pressure SS 316 bulkhead fitting for washing jet		2181
	Non return valve 6x6mm nylon tubing		2128
	Clear PVC tubing 4x6mm		2154.REH



## Fittings for low pressure systems

For use with screen wash reservoirs.

Pos	Description	B.S.P. x Ø mm	Item no.
1	Bulkhead connector 90° for nylon tubing		2153
2	End coupling female	1/4 B.S.P. x 6 inch x mm	2120
3	T-coupling		2156
4	Straight coupling		2150
5	Straight coupling	1/8 B.S.P. x 6 inch x mm	2116
6	Straight coupling	1/4 B.S.P. x 6 inch x mm	2117
7	Flexible rubber tubing black		2154.N
-	Non-return valve for rubber hose		2121.N
-	Plasticized nylon tubing (grey)		2157.N
	Bulkhead fitting 90° (max. wall thickness 5mm)		2122
	Bulkhead fitting 90° (max. wall thickness 50mm)		2122.715.N





## Bulkhead mount washing jets

These washing jets can be mounted on the deck or skin of the vessel. With most washing jets the angle under which the water is sprayed on the window, can be adjusted. These washing jets are suitable for all wiper system installations.



Pos	Description	Voltage	Item no.
1	Electrical heated spray nozzle 24V ø 0.6mm	24 V	2148
1	Electrical heated spray nozzle 220V ø 0.6mm	230 V	2149
2	Fixed washing jet (bulkhead)		2161
	Fixed washing jet (bulkhead) Chrome		2197
	Bulkhead fitting Chrome		2198

## Arm mount type washing jets

These washing jets can be fitted on Exalto pantograph arms PU, PF, P10 and P12. With most washing jets the angle under which the water is sprayed on the window, can be adjusted.



Pos	Description	Item no.
1	Washing jet, 2 nozzles for MD1 PU arms	2184
2	Washing jet, 6 nozzles for MD1 PU and E-arms	2110.cpl
3	Washing jet, 4 nozzles for HD1 P10 & HD2 P12 right	2185
4	Washing jet 4 nozzles for HD1 P10 & HD2 P12	2185L
5	Washing jet, 6 nozzles for HD1 P10 & HD2 P12	2111.cpl



## Reservoirs with pump

For your wash system you can use the water from a stand alone reservoir. As soon as the integral pumps receive a signal via the wiper control, it will open and provide water for the wash/wipe program.

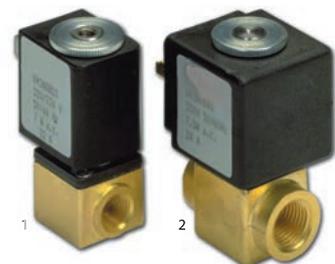
Pos	Description	Voltage	Item no.
1	Reservoir 8,0 ltr with 1 pump	12 V	2193
2	Reservoir 8,0 ltr with 3 pumps	12 V	PT0701044
3	Reservoir 8,0 ltr with 3 pumps	24 V	PT0701045
4	Reservoir 1,2 ltr with 1 pump	12 V	2100.PT-0701080
	Reservoir 5,0 ltr with 1 pump	24 V	2100.PT0701021
	Reservoir 20 ltr with 3 pumps	24 V	2192
	Reservoir 1,2 ltr with 1 pump	24 V	2100.PT-0701081
	Reservoir 5,7 ltr with 1 pump	24 V	2100.PT-2752
	Reservoir 8,0 ltr with 1 pump	24 V	2194
	Reservoir 8,0 ltr with 1 pump threaded	24 V	2100.PT-2875
	Reservoir 8,0 ltr with 2 pumps	24 V	2194.10
	Reservoir 8,0 ltr with 2 pumps	12 V	PT0701042
	Reservoir 8,0 ltr with 2 pumps	24 V	PT0701043
	Reservoir 27 ltr with 3 pumps	24 V	2100.zxa163-3
	Connectionset for 2192		2192.2169
	Connectionset for 2193 and 2194		2193.con



## Solenoid valves

For your wash system you can use the water from your on board pressure supply. You only need a solenoid valve. As soon as the valve gets a signal via the wiper control, it will open to provide water for the wipe/wash program.

Pos	Description	Voltage	Connections	Item no.
1	Solenoid valve 1/8 12V	12 V	1/8" B.S.P.	2137
-	Solenoid valve 1/8 24V	24 V	1/8" B.S.P.	2138
2	Solenoid valve 1/4 12V	12 V	1/4" B.S.P.	2142
-	Solenoid valve 1/4 24V	24 V	1/4" B.S.P.	2143





## Straight Line HD DW80

The Straight Line Wiper system is made to meet your specific needs. With this system it is possible to wipe 90% of your window. The Straight Line wiper is suitable for windows from 0.5 meter upto 3 meters. it is available as single or twin system (one or two arms). Mounting a Straight Line wiper system is a breeze. The system works perfectly in a temperature range of -40°C and +50°C. The motor is mounted externally and integral to the systems casing, made of seawater resistant anodised aluminium in white powder coating. the arm is adjustable in length and also the spring pressure is adjustable. The control can be configured to control either one or multiple groups of wipers. Voltages available are 24VDC, 110VAC and 230VAC. Also various control systems are available. Please contact Exalto sales for more information.

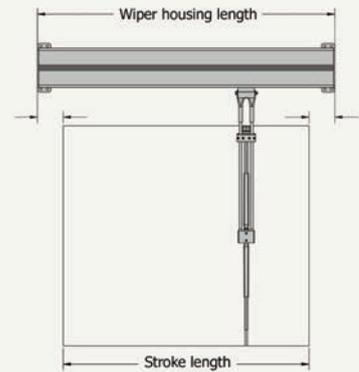


Description	Item no.
Made to order, please contact our sales dept.	DW80xxx1x

## Straight Line arms

The Wiper arms for the Straight Line wipers are made of stainless steel with black coating and are supplied in full length. The arms are supplied with spring tension adjustment to all optimum wiper blade performance on the window. They are available in 2 models; one for blades from 500 upto 800mm and one for blades from 900 upto 1000 mm.

Description	Item no.
Wiper arm for 500-800mm blades	DW81000007
Wiper arm for 900-1000mm blades	DW81000008



## Straight Line blades

The Straight Line Wiper blades are designed to fit the Straight Line arms. The blades have a black coating finish.

Description	Blade length	Suitable for	Item no.
Exalto Wiper blade SL	500 mm	SL	DW10500500
Exalto Wiper blade SL	600 mm	SL	DW10500600
Exalto Wiper blade SL	700 mm	SL	DW10500700
Exalto Wiper blade SL	800 mm	SL	DW10500800
Exalto Wiper blade SL	900 mm	SL	DW10500900
Exalto Wiper blade SL	1000 mm	SL	DW10501000



## Straight Line cables

This cable is necessary to connect to the wiper motor and is supplied complete with IP66 plug connector.

Description	Item no.
Cable 3m with connector	DW81000203
Cable 5m with connector	DW81000205
Cable 10m with connector	DW81000210

## Wiper control CT3N for 24V Straight Line systems

Latest electronic multivolt Wiper control for all 24V Straight Line systems. Now with a modern and sleek design and new extra features like:

- heater switch
- single sweep button
- back light dimmer (three colour options and dimming facility)

Wipers can be switched individually or in any combination. The complete wiper control consists of one flush mount panel, 2 relay boxes and 5 mtr CAT5 connection cables to connect the panel and the relay boxes. The wiper control offers two continuous speeds, three intermittent modes and a wipe/wash feature. With this control the system will not be synchronized due to different stroke Straight Line wipers being used on one install. Systems can also be generated for greater numbers of Straight Line wipers by either multiple control pan or grouped operation.



Description	Suitable for	Voltage	L x W	Item no.
Exalto Wiper control for max. 2 wipers	Exalto Wipers	24 V	100 x 100 mm	210321224.2SL
Exalto Wiper control for max. 3 wipers	Exalto Wipers	24 V	100 x 100 mm	210331224.3SL
Exalto Wiper control for max. 4 wipers	Exalto Wipers	24 V	100 x 100 mm	210341224.4SL
Exalto Wiper control for max. 5 wipers	Exalto Wipers	24 V	100 x 100 mm	210351224.5SL



## Seaview 300

The CVS is totally different from the other wipers. It is a clear view screen. This means that the front part of the CVS rotates with a high speed. By centrifugal force the area stays free from rain and spray. Comes with clear assembly instruction, a template for cutting the glass and an assembly tool. Optional is the control panel (surface or flush mount).



Voltage	Built-in heating	Power	Item no.
12 V	Yes	60 W	1803010
12 V	No	60 W	1803020
24 V	Yes	60 W	1803030
24 V	No	60 W	1803040
110 V	Yes	60 W	1803070
110 V	No	60 W	1803080
230 V	Yes	60 W	1803090
230 V	No	60 W	1803100
12 V	Yes	120 W	1804010
12 V	No	120 W	1804020
24 V	Yes	120 W	1804030
24 V	No	120 W	1804040
110 V	Yes	120 W	1804070
110 V	No	120 W	1804080
230 V	Yes	120 W	1804090
230 V	No	120 W	1804100

## Seaview wiper control

Switch for Clearview screen. The controlpanel is available as a surface mount box or flush mount panel.



Description	Suitable for	Voltage	Item no.
Control box for CVS 12V	12 V		1815012
Control box for CVS 24V 60W	24 V	60 W	1815024
Control box for CVS 24V 120W	24 V	120 W	1815025
Control box for CVS 110V	110 V		1815110
Control box for CVS 220V	230 V		1815220
Control panel for CVS 12V	12 V		1815112
Control panel for CVS 24V 60W	24 V	60 W	1815124
Control panel for CVS 24V 120W	24 V	120 W	1815125
Control panel for CVS 110V	110 V		1815111
Control panel for CVS 220V	230 V		1815221



## Seaview 350

The CVS is totally different from the other wipers. It is a clear view screen. This means that the front part of the CVS rotates with a high speed. By centrifugal force the area stays free from rain and spray. Comes with clear assembly instruction, a template for cutting the glass and an assembly tool. Optional is the control panel (surface or flush mount).



Voltage	Built-in heating	Power	Item no.
12 V	Yes	60 W	1803510
12 V	No	60 W	1803520
24 V	Yes	60 W	1803530
24 V	No	60 W	1803540
110 V	Yes	60 W	1803570
110 V	No	60 W	1803580
230 V	Yes	60 W	1803590
230 V	No	60 W	1803600
12 V	Yes	120 W	1803610
12 V	No	120 W	1803620
24 V	Yes	120 W	1803630
24 V	No	120 W	1803630
110 V	Yes	120 W	1803670
110 V	No	120 W	1803680
230 V	Yes	120 W	1803690
230 V	No	120 W	1803700

## Seaview 400

The CVS is totally different from the other wipers. It is a clear view screen. This means that the front part of the CVS rotates with a high speed. By centrifugal force the area stays free from rain and spray. Comes with clear assembly instruction, a template for cutting the glass and an assembly tool. Optional is the control panel (surface or flush mount).



Voltage	Built-in heating	Power	Item no.
12 V	Yes	120 W	1804010
12 V	No	120 W	1804020
24 V	Yes	120 W	1804030
24 V	No	120 W	1804040
110 V	Yes	120 W	1804070
110 V	No	120 W	1804080
230 V	Yes	120 W	1804090
230 V	No	120 W	1804100



## Heavy Duty Wiper Systems

**4**

HD2 Wiper motors 2110BS	4
HD2 Wiper motors 285BS	4
HD2 Wiper arms P12	5
HD1 Wiper motors 255BS	5
HD1 Wiper motor cover 255BS	6
HD1 Wiper arms P10	6
HD Wiper blades SS316	7
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MD1 Wiper motors 223KGC	15
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