

Wiper Systems

In This Section

Industrial Wiper Motors

A variety of wiper motors for industrial & marine applications.



Industrial Washer Pumps

A variety of washer pumps for industrial & marine applications.



Industrial Wiper Arms & Blades

A variety of arms & blades for industrial & marine applications.



Washer Bottles

A variety of Arms and Blades for industrial applications.



Windshield Wiper Accessories

A variety of Windshield Wiper Accessories.



Windshield Wiper Systems

A range of complete wiper systems.



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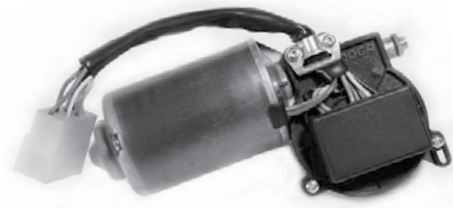
DATATRON
WINDSCREEN WIPER SYSTEMS

DOGA

**FLEXIBLE DRIVE
AGENCIES**

Wiper Motor - Model 111

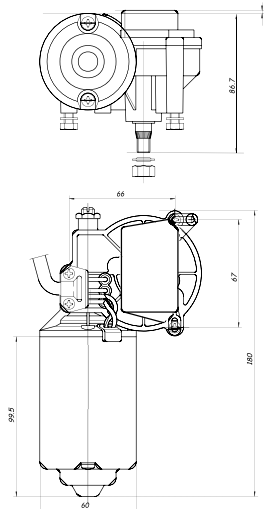
DOGA



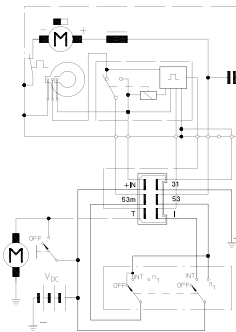
Nominal Torque: 5 Nm - Stall Torque: 25 Nm - Shaft (mm): Ø 9,3, M8

Part No.	Shaft End	Shaft mm	R.P.M.	Thermoswitch	Automatic Park	Volts
11137152B00E	(a)	ø9,3	50	-	√	12
11137153B00E	(a)	ø9,3	50	-	√	24
11137172B00E	(a)	ø9,3	34/52	-	√	12
11137173B00E	(a)	ø9,3	34/52	-	√	24
11137362B00E	(b)	ø9,3	40/58	-	√	12
11137363B00E	(b)	ø9,3	40/58	-	√	24
11137542B00E	(c)	M 8	34	-	√	12
11137543B00E	(c)	M 8	34	-	√	24
11137562B00E	(c)	M 8	40/58	-	√	12
11137563B00E	(c)	M 8	40/58	-	√	24
11137572B00E	(c)	M 8	34/52	-	√	12
11137573B00E	(c)	M 8	34/52	-	√	24

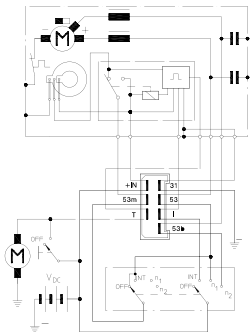
Dimensions



One Speed (AMP 6)



Two Speed (AMP 8)



NOTE: RFI suppressed motors with different shaft options. Available upon request with thermoswitch, without RFI suppression and without automatic park. Also available with different shaft types. Integrated Intermittent Option.

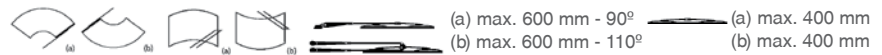
Wiper Motor - Built In Switch & Manual Park - Model 113

DOGA



Nominal Torque: 1,4 Nm - Stall Torque: 7 Nm - Shaft (mm): Ø6, M8

Suggested Applications



Part No.	Degree	Shaft L	Shaft mm	Cycles x m	Switch	Volts
11325502B00	110°	48	ø 6	43	√	12
11325503B00	110°	48	ø 6	43	√	24
11354202000	90°	19	ø 6	43	√	12
11354203000	90°	19	ø 6	43	√	24
113522320DO	60°	19	ø 6	43	-	12
113522330DO	60°	19	ø 6	43	-	24
113532320DO	80°	19	ø 6	43	-	12
113532330DO	80°	19	ø 6	43	-	24
113542320DO	90°	19	ø 6	43	-	12
113542330DO	90°	19	ø 6	43	-	24
113547320DO	90°	60	ø 6	43	-	12
113547330DO	90°	60	ø 6	43	-	24
113552320DO	110°	19	ø 6	43	-	12
113552330DO	110°	19	ø 6	43	-	24
113557320DO	110°	60	ø 6	43	-	12
113557330DO	110°	60	ø 6	43	-	24

NOTE: Ex stock units are right hand park. Left hand park available by special order. Motors with different shaft length and sweep angle options, available upon request

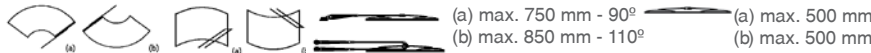
Wiper Motor - Model 316

DOGA



Nominal Torque: 1,8 Nm - Stall Torque: 10 Nm - Shaft (mm): M8

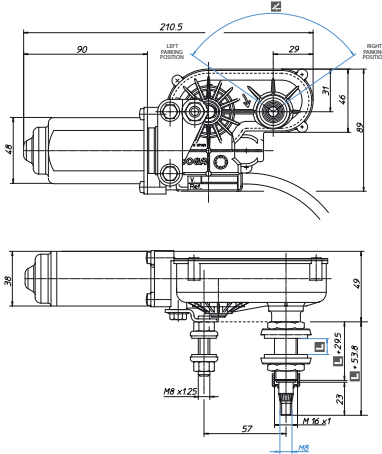
Suggested Applications



Part No.	Degree	L	Shaft mm	Cycles x m	Thermoswitch	Automatic Park	Switch	Volts
31601802B*0	70°	60	M 8	47/60	√	√	-	12
31601803B*0	70°	60	M 8	47/60	√	√	-	24
31604802B*0	90°	60	M 8	47/60	√	√	-	12
31604803B*0	90°	60	M 8	47/60	√	√	-	24
31608662B*0	110°	30	M 8	47/60	-	√	-	12
31608663B*0	110°	30	M 8	47/60	-	√	-	24
31644552B*0	90°	15	M 8	50	-	√	-	12
31644553B*0	90°	15	M 8	50	-	√	-	24
31644592B*0	90°	15	M 8	50	√	√	-	12
31644593B*0	90°	15	M 8	50	√	√	-	24
31644652B*0	90°	30	M 8	50	-	√	-	12
31644653B*0	90°	30	M 8	50	-	√	-	24
31644692B*0	90°	30	M 8	50	√	√	-	12
31644693B*0	90°	30	M 8	50	√	√	-	24
31644852B*0	90°	60	M 8	50	-	√	-	12
31644853B*0	90°	60	M 8	50	-	√	-	24
31614102B*0	90°	15 (M14)	M 6	47/60	√	√	-	12
31614103B*0	90°	15 (M14)	M 6	47/60	√	√	-	24
31614862B*0	90°	60 (M16)	M 6	47/60	-	√	-	12
31614863B*0	90°	60 (M16)	M 6	47/60	-	√	-	24
31618162B*0	110°	30 (M14)	M 6	47/60	-	√	-	12
31618163B*0	110°	30 (M14)	M 6	47/60	-	√	-	24
31652652B*0	80°	30 (M16)	M 6	50	-	√	-	12
31652653B*0	80°	30 (M16)	M 6	50	-	√	-	24
31652692B*0	80°	30 (M16)	M 6	50	√	√	-	12
31652693B*0	80°	30 (M16)	M 6	50	√	√	-	24
31653652B*0	85°	30 (M16)	M 6	50	-	√	-	12
31653653B*0	85°	30 (M16)	M 6	50	-	√	-	24
31654552B*0	90°	15 (M16)	M 6	50	-	√	-	12
31654553B*0	90°	15 (M16)	M 6	50	-	√	-	24
31654652B*0	90°	30 (M16)	M 6	50	-	√	-	12
31654653B*0	90°	30 (M16)	M 6	50	-	√	-	24
31654692B*0	90°	30 (M16)	M 6	50	√	√	-	12
31654693B*0	90°	30 (M16)	M 6	50	√	√	-	24
31655652B*0	95°	30 (M16)	M 6	50	-	√	-	12
31655653B*0	95°	30 (M16)	M 6	50	-	√	-	24
31658622B*0	110°	30 (M16)	M 6	50	-	-	√	12
31658623B*0	110°	30 (M16)	M 6	50	-	-	√	24
31658652B*0	110°	30 (M16)	M 6	50	-	√	-	12
31658653B*0	110°	30 (M16)	M 6	50	-	√	-	24
31658692B*0	110°	30 (M16)	M 6	50	√	√	-	12
31658693B*0	110°	30 (M16)	M 6	50	√	√	-	24

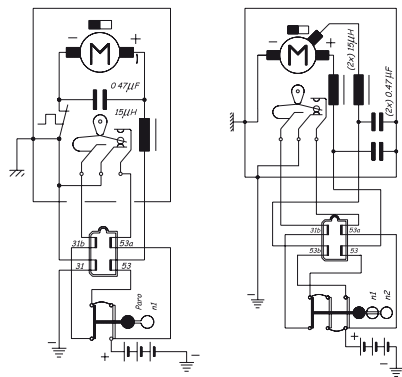
* Replace with L or D - L = Left, D = Right

Dimensions



One Speed (AMP 4)

Two Speed (AMP 4)



NOTE: RFI suppressed motors (E), available upon request with thermoswitch, without RFI suppression and without automatic park. Also available with various shaft types.

Wiper Motor - Model 258

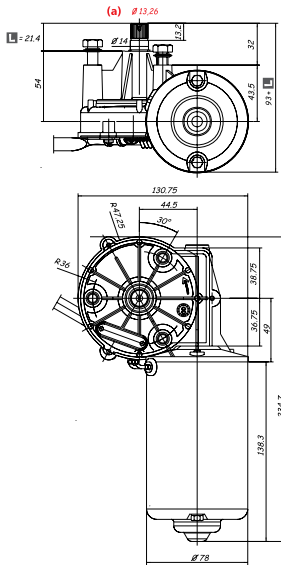
DOGA



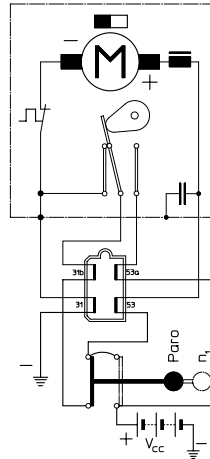
Nominal Torque: 15 Nm - Stall Torque: 80 Nm - Shaft (mm): M8, Ø9,3, Ø13,26

Part No.	Shaft End	Shaft mm	R.P.M.	Thermoswitch	Automatic Park	Volts
25817342000	(b)	ø9,3	32/50		√	12
25890030000 (above earth)	(a)	ø13,26	32/50		√	24
25807642B00	(c)	M10	32/50	√	√	12
25807643B00	(c)	M10	32/50	√	√	24
25817342B00	(b)	ø9,3	32/50	-	√	12
25817343B00	(b)	ø9,3	32/50	-	√	24
25817442B00	(a)	ø13,26	32/50	-	√	12
25817443B00	(a)	ø13,26	32/50	-	√	24

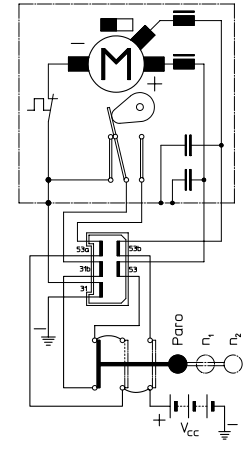
Dimensions



One Speed (AMP 4)



Two Speed (AMP 6)



NOTE: RFI suppressed motors available upon request with other shaft options.

Wiper Motor - Large Single Arm System - Model 248

DOGA



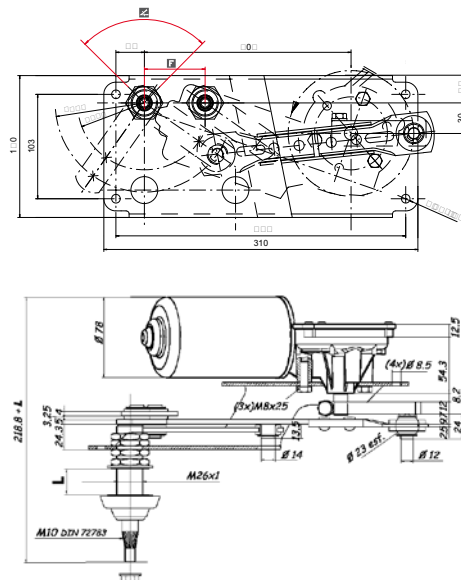
Nominal Torque: 15 Nm - Stall Torque: 80 Nm - Shaft (mm): M10

Part No.	Degree	L	Shaft mm	Cycles x m	Thermo-switch	Automatic Park	Switch	Volts	Nominal Torque	Stall Torque	Shaft mm
24810102B*0	140°	72	M10	32/50	-	√	-	12	15 Nm	80 Nm	M10
24810103B*0	140°	72	M10	32/50	-	√	-	24	15 Nm	80 Nm	M10
24810112B*0	140°	122	M10	32/50	-	√	-	12	15 Nm	80 Nm	M10
24810113B*0	140°	122	M10	32/50	-	√	-	24	15 Nm	80 Nm	M10
24810122B*0	165°	72	M10	32/50	-	√	-	12	15 Nm	80 Nm	M10
24810123B*0	165°	72	M10	32/50	-	√	-	24	15 Nm	80 Nm	M10

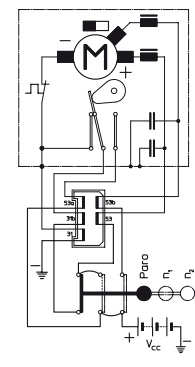
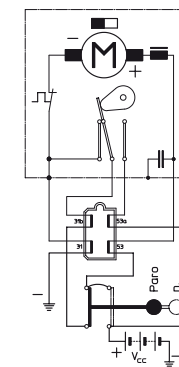
*Replace with I or D

* Replace with I, or D. I = Left, D = Right, RFI Suppressed Motors All Motors Can Be Supplied With This

Dimensions



Two Speed



NOTE: RFI suppressed motors available upon request with other shaft options.

Wiper Motor - Model 259

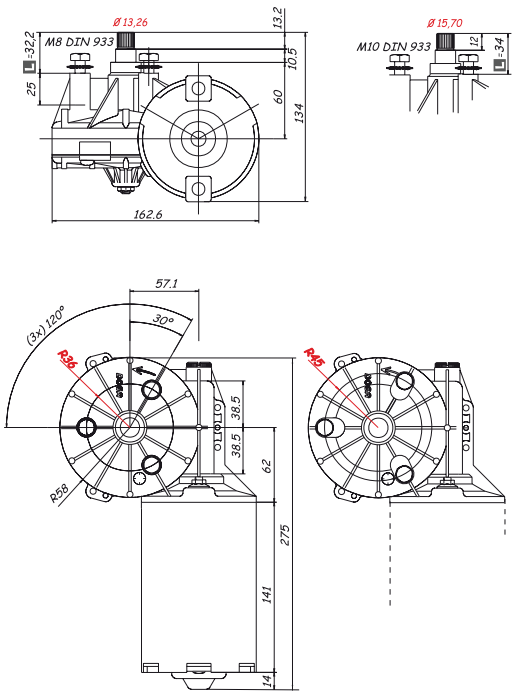
DOGA



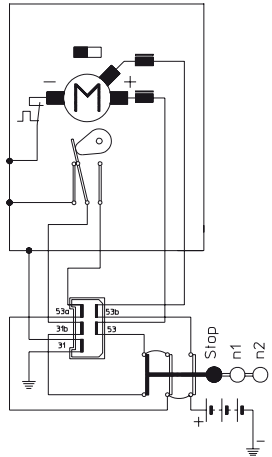
Nominal Torque: 20 Nm - Stall Torque: 130 Nm - Shaft (mm): Ø13,26, Ø15,70

Part No.	Shaft mm	R.P.M.	Thermoswitch	Automatic Park	Volts
25937052B04	Ø13,26	30/43	-	√	12
25937053B04	Ø 13,26	30/43	-	√	24
25927282B00	Ø15,70	30/43	√	√	12
25927283B00	Ø15,70	30/43	√	√	24
25990133000	Ø15,70	30/43	√	√	24

Dimensions



Two Speed



NOTE: RFI suppressed motors available upon request with other shaft options.

Wiper Motor - Heavy Duty Single Pantogram System Model 249

DOGA



Nominal Torque: 20 Nm - Stall Torque: 130 Nm - Shaft (mm): M10/M8, M8/M8

Suggested Applications

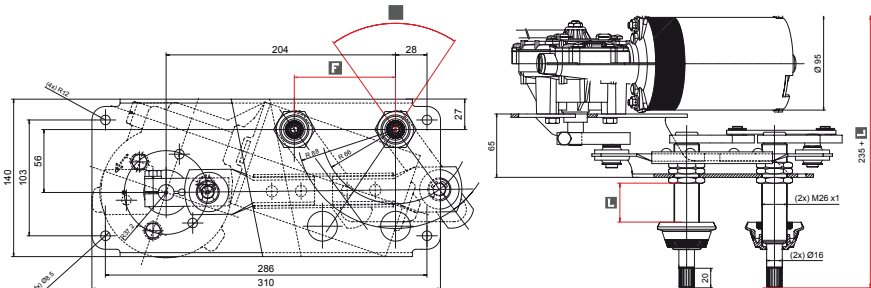


Part No.	Degree	L	Shaft mm	Cycles x m	Thermo-switch	Automatic Park	Switch	Volts	Nominal Torque	Stall Torque	Shaft - mm	Shaft - mm
24956012B*0	80°	30	M10/M8	30/43	-	√	-	12	20 Nm	130 Nm	M10	M8
24956013B*0	80°	30	M10/M8	30/43	-	√	-	24	20 Nm	130 Nm	M10	M8
24956022B*0	70°	90	M10/M8	30/43	-	√	-	12	20 Nm	130 Nm	M10	M8
24956023B*0	70°	90	M10/M8	30/43	-	√	-	24	20 Nm	130 Nm	M10	M8
24956062B*0	80°	30	M8/M8	30/43	-	√	-	12	20 Nm	130 Nm	M10	M8
24956063B*0	80°	30	M8/M8	30/43	-	√	-	24	20 Nm	130 Nm	M10	M8

Many versions available including special output shafts and smaller motors

See examples of systems supplied on the next page

Dimensions



NOTE: RFI suppressed motors available upon request with other shaft options.

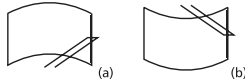
Wiper Motor - Model 319

DOGA

Nominal Torque: 8 Nm - Stall Torque: 50 Nm - Shaft (mm): M8



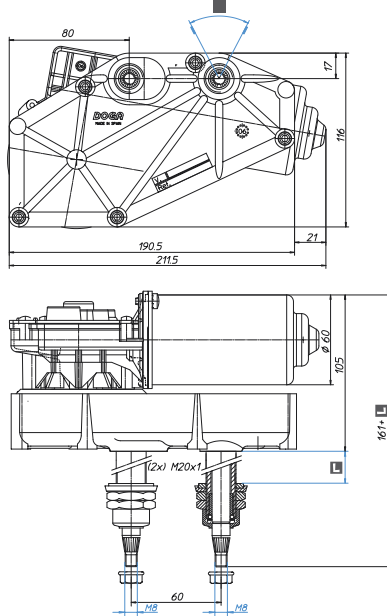
Suggested Applications



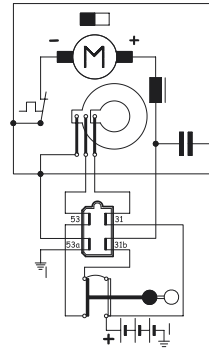
(a) max. 1200 mm
(b) max. 1300 mm

(a) max. 800 mm
(b) max. 900 mm

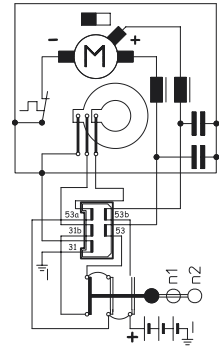
Dimensions



One Speed (AMP 4)

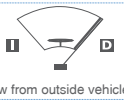


Two Speed (AMP 6)



Reference Guide



A	Wiper Angle	"0" = 40° "1" = 50° "2" = 60° "3" = 72° "4" = 80° "5" = 55° "6" = 65° "9" = 90°
B	Length	"5" = 28mm "6" = 48mm "8" = 68mm
C	Speeds	"3" = 34 "4" = 34/52 "5" = 40 "6" = 40/63 "7" = 50
D	Nominal Voltage	"2" = 12V "3" = 24V
E	Packaging	"B" Individual Packing "C" Multiple Packing
F	Park Position	"1" Left Park "D" Right Park  <p style="text-align: center;">View from outside vehicle</p>
G	Accessories	With Integrated Intermittent

NOTE: Ask for other options

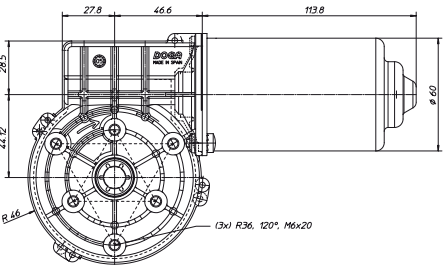
Wiper Motor - Model 319

DOGA

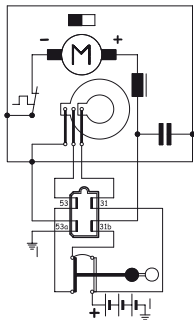
Nominal Torque - 8 Nm - Stall Torque - 50 Nm - Shaft - mm - Ø 9,3, M8, M10



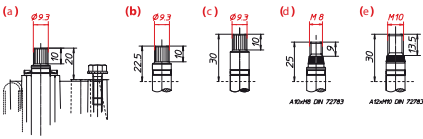
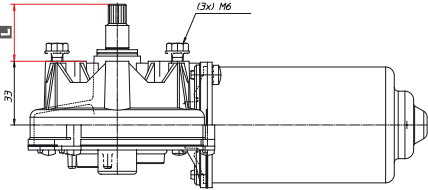
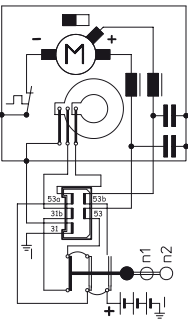
Dimensions



One Speed (AMP 4)



Two Speed (AMP 6)



Reference Guide

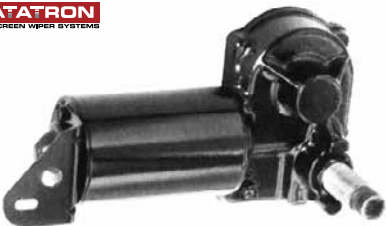


A	Shaft	"1" = Ø 9,3 / 20mm "2" = Ø 9,3 / 22,5mm "3" = Ø 9,3 / 30mm "4" = M8 / 25mm "5" = M10 / 30mm
B	Speeds	"3" = 34 r.p.m. "4" = 34/52 r.p.m. "5" = 40 r.p.m. "6" = 40/63 r.p.m. "7" = 50 r.p.m.
C	Nominal Voltage	"2" = 12V "3" = 24V
D	Packaging	"B" Individual Packing "C" Multiple Packing

NOTE: Ask for other options

Wiper Motor - WWF

DATATRON
WINDSCREEN WIPER SYSTEMS



The Datatron WWF wiper system provides a totally self-contained oscillating shaft requiring no external linkage. The universal popularity of the WWF is enhanced by the fact that it gives the automotive users marine quality at no extra cost and is consequently ideal for any type of service. Parts exposed to weather are corrosion resistant. An "O" ring between the oscillating shaft and its bearing stud prevents water from entering. A worm gear on the armature shaft turns a large moulded drive gear, assuring quiet operation.

Features

- Adjustable Wipe Angle Capability
- Manual park
- Suitable for marine applications

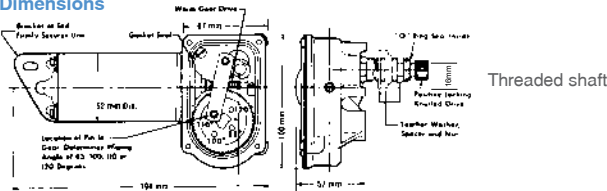
Specifications

- Voltage - 12, 24
- Weight - approx. 1.4 kg
- Stall Torque - 9.7 Nm
- Speed - 60 rpm (no load)
- Current Stall - 16.5 amp no load - 1 amp

All WWF wipers are factory set for a 110° wipe angle that can be adjusted in minutes to 85°, 100° and 120°.

Part No.	Volts	Stud lengths	WWF description
WWF121710	12	25mm	2 Speed, Auto park, above Earth, Multi wipe angles: 85°, 100°, 110°, 120°, 130°. Max 85° sweep for pantograph arms. Stainless steel shaft.
WWF241710	24	25mm	
WWF121720	12	51mm	
WWF241720	24	51mm	
WWF121730	12	76mm	
WWF241730	24	76mm	

Dimensions



Wiper Motor - Left Hand - 230 Series

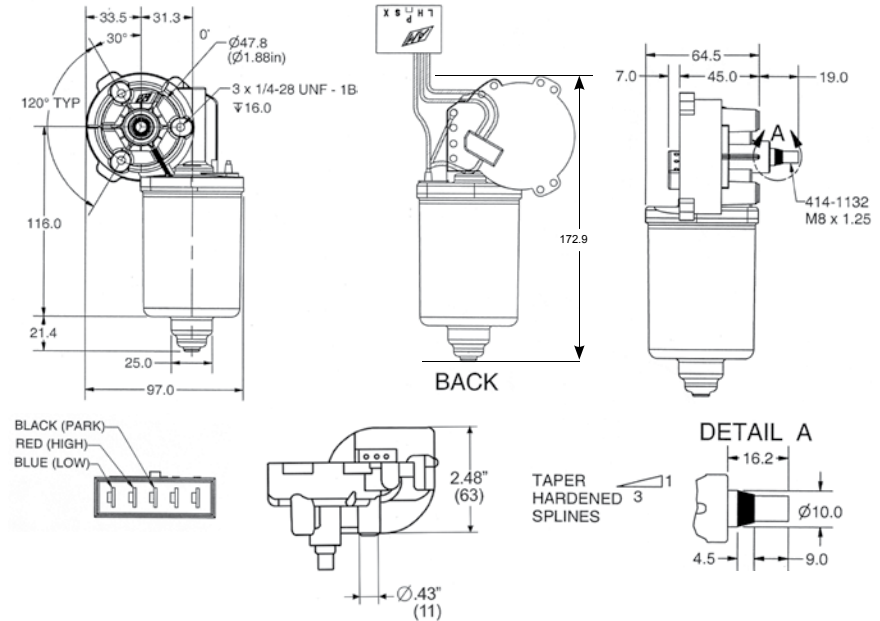


Product Description

- 30Nm
- 12v or 24v DC
- Coast to park (Dynamic Park - Special Order)
- Can be converted to above earth
- Low or high side switched
- Water-resistant motor and plug connectors
- Compact size will retrofit into existing space
- RFI suppression standard
- SAE durability tested

Part No.	Description
230J652	12 V, coast to park
230J661	Coast to park. Replacement for WWJ Series Motor
230J654	24 Volt Dynamic Park
230J665	12 Volt Dynamic Park

Dimensions



Wiper Motor - Right Hand - 230 Series



Product Description

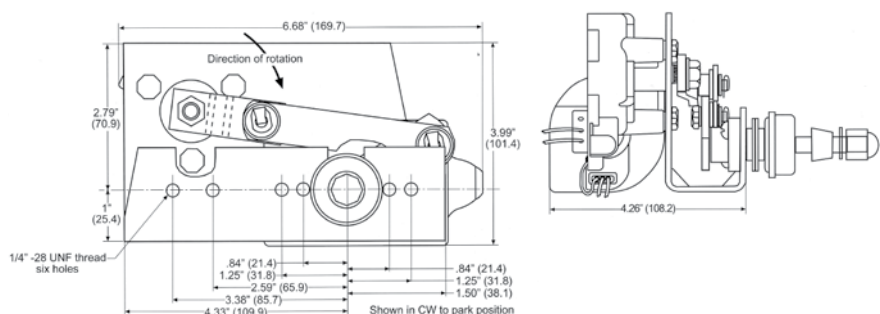
- Wipe angles from 36 to 127 degrees
- For arms and blades up to 28" (700mm)
- Can be configured in radial or pantograph arms
- 12 and 24 volt systems available
- Dynamic Park

Included in Kit

- Motor + M8 Output Shaft Nut
- 3 x Motor Bolts
- LH Motor Bracket/Part No. 230J662
- Link/Part No. 3071022
- Drive Arm 26.8mm/Part No. 308-1057
- 2 Clips + washer

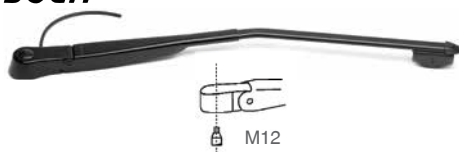
Kit Part No.	Volt
2302015	12 volt
2302014	24 volt

Dimensions



Type 120.32 Windshield Wiper Arms

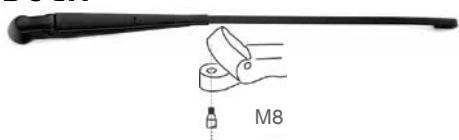
DOGA



Part No.	L1 (mm) Total Length of arm	L2 (mm) Total Length of arm body	Angle	Nozzle
1203201GAD	750	420	D (40°)	✓
1203202GAI4	750	420	I (23°)	✓
1203203GAD4	800	420	D (18°)	✓
1203204GAI4	800	420	I (30°)	✓

Type 120.45 Windshield Wiper Arms

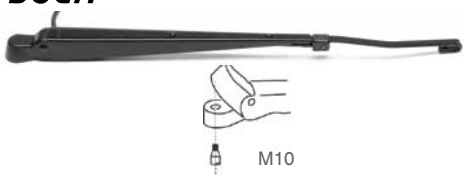
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1204501GAR6	340-420	210	R	-
1204510GAR6	430-500	210	R	-

Type 120.48 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length of arm	L2 (mm) Total Length of arm body	Angle	Nozzle
1204851GAD4	485	320	D (12°)	✓
1204851GAI4	485	320	I (12°)	✓

Type 120.49 Windshield Wiper Arms

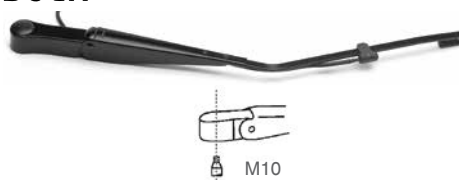
DOGA



Part No.	L1 (mm) Total Length of arm	L2 (mm) Total Length of arm body	Angle	Nozzle
1204901GAR4	580	258	R	✓
1204902GAI4	665	258	R	-

Type 120.57 Windshield Wiper Arms

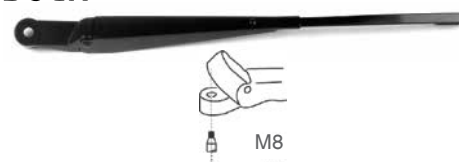
DOGA



Part No.	L1 (mm) Total Length of arm	L2 (mm) Total Length of arm body	Angle	Nozzle
1205751GAI4	628	320	I (30°)	✓

Type 120.58 Windshield Wiper Arms

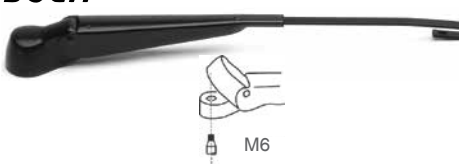
DOGA



Part No.	L1 (mm) Total Length of arm	L2 (mm) Total Length of arm body	Angle	Nozzle
1205802GAR4	310	230	R	-
1205801GAR4	370	230	R	-
1205803GAR4	464	230	R	-

Type 120.61 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length of arm	L2 (mm) Total Length of arm body	Angle	Nozzle
1206107GAR4	280	166	R	-

Type 120.63 Windshield Wiper Arms (continued over page)

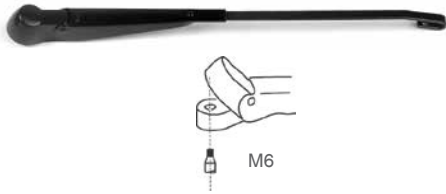
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1206306GAR4	300	166	R	-
1206317GAR4	335	166	R	-

Type 120.63 Windshield Wiper Arms (continued)

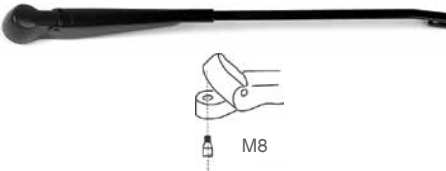
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1206301GAR4	350	166	R	-
1206313GAI4	356	166	I (25°)	-
1206302GAR4	400	166	R	-
1206316GAI4	405	166	I (28°)	-
1206303GAR4	450	166	R	-
1206304GAR4	500	166	R	-

Type 120.65 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1206523GAR4	275	166	R	-
1206508GAR4	290	166	R	✓
1206516GAR4	290	166	R	-
1206515GAD4	320	166	D (10°)	-
1206519GAD4	320	166	D (19°)	-
1206520GAI4	340	166	I (20°)	-
1206522GAD4	350	166	D (17°)	-
1206522GAI4	350	166	I (17°)	-
1206526GAR4	350	166	R	✓
1206524GAI4	370	166	I (19°)	-
1206527GAR4	372	166	R	-
1206513GAR4	372	166	R	-
1206501GAR4	380	166	R	-
1206507GAR4	385	166	R	-
1206503GAD4	405	166	D (46°)	-
1206503GAR4	405	166	R	-
1206505GAR4	420	166	R	-
1206509GAR4	450	166	R	-
1206504GAD4	452	166	D (15°)	-
1206502GAR4	465	166	R	-
1206528GAD4	500	166	D (20°)	-
1206517GAI4	500	166	I (36°)	-
1206521GAI4	500	166	I (12°)	-

Type 120.67 Windshield Wiper Arms

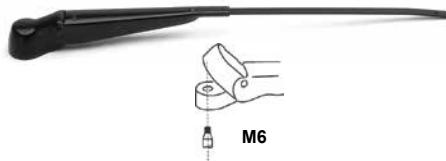
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1206706GAD4	650	348	D (40°)	✓
1206707GAD4	650	348	D (23°)	✓
1206707GAI4	650	348	I (23°)	✓
1206703GAR4	675	348	R	✓
1206709GAD4	675	348	D (15°)	✓
1206710GAI4	675	348	I (20°)	✓
1206708GAR4	725	348	R	✓
1206701GAD4	750	348	D (40°)	✓
1206701GAI4	750	348	I (40°)	✓
1206702GAD4	750	348	D (23°)	✓
1206702GAI4	750	348	I (23°)	✓
1206705GAD4	750	348	D (18°)	✓

Type 120.69 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1206907GAR4	230	166	R	-
1206908GAD4	270	166	D (16°)	-
1206908GAI4	270	166	I (16°)	-
1206902GAR4	330	166	R	-
1206909GAD4	398	166	D (14°)	-

Type 120.72 Windshield Wiper Arms (continued over page)

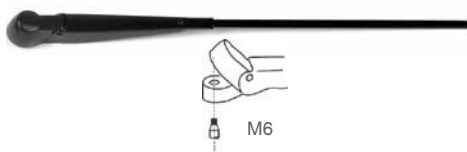
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1207206GAR4	280	166	R	-
1207204GAR4	350	166	R	-

Type 120.72 Windshield Wiper Arms (continued)

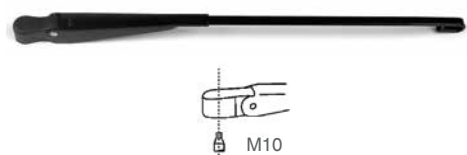
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1207201GAR4	400	166	R	-
1207202GAR4	450	166	R	-
1207203GAR4	500	166	R	-

Type 120.79 Windshield Wiper Arms

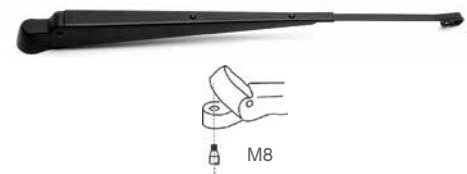
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1207908GAD4	330	166	D (20°)	-
1207908GAI4	330	166	I (20°)	-
1207916GAD4	330	166	D (20°)	✓
1207916GAI4	330	166	I (20°)	✓
1207903GAI4	395	166	I (7°)	-
1207910GAD4	400	166	D (12°)	-
1207917GAD4	405	166	D (15°)	✓
1207906GAR4	420	166	R	-
1207909GAR4	435	166	R	-

Type 120.87 Windshield Wiper Arms

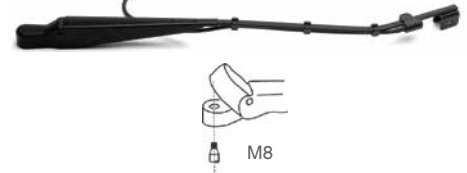
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1208703GAI4	445	320	I (20°)	-
1208701GAI4	460	320	I (20°)	-
1208701GAD4	460	320	D (20°)	-
1208702GAI4	505	320	I (12°)	-

Type 120.88 Windshield Wiper Arms

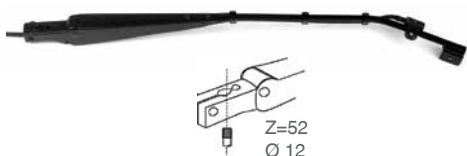
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1208806GAR4	445	270	R	-
1208852GAI4	445	270	I (16°)	✓
1208852GAR4	445	270	R	✓
1208801GAR4	500	270	R	-
1208851GAI4	500	270	I (22°)	✓
1208855GAI4	500	270	I (15°)	✓
1208802GAR4	530	270	R	✓
1208804GAI4	540	270	I (20°)	-
1208856GAI4	560	270	I (29°)	✓
1208807GAD4	600	270	D (23°)	-
1208853GAD4	600	270	D (23°)	✓
1208853GAI4	600	270	I (23°)	✓
1208854GAI4	600	270	I (27°)	✓
1208858GAI4	630	270	I (18°)	✓

Type 120.90 Windshield Wiper Arms

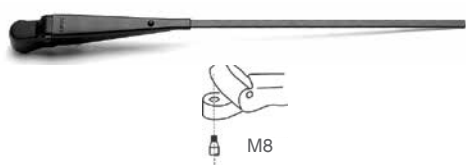
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1209053GAD4	580	270	D (12°)	✓
1209053GAI4	580	270	I (12°)	✓
1209051GAD4	600	270	D (23°)	✓
1209052GAI4	630	270	I (18°)	✓

Type 120.93 Windshield Wiper Arms

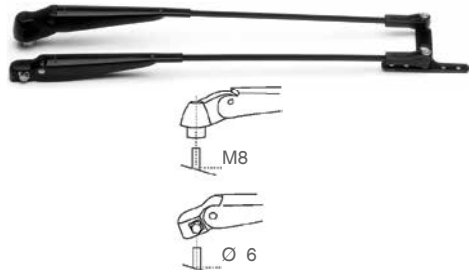
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	Angle	Nozzle
1209301GAR4	465	178	R	-

Type 121.01 Windshield Wiper Arms

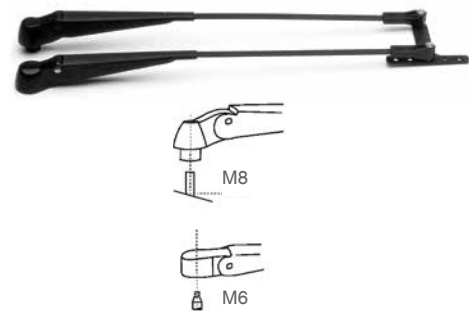
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1210108GA04	360	165	57	-
1210109GA04	400	165	57	-
1210110GA04	450	165	57	-
1210111GA04	500	165	57	-

Type 121.02 Windshield Wiper Arms

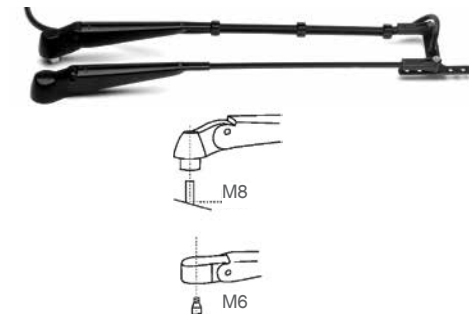
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1210224GA04	400	165	57	-
1210225GA04	450	165	57	-
1210226GA04	500	165	57	-
1210227GA04	550	165	57	-

Type 121.03 Windshield Wiper Arms

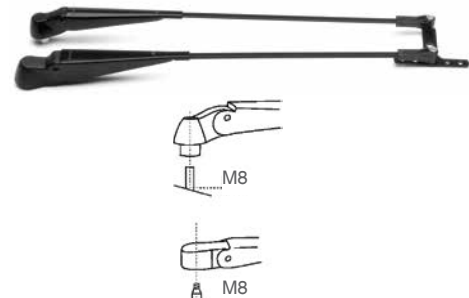
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1210324GA04	400	165	57	✓
1210325GA04	450	165	57	✓
1210326GA04	500	165	57	✓

Type 121.05 Windshield Wiper Arms

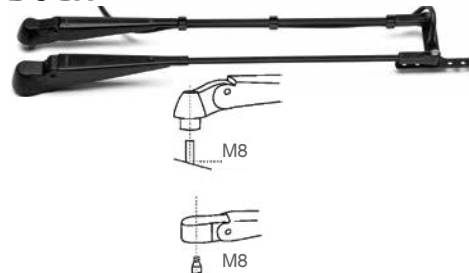
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1210505GA04	400	165/180	57	-
1210501GA04	450	165/180	57	-
1210502GA04	500	165/180	57	-
1210503GA04	550	165/180	57	-

Type 121.06 Windshield Wiper Arms

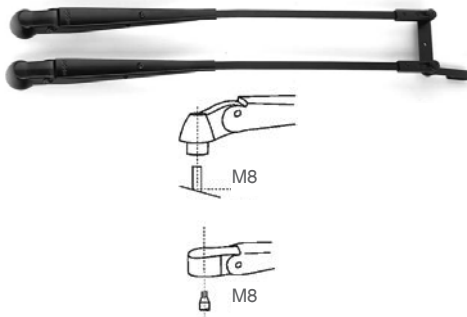
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1210505GA04	400	165/180	57	✓
1210501GA04	450	165/180	57	✓
1210502GA04	500	165/180	57	✓
1210503GA04	550	165/180	57	✓

Type 121.09 Windshield Wiper Arms

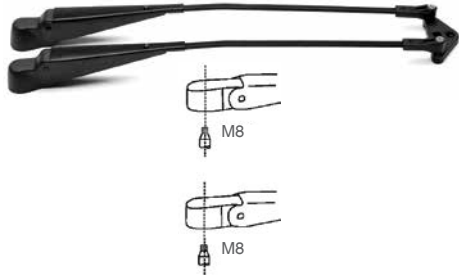
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1210901GA*6	340 - 420	210	57	-
1210910GA*6	430 - 500	210	57	-

Type 123.07 Windshield Wiper Arms

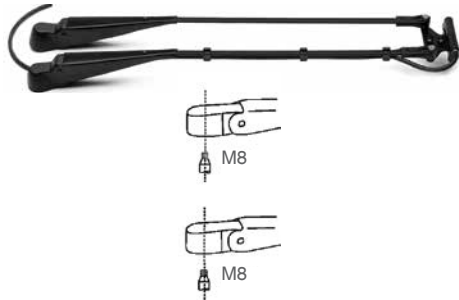
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1230722GA04	450	180	55	-
1230723GA04	500	180	55	-

Type 123.11 Windshield Wiper Arms

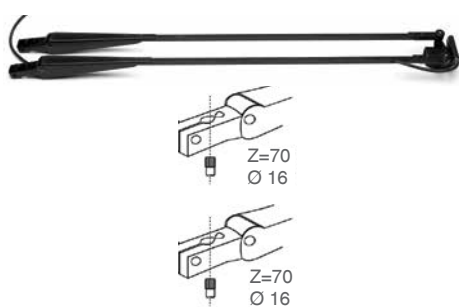
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1231102GA04	450	180	55	✓
1231103GA04	500	180	55	✓

Type 124.02 Windshield Wiper Arms

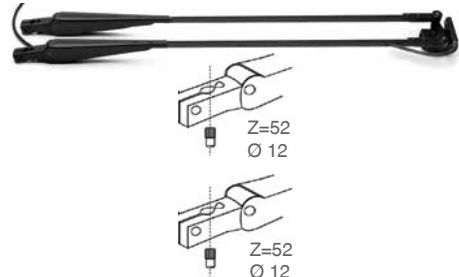
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1240201GA04	860	270	65	✓

Type 124.03 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1240301GA04	800	270	60	✓

Type 127.06 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1270603GAD4	455	210	60	-
1270603GAI4	455	210	60	-
1270604GAD4	505	210	60	-
1270604GAI4	505	210	60	-
1270605GAD4	555	210	60	-
1270605GAI4	555	210	60	-

Type 127.07 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1270701GA04	500	270	60	-
1270702GA04	550	270	60	-
1270703GA04	600	270	60	-
1270704GA04	650	270	60	-
1270707GA04	680	270	60	-

Type 127.09 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1270901GA04	500	270	60	✓
1270902GA04	550	270	60	✓
1270903GA04	600	270	60	✓
1270904GA04	650	270	60	✓
1270907GA04	680	270	60	✓
1270905GA04	700	270	60	✓
1270906GA04	750	270	60	✓

Type 127.10 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271003GAD4	455	210	60	✓
1271003GAI4	455	210	60	✓
1271004GAD4	505	210	60	✓
1271004GAI4	505	210	60	✓
1271005GAD4	555	210	60	✓
1271005GAI4	555	210	60	✓

Type 127.13 Windshield Wiper Arms

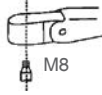
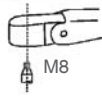
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271301GA04	650	270	70	-

Type 127.14 Windshield Wiper Arms

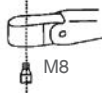
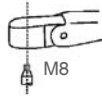
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271402GA04	600	270	95	✓
1271401GA04	700	270	95	✓

Type 127.16 Windshield Wiper Arms

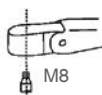
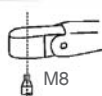
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271601GA04	680	270	110	✓

Type 127.17 Windshield Wiper Arms

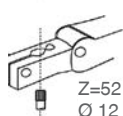
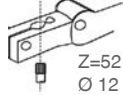
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271701GA04	635	320	60	✓
1271702GA04	600	320	60	✓

Type 127.18 Windshield Wiper Arms

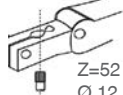
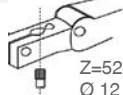
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271801GA04	600	270	60	-
1271851GA04	600	270	60	✓
1271852GA04	680	270	60	✓
1271853GA04	600	270	60	✓

Type 127.19 Windshield Wiper Arms

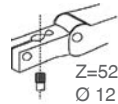
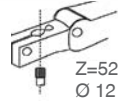
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1271901GA04	700	270	95	✓

Type 127.20 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1272051GAI4	505	210	60	✓
1272051GAD4	505	210	60	✓

Type 128.01 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1280102GA04	500	270	60	-
1280104GA04	600	270	60	-
1280105GA04	650	270	60	-
1280106GA04	700	270	60	-

Type 128.03 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1280303GA04	700	270	60	✓
1280305GA04	800	270	60	✓
1280307GA04	900	270	60	✓
1280309GA04	1000	270	60	✓

Type 128.04 Windshield Wiper Arms

DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1280402GA04	600	270	60	✓
1280403GA04	650	270	60	✓
1280405GA04	700	270	60	✓
1280406GA04	750	270	60	✓

Type 128.08 Windshield Wiper Arms

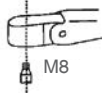
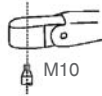
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1280803GA04	600	270	60	✓
1280804GA04	650	270	60	✓
1280805GA04	700	270	60	✓

Type 128.09 Windshield Wiper Arms

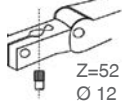
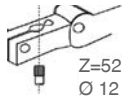
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1290901GA04	1070	348	60	✓
1290910GA04	1070	348	60	✓

Type 128.11 Windshield Wiper Arms

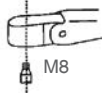
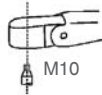
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1281101GA04	660	270	60	✓

Type 128.12 Windshield Wiper Arms

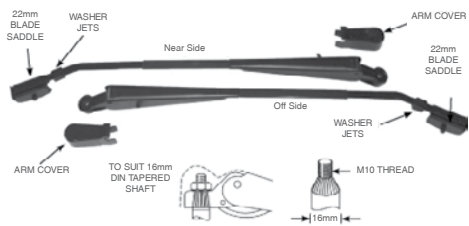
DOGA



Part No.	L1 (mm) Total Length Of Arm	L2 (mm) Total Length Of Arm Body	L3 (mm) Distance Between Arms	Nozzle
1281201GA04	1000	400	60	✓

Heavy Duty Windshield Wiper Arms

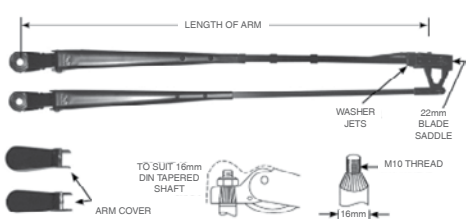
DATATRON
WINDSHIELD WIPER SYSTEMS



Part No.	Description
TC882	Near side
TC882OS	Off side
TCRSA	Arm cover

Heavy Duty Windshield Wiper Arms

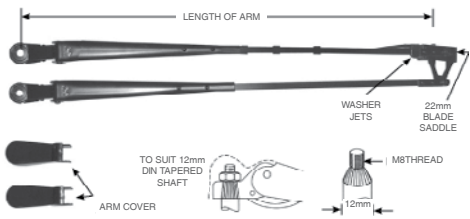
DATATRON
WINDSHIELD WIPER SYSTEMS



Part No.	Description
TC881XX	Wiper arm
TCRSA	Arm cover

(where XX = Length of arm required in cm)

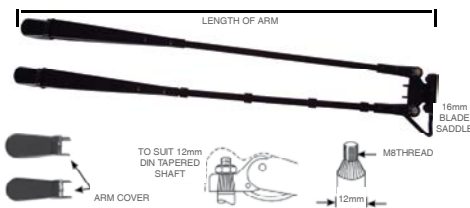
Heavy Duty Windshield Wiper Arms



Part No.	Description
TC777XX	Wiper arm
TCRSA	Arm cover

(where XX = Length of arm required in cm)

Heavy Duty Windshield Wiper Arms



Part No.	Description
TC666XX	Wiper arm
TCRSA	Arm cover

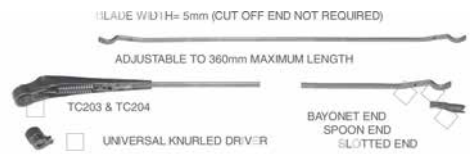
(where XX = Length of arm required in cm)

Universal Adjustable Windshield Wiper Arms



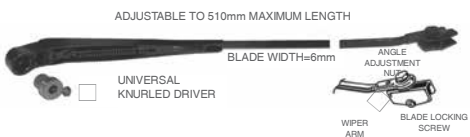
Part No.	Length
TC201	12.7mm
TC202	16mm

Universal Adjustable Windshield Wiper Arms



Part No.	Length
TC201	12.7mm
TC203	14mm (Spoon and bayonet end)
TC204	14mm (Spoon and slotted end)

Universal Adjustable Windshield Wiper Arms



Part No.	Description
TC034	Wiper arm
TC465	Universal knurled driver

Universal Adjustable Windshield Wiper Arms



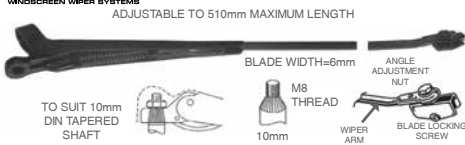
Part No.	Description
TC076	Wiper arm

Universal Adjustable Windshield Wiper Arms



Part No.	Description
TC380	Wiper arm
TC4071010	Dome nut
TC324	16mm Tapered shaft

Universal Adjustable Windshield Wiper Arms



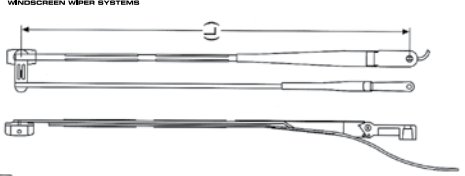
Part No.	Description
TC078	Wiper arm

Pantograph Windshield Wiper Arms



Part No.	Clip Width	Length	
TC5553545	12mm	350-450mm	
TC5554555	12mm	450-550mm	
TC5553545SS	12mm	350-450mm	Stainless Steel
TC5554555SS	12mm	450-550mm	Stainless Steel

Pantograph Windshield Wiper Arms - Compatible with 230 Series Motors



Product Description

- Made of corrosion-resistant stainless steel flatwire
- Pantograph arms require a pantograph adapter, 1.25" or 1.75" bridge (see next page)
- On all arms, specify length and wet or dry

Pantograph Arms - Wet

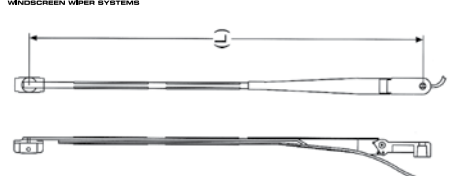
Part No.	Arm length L/bridge width W
3013140	14" (355)/1.25"
3013160	16" (405)/1.25"
3013180	18" (455)/1.25"
3013200	20" (510)/1.25"
3013220	22" (560)/1.25"
3013240	24" (610)/1.25"
3013260	26" (660)/1.25"
3013280	28" (710)/1.25"
3014240	24" (610)/1.75"
3014260	26" (660)/1.75"
3014280	28" (710)/1.75"

Radial Windshield Wiper Arms



Part No.	Clip Width	Length
TC4443545	12mm	350-450mm
TC4444555	12mm	450-550mm

Radial Windshield Wiper Arms - Compatible with 230 Series Motors



Product Description

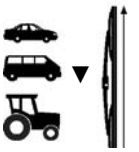






- Made of corrosion-resistant stainless steel flatwire
- Pantograph arms require a pantograph adapter, 1.25" or 1.75" bridge (see next page)
- On all arms, specify length and wet or dry





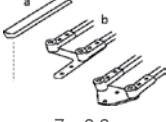
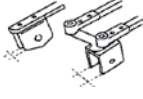
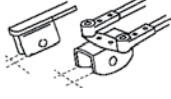
Radial Arms - Wet

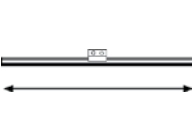

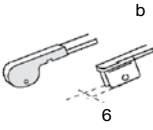

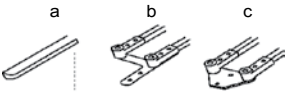
Part No.	Length L
3017140	14" (355)
3017160	16" (405)
3017180	18" (455)
3017200	20" (510)
3017220	22" (560)
3017240	24" (610)
3010260	26" (660)
3010280	28" (710)

DOGA

DOGA offers a wide range of wiper blades in various lengths for different types of arms. We also offer multiple pressure point wiper blades, which adapt to the curve of the windshield as well as flat blades for flat glass. This means you can achieve matchless cleaning of the required area on any type of vehicle.

	style □						
	adapter □	5,4 x 2	7,2 x 2,5	7 x 2,2	9 x 2,5 9 x 3	9 x 4	8 X 2 8 X 2,5
280 mm		1340628GA04	1340728GA04	1340228GA04	1340328GA04	-	1341628GA04 (a,b)
300 mm		1340630GA04	1340730GA04	1340230GA04	1340330GA04	-	1341630GA04 (a,b)
330 mm		1340633GA04	1340733GA04	1340233GA04	1340333GA04	-	1341633GA04 (a,b)
350 mm		1340635GA04	1340735GA04	1340235GA04	1340335GA04	-	1341635GA04 (a,b)
380 mm		1340638GA04	1340738GA04	1340328GA04	1340338GA04	-	1341638GA04 (a,b)
450 mm		-	1350345GA04	-	1350345GA04	-	1351645GA04 (b)
480 mm		-	-	-	1350348GA04	-	1351648GA04 (b)
500 mm		-	-	-	1350350GA04	1333050GA04	1351650GA04 (b)
530 mm		-	-	-	1330353GA04	1333053GA04	-
550 mm		-	-	-	1330355GA04	1333055GA04	1351655GA04 (b)
600 mm		--	-	-	1330360GA04	1333060GA04	1361660GA04 (b)

	style □						
	adapter □	9 x 2,5 9 x 3	9 x 4	12 x 4	7 x 2,2	16,5	26,5
400 mm		1360340GA04	-	-	1361640GA04 (a,b,c)	-	-
450 mm		1360345GA04	-	-	1361645GA04 (b,c)	-	-
500 mm		1360350GA04	-	-	1361650GA04 (b,c)	1362050GA04	-
560 mm		-	-	1362256GA04	-	-	-
600 mm		1360360GA04	1361460GA04	-	1361660GA04 (c)	1362060GA04	-
650 mm		-	1361465GA04	1362265GA04	1361765GA04 (c)	1362065GA04	-
700 mm		-	1361470GA04	1362270GA04	1361770GA04 (c)	1362070GA04	-
800 mm		-	-	-	-	-	1362080GA04
900 mm		-	-	-	-	-	1362090GA04
1000 mm		-	-	-	-	-	1362010GA04
1180 mm		-	-	-	-	-	1362011GA04
1360 mm		-	-	-	-	-	1362013GA04

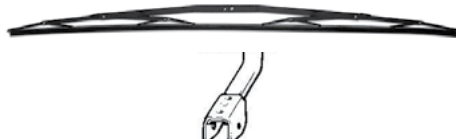
	style □				
		5	6	5 x 2,5	8 x 2 8 x 2,5
200 mm		1380920GA04 (a)	-	-	-
225 mm		-	-	1383222GA04	1383622GA04 (a)
250 mm		1380925GA04 (a)	-	1383225GA04	-
270 mm		1380927GA04 (a)	-	-	-
300 mm		1380930GA04 (a)	-	1383230GA04	1383630GA04 (a)
360 mm		-	-	-	1383936GA04 (a)
400 mm		-	-	-	1383940GA04 (a,b,c) 1393940GA04 (b,c)
450 mm		1390945GA04 (b)	-	-	1393945GA04 (b,c)
500 mm		1390950GA04 (b)	-	-	1393950GA04 (b,c)

To Suit 9 & 12mm Hook Fitting



Part No.	Length
TC550A	22" (55cm)
TC600A	24" (60cm)
TC650A	26" (65cm)
TC700	28" (70cm)

To Suit 16mm Hook Fitting



Part No.	Length
TC700	28" (70cm)

To Suit 22mm & 28mm Clip Width



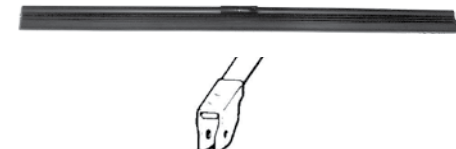
Part No.	Length
TCC800	32" (80cm)
TCC900	38" (90cm)
TC1000	40" (100cm)

To Suit 6mm & 14mm Clip Width



Part No.	Length
TCCS36	14" (36cm)
TCCS41	16" (41cm)
TCCS46	18" (46cm)
TCCS51	20" (51cm)

To Suit 6mm Clip Width



Part No.	Length
TCFS36	14" (36cm)
TCFS41	16" (41cm)
TCFS46	18" (46cm)
TCFS51	20" (51cm)
TCFS56	22" (56cm)
TCFS61	24" (61cm)

Suits Spoon End



Part No.	Length
TE10310	8" (250mm)
TE10312	12" (305mm)

Suits Slotted End



Part No.	Length
TE1018	8" (220mm)
TE10112	12" (300mm)

Suits Bayonet End



Part No.	Length
TE26010	10" (250mm)
TE26612	12" (305mm)
TE26614	14" (360mm)

Heavy Duty Wiper Blade Refills



The Datatron range of Heavy Duty Wiper Blade Refills are designed to withstand the rigours of commercial and industrial usage, they come in the most common range of sizes from 22" (55cm) right through to the 40" (100cm) refill, and are manufactured to our exact specifications using 100% natural rubber.

Blade Part No.	Blade Length	Metal Refill No:	Plastic Refill No:	Blade Part No.	Blade Length	Metal Refill No:	Plastic Refill No:
TC550A	22" (55cm)	DWMN610	DWPN610	TC700	28" (70cm)	TC60100	TV100
TC600A	24" (60cm)	DWMN610	DWPN610	TC800	32" (80cm)	TC60100	TV100
TC650A	26" (65cm)	DWMN710	DWPN710	TC900	36" (90cm)	TC60100	TV100
TC700A	28" (70cm)	DWMN710	DWPN710	TC1000	40" (100cm)	TC60100	TV100

6mm or 8mm Plastic Refills



Plastic Back Wiper Blade Refills in Twin Pack or Bulk 20 Pack to suit most 6mm and 8mm Wiper Blades.

Part No.	Type
DWPN61020	Narrow Back (Box of 20)
DWPN610	Narrow Back (Pair Pack)
DWPW61020	Wide Back (Box of 20)

6mm or 8mm Metal Refills



Metal Back Wiper Blade Refills in Twin Pack or Bulk 20 Pack to suit most 6mm and 8mm Wiper Blades.

Part No.	Type
DWMN61020	Narrow Back (Box of 20)
DWMN610	Narrow Back (Pair Pack)
DWMW61020	Wide Back (Box of 20)
DWMWN610	Narrow Back (Box of 20)

8.95mm Plastic Multi-Fit Refills



Universal Multi-Fit Truck and Bus Wiper Blade Refills -40" (1000mm) are designed to fit both 8mm and 9.5mm wide wiper blades.

Part No.	Type
DW1000	(Pair Pack)
DW1000-10	(Box of 10)

8.95mm Plastic Multi-Fit Refills



Wiper Blade Refills in Twin Pack or Bulk 10 Pack to suit most 8mm Wiper Blades. Available in either a Plastic or Metal Back.

Part No.	Type
DWMN710	Metal Back (Pair Pack)
DWMN71010	Metal Back (Box of 10)
DWPN710	Plastic Back (Pair Pack)
DWPN71010	Plastic Back (Box of 10)

Flat Blades



Part No.	Clip Width	Length
TCFS36	6mm	360mm
TCFS41	6mm	410mm
TCFS46	6mm	460mm
TCFS51	6mm	510mm
TCFS56	6mm	560mm
TCFS61	6mm	610mm

Curved Blades



Part No.	Clip Width	Length
TCCS36	6mm	360mm
TCCS41	6mm	410mm
TCCS46	6mm	460mm
TCCS51	6mm	510mm

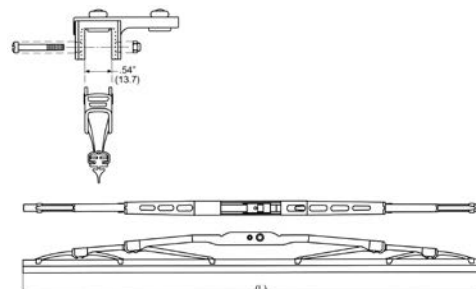
Flex Blades - 230 Series



- Flexible for flat or curved glass
- Refillable moulded wiper elements
- Galvanized frames, powder coated for corrosion resistance

Part No.	Clip Width	Length
3021120	12mm	300mm
3021140	12mm	350mm
3021160	12mm	400mm
3021180	12mm	450mm
3021200	12mm	500mm
3021220	12mm	550mm
3021240	12mm	600mm
3021260	12mm	650mm
3021280	12mm	700mm

Dimensions



Easy Adaption Guide

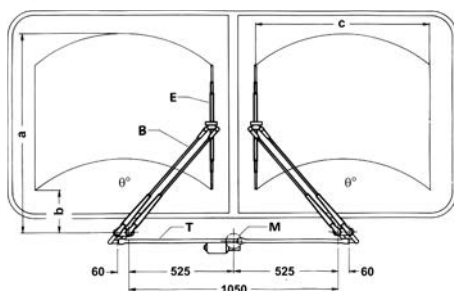


- Step 1:** Identify the existing wiper arm (numbers 1 to 6)
Step 2: Attach the necessary adaptors to the wiper arm

1 Standard Bayonet		A1	
2 Hook Type		A2-1 OR B	 7x9mm 6x8mm
3 Pin Type - Side Mount		A2-1 & Pin	 7x9mm
4 Standard - Side Mount		A2-1	 7x9mm
5 Screw Bayonet - Side Mount		T2 Front & Side Views	

Large Dual Screen Wiper Systems

DOGA

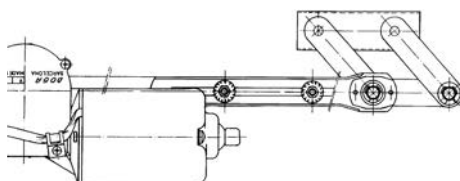


Heavy Duty Pantograph Wiper Kit (Example)

	Components Part No.	Description
M	25937053000	24 Volt, 2 Speed Motor LO: 32 RPM. HI: 50 RPM Torque - Start: 50 Nm Run: 10 Nm
B	1280305GA04	Pantograph with Wet Kit: 800mm (60mm centres)
E	1362010GA04	Curved Screen Blade: 1000mm
T	14061130000	Adjustable Link Kit

Medium Duty Pantograph Wiper Kit (Example)

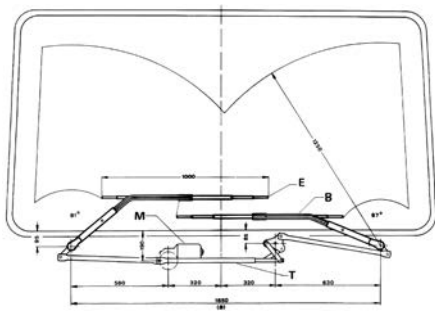
	Components Part No.	Description
M	11990183000	24 Volt, 2 Speed Motor LO: 32 RPM. HI: 50 RPM Torque - Start: 50 Nm Run: 10 Nm
B	1270404GA04	Pantograph with Wet Kit: 700mm (60mm centres)
E	1361660GA04	Curved Screen Blade: 600mm
T	14061060000	Adjustable Link Kit



NOTE: FDA supplies heavy duty wiper systems to many OEM manufacturers of buses, trains, trucks and agricultural equipment. These kits are a small sample of stock items. We can quote on tailor made systems to fit any OEM heavy equipment need.

Panoramic Wiper Systems

DOGA



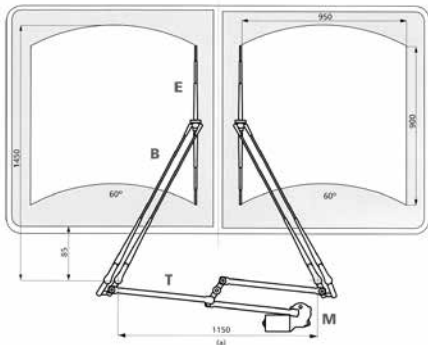
Panoramic Wiper Kit (Example)

	Components	Part No.	Description
M		25937053004	24 Volt, 2 Speed Motor LO: 30 RPM. HI: 43 RPM Torque - Start: 130 Nm Run: 20 Nm
B		1206701GAD4 (L) 1206702GAI4 (R)	Pantograph with Wet Kit: 750mm
E		1362010GA04	Curved Screen Blade: 1000mm
T		14020680000	Adjustable Link Kit

NOTE: FDA supplies heavy duty wiper systems to many OEM manufacturers of buses, trains, trucks and agricultural equipment. These kits are a small sample of stock items. We can quote on tailor made systems to fit any OEM heavy equipment need.

Synchronised Pantograph Wiping System (1 Motor)

DOGA



	Mod	Stall Torque	Volts	Speed	Cycles X M	Intermittence	
M		258	80 Nm	12-24	1 2	30 30/45	Intergrated
B		L = 750/800/900mm					
E		L = 700/800/900mm					
T		(a) According to measurement of front-end					

	Mod	Stall Torque	Volts	Speed	Cycles X M	Intermittence	
M		259	130 Nm	12-24	1 2	30 30/45	Intergrated
B		L = 750/800/900/1000mm					
E		L = 700/800/900/1000mm					
T		(a) According to measurement of front-end					

Example In Graph

Angle	60°
M	259
B	1000mm
E	900mm
T	1150mm

NOTE: FDA supplies heavy duty wiper systems to many OEM manufacturers of buses, trains, trucks and agricultural equipment. These kits are a small sample of stock items. We can quote on tailor made systems to fit any OEM heavy equipment need.

NEED A WIPER SYSTEM?

Copy the next page (Wiper System Request Sheet) & Fax to your nearest branch.

Details on back cover



Wiper System Request Sheet

Customer: _____ Date: _____

Vehicle Type	Vehicle Model	Mod	max./speed
--------------	---------------	-----	------------

Sample delivery

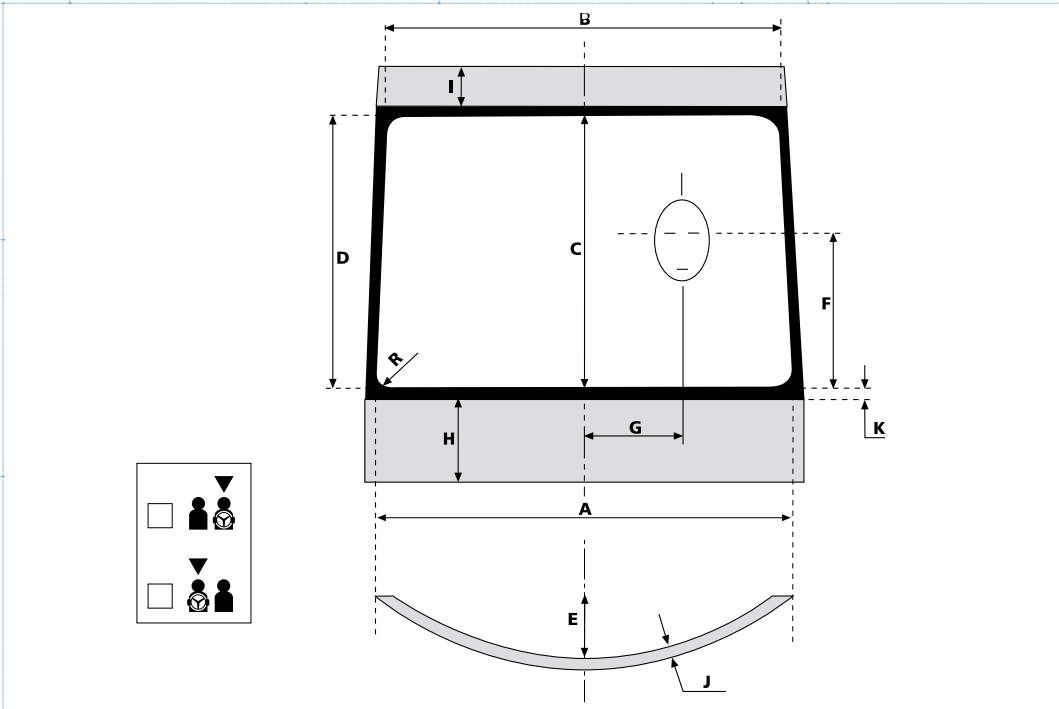
Yes
 No
 Date:
 QTY:

Pre-production

Yes
 No
 Date:
 QTY:

Production

Date:
 Estimated QTY/Year



General		Motor	
Measurements Windshield	A	Motor fitting	
	B	body <input type="checkbox"/>	windshield <input type="checkbox"/>
	C	Nominal voltageVolts	
	D		
	R		
Twin Screen	No <input type="checkbox"/> Yes <input type="checkbox"/> Divider Width	Intergrated Intermittence in windshield wiper motor Yes <input type="checkbox"/> No <input type="checkbox"/>	
Windshield curve	E	Washer Systems	
Driver's position	F	Do you need washer system? Yes <input type="checkbox"/> No <input type="checkbox"/>	
	G	Nozzle arm intergrated <input type="checkbox"/> body intergrated <input type="checkbox"/>	
Assembly room	H	CAD	
	I	<input type="checkbox"/> CATIA <input type="checkbox"/> PRO-E <input type="checkbox"/> SOLID <input type="checkbox"/> ME-10 DESIGNER OTHER	
Thickness of body	J	Exchange format <input type="checkbox"/> dxf <input type="checkbox"/> igs	
Rubber	K	OTHER	

Comments:

.....

Washer Pump

**FLEXIBLE DRIVE
AGENCIES**-----



Suits Holden HZ-WB Commodore, Camira, Ford Falcon, Fairlane, LTD, Toyota Corona, Corolla, Nissan Bluebird, Pintara, Pulsar, Mitsubishi Sigma & Magna.
Suits FDA washer kits with plug in motor prior to 1995. Packaged for "point of sale" display.

Part No......51456P

Washer Pump

**FLEXIBLE DRIVE
AGENCIES**-----



Suits many imported Japanese models 1988 onwards and FDA kits from 1995. Also suits Australian production Toyota, Mitsubishi & Ford Falcon.

Part No......1480P

Washer Pump

**FLEXIBLE DRIVE
AGENCIES**-----



Suits Holden models VR to VS Blister packed for point of sale.

Part No......1485P

Washer Pump

**FLEXIBLE DRIVE
AGENCIES**-----



Suits FDA washer kits and many other systems.

Part No......CL508N24V.....24 Volt

Part No......CL508M12V.....12 Volt

Washer Pump

**FLEXIBLE DRIVE
AGENCIES**-----



Remote mounted pumps that can be installed in any convenient location.

Part No......CL209M.....Boxed

Part No......CL209N.....Boxed

Part No......CL209M12V.....12 Volt

Part No......CL209N24V.....24 Volt

Washer Pump

FLEXIBLE DRIVE AGENCIES



Remote mounted washer pump with 5mm inlet and 5mm outlet.

- Part No.....80825.....12 Volt
- Part No.....80826.....24 Volt

Washer Pump - Integral

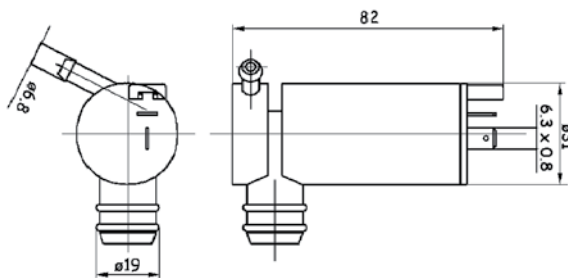
DOGA



IP: 54 12 volt/24 volt for 2 way AMP connector.

- Part No.....20100022000.....12 Volt
- Part No.....20100023000.....24 Volt

Dimensions



Washer Pump - Self Priming External

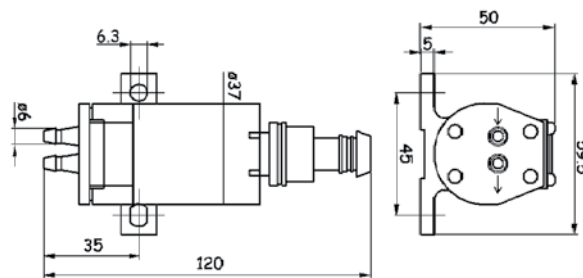
DOGA



IP: 54 12 volt/24 volt connector incorporated

- Part No.....20000062000.....12 Volt
- Part No.....20000053000.....24 Volt

Dimensions



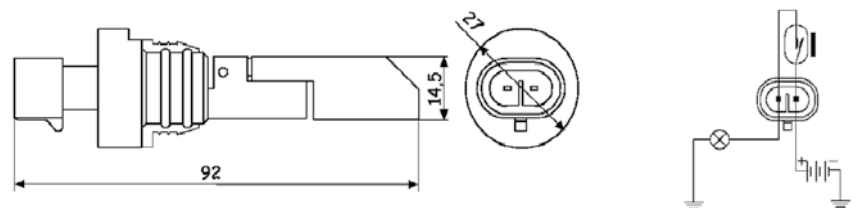
Level Indicator

DOGA



- Part No.....10000543900.....Level Indicator
- Part No.....2103430.....2 Way AMP Connector

Dimensions



1 Litre Washer Bottles

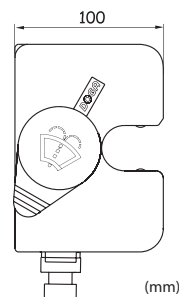
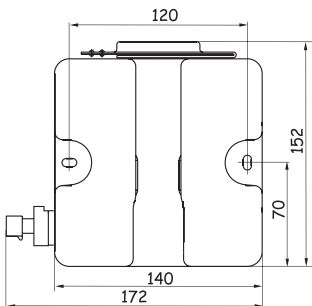
DOGA



Material: PE HD Anti-loss cap ø 40mm.

Litres	Bottles	Fixing Points	Pump Qty	Integral	Volts		Part No.	
					12	24	with level indicator	without level indicator
1	2	points	1		12		23110022000	23110012000
					24		23110023000	23110013000

Dimensions



Cap To Suit
Part No.230001239CO

2 Litre Washer Bottles

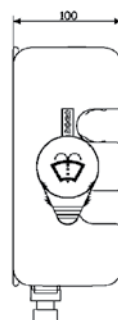
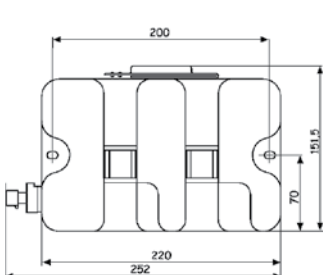
DOGA



Material: PE HD Anti-loss cap ø 40mm.

Litres	Bottles	Fixing Points	Pump Qty	Integral	Volts		Part No.	
					12	24	with level indicator	without level indicator
2	2	points	1		12		23210032000	23210012000
					24		23210033000	23210013000
			2		12		23220022000	23220012000
					24		23220023000	23220013000

Dimensions



Cap To Suit
Part No.230001239CO

3 Litre Washer Bottles

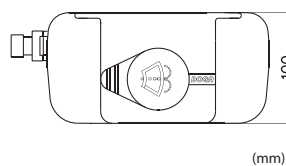
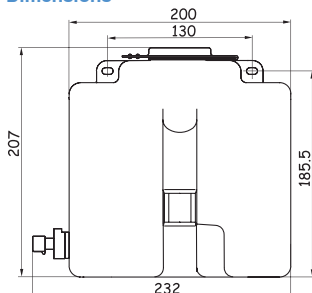
DOGA



Material: PE HD Anti-loss cap ø 40mm.

Litres	Bottles	Fixing Points	Pump Qty	Integral	Volts		Part No.	
					12	24	with level indicator	without level indicator
3	2	points	1		12		23310032000	23310012000
					24		23310033000	23310013000

Dimensions



Cap To Suit
Part No.230001239CO

5 Litre Washer Bottles

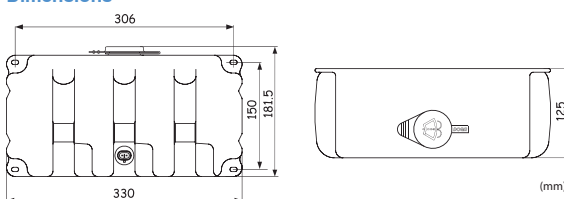
DOGA



Material: PE HD Anti-loss cap ϕ 40mm

Litres	Fixing Points	Pump Qty	Volts	Part No.	
				with level indicator	without level indicator
5	4 points	1	12	23510022000	23510012000
			24	23510023000	23510013000
		2	12	23520022000	23520012000
			24	23520023000	23520013000
		3	12	-	23530012000
			24	-	23530013000

Dimensions



Cap To Suit

Part No.230001239CO

5 Litre Washer Bottles

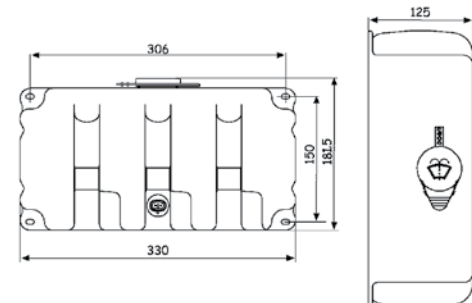
DOGA



Material: PE HD Anti-loss cap ϕ 40mm.

Litres	Fixing Points	Pump Qty	Volts	Part No.	
				with level indicator	without level indicator
5	4 points with screw on cap	1	12	23510042000	23510032000
			24	23510043000	23510033000
		2	12	23520042000	23520032000
			24	23520043000	23520033000
		3	12	-	23530032000
			24	-	23530033000

Dimensions



Cap To Suit

Part No.230001239CO

8 Litre Washer Bottles

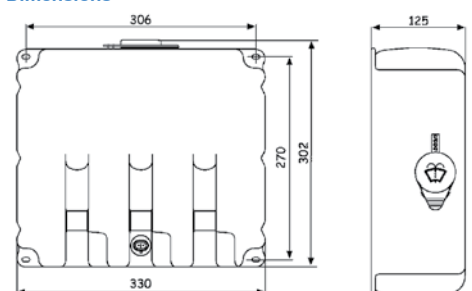
DOGA



Material: PE HD Anti-loss cap ϕ 40mm

Litres	Fixing Points	Pump Qty	Volts	Part No.	
				with level indicator	without level indicator
8	4 points	1	12	23810022000	238.1001.20.00
			24	238.1002.30.00	238.1001.30.00
		2	12	238.2002.20.00	238.2001.20.00
			24	238.2002.30.00	238.2001.30.00
		3	12	-	238.3001.20.00
			24	-	238.3001.30.00

Dimensions



Cap To Suit

Part No.230001239CO

8 Litre Washer Bottles

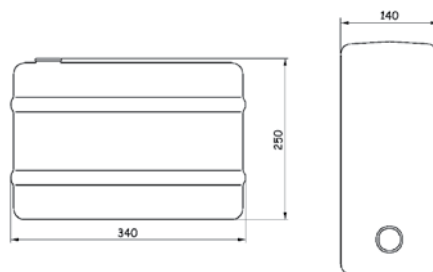
DOGA



Without metallic support. **Material:** PE HD Anti-loss cap ϕ 32 mm cap

Bottles		Pump Qty	Volts	Part No.	
Litres	Fixing Points	Integral		with level indicator	without level indicator
8	* without support		12	-	230.0006.20.00
			24	-	230.0006.30.00

Dimensions



8 Litre Washer Bottles

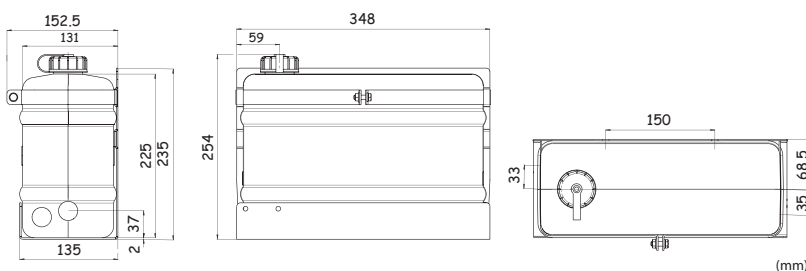
DOGA



With metallic support. **Material:** PE HD Anti-loss cap ϕ 32 mm cap

Bottles		Pump Qty	Volts	Part No.	
Litres	Fixing Points	Integral		with level indicator	without level indicator
8	* with metallic support		12	-	230.5001.20.00
			24	-	230.5001.30.00

Dimensions



20 Litre Washer Bottles

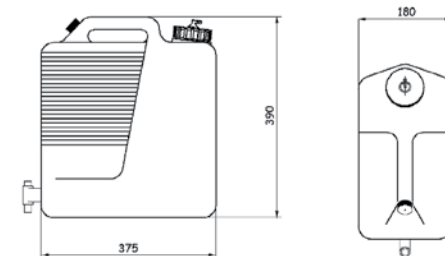
DOGA



Material: Thermoplastic. Cap included.

Bottles		Pump Qty	Volts	Part No.	
Litres	Fixing Points	Integral		with level indicator	without level indicator
20	* without support		12	-	230.0007.20.00
			24	-	230.0007.30.00

Dimensions



5.8 Litre - Large Capacity Reservoir

**FLEXIBLE DRIVE
AGENCIES**



Large Capacity 5.8 Litre Reservoir with 12 or 24 Volt Motors.

Part No.	Description
4051177	12 Volt Motor & Bottle
2106003	24 Volt Motor
2106002	Optional Slide in Bracket

12 Volt Universal Kit

**FLEXIBLE DRIVE
AGENCIES**



1.45 L - Vertical Reservoir comprises of reservoir and pump assembly, twin "bats eye" jet, switch, PVC tubing, terminals and associated hardware.

Part No.....W501

24 Volt Universal Kit

**FLEXIBLE DRIVE
AGENCIES**



1.45 L - Vertical Reservoir Includes reservoir and pump assembly, twin eye jets, switch, PVC tubing, terminals and associated hardware.

Part No.....W514

Washer Kit For Holden HD - HZ

**FLEXIBLE DRIVE
AGENCIES**



Electric Conversion Kit to replace washer systems on GMH Holden Vehicles 1965 - 1979, HD - HZ models, which already have a washer switch or co-ordinated washer/wiper switch. The reservoir holds 1.7 litres and comes complete with 12 volt motor & pump, wiring leads, T-piece and PVC Tubing.

Part No.....W5000

Heavy Duty Pantograph Wiper Systems

DATATRON
WINDSCREEN WIPER SYSTEMS



Quality Heavy Duty Pantograph Wiper Systems designed for long life use in the Bus and Industrial Vehicle market. These wiper systems come complete with heavy duty wiper motors, arms, adjustable tubular steel linkages, heavy duty anodised pivots and a wet arm washer Kit.

Heavy Duty Pantograph Wiper Systems

DATATRON
WINDSCREEN WIPER SYSTEMS



Quality Heavy Duty 'Clap Hands' Wiper Systems designed for long life use in Bus and Industrial Vehicle market. These wiper systems come complete with heavy duty wiper motors, arms, adjustable channel steel linkages, heavy duty anodised pivots and a wet arm washer Kit.

Small Screen Wiper Systems



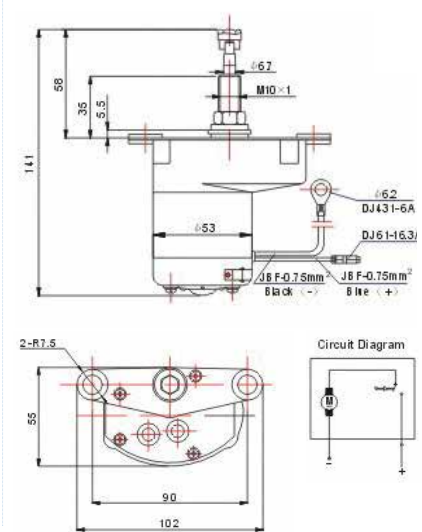
Quality Light Duty Wiper Systems designed for long life use in the Industrial and Marine market. These wiper systems come complete with wiper motors, arms and blades. Also available in full marine grade.

Technical Specifications

Voltage: 12 Volt / 24 Volt
Test Voltage: 13.5 Volt / 27 Volt
Brake Torque: 3Nm
Working Torque: 0.6Nm
Noise: < 40dB(A)
No-Load Speed: 30 ± 3 RPM
No-Load Current: < 4A (12V) < 22A (24V)
Working Speed: 27 ± 3 RPM
Working Current: < 5A (12V) < 2.5A (24V)
Wiper Specifications: < 2.4A (12V) < 1.2A (24V)
Wiper Angle: 75 - 110°

Part No......ZD1132.....12 Volt
Part No......ZD2132.....24 Volt

Dimensions



Small Screen Wiper Systems



Quality Light Duty Wiper Systems designed for long life use in the Industrial and Marine market. These wiper systems come complete with wiper motors, arms and blades. Also available in full marine grade.

Technical Specifications

Voltage: 12 Volt / 24 Volt
Test Voltage: 13.5 Volt / 27 Volt
Brake Torque: 9Nm
Working Torque: 1.5Nm
Noise: < 50dB(A)
No-Load Speed (Low): 40 ± 5 RPM
No-Load Speed (High): 55 ± 7 RPM
No-Load Current (Low): < 1.2A (12V) < 0.6A (24V)
No-Load Current (High): < 2A (12V) < 1A (24V)
Working Speed (Low): 35 ± 4 RPM
Working Speed (High): 50 ± 5 RPM
Working Current (Low): < 2.4A (12V) < 1.2A (24V)
Working Current (High): < 3.6A (12V) < 1.8A (24V)
Wiper Specifications Blade: 500mm ARM 500mm
Wiper Angle: 45 - 110°

Part No......ZD1230.....12 Volt
Part No......ZD2230.....24 Volt

Universal Wiper Systems



Part No......CL302012V.....12 Volt
Part No......CL302124V.....24 Volt

Windshield Washer Additive & Glass Cleaner



Part No......A90320100.....Compact Sachet Dispenser
Part No......A90020.....500ml Bottle
Part No......A90030.....5 Litre Trade Pack
Part No......A9002020.....20 Litre Container

Check Valve

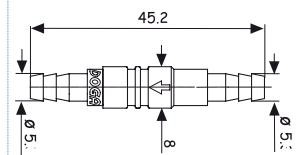
DOGA



Material: Thermoplastic. For a hose with an inner diameter of 3-4mm. Blue. Opening pressure: 0,25 bar.

Part No......100503339CO

Dimensions



Black Hose

DOGA

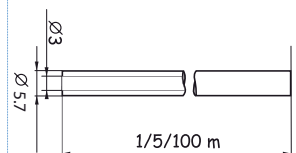


3 mm inner diameter in sets of 5 or 100m, of EDPDM black rubber.

Part No......100001739CO.....5m

Part No......100001439CO.....100m

Dimensions



Transparent Hose

DOGA

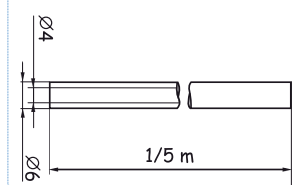


4mm inner diameter in sets of 1 or 5.

Part No......100006139CO.....1m

Part No......100006239CO.....5m

Dimensions



Elbow Connector

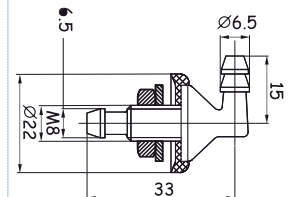
DOGA



Material: PA6. Black. For a hose with an inner diameter of 3-4mm.

Part No......100502639CO

Dimensions



Clamp

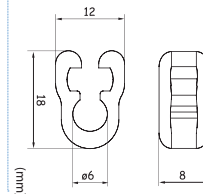
DOGA



Material: POM. Black. For arms with 8 x 4 or 10 x 4 bar profile.

Part No......124000139CO

Dimensions



Clamp

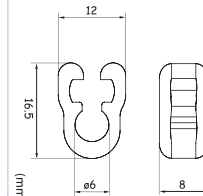
DOGA



Material: POM. Black. For arms with 8 x 2,5 y 9 x 2,5 bar profile.

Part No......124000239CO

Dimensions



Clamp

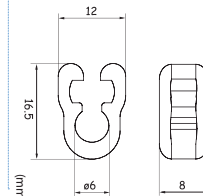
DOGA


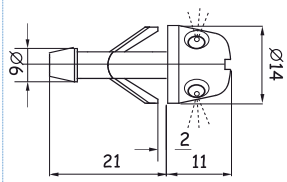

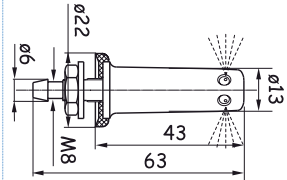

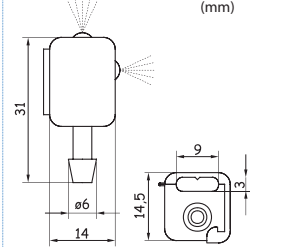

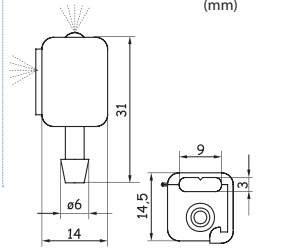

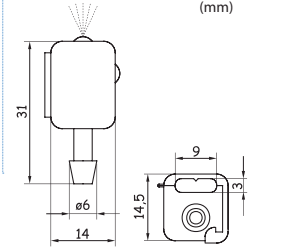

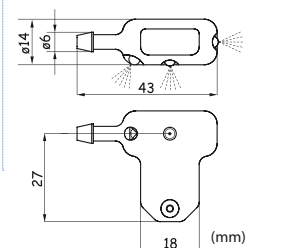



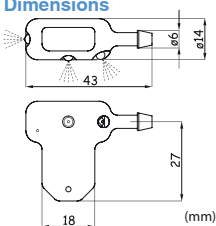

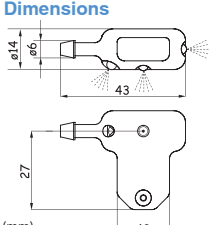

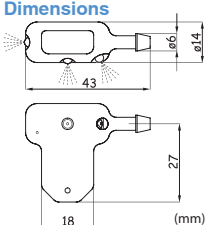

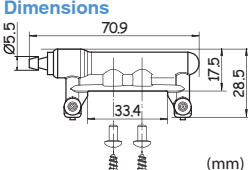

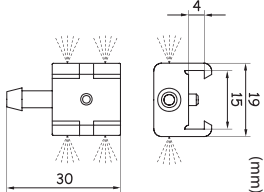

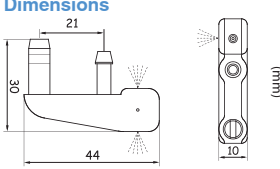

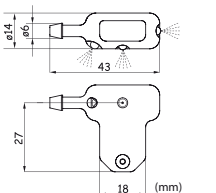
Material: POM. Black. For arms with 9 x 3 bar profile.

Part No......124000339CO

Dimensions



		Body Nozzle	
DOGA		<p>Material: PA6. Black. Standard model.</p> <p>Part No......121500539CO</p>	<p>Dimensions</p> 
		Body Nozzle	
DOGA		<p>Material: PA6. Black. Standard model.</p> <p>Part No......100504439CO</p>	<p>Dimensions</p> 
		Arm Nozzle	
DOGA		<p>2 Jets Material: PA6. Black. For left-orientated arms with 9 x 3 bar profile.</p> <p>Part No......120500139CO</p>	<p>Dimensions (mm)</p> 
		Arm Nozzle	
DOGA		<p>2 Jets Material: PA6. Black. For right-orientated arms with 9 x 3 bar profile.</p> <p>Part No......120500239CO</p>	<p>Dimensions (mm)</p> 
		Arm Nozzle	
DOGA		<p>1 Jet. Material: PA6. Black. For straight arms with 9 x 3 bar profile.</p> <p>Part No......120500439CO</p>	<p>Dimensions (mm)</p> 
		Arm Nozzle	
DOGA		<p>3 Jets. Material: PA6. Black. For left orientated or straight arms with 10 x 4 bar profile.</p> <p>Part No......120500639CO</p>	<p>Dimensions (mm)</p> 

<p>DOGA</p> 	<p>Arm Nozzle</p> <p>3 Jets. Material: PA6. Black. For right-orientated arms with 10 x 4 bar profile.</p> <p>Part No......120500739CO</p>	<p>Dimensions</p> 
<p>DOGA</p> 	<p>Arm Nozzle</p> <p>3 Jets. Material: PA6. Black. For left-orientated or straight arms with 12 x 4 bar profile.</p> <p>Part No......120500839CO</p>	<p>Dimensions</p> 
<p>DOGA</p> 	<p>Arm Nozzle</p> <p>3 Jets. Material: PA6. Black. For right-orientated arms with 12 x 4 bar profile.</p> <p>Part No......120500939CO</p>	<p>Dimensions</p> 
<p>DOGA</p> 	<p>Arm Nozzle</p> <p>Material: PA6. Black. For right-orientated arms with 9 x 3 bar profile.</p> <p>Part No......12750163900</p>	<p>Dimensions</p> 
<p>DOGA</p> 	<p>Arm Nozzle</p> <p>4 Jets. Material: PA6. Black. For Doga pantograph arms with 4 x 15 bracket.</p> <p>Part No......120502039CO</p>	<p>Dimensions</p> 
<p>DOGA</p> 	<p>Arm Nozzle</p> <p>3 Jets. Material: PA6. Black. For Doga right orientated arms only.</p> <p>Part No...... 120502539CO</p>	<p>Dimensions</p> 
<p>DOGA</p> 	<p>Arm Nozzle</p> <p>Material: PA6. Black. For left-orientated arms with 9 x 3 bar profile.</p> <p>Part No...... 120502639CO</p>	<p>Dimensions</p> 

Arm Nozzle

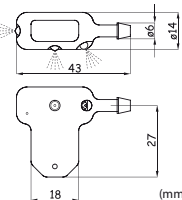
DOGA



Material: PA6. Black. For right-orientated arms with 9 x 3 bar profile Standard model.

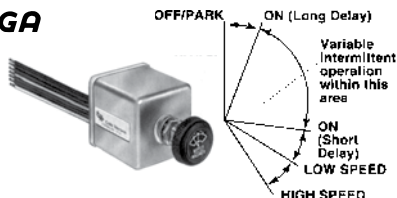
Part No......120502739CO

Dimensions



Heavy Duty Wiper Switches - To Suit Wiper Motors

DOGA



- Variable Intermittent Wipe
- Advanced Electronics
- Conform to SAE standard J112a for windshield wipers and J234 for windshield washers
- For 12 volt DC electrical systems, 24 volt DC where noted.
- 4 Positions: Off/Park, Intermittent Range, Low and High.
- Push knob to actuate washer pump circuit - one to three wipes provided after knob released.
- Black plastic knob with metal insert and set screw, and white imprint.
- Die cast case 56.35mm square, 46.04mm long.
- Mounting Stem 7/16" - 28 thread.
- Supplied with hex nut and lock washer for mounting.

For dependable control of windshield wipers on heavy duty vehicles

Part No......7560002.....12 Volt

Part No......7560204.....24 Volt



For use with permanent magnet electric wiping motors without dynamic park, including United Technologies.

- For 12/24 volt DC systems.
- 3 positions: Off/Park, Low and High.
- Single motor control with Push to Wash.
- Internal six amp circuit breaker.
- Five blade terminals.



Part No......SW721025A

For use with permanent magnet electric wiping motors with dynamic park, including most DOGA motors.

- For 12/24 volt DC systems.
- 3 positions: Off/Park, Low and High.
- Single motor control with Push to Wash.
- Six blade terminals.

Part No......7522803

Adjustable Linkage

DATATRON
WINDSCREEN WIPER SYSTEMS



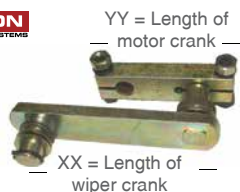
Adjustable anodised tubular construction with bronze and bushes.

Part No......TC458XX

NOTE: When ordering TC458XX (where XX = length of linkage required in cm)

Crank Assembly

DATATRON
WINDSCREEN WIPER SYSTEMS



Part No......TC459XXYY

NOTE: When ordering TC459XXYY (where XX = length of wiper crank required in cm and YY = length of motor crank required in cm)

Crank

DATATRON
WINDSCREEN WIPER SYSTEMS



Part No......TC599XX

NOTE: When ordering TC599XX (where XX = length of wiper crank)

Single & Double Pivots

DATATRON
WINDSCREEN WIPER SYSTEMS



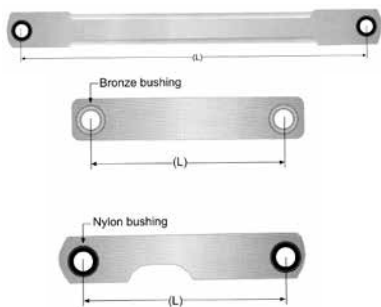
Pivots available with various length shafts in either 12 or 16 DIN tapered shafts.

Part No......TC456XXYY.....Double Pivots

Part No......TC455XXYY.....Single Pivots

NOTE: When ordering TC456XXYY & TC455XXYY (where XX = length of crank & YY = thread length)

Pin Type Links - 230 Series

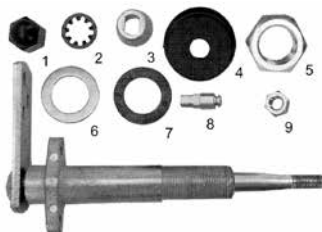


Product Description

- Standard for unitised and multiple pivot wiper systems
- Standard nylon bushings
- Bronze bushings for heavy duty applications
- Standard and custom lengths available
- All bushings .31" (7.9) inside diameter
- Typical styles shown below for identification when ordering, please list the (L) reference dimension

Center to center length (L)	Datatron Part No.	Old Part No.
3.09" (78.5)	3071072	LK51149
3.38" (85.9)	3071022	LK721014
5.75" (146.1)	3071080	LK721038 A1
8.85" (224.8)	3071074	LK721024
12.8" (325.1)	3071076	LK721031
14.64" (371.9)	3071073	LK721023
19" (482.6)	3071079	LK721035A5
19.89" (505.2)	3071075	LK721026
21" (533.4)	3071078	LK721033
22.5" (571.5)	3071082	LK721035A8
27.5" (698.5)	3071081	LK721035A7
32.25" (819.2)	3071077	LK721032

Pin Type Pivot Shafts - 230 Series



Product Description

- 11/16" (.68", 17.3mm) shaft body diameters fit into 3/4" bulkhead hole
- Length determined by "A" reference dimension of shaft body
- Three pin slots for different sweep angles (A, B, and C)
- All hardware numbered below included in a shaft assembly order and available individually
- Stainless steel shaft and components for corrosive environments

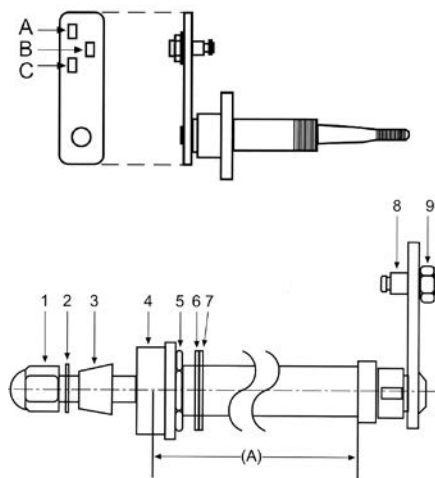
Complete Shaft Assemblies

Part No.	Length
3041201	1" (25)
3041202	1 1/4" (32)
3041203	2" (51)
3041205	3" (76)

Individual Part No.

	Part No.	Description
1	4071010	Black Cap Nut
2	4071023	Lockwasher
3	4071002	Knurl
4	4071017	Rubber Cap
5	4071007	Nut
6	4071015	Metal Washer
7	4071012	Rubber Washer
8	4071005	Pin
9	4141124	Locknut

Dimensions



To identify a shaft, measure the pivot body from the base of the mounting flange to the end that protrudes to the wiper arm attachment (A). When considering a new application, this section must pass through the bulkhead and allow mounting with item #5 nut. Items #8 and #9 can be mounted as shown or inverted for different applications.

Pin Type Pivot Shafts - 230 Series



Available in a variety of sizes for several wipe angles. Short pin for single link systems, long pin for double link systems.

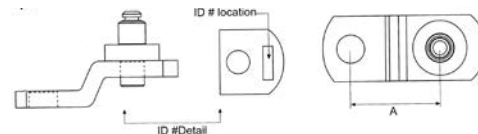
Short Pin

Part No.	Dimension A	ID No. (mm)
3081051	1.057"	26.8
3081055	1.460"	37.1

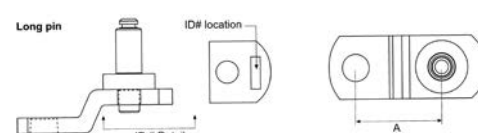
Long Pin

Part No.	Dimension A	ID No. (mm)
308-1062	1.057"	26.8
308-1066	1.460"	37.1

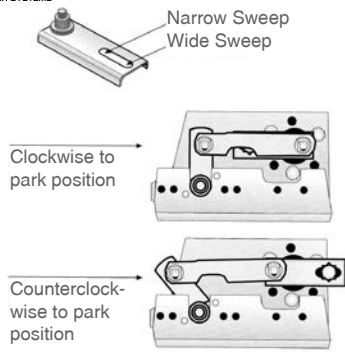
Dimensions



Dimensions



Adjustable Drive Arm Kit - 230 Series

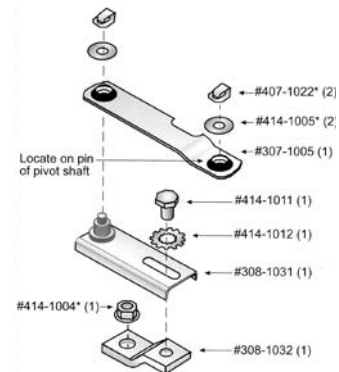


Available sweep patterns of 35 to 70 Degrees.

Installation Instructions

1. Assemble the wiper motor and pivot shaft assemblies onto the unitized wiper motor bracket; check to be sure the pin in the pivot shaft is in the "B" position. (See illustration)
2. Using a 12volt power supply, apply power to the motor terminals to operate low (L), high (H) & park (P).
3. After parking the motor, install drive arm Part No. 308-1032 onto the motor shaft, align the park position (clockwise or counterclockwise to park) as shown in illustration. Preliminarily set Part No. 308-1031 & Part No. 3071005 on Part No. 3081032 to help alignment. Retain Part No. 3081032 with a 12" adjustable wrench and tighten Part No. 4141004 nut to 305 inch pounds (25 ft. pounds).
4. Install the slide Part No. 3081031 onto the drive arm with Part No. 414-1011 lockwasher and Part No. 4141012 bolt. Tighten the bolt at an arbitrary position on the slide. The final adjustment of the slide will be made later.
5. Grease the pins on the slide and pivot shaft with standard automotive grease. Place Part No. 3071005 link over the pins and install Part No. 4141005 washer and Part No. 4071022 spring clip on both pins to secure the link.
6. Install the wiper motor assembly onto the vehicle, attaching the wiper arm and blade to the pivot shaft. Tighten the wiper arm nut (not shown) to 7 ft. pounds.
7. Operate the wiper motor in low and high speeds. Using a garden hose, spray water on the windshield to simulate wet conditions. Make sure the wiper blade does not come into contact with windshield moulding. Adjust the sweep of the wiper arm by loosening Part No. 4141011 and sliding Part No. 3081031 (See illustration). An adjustment of the wiper arm may also be necessary. Retighten the bolt & run the system again, repeat step until desired pattern is achieved.

Kit Part No.	Description
3081005	Adjustable Drive Arm Kit



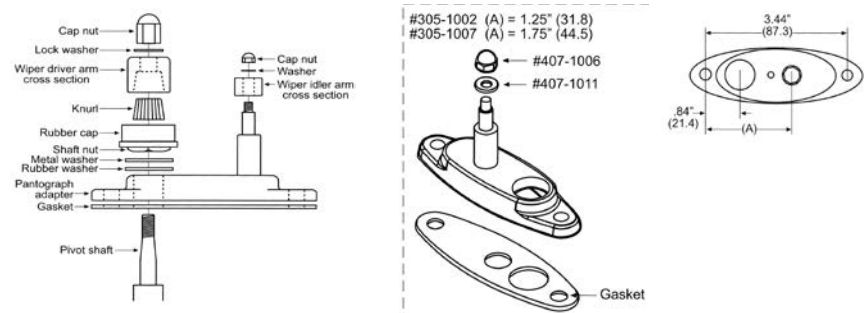
Pantograph Adaptors - 230 Series



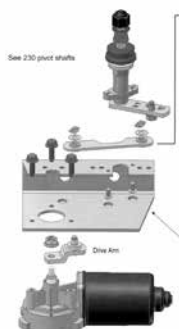
Allow use of a pantograph wiper arm (double arm) on the 230 series unitized assembly. Fits 11/16" diameter pivot shafts.

Part No.	Description
3051002	Panto Adaptors
4071006	Nut
4071011	Washer

Dimensions



Hardware - 230 Series



All shown hardware is available individually or in bulk quantities.

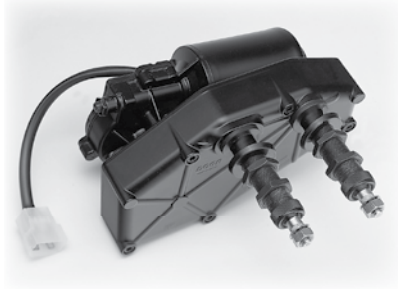
Kit Part No.2302012.....24 Volt
 Kit Part No.2302013.....12 Volt

Kit Part No.	Description
3081005	Adjustable Drive Arm Kit
Individual Part No.	Description
4071022	Spring Clips
4141005	Washers
3071022	Link (3.8" centre to centre) bronz Busm
4141131	Motor Mounting Screws
4141132	Motor Shaft Nut

NOTE: Pivot not included in kit see below for choice of pivot

Wiper Motors - Model 111

DOGA



Rotational Speed: 50 RPM
 Nominal Torque: 5 Nm
 Stall Torque: 25 Nm
 Shaft: M8
 Auto Park

Part No.	L mm	Wiping Angle	Volts
11196012B*6	43	50°	12
11196013B*6	43	50°	24
11196022B*6	43	60°	12
11196023B*6	43	60°	24
11196032B*6	43	72°	12
11196033B*6	43	72°	24
11196042B*6	43	80°	12
11196043B*6	43	80°	24
11196122B*6	43	60°	12
11196123B*6	43	60°	24
11196852BI6	43	50°	12
11196963BI6	43	50°	24
11196973BI6	43	50°	24

* parking position, I = LEFT, D = RIGHT , RFI suppressed motors available on request.

Wiper Motors - Model 316

DOGA

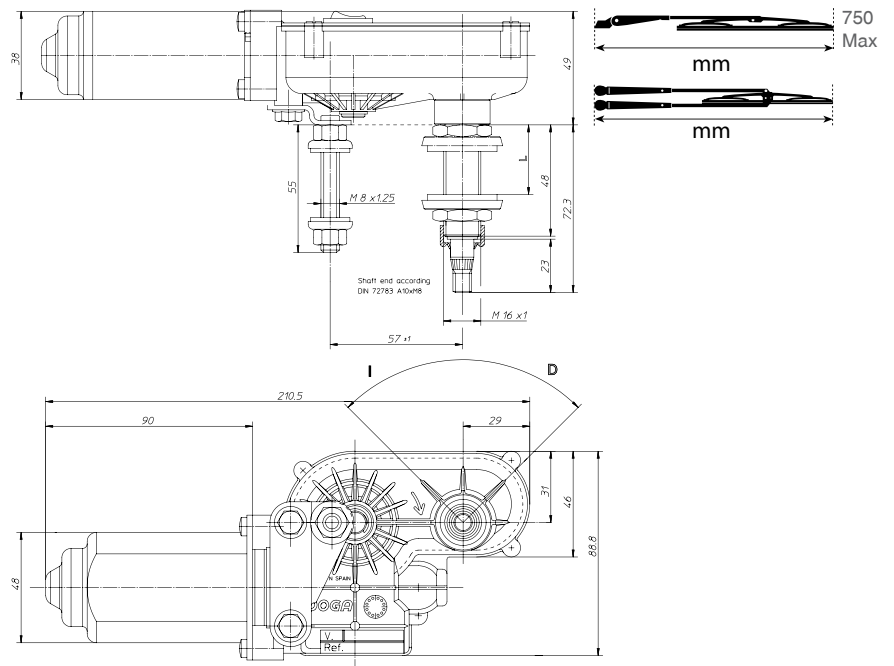


Rotational Speed: 50 RPM
 Nominal Torque: 10 Nm
 Stall Torque: 1.8 Nm
 Auto Park

Part No.	L mm	Wiping Angle	Shaft	R.P.M.	Switch on motor	Volts
31640642B*6	30	60°	M8	50	√	12
31640643B*6	30	60°	M8	50	√	24
31640652B*6	30	60°	M8	50	-	12
31640653B*6	30	60°	M8	50	√	24
31644642B*6	30	90°	M8	50	√	12
31644643B*6	30	90°	M8	50	•	24
31644652B*6	30	90°	M8	50	-	12
31644653B*6	30	90°	M8	50	-	24
31648642B*6	30	110°	M8	50	√	12
31648643B*6	30	110°	M8	50	√	24

* parking position, I = LEFT, D = RIGHT , RFI suppressed motors available on request.

Dimensions



Wiper Motors - Model 319

DOGA

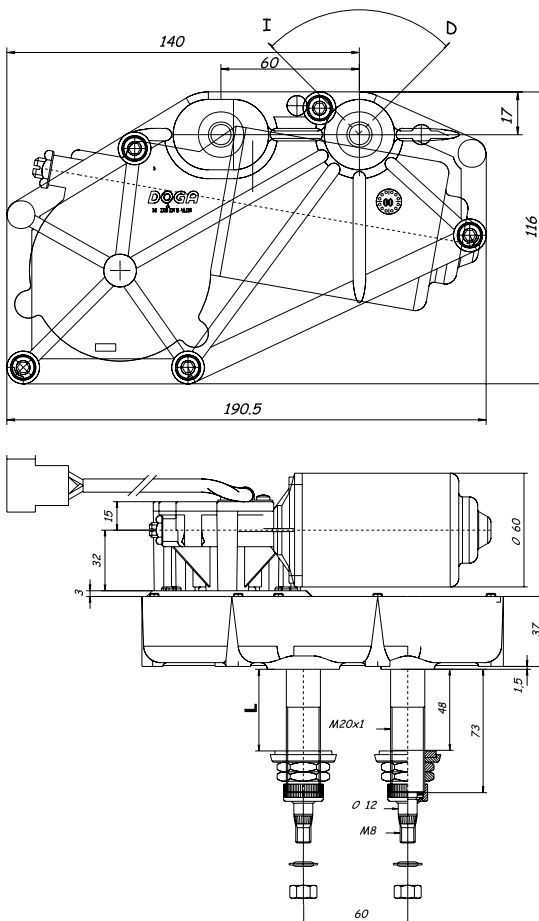


Rotational Speed: 34 RPM - Nominal Torque: 50 Nm - Stall Torque: 8 Nm

Part No.	L (mm)	Wiping Angle	2 Driving Shafts - mm	Cycles x m	Thermo-switch	Automatic park	Volts
31995252/3B*0	48	50°	M8	34	-	√	12/24
31995262/3B*0	48	60°	M8	34	-	√	12/24
31995272/3B*0	48	72°	M8	34	-	√	12/24
31995282/3B*0	48	80°	M8	34	-	√	12/24
31995292/3B*0	48	90°	M8	34	-	√	12/24
31995332/3B*0	48	50°	M8	34	-	√	12/24
31995342/3B*0	48	60°	M8	34	-	√	12/24
31995352/3B*0	48	72°	M8	34	-	√	12/24
31995362/3B*0	48	80°	M8	34	-	√	12/24
31995372/3B*0	48	90°	M8	34	-	√	12/24
31995542/3B*0	48	50°	M8	34	√	√	12/24
31995552/3B*0	48	60°	M8	34	√	√	12/24
31995562/3B*0	48	72°	M8	34	√	√	12/24
31995572/3B*0	48	80°	M8	34	√	√	12/24
31995582/3B*0	48	90°	M8	34	√	√	12/24
31995622/3B*0	48	50°	M8	34	√	√	12/24
31995632/3B*0	48	60°	M8	34	√	√	12/24
31995642/3B*0	48	72°	M8	34	√	√	12/24
31995652/3B*0	48	80°	M8	34	√	√	12/24
31995662/3B*0	48	90°	M8	34	√	√	12/24
31995882/3B*0	48	50°	M8	34/52	-	√	12/24
31995972/3B*0	48	60°	M8	34	√	√	12/24
31995982/3B*0	48	80°	M8	34	-	√	12/24
31995302/3B*0	68	90°	M8	34	-	√	12/24
31995382/3B*0	68	90°	M8	34	-	√	12/24
31995592/3B*0	68	90°	M8	34	√	√	12/24
31995672/3B*0	68	90°	M8	34	√	√	12/24

* parking position, I = LEFT, D = RIGHT, 2 = 12V and 3 = 24V.
RFI suppressed motors available on request.

Dimensions



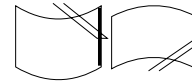
Wiper Arms - To Suit Model 111

DOGA



Part No.	L (mm)	Shaft	With nozzle
1231001GA06	500	M8	√
1231002GA06	600	M8	√
1231005GA06	700	M8	√
1240104GA06	500	M8	-
1240103GA06	600	M8	-
1240102GA06	700	M8	-

Wiping Area



Extendable Wiper Arms - To Suit Model 316

DOGA



Part No.	L Adaptable (mm)	Shaft
1204501GAR6	340-420	M8
1204510GAR6	430-500	M8

Wiping Area



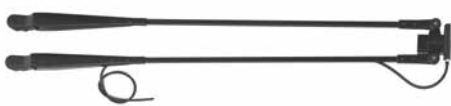
Part No.	L Adaptable (mm)	Shaft
1210901GA 6*	340-420	M8
1210910GA 6*	430-500	M8

Wiping Area



Extendable Wiper Arms - To Suit Model 319

DOGA



Part No.	L (mm)	Shaft	With nozzle
1280303GA06	700	M8	√
1280305GA06	800	M8	√
1280307GA06	900	M8	√
1280309GA06	1000	M8	√

Wiping Area



Wiper Blades - To Suit Model 111

DOGA



Part No.	L (mm)
1361650BA06	500
1361660GA06	600
1361770GA06	700

Wiper Blades - To Suit Model 316

DOGA



Part No.	L Adaptable (mm)	Shaft
1340328BA06	280	340-420
1340335BA06	350	340-420
1340340BA06	400	430-500
1340345BA06	450	430-500
1340350BA06	500	430-500

Wiper Blades - To Suit Model 319

DOGA



Part No.	L (mm)
1362080GA06	800
1362090GA06	900
1362010GA06	1000