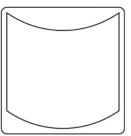
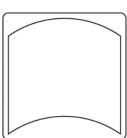


Presenting the latest in single-motor, double-driver wiper technology!

AM Equipment's 2D Wiper System is built for superior durability. SAE tested to over 2.1 million cycles.

- Needle bearings and Igus link bushings for minimal energy loss to friction.
- 35Nm dynamic park 2-speed motor with RFI/EMI suppression.
- FMVSS Compliant.
- System installation requires no secondary adjustments.
- Integrated knurl on pivot shafts.



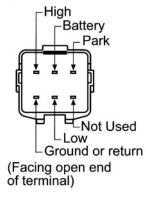


Top Mount

Bottom Mount

Stainless Steel shafts and seals to IP55 available

Wiring terminal for *dynamic park* applications:



1	Available System Options			
ľ	Power	Available in 12 or 24 Volt configurations		
	Sweep Angles	Pantograph patterns from 50 to 90 degrees*		
	Pivot Shafts	73mm		
Arms		Standard or Heavy Duty Double Driver		

^{*} Sweep limited to 80 degrees with heavy duty arm







High-efficiency 35Nm 2-speed motor with RFI/EMI suppression



US Patent #11/440.608

17mm pivot shafts provide improved torsional rigidity



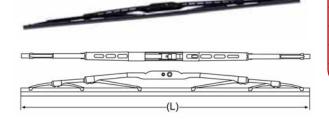
30mm pivot body provides improved mounting strength

APPLICATIONS

- Bus & Coach
- Rail
- Marine
- Industrial Cab
- Commercial Vehicles
- Agricultural Vehicles



- Stainless Steel also available
- EFEX Thermoplastic-coated spring for superior corrosion resistance.
- Compression spring tension is custom calibrated for each application.
- · UV stabilized composites.
- · Internally routed washer hose is hidden from view and reduces snagging.
- Integrated spray nozzle distributes fluid in an even spray pattern.
- · Galvanised with black powdercoat.
- · Flexible for flat or curved screens.



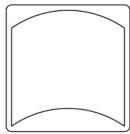
Blade Chart			
Length	Part #		
500mm	302-1200*		
550mm	302-1220*		
600mm	302-1240*		
650mm	302-1260*		
700mm	302-1280*		
800mm	302-1320*		
900mm	302-1360		
1000mm	302-1400		

Requires an adaptor for use with 2D Heavy Duty arms

Available Arm Options	
Length	560mm to 910mm (10mm increments)
Bend Angle	0 - 30 degree bends (1 degree increments)
Bend Direction	Left hand and right hand bends
Washer	Wet or dry
Blades	Framed Blades to 1300mm
Mounting	Heavy duty16mm spline interface
Upgrades	Stainless steel extensions available

Arm Length Chart						
mm	inch	mm	inch	mm	inch	
560	22	680	27	810	32	
570		690		820		
580	23	700		830		
590		710	28	840	33	
600		720		850		
610	24	730	29	860	34	
620		740		870		
630	25	750		880		
640		760	30	890	35	
650		770		900		
660	26	780	31	910	36	
670		790				
		800				

PANTOGRAPH



Dual Driven









Service back feature for easy blade changes



Integrated dual fan spray nozzle distributed fluid in an even pattern

- Bus & Coach
- Rail
- Marine
- Industrial Cab
- Commercial Vehicles
- Agricultural Vehicles

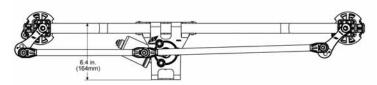
Two Pivot Radial Wiper System





- · Unique tubular tandem radial wiper system.
- Supports up to 30" (760mm) arms and 32" (800mm) blades.
- · Sweep angles available from 73" to 106".
- · Configurable for the majority of cap designs.
- · Stringer angles made to accommodate cap radius.
- · Exceeds SAE standard durability tests.
- Tubular steel stringer available from 15.5" (394mm) to 48" (1220mm) in centre to centre length.
- Adjustable support bracket.
- Cast steel motor-mount bracket can be positioned in different locations to circumvent obstacles.
- Bigger, stronger 17mm pivot shaft with needle bearings and cast aluminium housing.
- Cast steel pivot shaft lever and drive arm provide better control and minimize pattern growth.
- Stacking delrin link ends fit 16mm spherical bearings and cast aluminium housing.
- Disc mounting system allows ease of installation and minimizes distortion of fibreglass cap.
- 3.6" (91.5mm) self-adjusting inner support disc adapts to manufacturers' variations in cap radius.
- 3.84" (97.5mm) outer disc incorporates bulkhead fitting for cleaner appliances.
- Powered by a heavy-duty 38Nm dynamic park motor for less amp draw.
- · Available in 12V or 24V and low or high side switched.

15.5 in. to 48 in. (394mm to 1220mm) Configurable Center to Center Length 4.5 in. (113mm)



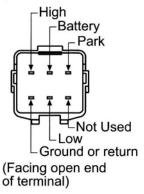
Pivot Body Diameter: 28.6mm

APPLICATIONS

- Bus & Coach
- Rail
- Marine
- Industrial Cab
- Commercial Vehicles
- Agricultural Vehicles

Wiring terminal for *dynamic park* applications:

Patents Applied For



2P

Radial Hookslot Arms

- For use with 2P tandem radial wiper system.
- · Hookslot connector for quick blade installation.
- · Heavy duty design.
- "Three-tower" adjustable washer nozzle.
- Available in 27" (685mm), 29" (735mm) and 30" (760mm) lengths.
- · Arm bend available in 16" and 33".

	Hookslot Arm	n with 16" Bend
Part #		Arm Length*
	345-0227	27" (685mm)
	345-0229	29" (735mm)
	345-0230	30" (760mm)

	Hookslot Arm with 33" Bend		
	Part #	Arm Length*	
	345-0127	27" (685mm)	
	345-0129	29" (735mm)	
	345-0130	30" (760mm)	

* Arm length is measured from centre of installed blade to centre of pivot shaft mounting hole.



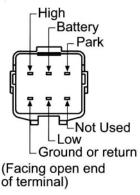
Frameless Blades

- · For use with hookslot style arm.
- Aerodynamic, lightweight one-piece design.
- Corrosion resistant all-season blade.
- Available in up to 32" (800mm) lengths

238 Series Motor

- 38 Nm.
- SAE standard durability tested.
- Compact size will retrofit into existing space.
- · Standard RFI suppression.
- Water-resistant motor and plug connectors.
- · Dynamic park.
- Available in 12V or 24V.
- · Available in low or high side switched.
- · A variety of pigtail adapter cords available.

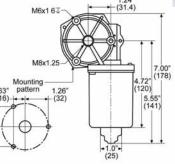
Wiring terminal for *dynamic park* applications:

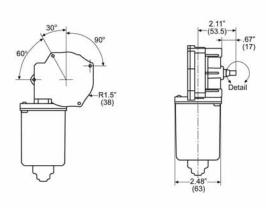


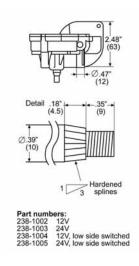
APPLICATIONS

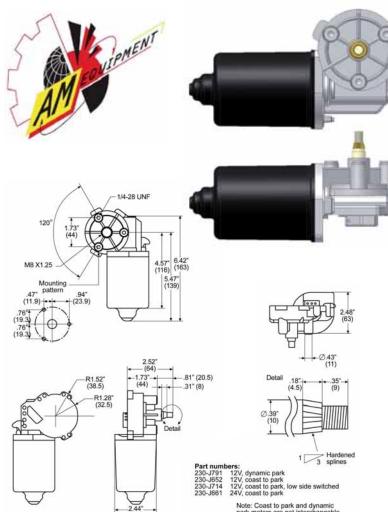
- Rail
- Industrial Cab
- Commercial Vehicles
- Agricultural Vehicles







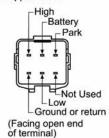


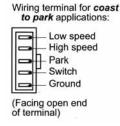


WJ Replacement 230 Series Left Hand Motor

- 38 Nm.
- · SAE standard durability tested.
- · Will retrofit into existing WJ applications.
- Standard RFI suppression.
- Water-resistant motor and plug connectors.
- Available in dynamic park or coast to park.
- Available in 12V or 24V.
- · Available in low or high side switched.
- A variety of pigtail adapter cords available.

Wiring terminal for *dynamic* park applications:





(25), 2" (50) or 3" (75)

1.14" (29)

.59" (15)

212 Series Oscillating Wiper Motor

- 12 Nm.
- Available in 65", 85", 100" or 110" sweep angles.
- Configurable for clockwise or counterclockwise park by changing the terminal location in the mating wiring harness.
- Standard RFI suppression and circuit breaker.
- 1" (25mm), 2" (50mm) and 3" (75mm) pivot shaft lengths available.
- · Brass pivot body.
- · Stainless steel pivot shaft.
- · Marine grade specifications.
- · Available in 12V and 24V.

APPLICATIONS

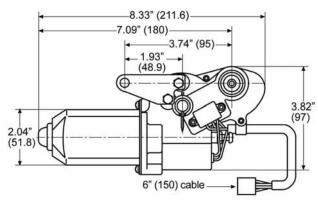
- Marine
- Industrial Cab
- Agricultural Vehicles

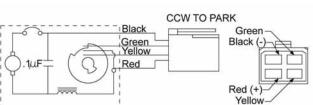
1.5"

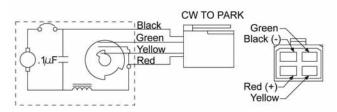


style arm mounting

M16x1— (approx. 5/8")







Sweep angle Angle

Mating block #317-1065
Mating terminals #317-1055
CCW to park

CW to park

WC (-) = park
(-) = ground
(+) = battery

Parts included with	
212 motor listed beli	WC
for replacement.	





C	# 407-1066 Stainless washer
41.0	4E 4040

315-1010 Hardware kit includes:

407-1065 # 407-1067 # 407-1066

1	Terminal	Rated voltage	12V/24V	
l	Voltage	Test voltage	13.5V/27.0V	
ĺ	No Load	Current	2.5 Max/1.25A	
ı		Start voltage	10V Max	
		Temp. rise	40°C Max	
I	Load	Oper. speed	40-45 CPM	
l		Current	4A Max/2.0A	
ĺ	Lock	Torque	12 ± 1Nm	
		Current	15 ± 0.5A	

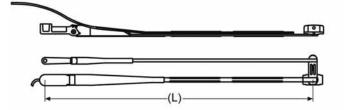
12V Motors					
Part #	Shaft Iength	Sweep angle	Max arm/blade*		
212-2003	1" (25mm)		18" (460mm)/		
212-2203	2" (50mm)	110°	18" (460mm)		
212-2403	3" (75mm)		18 (460mm)		
212-2002	1" (25mm)		19" (480mm)/ 19" (480mm)		
212-2202	2" (50mm)	100°			
212-2402	3" (75mm)				
212-2001	1" (25mm)		20" (500mm)/		
212-2201	2" (50mm)	85°			
212-2401	3" (75mm)		20" (500mm)		
212-2000	1" (25mm)	65°	00" (FF0mm)/		
212-2200	2" (50mm)		22" (550mm)/		
212-2400	3" (75mm)		22" (550mm)		

24V Motors (Special Order)					
Part #	Shaft Iength	Sweep angle	Max arm/blade*		
212-2103	1" (25mm)		18" (460mm)/		
212-2303	2" (50mm)	110°	18" (460mm)		
212-2503	3" (75mm)		16 (46011111)		
212-2102	1" (25mm)		19" (480mm)/ 19" (480mm)		
212-2302	2" (50mm)	100°			
212-2502	3" (75mm)				
212-2101	1" (25mm)		20" (500mm)/		
212-2301	2" (50mm)	85°			
212-2501	3" (75mm)		20" (500mm)		
212-2100	1" (25mm)	65°	22" (550mm)/		
212-2300	2" (50mm)				
212-2500	3" (75mm)		22" (550mm)		

* WARNING: Maximum arm and blade length combinations are based upon 1.5oz. of pressure per inch of blade length (0.17N/cm). Applications may vary. Arms may be radial or pantograph.

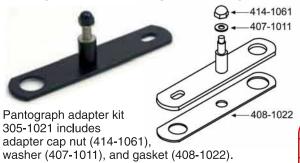
212 Series Pantograph Wiper Arms

- · Made of corrosion-resistant stainless steel flatwire.
- · Flip back for cleaning.
- Includes blade mounting bolt (402-1111) and nut (402-1112)





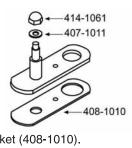
Pantograph adapter for mounting with through-bolt in fibreglass and glass



Pantograph adapter for mounting in metal with self-tapping screw



Pantograph adapter kit 305-1015 includes adapter cap nut (414-1061), washer (407-1011), and gasket (408-1010).

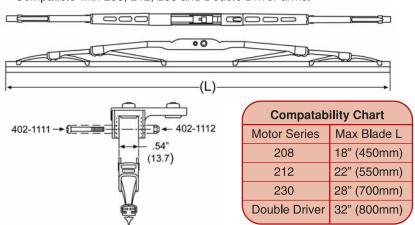


212 Pantog	graph arms, wet	212 Pantograph arms, dry		
Part #	Arm Length (L)	Part #	Arm Length (L)	
341-3140	14" (355mm)	341-1140	14" (355mm)	
341-3150	15" (380mm)	341-1150	15" (380mm)	
341-3160	16" (405mm)	341-1140	16" (405mm)	
341-3170	17" (430mm)	341-1170	17" (430mm)	
341-3180	18" (455mm)	341-1180	18" (455mm)	
341-3190	19" (483mm)	341-1190	19" (483mm)	
341-3200	20" (508mm)	341-1200	20" (508mm)	
341-3210	21" (533mm)	341-1210	21" (533mm)	
341-3220	22" (559mm)	341-1220	22" (559mm)	

Standard Flex Wiper Blades



- · Flexible for flat or curved glass.
- Refillable moulded wiper elements.
- Galvanised, powder coated frames for corrosion resistance.
- · Compatible with 208, 212, 230 and Double Driver arms.



Part #	Arm Length*
302-1120	12" (300mm)
302-1130	13" (330mm)
302-1140	14" (350mm)
302-1150	15" (380mm)
302-1160	16" (400mm)
302-1170	17" (430mm)
302-1180	18" (450mm)
302-1190	19" (480mm)
302-1200	20" (500mm)
302-1210	21" (530mm)
302-1220	22" (550mm)
302-1240	24" (600mm)
302-1260	26" (650mm)
302-1280	28" (700mm)
302-1320	32" (800mm)

230 Series Standard Left Hand Unitized Assembly

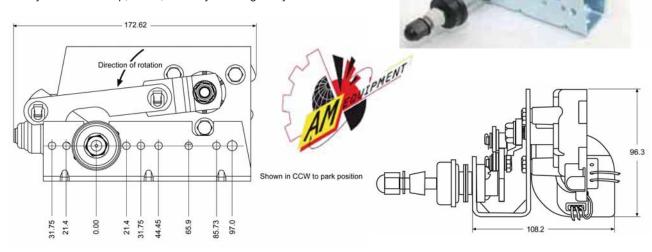
APPLICATIONS

Commercial Vehicles

Agricultural Vehicles

Rail Industrial Cab

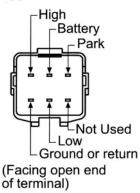
- Sweep angles available from 36° to 118°.
- Drives arms and blades up to 28" (700mm).
- · Configurable for radial or pantograph arms.
- Available in 12V and 24V.
- · Powerful, adaptable bolt-on unit.
- · May be mounted up, down, sideways or diagonally.



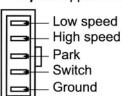
230 Series Standard Left Hand Motor

- 30Nm.
- · SAE standard durability tested.
- · Compact size will retrofit into existing space.
- · RFI suppression standard.
- · Water-resistant motor and plug connections.
- Available in dynamic park or coast to park.
- Available in 12V or 34V.
- · Available in low or high side switched.
- · A variety of pigtail adapter cords available.

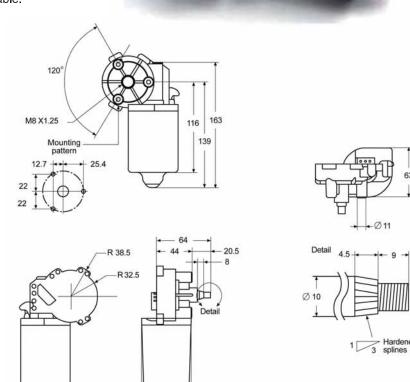
Wiring terminal for dynamic park applications:

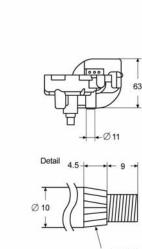


Wiring terminal for coast to park applications:



(Facing open end of terminal)





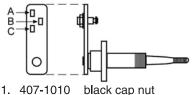
230 Series Hardware





230 Series Pin-Type Pivot Shafts

- 17.3mm shaft body diameter fits into 19mm bulkhead hole.
- · Lengths determined by "A" reference dimension of shaft body.
- Three pin slots for different sweep angles (A, B and C).
- Stainless steel shaft and components for corrosive environments.
- * All hardware numbered below is included in your shaft assembly order and is available individually.



407-1010 black cap nu
 407-1023 lockwasher
 407-1002 kpurl

3. 407-1002 knurl

4. 407-1017 rubber cap*

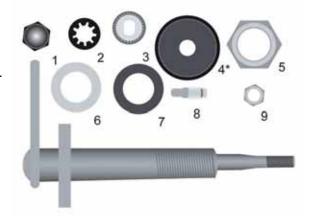
5. 407-1007 nut

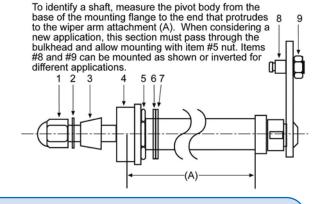
6. 407-1015 metal washer7. 407-1012 rubber washer

3. 407-1005 pin

9. 414-1124 locknut

* Optional 25.4 inside height rubber cap #407-1072





Complete Shaft Assemblies		
304-1200	16mm	
304-1201	25mm	
304-1202	32mm	
304-1203	51mm	
304-1204	64mm	
304-1205	76mm	

Q How do i determine what shaft length I need?

A Measure the thickness of material the shaft must pass through on the vehicle. Add on 10mm for the outside holding nut and washers. If pantograph arms are used, add another 10mm. Add the measurements and use the next longer shaft.

Example: 12mm steel plate vehicle bulkhead + 10mm + nut and washers + 10mm pantograph = 32mm ~ means you would need the 50mm shaft. The stated shaft length is never the overall length, rather it refers to the portion of the shaft that passes through the vehicle (dimension A).

Double Arm Wiper Assembly

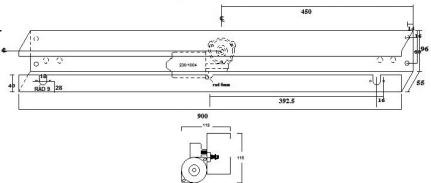
The Prime double arm assembly consists of a single motor mounted on a galvanised channel. The motor operates two arms and blades via linkages contained within the channel.

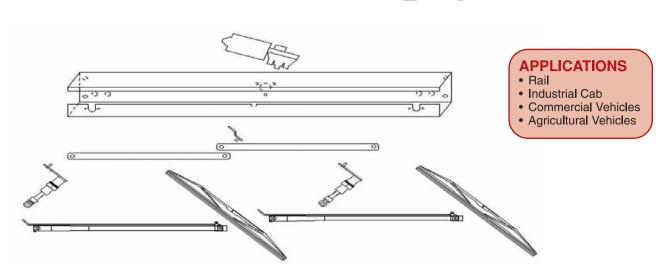
All that is required is drilling of holes, fitting the assembly and adding the arms and blades



Features

- · Modular design allows easy fitting without further assembly.
- Parks away from drivers line of vision.
- Above ground motor is ideal for diesel-electric applications.
- · Cost effective.
- · Maximum screen coverage.
- 12 or 24 Volt available (24V standard).
- 3 assembly sizes available.
- No hand access to moving parts.
- Internal circuit breaker.





Technical Features per Screen Assembly		
Available voltage	DC:12-24	
Starting torque	30Nm	
Cycles per minute (Nominal)	40 on low, 55 on high	
Operating current draw (no load)	0.4 amps on low, 7 amps on high @ 27 VDC (no load)	
Stall current draw	9.3 amps on low, 11.0 amps on high @ 27 VDC	
Pivot shaft centres	485mm, 785mm or 890mm	
Self Parking	Right or left	

230 Series Radial and Pantograph Wiper Arms

- Made of corrosion-resistant stainless steel flatwire.
- * Pantograph arms require a pantograph adapter and bridge.
- **On all arms, specify length and wet or drv.





Radial Arms, Dry			
Part #	Length L		
301-0140	14" (355mm)		
301-0150	15" (380mm)		
301-0160	16" (405mm)		
301-0170	17" (430mm)		
301-0180	18" (455mm)		
301-0190	19" (485mm)		
301-0200	20" (510mm)		
301-0210	21" (535mm)		
301-0220	22" (560mm)		
301-0230	23" (585mm)		
301-0240	24" (610mm)		
301-0250	25" (635mm)		
301-0260	26" (660mm)		
301-0270	27" (685mm)		
301-0280	28" (710mm)		

Pantograph Arms, Dry			
	Arm Length L/		
Part #	Bridge Width W		
301-1140	14" (355mm) / 1.25"		
301-1150	15" (380mm) / 1.25"		
301-1160	16" (405mm) / 1.25"		
301-1170	17" (430mm) / 1.25"		
301-1180	18" (455mm) / 1.25"		
301-1190	19" (485mm) / 1.25"		
301-1200	20" (510mm) / 1.25"		
301-1210	21" (535mm) / 1.25"		
301-1220	22" (560mm) / 1.25"		
301-1230	23" (585mm) / 1.25"		
301-1240	24" (610mm) / 1.25"		
301-1250	25" (635mm) / 1.25"		
301-1260	26" (660mm) / 1.25"		
301-1270	27" (685mm) / 1.25"		
301-1280	28" (710mm) / 1.25"		
301-2240	24" (610mm) / 1.75"		
301-2250	25" (635mm) / 1.75"		
301-2260	26" (660mm) / 1.75"		
301-2270	27" (685mm) / 1.75"		
301-2280	28" (710mm) / 1.75"		



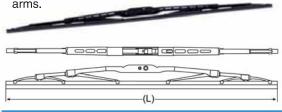


Radial Arms, Wet			
Part #	Length L		
301-7140	14" (355mm)		
301-7150	15" (380mm)		
301-7160	16" (405mm)		
301-7170	17" (430mm)		
301-7180	18" (455mm)		
301-7190	19" (485mm)		
301-7200	20" (510mm)		
301-7210	21" (535mm)		
301-7220	22" (560mm)		
301-7230	23" (585mm)		
301-7240	24" (610mm)		
301-7250	25" (635mm)		
301-7260	26" (660mm)		
301-7270	27" (685mm)		
301-7280	28" (710mm)		

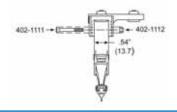
Pantograph Arms, Wet			
	Arm Length L/		
Part #	Bridge Width W		
301-3140	14" (355mm) / 1.25"		
301-3150	15" (380mm) / 1.25"		
301-3160	16" (405mm) / 1.25"		
301-3170	17" (430mm) / 1.25"		
301-3180	18" (455mm) / 1.25"		
301-3190	19" (485mm) / 1.25"		
301-3200	20" (510mm) / 1.25"		
301-3210	21" (535mm) / 1.25"		
301-3220	22" (560mm) / 1.25"		
301-3230	23" (585mm) / 1.25"		
301-3240	24" (610mm) / 1.25"		
301-3250	25" (635mm) / 1.25"		
301-3260	26" (660mm) / 1.25"		
301-3270	27" (685mm) / 1.25"		
301-3280	28" (710mm) / 1.25"		
301-4240	24" (610mm) / 1.75"		
301-4250	25" (635mm) / 1.75"		
301-4260	26" (660mm) / 1.75"		
301-4270	27" (685mm) / 1.75"		
301-4280	28" (710mm) / 1.75"		
	· '		

Standard Flex Wiper Blades

- Flexible for flat or curved glass.
- Refillable moulded wiper elements.
- Galvanised, powder-coated frames for corrosion resistance.
- Compatible with 208, 212, 230 and Double driver arms



Compatability Chart		
Motor Series	Max Blade L	
208	18" (450mm)	
212	22" (550mm)	
230	28" (700mm)	
Double Driver	32" (800mm)	

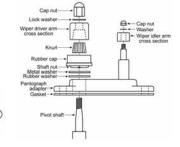


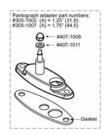
Part #	Blade Length L
302-1120	12" (300mm)
302-1130	13" (335mm)
302-1140	14" (355mm)
302-1150	15" (380mm)
302-1160	16" (405mm)
302-1170	17" (430mm)
302-1180	18" (455mm)
302-1190	19" (485mm)
302-1200	20" (510mm)
302-1210	21" (535mm)
302-1220	22" (560mm)
302-1240	24" (610mm)
302-1260	26" (660mm)
302-1280	28" (710mm)
302-1320	32" (800mm)

230 Series Pantograph Adapters

 Allows the use of a pantograph wiper arm (double arm) on the 230 series unitised assembly.





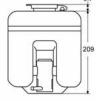


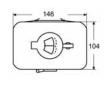
2 Litre Washer Bottle

- · Available in 12V or 24V.
- Metal spade bracket mount on backside of bottle.
- Snap on lid.
- Uses 4mm inside diameter hose.
- 6.35mm terminals in "T" connector.
- Packaged individually.
- · Conforms to SAEJ924B testing.

* For 12V use part # 312-1038 **For 24V use part # 312-1039.









Pump amp draw: Open line - 4.1 amps Blocked line - 2.8 amps

Recommended pump circuit protection 12V - 5 amps 24V - 3 amps

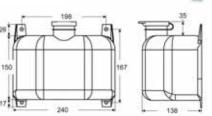
4 Litre Washer Bottle

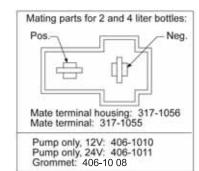
- · Available in 12V or 24V.
- 4-point surface mount.
- · Snap on lid.
- · Uses 4mm inside diameter hose.
- 6.35mm terminals in "T" connector.
- Pressure leak tested.
- · Packaged individually.
- · Conforms to SAEJ924B testing.

* For 12V use part # 312-1035

**For 24V use part # 312-1036







10 Litre Washer Bottle

- Available in 12V or 24V.
- Configurable for 1, 2 or 3 pumps.
- Multiple point surface mounting holes.
- · Snap on lid.
- · Uses 4mm inside diameter hose.
- 6.35mm terminals in "T" connector.
- Pressure leak tested.
- · Packaged individually.



Pump amp draw: Open line - 4.1 amps Blocked line - 2.8 amps

Recommended pump circuit protection

12V - 5 amps 24V - 3 amps

zonag	jou marvidually.	
	445	Mate terminal housin Mate terminal: 317-
Ϋ́		

Τ	220	
	0	0 27.5
333		50
	100 100	25 43



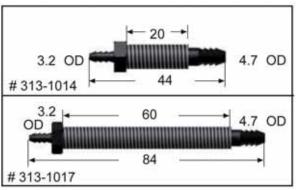
ng: 317-1056

Part #	Volts	# of Pumps
312-1201	12	1
312-1202	12	2
312-1203	12	3
312-2401	24	1
312-2402	24	2
312-2403	24	3

Pump only - 12V: 406-1010 Pump only - 24V: 406-1011 Grommet: 406-1008

Bulkhead Fittings and Hose Connectors

· Brass fittings to pass washer fluid through various bulkhead thickness.









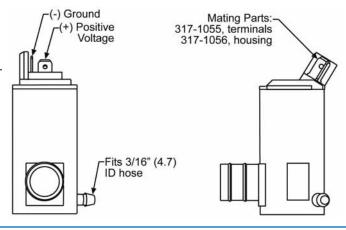


313-1025 90° Bulkhead fitting, 20mm

Pumps

- Available in 12V and 24V.
- Delivery volume (with free flow rate): 135mL displaced during 3 seconds of actuation.
- Delivery pressure of 30psi (2.11 kgf/cm²).

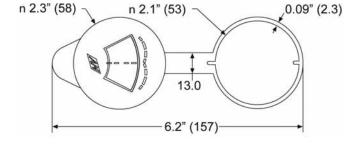
Part # 406-1010 12V Pump Part # 406-1011 24V Pump



Lid

· Made of plastic.

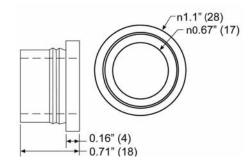
Part # 406-1009 Washer Bottle Lid



Grommet

Made of EPDM.

Part # 406-1008 Washer Bottle Grommet



LP Series

Marine Windscreen Wipers

APPLICATION: Prime LP Series marine windscreen wipers are used wherever corrosion resistance is required.

ADVANTAGES:

- 12 or 24 Volt.
- · Low current draw.
- · Quick and easy to install.
- · Adjustable arm keeps inventory to a minimum.
- · Wipe angle easily adjustable even after installation.
- · Full system capability.
- · 42Nm starting target.
- · Self parking, left or right.
- CE certified.

APPLICATIONS

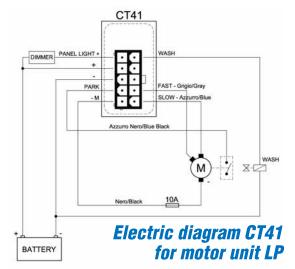
- Marine
- Industrial Cab
- Agricultural Vehicles

The motor and bracket assembly generates the alternating movement of the wiper arm via cranks and a linkage arrangement.

The motor has a high starting torque, two speed capability and an internal self parking device, which returns the arm and blade to the same position each time the unit is switched off, provided the correct switch is installed.

The arm length, park position and wiping angle can easily be changed, even after installation, without the need to remove the assembly from the vessel.

Туре	For Wall Thi	ckness	Voltage
LP1220	20mm ± 5mm		12V
LP1240	40mm ± 8		12V
LP1260	60mm ± 5	5mm	12V
LP1280	80mm ± 5	ōmm	12V
LP12100	100mm ±	5mm	12V
LP2420	20mm ± 5	ōmm	24V
LP2440	40mm ± 5	ōmm	24V
LP2460	60mm ± 5mm		24V
LP2480	80mm ± 5mm		24V
LP24100	100mm ± 5mm		24V
Available Rat	ed Voltage DC: 12V & 24		IV
Power Consumption		Nominal: 85V	V on high (no load)
Wiping Angle Available		From 40 to 90 degrees	
Starting Torque		42Nm	
Cycles per Minute (Nominal)		70-90 (withou	ıt load)
Length of Threaded Bushing		For wall thick	ness 20-100 ± 5mm
Weight		3.3Kg	





LP Series	P/N	Length	Saddle Width
Pantograph arm	L97P	Adjustable from 550-800mm (supplied @800)	16mm
Radial arm	L97F	Adjustable from 550-800mm (supplied @800)	16mm
Blade 500mm	BH500	500mm	Suit 16mm Saddle
Blade 550mm	BH550	550mm	Suit 16mm Saddle
Blade 600mm	BH600	600mm	Suit 16mm Saddle
Blade 650mm	BH650	650mm	Suit 16mm Saddle
Blade 700mm	BH700	700mm	Suit 16mm Saddle
Blade 800mm	BH800	800mm	Suit 16mm Saddle

E Series



Marine Windscreen Wi

APPLICATION: Speich Nautic marine win are used wherever corrosion resistand

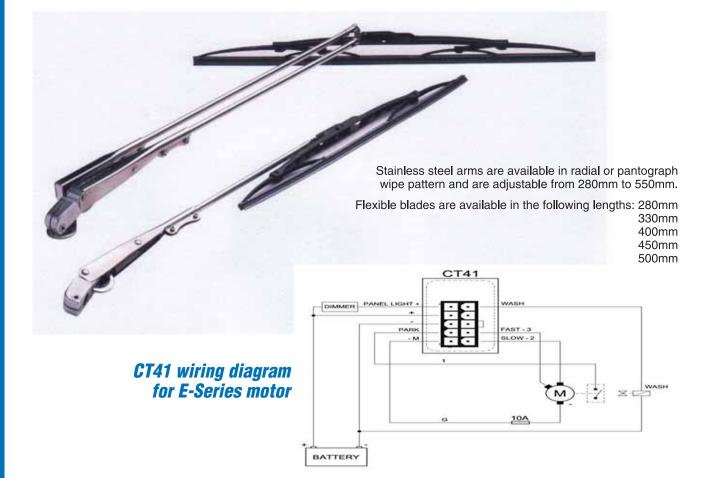
ADVANTAGES:

- 12 or 24 Volt.
- · Low current draw.
- · Quick and easy to install.
- · Adjustable arm keeps inventory to a minimum.
- Wipe angle easily adjustable.
- · Full system capability.
- CE certified.

ipers ndscreen wipers	0
ce is required.	0
-	APPLICATIONS

- Marine
- Industrial Cab
- Agricultural Vehicles

Туре	For Wall Thi	ckness	Voltage
E1238	5-12m	m	12V
E1264	15 - 35m	nm	12V
E1290	38 - 60m	nm	12V
E2438	5-12mm		24V
E2464	15-35mm		24V
E2490	38-60mm		24V
Available Rated Voltage		DC: 12V & 24V	
Power		Nominal: 40W on high speed (no load)	
Wiping Angle Available		40, 50, 60, 70, 80, 90, 100 & 110 degrees	
Starting Torque		10Nm	
Cycles per Minute (Nominal)		40 fitted with 550mm arm + 510mm blade	
Length of Threaded Bushing		For wall thick	ness 12-35-60mm
Weight		1.2Kg	

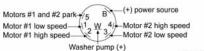


Wiper Switches

- 2 speed.
- Twist knob.

#311-1017

- To operate two coast to park motors.
- · Push-to-wash.
- Without circuit breaker.

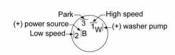




Ground the motor and washer pump

#311-1022

- · To operate one coast to park motor.
- · Push-to-wash.
- Internal circuit breaker.

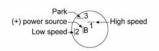




*Ground the motor and the washer pump

#311-1023

- To operate one coast to park motor.
- Without circuit breaker.

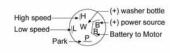






#311-1019

- · To operate one dynamic park motor.
- Push-to-wash.
- · Without circuit breaker.

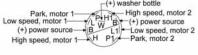




*Ground the motor and washer pump

#311-1030

- To operate two dynamic park motors.
- · Push-to-wash.
- · Without circuit breaker.





*Ground the motors and washer pump

Note: Coast to park and dynamic park switches are not interchangable

Delay Switches

- · 2 speed, intermittent delay.
- Twist knob.
- · Die-cast.
- Push to wash feature 3 wipes after release of button.

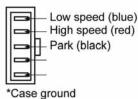
#311-1006

- Operates one 12V dynamic park or coast to park motor.
- Operating range: 9VDC-16VDC.
- Rotary switch and push switch actuation: 20k cycles min.
- Motor drive" 15A per motor continuous, washer circuit: 3A.
- · Short circuit proof.
- · Microprocessor controlled, solid state relay, current limit sense circuit, reverse polarity protected.
- * Ground the motor and washer pump.

Switch connector - Coast to park motors

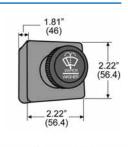
Yellow wire - low speed White wire - high speed Blue wire - park Black wire - case ground Red wire - pos. power source Brown wire - pos. washer pump

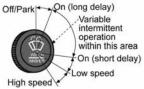
Coast to park motor connector



Dynamic park harness connector Battery + (red) Park (blue) High (white) - Isolated ground or return (black) Not used-Low (yellow)





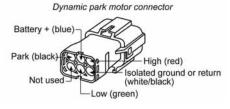


#311-1009

- Same as 311-1006, only operates one 24V motor.
- Operating range: 18VDC-32VDC.

Switch connector - Dynamic park motors

Yellow wire - low speed White wire - high speed Blue wire - park Black wire - ground Red wire - pos. power source Brown wire - pos. washer pump



Note: Coast to park and dynamic park switches are not interchangable

CT41

CT41 is a microcontroller based wiper control for operating one wiper motor; it provides all the functions for a proper windscreen cleaning.

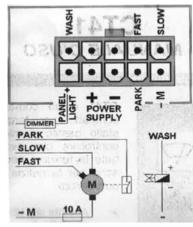
- Voltage supply: 12 or 24 Volt.
- It fits any DC motor (see output current) and any kind of parking switch.
- Three internal delays.
- Self parking with dynamic brake.
- · Wipe/wash program.
- Dimmer input.
- · Standard switch size compatible.
- Easy to install and to use.
- Reliable.

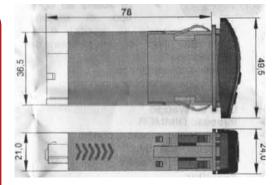
SPEICH CT41	
Voltage supply	10V to 30V DC
Protection	4 Amps PTC
Stand-by current	Less than 20 mA
Polarity inversion	Protected
Motor - output current	Single or double speed - 4 amps max
Input	1 parking switch (open in park position)
Input	Dimmer (connect to + supply if not used)
	1 slow speed - SLOW
Output	1 high speed - FAST (if 2 speed motors)
	1 wash pump (positive pole)
	3 intermittent settings
Functions	2 continuous speeds, slow and high speed
	Wash / wipe program
Connections	10 poles connector
Case	ABS black
Working temperature	-10°C / +50°C
Storage temperature	-20°C / +70°C





2

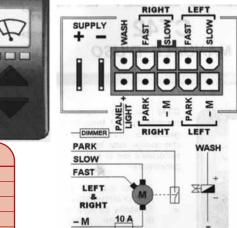


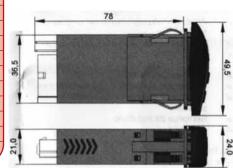


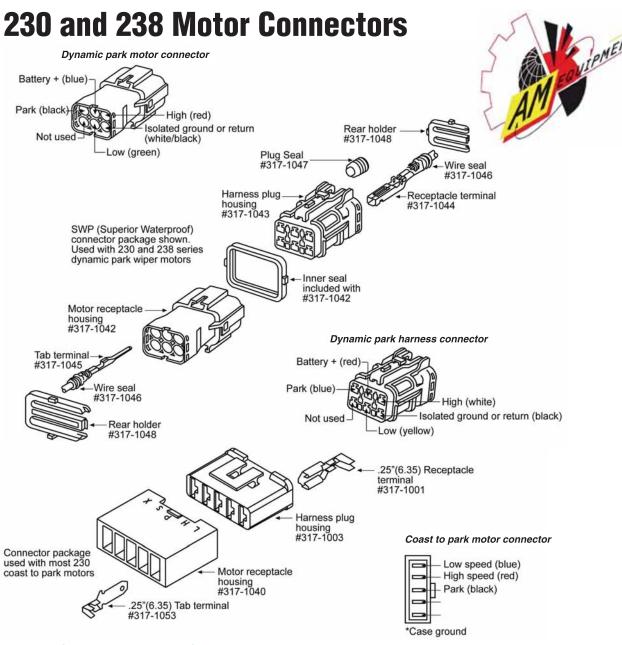
CT42

The same as CT41 but operates 2 motors in unison.

SPEICH CT42	
Voltage supply	10V to 30V DC
Protection	4 Amps PTC for each motor
Stand-by current	Less than 20 mA
Polarity inversion	Protected
Motor - output current	Single or double speed - each motor 4 amps max
Input	1 parking switch (open in park position)
Input	Dimmer (connect to + supply if not used)
	2 slow speed - L and R SLOW
Output	2 high speed - L and R FAST (if 2 speed motors)
	1 wash pump (positive pole)
	3 intermittent settings
Functions	2 continuous speeds, slow and high speed
	Wash / wipe program
Connections	10 poles connector - 2 male 6.3mm fast-on
Case	ABS black
Working temperature	-10°C / +50°C
Storage temperature	-20°C / +70°C







Which Switch Do I Need?

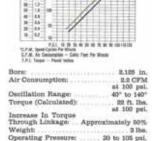
Motor #	2 Speed 1 Motor	2 Speed 2 Motors	Delay 1 Motor	Delay 2 Motors
E Series			CT41	CT 42
LP Series			CT41	CT42
212 Series	311-1022	311-1017	311-1006	311-1026
230-1001	311-1019	311-1030	311-1006	311-1027
230-1002	311-1022	311-1017	311-1006	311-1026
230-1003	311-1019	311-1030	311-1006	311-1028
230-1004	311-1019	311-1030	311-1009	311-1028
230-1005	311-1022	311-1017	311-1009	
230-1006	311-1019	311-1030	311-1009	311-1028
230-J791	311-1019	311-1030	311-1006	311-1027
230-J652	311-1022	311-1017	311-1006	311-1026
230 - J714	311-1022	311-1017	311-1006	311-1026
230 - J661	311-1022	311-1017	311-1009	311-1026
235/2D-1	311-1019	311-1030	311-1009	311-1028
238/2P Assembly	311-1019	311-1030	311-1009	311-1028
238-1002	311-1019	311-1030	311-1006	311-1027
238-1003	311-1019	311-1030	311-1009	311-1028
238-1004	311-1019	311-1030	311-1006	311-1027
238-1005	311-1019	311-1030	311-1009	311-1028

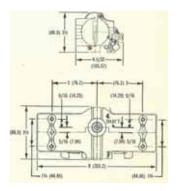
Air Push Motor

Here's the heavy-duty motor built to deliver powerful, dependable wiper action under severe operating conditions. Requires little maintenance. Designed for use with extra large windshields and for high speed travel. Non-corrosive castaluminium body with very few moving parts. Direct drive recommended generally for 25" arms, with 20" heavy duty blades. Additional power through linkage increases maximum to 32" arms and 25" blades. Arc or pantograph sweep pattern.

FEATURES:

- Greater torque for the largest arms and blades.
- · Smoother and quieter operation.
- · Less maintenance.
- · Longer life due to improved cylinder surfaces.
- · More road time, less down time.









APPLICATIONS

- Rail
- Industrial Cab
- Commercial Vehicles
- Agricultural Vehicles

HP-200 Air Wiper Motor



The Sprague HP-200 is the second in a series of a new generation of air wiper motors. Designed for high efficiency and dependability to provide long life performance for the most demanding wiper system.

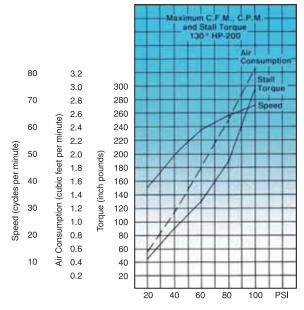
The HP-200 had been durability tested for a minimum of 4.5 million cycles and employs the same valving circuitry as the HP-100 which has been field tested and in production for many years.

To ensure that Sprague motors will deliver peak performance, every motor is pre-qualified by a cycling period and is 100% tested for wiper angle, speed, park position and internal and external leakage in addition, the shaft to gear welments and torque tested.

The HP-200 motor will replace Sprague Super Challenger and Air Push II Series motors, as well as some specific Trico systems.

FEATURES:

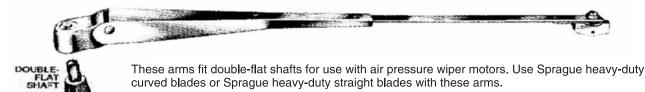
- Aluminium and zinc materials to add strength, durability, and less weight at 33oz.
- Only 4 moving parts for simplicity and maximum service life.
- · Rack and pinion power train for maximum strength.
- Simplified valving for positive reversal through pneumatic mechanical action.
- Delrin* and Teflon Acetyl internal valve parts for long life and resistance to contaminants.
- Intermittent wiper feature available.
- Available in 3/8" or 5/8" diameter motor shaft.
- * Trademark of DuPont Corporation



Heavy-Duty Wiper Arm

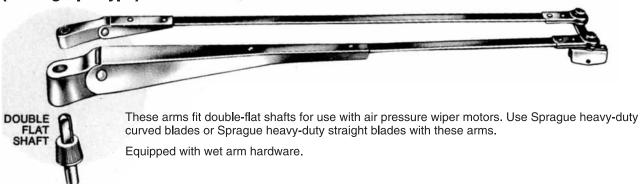
(Standard Arc Type)





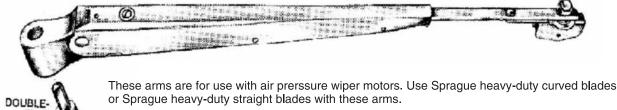
Sprague Heavy-Duty Wiper Arms

(Pantograph Type)

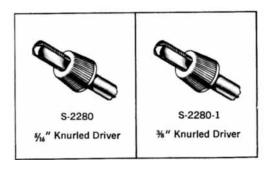


Medium-Duty Wiper Arms

(Adjustable Length Models)



Infinitely adjustable between length range.



Stainless Steel Flatwire Arms

Part #	Description	Length
C-1503-14	Arc Type Arm	355mm
C-1503-16	Arc Type Arm	405mm
C-1503-18	Arc Type Arm	460mm
C-1503-20	Arc Type Arm	510mm
C-1503-22	Arc Type Arm	560mm
301-1140	Pantograph Arm	355mm
301-1018	Pantograph Arm	405mm
301-1022	Pantograph Arm	430mm
301-1019	Pantograph Arm	460mm
301-1020	Pantograph Arm	510mm
310-1024	Pantograph Arm	560mm
301-1030	Pantograph Arm	610mm
301-1031	Pantograph Arm	670mm
LE10342	Adjustable Arc Type	330-480mm
LE10421	Adjustable Arc Type	260-390mm

Also suitable for use with AM Equipment 230 Series assemblies

Flat Blade





Flexible Blade



Stainless Steel Blades

Part #	Description	Length
C-1100-14	Flat Blade	355mm
C-1100-16	Flat Blade	405mm
C-1100-18	Flat Blade	460mm
C-1100-20	Flat Blade	510mm
C-1100-22	Flat Blade	560mm
C-1140-14	Flexible Blade	355mm
C-1140-16	Flexible Blade	405mm
C-1140-18	Flexible Blade	460mm
C-1140-20	Flexible Blade	510mm
C-1140-22	Flexible Blade	560mm

Suitable for use with 1/4" saddle arms

Sprague Pneumatic Washer Systems

Washer Kits & Accessories







Bulkhead Fittings



Econo #9 & Bracket



Econo #10

	Ec
	6-
1	GW-58 Pump

Econo #9	
Capacity	1 US Gallon
Round Reservoir	
Dimensions	6" Diam
	9.75" High
Bracket	GW7
Pump Assembly	GW58
Replacement Lid	GW123
Econo #10	
Capacity	3 US Quarts
Rectangular Reservoir	
Dimensions	5.5" Long x 4" Wide
	10.25" High
Bracket	GW85
Pump Assembly	GW58
Replacement Lid	GW123
Spray Kleer #15	
Capacity	5 US Gallons
Square Reservoir, Twin Outlets	
Dimensions	12" Long x 9" Wide
	13 1/16" High
Pump Assembly	GW58 - Two
Parts & Accessories	
Washer Control Valve	K2
Round Reservoir	W97
Rectangular Reservoir	W407
Hose 3/16"	W22
Hose 1/4"	W78
Nozzle Assembly	GW103-1
Nozzle Assembly	GW103
Thru Skin Connector	GW24
Thru Skin Connector	GW24-1



Heavy Duty Commercial Vehicle Range



Trico's brilliant new TBHD blades are the only true universal wiper blades made specifically for trucks and light commercial vehicles.

Available in 7 blade lengths from 400mm to 700mm.

Comprehensive range of adaptors included to cover 95% of trucks and light commecial vehicles.

100% natural rubber inserts.

The first true universal replacement wiper blades designed specifically for commercial vehicles.

High quality steel frame with 'dual electrostatic paint finish' for long life.

Range will assist in reducing inventory, increasing stock turns and reducing the risk of lost sales.



Trico TECH



Trico TECH uses advanced flexible beam blade technology to give

superior wiper performance and sleek look for your vehicle.





Rutton



Hook





Trico TECH is the next generation in flexible beam blade design, offering exceptional performance, durability and adaptability through the cleverly designed SWIFT™ Easy Connection Technology. All Trico TECH blades feature a UV stabilised, 100% natural rubber element which provides quiet operation and superior wipe quality. Trico TECH outshines all other blades in its category.

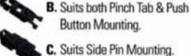
Trico TECH's patented SWIFT™ Easy Connection Technology provides a unique combination of simple part selection and ease of installation. The range consists of just 10 part numbers, so finding the right blade for any suitable vehicle is a breeze. Each Trico TECH blade is supplied with a range of multi-fit adapters, enabling fast and easy installation on hook, pinch tab, push button and side pin wiper arm mounts. The low profile off-set hook mounting adapter can be reversed to suit above or below arm mounting. The flexible mounting system is a major advance, making it possible for many older vehicles to be updated to the latest technology whilst maintaining a low profile and correct arm-to-screen pressure.

SPECIFICATIONS:

- · Frameless design.
- · Patented sprung steel beam.
- Swift easy connection technology.
- · UV stabilised for longer life.

SWIFT

SWIFT™ Easy Connection Technology provides a unique combination of simple part selection and ease of installation.



D. Suits all Hook Mount vehicles. Note: Low profile adaptor can be configured

to sit above or below the wiper arm

HOOK MOUNT ADAPTOR

- Reversible hook adaptor can be switched to suit 'above ' or 'below' arm mounting.
- Maintains correct arm attack angle for even pressure.
- Reduces wind lift at highway speeds.

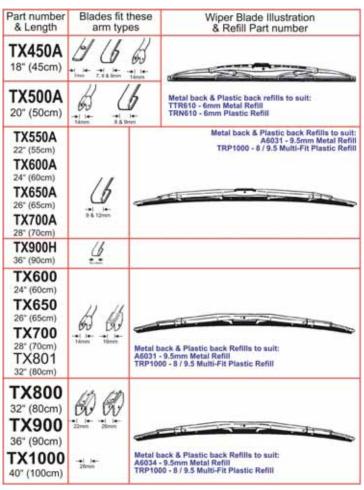


Part #	Description	Pack
TEC400	Trico TECH Beam Blade 400mm (16")	Single
TEC425	Trico TECH Beam Blade 425mm (17")	Single
TEC450	Trico TECH Beam Blade 450mm (18")	Single
TEC475	Trico TECH Beam Blade 475mm (19")	Single
TEC500	Trico TECH Beam Blade 500mm (20")	Single
TEC525	Trico TECH Beam Blade 525mm (21")	Single
TEC560	Trico TECH Beam Blade 560mm (22")	Single
TEC610	Trico TECH Beam Blade 610mm (24")	Single
TEC650	Trico TECH Beam Blade 650mm (26")	Single
TEC700	Trico TECH Beam Blade 700mm (28")	Single



TX Series Heavy Duty Wiper Blades





THD600 Series Heavy Duty Wiper Blades

P/N: 6151 = 51cm (20")

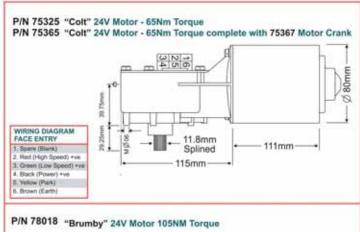


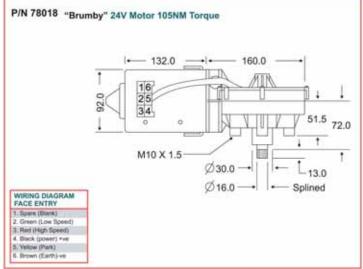


Electric Motors









APPLICATIONS

- Bus & Coach
- Rail
- Marine
- Industrial Cab
- Commercial Vehicles
- Agricultural Vehicles

Trico Premium Blade & Refill Merchandiser for Truck & LCV

New from Trico - Part # TRR-02HD

Australia's first '1-stop-shop' for fast moving commercial vehicle wiber blades & refills,

Trico's new ultra compact merchandiser rack is just 460mm wide and can be mounted on peg board or fixed directly to a wall.

Featuring Trico's brilliant new 'TB-HD' blade range with comprehensive adaptor package.

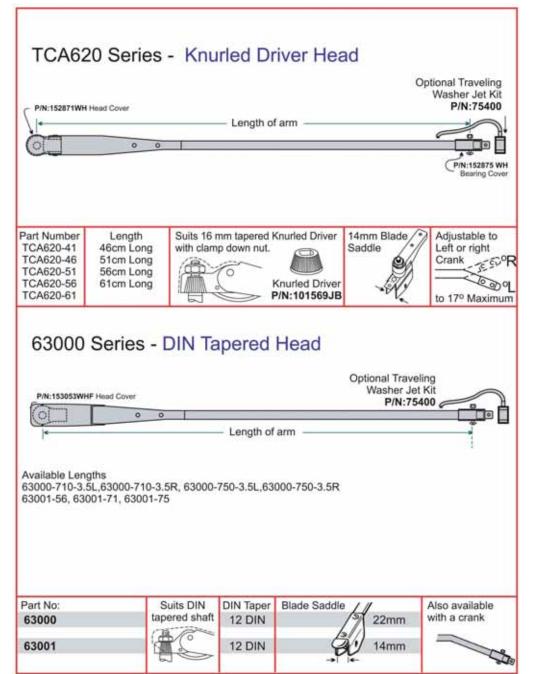
STOCK INCLUDED:

- 1 x TTR610-20 Twin Rail 6mm refills (PK20).
- 1 x TTR710-10 Twin Rail 8mm refills (PK10).
- 2 x TB400HD Blade Assemblies.
- 2 x TB450HD Blade Assemblies.
- 2 x TB500HD Blade Assemblies.
- 2 x TB560HD Blade Assemblies.
- 2 x TB610HD Blade Assemblies.
- 2 x TB650HD Blade Assemblies.
- 2 x TB700HD Blade Assemblies.

Trico TB-HD Blades are the only truly universal wiper blades designed specifically for Trucks and Light Commercial Vehicles



Heavy Duty Conventional Wiper Arms



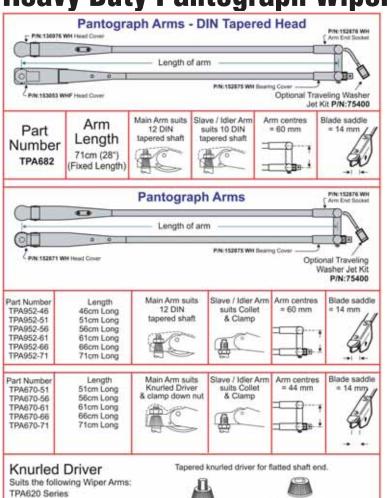


Flat Screen Wiper Blades

Trico heavy duty flat screen wiper blades are built to withstand heavy commercial use and are available in a number of lengths. Flat screen blades cannot be serviced with a refill. All Trico flat screen blades use 100% natural rubber. To Suit 6mm Clip Width THD607 SERIES Part Numbers -THD607-25 (25cm/10"), THD607-28 (28cm/11"), THD607-30 (30cm/12"), THD607-33 (33cm/13"), THD607-36 (36cm/14"), THD607-38 (38cm/15"), THD607-43 (43cm/17"), THD607-46 (46cm/18"), THD607-51 (51cm/20"), THD607-56 (56cm/22"), THD607-61 (61cm/24"). To Suit 14mm Clip Width Part Numbers - THD605-46 (46cm/18"), THD605-51 (51cm/20"), vallable THD604 series to suit 10mm Clip Width. Available lengths - 25cm (10"), 28cm (11") 30cm 36cm (14"), 38cm 15"),41cm (16"), 43cm (17"), 46cm (18"), 51cm (20"), 56cm (22"), & 61cm (24")



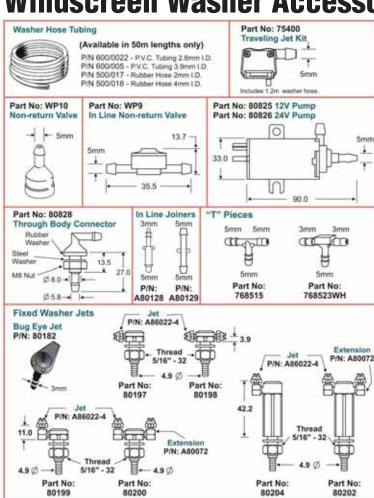
Heavy Duty Pantograph Wiper Arms





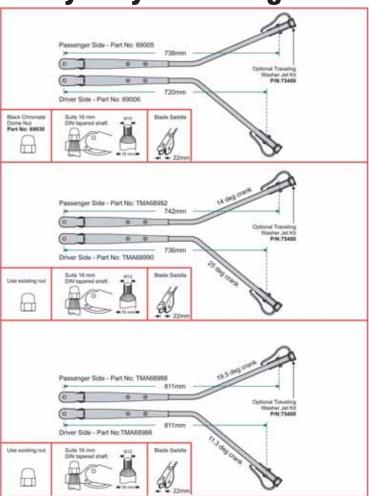
Windscreen Washer Accessories & Parts

P/N: 101569JB





Heavy Duty "Mustang" Series Wiper Arms





Heavy Duty Pantograph Wiper Arms

