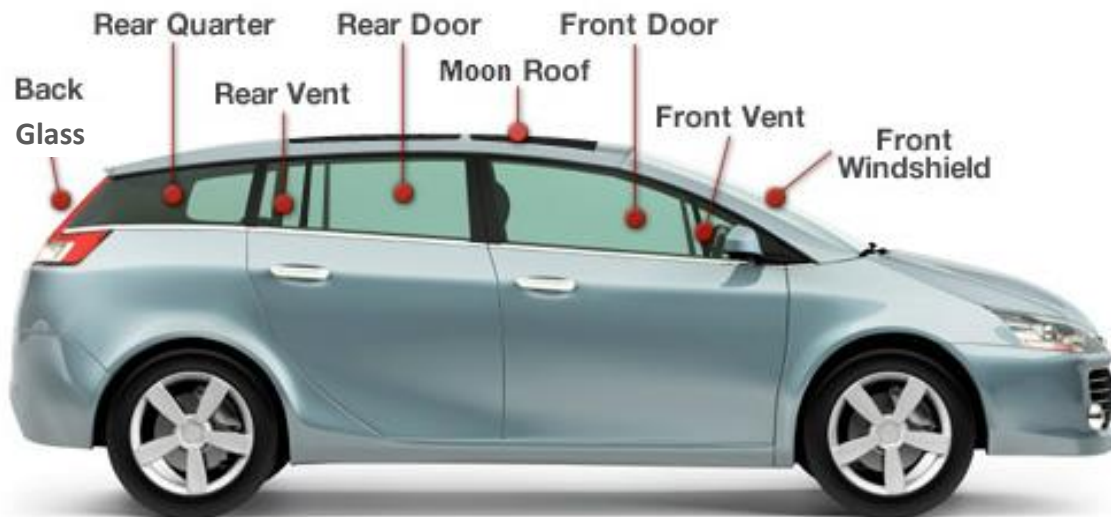


HOW TO SELECT AUTO GLASS PARTS

Choosing the CORRECT PART requires you to ask the customer questions about their car that sometimes they do not know. The following is a guide to help get you familiar with the terms used every day in our business and the Mainstreet Glas-Avenue software.

VEHICLE GLASS PARTS

The following diagram shows all the glass parts and their location on the vehicle.



Customers may be confused when we refer to the vehicle sides as left or right because it is based on the perspective compared to the vehicle. When asking the customer which side always refer to Driver or Passenger side.



NAGS® NUMBERING SYSTEM

All auto glass parts are assigned a standardized part number by NAGS® (National Auto Glass Specifications) to allow for easier communications for ordering and billing parts. It is comprised of 11 fields comprised of letters and numbers.

DW#####GT YF

DW1949GT Y Carlite

Here is how it breaks down

A (Position 1): Indicates the vehicle manufacturer's country of operation. Auto glass parts are classified as "D" Domestic for American car manufacturers and "F" Foreign for car manufacturers based in other countries.

B (Position 2): Indicates which opening in the car the part is meant to fill.

(Positions 3-7): These are the numbers that are unique to a part.

C (Position 8): Indicates the main color of the glass.

D (Position 9): Indicates if there is a darker shade band or privacy color option.

E (Position 10): Attachment code which represents the presence or absence of hardware provided with the glass when obtained (except a mirror bracket, antenna or electrical connectors), or types of sliders.

Code		Code	
Y	Yes	N	No
1	4 Panel Full Frame	2	4 Panel Encapsulated
3	4 Panel Partial Frame	4	3 Panel Full Frame
5	3 Panel Encapsulated	6	3 Panel Partial Frame
7	2 Panel Flush Fit		

F (Position 11): Indicates a part that is provided by the vehicle manufacturer and includes a stamp or label of a designer trademark.

F = Carlite

M = Mopar

P = Premium

AUTO GLASS PART ABBREVIATIONS








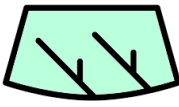

DW	Domestic Windshield	FW	Foreign Windshield
DB	Domestic Backlite (Back Glass)	FB	Foreign Backlite (Back Glass)
DD	Domestic Door Glass	FD	Foreign Door Glass
DQ	Domestic Quarter Glass	FQ	Foreign Quarter Glass
DR	Domestic Roof Glass	FR	Foreign Roof Glass
DS	Domestic Side Glass	FS	Foreign Side Glass
DT	Domestic Flat Tempered (Door Glass)	FT	Foreign Flat Tempered (Door Glass)
DV	Domestic Vent Glass	FV	Foreign Vent Glass


AUTO GLASS COLORS – TINTS AND SHADES

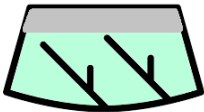

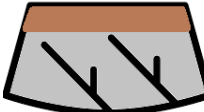
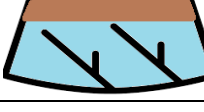
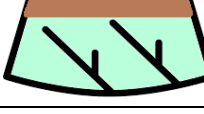
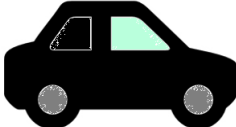
When presented with multiple color options for a part, you need to help the customer determine what is in their vehicle.

TINT or SHADE: Is your windshield all one color or does it have a darker colored band at the top?

TINT or PRIVACY: Is the glass darker than the front door glass?

CODE	COLOR COMBINATION	WINDSHIELD	TEMPERED
CL	CLEAR TINT		
BT	BLUE TINT		
BP	BLUE TINT PRIVACY		
BB	BLUE TINT/BLUE SHADE		
CB	CLEAR/BLUE SHADE		
GT	GREEN TINT		

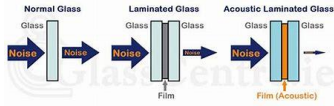

CODE	COLOR COMBINATION	WINDSHIELD	TEMPERED
GP	GREEN TINT PRIVACY		
GB	GREEN TINT/BLUE SHADE		
YT	GRAY TINT		
YP	GRAY TINT PRIVACY		
YB	GRAY TINT/BLUE SHADE		
ZT	BRONZE TINT		
ZP	BRONZE TINT PRIVACY		
ZB	BRONZE TINT/BLUE SHADE		
BG	BLUE TINT/GREEN SHADE		
GG	GREEN TINT/ GREEN SHADE		
ZG	BRONZE TINT/GREEN SHADE		
BY	BLUE TINT/GRAY SHADE		

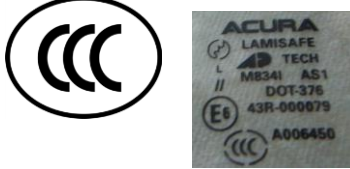
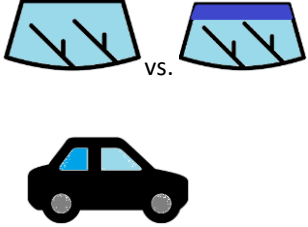


CODE	COLOR COMBINATION	WINDSHIELD	TEMPERED
GY	GREEN TINT/GRAY SHADE		
YY	GRAY TINT/GRAY SHADE		
ZY	BRONZE TINT/GRAY SHADE		
BZ	BLUE TINT/BRONZE SHADE		
GZ	GREEN TINT/ BRONZE SHADE		
KP	BLACK PRIVACY		




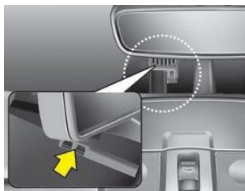

PART OPTION SCREENING





Today's windshields support more than just the structural integrity of the vehicle. They now have many of the ADAS (Advanced Driver Assistance Systems) components functioning through them which means they play an even larger role in vehicle passenger safety.

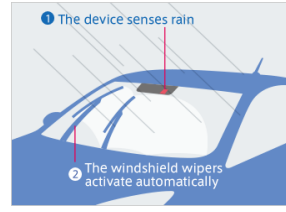

In order to select the part for a vehicle with multiple windshield options, you must ask questions to determine if the vehicle has the options. The following tables contain the options as they display in Mainstreet with a description of the option and questions that you can use to help the customer determine if they have that option in their vehicle.

Common Windshield Options		
Acoustic Interlayer <p>An acoustic windshield reduces noise in the cabin from the engine compartment along with the sounds of wind, road surfaces, and traffic.</p> 	<p>Is your glass made with an additional insulation that reduces the sound inside your vehicle?</p> <p>You can tell because it is noted in the trademark stamp at the bottom corner of your windshield.</p> <p>The glass may say something like "Acoustic", "Acoustigate" or "Sound Master". We usually see it in vehicles with premium sound systems.</p>	


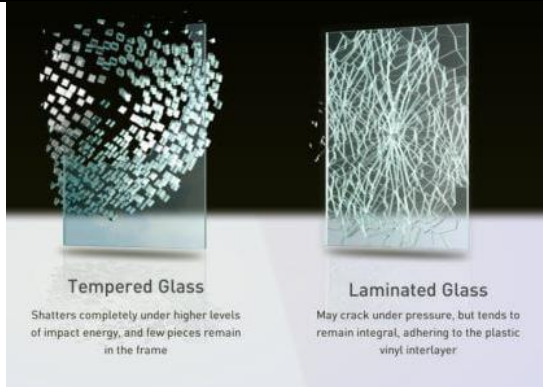


<p>CCC-Compliant</p> <p>This is a designation for parts that have met China Compulsory Certification and has no bearing on sales of product in the USA.</p>	<p>There is no screening necessary for this option. The symbol will appear in the trademark but is only applicable to product distributed in China.</p>	
<p>Color</p> <p>Refer to the color chart in previous section to see a detailed breakdown of color options available</p>	<p>TINT or SHADE: Is your windshield all one color or does it have a darker colored band at the top?</p> <p>TINT or PRIVACY: Is the glass darker than the front door glass?</p>	
<p>Condensation Sensor</p> <p>A windshield attachment that senses when your glass has condensation and heats up to reduce the condensation buildup. Similar to a rain sensor.</p>	<p>Do you have small vent holes in the bracket that holds your rear-view mirror?</p>	
<p>Electro Chromatic Mirror</p> <p>These mirrors also called auto dimming rear view mirrors, and that truly sums up what this technology does. When headlights shine onto the mirror's surface, it automatically dims, which reduces the discomfort and glare.</p>	<p>Does your rear-view mirror sense when light reflects from behind and automatically dim?</p> <p>There isn't a tab to flip the mirror up and down and this is often noted in your user manual.</p>	









<p>Forward Collision Alert</p> <p>A collision avoidance system is an automobile safety system designed to prevent or reduce the severity of a collision. It is also known as a pre-crash system, forward collision warning system, or collision mitigating system. It uses radar and sometimes laser and camera to detect an imminent crash.</p>	<p>Does your vehicle have forward collision alert? Your brakes may engage automatically or alarm sounds when approaching an object.</p>	
<p>Heated</p> <p>This is similar to a condensation sensor, heated windshields have small wires throughout the glass that heat up when activated, keeping the glass from icing up or fogging.</p>	<p>Do you have very small grid lines all over the glass to defrost it?</p>	
<p>Heated Wiper Park</p> <p>Heating elements inside the windshield glass by the wiper park area prevent windshield wipers from icing up.</p>	<p>Do you have the Winter Package on your vehicle which includes heated seats, side view mirrors and where your wipers sit? Does the glass have heating grids/lines along the bottom to keep wiper blades heated in the winter?</p>	
<p>Humidity Sensor</p> <p>The humidity sensor automatically activates the air conditioning system, which in turn, cleans mist as and when it appears on the front glass of the vehicle.</p>	<p>Is your vehicle equipped with a sensor that will measure and report the relative humidity and change in temperature within the vehicle?</p>	
<p>HUD Heads Up Display</p> <p>Holographic display projected on the windshield.</p>	<p>Do you have technology in which your vehicles instrument projects on to the windshield, usually in front of the driver?</p>	

<p>Intelligent HiBeams</p> <p>During nighttime driving, the automatic high beam system automatically turns on your high beams if it is dark enough and no other traffic is present.</p>	<p>Does your vehicle have intelligent HiBeams that turn off when another car is approaching?</p>	
<p>W/LDWS (Lane Departure Warning System)</p> <p>A lane departure warning system is a mechanism designed to warn the driver when the vehicle begins to move out of its lane (unless a turn signal is on in that direction) on freeways and arterial roads.</p>	<p>Is your vehicle equipped with LED turn signal indicators on the side mirrors? Is your vehicle equipped with a sensor or camera which will warn you of an impending lane change, or if you are drifting into a lane without a signal?</p>	
<p>Logo</p> <p>Car manufacturers produce vehicles with logos or symbols displayed in the windshield as a special feature.</p>	<p>Does your vehicle have the (Vehicle Make) logo on the top middle of the windshield or along the bottom?</p>	<p>This is the Jeep Willy logo that is a small symbol that is part of the paint band on some Jeep models.</p> 
<p>Rain/Light Sensor</p> <p>The light sensor automatically activates the vehicles' illumination system when the outside light source begins to fade, such as at night time, or when entering a tunnel, etc.</p>	<p>Do you have a sensor located on your windshield that turns your wipers and headlights on?</p>	

Rain Sensor A special attachment that communicates with the car's computer to turn on, off and regulate the speed of windshield wipers . Requires a completely different rearview mirror bracket and other attachments. Windshields with rain sensors are completely different and are typically more expensive than other windshields.	Is your vehicle equipped with a sensor that senses rain and will turn the wipers on and control them with the speed the of rain? This is often noted in your user manual.	
Third Visor Frit This is a series of black dots in your windshield behind your rear-view mirror. It is designed to keep the sun out of your eyes while in the awkward space in the top middle of your windshield between your fold down visors.	Do you have black dots that look like a visor behind your rear-view mirror?	
PAAS This is an acronym for Pre-Applied Adhesive System. Certain windshield came with the urethane already on the windshield	There is no screening necessary for this option.	

Common Options for Other Glass Parts		
Side of car DD – DQ -DV – FD -FQ - FV	Is it on the driver or passenger side?	Driver =Left Passenger = Right
Position DD – DQ -DV – FD -FQ - FV	Front or rear?	Note: When it comes to Quarter and Vent glasses, they are in the rear but there may be more than one in a vehicle.

<p>Tint Color</p> <p>DD – DQ -DV – FD -FQ - FV</p>	<p>If you aren't sure, you can put a piece of white paper behind it for contrast and it is easier to determine the color.</p> <p>TINT or PRIVACY: Is the glass darker than the front door glass?</p>	
<p>Tempered or Laminated</p> <p>DD - FD</p>	<p>Tempered breaks into small pieces.</p> <p>Laminate stays together because there is a layer of plastic in it. Like a windshield.</p>	
<p>Sliding door</p> <p>DD - FD</p>	<p>Is it on the driver or passenger side?</p> <p>Is the door manual or powered?</p> <p>Is the glass stationary or can it open, like pop out?</p>	
<p>Heated</p> <p>DB -FB</p>	<p>Does your vehicles have gridlines in the back glass and rear defrost?</p>	

Type of Back Glass		<ul style="list-style-type: none">Standard one pieceTwo doors, driver or passengerSlider for Trucks	  
Pick Up Truck Back Glass	<ul style="list-style-type: none">OE is a DB or FB partDY or FY is aftermarketPK is Privacy TintYK is Light Green tintCK is Clear	<ul style="list-style-type: none">Stationary one pieceTri-panel truck sliders typically have one window panel that slides open to vent.Four-panel truck sliders have two windows that slide along the track, what's known as "duo-venting" truck sliders and gives the widest possible opening.Manual or Electric	    
Code		Code	
1	4 Panel Full Frame	2	4 Panel Encapsulated
3	4 Panel Partial Frame	4	3 Panel Full Frame
5	3 Panel Encapsulated	6	3 Panel Partial Frame
7	2 Panel Flush Fit		