MANUAL DART BLUE WINDSHIELD REPAIR IN 8 STEPS

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HEALTH AND SAFETY

Duobond repair resin is environmentally friendly
and does not contain any irritants.

We always recommend using gloves and glasses.

Glasses will protect your eyes from and splashes
and or fragments of loose glass.

Please refer to the MSDS sheets available on line.

Use covers where possible to avoid damage to vehicle.

Do not repair in direct sunlight unless you are using a UV shield as sunlight is the biggest source of UV light and will prematurely cure the resin.

Always keep chemicals and equipment away from children.

Store resins in a cool dark place away from children.

Only use genuine Duobond resins with your kit. Our resins are designed for optimal use with our kits and results using other equipment
can not be guaranteed.

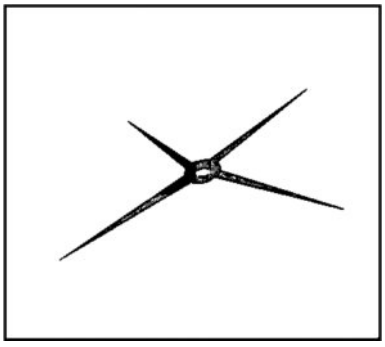
Our repair systems and resin are 43R compliant and comply with the
BS AU 242b:2022

MANUAL WINDSHIELD REPAIR

Attack | **Fixter** | **IQ-2** | **Iris BB9**

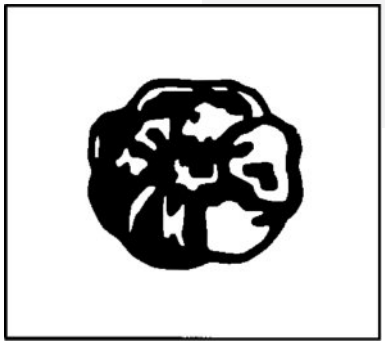
STEP 1: Diagnosing damage

Determine whether the damage can be repaired or not.
The following image shows different types of impacts glass repairs.
Combinations of these basic types of impacts glass repairs are also possible.

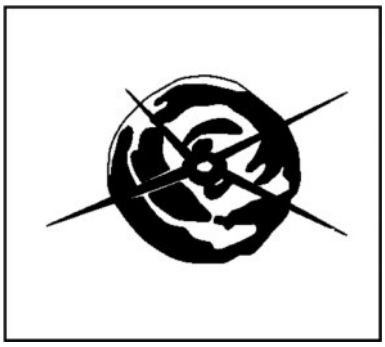


Star break

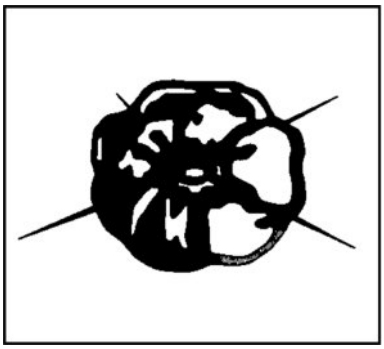
Bull''s Eye



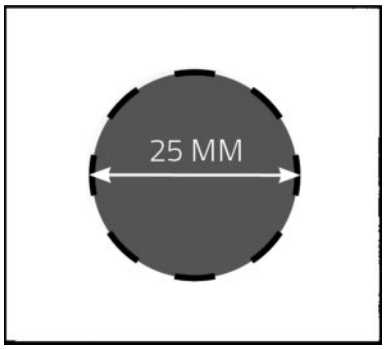
Clover leaf



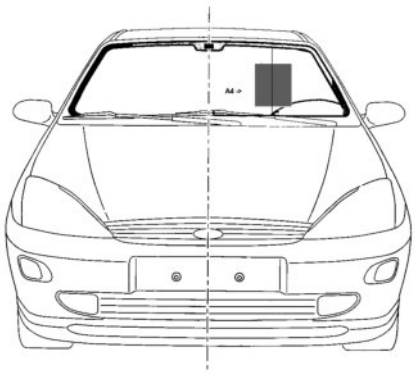
Combination

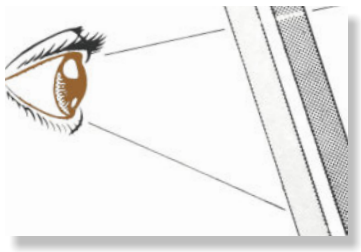


Combination



Do not repair damage greater than 25 mm (2 euro coin)





NOTE: The damaged location must not be in the driver's field of view as above. Always perform repairs in accordance with your local standards.

NOTE: Stone damage can only be repaired on laminated glass! DO NOT attempt the repair if the inner layer of glass or interlayer has been damaged or if the break has a milky appearance as this is the start of the delamination process.

STEP 2: Equipment

Recommended equipment:

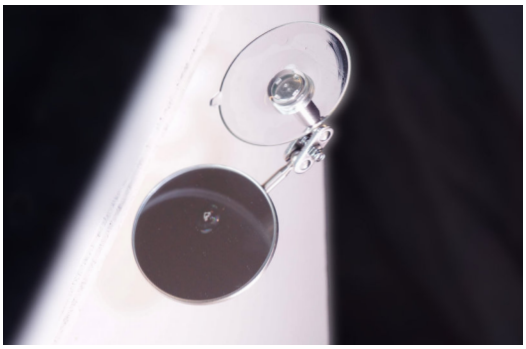
- Inspection mirror 841500
- Rubber gel transparent 84070
- LED inspection lamp 841300
- Scratching pen 841400
- Repair bridge (Attack, Fixter, IQ-2 or Iris)
- DART Blue injector 403000
- Duobond UV Resin 8420..
- Duobond UV Finishing sheets 840600
- Duobond UV Impact filler 8820..
- Duobond UV lamp
- Drill 840200
- Drill bit for drill 841901
- Polisher for drill 842300
- Finishing Polish 841200
- Single edge razor blade 840910

Additional equipment:

- Duobond Prep-clean glass primer 882010
- DART Duobond Air Removal Tool 402100
- Syringe with separate needle 1ml 842009A
- Resinator 12V impact heater with vibrating function 440065
- Duobond Pulse windscreen repair automat complete 440012
- UV shield 841540

STEP 3: Preparation

We recommend that the glass temperature be 20° C for the best results.
If you bring a cool car into a warm building this will create humidity on the glass.
Make sure this has gone before starting the repair process.
Most national standards recommend a glass temperature between 5 - 25° C. If this is not possible make sure that the resin is of a similar temperature to the glass you are repairing if not this will create humidity.



Apply a thin layer of gel to the suction cup of the inspection mirror and position the mirror under the repair area on the inside of the vehicle.
The repair area should be clearly visible in the mirror.

Use Duobond Prep-clean to clean the impact and remove any moisture. When applying Prep-Clean if the impact appears to reduce in size this indicates that there is access to the impact and drilling may not be necessary.

NOTE: use Duobond PrepClean for optimal cleaning and for a better adhesion. Apply Prep-clean to a lint free paper towel and gently rub over the impact point.

Clean the repair area from dirt and small glass splinters with a scratching pen.

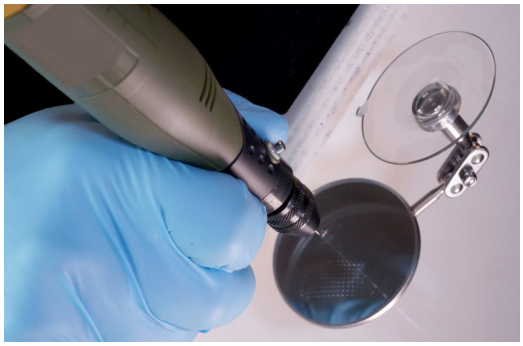
NOTE: This should not enlarge the damaged area.



STEP 4: Install the repair bridge

Before starting, put the suction cup of the repair bridge in neutral position and turn the sputnik upward.

For the Fixter repair bridge:
Turn the black adjustment knob counterclockwise so that there is no tension on the sputnik head, push the right lever towards the sputnik head, (forward) you will see the suction cup rise.

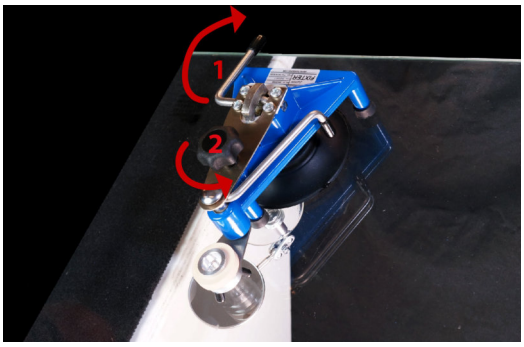


With small inaccessible impact points the impact area should be drilled using the carbide tipped drill bit.

NOTE: The drill should be at a 90° angle to the glass. Gently drill the impact area checking regularly, ensure not to drill deeper than the drill head. (approx. 1mm)

DO NOT penetrate the interlayer as this will damage the integrity of the windshield.

Apply a thin coating of gel to the suction cup of the Bridge.
Place the Bridge on the outside of the windshield above the impact point if possible so that the sputnik head is positioned precisely over the repair area (impact point). If necessary, move the Bridge.



Press the suction cup firmly onto the glass and pull the handle (1) away from the sputnik head. (backwards)
Lower the cup by turning the adjusting knob (2) clockwise.
The sputnik is properly secured when the three rubber caps give a black print on the glass.

NOTE: Do not apply too much pressure or tension. Cracks can arise from the repair area.



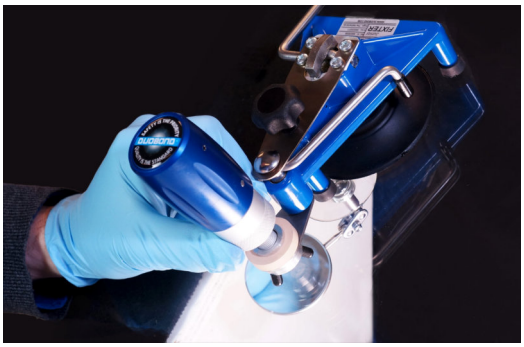

STEP 5: inject Uv-Resin

Carefully check the position of the injector. It must be placed exactly above the damaged area.

Ensure if working outside or on sunny days, to move the vehicle to a shaded area
or use a cover over the windshield. [841540]

Invert the DART Blue unwind the blue cylinder 1/2 turn put 4 to 5 drops of resin in the injector cylinder and rewind a further 1/2 turn.

NOTE: Seal the resin bottle immediately after use and protect against UV light (sunlight).



Screw the injector into the sputnik head.
Turn the injector into the holder, and turn until the rubber of the injector gives a light print on the glass.

NOTE: The three support legs must remain in contact with the glass.

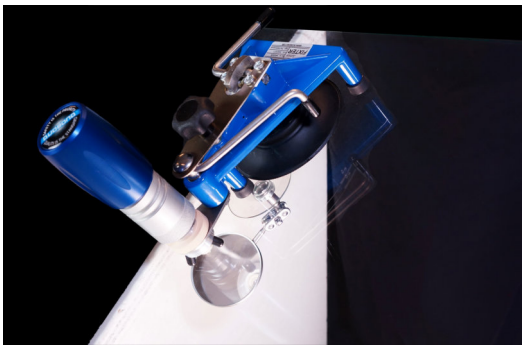
The dark ring of the injector, lying exactly around the point of impact, must be visible in the inspection mirror.
Otherwise adjustment is necessary.

STEP 6: vacuum and pressure

When you use DART Blue, you can screw in and out the injector piston.
This action creates vacuum and pressure.
Repeat until all dark spots (= trapped air) are removed and no longer visible.

Screw the upper blue injector part clockwise until it stops. You should see resin flowing into the impact Then hold this injector plunger position for 1 minute. You should see the white rubber seal expand.

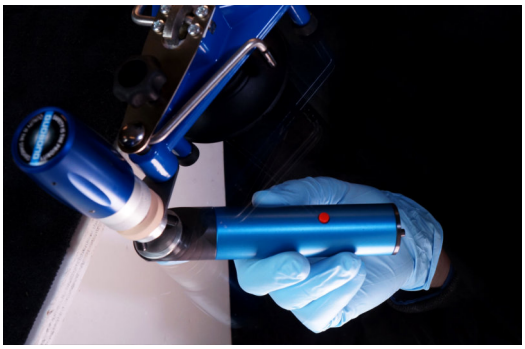
NOTE: Do not apply too much pressure as this may cause leakage from the seal.



Turn the blue injector counter clockwise to create a vacuum. While doing this hold the silver part of the injector in place to avoid loosing the seal to the glass.

NOTE: A vacuum will now form in the injector cylinder so that the remaining air is sucked out of the damaged area. Then hold this injector plunger position for a minimum of 2 minutes.

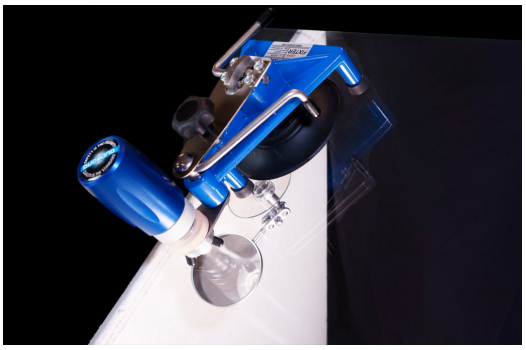
NOTE:The longer the time spent in this position the greater chance of a good repair as more air will be removed.



NOTE: The repair area can be gently heated using the Rezinator. Use the vibration function if air bubbles are still present. The Rezinator is designed to heat the impact point to a pre-determined level that should not cause any further damage or closing of cracks.

WARNING: Only do this during the vacuum cycle.





Screw the blue injector clockwise until it stops or the white seal dilates. You should see resin flowing into the impact. Hold this injector plunger position for around 5 minutes or until the impact is filled.

NOTE: A pressure will now form in the injector cylinder to force the UV resin into the damaged area.

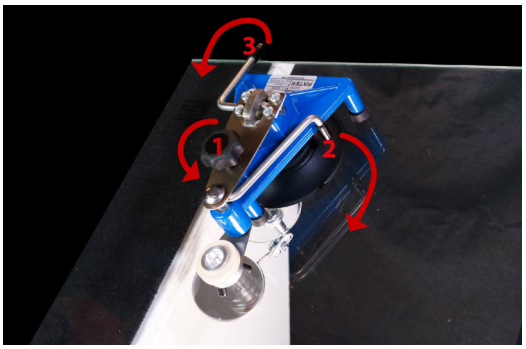
NOTE: If air is still present repeat the vacuum and pressure cycles until it is removed.



STEP 7: Sealing point of impact

Remove the repair bridge, apply sealing Impact-Filler,
place Finishing Sheet (mylar) and cure with UV light.

NOTE: Iris has the UV lamp built in and therefore does not need to be removed.



Loosen the knurled screw (1).
Swing the support head to the side (2).

NOTE: Repair damage inspection can be performed. If there is still air in it (black bubbles), turn the support head (2) back and lower it back (1) onto the glass to resume the repair.

Release the locking lever (3) and remove the repair bridge when the repair area is completely filled with resin.

Apply a drop of Impact-Filler above the point of impact and let it run into the point of impact so that no air bubbles remain in the point of impact.
Place the curing film over the damaged area.

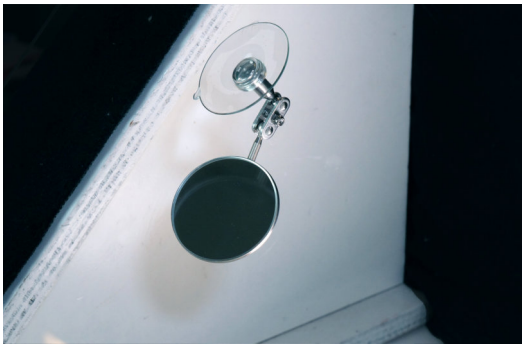
NOTE: Do not press the Finishing Sheet onto the repair area.

Place the UV lamp over the repair area,
switch on the lamp and let the lamp automatically cure the resin and impact filler.
The UV lamp turns off automatically,
then switch off the lamp with the button and remove the UV lamp.



STEP 8: Cleaning and polishing

Ready to complete the repair with razor blade and Polisher



Carefully remove the Finishing Sheet.

Remove any excess resin with a razor blade. Pull the razor blade over the repair area at a 90 ° angle and carefully scrape off the excess resin with an upward and downward movement.

NOTE: Scrape with the razor blade, never stab or cut the excess resin from the window.

Clean the repair area with a lint-free cloth. Polish the surface with liquid polish and a Polisher on the drill until clear and smooth.

Scan this code for the video:
“Manual Duobond How to prepare impacts”

Scan this code for the video:
“Manual Windshield Repair with Dart Blue”