



**SMART REPAIRS** Even relatively new vehicles frequently suffer from unsightly traces of everyday use, like scratches on the bumper as a result of clumsy parking manoeuvres, burn holes in the seats from dropped cigarettes, or marks on the dashboard as souvenirs of the last house move. The FSE Programme contains special SMART Repair Kits which make repairing such mishaps quick and economical. Danish SMART Repair specialist Henrik Bro Christensen tackles a typical repair while **autoteam** watches over his shoulder.

## The magic suitcase

### Examination

"The first thing to do is: always have a good look at the damage," Henrik explains. "Many of these minor accidents can be made good with the help of the various repair systems." On this Focus, a steel pipe had banged into the dashboard as a result of braking. The customer had bought some pipes from a DIY hypermarket and, as he had no roof rack, balanced them across the tops of the back seat and front passenger seat. Under heavy braking, one of the pipes broke free and banged into the dashboard. After inspecting the scratches, Henrik pronounces confidently: "No problem. We'll make it good as new."

### Step by Step

Taking the FSE Basic Repair Suitcase B1, he first cleans all round the area of the impact with lint-free cloth and plastcleaner, then masks the surrounding area and tucks a piece of paper in the glove compartment. Now it's the turn of the gun with the mould-maker cartridge. Henrik carefully flows some

of the green viscous material onto an undamaged area of the dashboard beside the scratches, then spreads it with the small palette knife to make a thin, even film. "In this way, the surface pattern of the dashboard is reproduced and later copied onto the damaged spot. Don't worry about the cast leaving traces behind, because it won't," Henrik explains. "Drying time is about five minutes." Next he removes raised parts of the scratches using fine emery paper. "When doing this, try to minimise any roughening of the surrounding area," he advises, and then pulls off the green moulding material which has dried in the meantime. He then places this carefully over the damage spot, draws an outline of the damage on it with a pen, and lays the film aside again. "Now I use the palette knife to apply a little B Compound carefully to the hollow and smooth it down. Now you have to wait. When it has completely hardened, it appears a little transparent."

### Heat Sealing Iron

The electric heat sealing iron is the next tool to be used and Henrik illustrates what the three indicator lights mean: "When I turn the small regulator to say 150° C, the yellow lamp shows me that it is heating up to the desired temperature. Green means that the iron has reached the set temperature and is ➤

### The pipe has left its mark on the dashboard.





**1** Careful cleaning of the whole area. **2** After the cut-out area is defined by masking paper and tape, the green mouldmaker is applied evenly using the gun. **3** Spreading with the palette knife to achieve a thin film.

holding this constant; the red light indicates that it is cooling down.”

The correct temperature has now been reached and our SMART repair specialist applies the tip of the iron to the green film mould to allow the heat to gradually penetrate to the site of the repair. As he does this, the surface pattern is transferred to the B Compound. “Lift the iron off now and again to prevent the spot getting too hot and check whether the contours are being accurately

transferred by raising the edge of the film carefully without removing it completely.”

“Do take care in handling the heat sealing iron,” Henrik warns. “Always place it on the accompanying stand before and after use. Make sure that the hot plate doesn’t touch any other parts inside the vehicle and don’t underestimate the danger of burning yourself! Remember too the residual heat: the iron stays hot for some time after it is switched off.”



**4** The dried mould film is removed carefully after about five minutes.



**Contents - The B1 System (FSE-Order-No. 462 5135 001 00)**

No.	Product name	Use
1	B Activator spray	Activating the gel
2	2K Primer	Priming
3	Plastcleaner	Cleaning
4	B Compound	Shaping material
5	Mixing tips	Replacement for 2K cartridges
6	Reinforcement tins	Stabilising cracks and holes
7	Replacement tips	Replacement for the cartridges
8	Mesh	Reinforcing tears in leather and vinyl
9	Stand	Place to “park” the heat sealing iron
10	Heat sealing iron	Applying the structure to the B Compound
11	B Gel black	Fill material for dark-coloured plastics
12	Palette knife	Applying and spreading
13	B Gel clear	Fill material for light-coloured plastics
14	Mouldmaker	Duplicating contours, e.g. of the dashboard
15	2K Rigid/Flexible	Filling cracks in, e.g. bumpers
16	Caulking gun	Applying gel and mouldmaker
17	Cooling bag	Shaping and cooling
18	Reinforcement film	Reinforcing holes and cracks
19	Contour film	Shaping

**Painting**

Henrik takes the shaping and cooling bag and presses it onto the damage spot for about a minute, then completely removes the green film. “It looks great, all that’s left is to paint it.” There is a whole range of different colours for Ford plastic parts. First, Henrik carries out a paint test on a cardboard box and compares this with the colour of the Focus dashboard. “That matches OK. Now,” he explains, “I’ll spray the area with two or three passes, allowing a short drying time between each. If you use a normal exterior paint here, the layer will break up, certainly in direct sunlight, because the paint lacks



**5** After removing raised parts with fine emery paper, Henrik fills the hollows with B Compound. **6** The surface pattern is copied onto the B Compound with the heat sealing iron. **7** The heat sealing iron can be adjusted in a range from approx. 50° C to 220° C.



**8** The bag takes care of final shaping and rapid cooling. **9** Painting the surfaces in two or three passes. **10** The results speak for themselves.

special pigments." Finally, he removes the masking paper and is completely satisfied with the results. "Look," he beams, "you can't see the join at all."

### Suitcase

Apart from the tools used to renovate the dashboard, the Basic Suitcase B1 used here contains other items for use when carrying out SMART repairs (see Box "Contents"). The accompanying CD contains instructions for

the various types of damage as well as safety data sheets for the products in the kit.

Besides this, you can find lots of other important information on the TIS CD and in the training manual "The Repair of Plastic Parts." ■



**Left: Smoking endangers your seats. Even a burn hole can be repaired. Right: Using the repair kit, even scratches on door coverings can be removed in no time at all.**



**A range of plastic and textile colours for almost all Ford vehicles.**



**The new HBC System D1 glass repair kit.**

## Product range

With the Basic Suitcase B1 (and the extra paints available for plastics and textiles), it is possible to repair vehicle damage such as, for example, small holes, scratches, and cracks or tears in the following parts:

- Vinyl and leather seat covers
- Plastic door coverings
- Plastic dashboard, centre console, mobile phone cradles, and wing mirrors
- Plastic bumpers and attached strips
- Door protection strips
- Wheel covers

The FSE Programme contains other products as well, which can be used to repair **fabric and velour seats, carpets, wood coverings and alloy wheels.**

In addition, within the context of SMART Repairs, three glass repair kits are currently available for repairing, e.g. stone and other minor damage to windscreens:

- HBC System D1 Auto (FSE-Order-No. 462 5125 001 00)
- HBC System D1 Pro (FSE-Order-No. 462 5125 002 00)
- Esprit (FSE-Order-No. 261 5125 004 00)

Make yourself familiar with all the possibilities which the FSE system affords. This will ease your tasks in the workshop and increase turnover.