



Eurocopter EC145 ADAC / Sécurité Civile

Die EC 145 ist ein mittelschwerer zweimotoriger Hubschrauber der in Zusammenarbeit von Eurocopter und der japanischen Firma Kawasaki Heavy Industries entwickelt wurde. Dabei war die BK 117C-1 - die von diesen Firmen bereits in Kooperation gebaut wurde - das Ausgangsmuster für den neuen Hubschrauber vom Typ BK 117C-2, der nach der Übernahme der Produktionslinie die Bezeichnung EC 145 erhielt. Es war das Interesse der französischen Sécurité Civile (Zivilschutz und SAR-Aufgaben) und der Gendarmerie, die nach einem internationalen Wettbewerb im Dezember 1997 mit einem Großauftrag die Serienfertigung der EC 145 möglich machten. Für die Flugerprobung wurden 4 Maschinen gebaut die unterschiedliche Testaufgaben zu erfüllen hatten. Während die 1. Maschine bereits am 12. Juni 1999 ihren Erstflug in Donauwörth absolvierte, flog der dritte deutsche Prototyp - die D-HMBM c/n 9003 - erst am 27. Oktober 2000. Diese Maschine wurde vorwiegend für die Erprobung des Autopiloten genutzt. Sie ist bei Modellbauern durch Ihren bunten Anstrich bekannt, der bereits Gegenstand eines REVELL-Bausatzes im Maßstab 1:72 ist. Die erste Maschine für die Sécurité Civile wurde im Mai 2001 in Nîmes, Frankreich übergeben. Sie diente der Schulung der Piloten und war noch nicht komplett ausgerüstet. Einen Monat später wurde die EC 145 beim Internationalen Luftfahrtsalon in Le Bourget zum ersten der Öffentlichkeit vorgestellt. Bei dieser Gelegenheit unterschrieb auch der ADAC einen Vertrag für zwei Maschinen dieses Typs. Nach langer Verzögerung wurde schließlich am 24. April 2002 in Nîmes die erste komplette EC 145 an die Sécurité Civile übergeben. Gegenüber der BK 117 hat die EC 145 einen neuen Rumpf mit einer geräumigeren Kabine. Teile der Elektronik, der Heizung und der Avionik zur Flugsteuerung und Navigation basieren ebenso auf Bauteilen und Erfahrungen mit der EC 135, wie auch das neue Hauptrotorsystem das mit den optimierten Profilen der Rotorblätter mehr Auftrieb bringt und zugleich wesentlich weniger Fluglärm erzeugt. Ein weiterer Vorteil der neuen Rotorblätter an der EC 145 sind wesentlich geringere Vibrationen und eine um 25% größere Reichweite. Die EC 145 ist für Blindflug zugelassen und kann wahlweise mit einem oder mit zwei Piloten auch bei Nachtlagen betrieben werden. Ihr besonderer Vorzug beim Einsatz als Rettungshubschrauber liegt in der wesentlich größeren Reichweite gegenüber anderen Hubschraubern dieser Kategorie. Damit ist die EC 145 besonders für Verlegungsflüge von Patienten zu entfernten Spezial-Kliniken die erste Wahl. Der REVELL-Bausatz enthält Abziehbilder für drei verschiedene Maschinen der Sécurité Civile die sich in einem auffälligen Anstrich präsentieren, während die beiden Maschinen des ADAC, die mit den vorhandenen Abziehbildern gebaut werden können, den bekannten gelben Anstrich aufweisen. Neben der Produktion in Deutschland wird die EC 145 auch in Japan von Kawasaki Heavy Industries für den japanischen und asiatischen Markt unter der Bezeichnung BK 117C-2 gefertigt.

EC 145 Technische Daten:

Rumpflänge	10,19 m
Länge über alles	13,03 m
Breite über alles	3,12 m
Rumpfbreite	1,85 m
Höhe über alles	3,96 m
Hauptrotor Durchmesser	11,0 m
Heckrotor Durchmesser	1,96 m
Kabinenlänge	3,45 m
Kabinenhöhe	1,27 m
Triebwerke	2 x Turbomeca Arriel 1E2
Startleistung	2 x 780 WPS
Leergewicht	1.742 kg
Außenlast max.	1.500 kg
Kraftstoff max.	864 Liter
Startgewicht max.	3.550 kg
Reisegeschwindigkeit	250 km/h
Höchstgeschwindigkeit	268 km/h
Dienstgipfelhöhe	5.485 m
Reichweite	670 km
Einsatzdauer	3h 30 min
Besatzung	2 Piloten
Passagiere max.	10 oder 2 Tragbahnen und 3 Ärzte/Sanitäter

Eurocopter EC145 ADAC / Sécurité Civile

The EC 145 is a medium-heavy twin-engine helicopter developed in co-operation by Eurocopter and the Japanese company Kawasaki Heavy Industries. The new helicopter BK 117C-2 - this designation was changed to EC 145 after the take-over of the production line - was based on another co-operate production of the two firms, the BK 117C-1. It was due to the placement of a large order by the French Sécurité Civile (civil defence and SAR sorties) and French police force after an international competition in December 1997 that the production of the EC 145 could take off. For evaluation purposes, 4 aircraft were built which had to complete different tasks. The first of these helicopters flew for the first time at Donauwoerth/Germany on 12 June 1999, however, the third German prototype, the D-HMBM c/n 9003, did not take off until 27 October 2000. This particular helicopter was mainly used for autopilot testing, being known to model-makers by its colourful scheme which featured already in a REVELL kit on the scale of 1:72. In May 2001, the first helicopter for the Sécurité Civile was handed over in Nîmes/France. It was used for pilot training and not yet completely fitted out. One month later, the EC 145 was officially introduced to the public on the Le Bourget International Aviation Salon, on which occasion the ADAC („Allgemeiner Deutscher Automobil-Club e.V.“) signed an order for two aircraft of this type. After a long delay, the Sécurité Civile in Nîmes received their first complete EC 145 on 24 April 2002. The EC 145 differs from the BK 117 in that it has a new fuselage with a more spacious cabin. Based on experiences made with the EC 135 and some of its components are the electronics in part, the heating system and the avionics for the aircraft's control and navigation systems, as well as the new main rotor whose optimized rotor blade profiles give more uplift while being much less noisy. Another advantage of the EC 145's new rotor blades is the greatly reduced vibrations and an increase of the helicopter's range by 25 per cent. The EC 145 is licensed for instrument flight and can also be flown by either one or two pilots on night missions. This type's particular advantage in the rescue role is the much increased range as compared with other helicopters of the same category, making the EC 145 the number one choice when it comes to taking patients to remote specialized hospitals. This REVELL kit contains decals for three different, flashy-coloured helicopters of the Sécurité Civile; the two ADAC aircraft, sporting their accustomed yellow finish, can be created using the existing decals. The EC 145 is produced in Germany, and under the designation BK 117C-2 in Japan by Kawasaki Heavy Industries for the Japanese and Asian markets.

Specifications of the EC 145:

Length of fuselage	10.19m
Length over all	13.03m
Width over all	3.12m
Width of fuselage	1.85m
Height over all	3.96m
Main rotor diameter	11.00m
Tail rotor diameter	1.96m
Cabin length	3.45m
Cabin height	1.27m
Engines	2 x Turbomeca Arriel 1E2
Take-off power	2 x 780 shp
Weight, empty	1,742kg
External load, max.	1,500kg
Fuel capacity, max.	864 litres
Take-off weight, max.	3,550kg
Cruising speed	250 km/h
Speed, max.	268 km/h
Service ceiling	5,485m
Range	670 km
Flight endurance	3h 30min
Crew	2 pilots
Passengers, max.	10, or 2 stretchers and 3 medical staff

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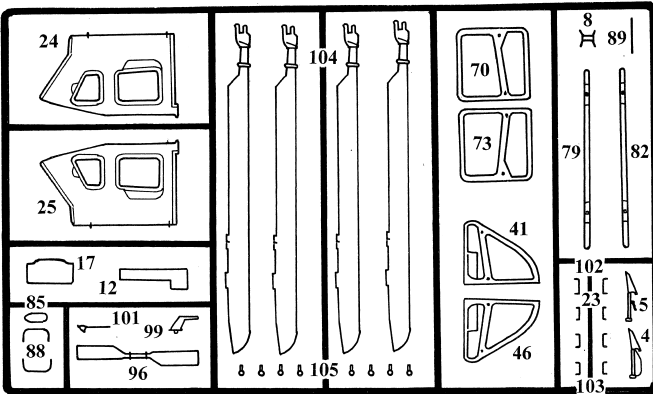
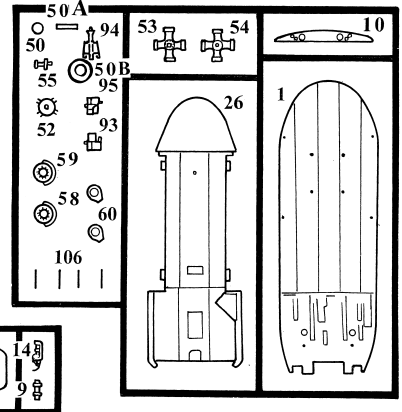
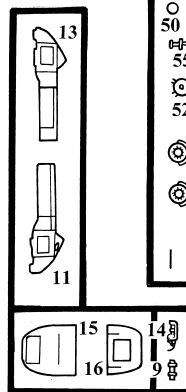
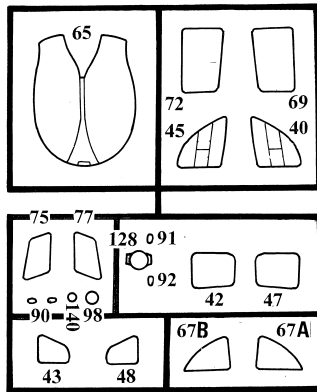
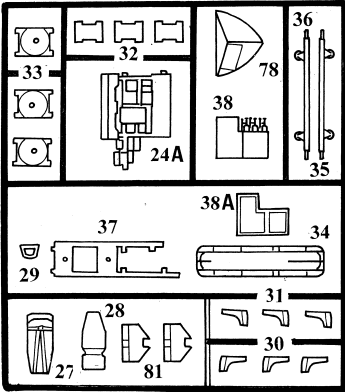
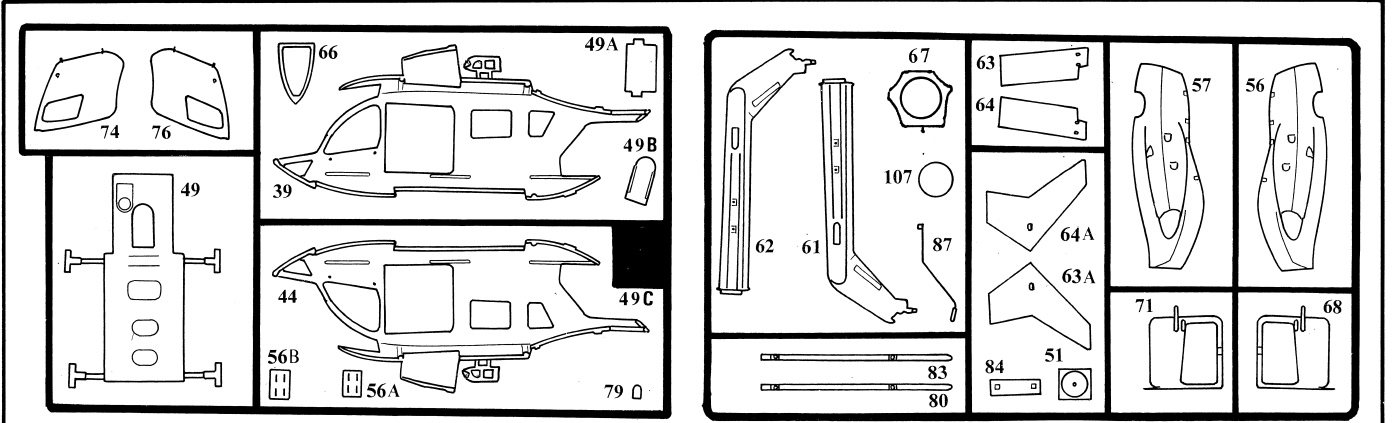
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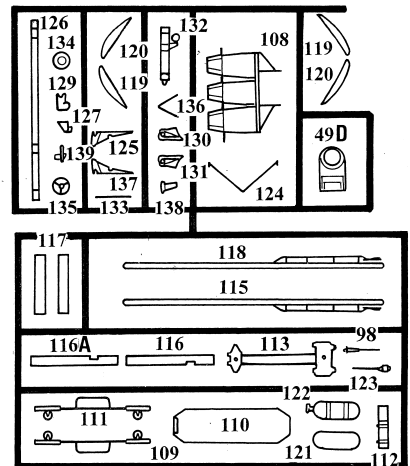
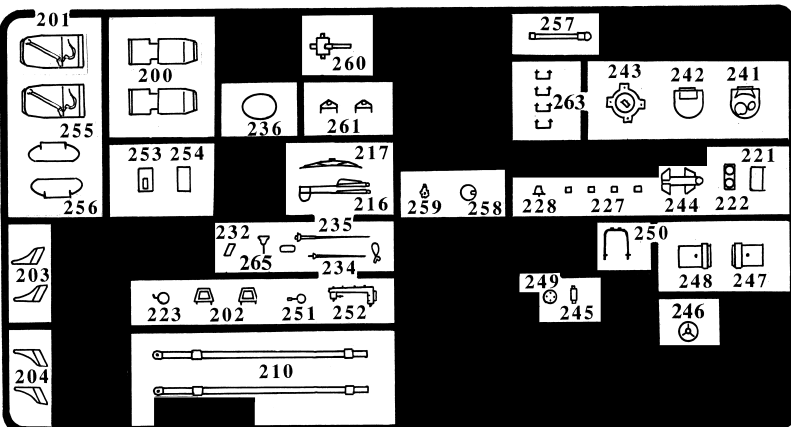
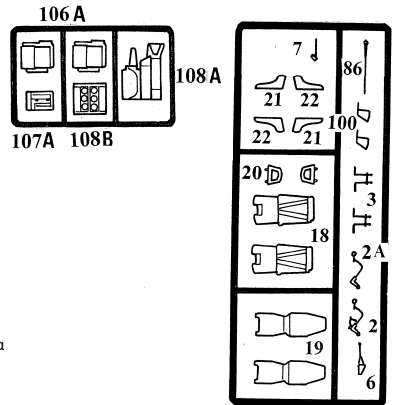
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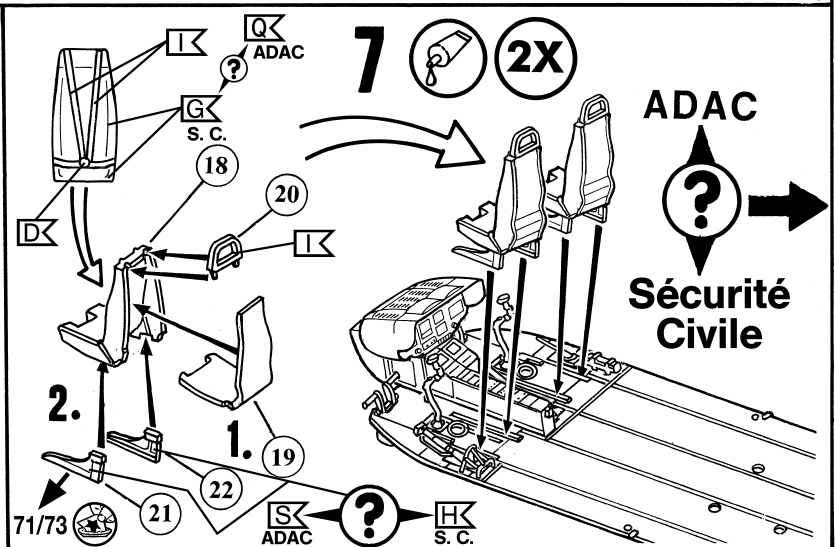
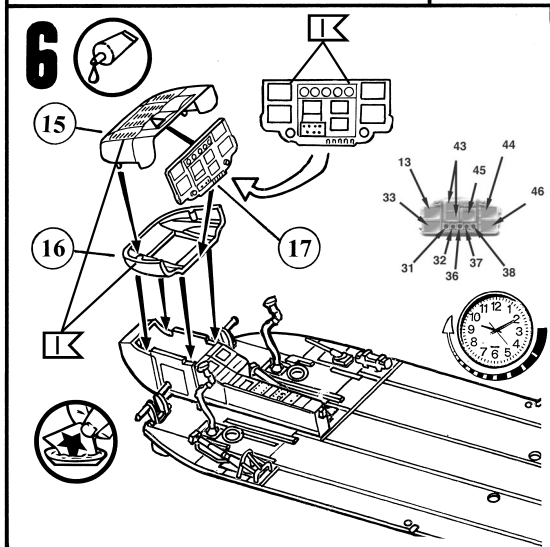
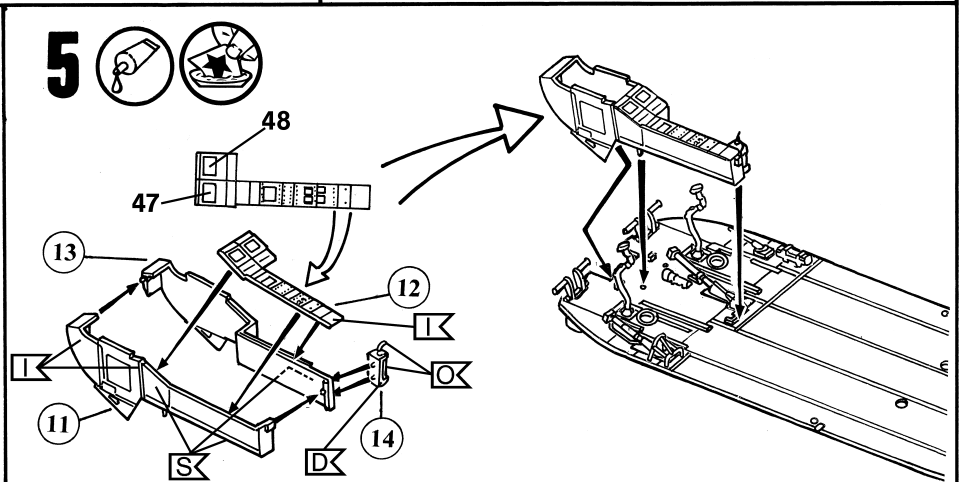
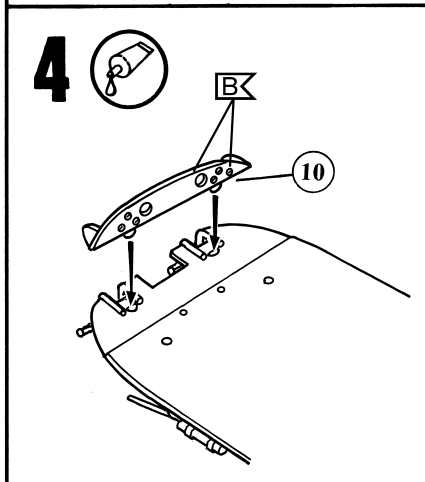
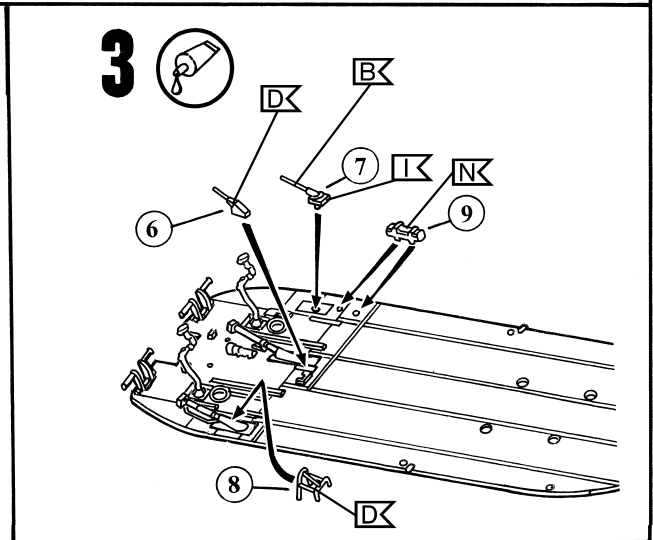
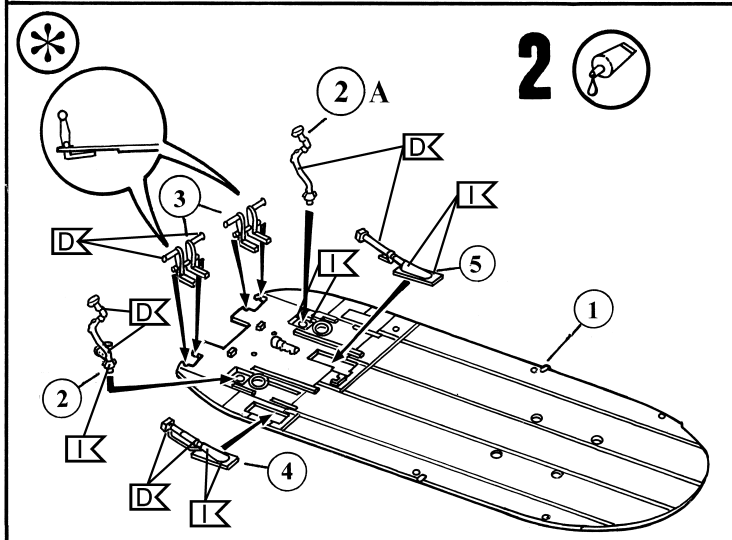
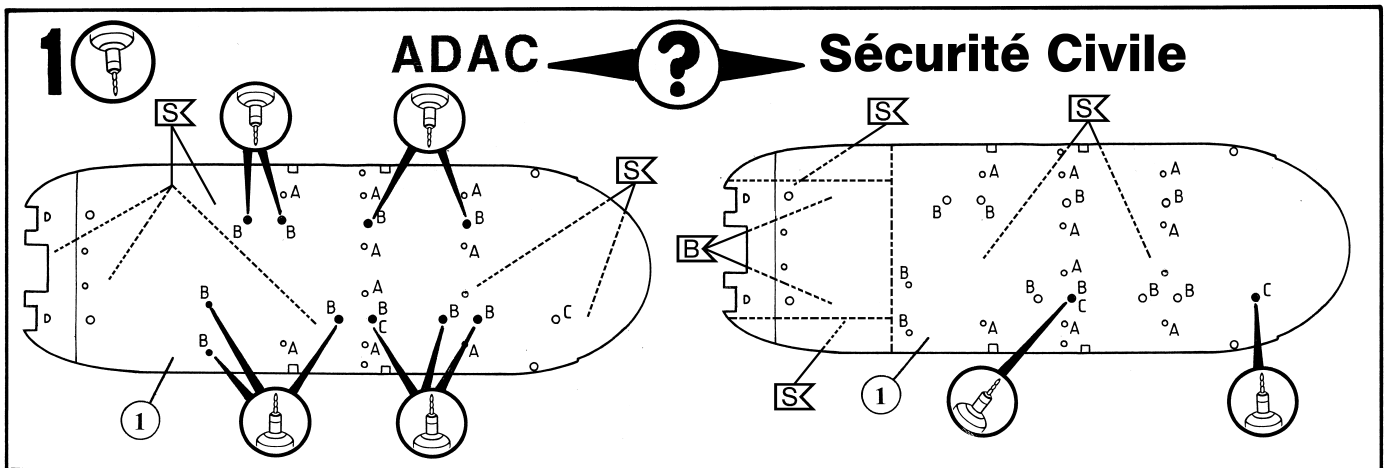
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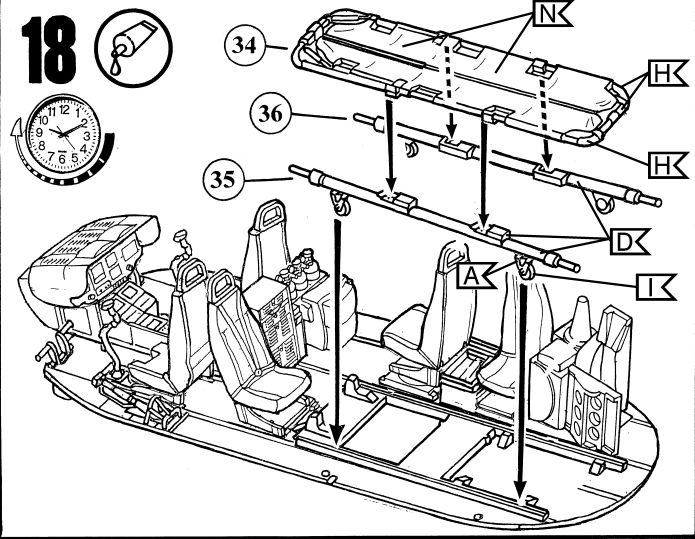
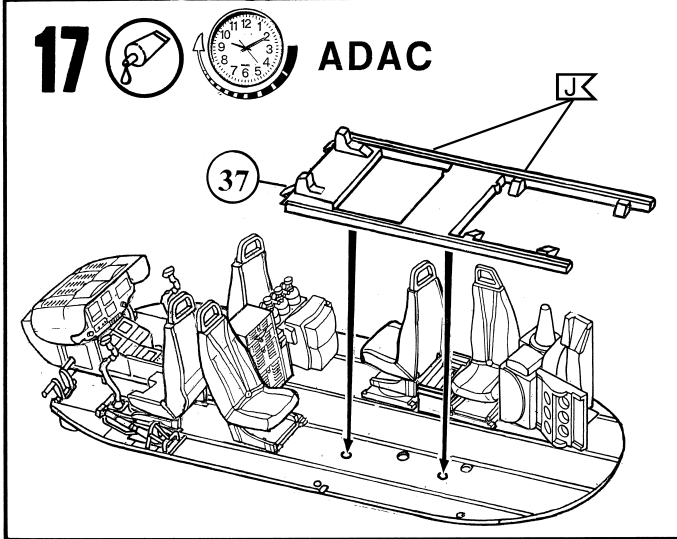
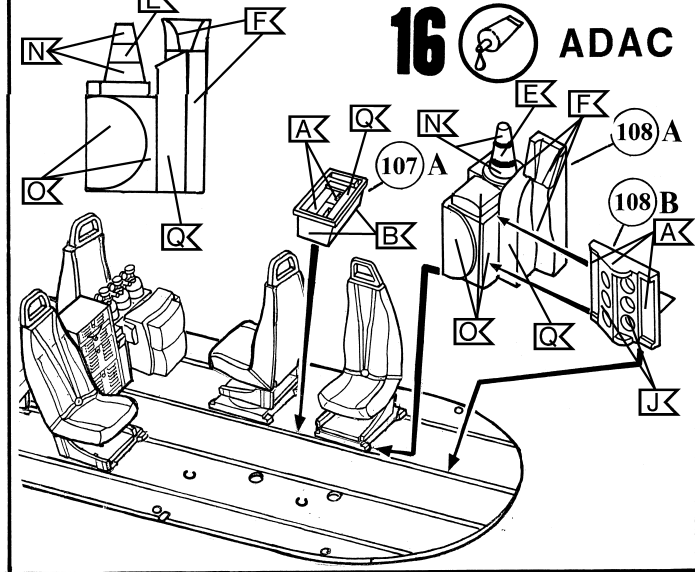
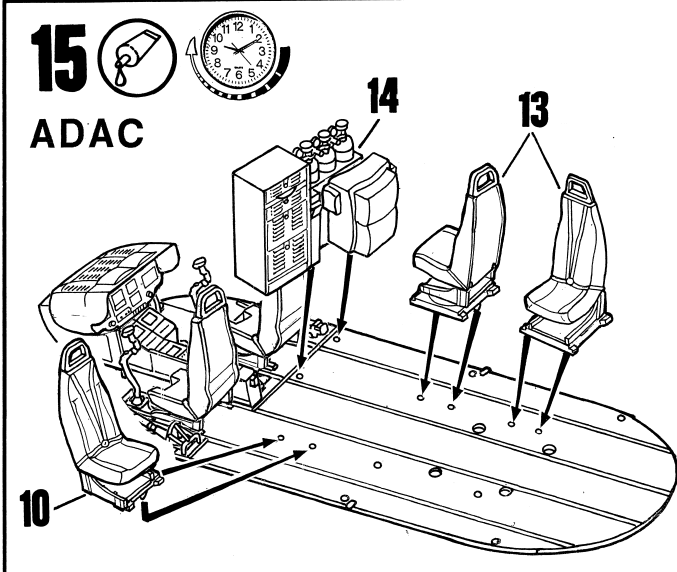
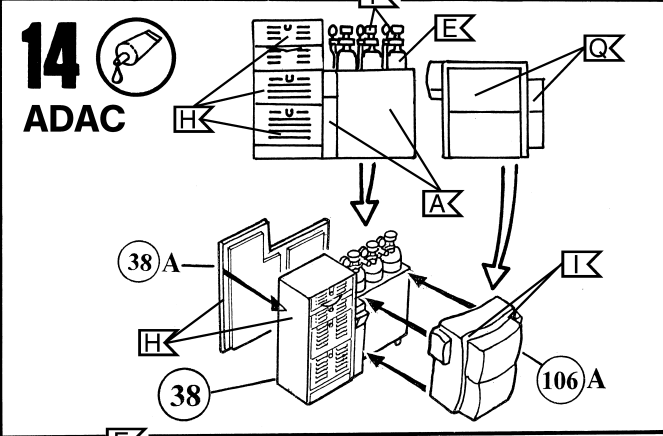
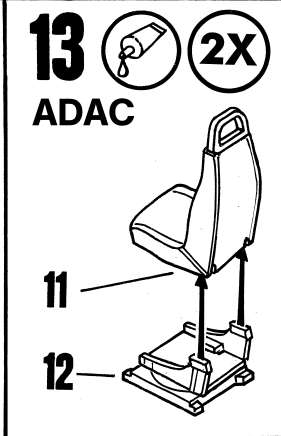
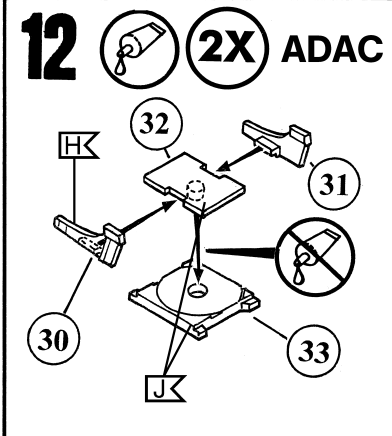
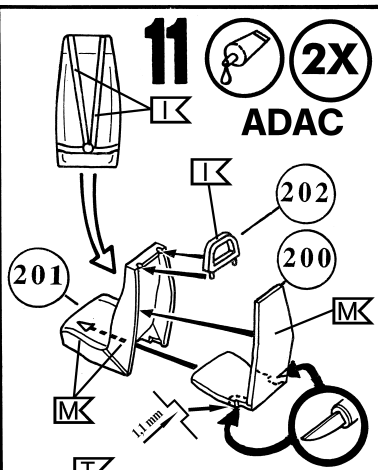
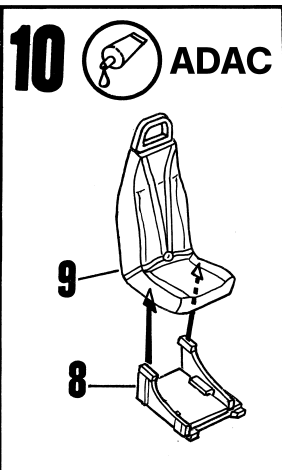
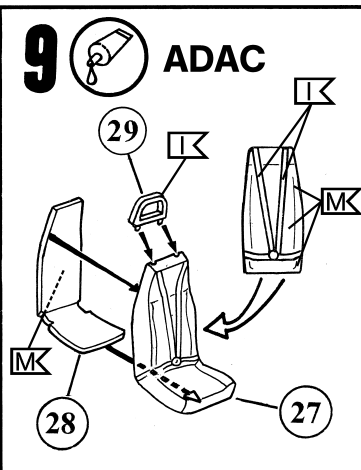
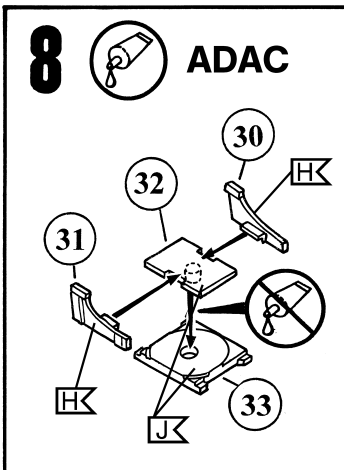


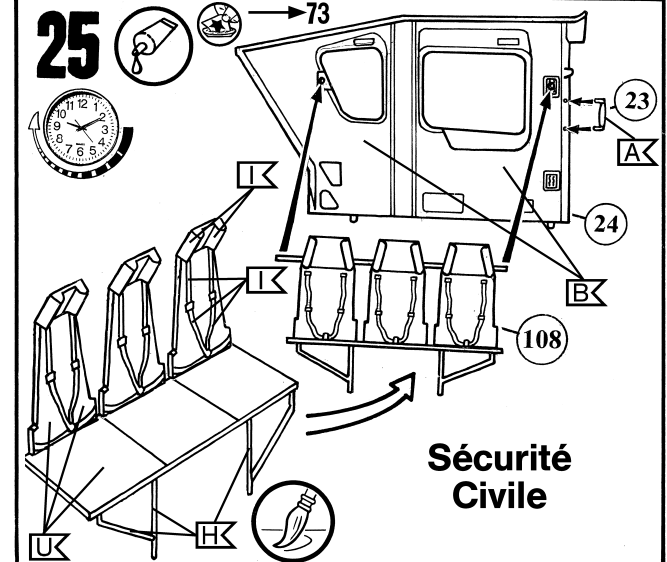
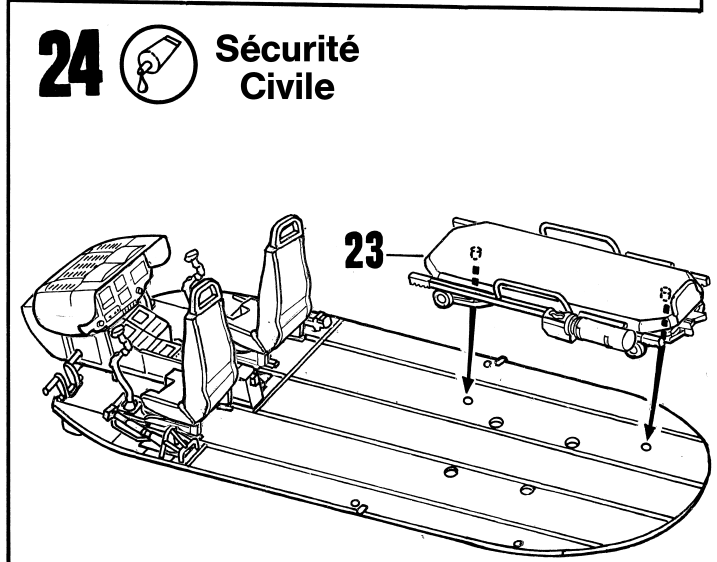
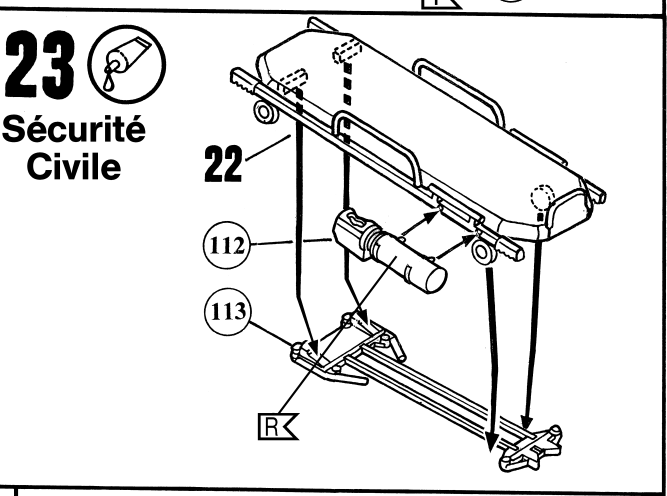
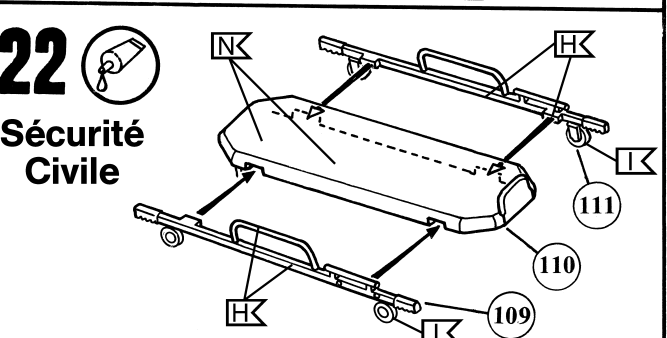
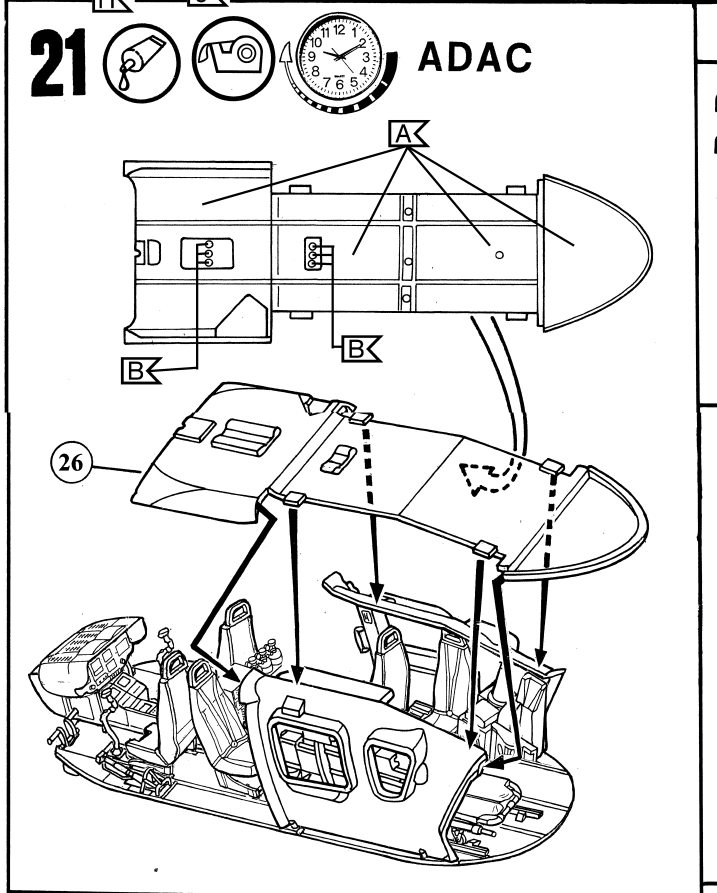
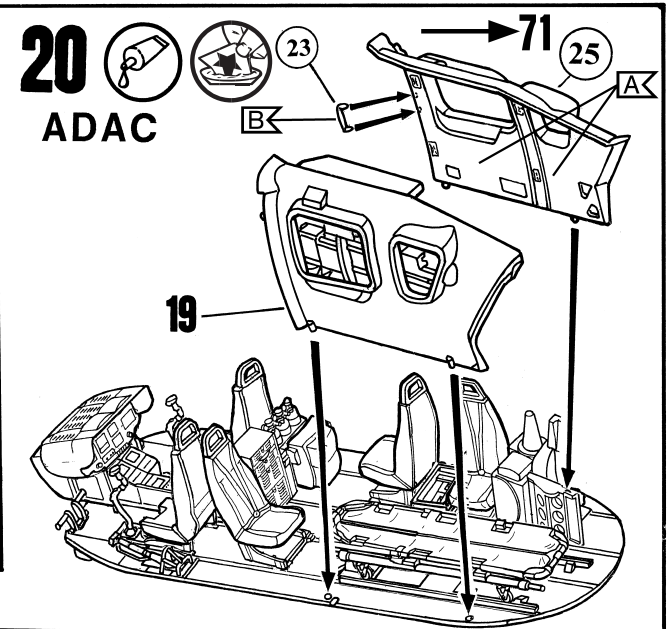
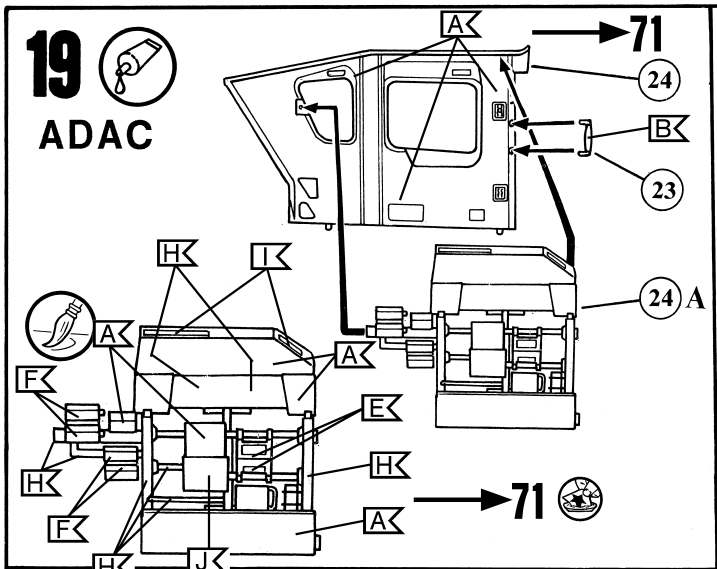
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 Tarpeetomat osat
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 Deler som ikke er nødvendige
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 Elementy niepotrzebne
 μη χρησιμοποιούμενα εξαρτήματα
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Sécurité Civile



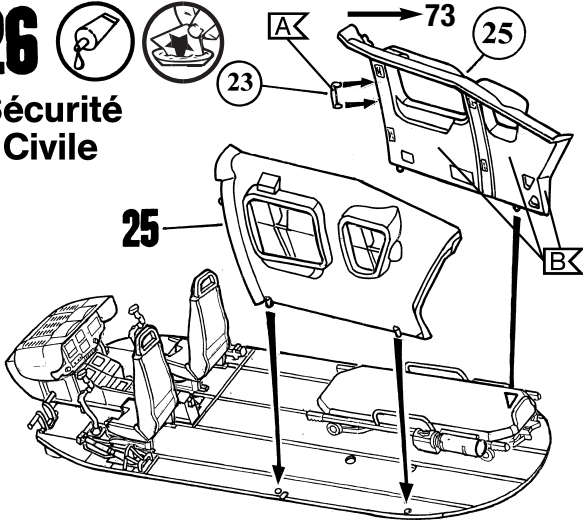




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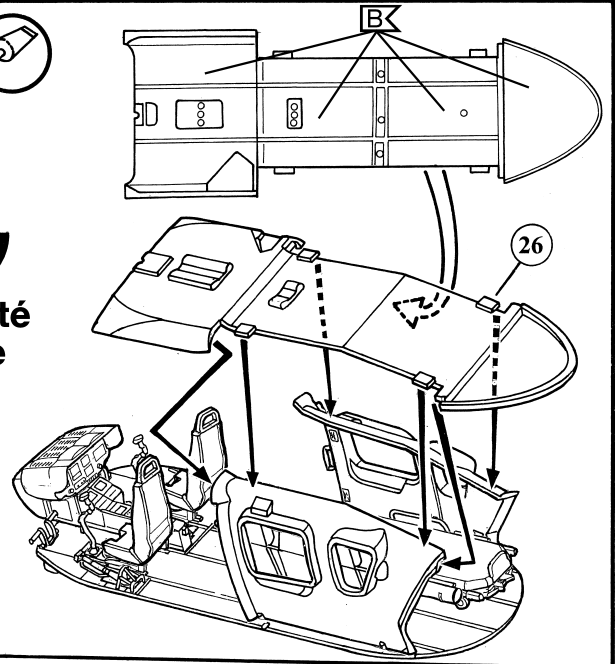
Sécurité Civile



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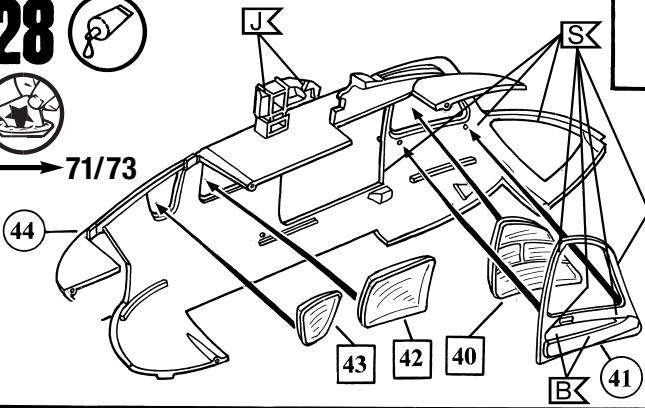
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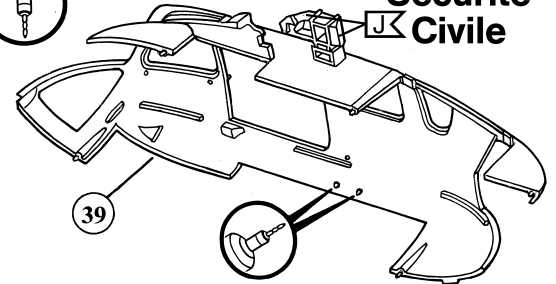
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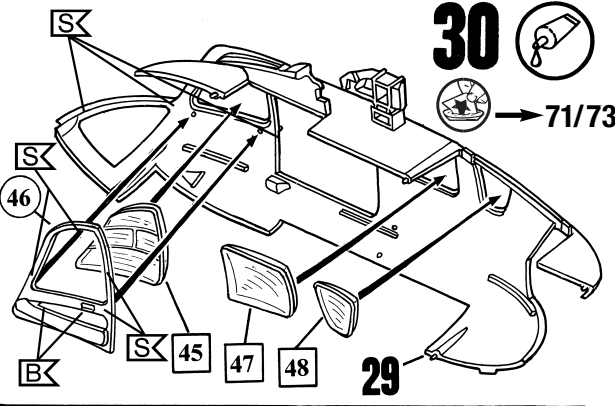
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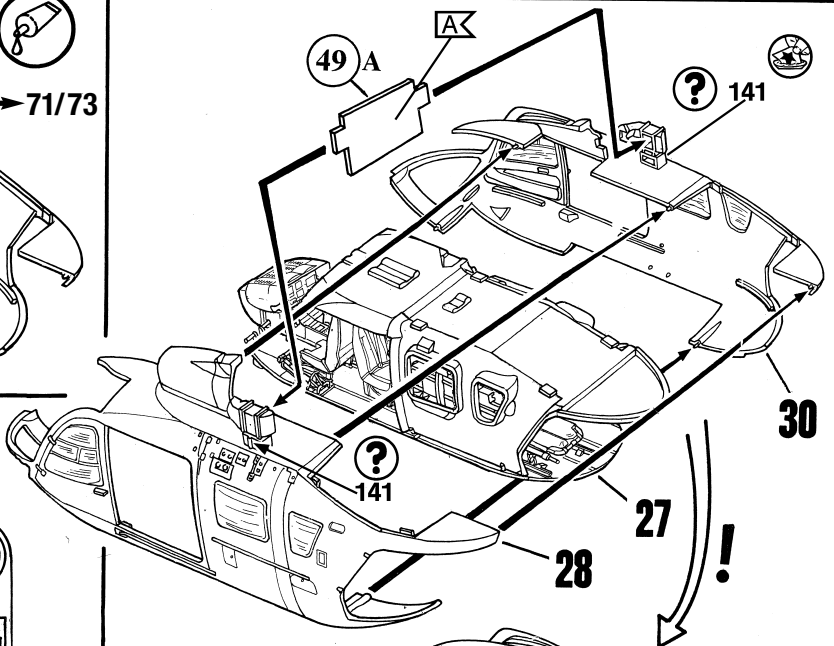
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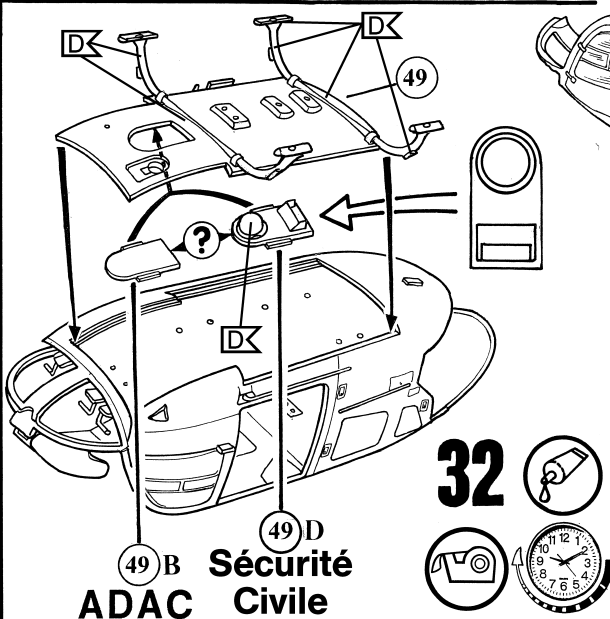
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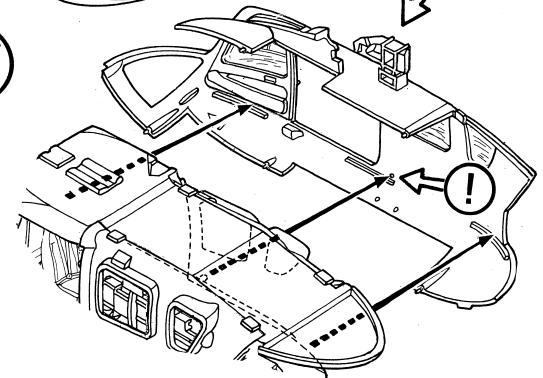
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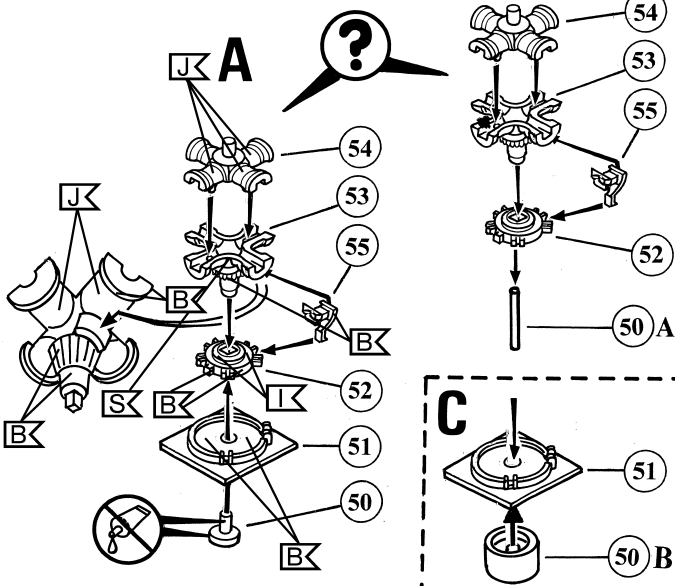
Sécurité ADAC Civile



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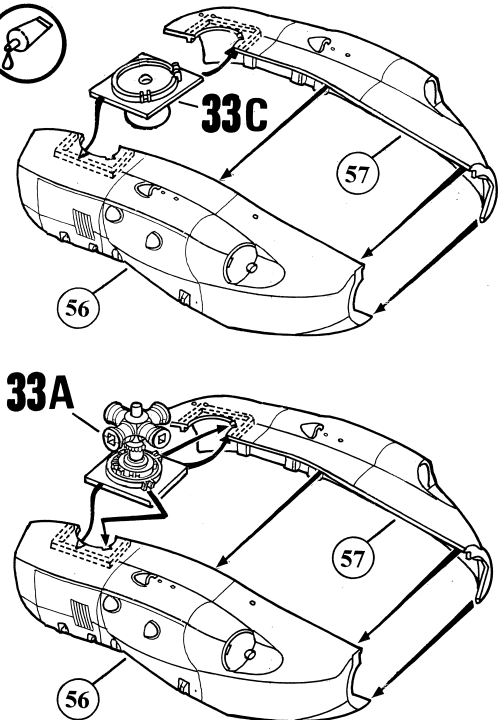


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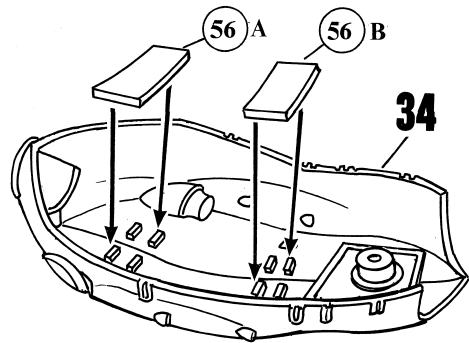


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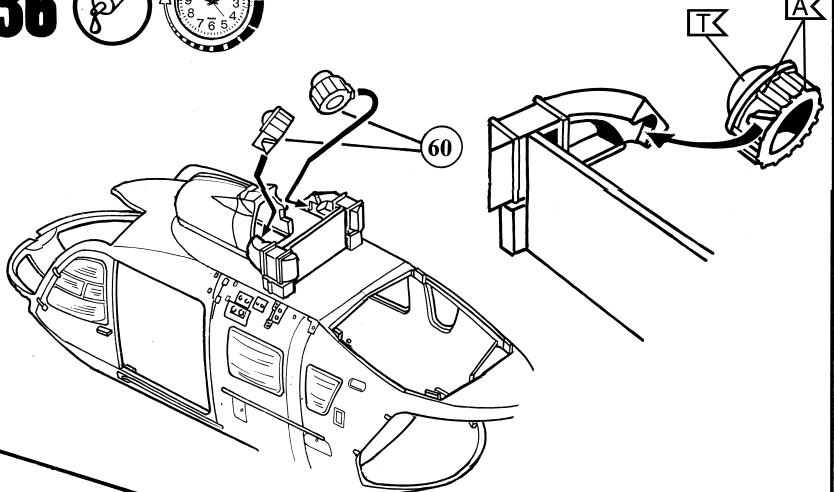
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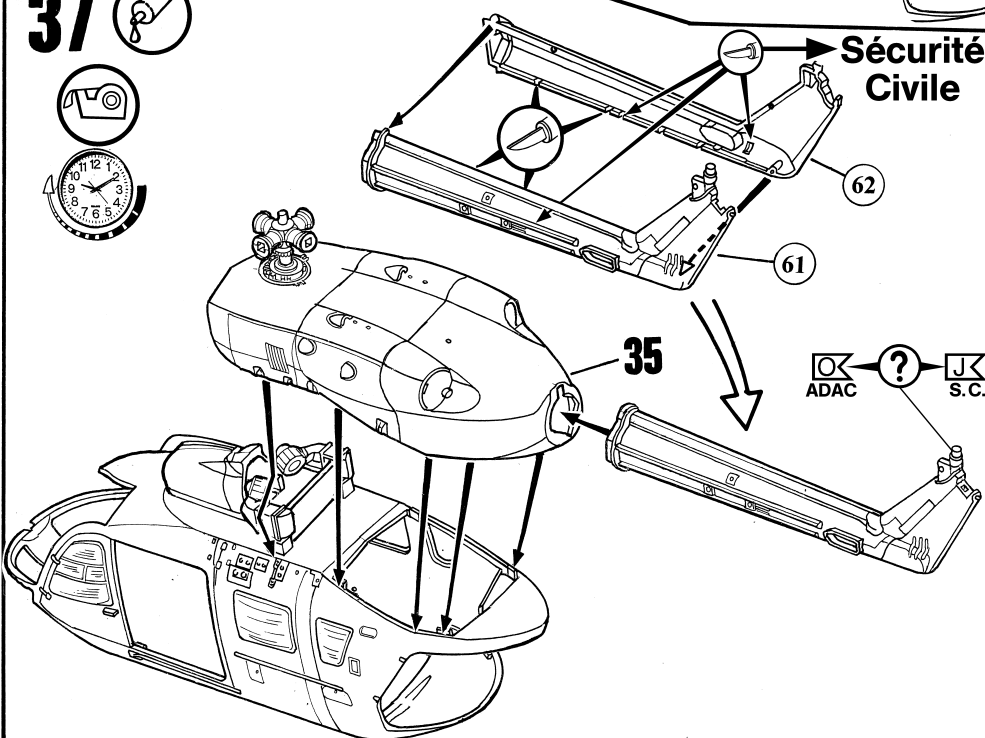
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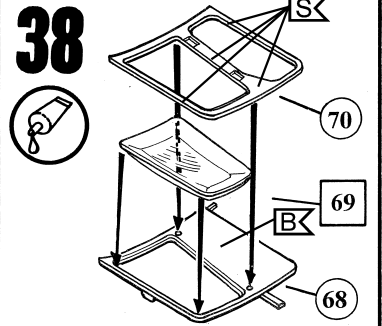
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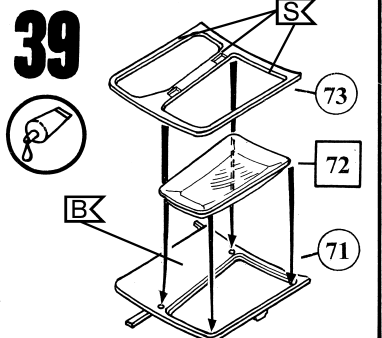
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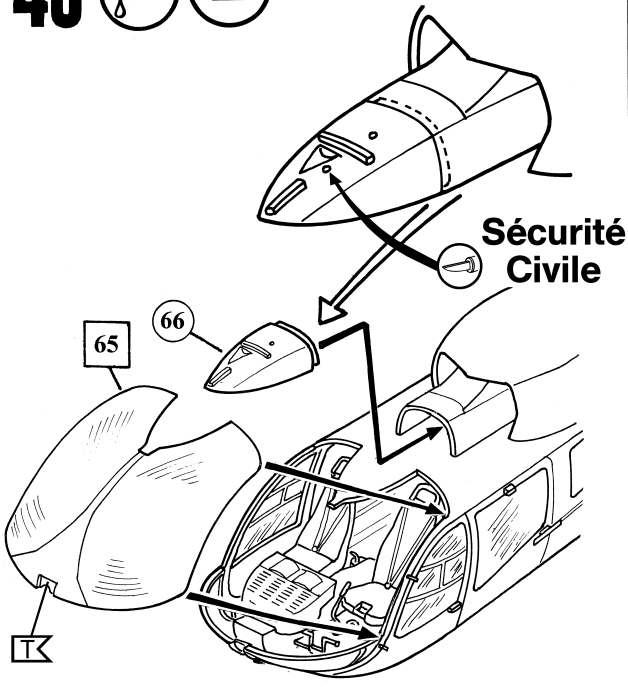
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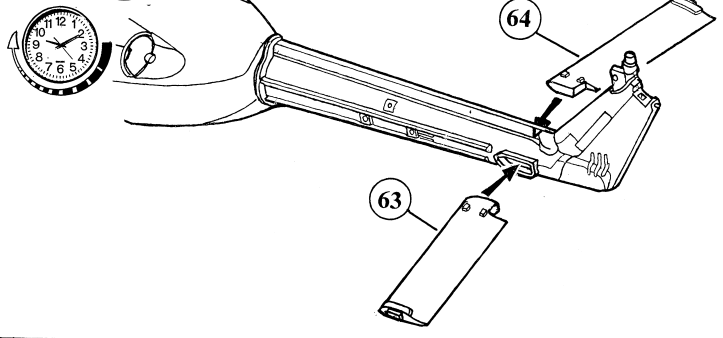
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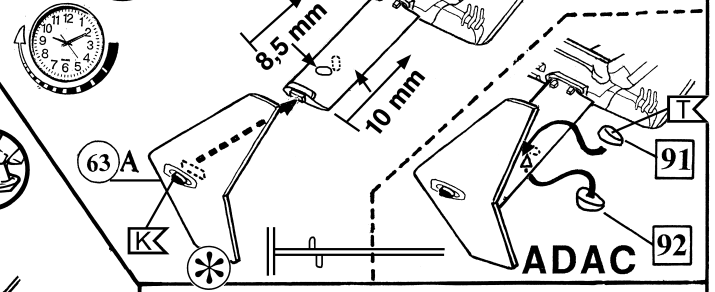
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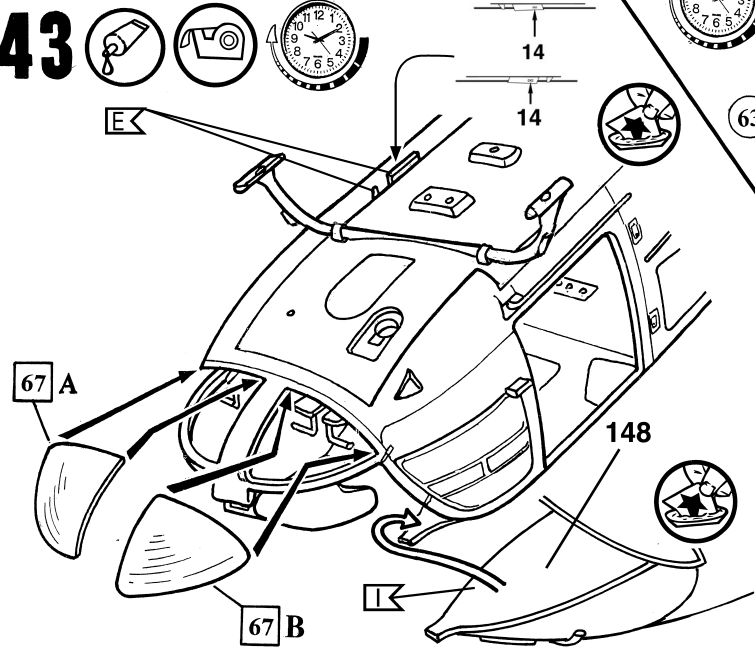
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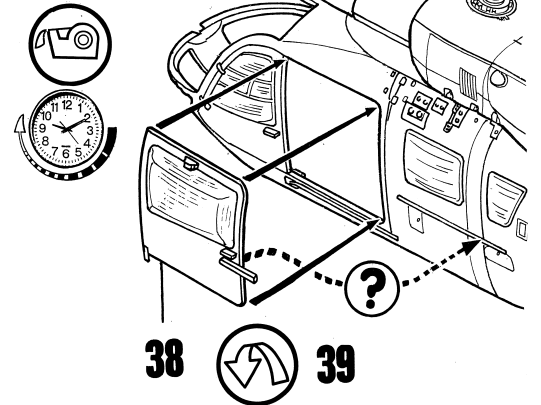
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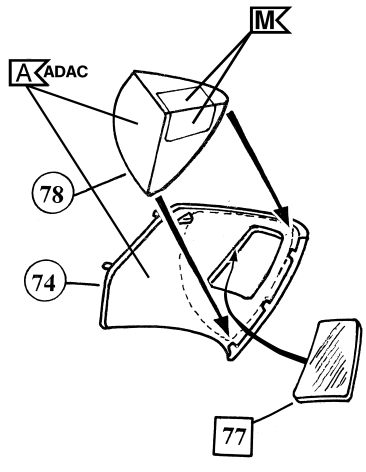
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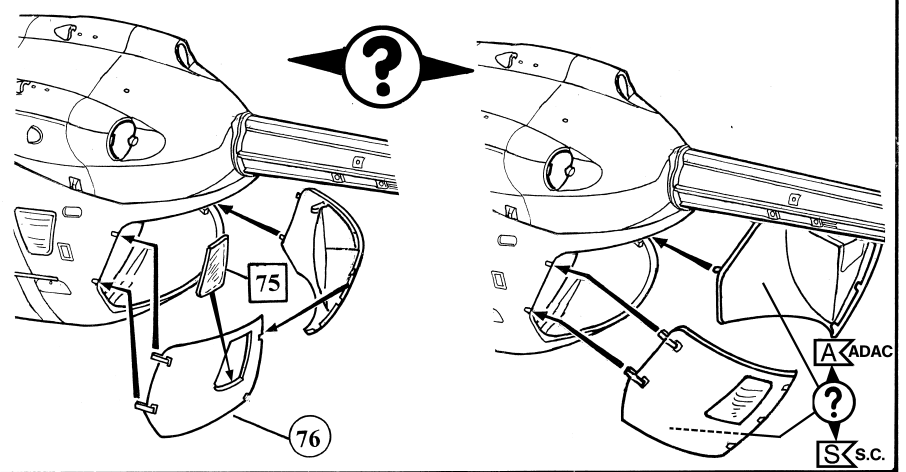
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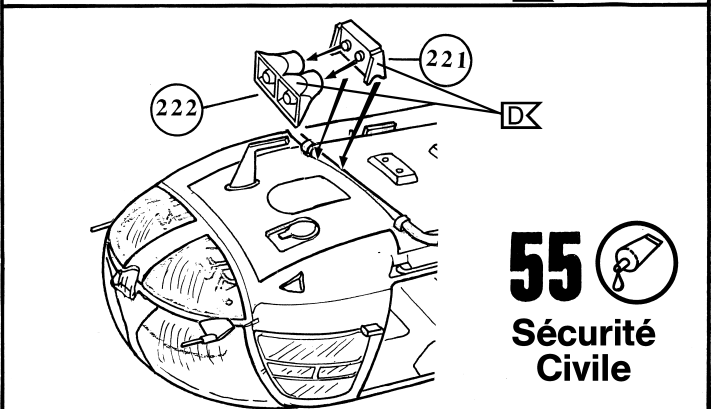
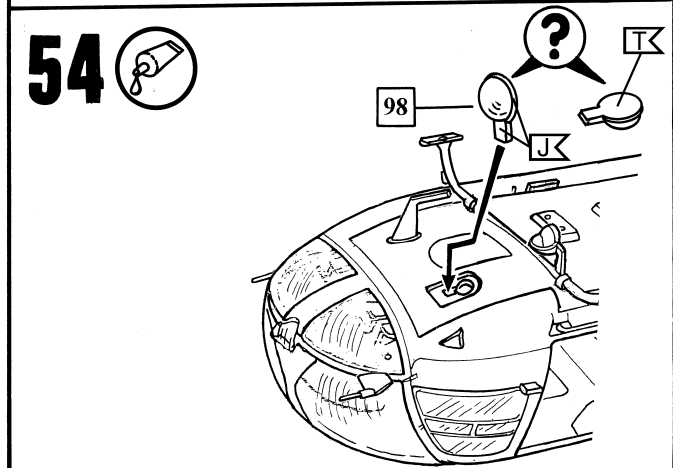
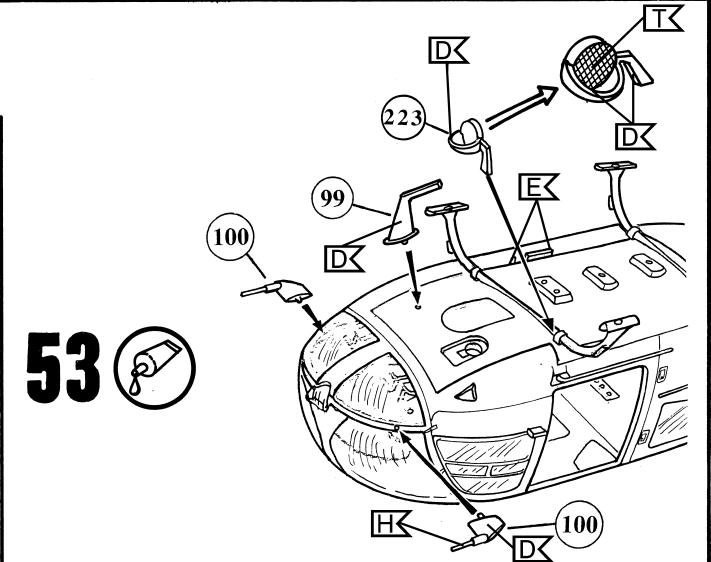
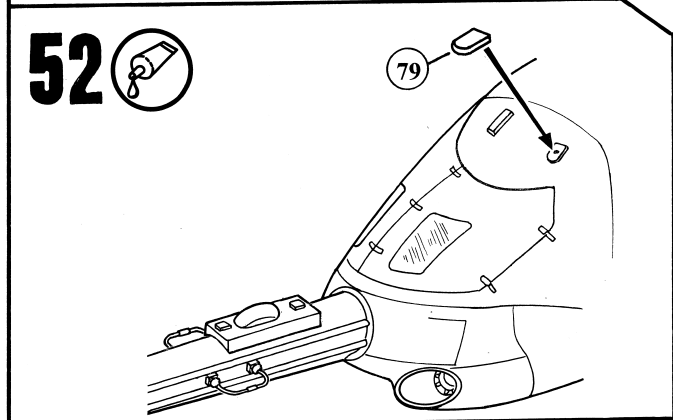
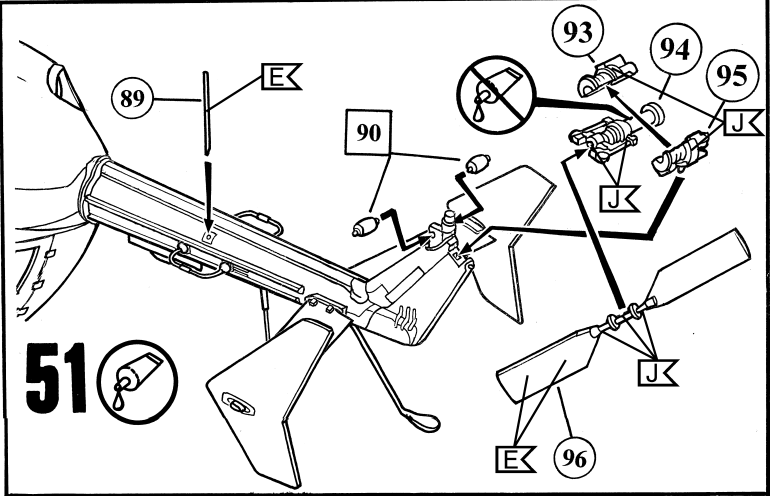
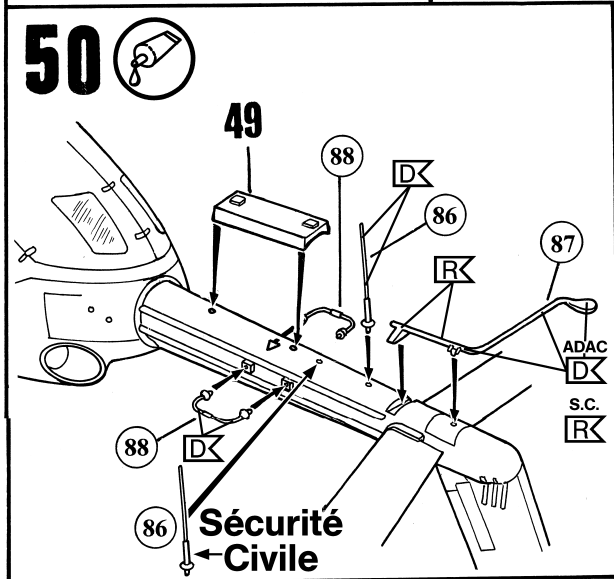
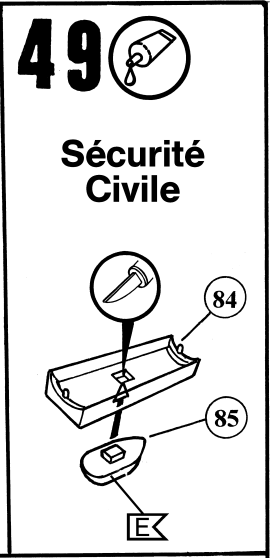
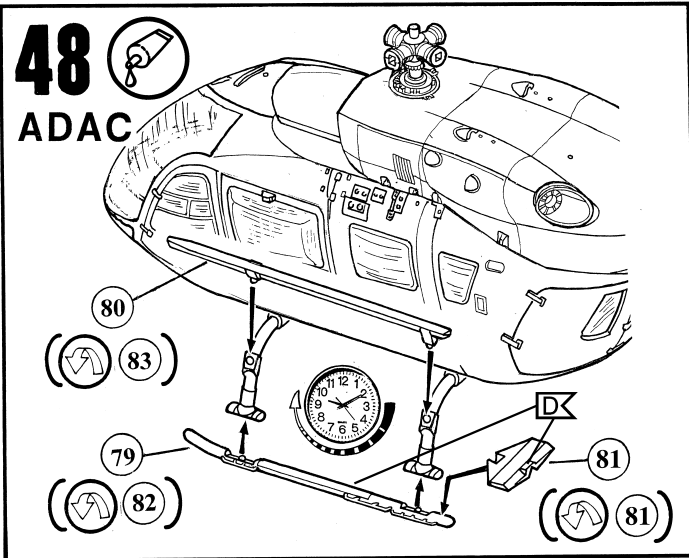
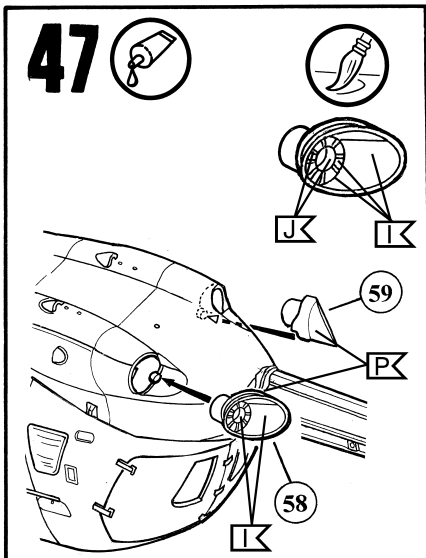


45  **ADAC**



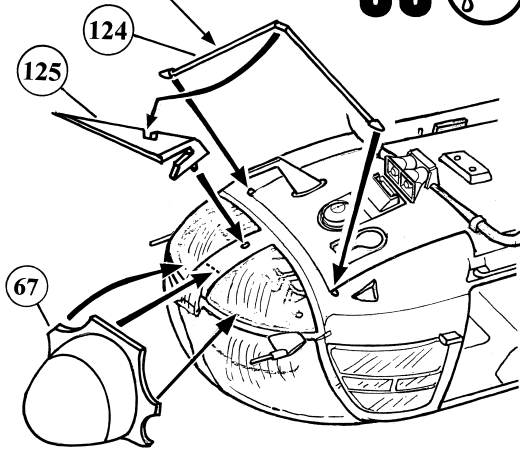
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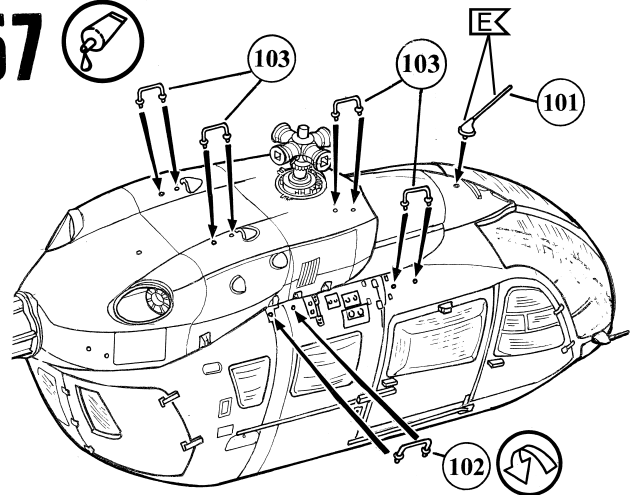
Sécurité Civile

56 



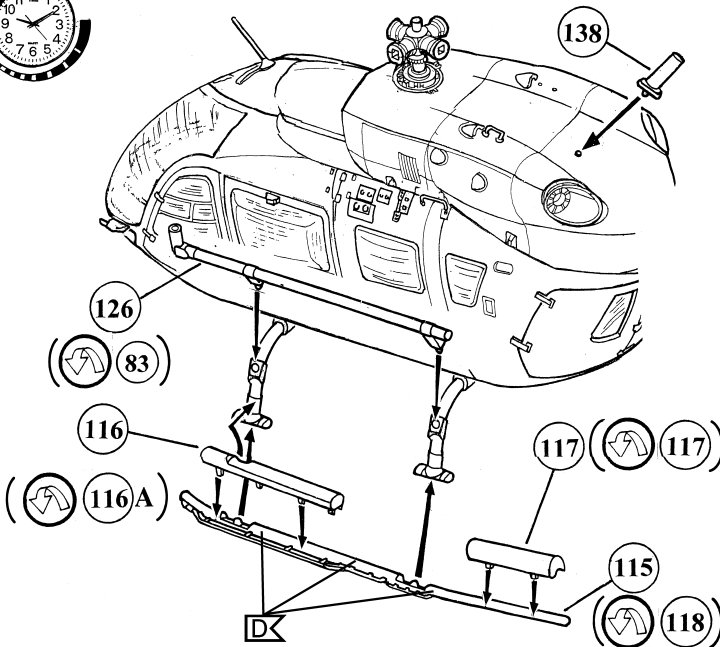
common

57 



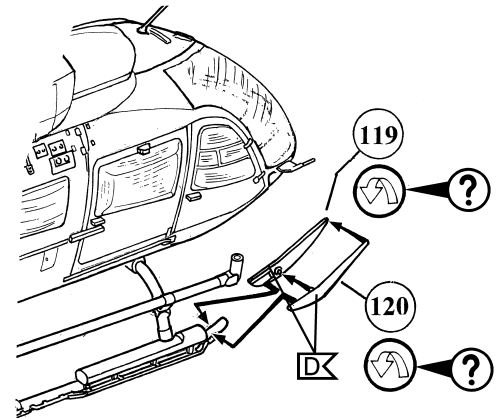
58 

Sécurité Civile



59 

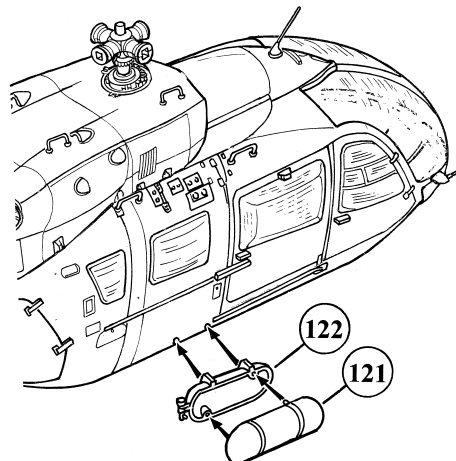
Sécurité Civile



left side  → 63 + 64 + 65

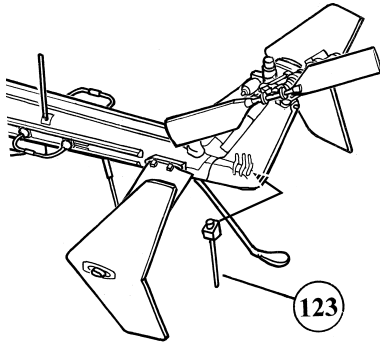
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Sécurité Civile



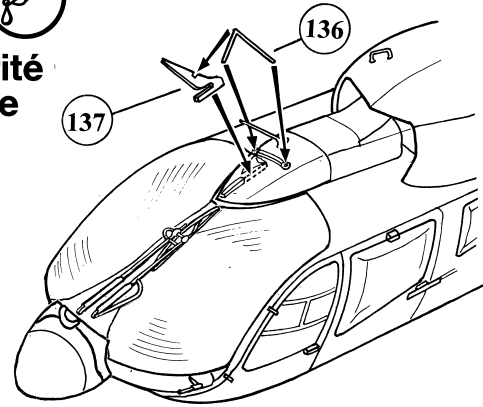
61 

Sécurité Civile



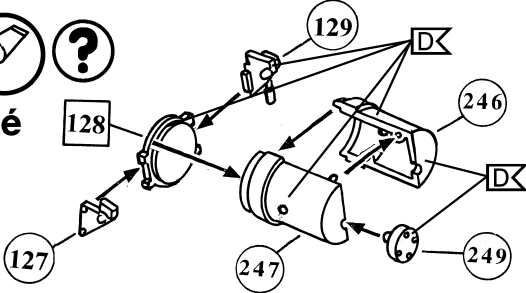
62 

Sécurité Civile



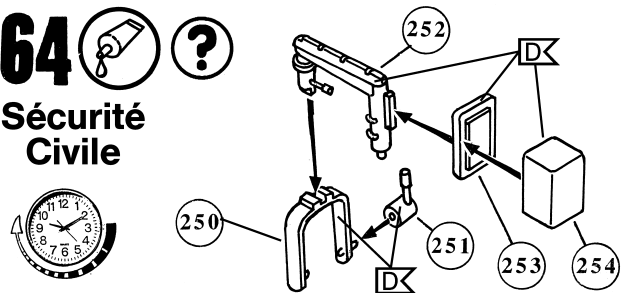
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Sécurité Civile



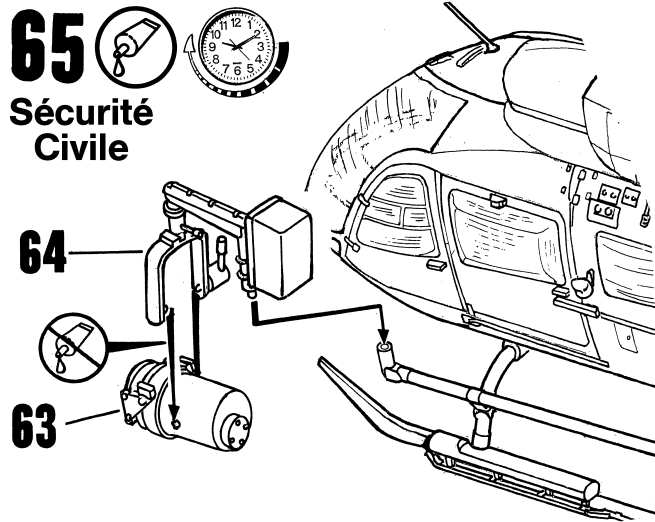
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Sécurité Civile



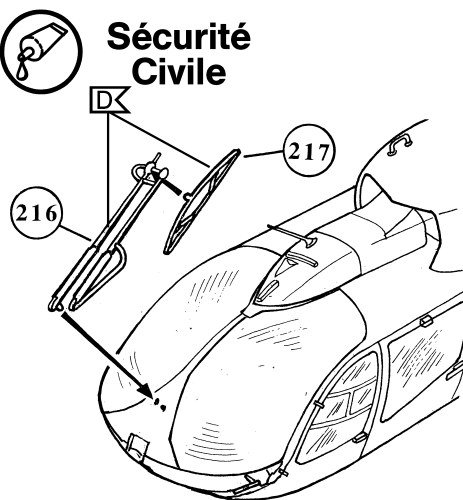
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Sécurité Civile



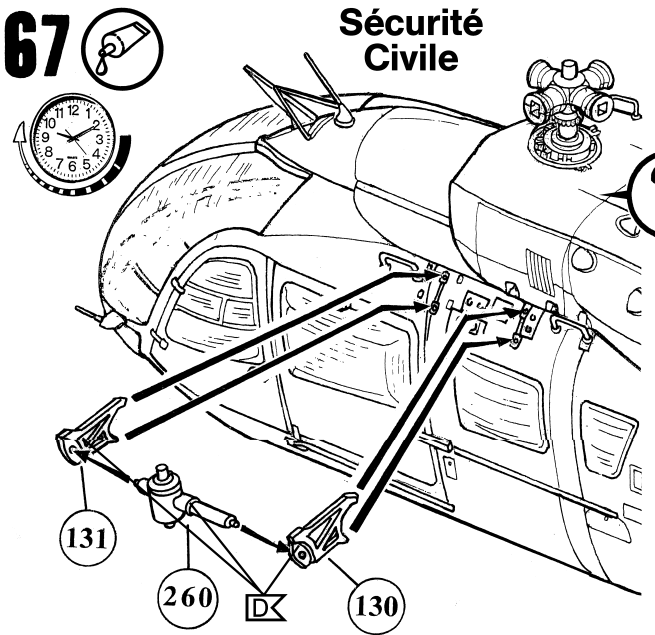
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Sécurité Civile



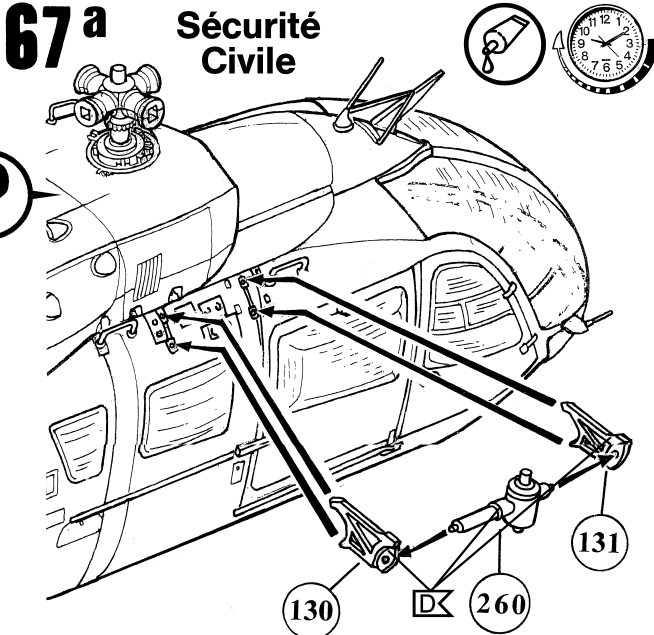
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Sécurité Civile

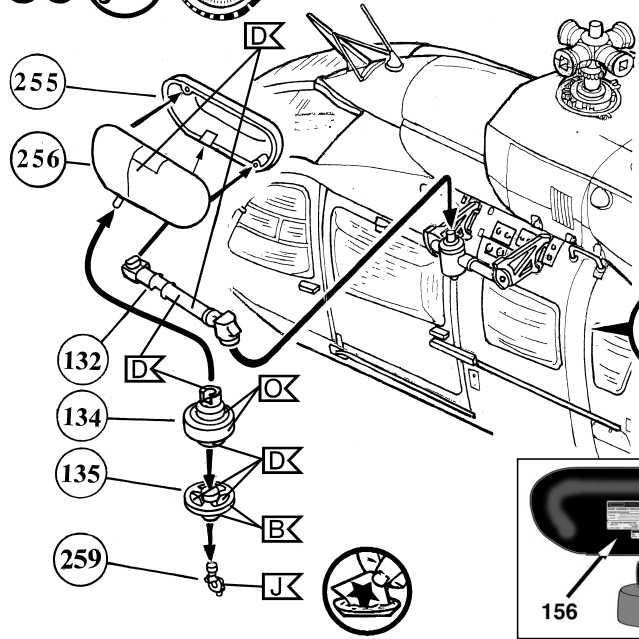


67 a 

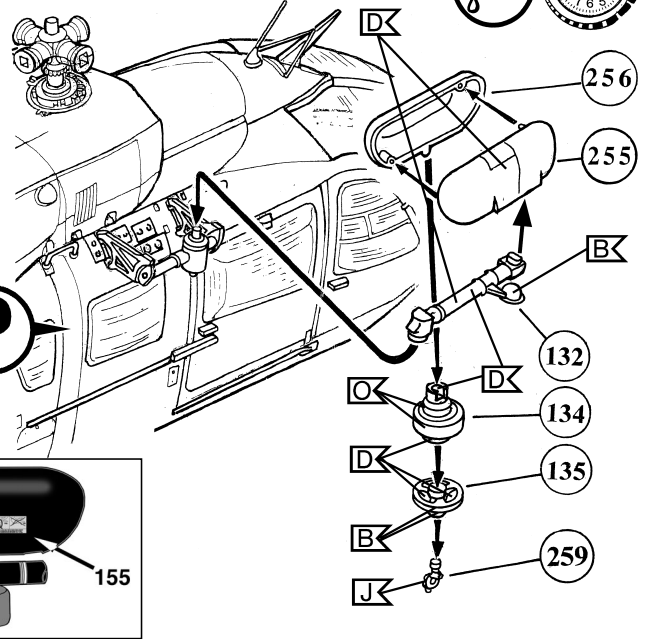
Sécurité Civile



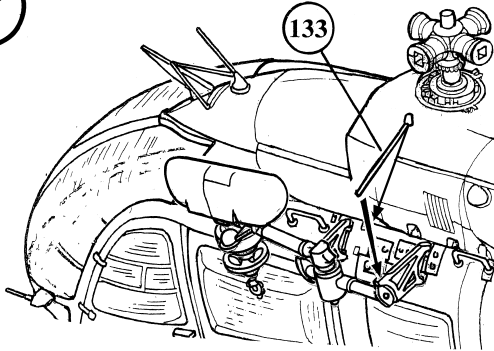
68 Sécurité Civile



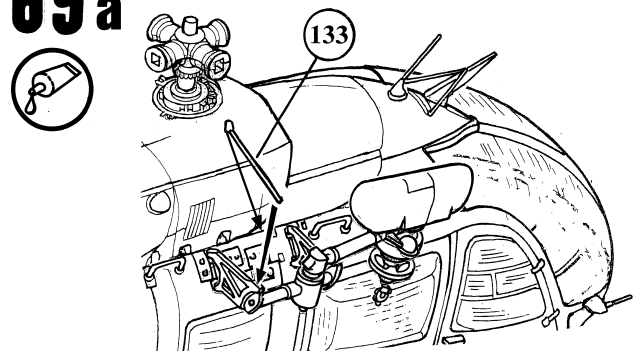
Sécurité Civile 68 a



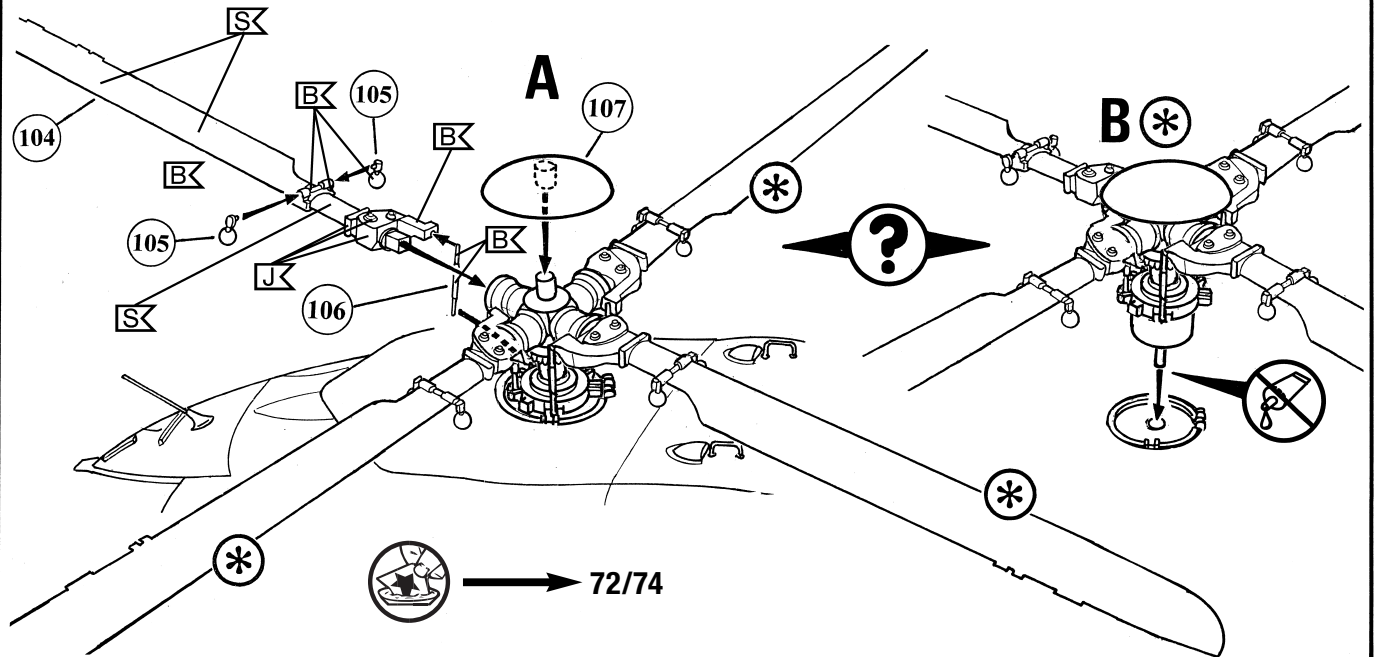
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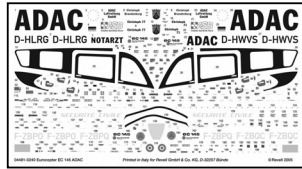
69 a Sécurité Civile



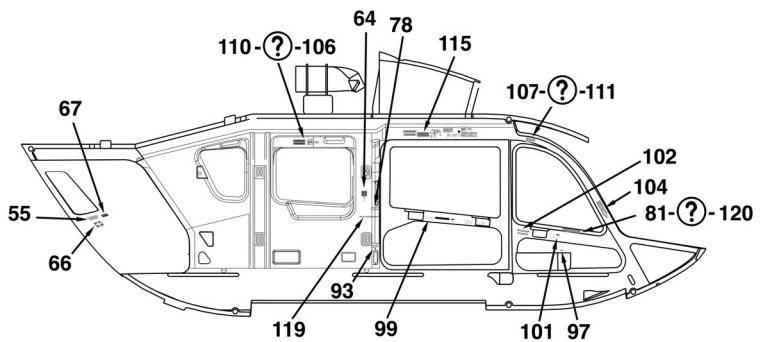
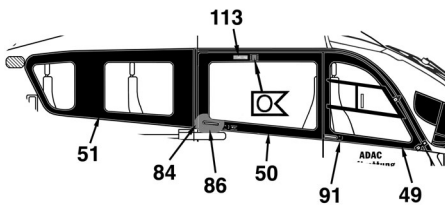
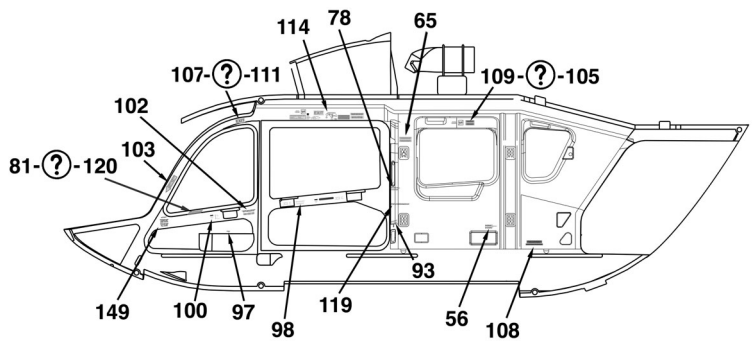
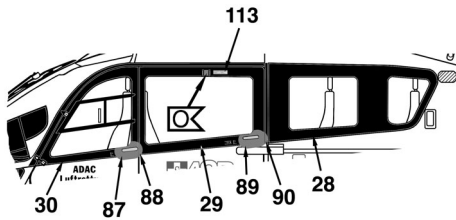
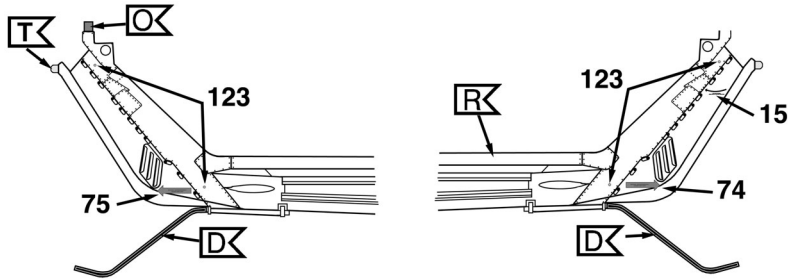
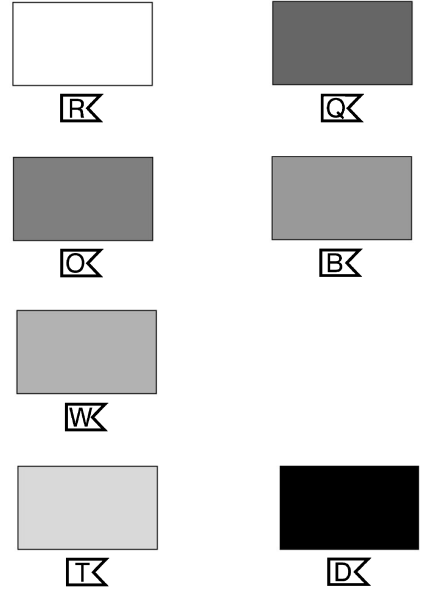
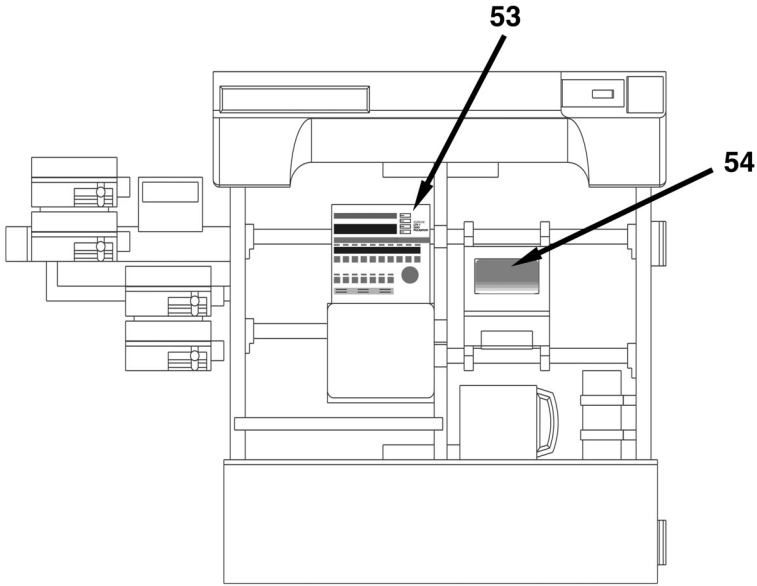
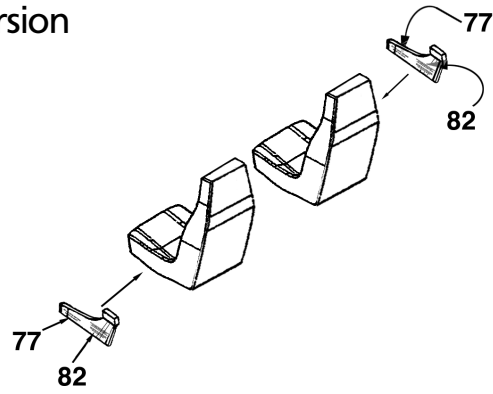
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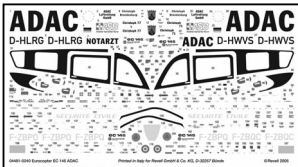
71



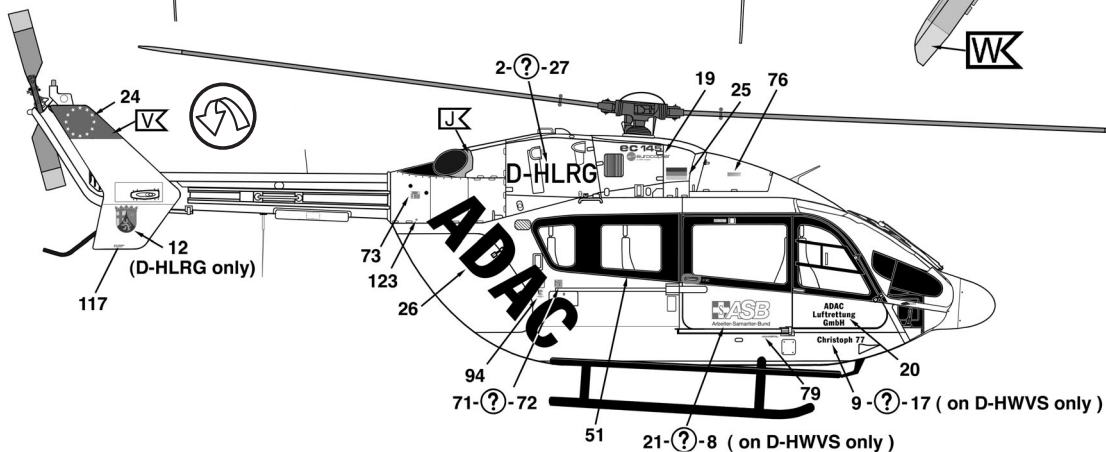
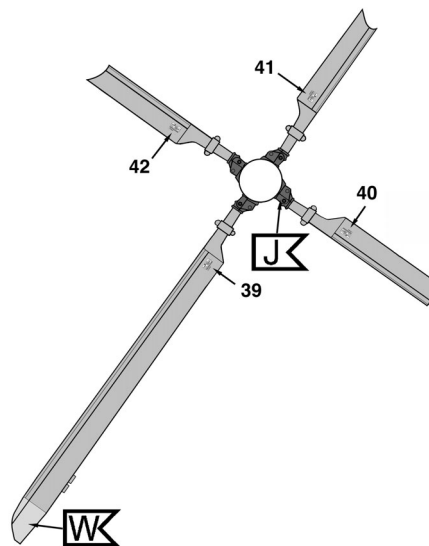
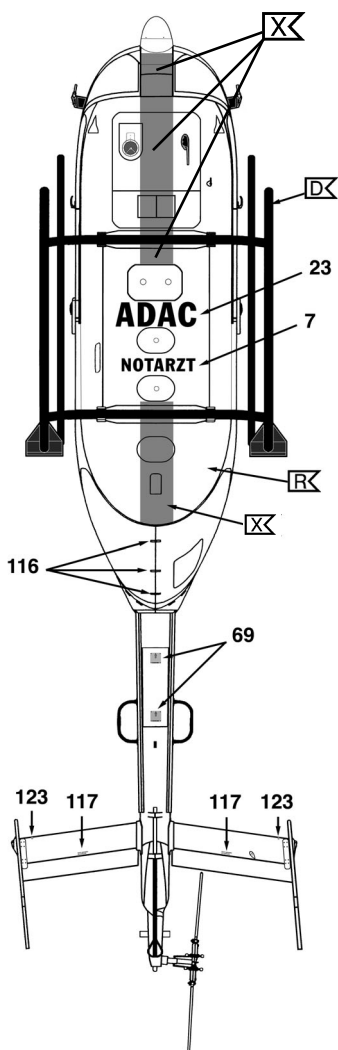
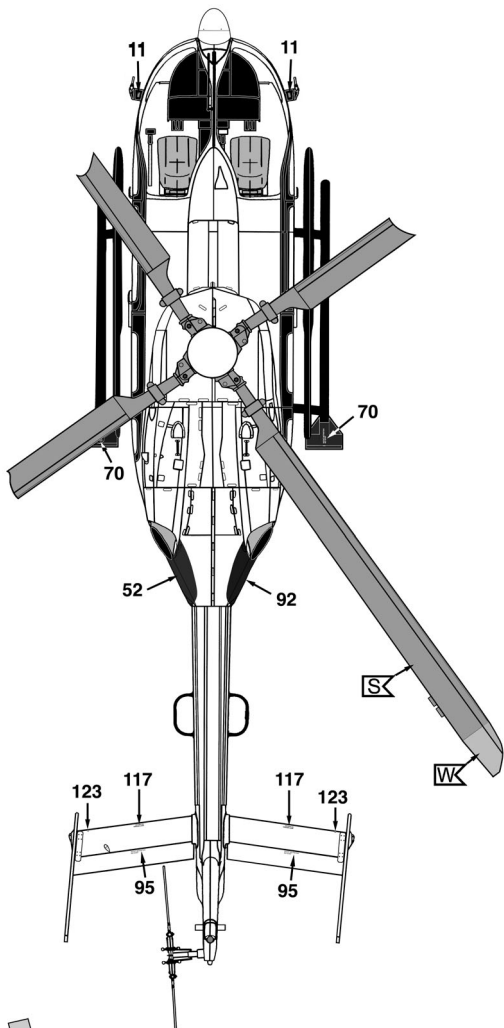
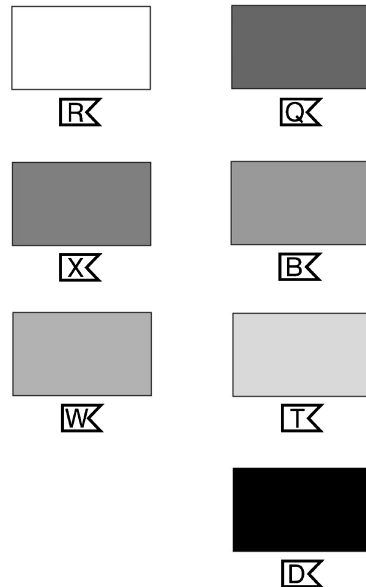
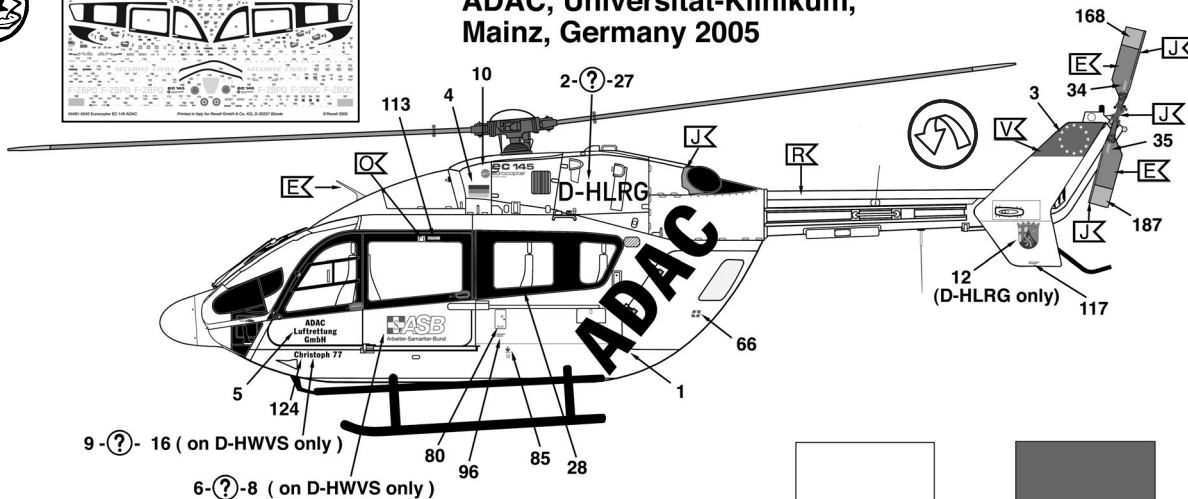
ADAC Version



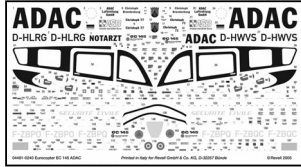
72



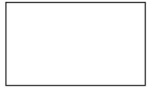
Eurocopter EC-145 ADAC, Universität-Klinikum, Mainz, Germany 2005



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Sécurité Civile



IK



WK



OK



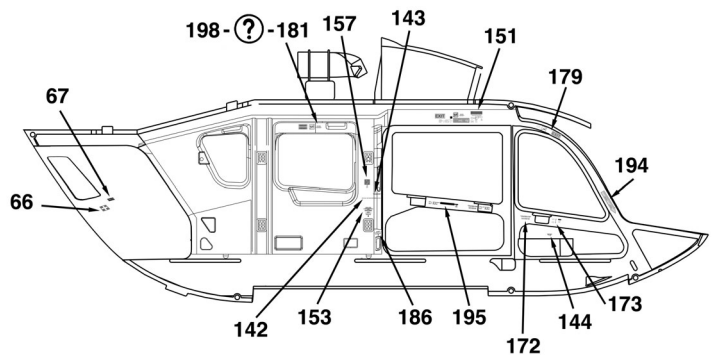
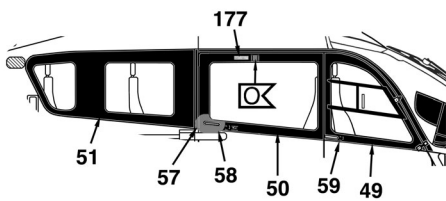
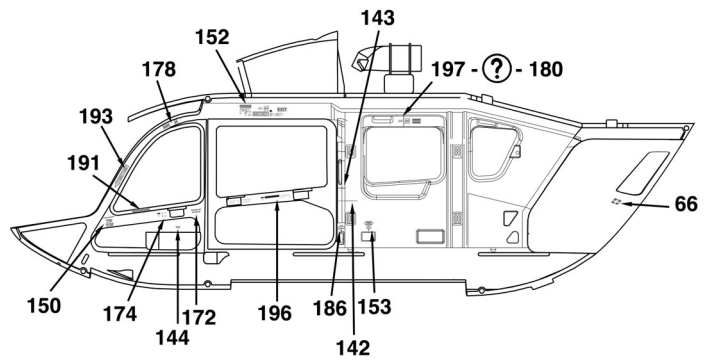
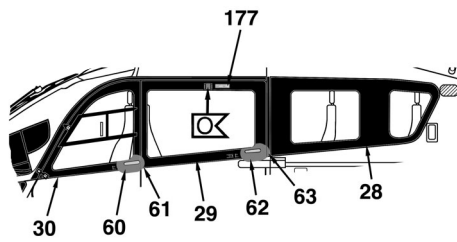
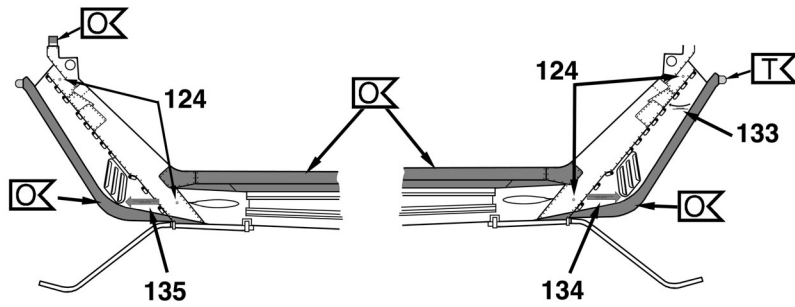
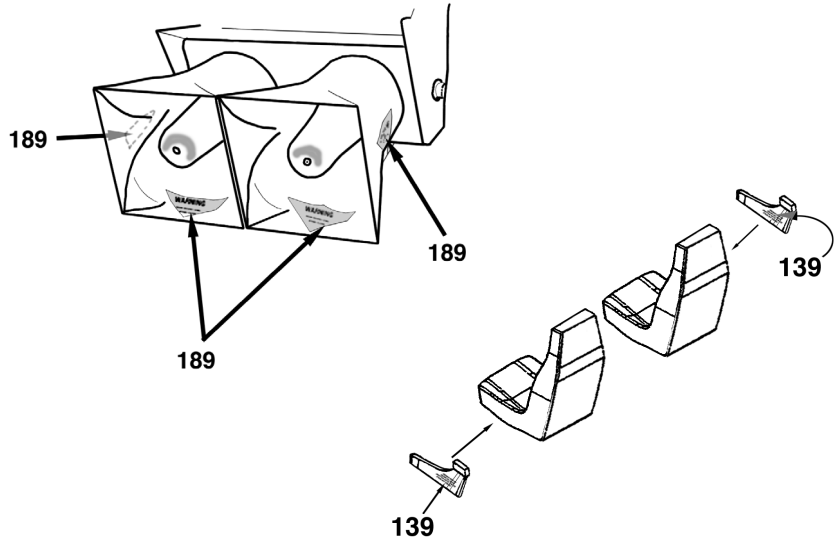
TK



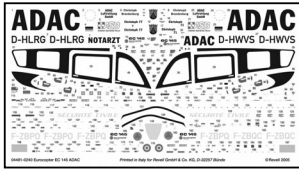
BK



DK



74



Eurocopter EC 145 Sécurité Civile Nancy-Ochey, France 2005

