



HI-TECH

AH-1G Cobra 'Early Tails over Nam'

EN

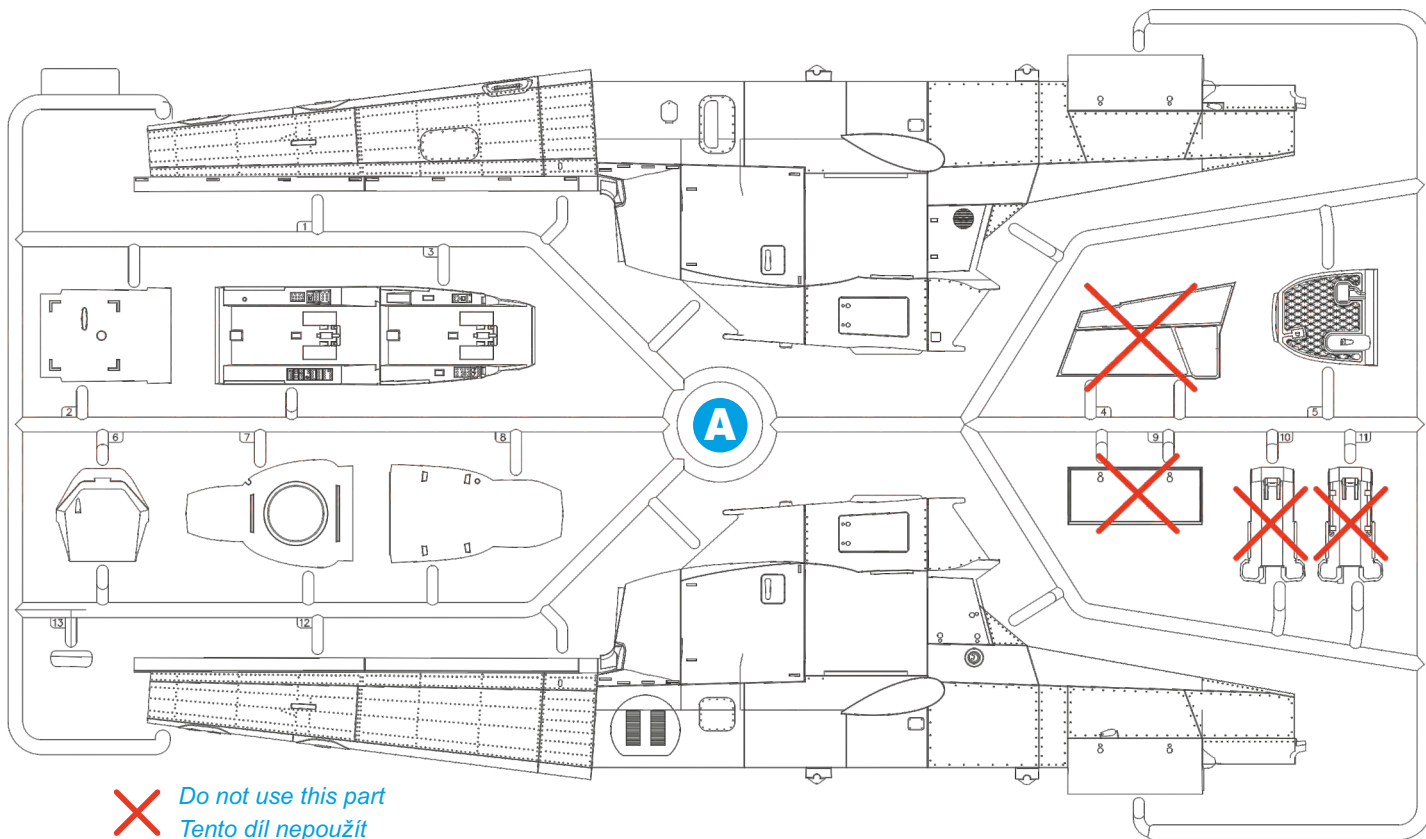
Soon after its engagement in the Vietnam War the US Air Force started to use helicopters as offensive weapons platforms. Even during 1962-63 period field modified UH-1A helicopters supported the troops' landing with machineguns, cannons and rockets. The success of such equipped helicopters showed the need of a new, single purpose attack machine of the smallest possible dimensions, equipped with effective firepower and high damage resistance. Bell Company started to develop of specified helicopter on their expenses since the US Army had immense interest in such machine. The first project based on type Bell 47 was not successful. Its main downfall was a weak piston engine. The new project designated D-262 grew into the late appearance designated as model 209. The model 209 took over some of the structural solutions from UH-1C helicopter (undercarriage skis, main rotor, tail boom, etc.) but featured new fuselage that housed cockpit for crew of two and stub wings for carrying external armament. When in 1965 the US Army issued a specification calling for new attack helicopter, Bell model 209 was a clear winner. The very next year the US Army ordered, initially two pre-production machines and then 110 production helicopters under army designation AH-1G Cobra. Additional orders followed the original one. To speed up the Cobra deployment into Vietnam a NETT (New Equipment Training Team) training centre was founded in Vung Tau in South Vietnam. The first unit that flew the new machines in combat was the 334th platoon based at Bien Hoa. Other units were rapidly equipped with Cobras. The knowledge and pilots' requirements during the fights in Vietnam were incorporated into the production of the helicopters. The first helicopters featured the tail rotor on the left side, later relocated to the right side, strengthened undercarriage skis were adopted, the original nose mounted TAT-102 turret with Minigun was replaced by M-28 turret equipped with Minigun and grenade launcher (most often). The stub wings were capable of carrying variety of weapons; from various rocket blocks, Minigun pods to M-35 pod (Vulcan cannon with ammunition boxes). All depended on the mission purpose and pilot's preferences. As a reaction to the heat seeking missiles used by the Vietnamese Army and the Viet Cong starting in 1972 the helicopters were equipped with exhaust gas deflectors. Cobras indisputable prove to be effective in Vietnam. They were used not only by US Army helicopter units but also by the US Marines that were also satisfied with AH-1G but for the shipboard and over sea operations which required a helicopter with two engines. This requirement led to the development of twin-engined version AH-1J. AH-1Gs were exported only to Spain and Israel. Cobras were used by the Spanish Navy. Israeli Cobras faced troubles with hot and dusty environment. Israel needed tank buster helicopters and therefore subsequent orders were placed for the anti-tank version AH-1Q/S. Plenty of the US AH-1Gs were modified to this version, including the machines withdrawn from Vietnam. The conception of AH-1G Cobra became a standard for attack helicopters. Subsequent versions of this helicopter are still in use not only in the USA but also in many other armies.


TTD: main rotor diameter: 13.4 m, fuselage length: 13.5 m, tail rotor diameter: 2.6 m, Max. speed: 276 km/h, service ceiling: 3,871 m, Range: 580 km.

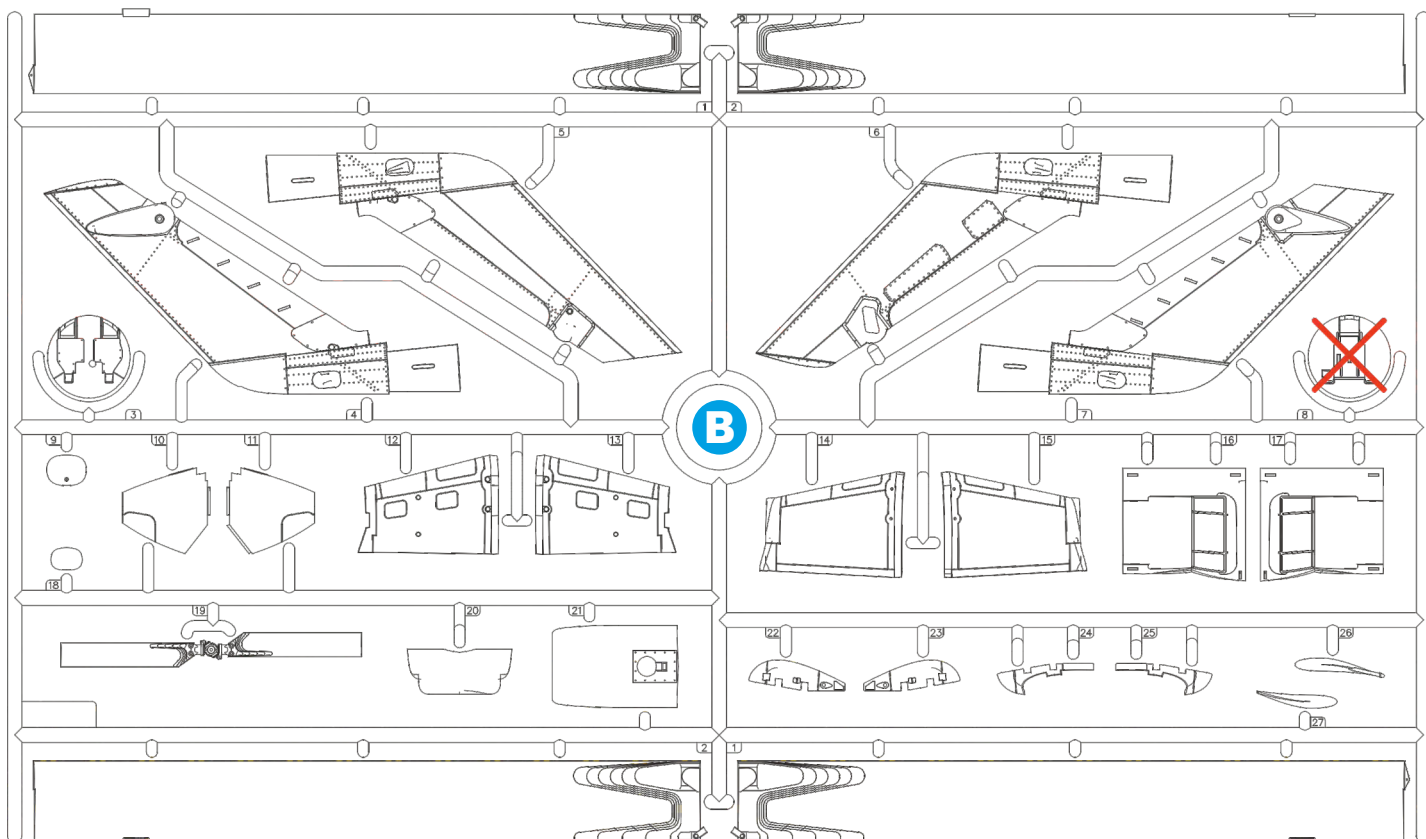
CZ

Americké letectvo začalo záhy po zapojení se do války ve Vietnamu používat vrtulníky jako nosiče ofenzivní výzbroje. Již v letech 1962-63 podporovaly vrtulníkové výsadky palbou z kulometů, kanonů či raketometů v polních podmínkách vyzbrojené vrtulníky UH-1A. Úspěšné použití takto vyzbrojených vrtulníků ukázalo potřebu nového jednoúčelového útočného stroje s účinnou výzbrojí, co nejmenšími rozměry a velkou odolností proti poškození. Protože americká armáda měla o takový stroj enormní zájem, firma Bell zahájila vývoj takového stroje ve své režii. První projekt na základě typu Bell 47 nebyl úspěšný. Handicapoval ho zejména slabý pístový motor. Nový projekt firmy, označený D-262 postupně vyvrátil do podoby označené model 209. Model 209 přebíral část konstrukčních řešení z vrtulníku UH-1C (ližiny podvozku, rotor, nosník ocasního rotoru apod.), měl však nový trup s kabinou pro dva členy osádky a s pylony pro podvěšenou výzbroj. Když armáda USA vypsalala v roce 1965 soutěž na nový bitevní vrtulník, Bell model 209 ji s přehledem vyhrál. Hned v následujícím roce armáda objednala nejprve dva předseriové a pak stodeset seriových vrtulníků s armádním označením AH-1G Cobra. Další objednávky následovaly. Pro co nejrychlejší nasazení Cober ve Vietnamu vzniklo přeškolená středisko NETT (New Equipment Training Team) v jihovietnamském Vung Tau. První jednotkou nasazenou do boje na nových strojích byla 334. rota operující z Bien Hoa. Urychleně byly vyzbrojovány další jednotky. V průběhu bojů ve Vietnamu byly postupně zapracovány na vyráběných vrtulnicích poznatky a požadavky letců. První vrtulníky měly vyrovnávací rotor vlevo, pozdější vpravo, byly montovány zesílené ližiny podvozku, příďovou věž TAT-102 s jedním rotačním kulometem Minigun nahradila věž M-28 s Minigunem a granátometem (nejčastěji). Na závěsníky byla zavěšována pestrá výzbroj od různých raketových bloků, přes pouzdra s kulometry Minigun až po komplet M-35 (kanon Vulcan s nábojovými schránkami). Záleželo na úkolu, který měl vrtulník plnit a také na tom, jakou výzbroj pilot preferoval. V roce 1972 se na vrtulnicích objevily deflektory výtokových plynů jako reakce na tepelně naváděné střely ve výzbroji komunistické vietnamské armády a Vietkongu. Ve Vietnamu se Cobry nesporně osvědčily. Používaly je nejen vrtulníkové jednotky armády, ale i jednotky US MARINES. US MARINES bylo také s AH-1G spokojeno, ale pro provoz nad mořem a lodích požadovalo dva motory, což vedlo k vývoji dvoumotorových verzí, první z nich byla AH-1J. AH-1G Cobra byly exportovány jen do Španělska a Izraele. Ve Španělsku je používalo námořnictvo, v Izraeli měly AH-1G problémy s prašným a horkým podnebím. Izrael potřeboval vrtulníky pro boj s tanky a proto další objednávky byly směřovány na protitankové verze AH-1Q/S. Na tyto verze bylo také přestavěno mnoho amerických AH-1G, včetně strojů stažených z Vietnamu. Koncepce AH-1G Cobra se stal etalonem pro bitevní vrtulník. Další verze tohoto vrtulníku létají dodnes jak v USA, tak ve výzbroji mnoho jiných armád.

TTD: průměr hl. rotoru: 13,4 m, délka trupu: 13,5 m, průměr vyrovnávacího rotoru: 2,6 m, max. rychlost: 276 km/h, dostup: 3871 m, dolet: 580 km.



 Do not use this part
Tento díl nepoužít




Barvy GUNZE/ GUNZE Colour No.

A Black/ černá	H12/C33	G Gunmetal / dělovina	H28/C78	L Red / červená	H/C3
B Dk. Gull Gray / tm. racčí šedá	H/C317	H Dk. Brass / tmavá mosaz	MC219	M Zinc Chromate / zelená zákl.	C351
C Olive Green / olivově zelená	H52/C12	I Burnt Metal / opálený kov	H76/C61	N White / bílá	H/C1
D Light Green / světle zelená	H26/C66	J Tire Black / barva pneu	H77/C137	O Clear Red / červená čirá	H90/C47
E Aluminium / hliník	H/C8	K Lt. Gray / světle šedá	H21/C69	P Clear Blue / modrá čirá	H93/C50
F Steel / ocelová	H18/C28				

SYMBOLS

 OPTIONAL
MOŽNOST VOLBY
NACH BELIEBEN
OPTION

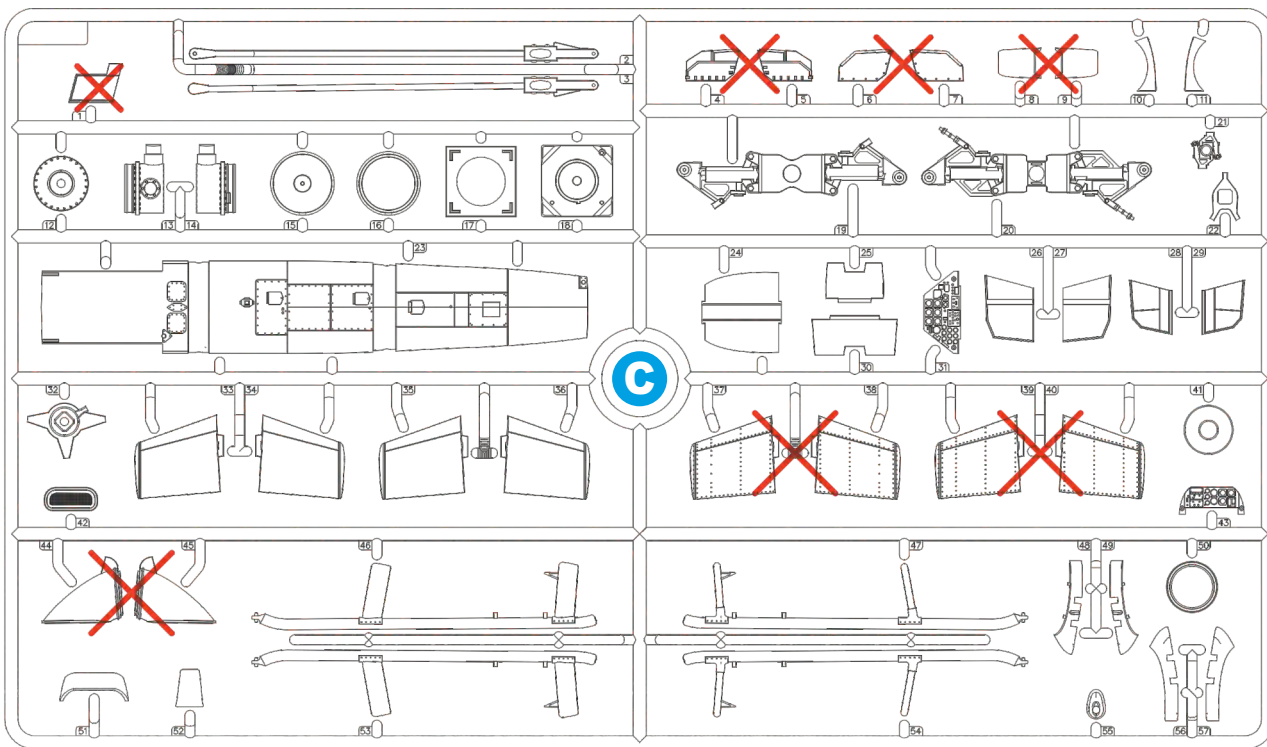
 INSTANT CYANOACRYLATE GLUE
POUŽIT KYANOAKRYLÁTOVÉ LEPIDLO
ZYANOAKRYLÁTKLEBER
ADHÉSIF CYANOACRYLAT

 BEND
OHNOUT
BIEGEN
COURBER

 SCRATCH BUILD
ZHOTOVIT NOVÉ
FERTIGSTELLEN
ACHEVER

 CUT OFF/DRILL
RÉZAT/VRTAT
ENTFERNEN
DETACHER

 GSI **A** COLOUR
NATRÍT
FARBEN
PEINDRE
colours code



Do not use this part
Tento díl nepoužít

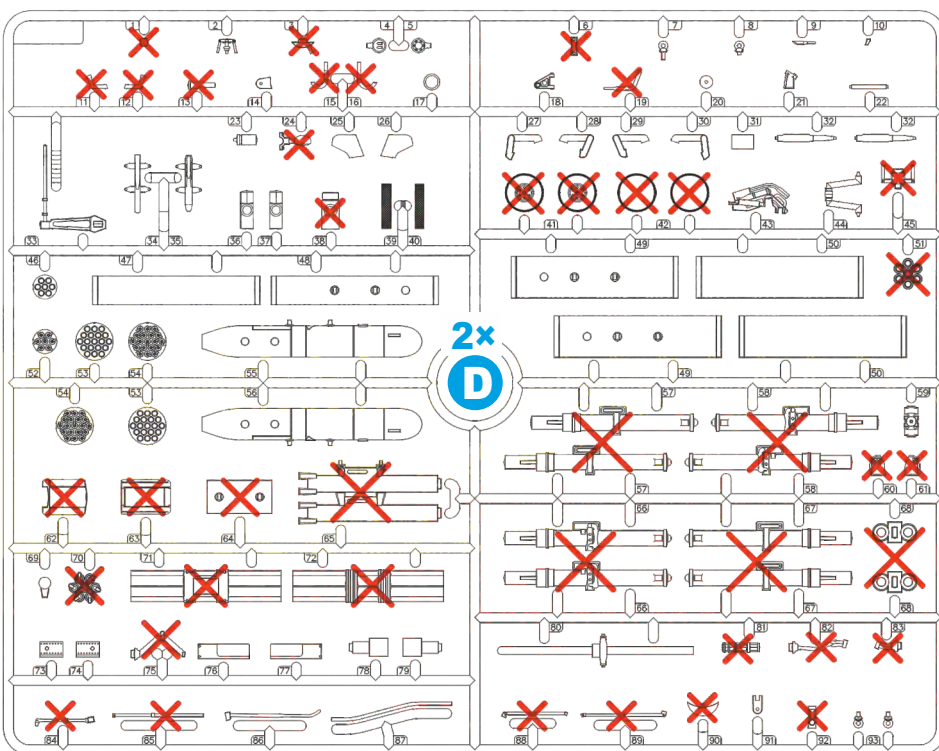
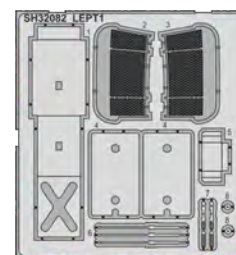
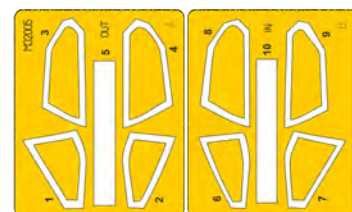


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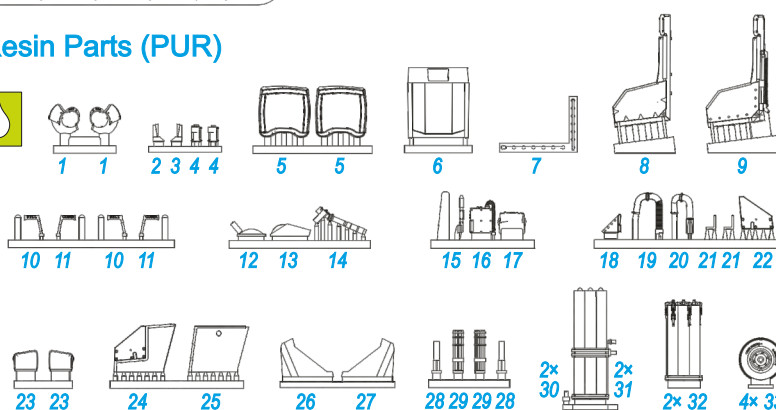
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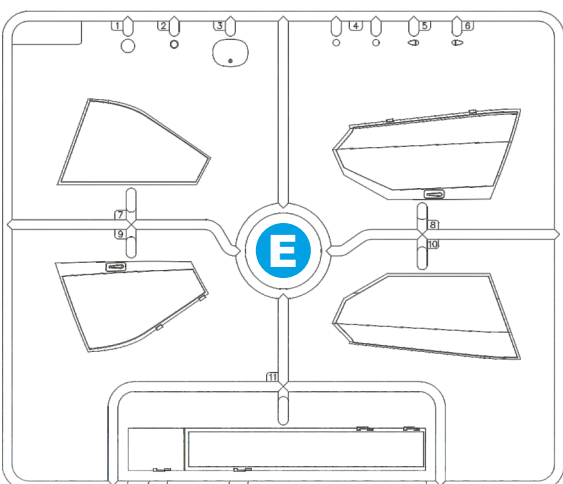
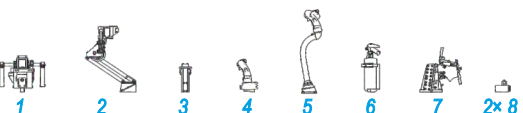
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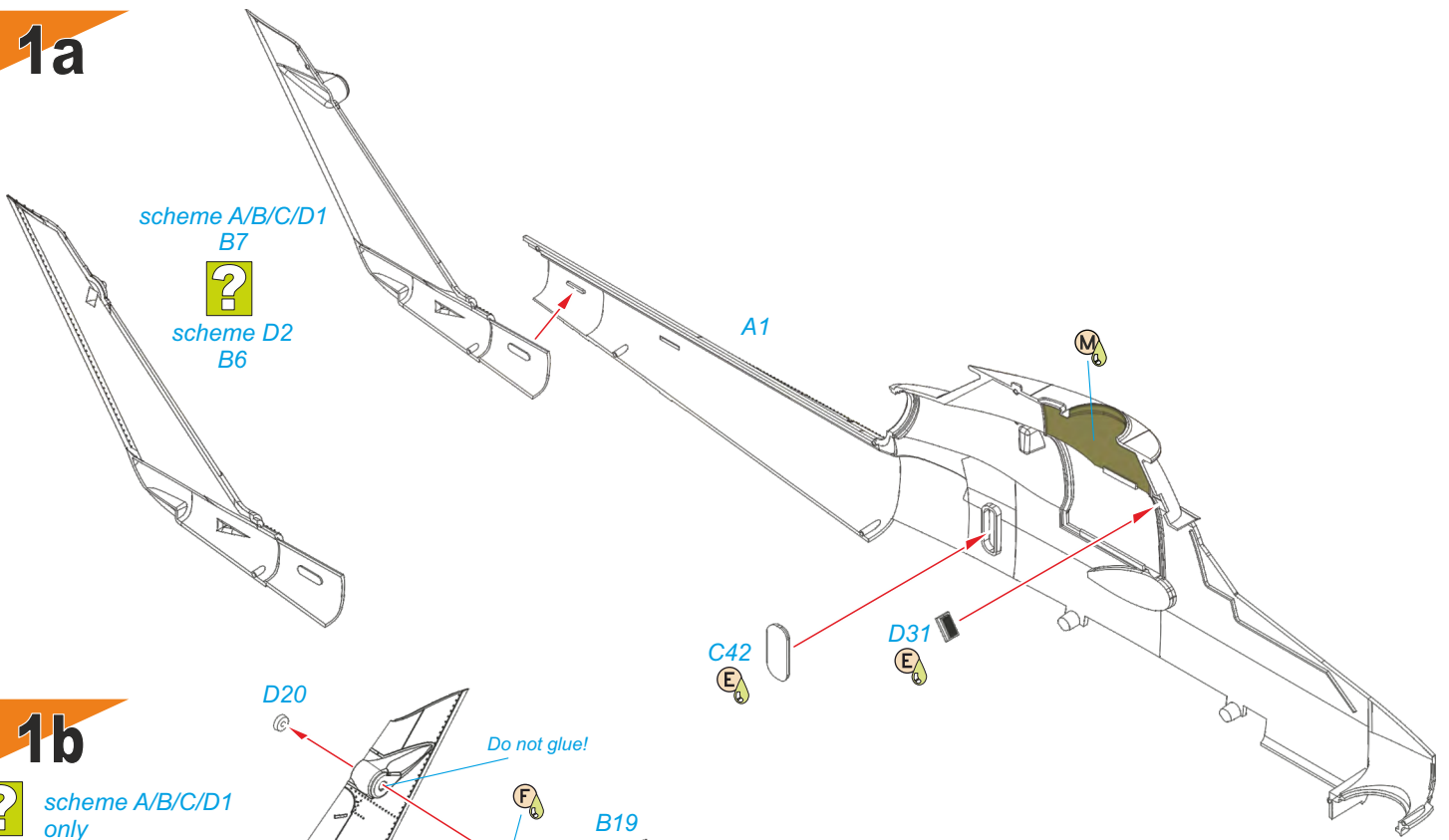
Resin Parts (PUR)



3D-Printed Parts (3D)

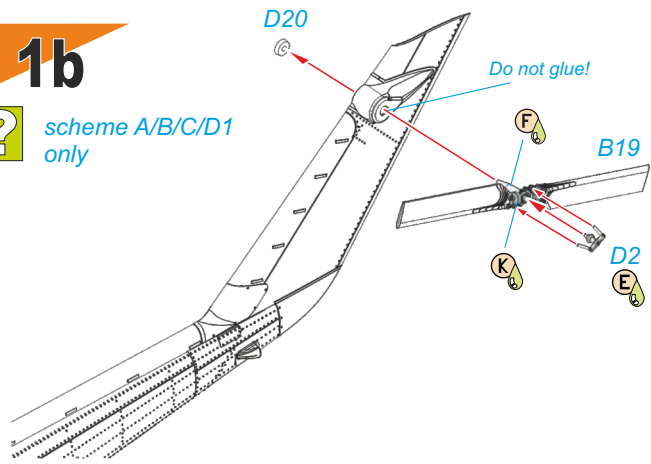


1a



1b

?
scheme A/B/C/D1
only

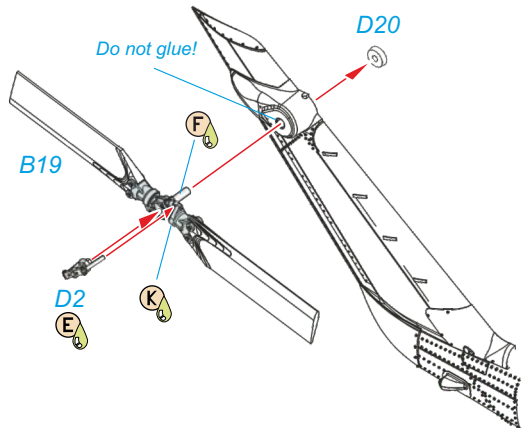


2a

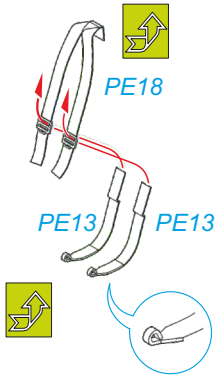


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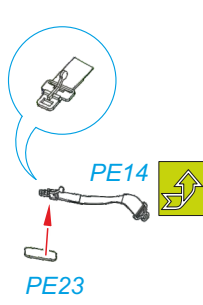
?
scheme D2
only



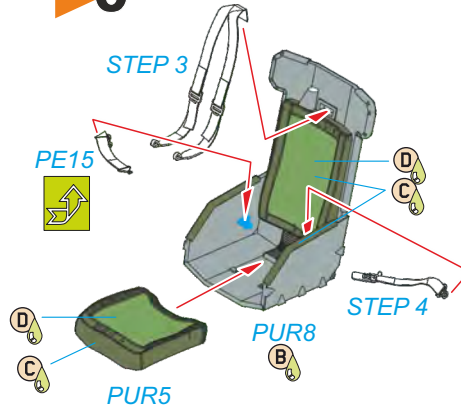
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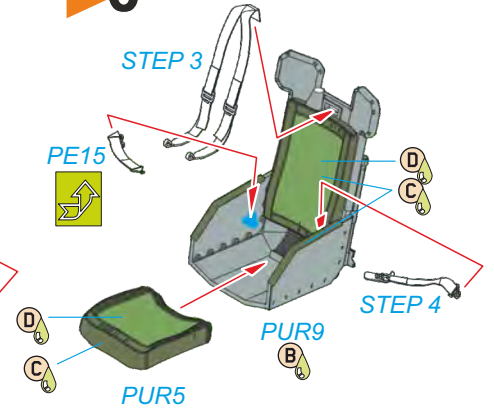
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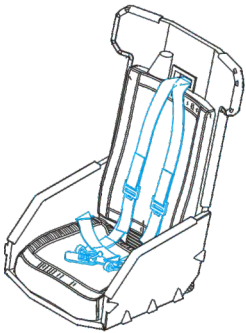
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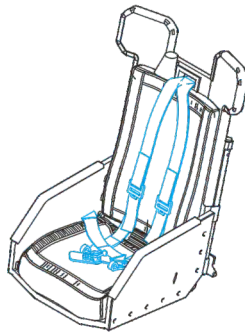
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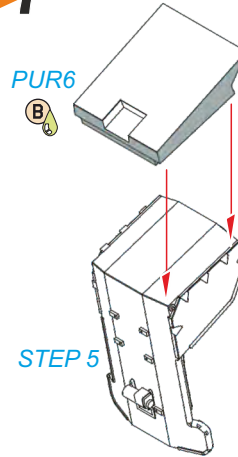
final assembly
STEP 5



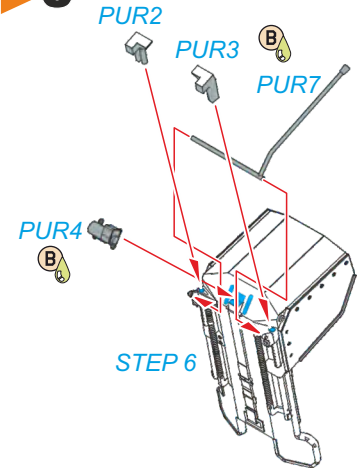
final assembly
STEP 6



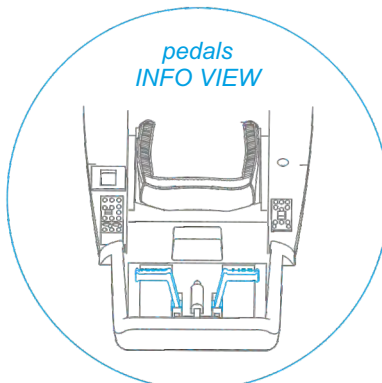
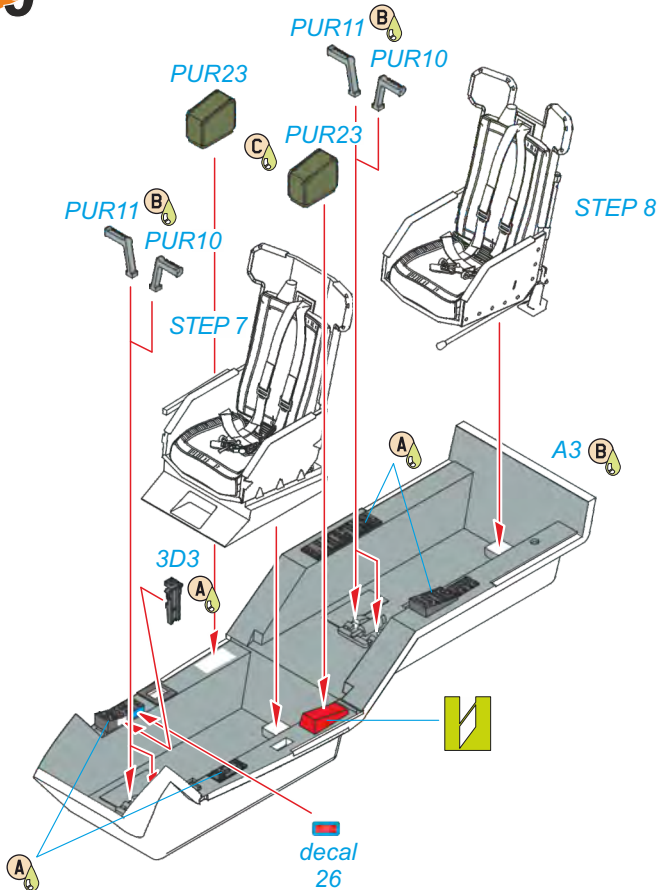
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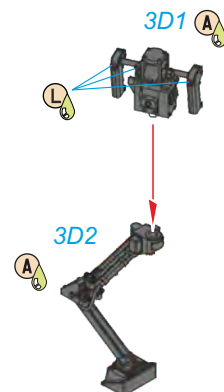
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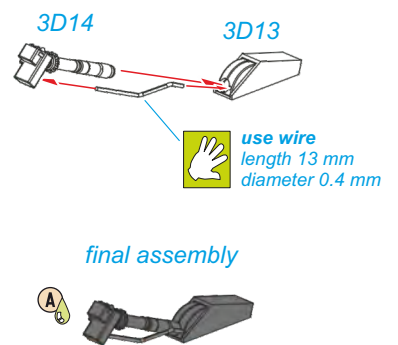
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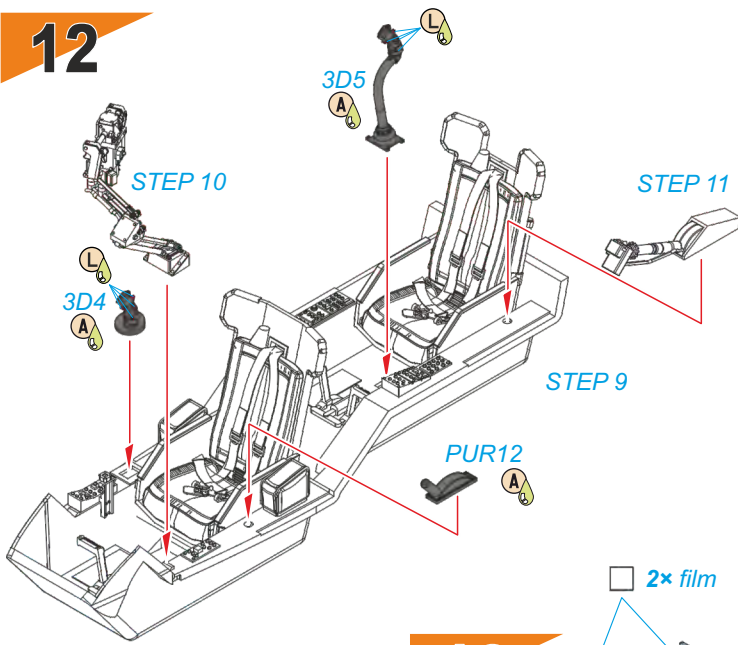
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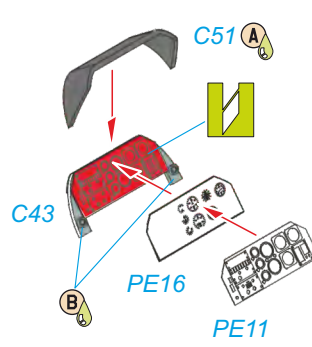
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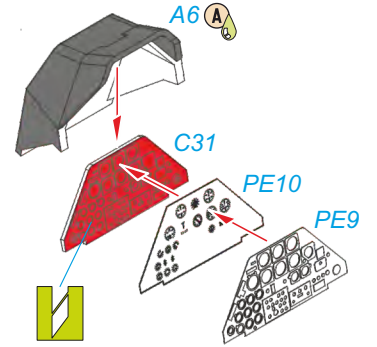
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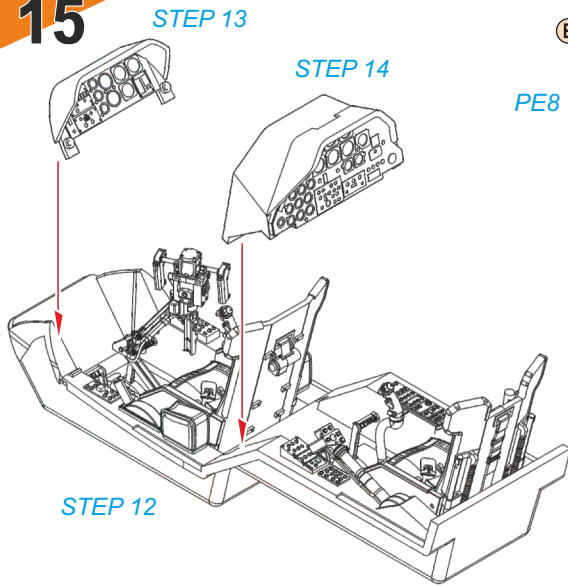
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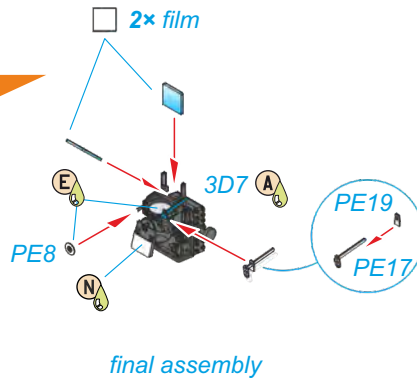
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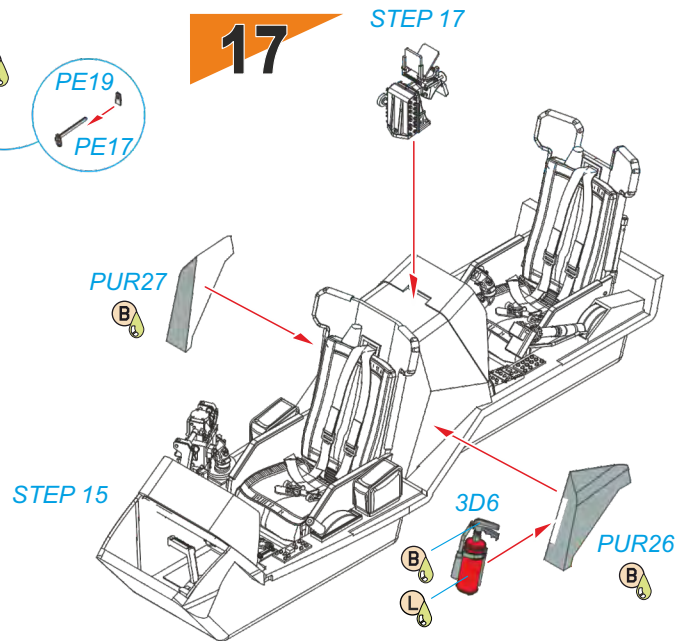
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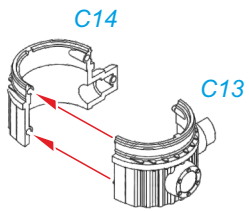
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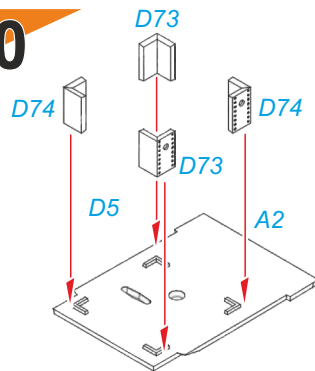
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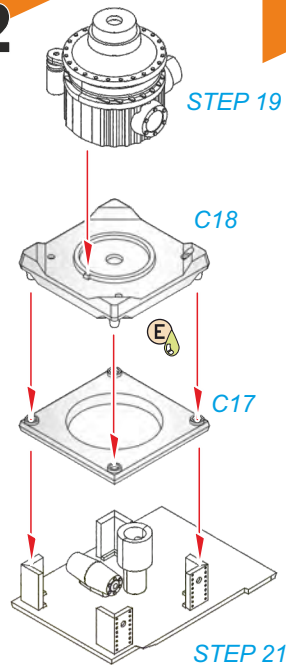
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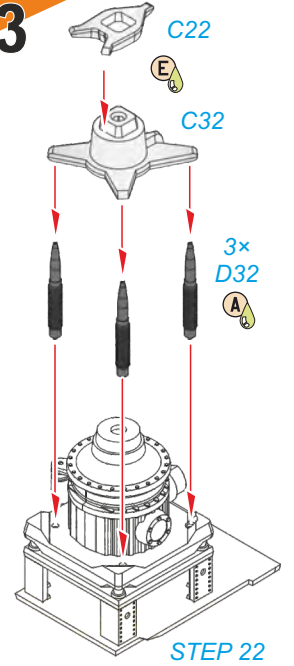
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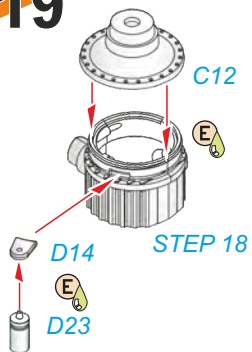
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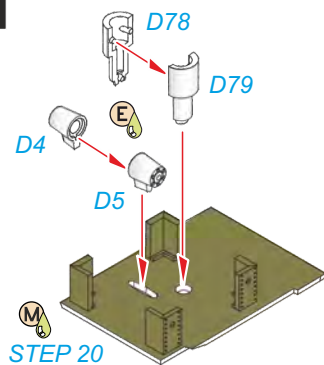
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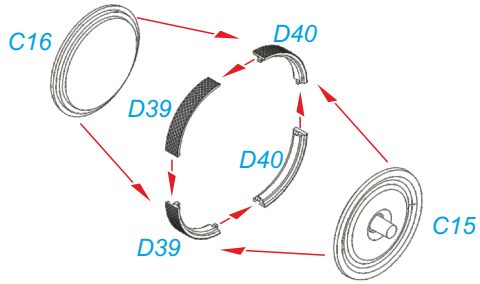
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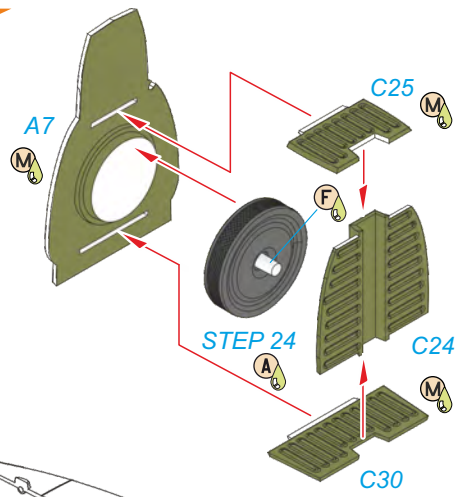
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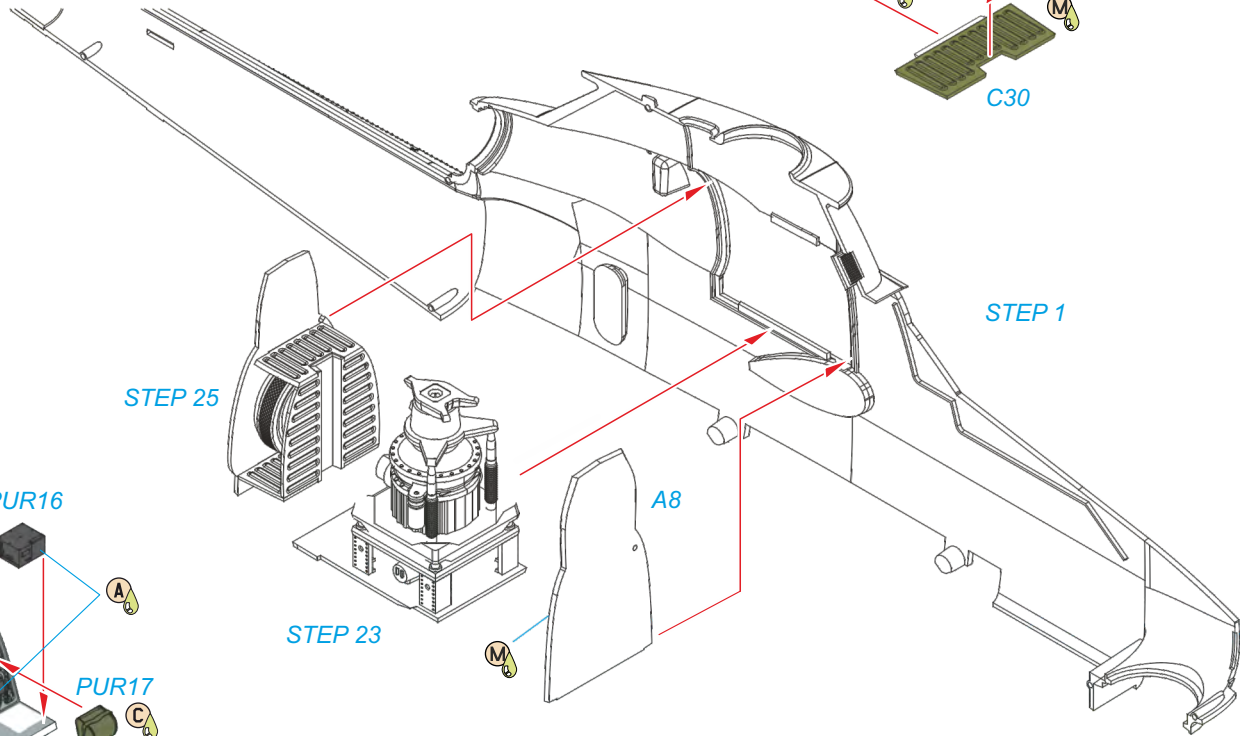
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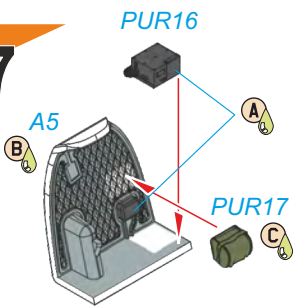
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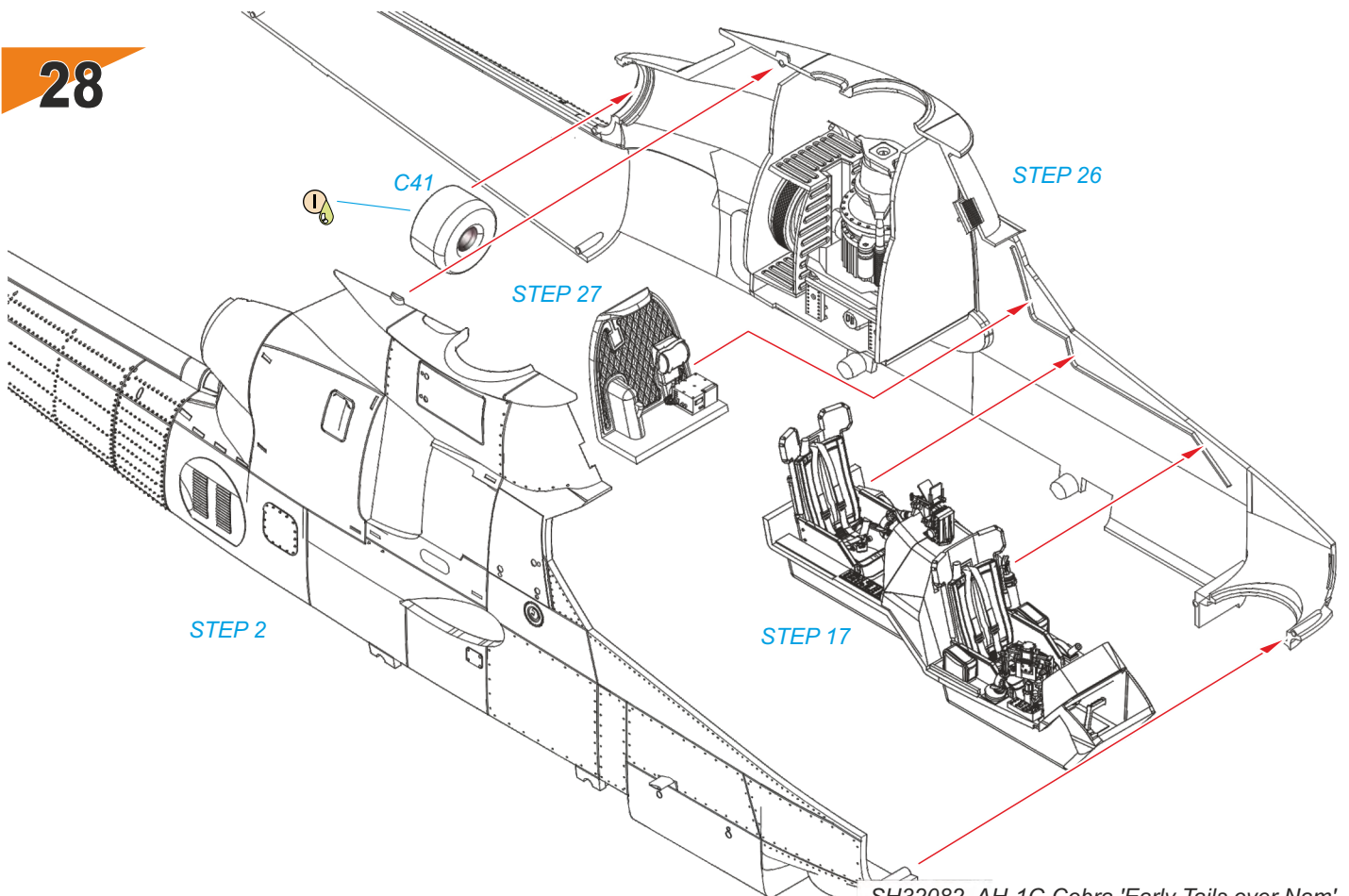
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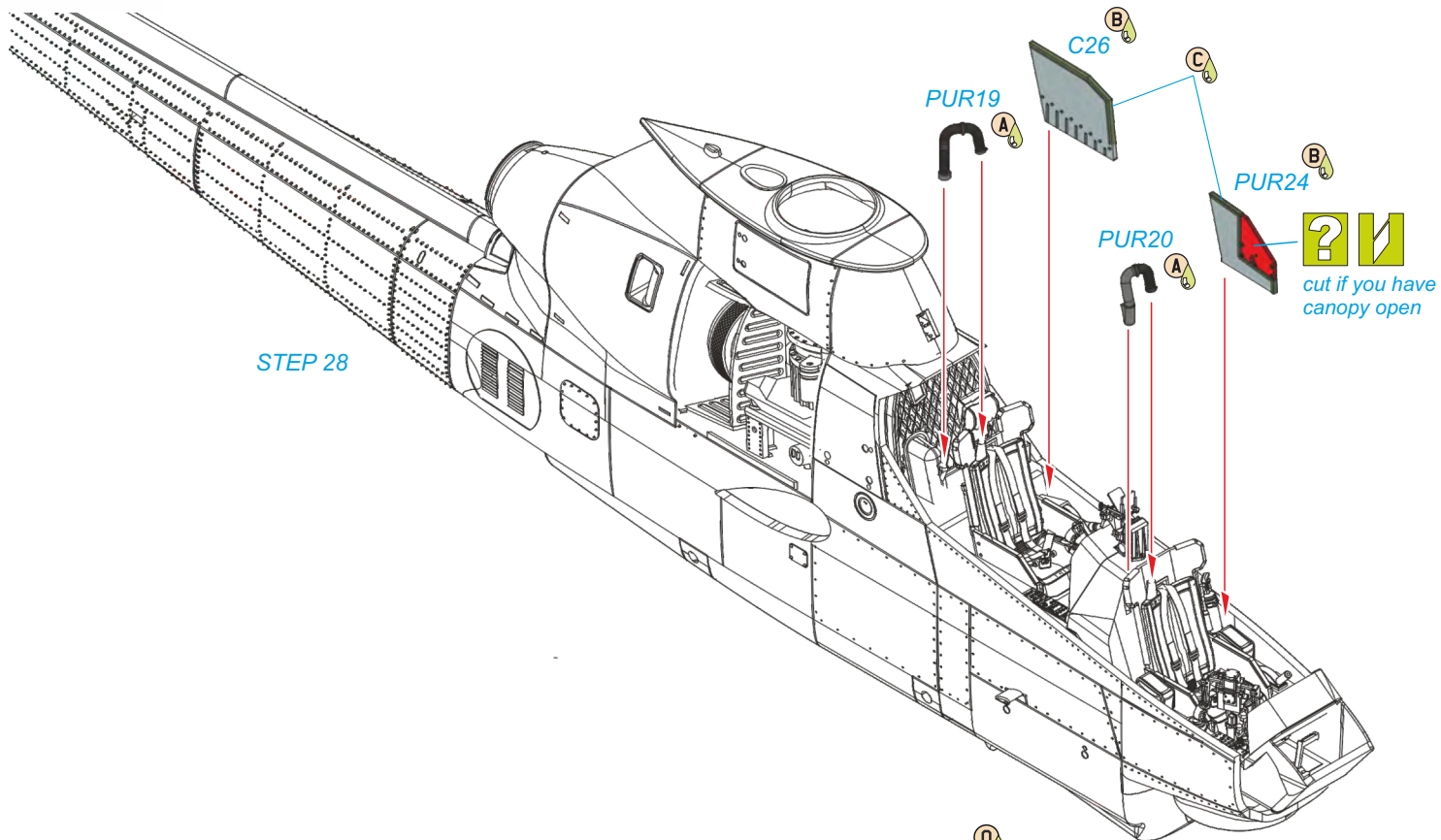
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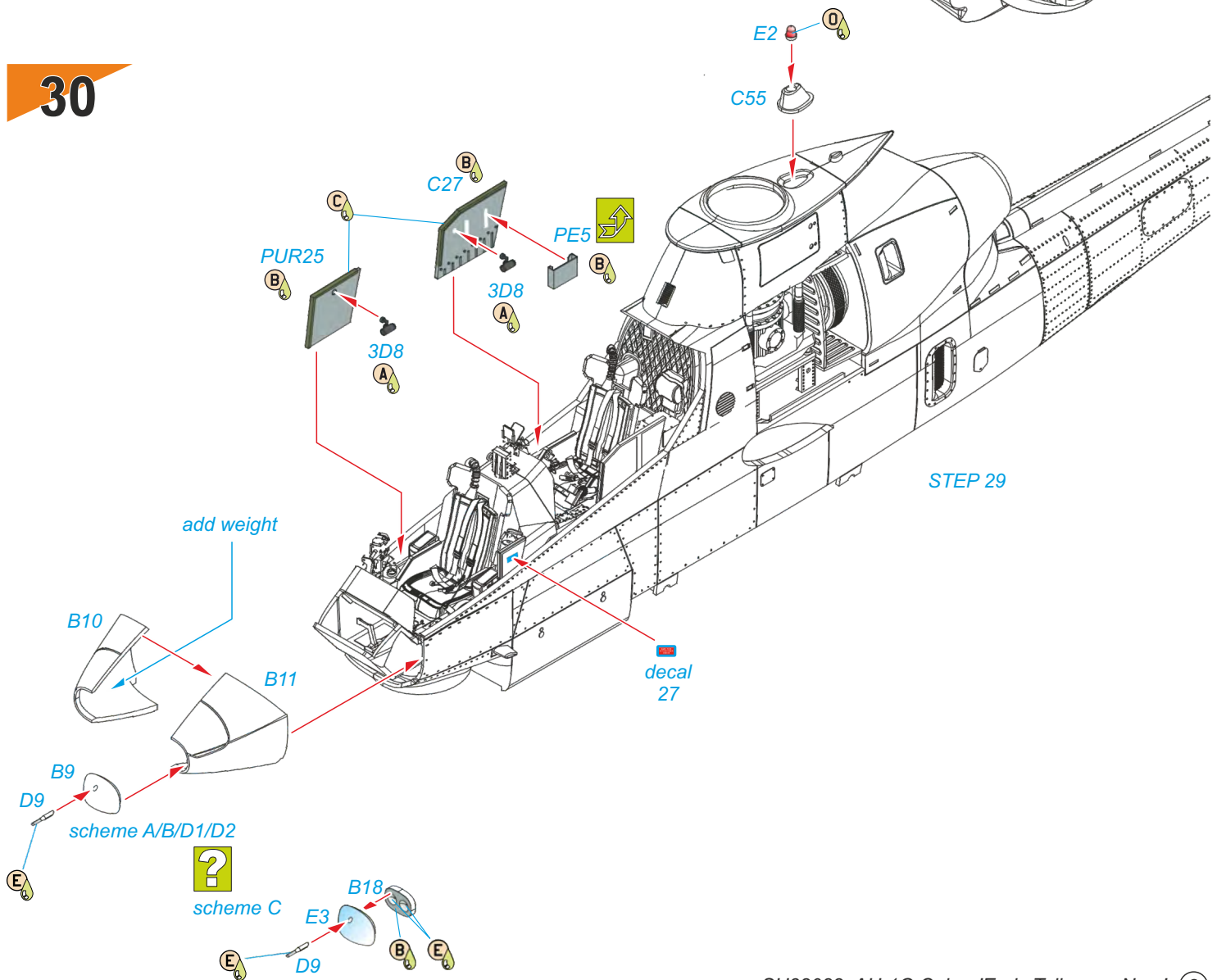
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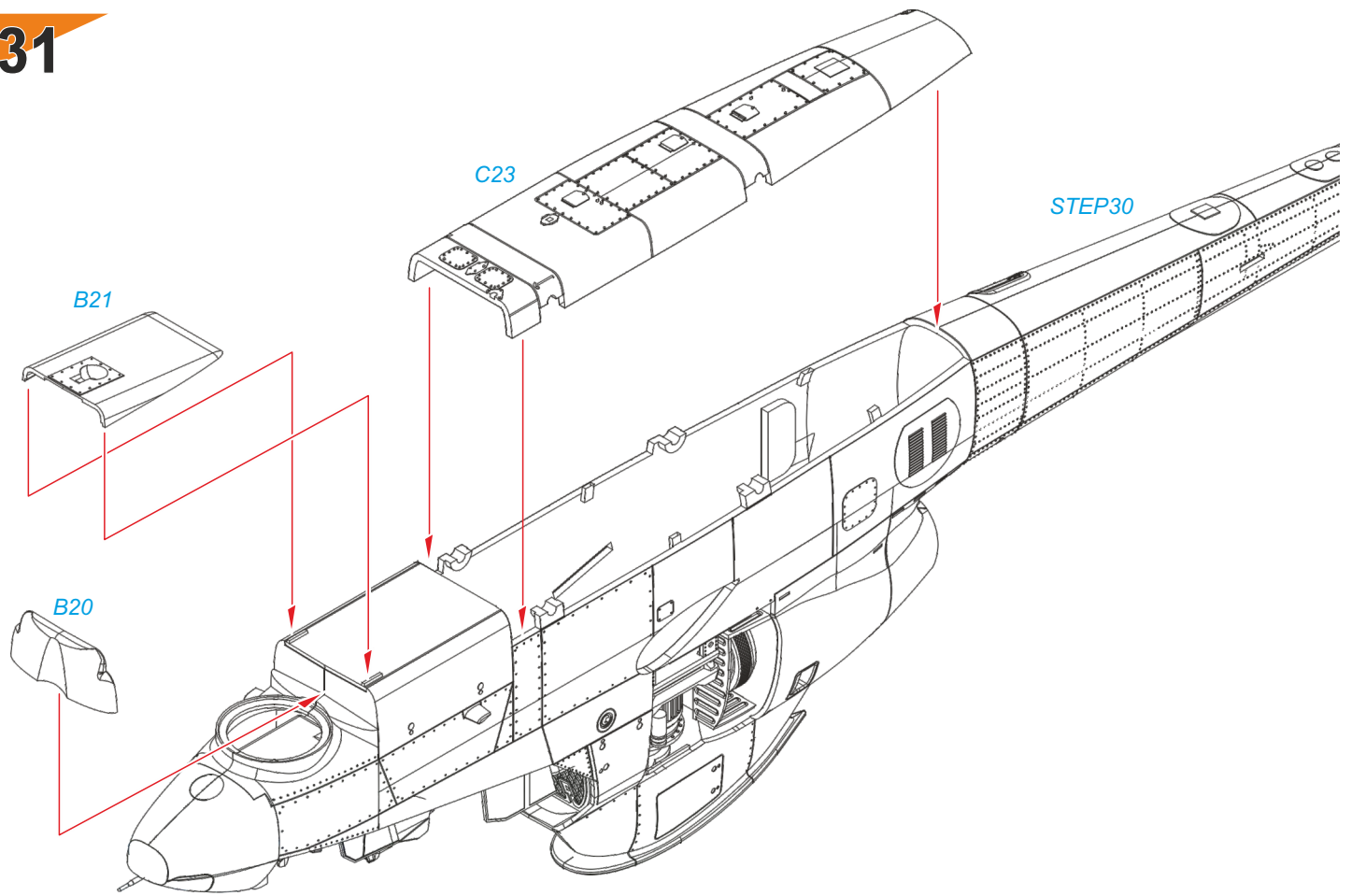
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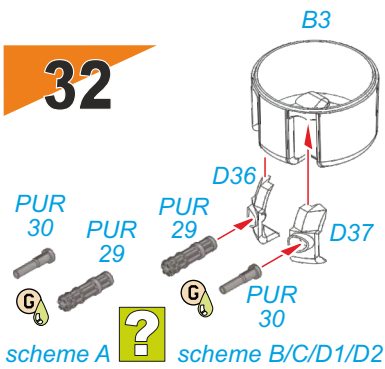
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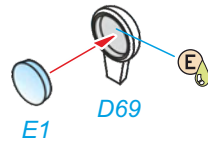
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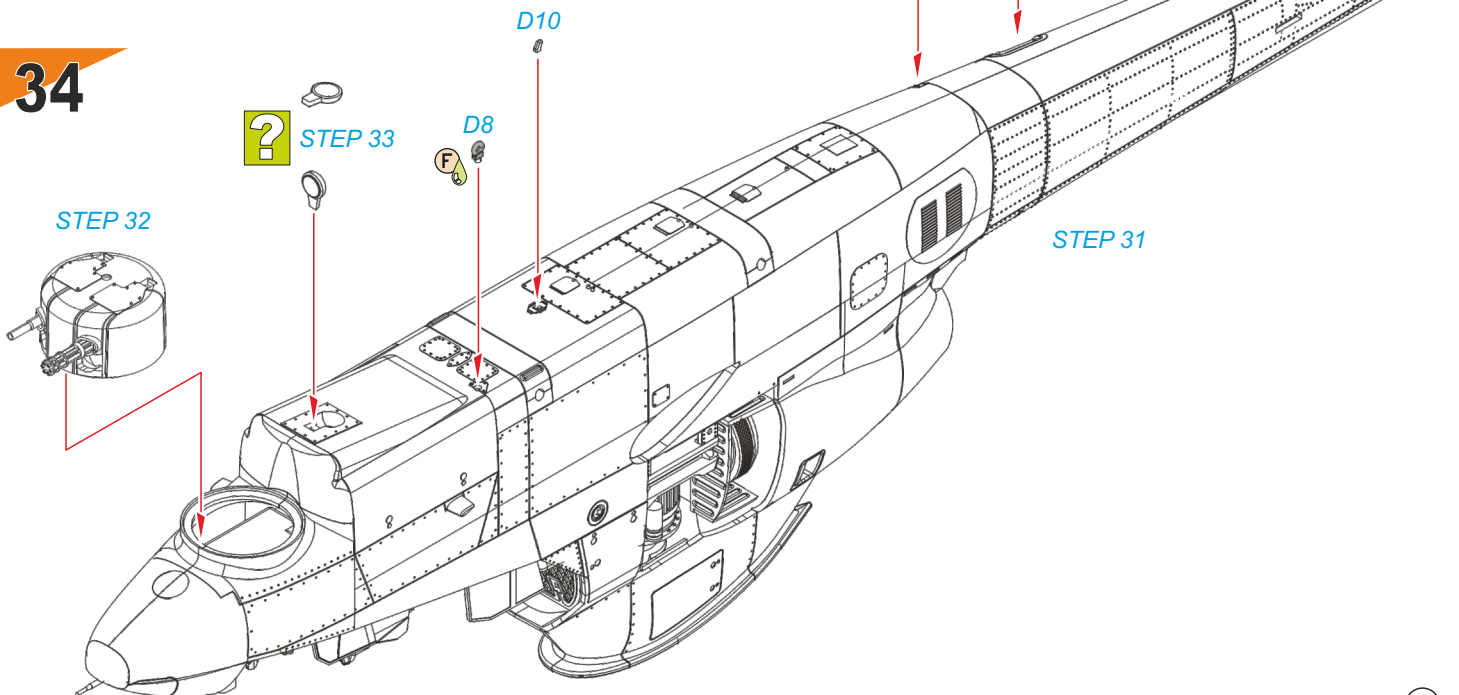
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A13



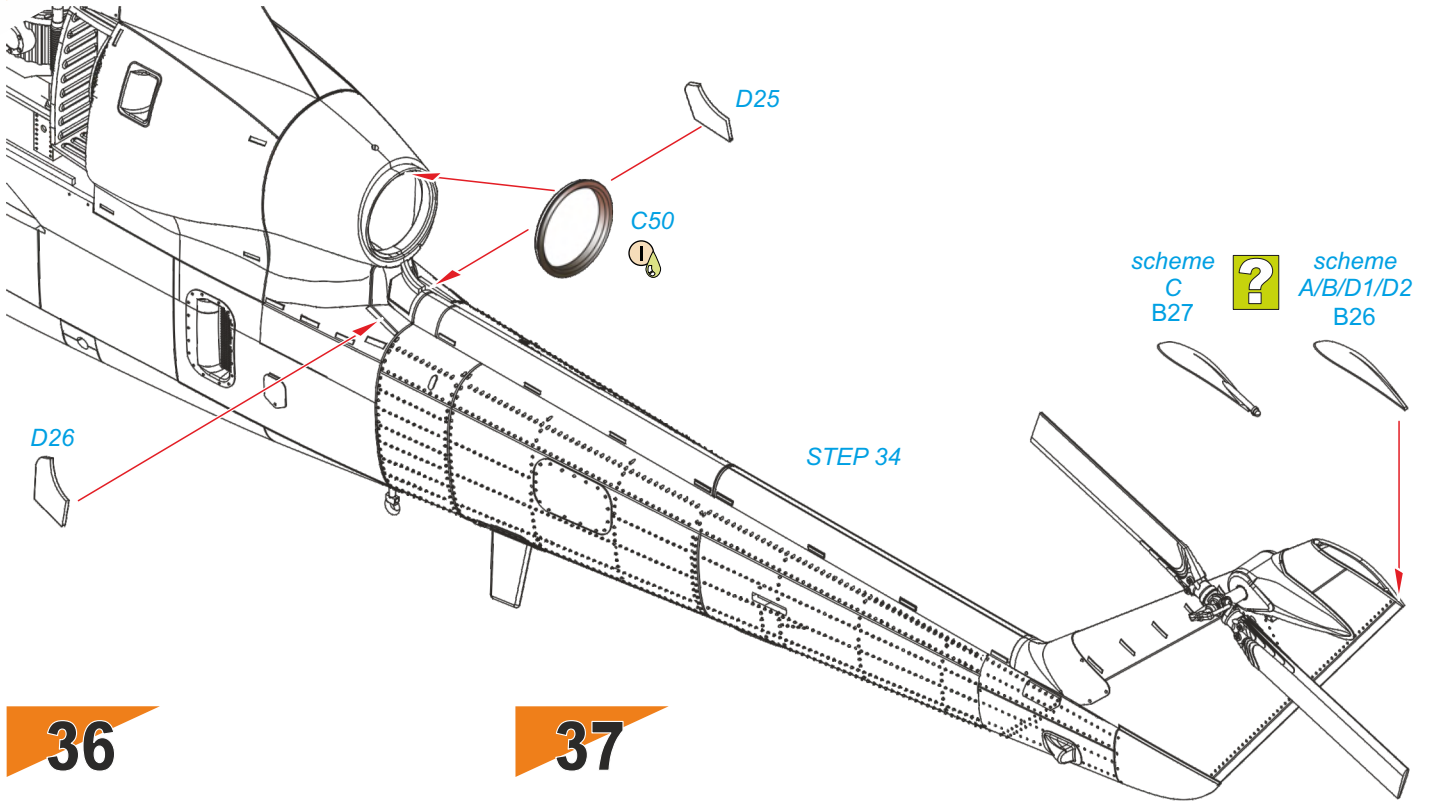
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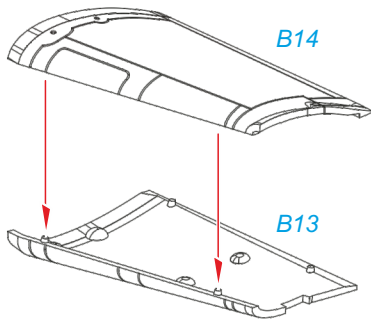
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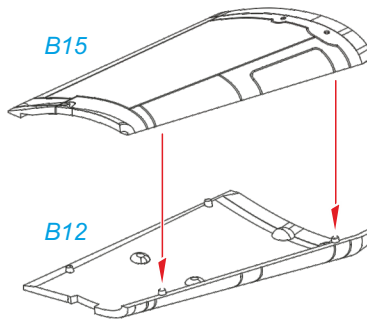
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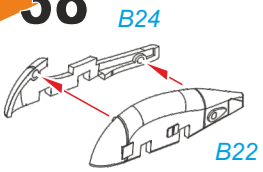
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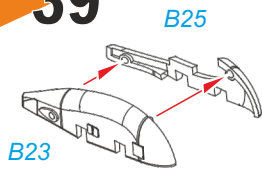
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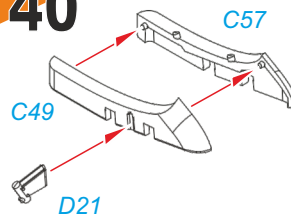
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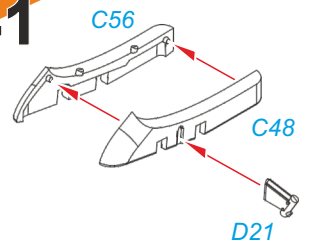
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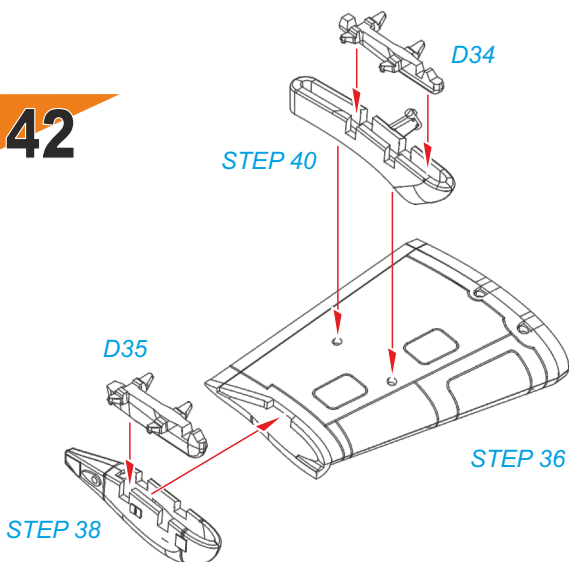
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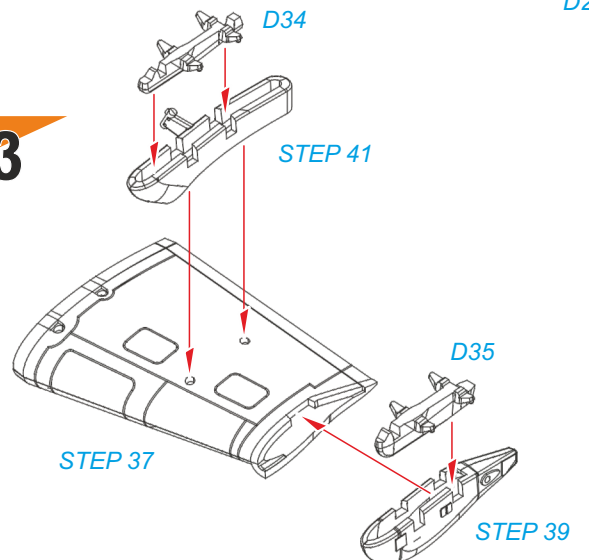
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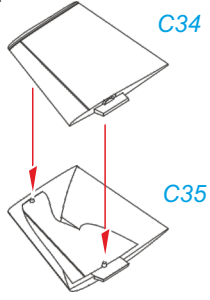
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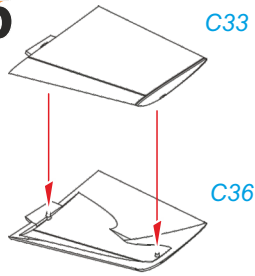
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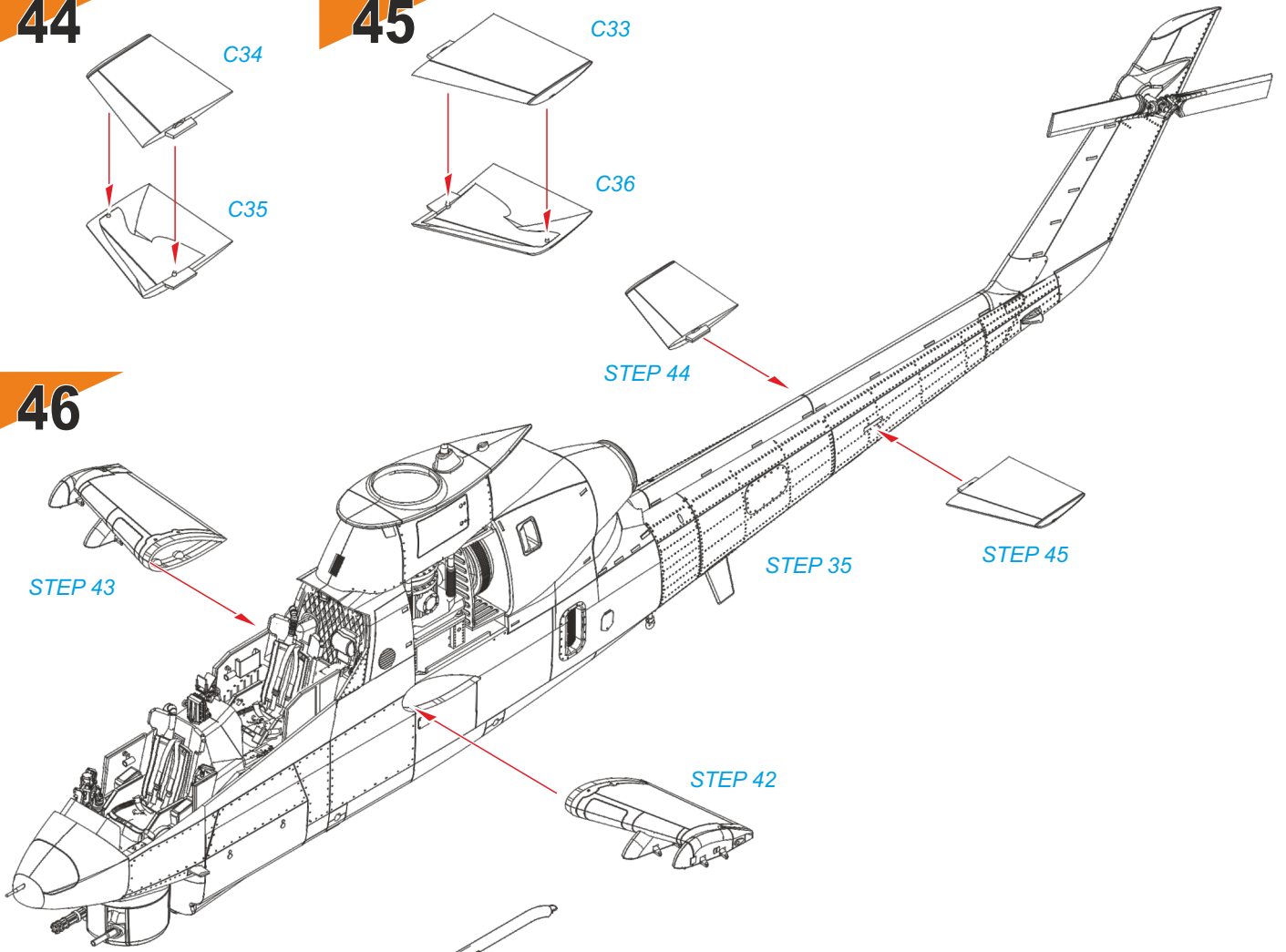
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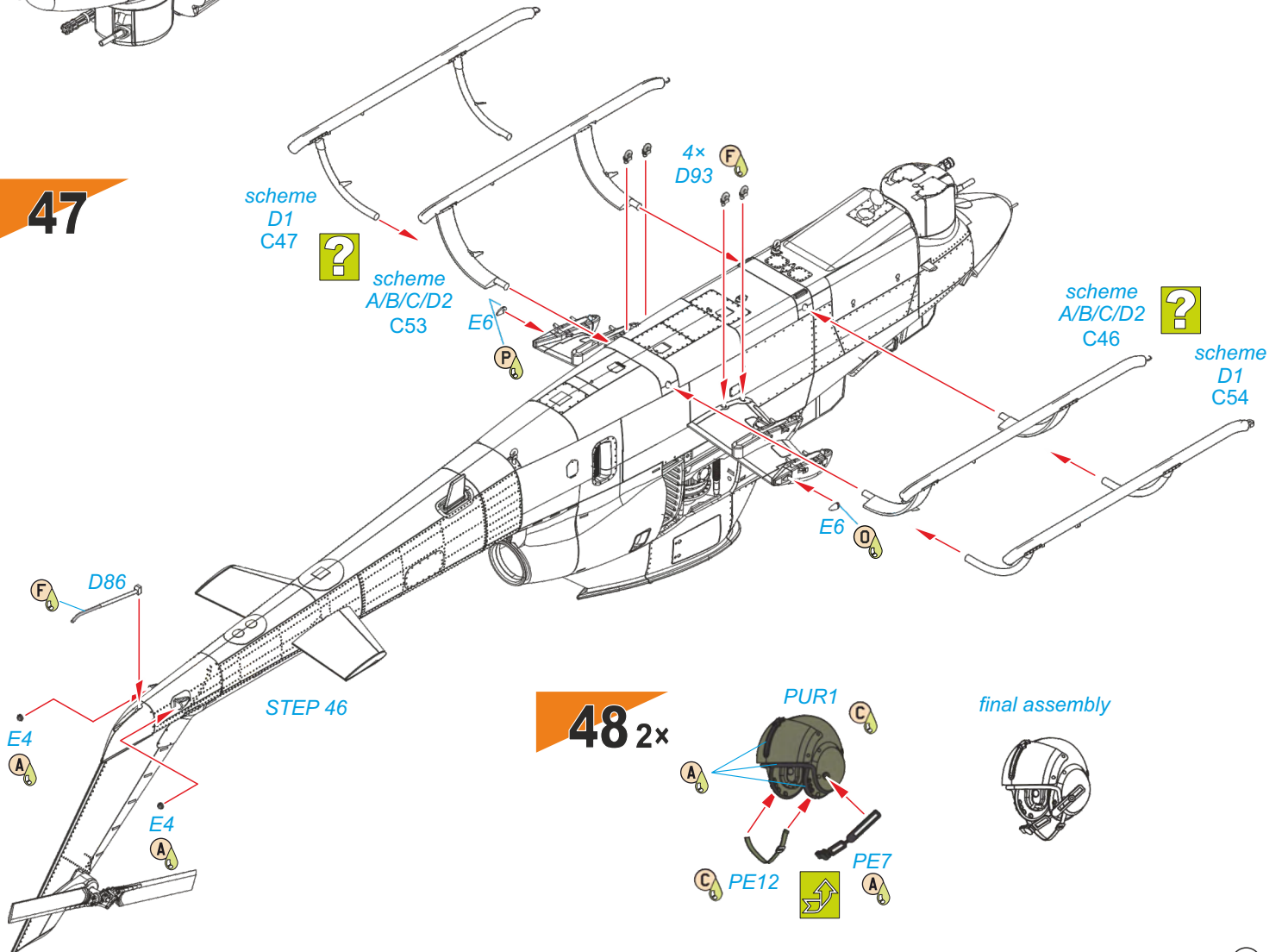
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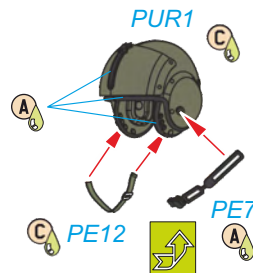
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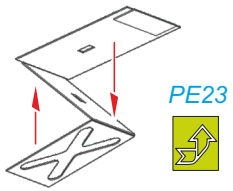
48 2x



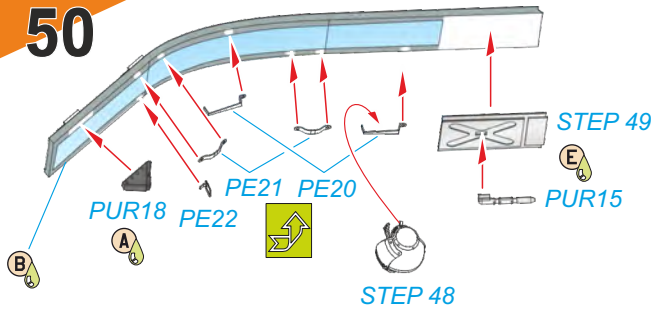
final assembly



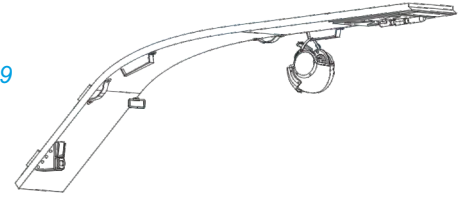
49



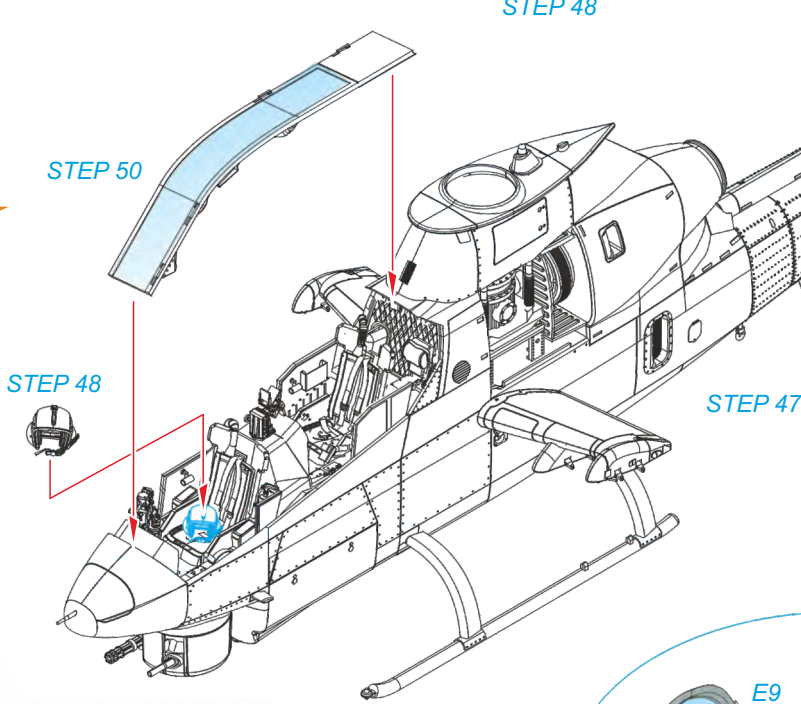
50



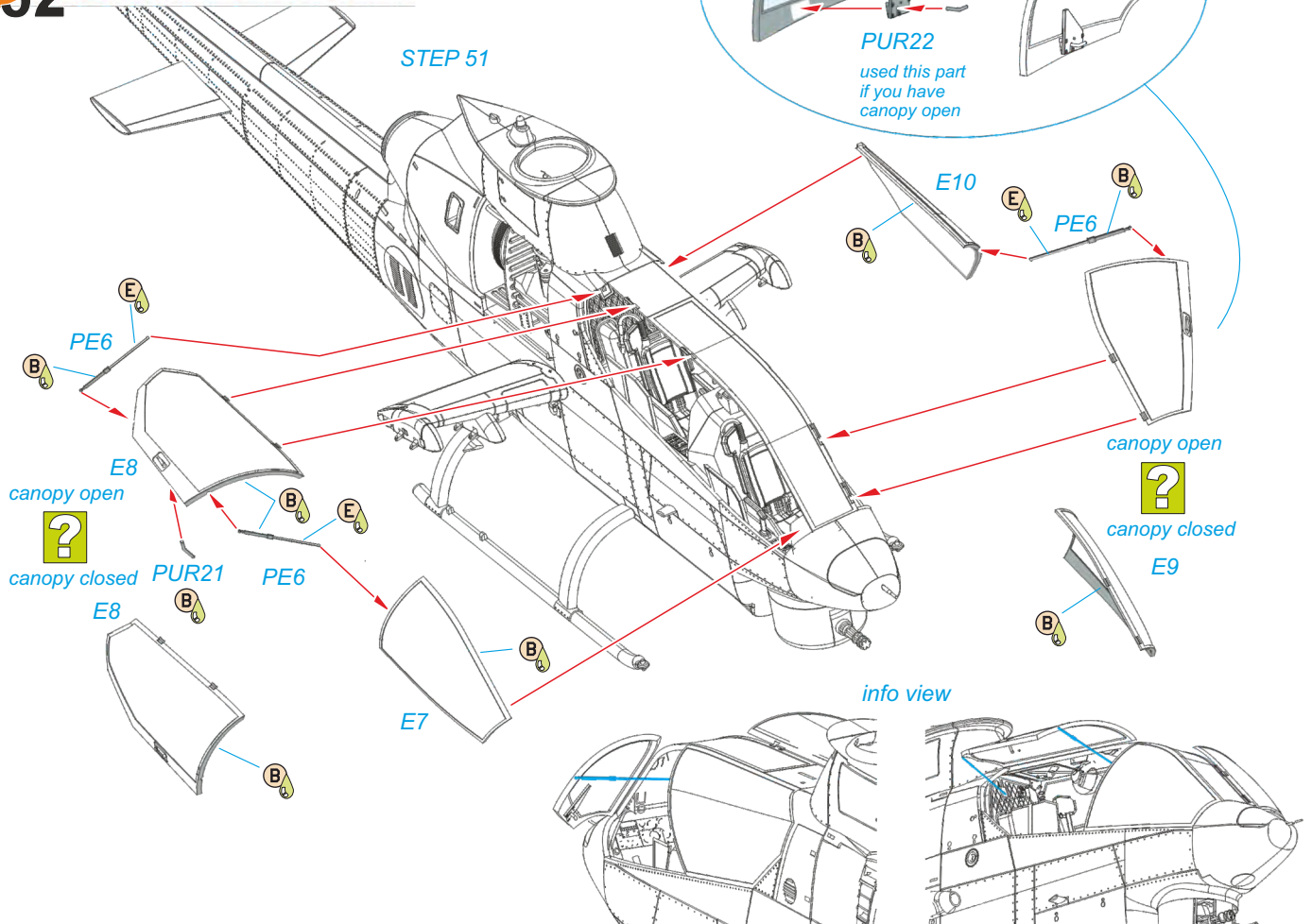
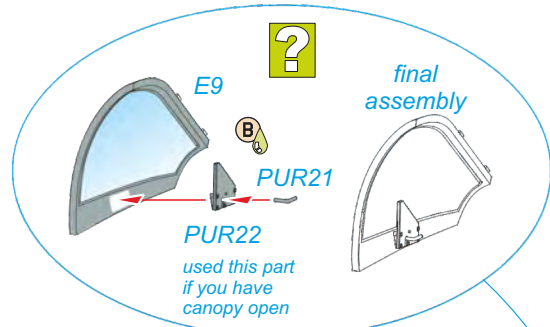
final assembly

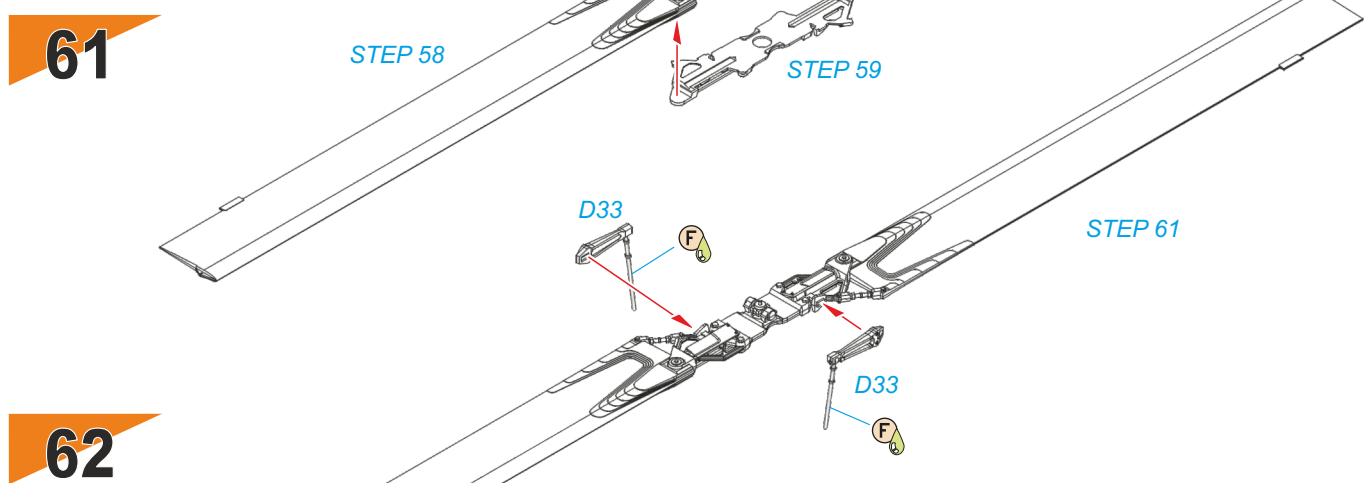
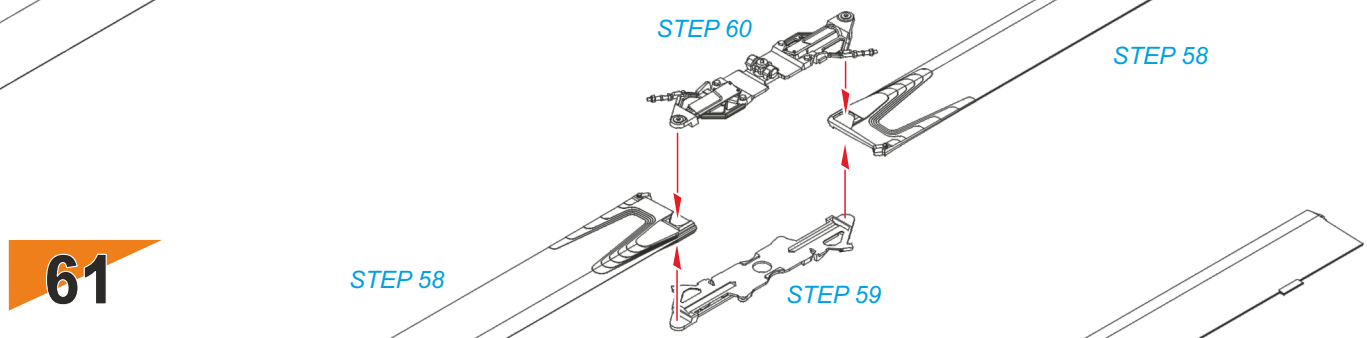
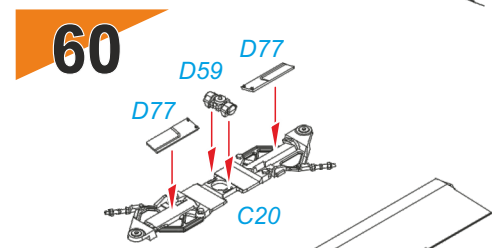
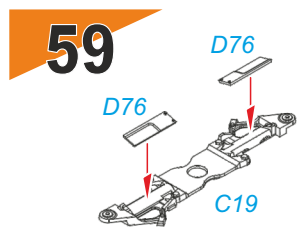
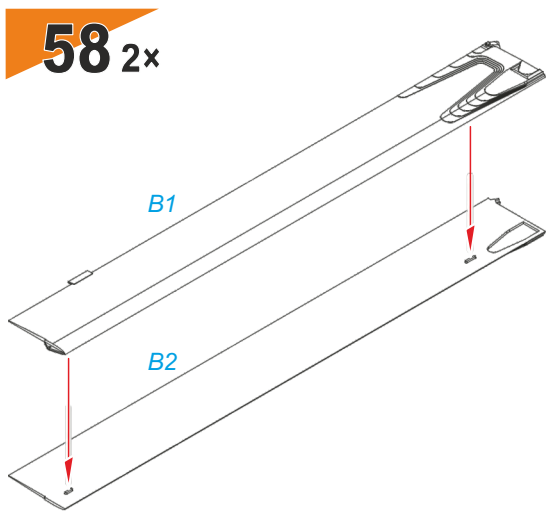
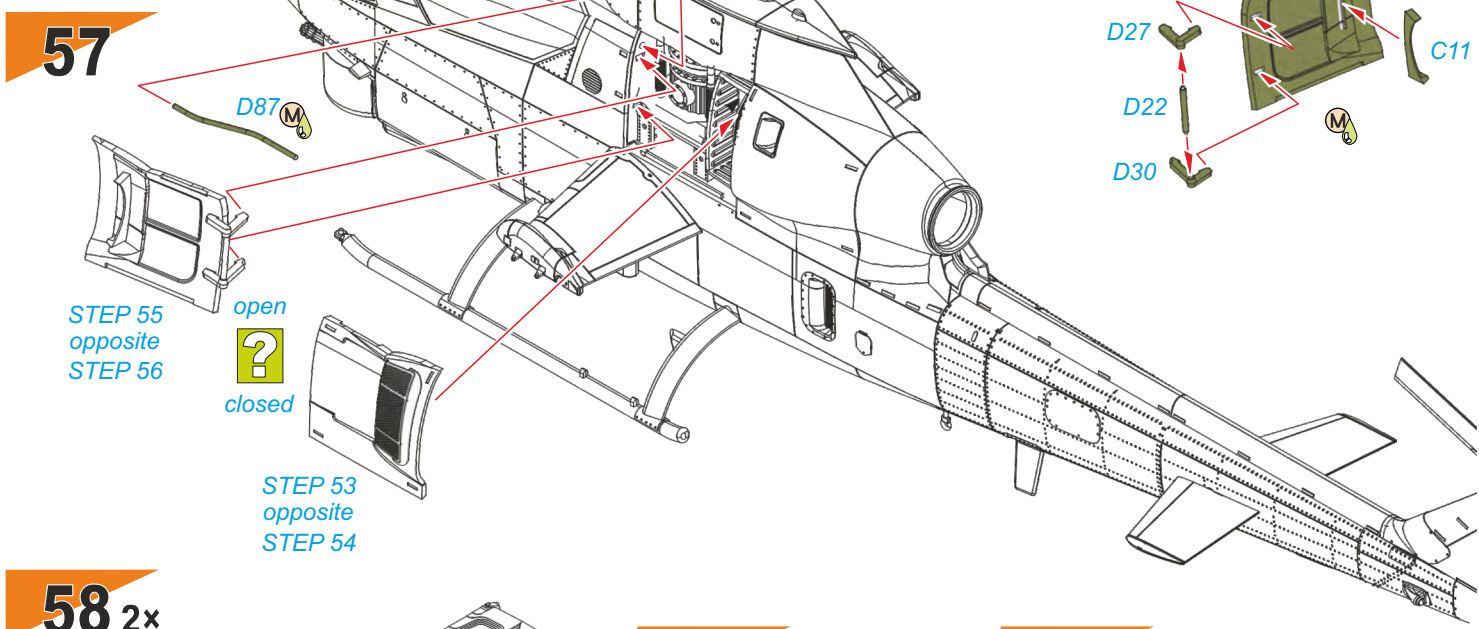
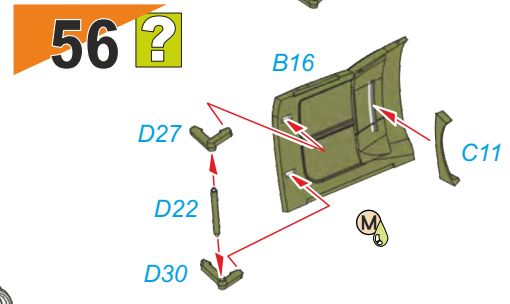
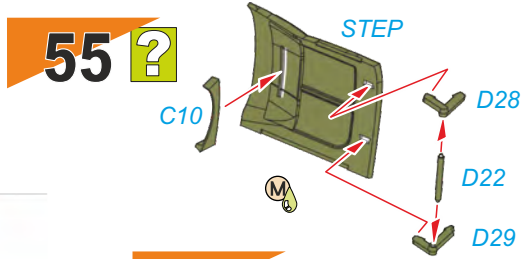
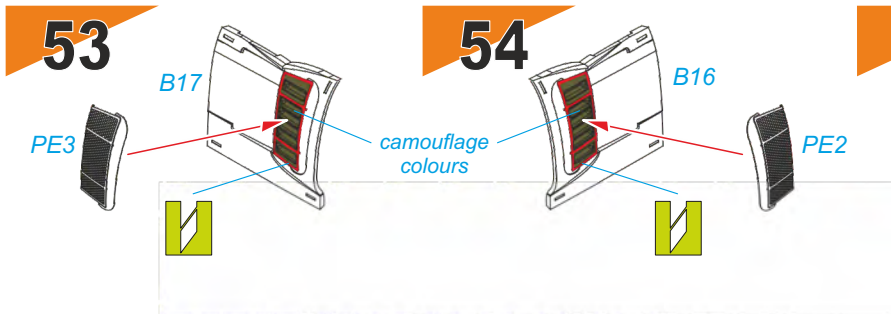


51

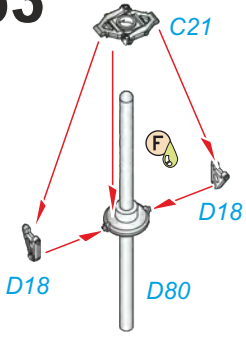


52

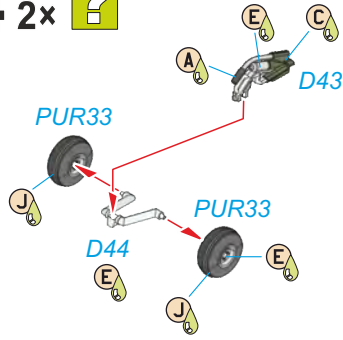




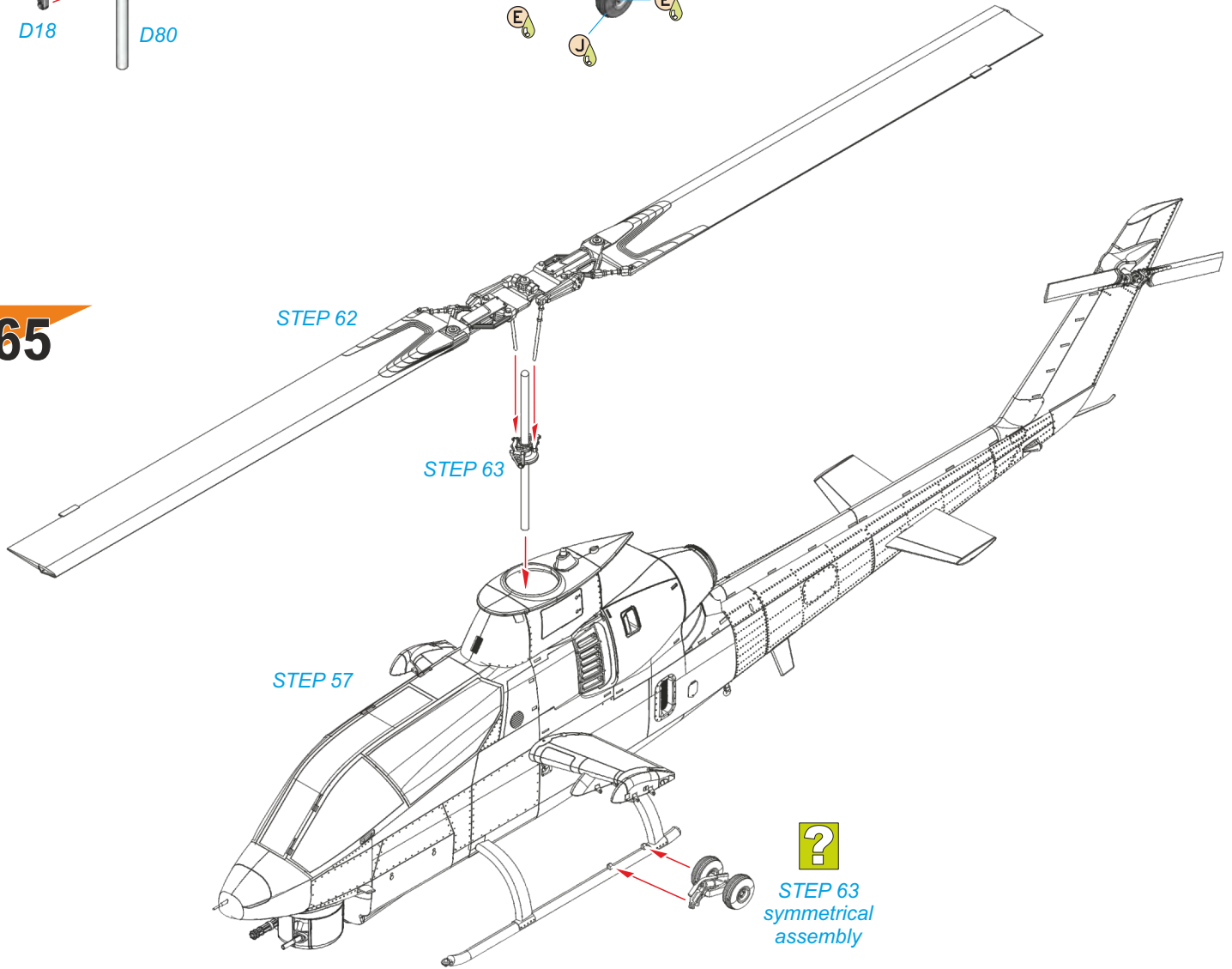
63



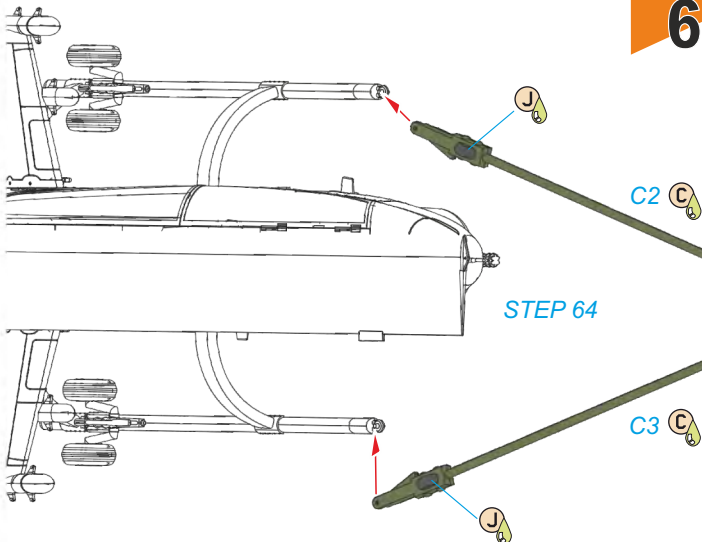
64 2x ?



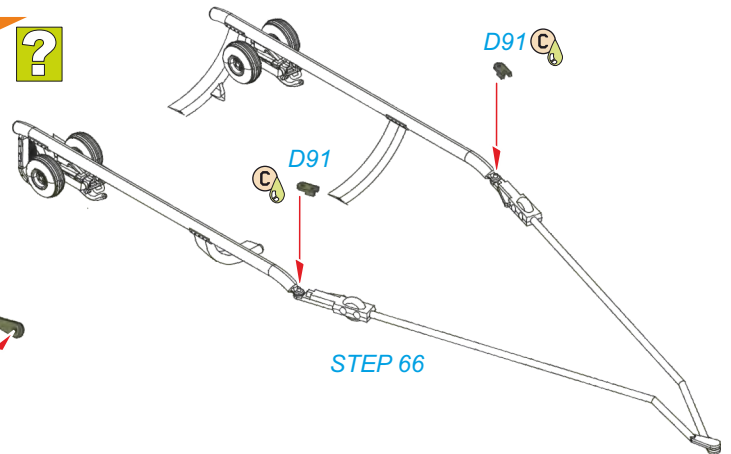
65

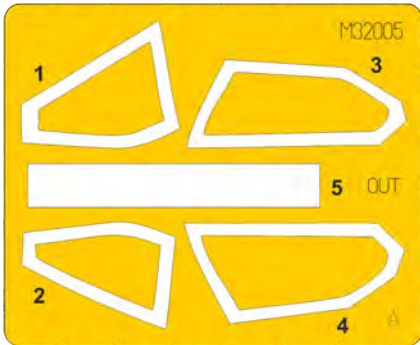
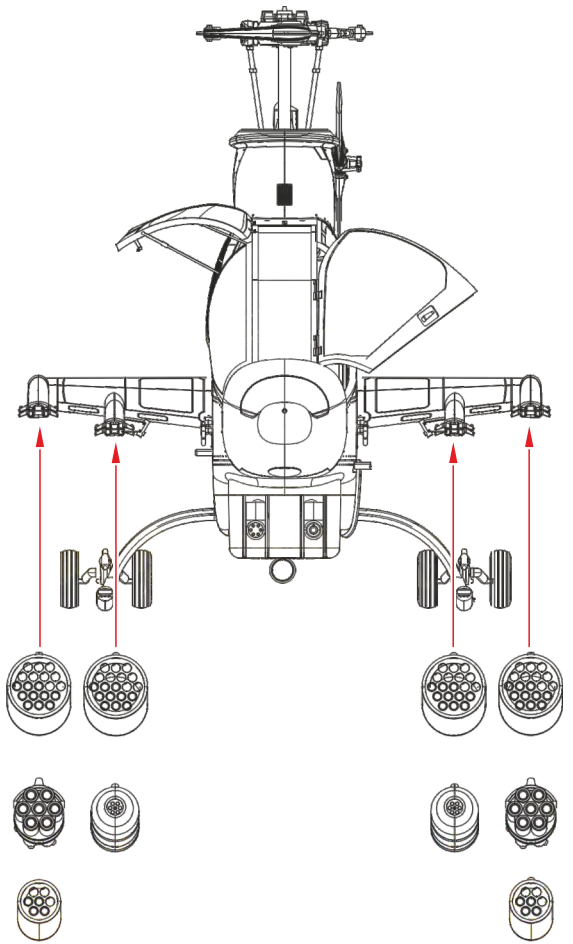
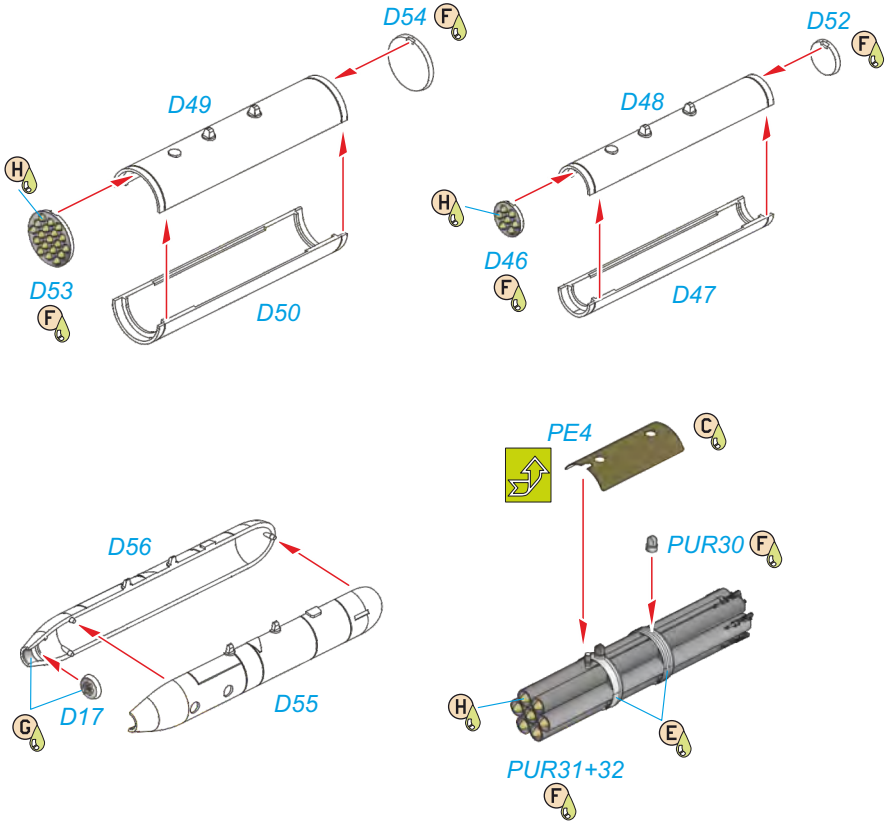


66 ?

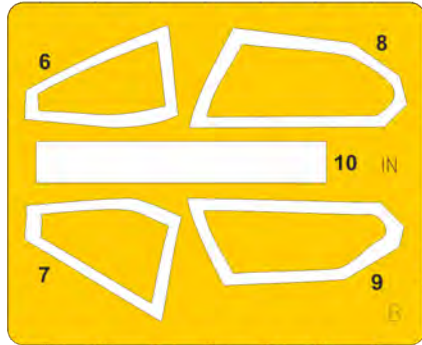
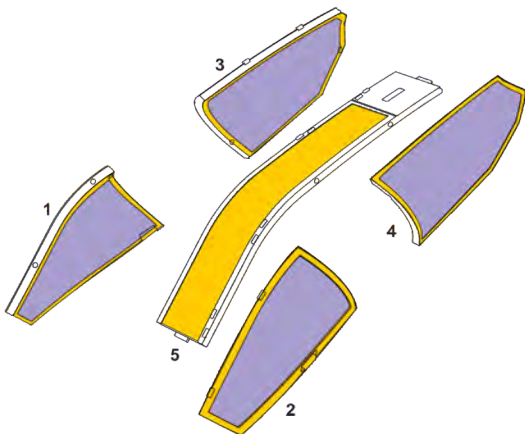


67 ?

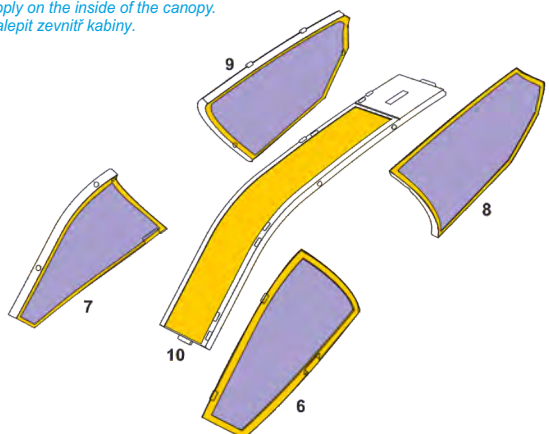




outside



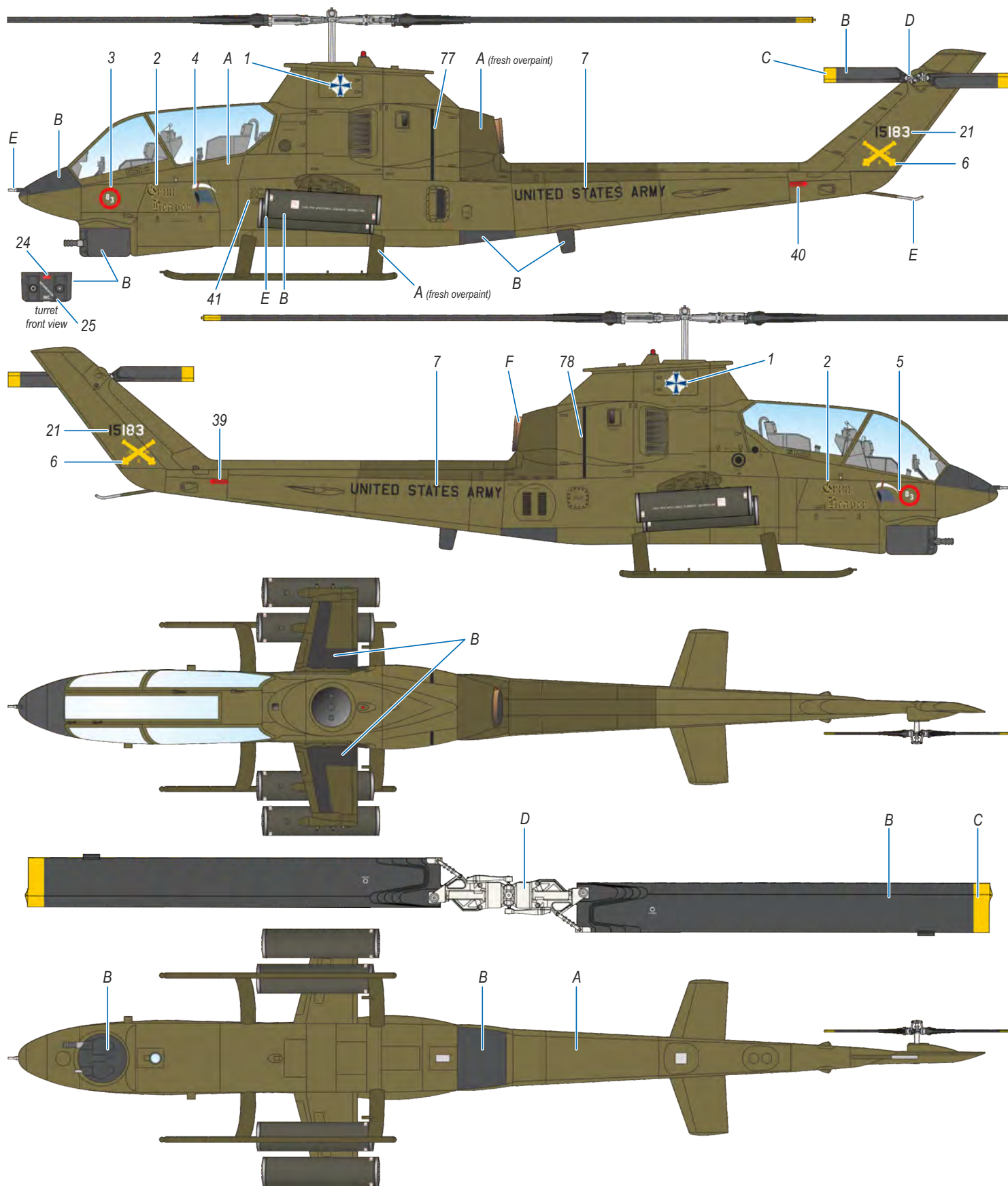
inside
Apply on the inside of the canopy.
Nalepit zevnitř kabiny.



AH-1G, s/n 68-15183, flown by Neil McMillan, C/2/20 ARA – C Battery, 2nd Battalion, 20th Regiment, Aerial Rocket Artillery, Phuoc Vinh, Vietnam, 1971.

AH-1G sér. č.: 68-15183, pilot Neil McMillan, C/2/20 ARA – C Battery, 2nd Battalion, 20th Regiment, Aerial Rocket Artillery, Phuoc Vinh, Vietnam, 1971.

Scheme A



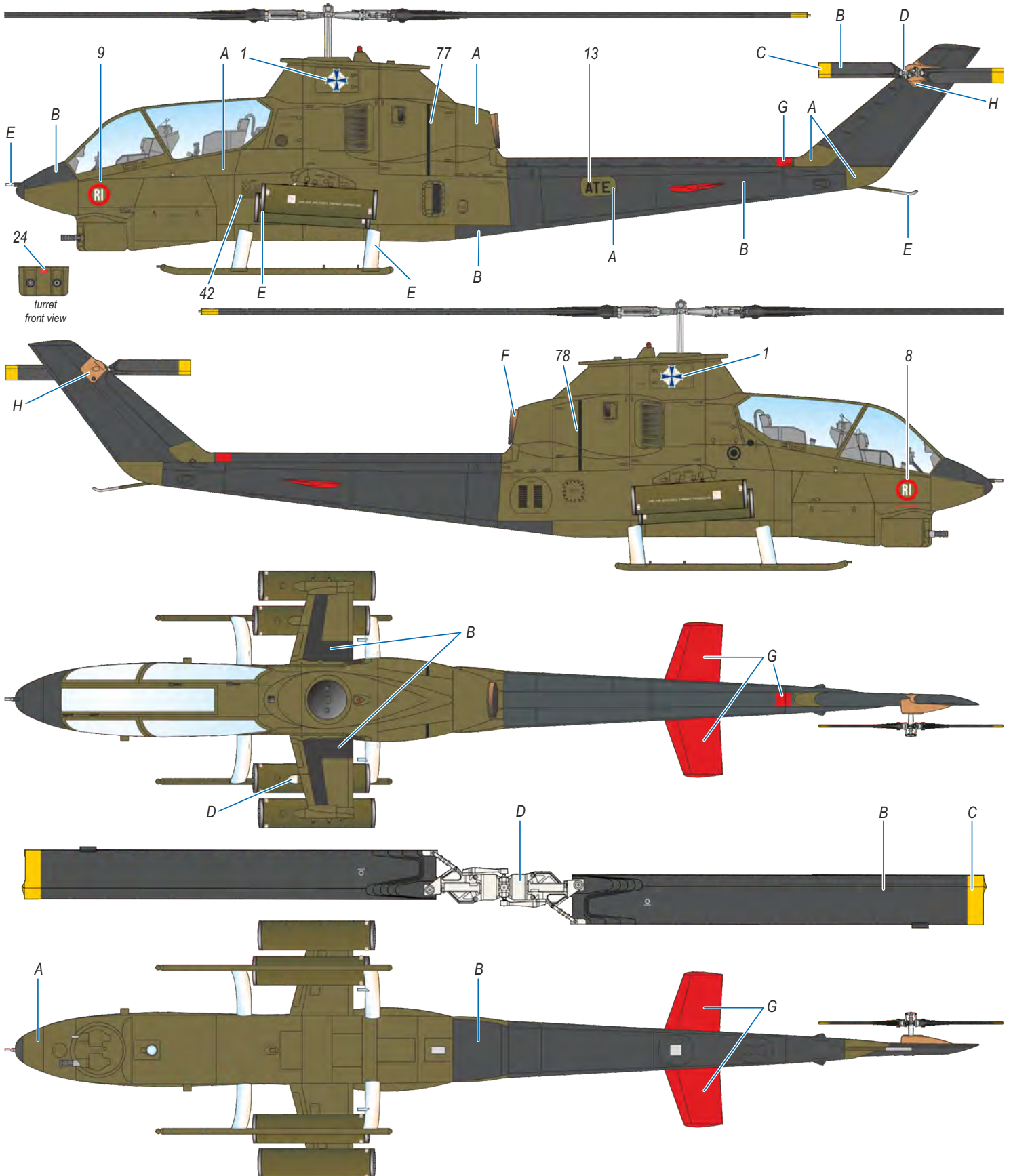
- | | | | | | | |
|--------------------------------------|------------------------------------|----------------------------------|---|------------------------------------|--|---------------------------------|
| A Olive
Olivová
H52/C12 | B Black
Černá
H12/C33 | C Yellow
Žlutá
H/C4 | D Light Gray
Světle šedá
H21/C69 | E NMF
Barva kovu
H/C8 | F Burnt Metal
Opálený kov
H76/C61 | G Red
Červená
H/C3 |
|--------------------------------------|------------------------------------|----------------------------------|---|------------------------------------|--|---------------------------------|



AH-1G, s/n 68-15049, flown by 1Lt George Alexander and WO1 Jim Moran, C/2/20 ARA, Bu Dop, Vietnam, June 1970. Helicopters participating in the Cambodian invasion had their tailbooms painted in black to obscure the US markings.

AH-1G sér.č.: 68-15049, ve kterém létali 1Lt George Alexander a WO1 Jim Moran, C/2/20 ARA, Bu Dop, Vietnam, červen 1970. Stroje účastníci se invaze do Kambodže měly ocasní nosníky zamalované černou barvou pro skrytí identity.

Scheme B

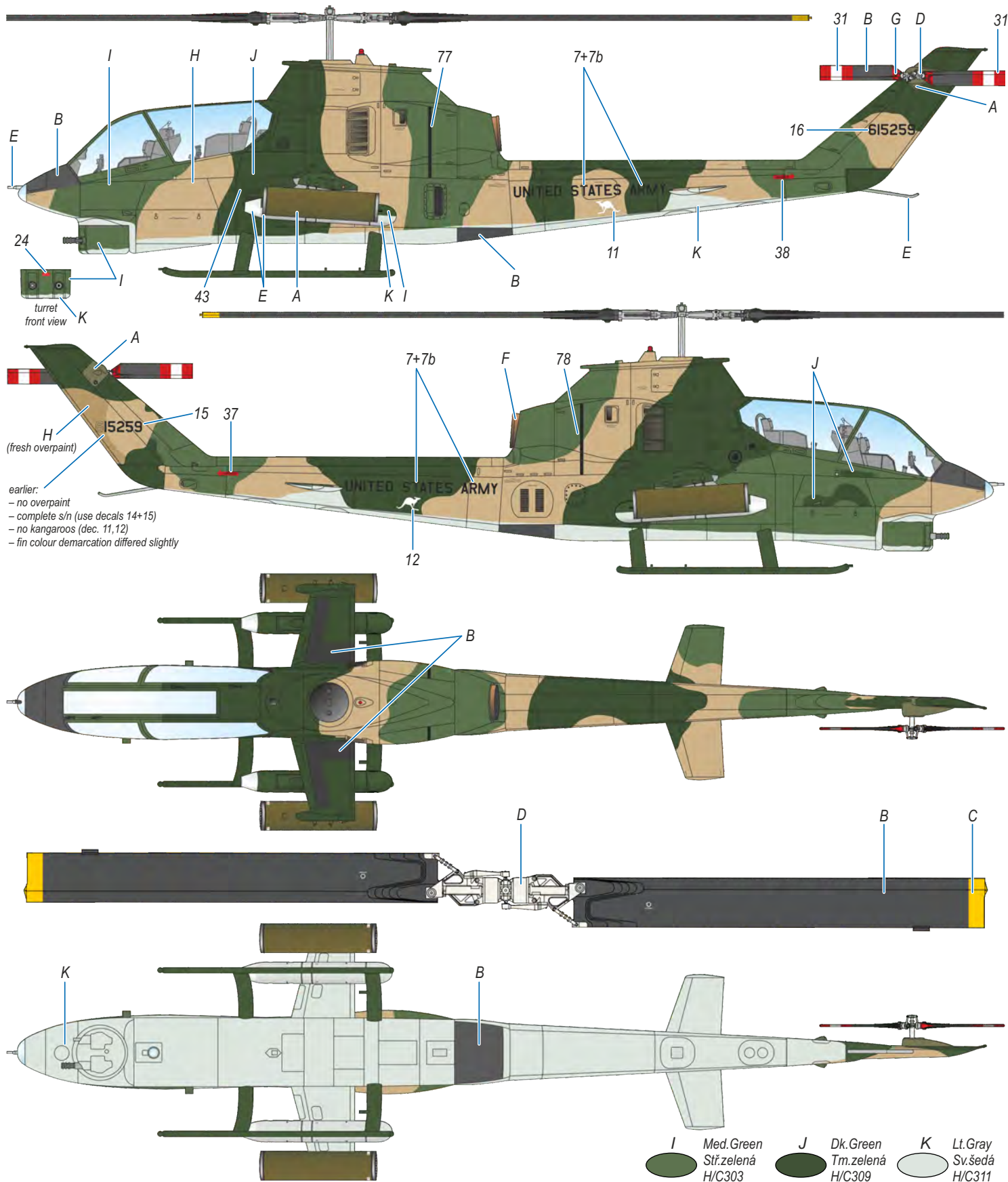


- | | | | | | | | | |
|--------------------------------------|------------------------------------|----------------------------------|---|------------------------------------|--|---------------------------------|------------------------------------|--|
| A Olive
Olivová
H52/C12 | B Black
Černá
H12/C33 | C Yellow
Žlutá
H/C4 | D Light Gray
Světle šedá
H21/C69 | E NMF
Barva kovu
H/C8 | F Burnt Metal
Opálený kov
H76/C61 | G Red
Červená
H/C3 | H Brown
Hnědá
H72/C22 | special
HOBBY
GUNZE
SANGYO |
|--------------------------------------|------------------------------------|----------------------------------|---|------------------------------------|--|---------------------------------|------------------------------------|--|

AH-1G, s/n 66-15259, Cobra NETT – New Equipment Training Team, Vung Tau, Vietnam, December 1967. Wearing an USAF-style camouflage pattern, this machine also happened to complete the first AH-1 flight in South Vietnam on 4 September 1967.

AH-1G sér.č.: 66-15259, Cobra NETT – New Equipment Training Team, Vung Tau, Vietnam, prosinec 1967. Tento stroj nesl kamufláž v barvách obvyklých pro USAF a také uskutečnil první let tohoto typu nad Jižním Vietnamem, a to dne 4. září 1967.

Scheme C



earlier:
 - no overpaint
 - complete s/n (use decals 14+15)
 - no kangaroos (dec. 11,12)
 - fin colour demarcation differed slightly

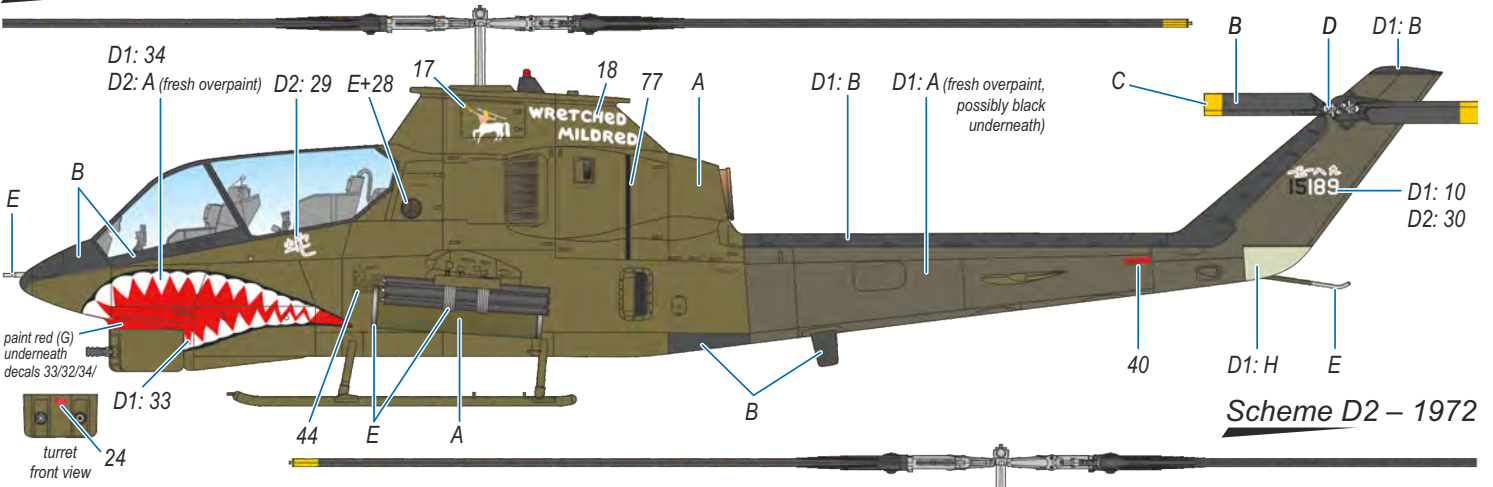
A Olive Olivová H52/C12	B Black Černá H12/C33	C Yellow Žlutá H/C4	D Light Gray Světle šedá H21/C69	E NMF Barva kovu H/C8	F Burnt Metal Opálený kov H76/C61	G Red Červená H/C3	H Tan Tríslová H/C310	I Med.Green Sř.zelená H/C303	J Dk.Green Tm.zelená H/C309	K Lt.Gray Sv.šedá H/C311
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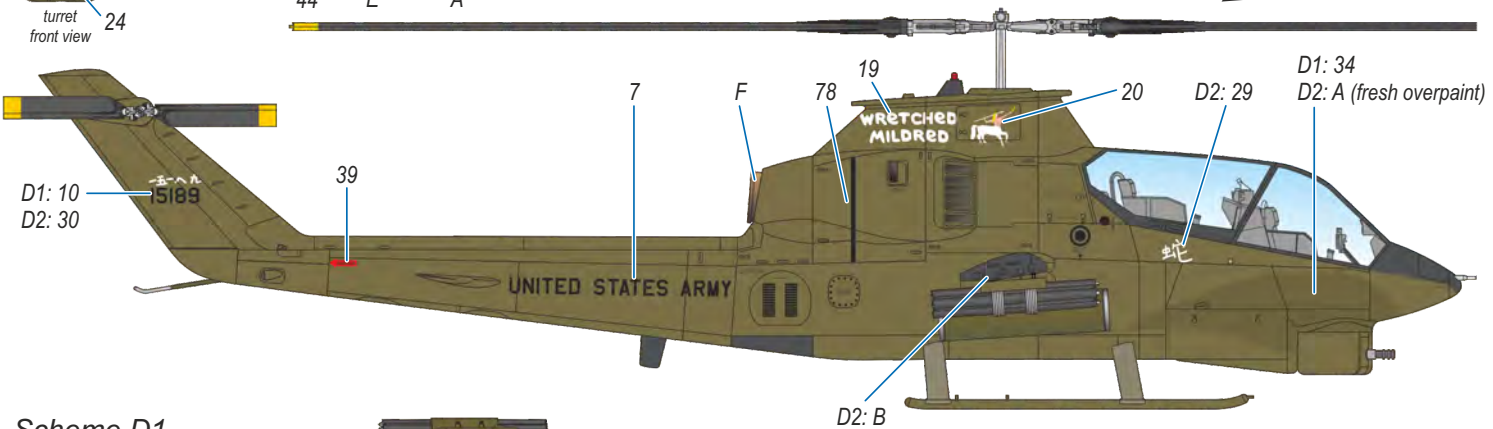
AH-1G, s/n 68-15189, D Troop, 3rd Brigade, 4th Cavalry, Chu Chi, Vietnam 1971. In 1972, Wretched Mildred sustained severe damage to her tail boom which was then replaced with a new one, with the tail rotor on the starboard side. The sharkmouth was repainted, Chinese s/n appeared on the fin and the word snake in Chinese under the pilot canopy.

Scheme D1 – 1971

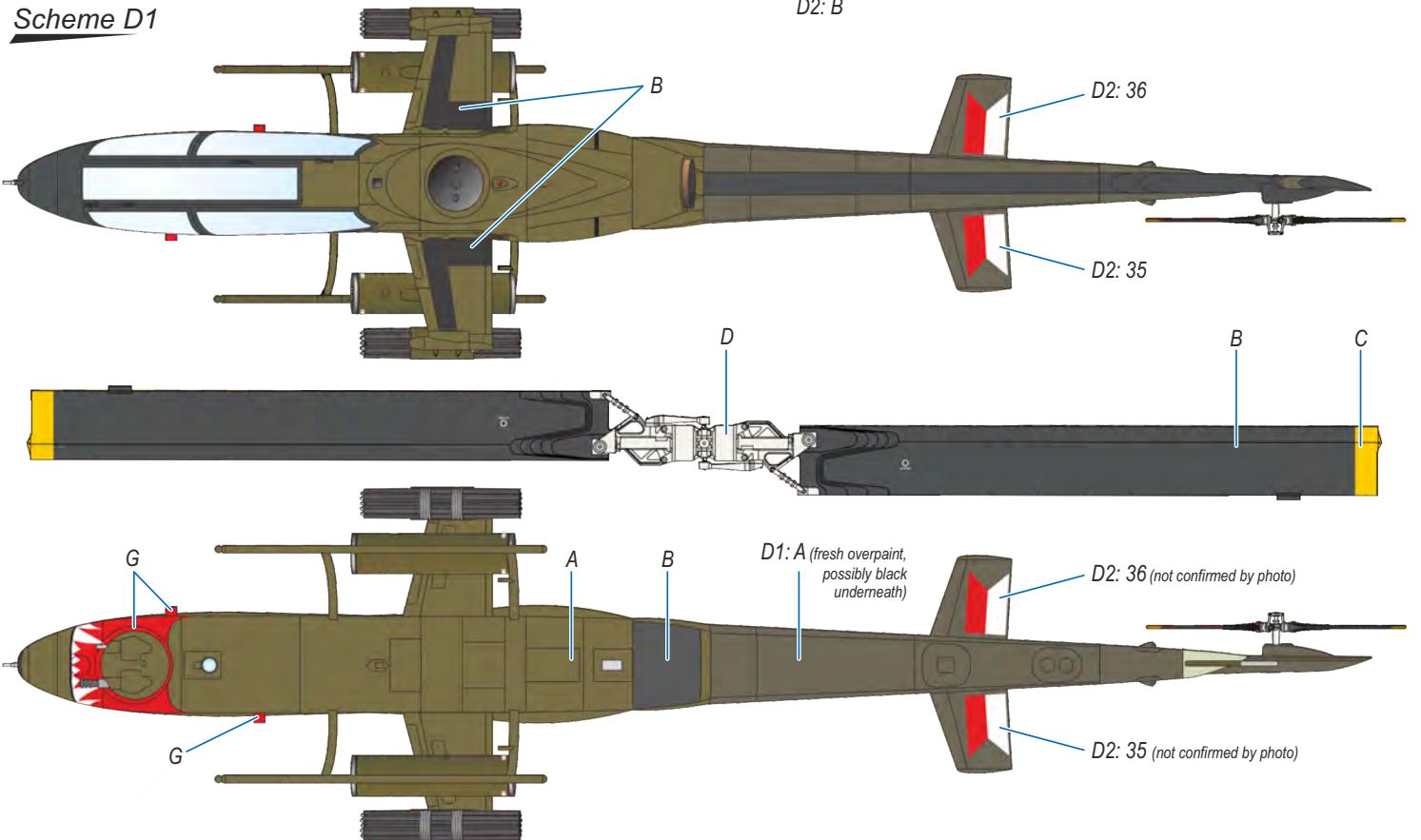
AH-1G sér.č.: 68-15189, D Troop, 3rd Brigade, 4th Cavalry, Chu Chi, Vietnam 1971. V roce 1972 došlo k havárii, při které byl vážně poškozen ocasní nosník a při následné opravě dostala Mildred nový, již s rotorem na pravé straně. Tlama na přídí byla zamalována a na stroji se také objevily čínské znaky: slovo „had“ pod pilotní kabinou a sériové číslo na ocase.



Scheme D2 – 1972



Scheme D1



A Olive Olivová H52/C12	B Black Černá H12/C33	C Yellow Žlutá H/C4	D Light Gray Světle šedá H21/C69	E NMF Barva kovu H/C8	F Burnt Metal Opálený kov H76/C61	G Red Červená H/C3	H Off White Špinavě bílá H21/C69	special HOBBY GUNZE SANGYO
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Universal Stencil Placement Scheme

(Some stencils may have not been used on your chosen machine, always check marking schemes)

