

AH-1Q/S Cobra 'US & Turkish Army Service'

Instructions / Návod

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.

Specifications:

Main rotor diameter: 13.4 m, Fuselage length: 13.5 m, Tail rotor diameter: 2.6 m, Max. speed: 276 kmh, Service Ceiling: 3,871 m, Range: 580 km

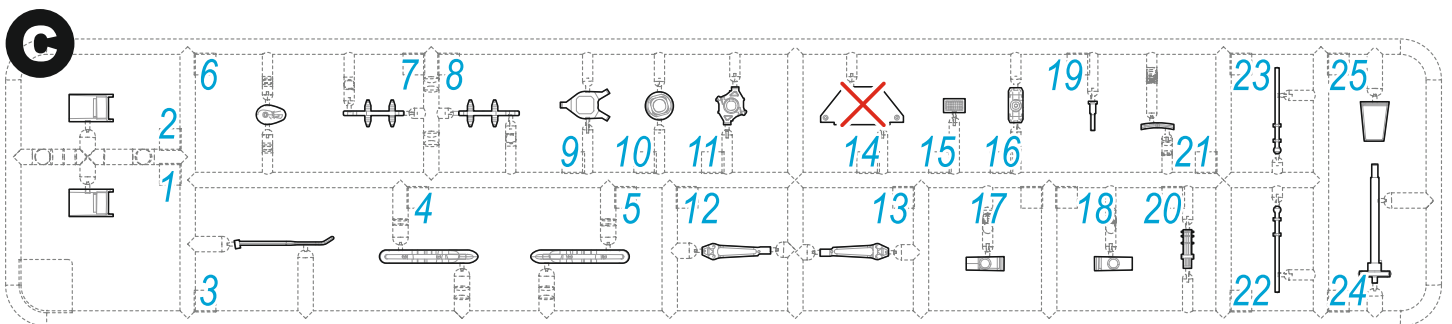
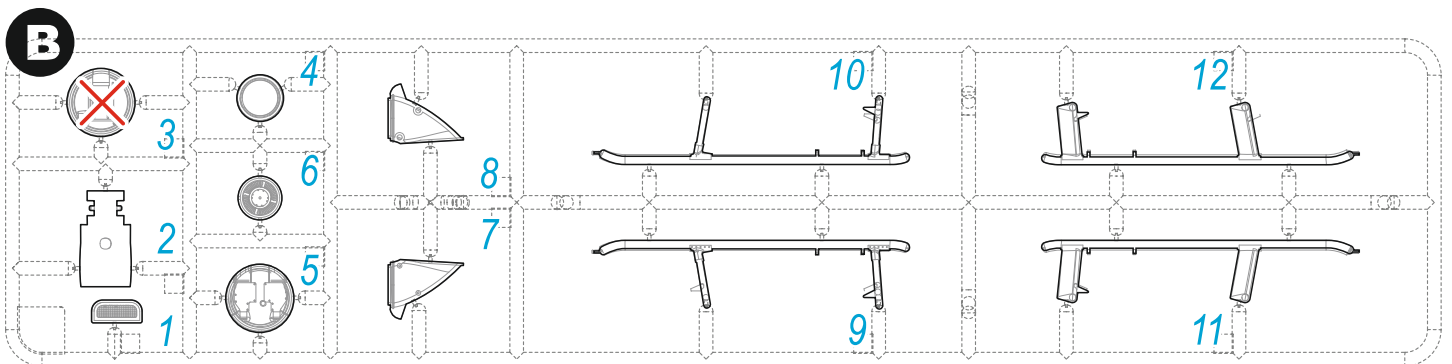
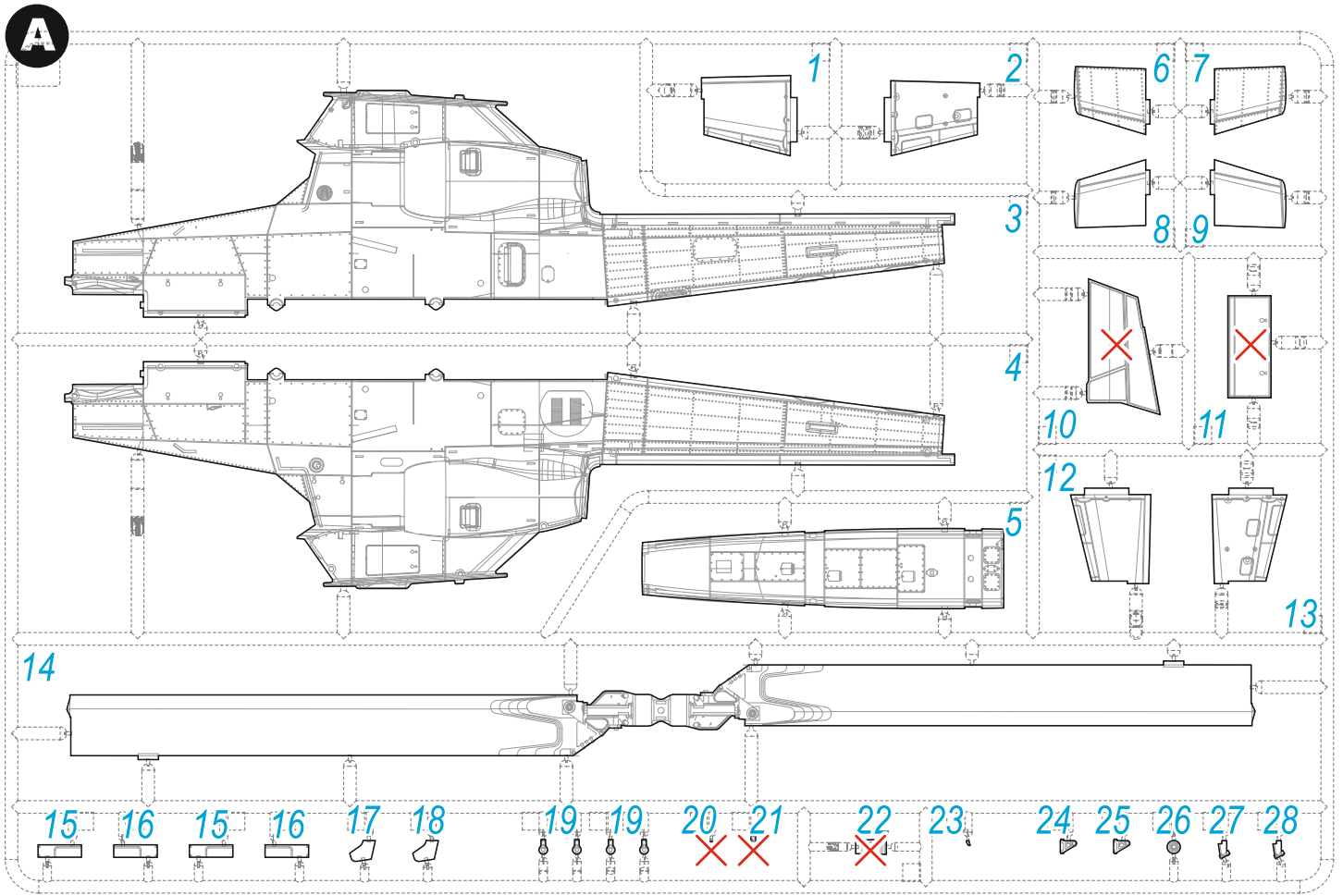
CZ

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 vyzrál 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 vypsala 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 sériových 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, předovou 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 kulomety 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 dvumotorových 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:

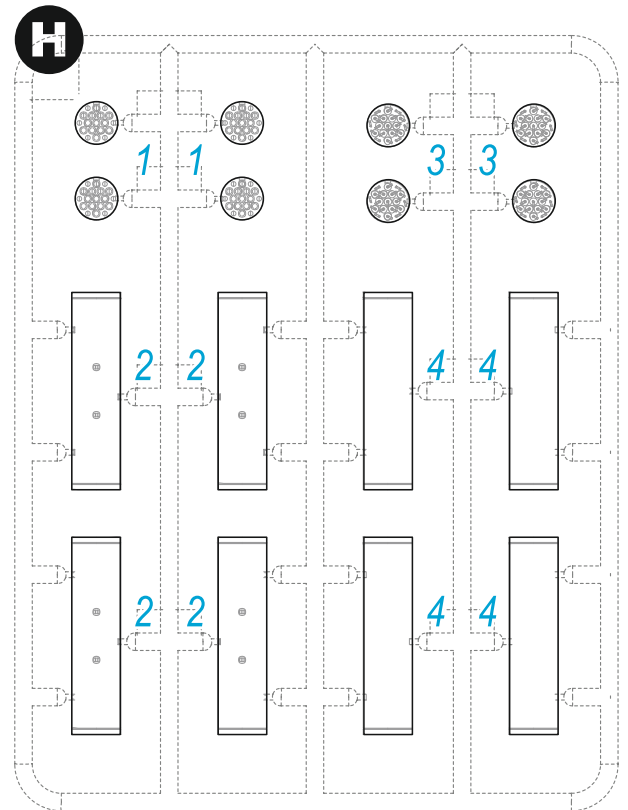
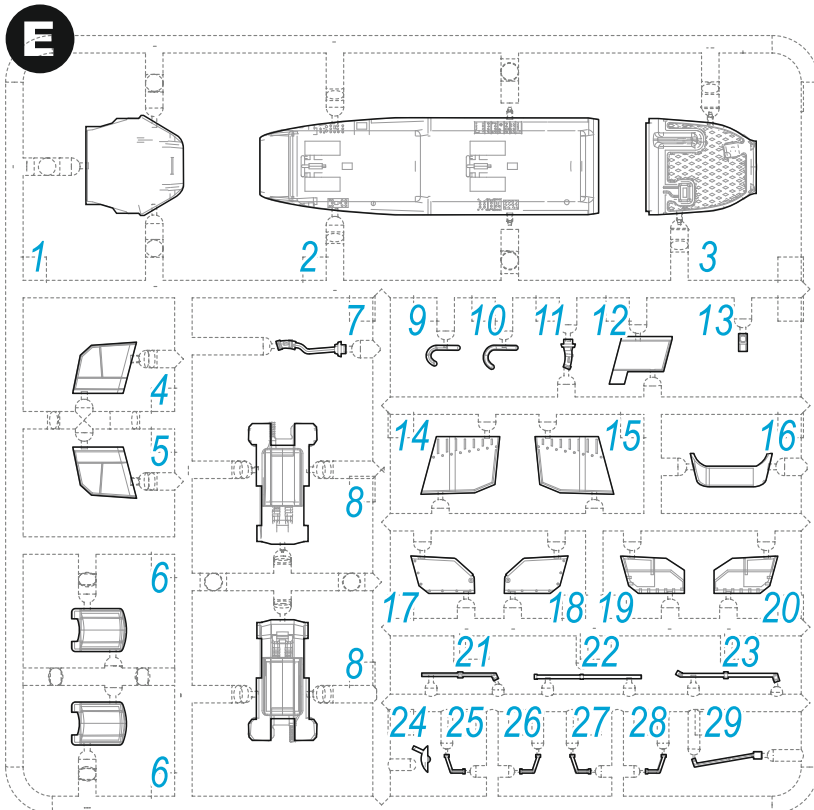
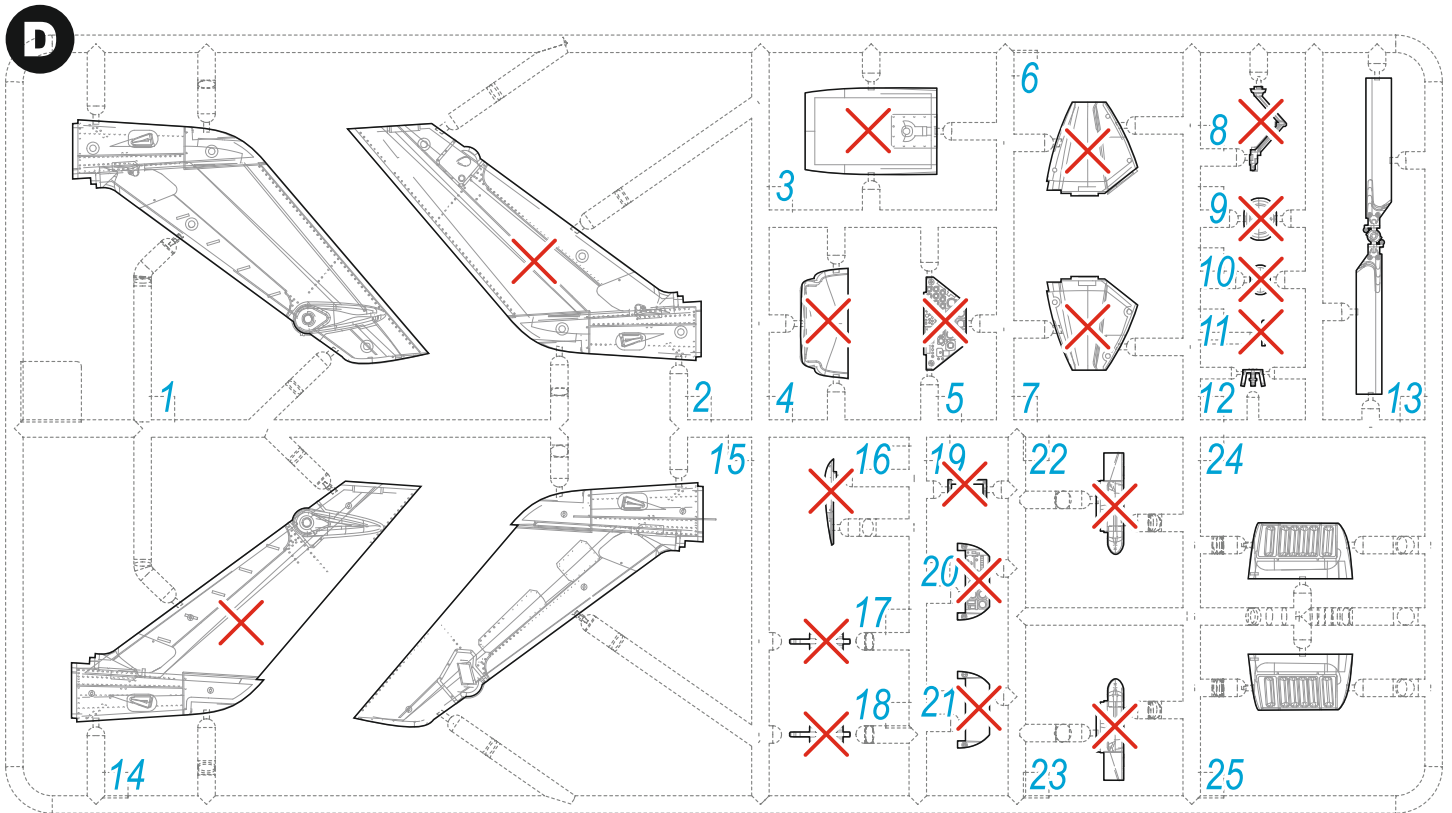
průměr hl. rotoru: 13,4 m, délka trupu: 13,5 m, průměr vyrovnávacího rotoru: 2,6 m, max. rychlost: 276 km/h, dostup: 3871 m, dolet: 580 km

Parts List 1



✗ = Not used

Parts List 2



SYMBOLS



MOŽNOST VOLBY
OPTIONAL
NACH BELIEBEN
OPTION



POUŽIT KYANOAKRYLÁTOVÉ LEPIDLO
INSTANT CYANOACRYLATE GLUE
ZYANOAKRYLÁTKLEBER
ADHÉSIF CYANOACRYLAT



OHNOUT
BEND
BIEGEN
COURBER



ZHOTOVIT NOVÉ
SCRATCH BUILD
FERTIGSTELLEN
ACHEVER



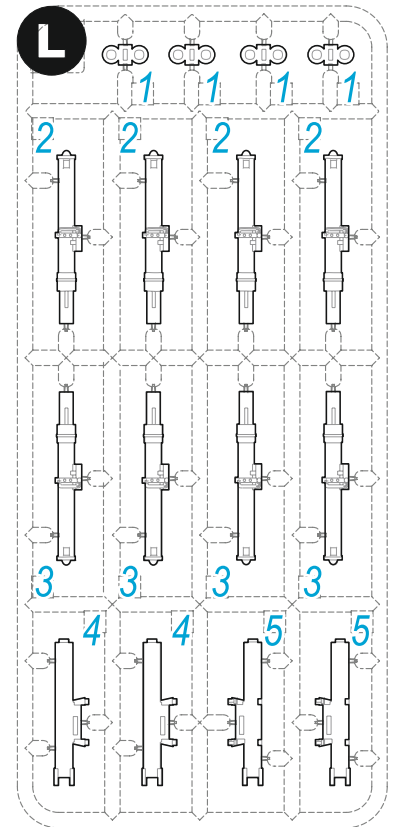
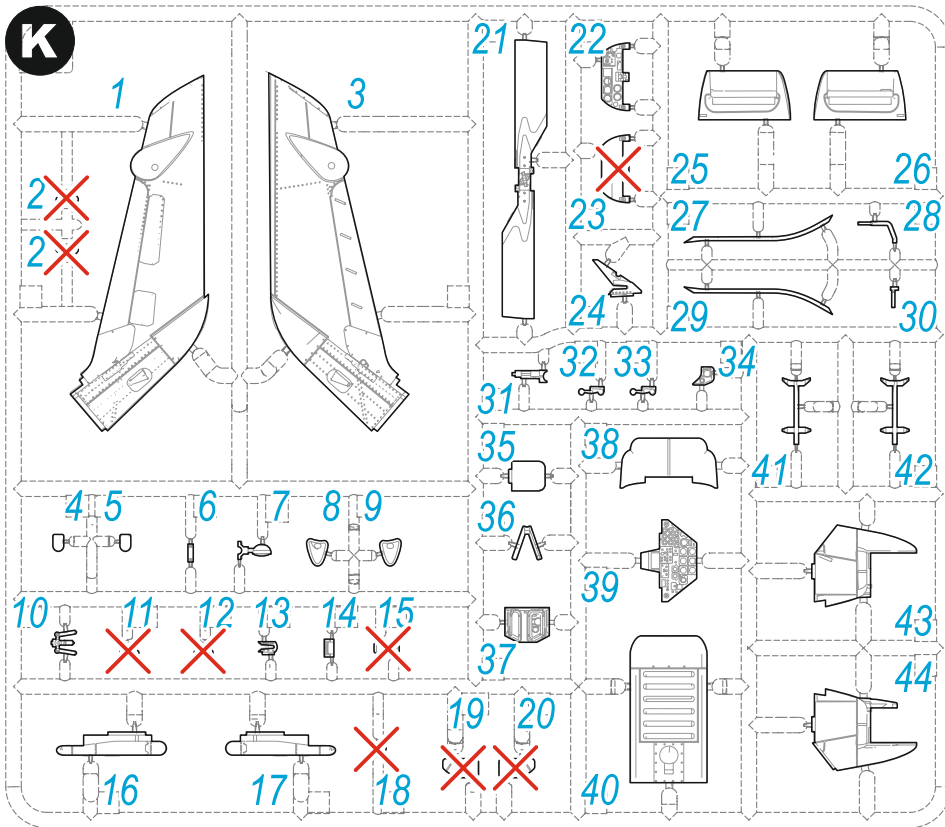
REZAT/VRTAT
CUT OFF/DRILL
ENTFERNEN
DETACHER



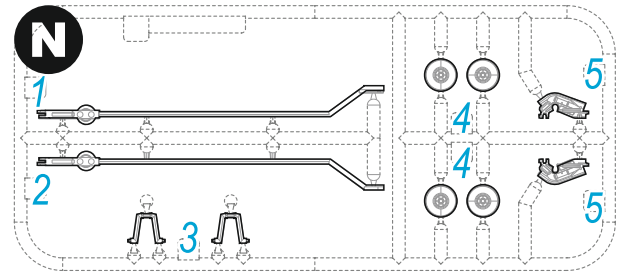
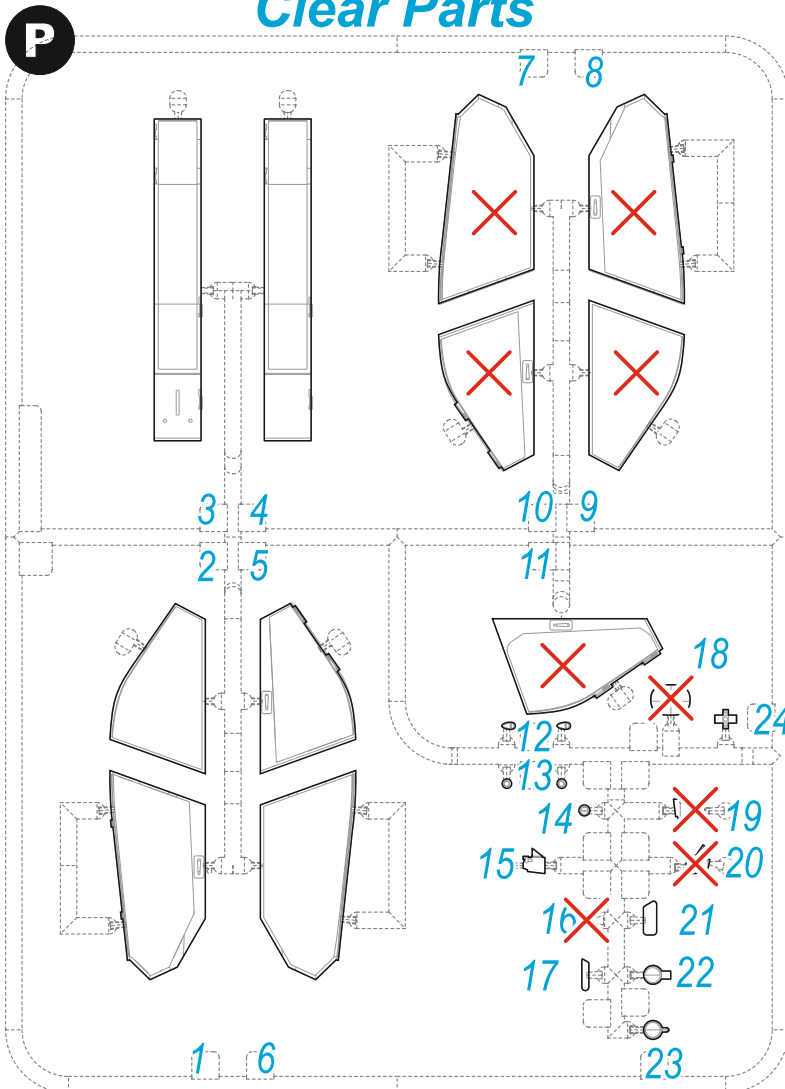
colours code

NATRÍT
COLOUR
FARBEN
PEINDRE

Parts List 3



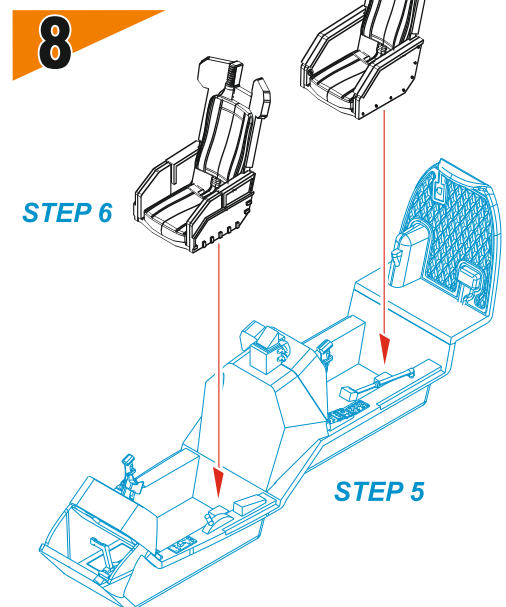
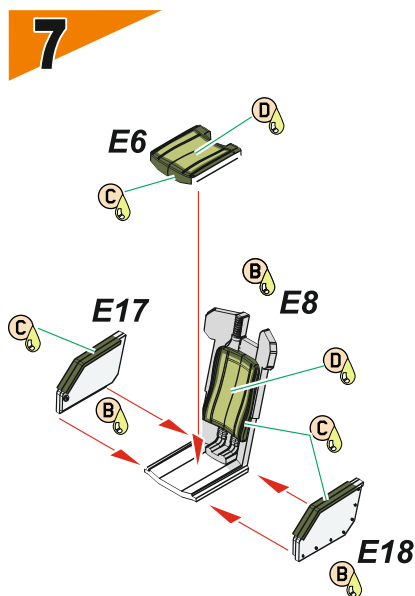
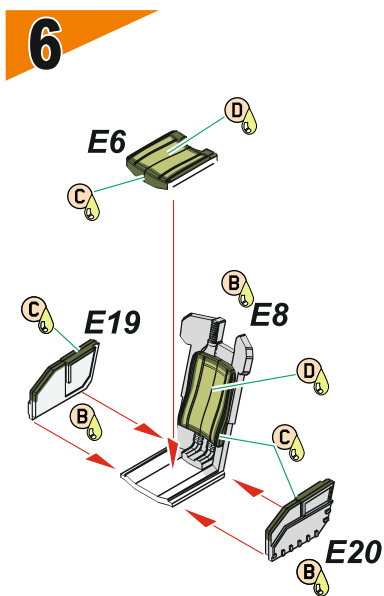
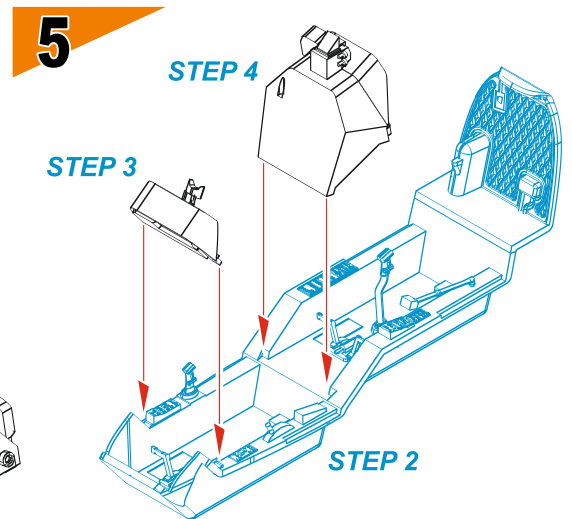
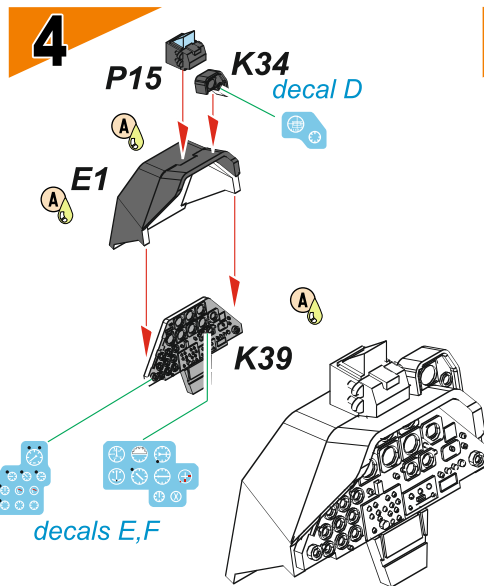
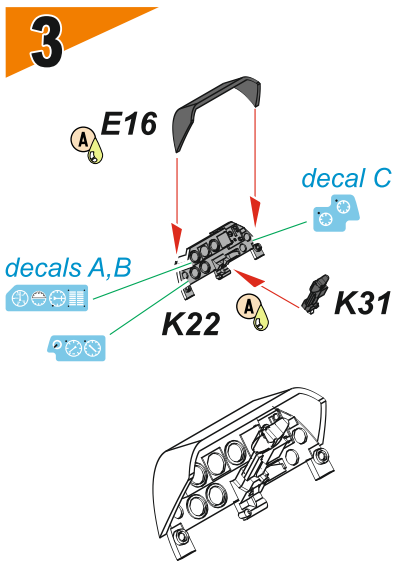
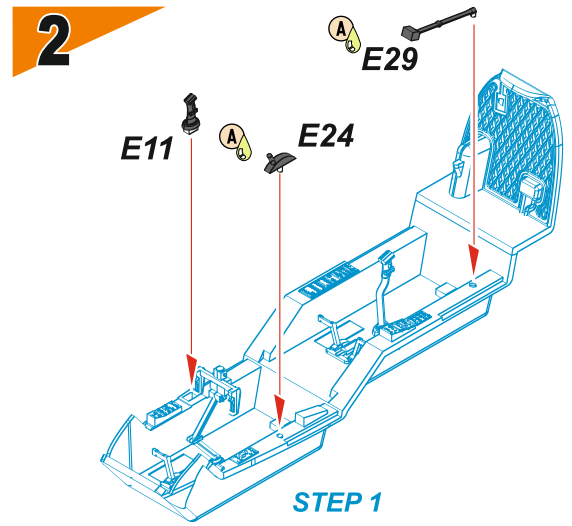
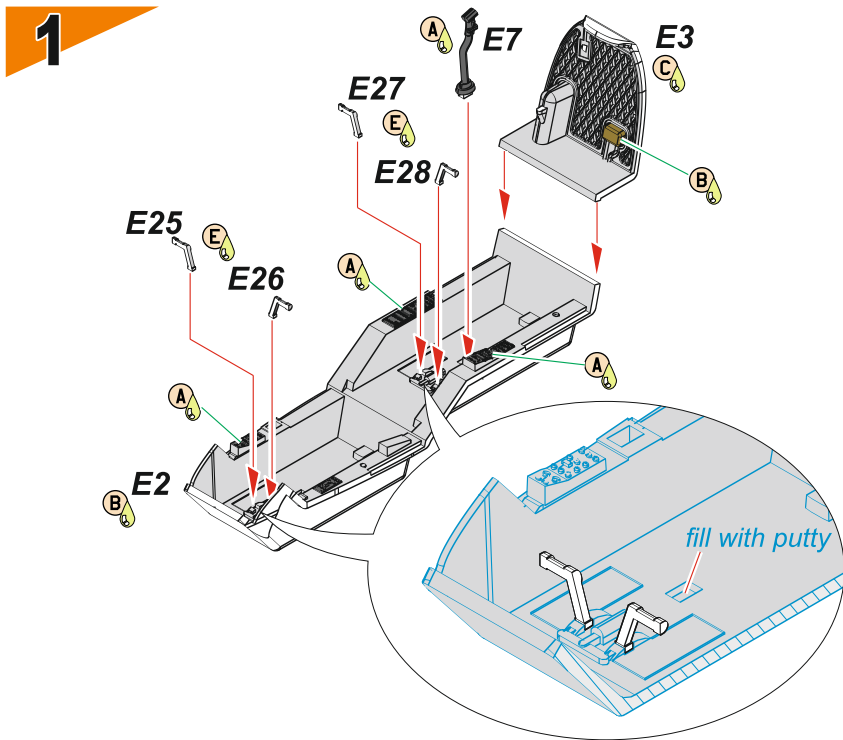
Clear Parts



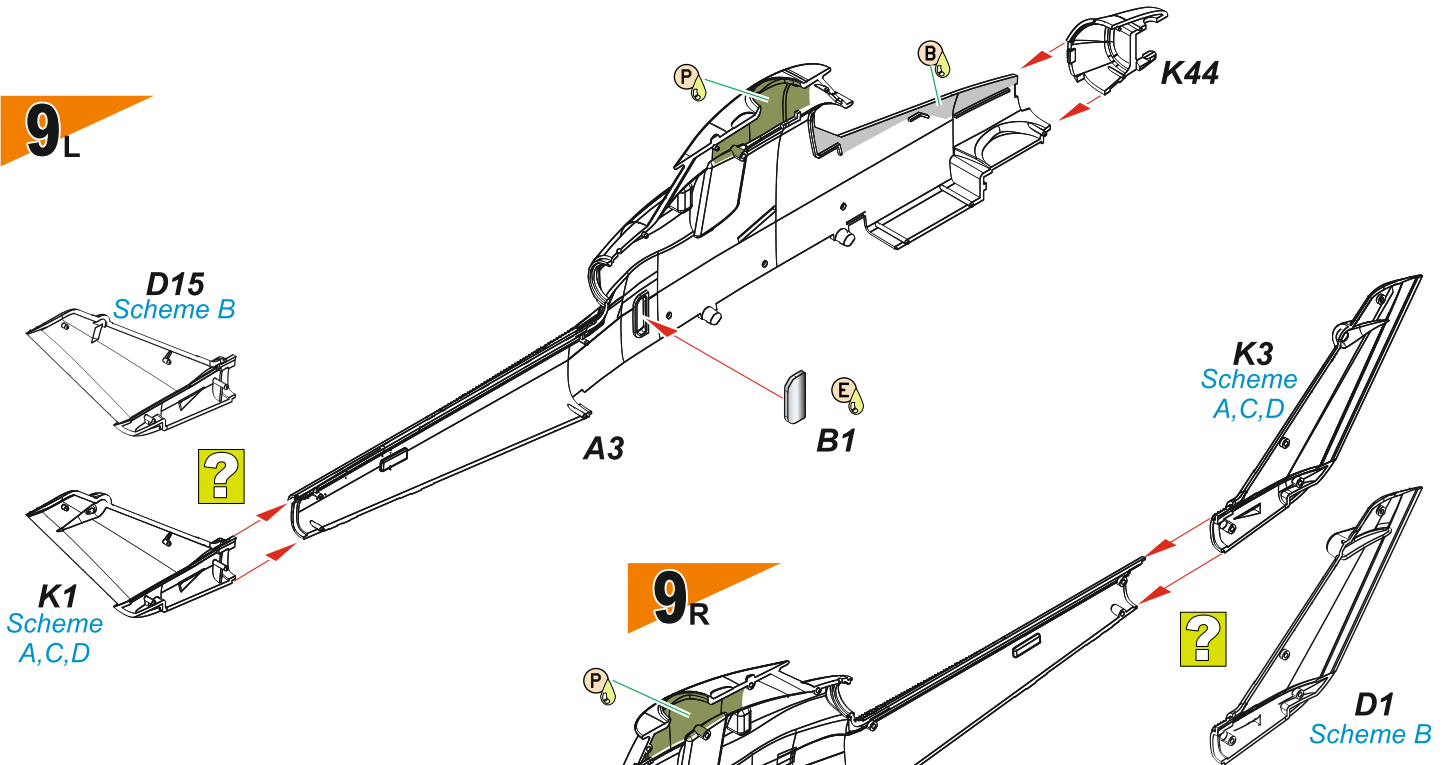
Barvy GUNZE/ GUNZE Colour No.

| | | |
|---|-------------------------------|-----------|
| A | Černá / BLACK | H12/C33 |
| B | Tm. racci šedá / DK.GULL GRAY | H317/C317 |
| C | Olivově zelená / OLIVE GREEN | H52/C12 |
| D | Světle zelená / LIGHT GREEN | H26/C66 |
| E | Hliník / ALUMINIUM | H8/C8 |
| F | Ocelová / STEEL | H18/C28 |
| G | Dělovina / GUNMETAL | H28/C78 |
| H | Tmavá mosaz / DK.BRASS | MC219 |
| I | Opálený kov / BURNT METAL | H76/C61 |
| J | Červená čirá / CLEAR RED | H90/C47 |
| K | Modrá čirá / CLEAR BLUE | H93/C50 |
| L | Barva pneu / TIRE BLACK | H77/C137 |
| M | Světle šedá / LT.GRAY | H21/C69 |
| P | Zelená zákl. / ZINC CHROMATE | C351 |

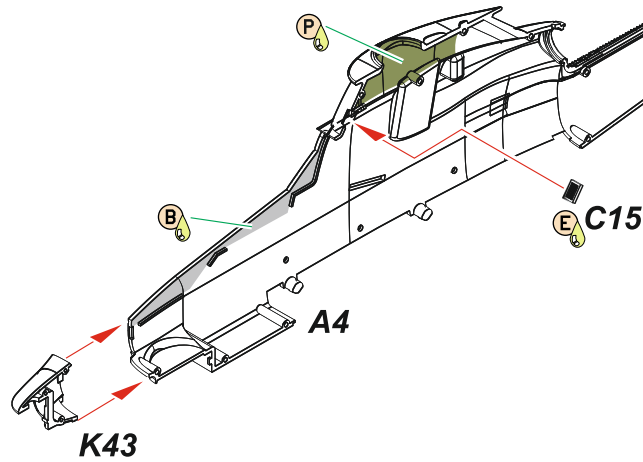
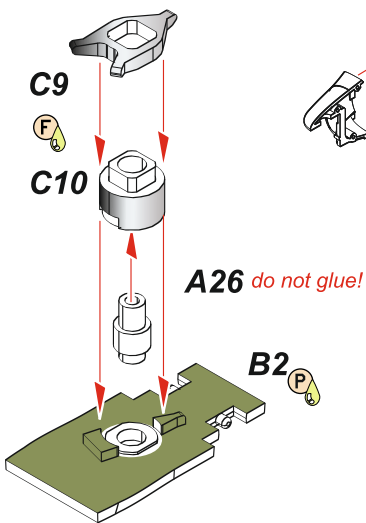
X = Not used



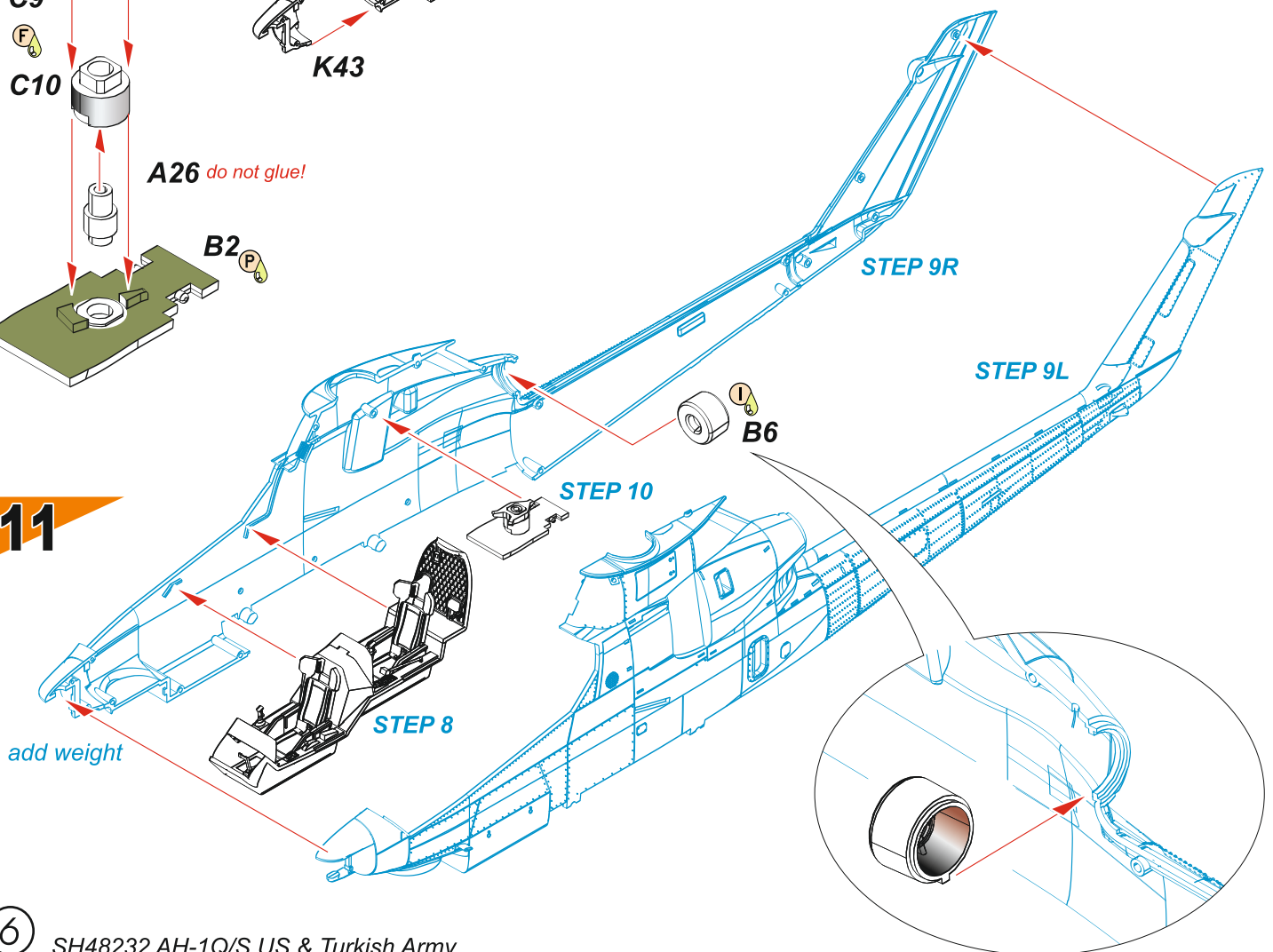
9_L



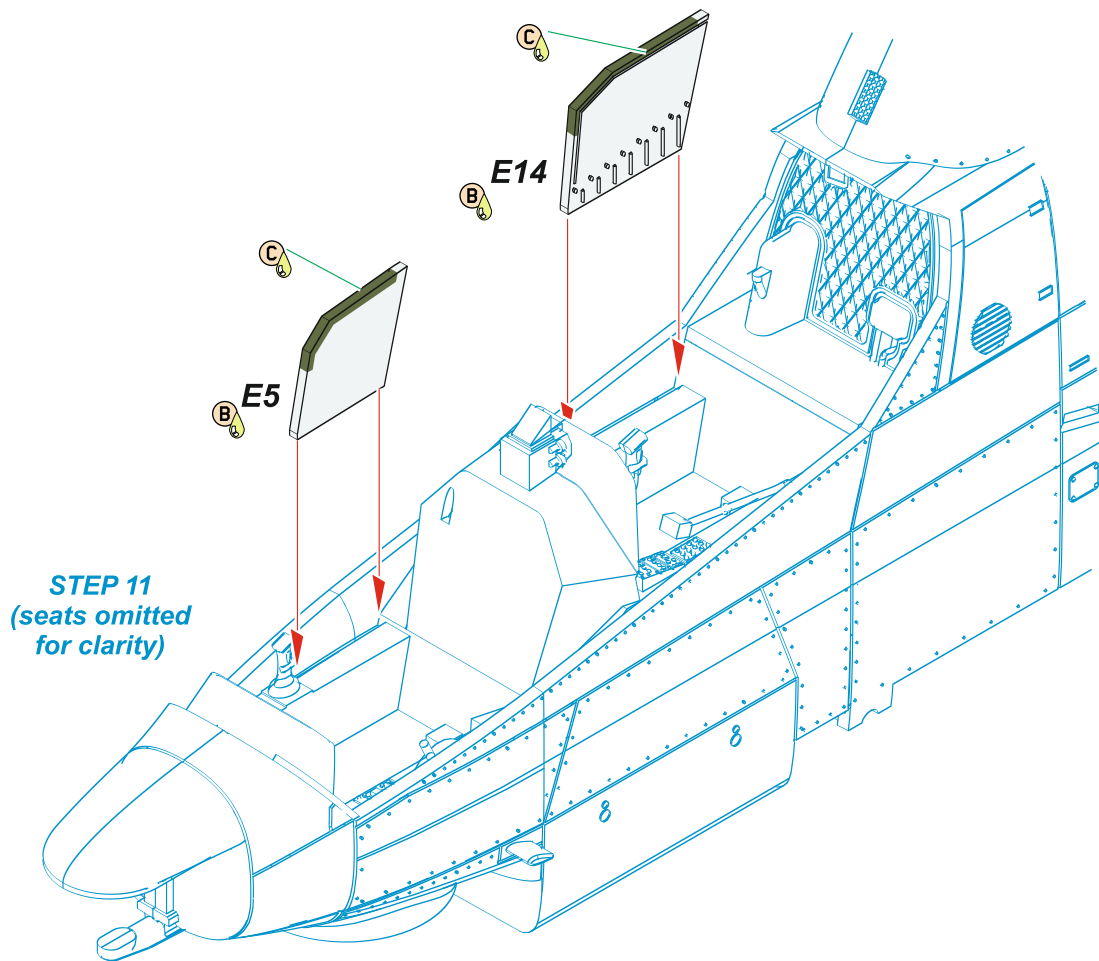
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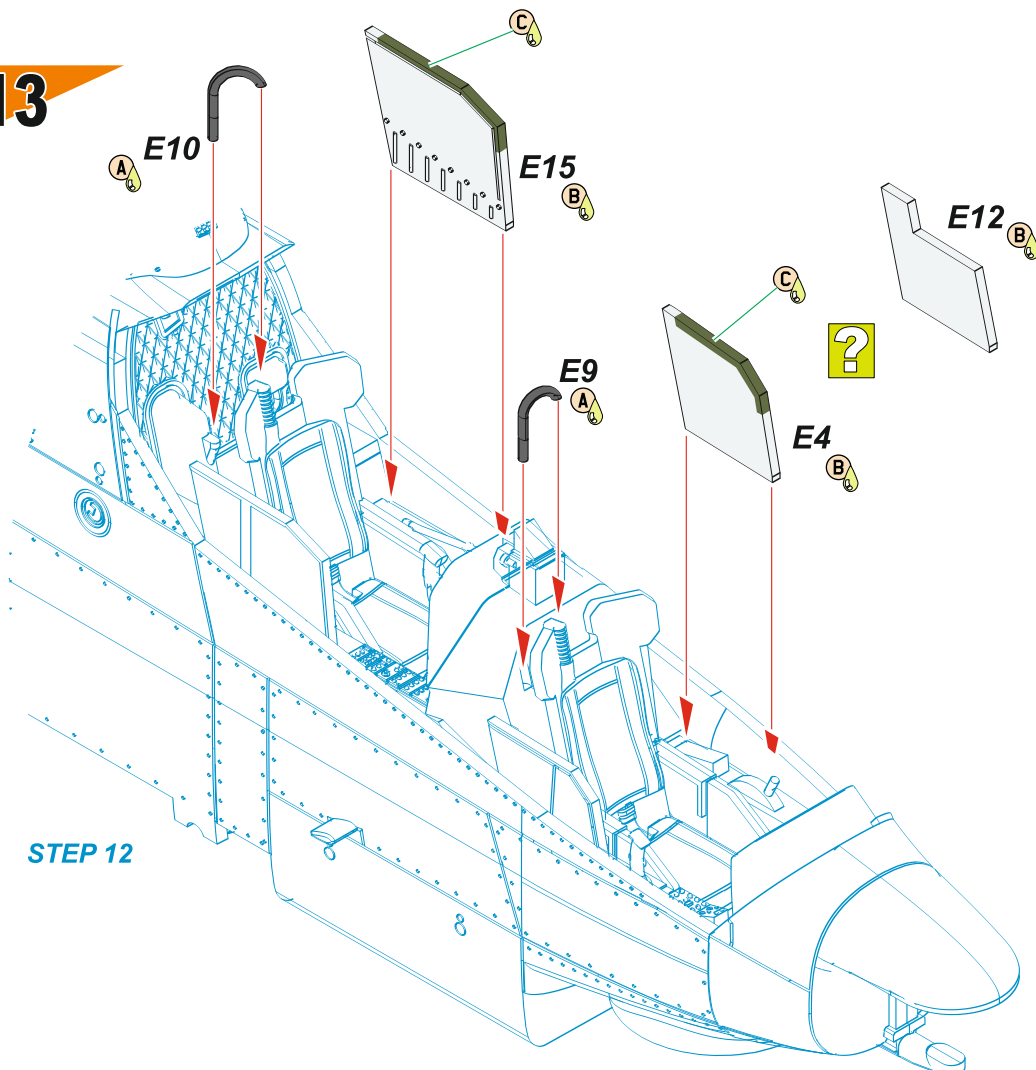
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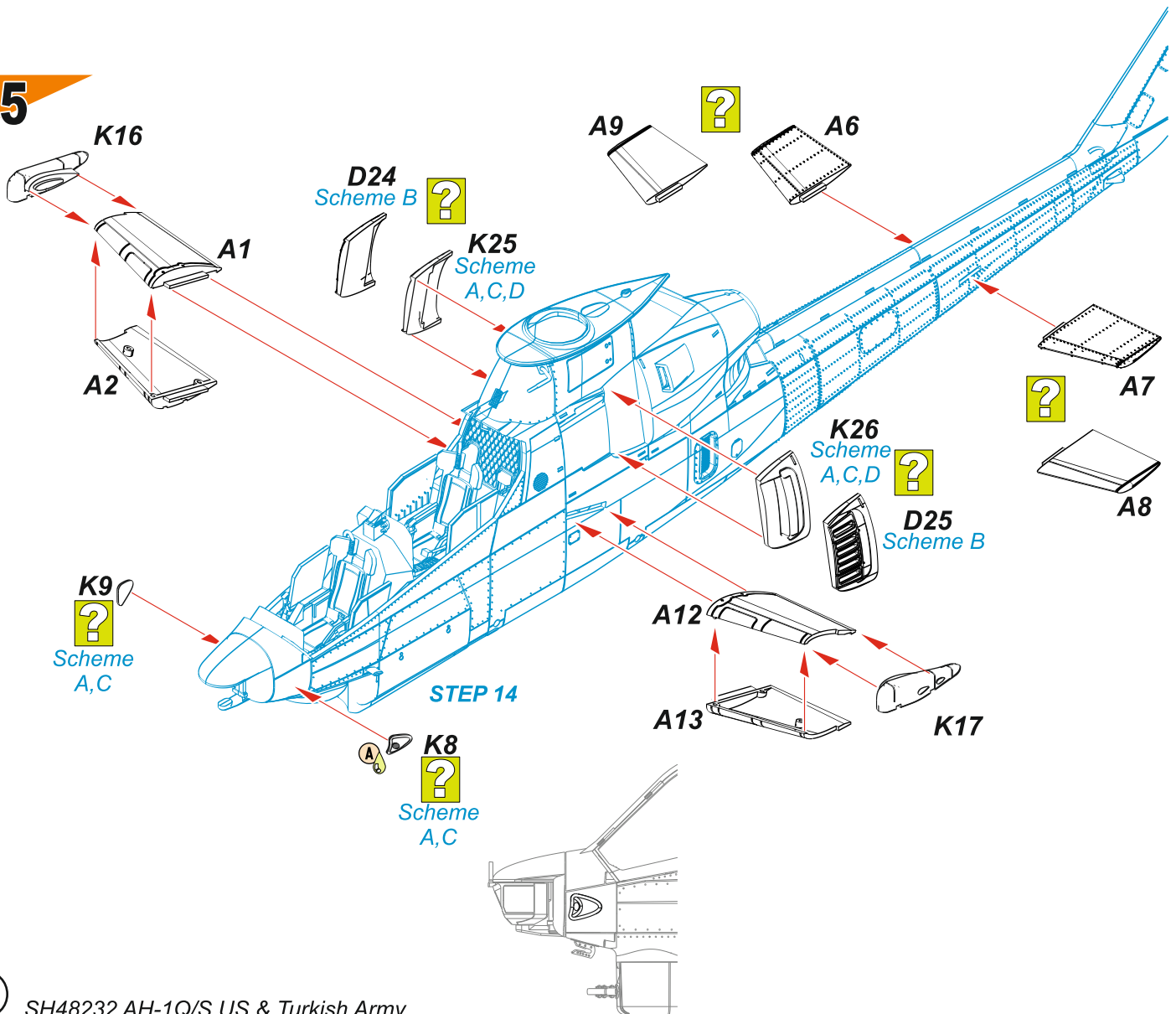
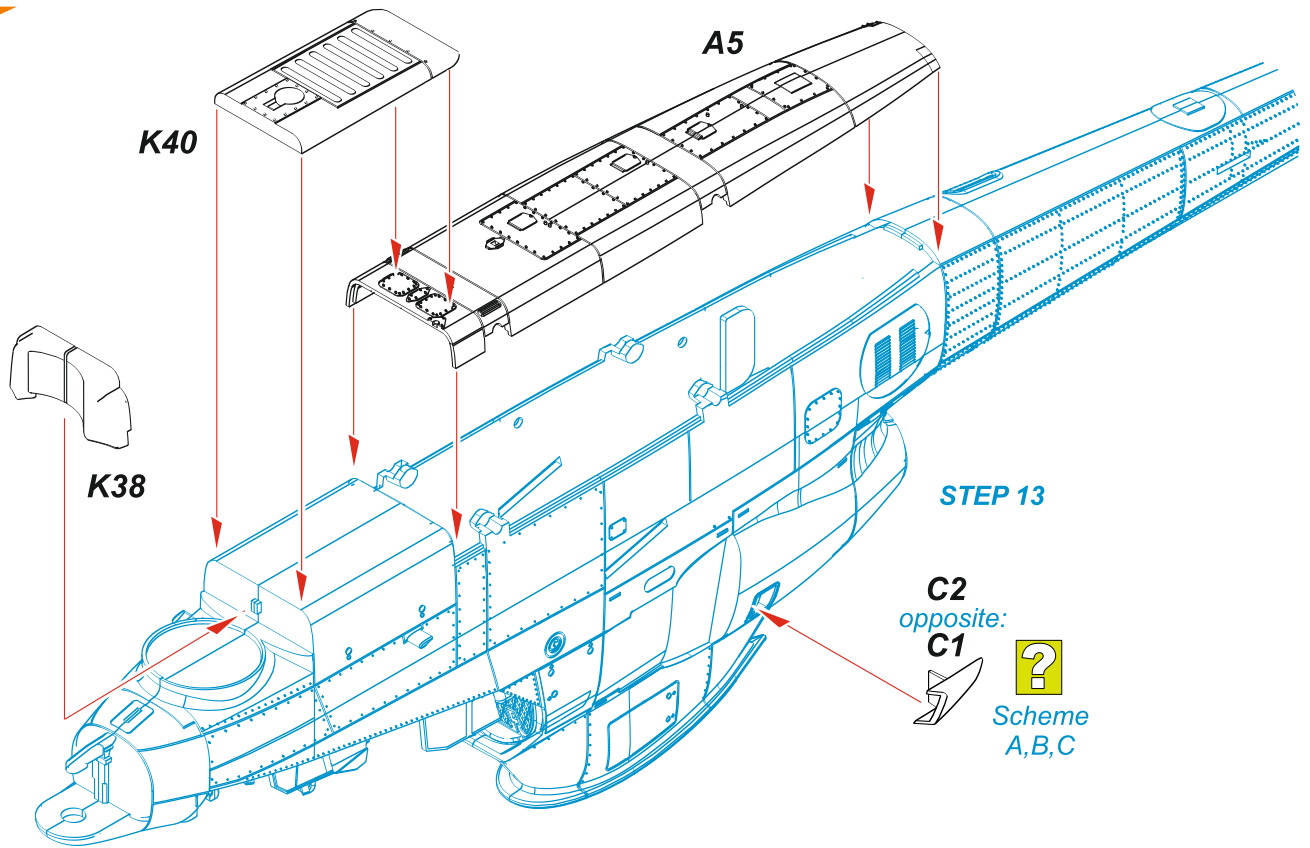


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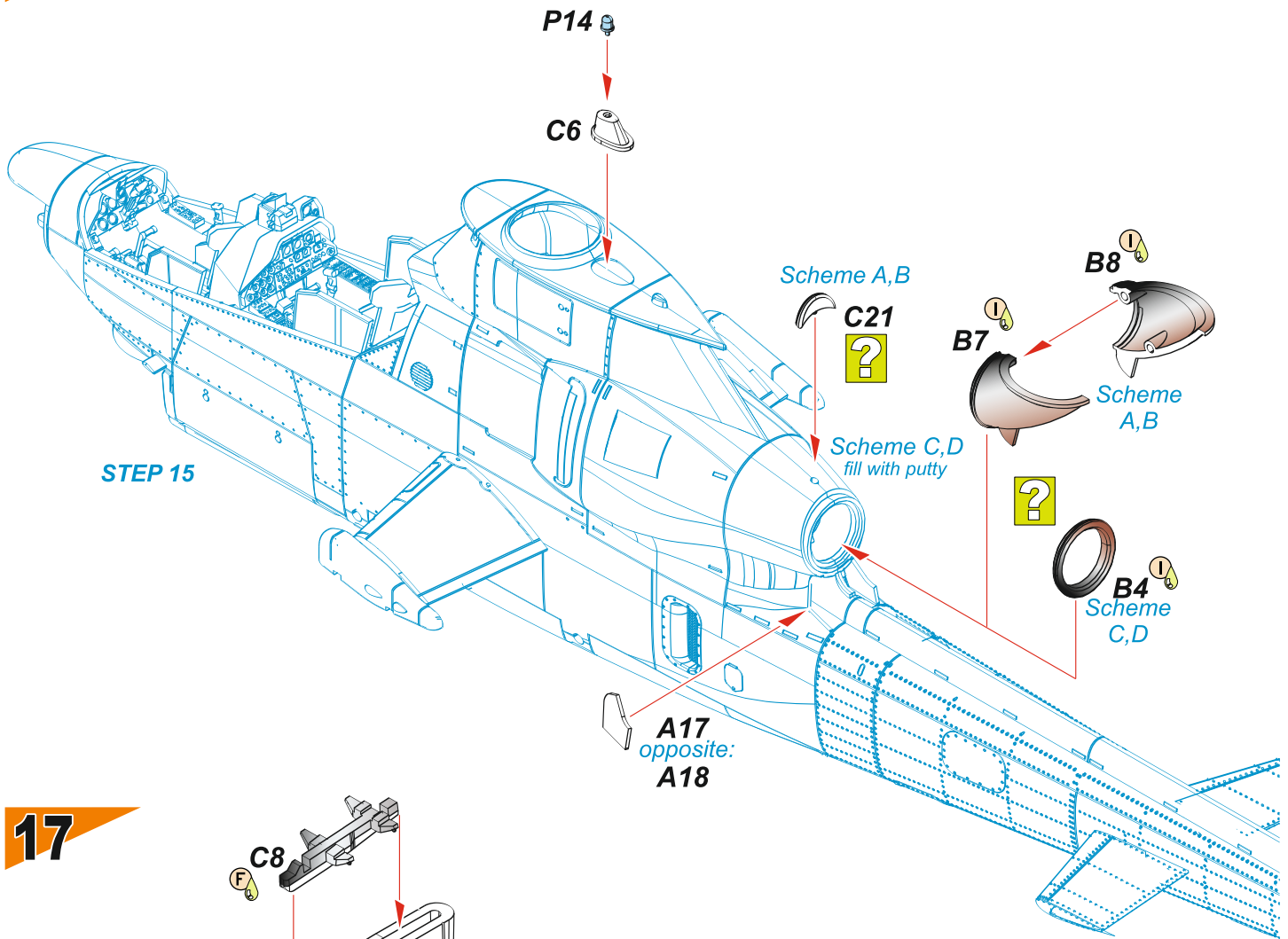


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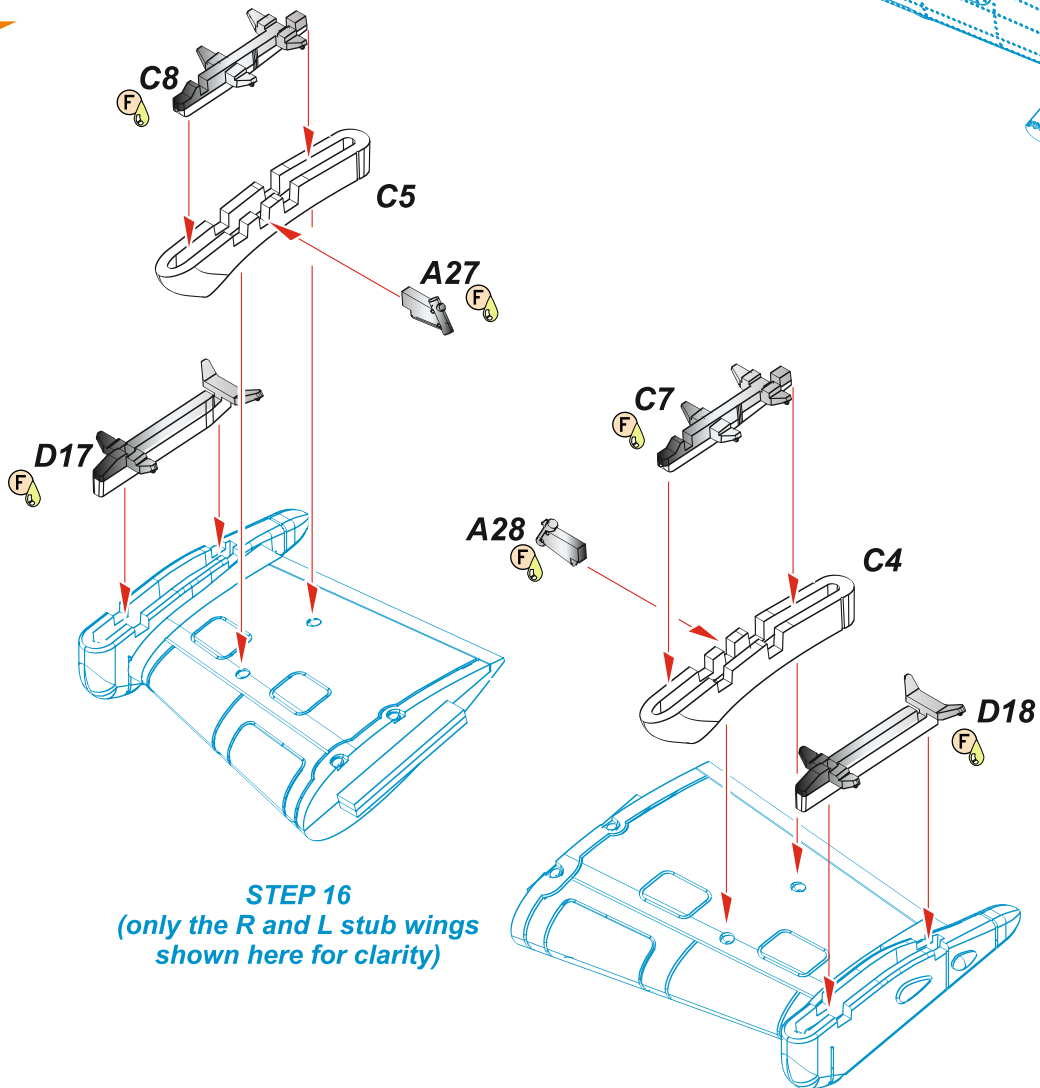




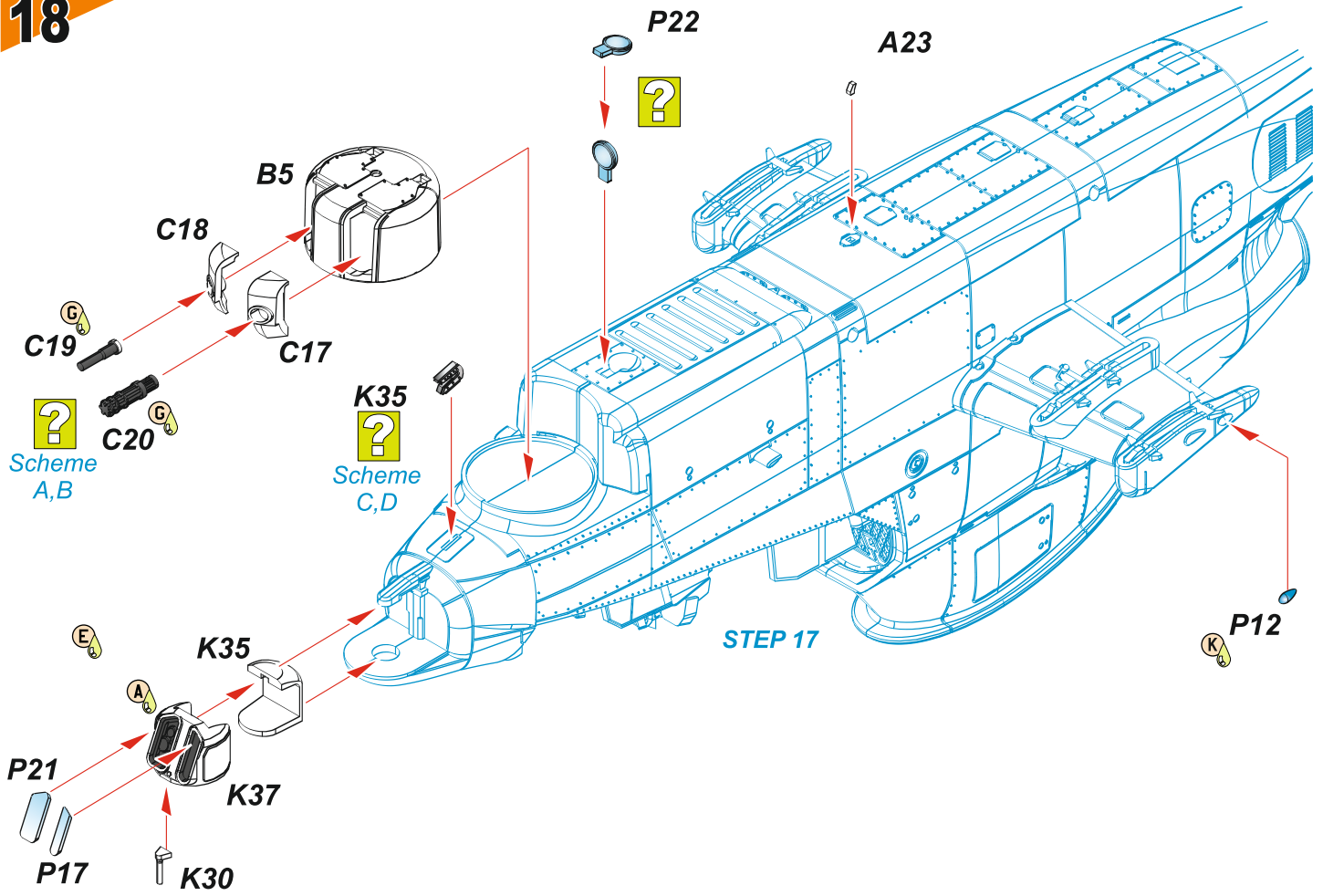
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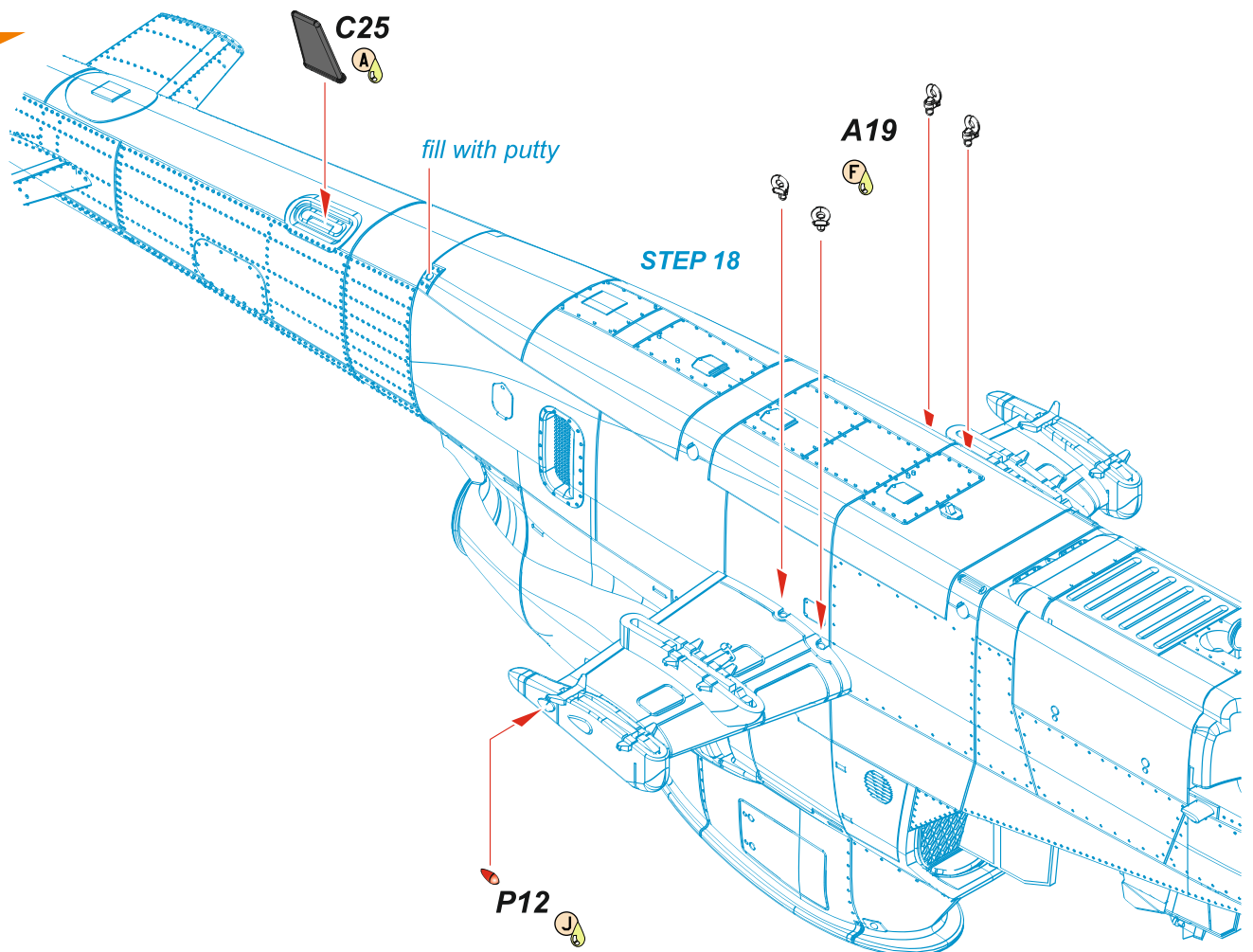
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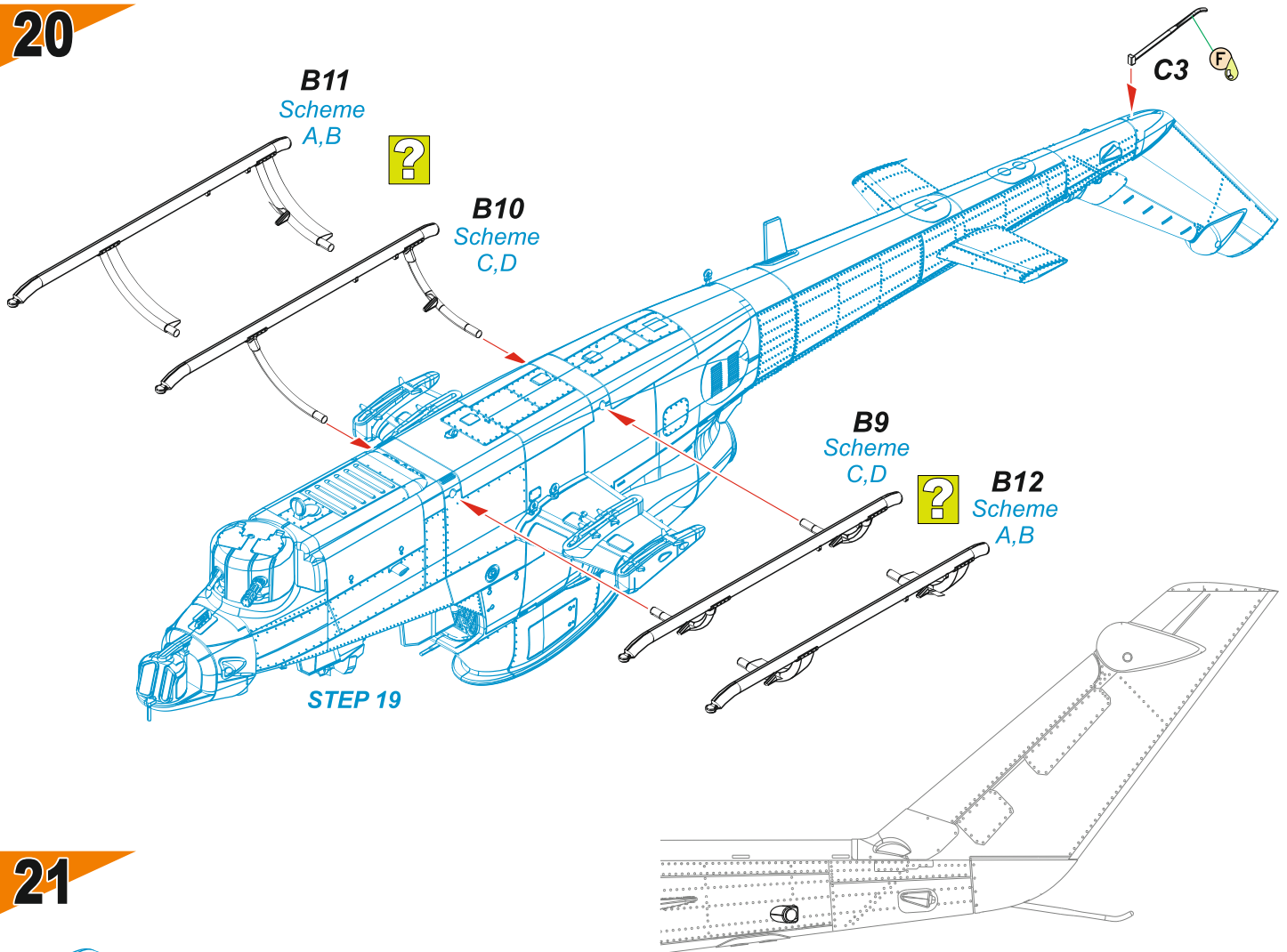
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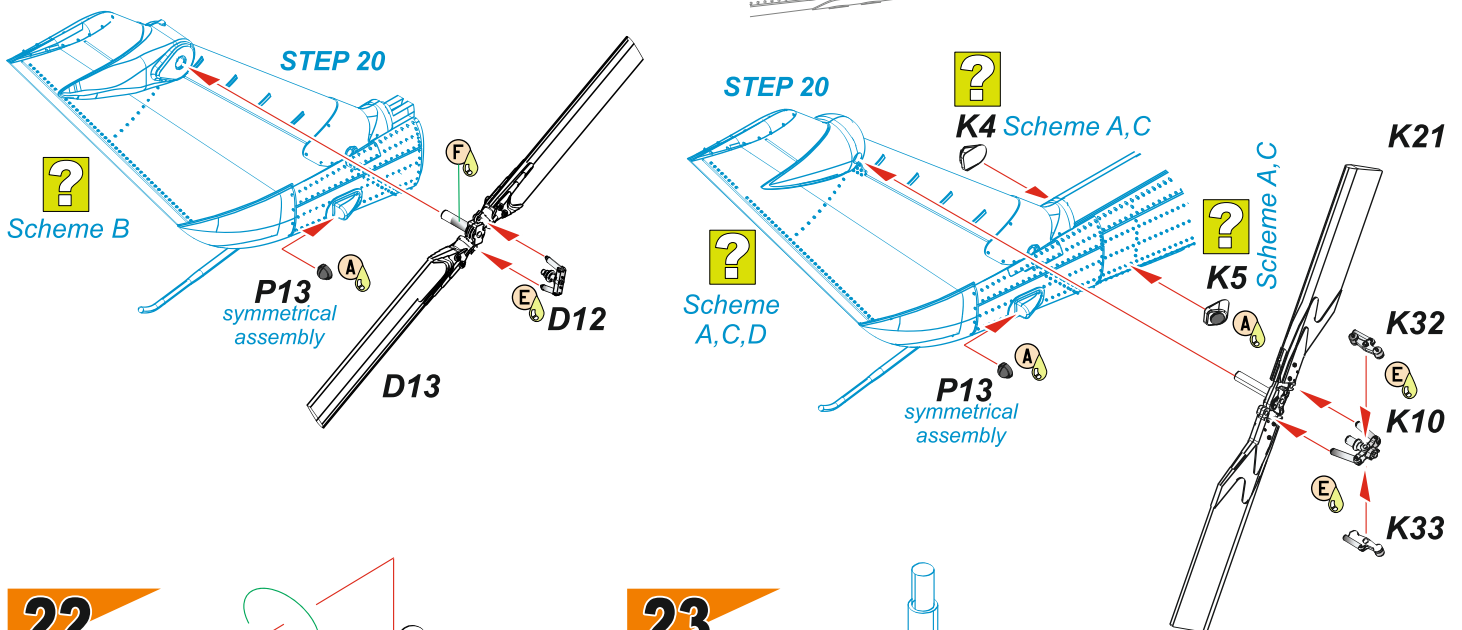
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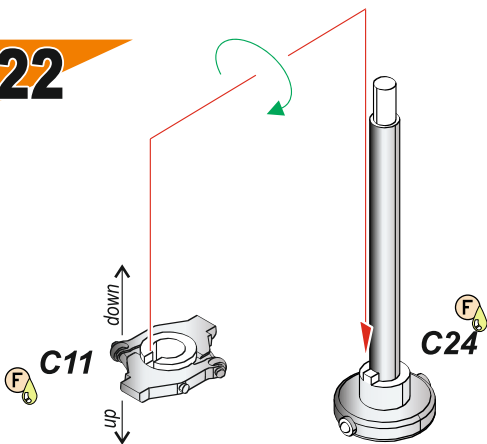
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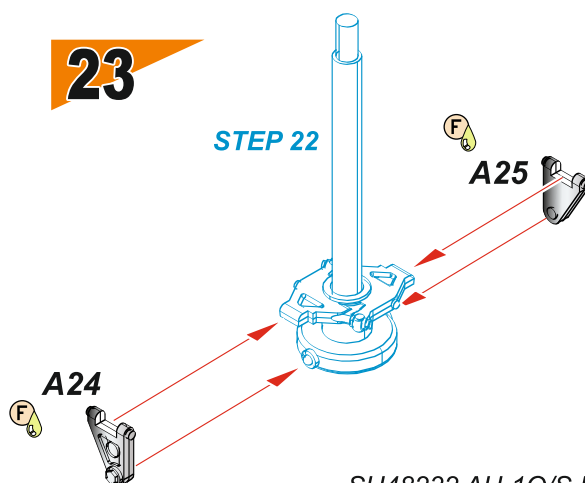
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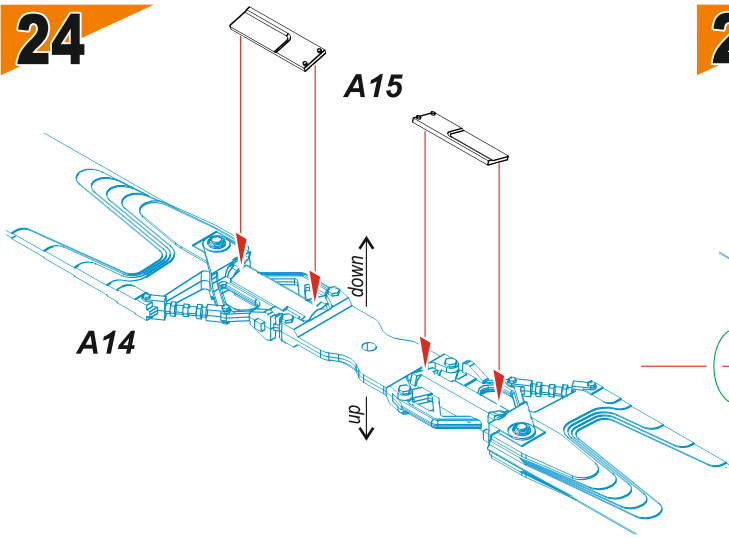
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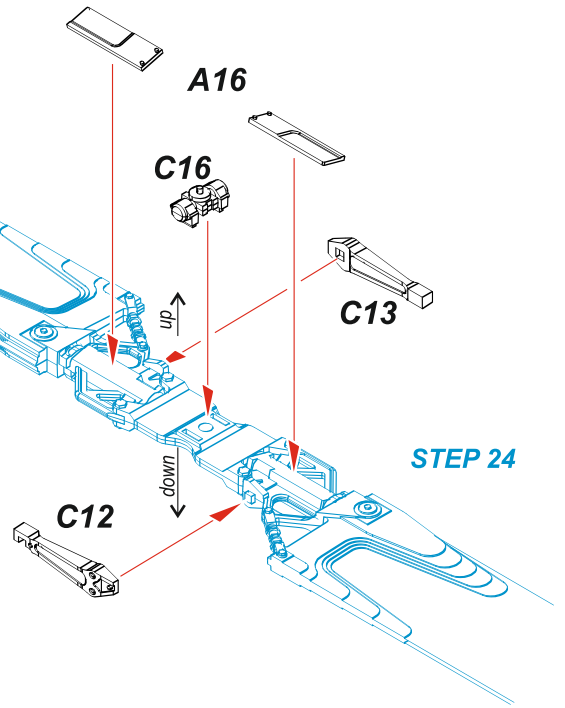
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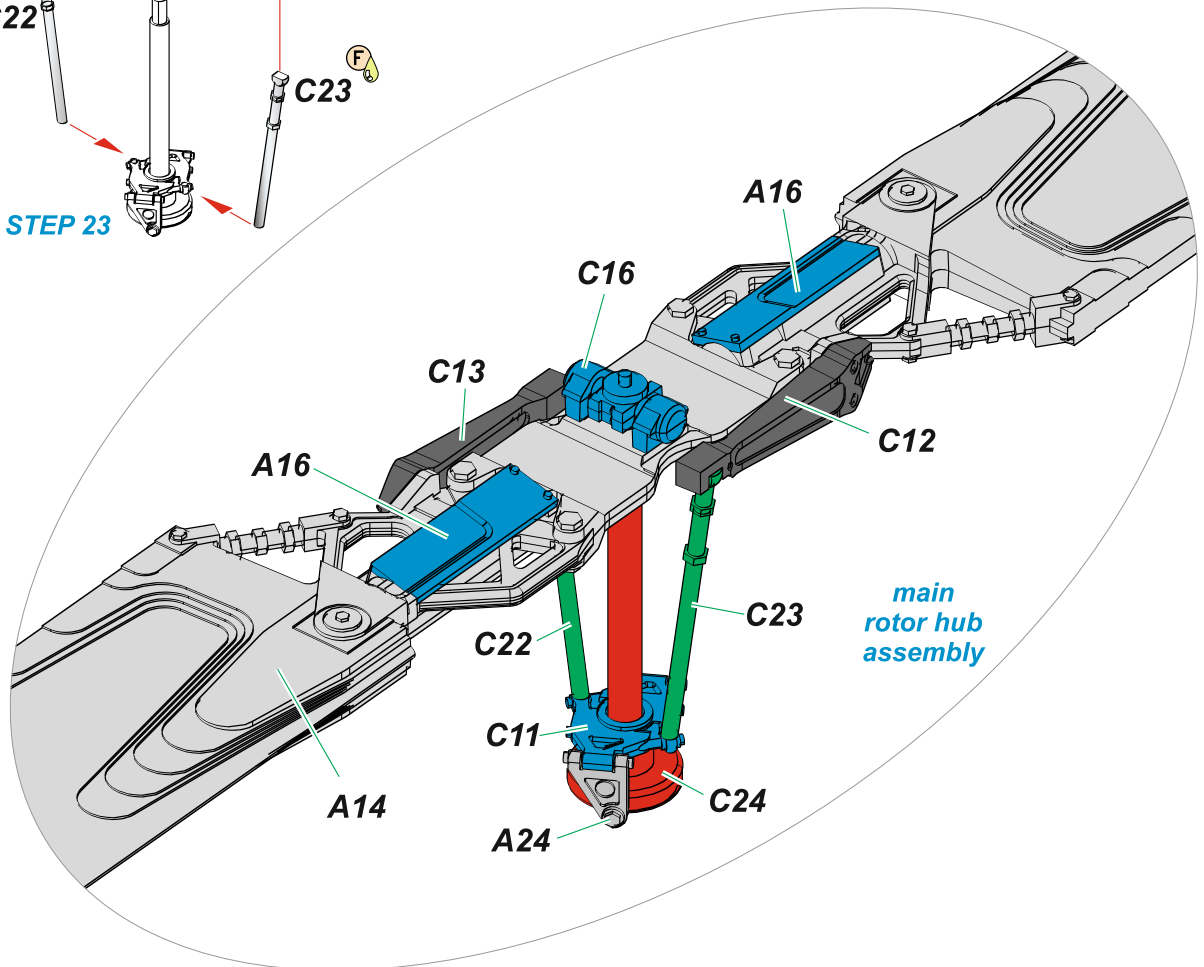
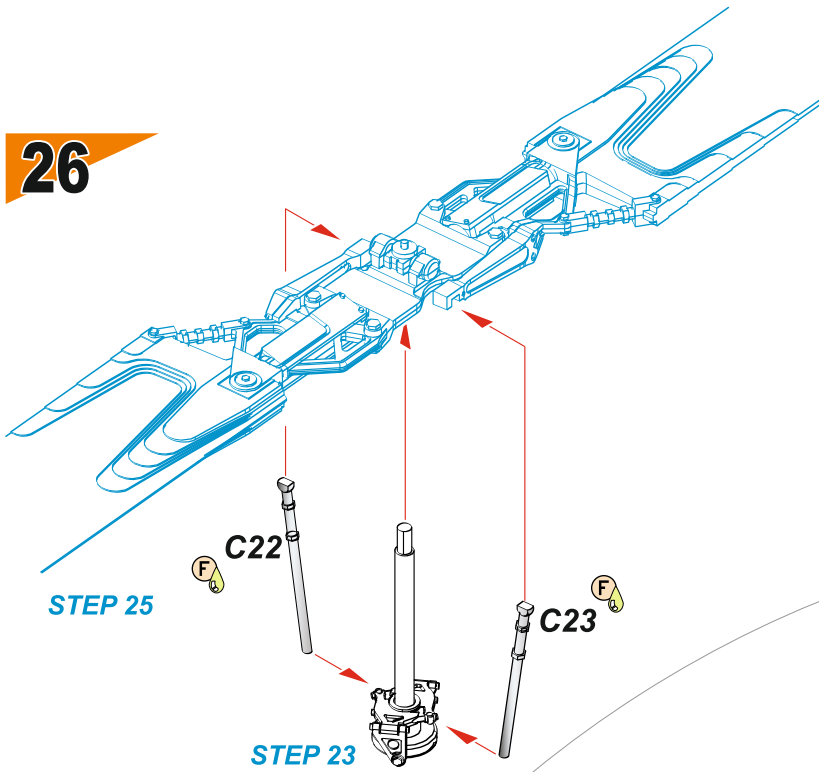
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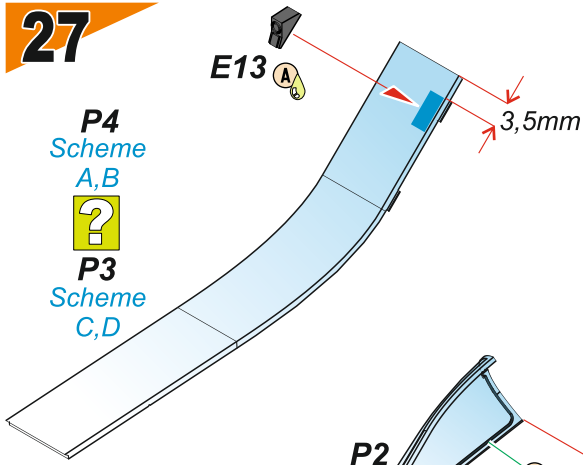


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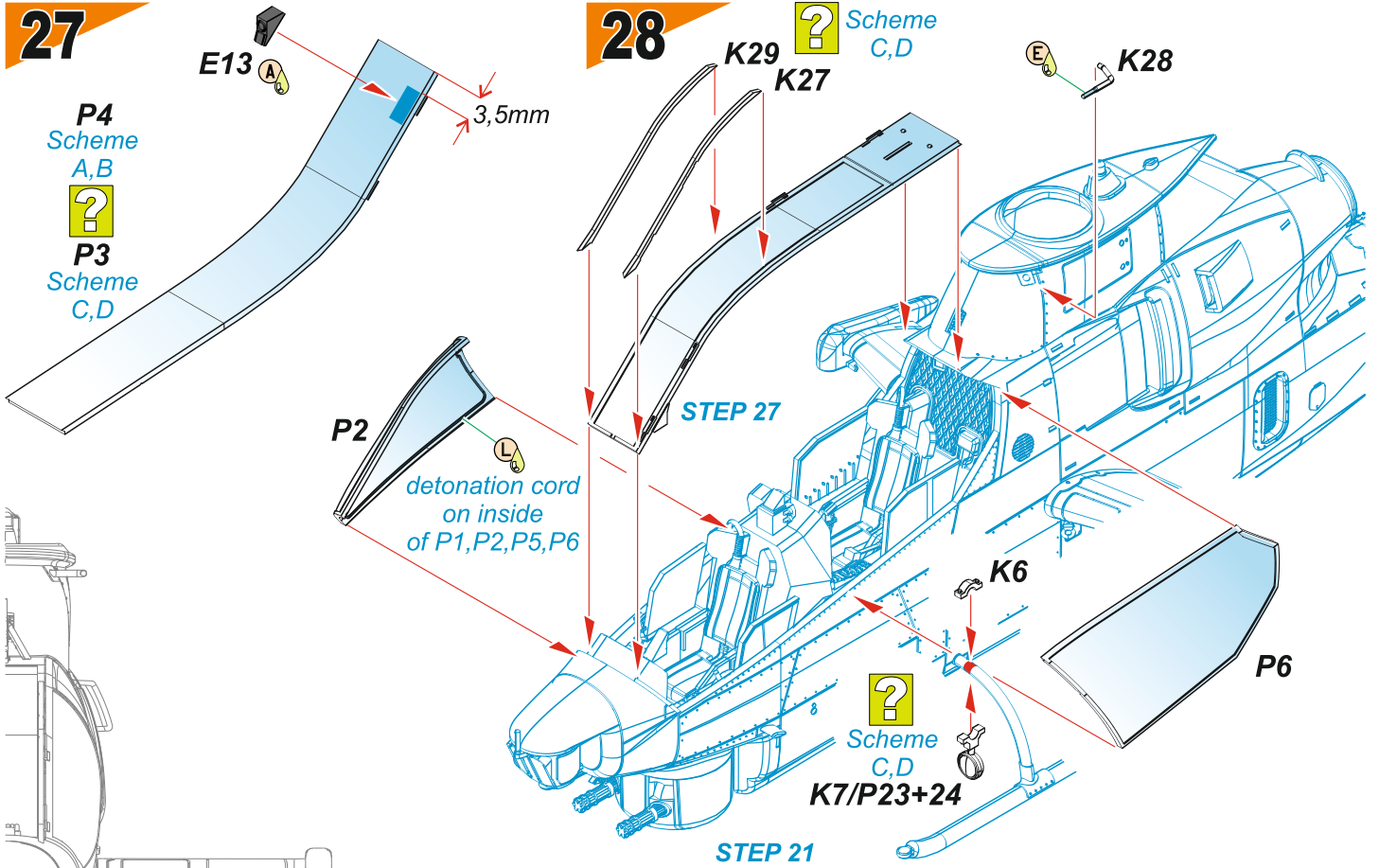
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P4
Scheme
A,B
?
P3
Scheme
C,D



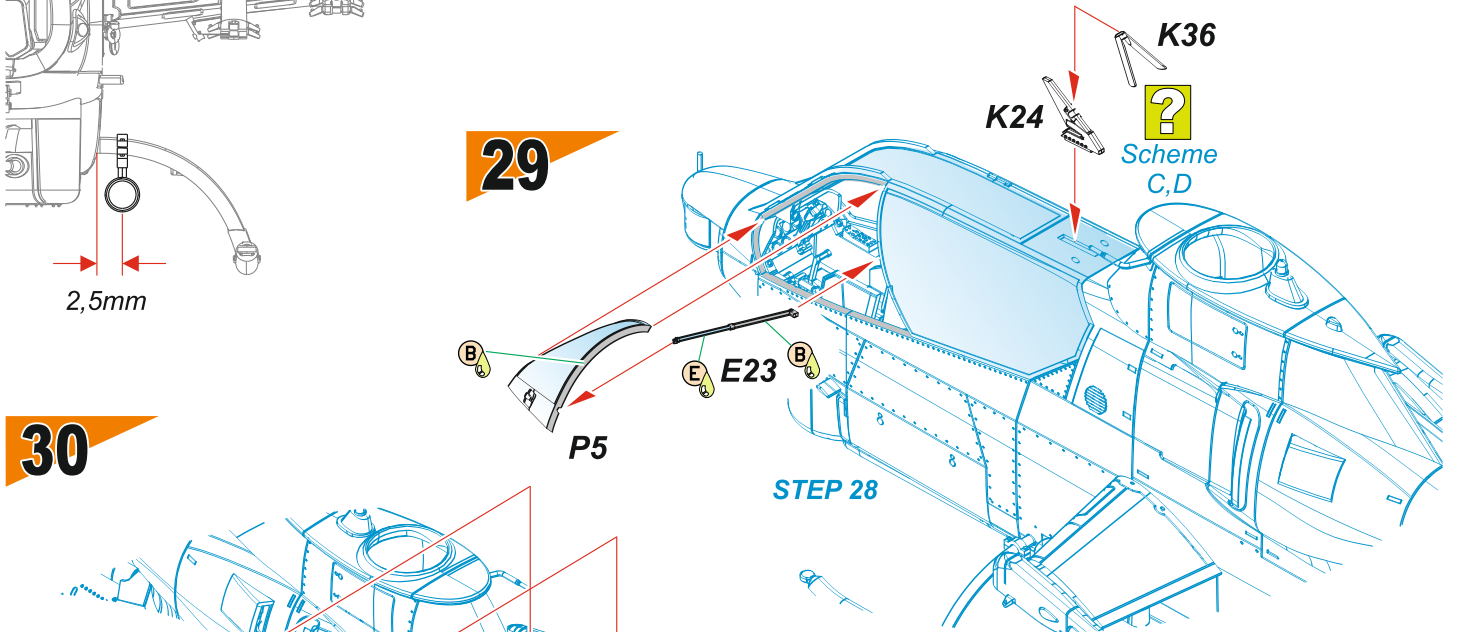
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?
Scheme
C,D

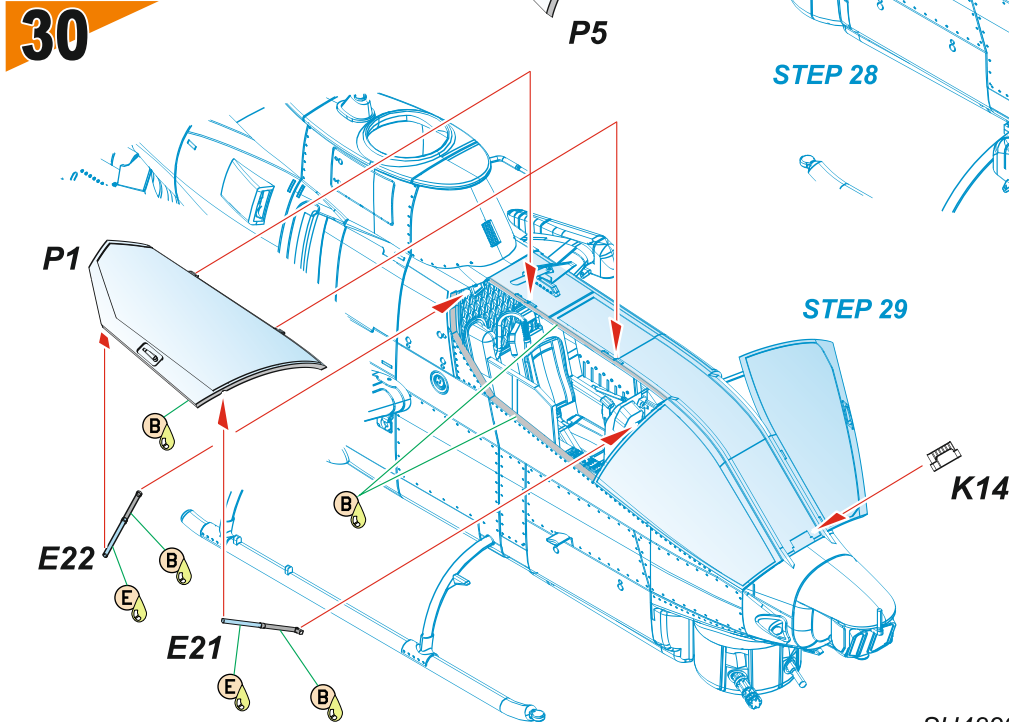


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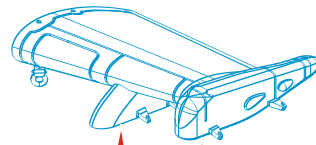
?
Scheme
C,D



30

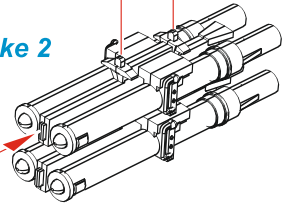


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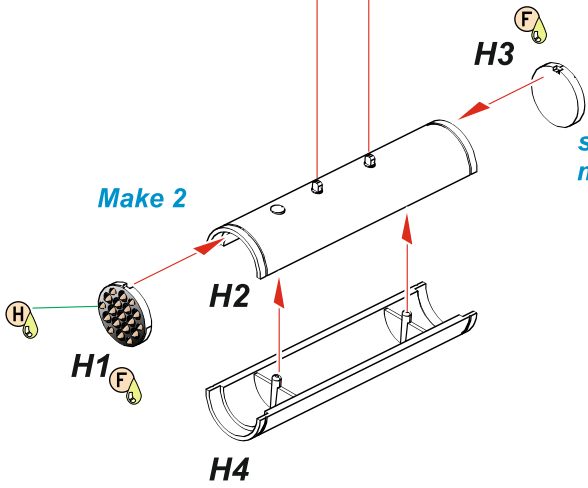


underwing armament options
...
colour schemes show what your chosen machine usually carried

Make 2



Make 2



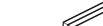
L1



L3



L5



L2



L3



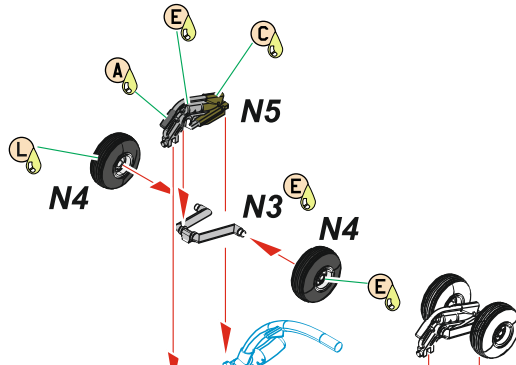
L4



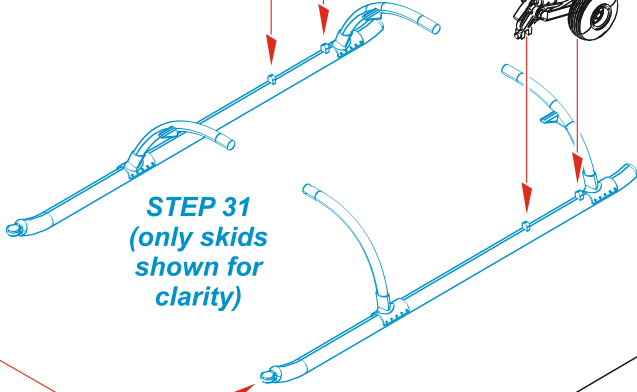
L2



32

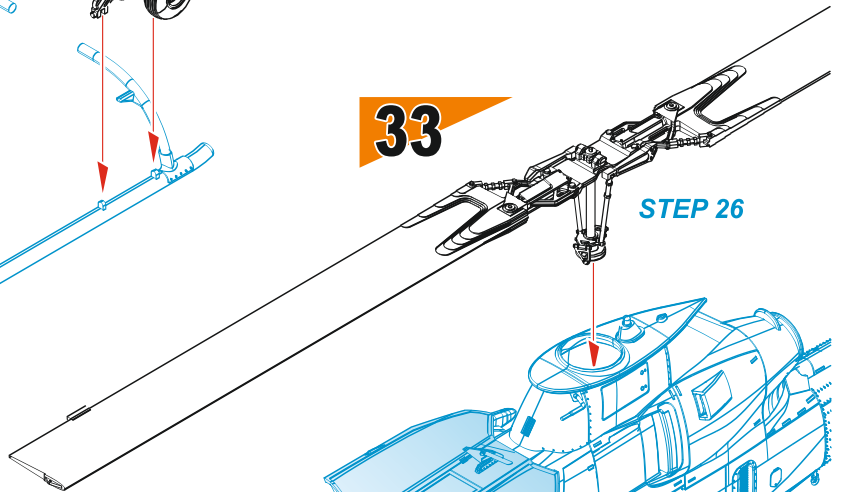


STEP 31
(only skids shown for clarity)

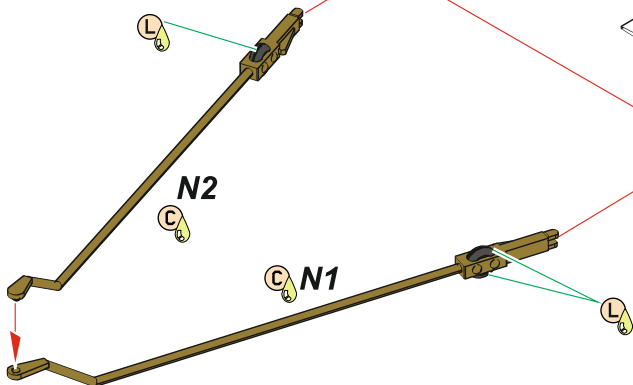


33

STEP 26



STEP 32

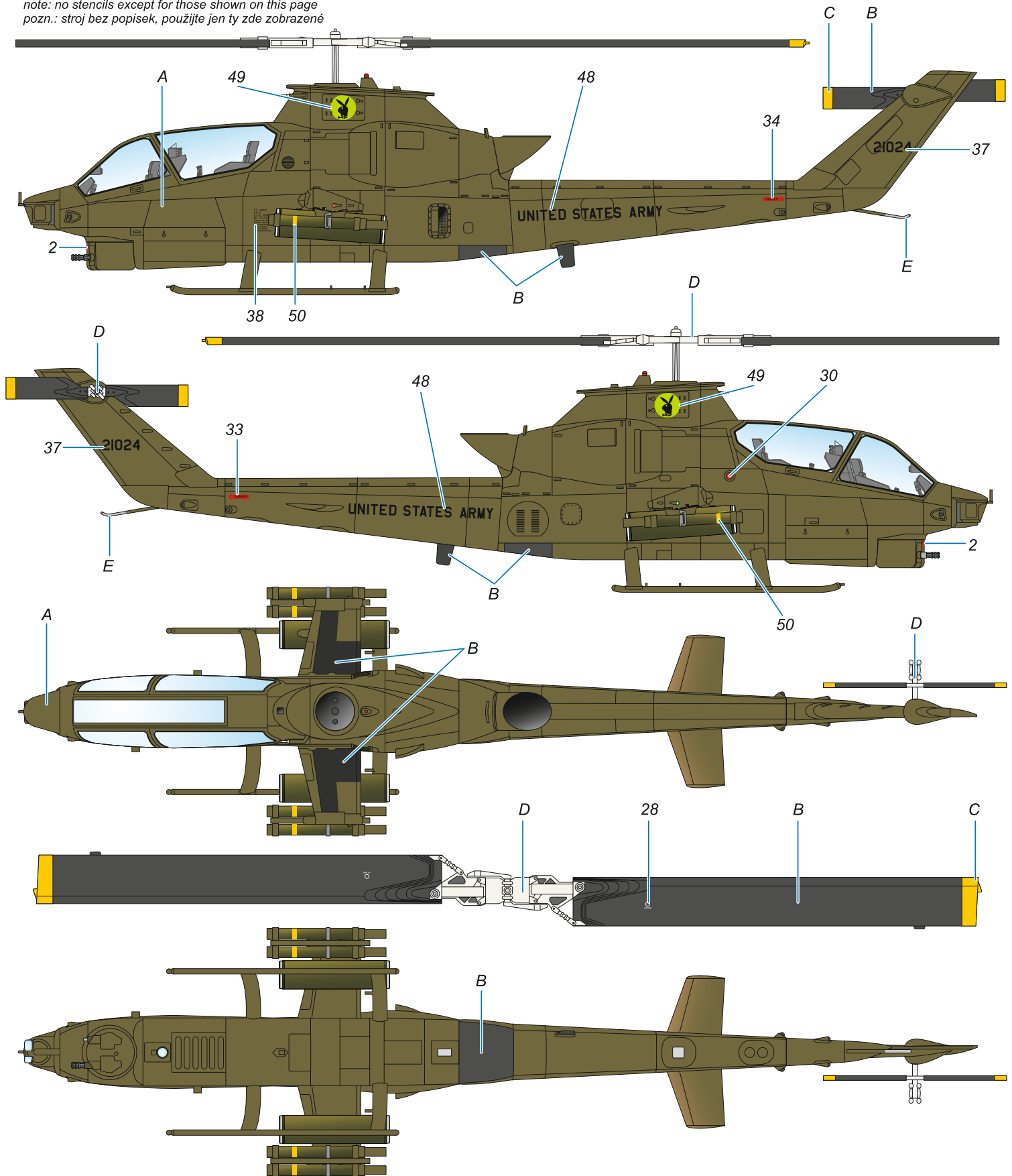


AH-1S, 71-21024, 503rd Aviation Company, US Army in Europe, based at Hanau, Germany. Displayed in 1979 at the International Air Tattoo, RAF Greenham Common.

AH-1S, 71-21024, 503rd Aviation Company, US Army v Evropě, na německé základně Hanau. V roce 1979 se zúčastnil International Air Tattoo konané na RAF Greenham Common.

Scheme A

note: no stencils except for those shown on this page
 pozn.: stroj bez popisek, použijte jen ty zde zobrazené



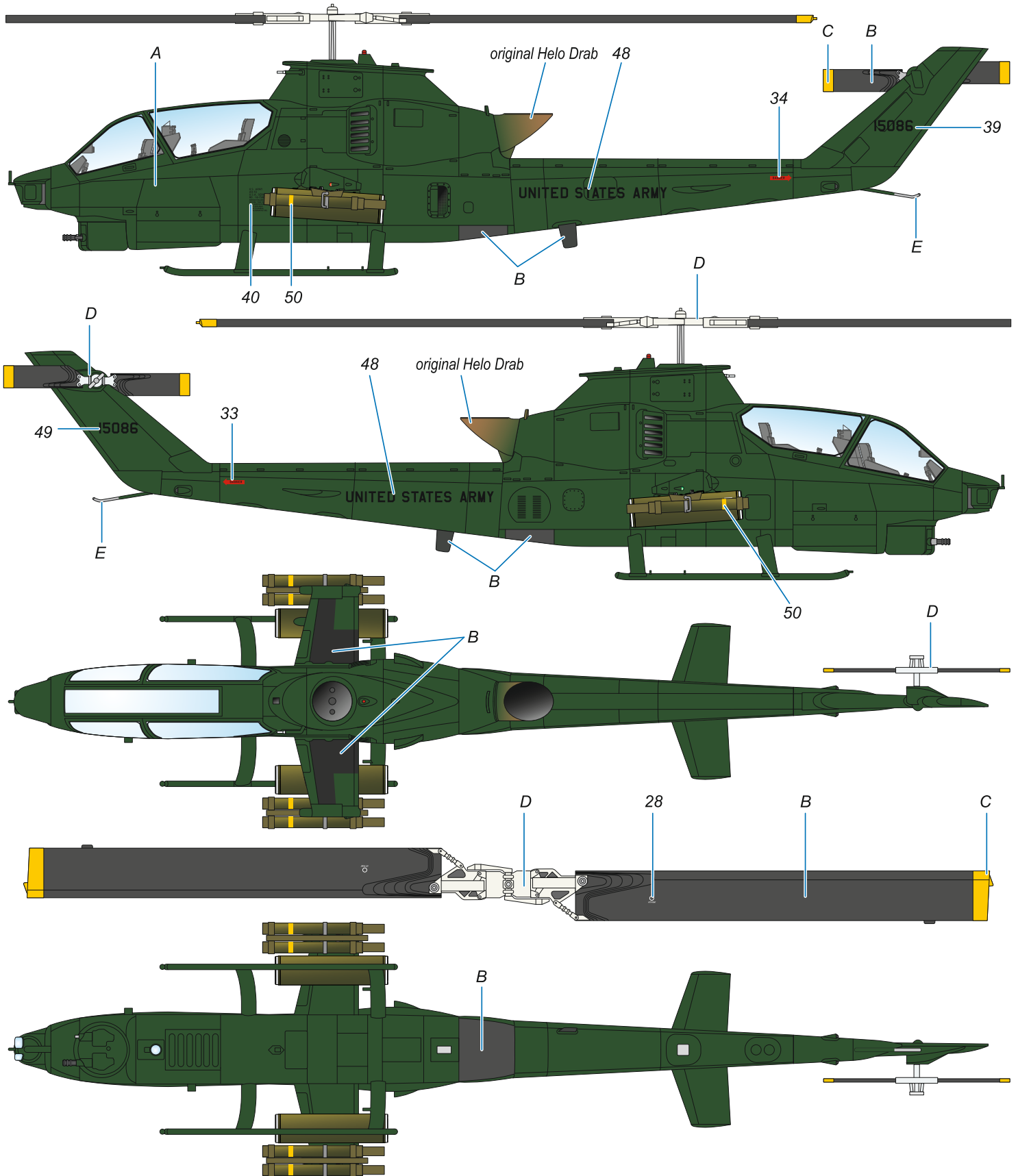
- A** Helo Drab
 zelená
 H78+12/C38+33
- B** Black
 černá
 H12/C33
- C** Yellow
 žlutá
 H04/C04
- D** Light Gray
 světle šedá
 H21/C69
- E** NMF
 barva kovu
 H08/C08

AH-1Q, 68-15086. Started its life like an AH-1G, later was converted to Q, S and eventually F standards. It appears that sometimes during the 1970s it received a different type of camouflage, similar to Dark Green used in standard SEA type scheme.

AH-1Q, 68-15086. Původně Cobra verze G, později přestavěná do standardu Q, S a nakonec F. Zdá se, že v sedmdesátých letech dostala zkušební kamufláž tmavě zelenou barvou známou ze SEA schématu.

Scheme B

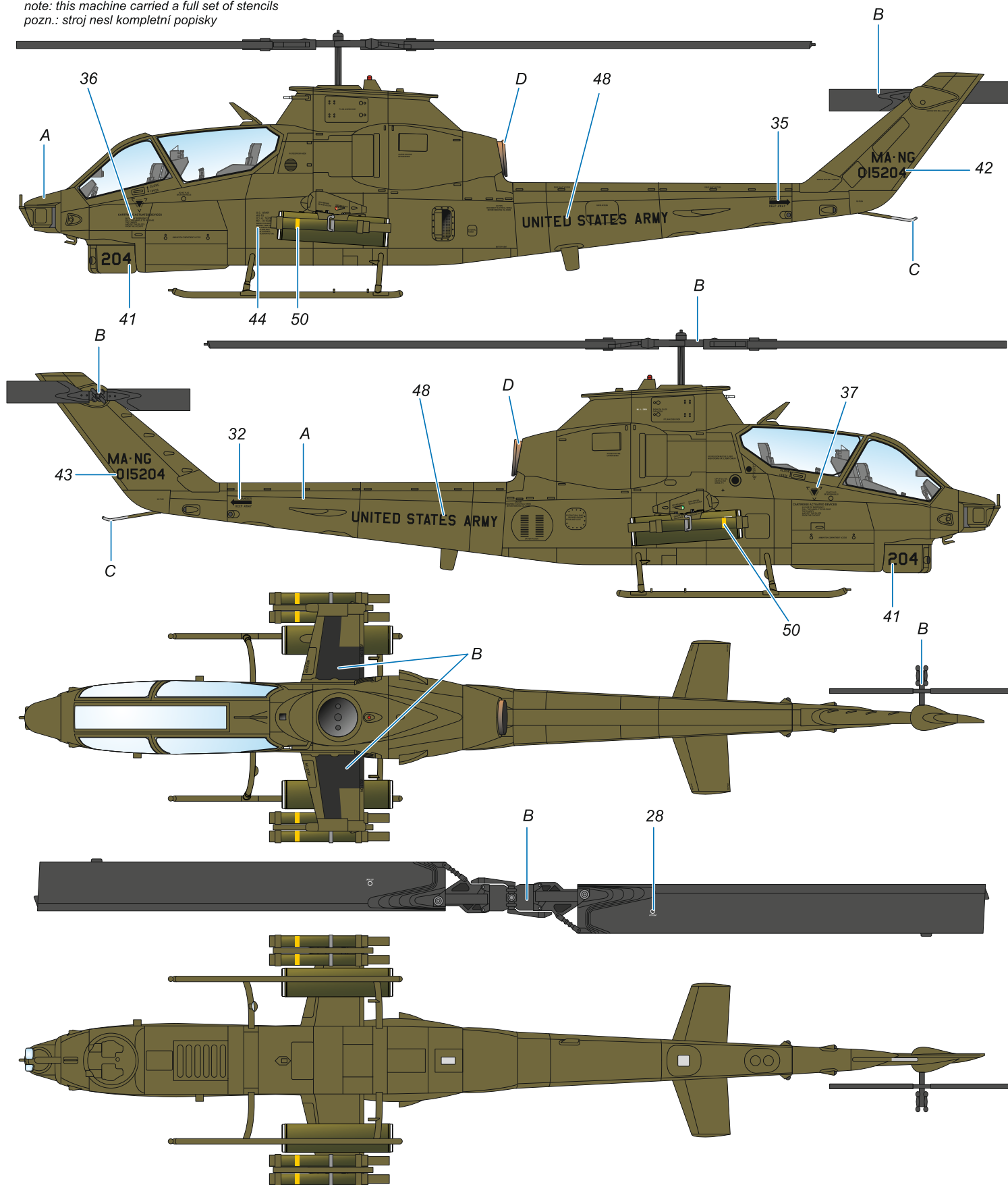
note: no stencils except for those shown on this page
 pozn.: stroj bez popisek, použijte jen ty zde zobrazené



- A** Dk. Green
 tm. zelená
 H309/C309
- B** Black
 černá
 H12/C33
- C** Yellow
 žlutá
 H04/C04
- D** Light Gray
 světle šedá
 H21/C69
- E** NMF
 barva kovu
 H08/C08

Scheme C

note: this machine carried a full set of stencils
 pozn.: stroj nesl kompletní popisky



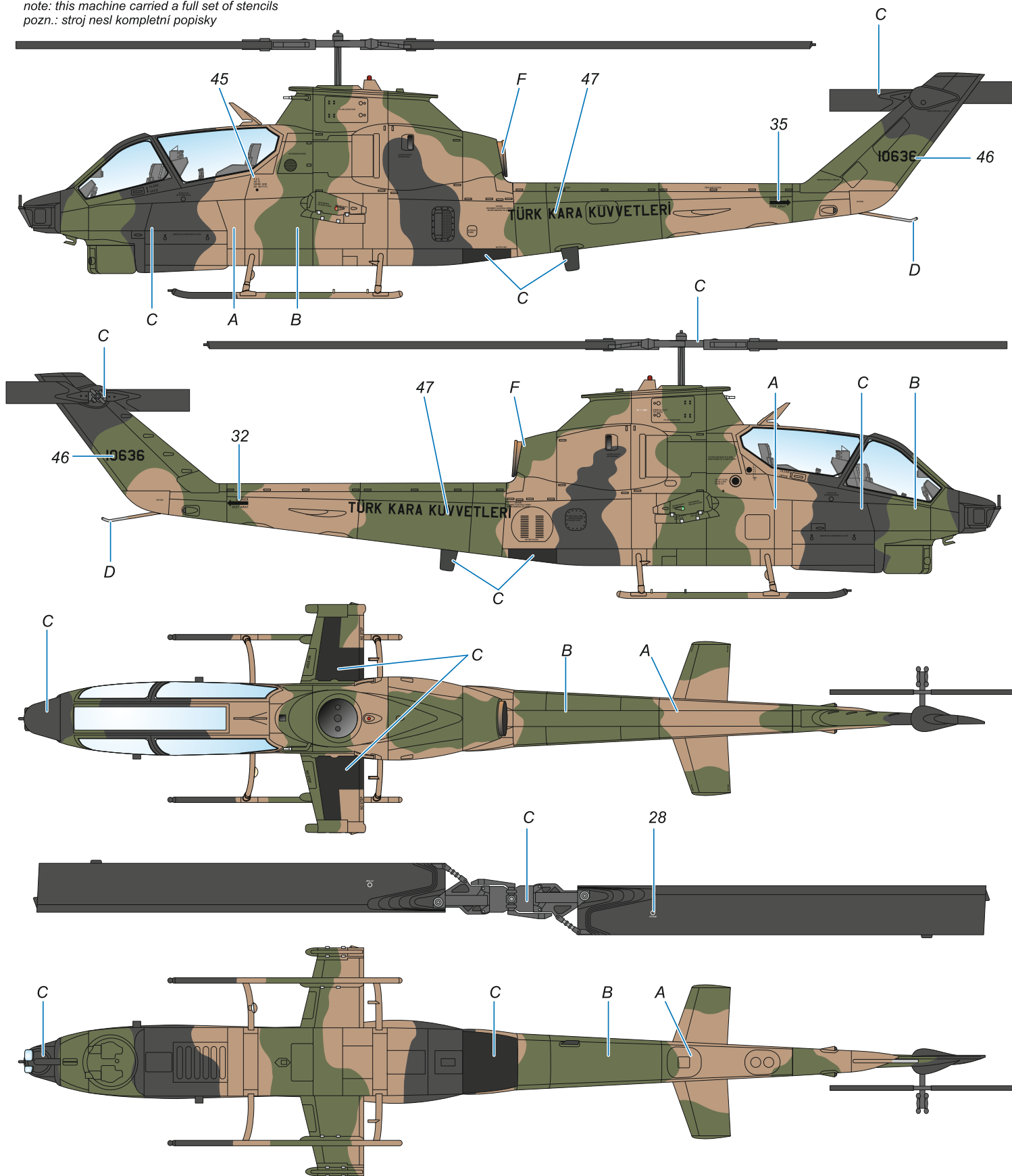
- | | | | |
|---|------------------------------------|---------------------------------------|--|
| A Helo Drab zelená H78+12/C38+33 | B Black černá H12/C33 | C NMF barva kovu H08/C08 | D Burnt Metal opálený kov H76/C61 |
|---|------------------------------------|---------------------------------------|--|

AH-1S, 10636 (US s/n 68-15071), as delivered to the Turkish Land Forces / Türk Kara Kuvvetleri to supplement their AH-1W machines.

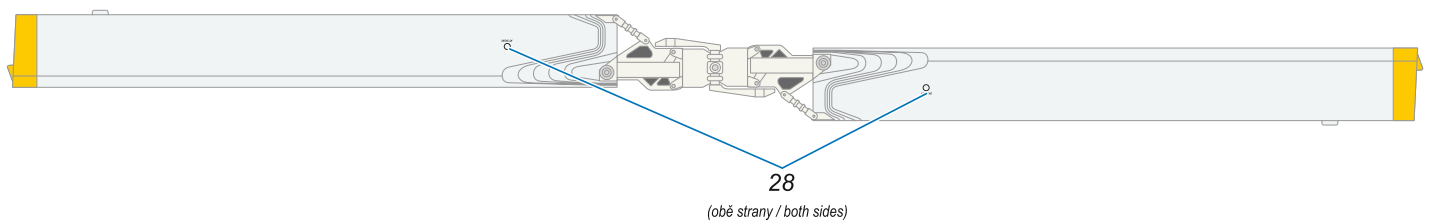
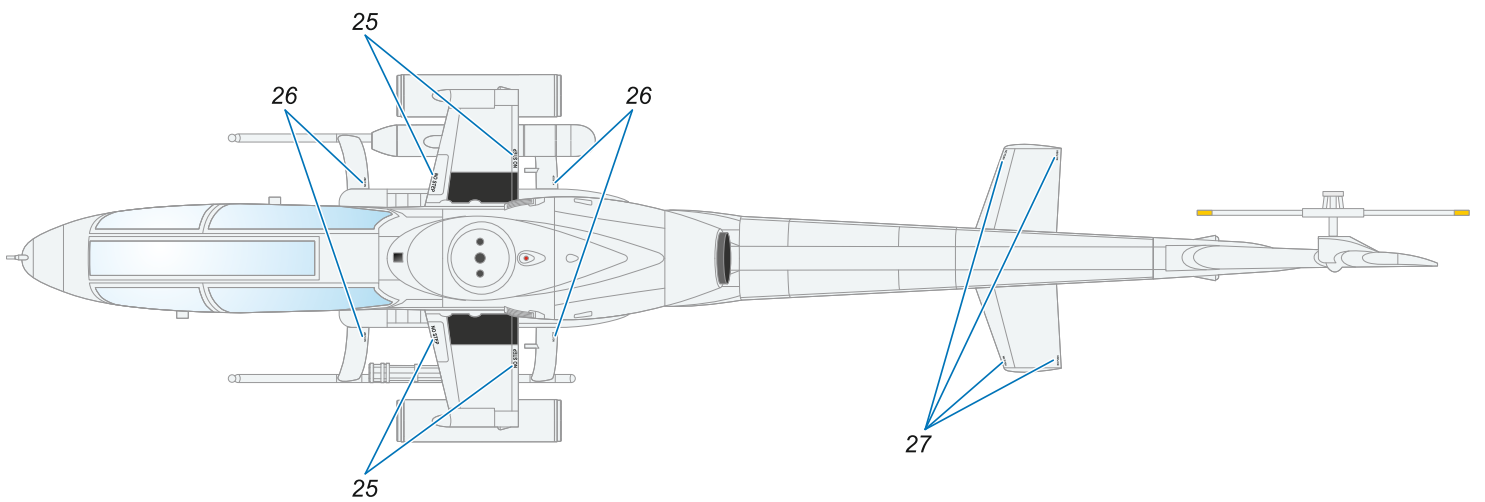
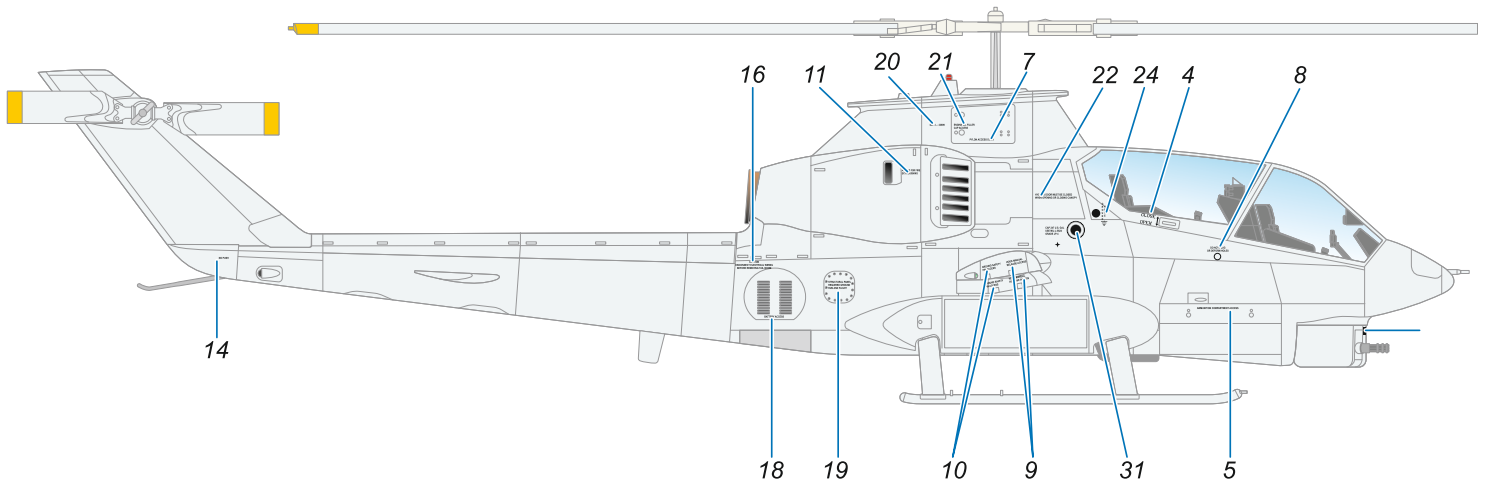
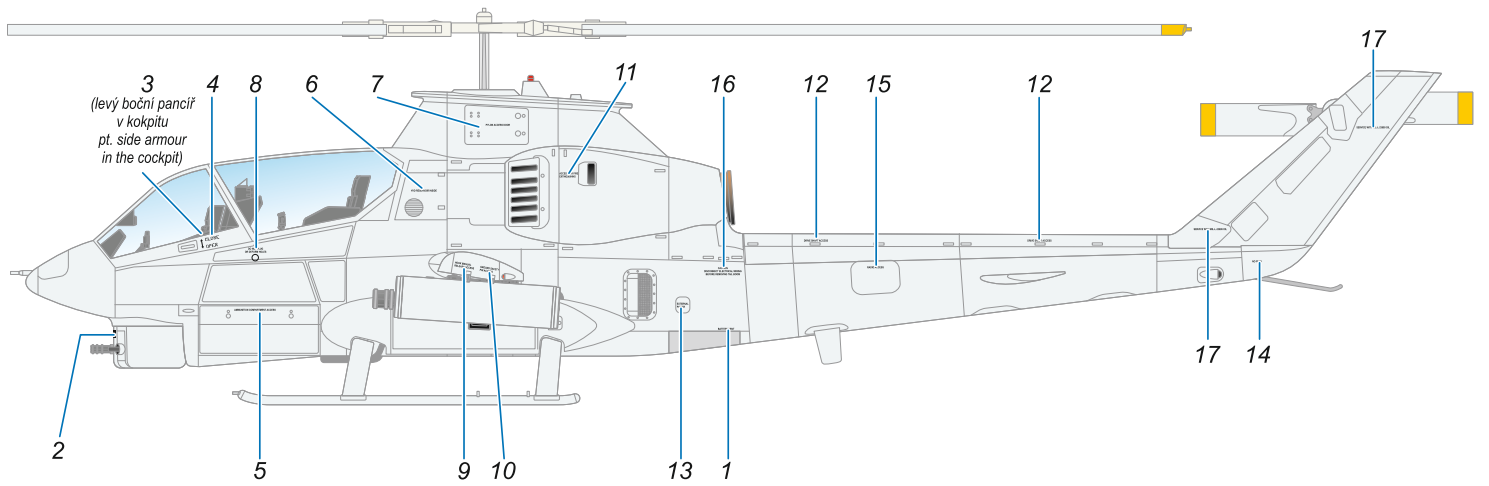
AH-1S, 10636, původní výrobní číslo 68-15071. Dodána tureckým pozemním silám aby doplnila stavy jejich již dříve dodaných Cober verze W.

Scheme D

note: this machine carried a full set of stencils
pozn.: stroj nesl kompletní popisky



- | | | | | |
|-------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|--|
| A Sand písková H79/C39 | B Green zelená H312/C312 | C Black černá H12/C33 | D NMF barva kovu H08/C08 | F Burnt Metal opálený kov H76/C61 |
|-------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|--|



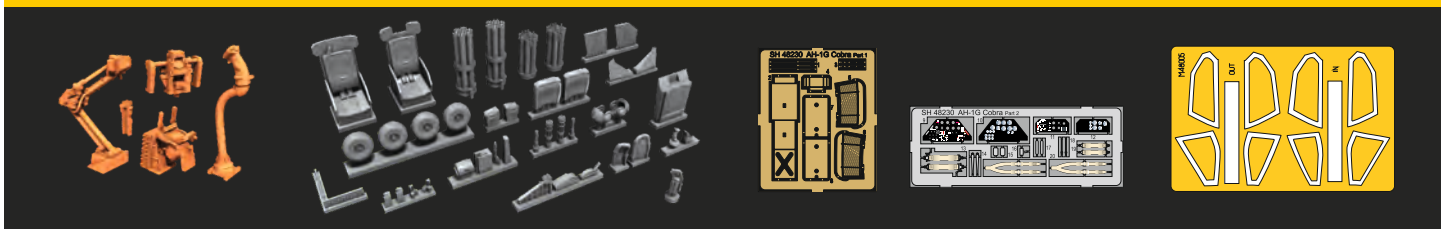


1/48
SH48230

AH-1G Cobra

'Over Vietnam with M-35 Gun System'

Hi-Tech release contains 3D-printed parts, PUR parts, Photo-etched parts and Masks



1/48 SH48209

SK-37 Viggen Trainer



1/48 SH48216

AJ-37 Viggen

'Strike Fighter'

Viggen **CMK RESIN SETS** for Special Hobby kits

| | | | | | |
|---|---|---|--|--|--|
| <p>Q4310 Bofors m/70 Rocket pod (2 pcs)</p> | <p>Q4361 AJ-37/ SF-37 / SH37 Viggen Canard Correction Set</p> | <p>Q4362 JA-37 Viggen Canard Correction Set</p> | <p>Q4385 AJ/SK/SH-37 Viggen Control Surfaces</p> | <p>Q48219 Viggen Ejection Seat</p> | <p>Q48220 SAAB 37 Viggen Air Brakes Set</p> |
| <p>F48350 SK-37/SK-37E Viggen Instructor/ Operator (seated in rear cockpit)</p> | <p>F48360 Viggen Ground Crew (2 figs.)</p> | <p>F48351 AJ-37/JA-37 Viggen Pilot Climbing Ladder into Cockpit</p> | <p>Q48221 SAAB 37 Viggen Wheels</p> | <p>Q48222 SAAB 37 Viggen Thrust Reverser</p> | <p>M48009 AJ/JA/SF-37 Viggen MASK M48013 SK-37 Viggen MASK</p> |