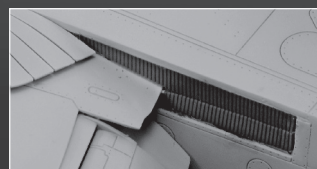
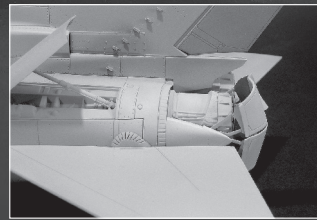
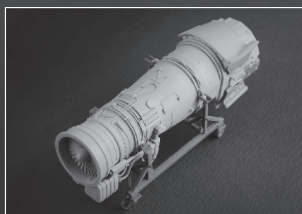
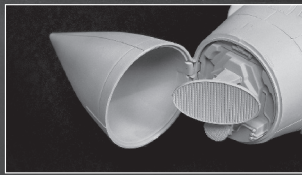
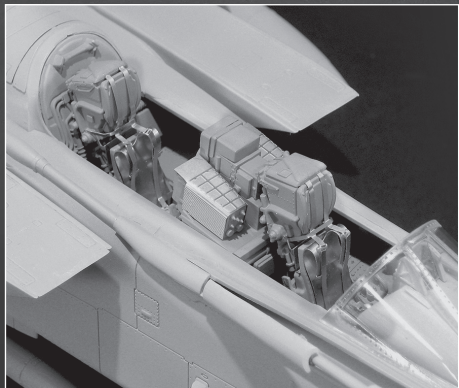


# Tornado ECR

1:32 scale  
échelle  
No 2517 model kit  
modèle réduit



instruction sheet



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**1:32** scale

**No 2517**

# Tornado ECR

**EN**

The Tornado arose from a collaborative project between Italy, Germany, and the United Kingdom to produce a multi-role high-performance combat aircraft. The primary requirement however was to develop a 'state of the art' modern aircraft able to perform low-altitude penetrating strike missions. This need was met by the development of a twin-engine combat aircraft with a variable-sweep wing. The Tornado IDS (Interdictor / strike) was the first version to be released by the British Royal Air Force and designated GR.1 Tornado IDS (Interdictor / strike), an aircraft ideally suited to attack roles, was the initial version used by the Flight Squadrons of the three countries that developed the plane, the Italian Aeronautica Militare, the German Luftwaffe and the UK RAF. The Tornado ECR (Electronic Combat / Reconnaissance) was developed by Italy and Germany and was equipped to carry out missions that suppressed enemy air defences (SEAD), and to conduct electronic warfare and advanced reconnaissance.

**FR**

Le projet du Tornado est né de la collaboration entre l'Italie, l'Allemagne et le Royaume-Uni pour réaliser un avion de combat multifonction avec des performances de vol élevées. C'est ainsi qu'a été développé un avion bimoteur, avec une configuration biplace et des ailes à géométrie variable pour mieux répondre à son rôle principal : un chasseur-bombardier supersonique de basse altitude en mesure de « suivre » le profil du terrain. Le Tornado IDS (Interdictor/Strike), idéal pour les missions d'attaque, a été le premier à être utilisé par les services opérationnels de vol des trois pays qui ont développé le projet. À partir du projet initial, la version ECR (Electronic Combat/Reconnaissance) a également été créée, utilisée par l'Aéronautique Militaire Italienne et par la Luftwaffe allemande, équipée pour effectuer des missions de suppression des défenses aériennes ennemies (SEAD), de guerre électronique et de reconnaissance avancée.

## **EN** ATTENTION - Useful advice!

Avant de commencer le montage, étudier attentivement le dessin. Détacher avec beaucoup de soin les morceaux des moules en usant un massicot ou bien un pair de ciseaux et couper avec une petite lame avec de papier de vitre fin ébarbagés éventuels. Jamais détacher les morceaux avec le mains Monter les en suivant l'ordre de la numération des tables. Eliminer de la moule le numéro de la pièce qui vient d'être montée, en le bifant avec une croix. Les flèches noires indiquent les pièces à coller, les flèches blanches indiquent les pièces à monter sans colle. Employer seulement de la colle pour polystyrol. Les lettres (A - B - C...) aux côtés des numéros indiquent la moule où se trouve la pièces à monter. Les pièces marquées par une croix ne sont pas à utiliser.

## **FR** ATTENTION - Conseils utiles!

Avant de commencer le montage, étudier attentivement le dessin. Détacher avec beaucoup de soin les morceaux des moules en usant un massicot ou bien un pair de ciseaux et couper avec une petite lame avec de papier de vitre fin ébarbagés éventuels. Jamais détacher les morceaux avec le mains Monter les en suivant l'ordre de la numération des tables. Eliminer de la moule le numéro de la pièce qui vient d'être montée, en le bifant avec une croix. Les flèches noires indiquent les pièces à coller, les flèches blanches indiquent les pièces à monter sans colle. Employer seulement de la colle pour polystyrol. Les lettres (A - B - C...) aux côtés des numéros indiquent la moule où se trouve la pièces à monter. Les pièces marquées par une croix ne sont pas à utiliser.

**IT**

Il progetto del Tornado è nato dalla collaborazione di Italia, Germania e Regno Unito per la realizzazione di un aereo da combattimento multiruolo dalle alte prestazioni di volo. Venne così sviluppato un aereo bimotore, con configurazione biposto ed ali a geometria variabile per meglio rispondere al suo ruolo principale: caccia bombardiere supersonica a bassa quota in grado di "seguire" il profilo del terreno. Il Tornado IDS (Interdictor/strike), ideale per le missioni di attacco, è stato il primo ad essere impiegato dai reparti operativi di volo dei tre Paesi che svilupparono il progetto. Dal progetto originario venne realizzata anche la versione ECR (Electronic Combat/ Reconnaissance), impiegata dall'Aeronautica Militare Italiana e dalla Luftwaffe tedesca, equipaggiata per svolgere missioni di soppressione delle difese aeree nemiche (SEAD), guerra elettronica e ricognizione avanzata.

**RU**

Проект «Торнадо» (Tornado) родился в результате сотрудничества Италии, Германии и Великобритании по созданию многоцелевого истребителя с высокими летно-техническими характеристиками. Таким образом, был разработан двухмоторный самолет с двухместной конфигурацией и изменяемой геометрией крыльев, чтобы лучше выполнять его основную задачу: маловысотный сверхзвуковой истребитель-бомбардировщик, способный «следовать» контурам местности. «Торнадо» IDS (изоляция сил противника и нанесение удара), идеально подходящий для атакующих миссий, был первым, который использовался летными подразделениями трех стран, разработавших этот проект. Из первоначального проекта также была создана версия ECR (ведение разведки и радиоэлектронной борьбы), используемая итальянскими ВВС и немецкими Люфтваффе, оснащенная для выполнения задач по подавлению противозвоздушной обороны (SEAD), радиоэлектронной борьбы и расширенной разведки.



**EN** WARNING: Model for adult modelers age 14 and over  
**IT** ATTENZIONE: Modello per collezionisti adulti di età superiore ai 14 anni  
**FR** ATTENTION: Modèle pour modélistes de 14 ans et plus.  
**DE** ACHTUNG: Modellbausatz für Modellbauer über 14 Jahre.  
**NL** WAARSCHWING: Geschikt voor 14 jaar en ouder.  
**ES** ATENCION: Modelo para modelistas mayores de 14 años.

## **IT** ATTENZIONE - Consigli utili!

Prima di iniziare il montaggio studiare attentamente il disegno. Staccare con molta cura i pezzi dalle stampe, usando un taglia-balsa oppure un paio di forbici e togliere con una piccola lima o con carta vetro fine eventuali sbavature. Mai staccare i pezzi con le mani. Montarli seguendo l'ordine delle numerazioni delle tavole. Eliminare dalla stampata il numero del pezzo appena montato facendogli sopra una croce. Le frecce nere indicano i pezzi da incollare, le frecce bianche indicano i pezzi da montare senza colla. Usare solo colla per polistirolo. Le lettere (A - B - C...) ai lati dei numeri indicano la stampata ove si trova il pezzo da montare. I pezzi sbarrati da una croce non sono da utilizzare.

## **RU** предупреждение - чаевые!

Перед тем, как приступить к сборке, внимательно изучить чертёж. Очень осторожно отсоединить распечатанные элементы, использовать для этого канцелярский нож или пару ножниц, снять неровности с помощью тонкого лезвия или с помощью абразивной бумаги. Не отсоединять элементы руками. Выполнить сборку согласно порядку нумерации таблиц. Удалить из списка только что собранную деталь, перечёркивая её. Чёрные стрелки указывают детали для склеивания, белые стрелки указывают детали, которые собираются без клея. Использовать только клей для пенопласта. Буквы (A - B - C...) на пронумерованных сторонах указывают лист, где находится деталь. Перечёркнутые детали не используются.

**DE**

Das Projekt Tornado ist aus der Zusammenarbeit von Italien, Deutschland und Großbritannien entstanden, um ein Mehrzweckkampfflugzeug mit hoher Flugleistung zu bauen. So wurde ein zweimotoriges Flugzeug mit einer zweiseitigen Konfiguration und Schwenkflügeln entwickelt, um seiner Hauptanforderung besser gerecht zu werden: Ein Überschalljagdbomber, der im tiefst Flug in der Lage ist, dem Geländeprofil zu „folgen“. Der für Angriffseinsätze ideale Tornado IDS (Interdictor/Strike) ist der erste, der von den Flugbetriebsabteilungen der drei Länder, die das Projekt entwickelt haben, eingesetzt wurde. Aus dem ursprünglichen Projekt wurde auch die ECR-Version (Electronic Combat / Reconnaissance) entwickelt, die von den italienischen Luftstreitkräften und der deutschen Luftwaffe eingesetzt wird, um Missionen zur Unterdrückung der feindlichen Luftabwehr (SEAD), der elektronischen Kriegsführung und der fortgeschrittenen Erkundung durchzuführen.

**ES**

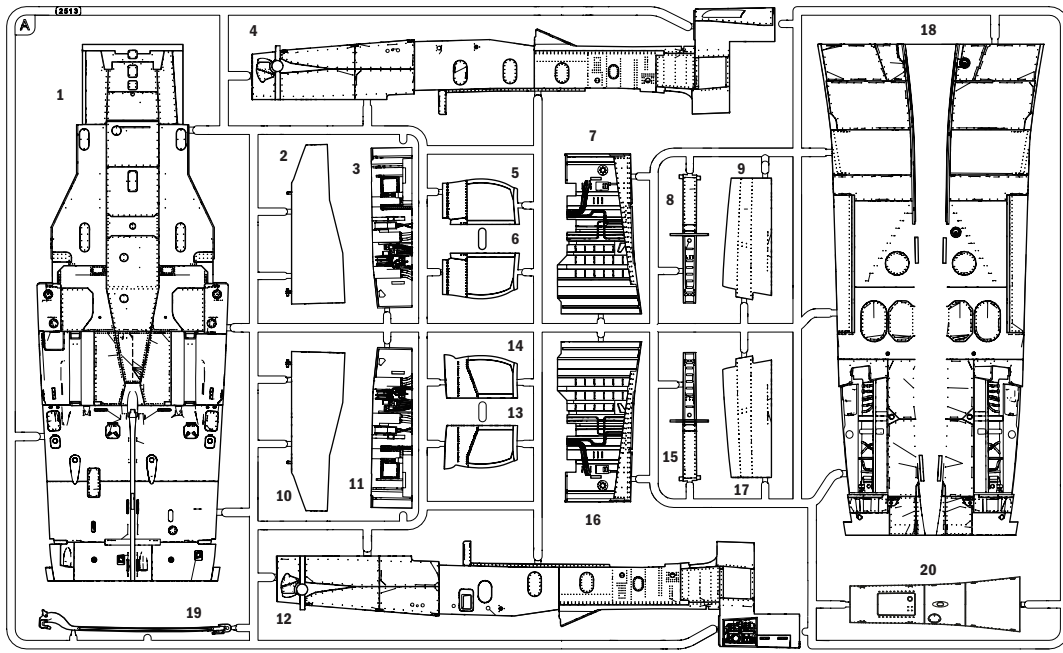
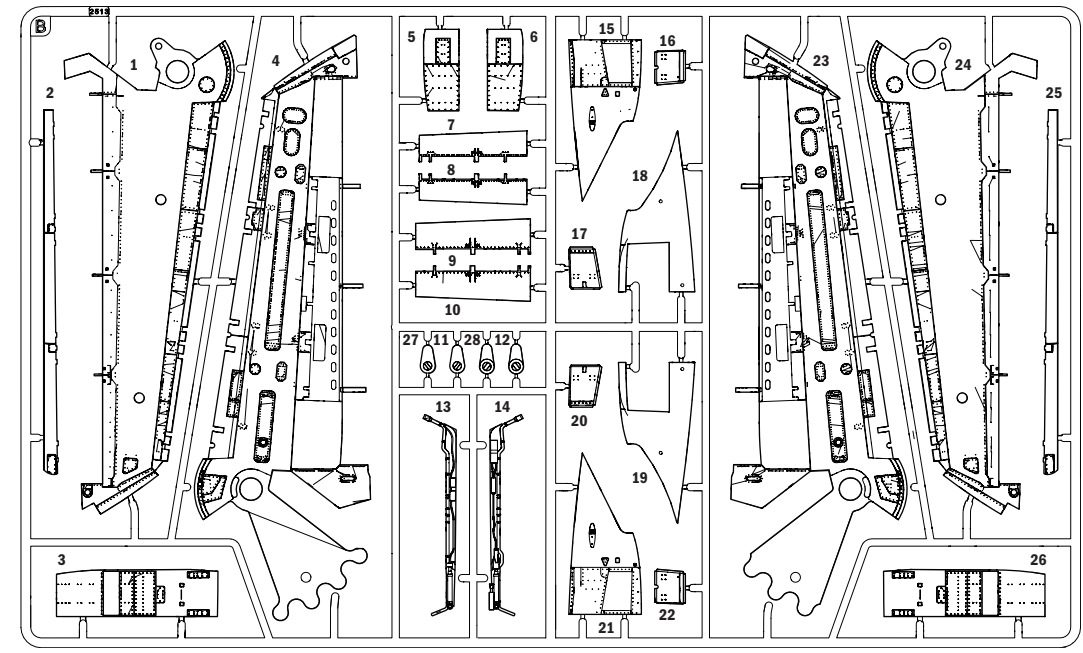
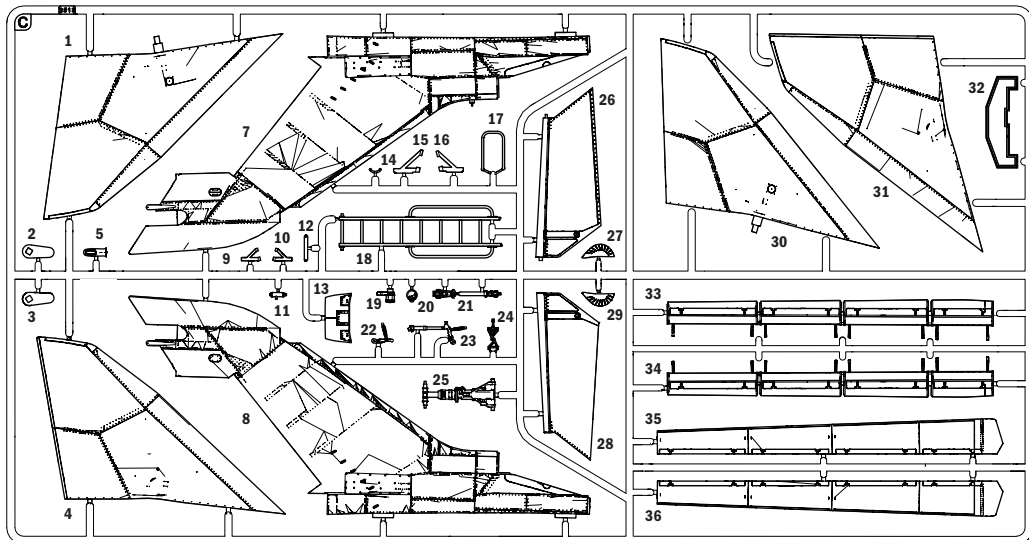
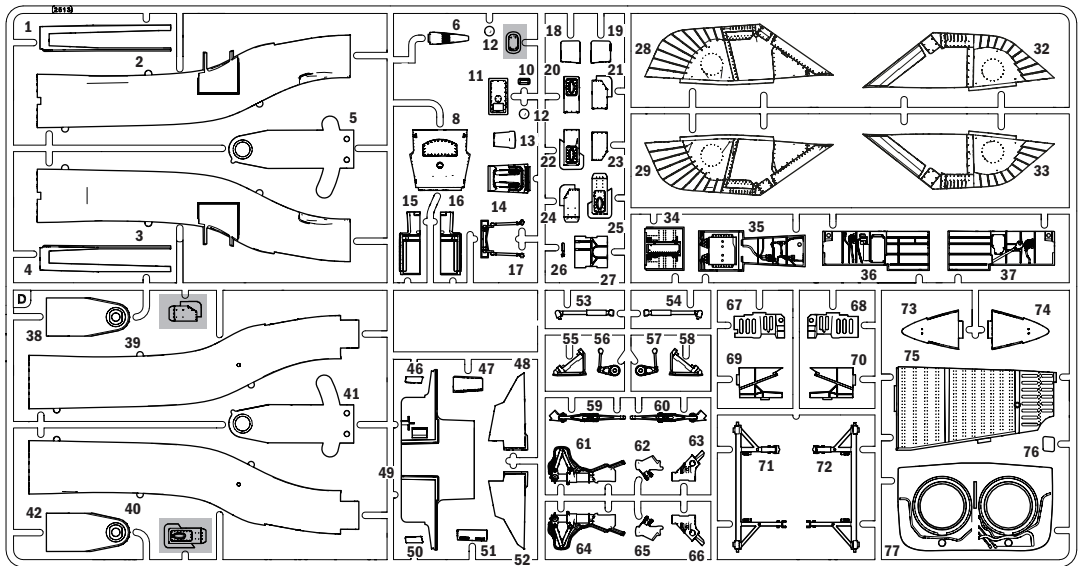
El proyecto del Tornado nació de la colaboración de Italia, Alemania y Reino Unido para la realización de un avión de combate multiusos con elevadas prestaciones de vuelo. De esta manera se desarrolló un avión bimotor con configuración de dos puestos y alas de geometría variable, para cumplir mejor con su papel principal: cazabombardero supersónico de baja cota capaz de «seguir» el perfil del terreno. El Tornado IDS (Interdictor/strike), ideal para las misiones de ataque, fue el primero en ser utilizado por los departamentos de operaciones de vuelo de los tres países que desarrollaron el proyecto. A partir del proyecto original, también se creó la versión ECR (Electronic Combat/Reconnaissance), utilizada por la Aeronáutica militar italiana y la Luftwaffe alemana, equipada para llevar a cabo misiones de supresión de las defensas aéreas enemigas (SEAD), guerra electrónica y reconocimiento avanzado.

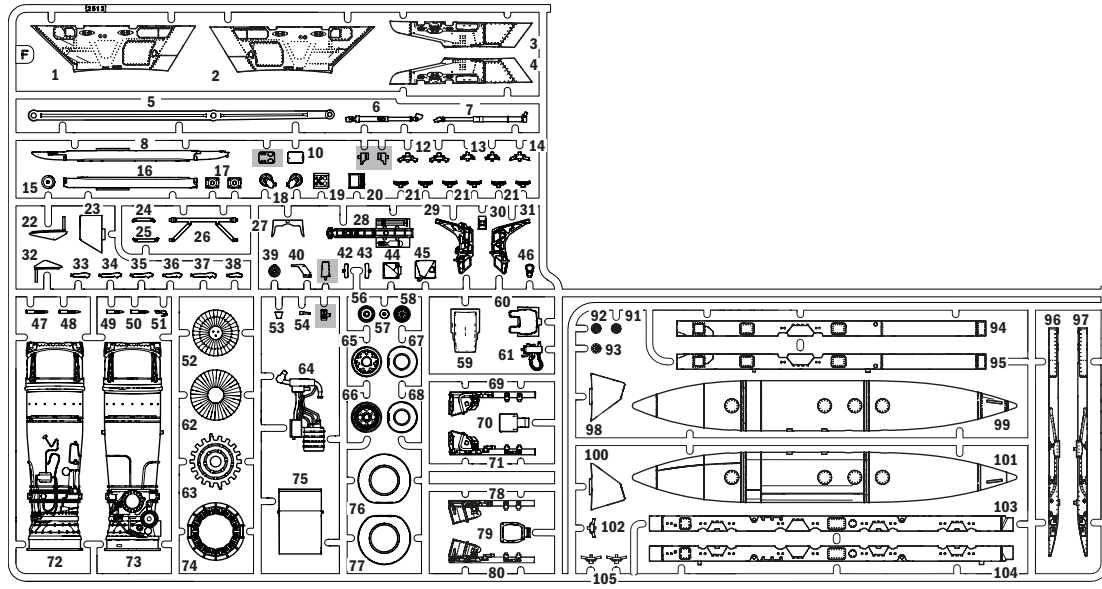
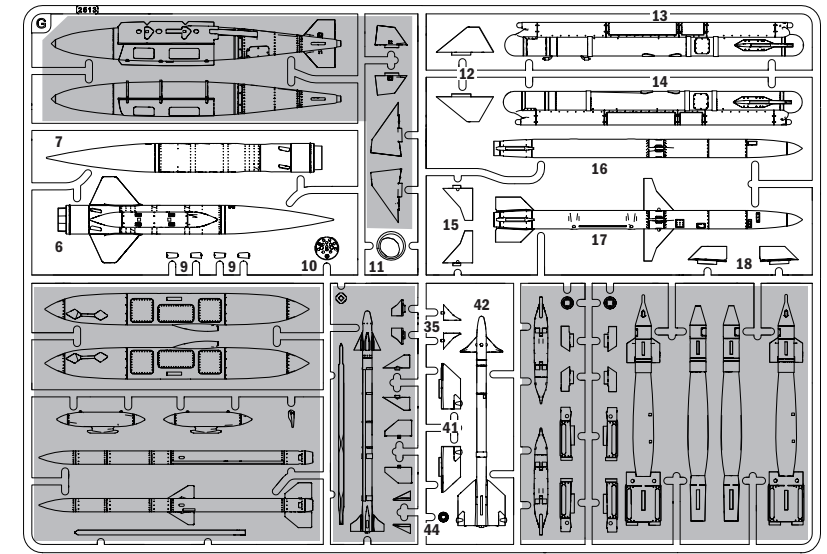
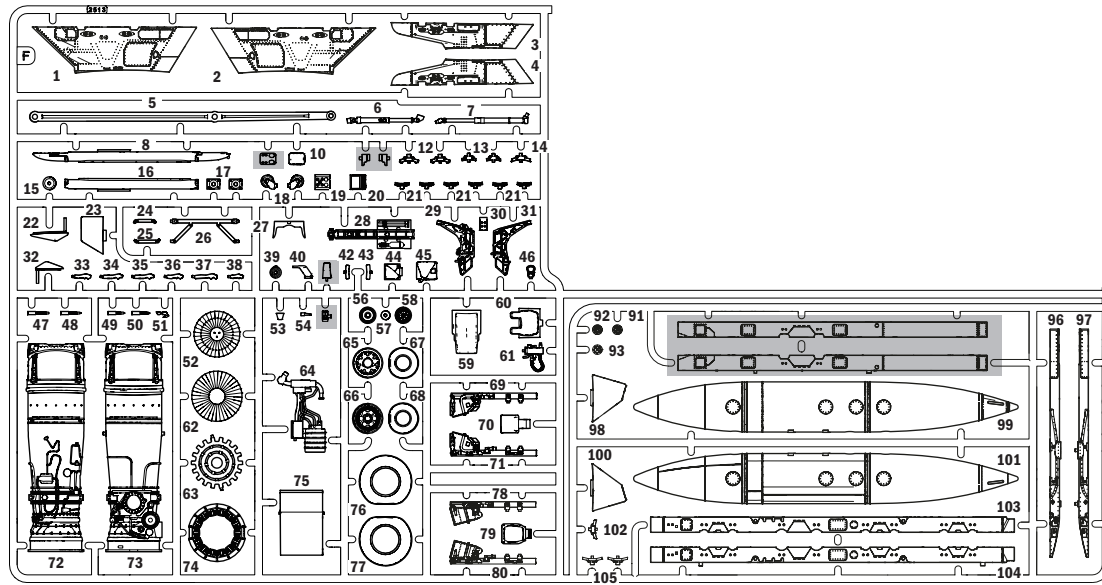
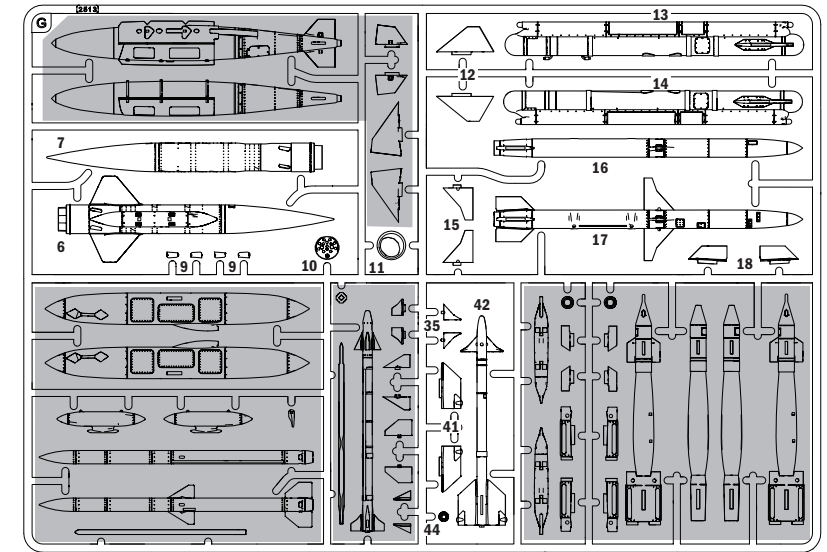
## **DE** ACHTUNG - Ein nützlicher Rat!

Vor der Montage die Zeichnung aufmerksam studieren. Die einzelnen Montageteile mit einem Messer oder einer Schere vom Spritzling sorgfältig entfernen. Eventuelle Grate werden mit einer Klinge oder feinem Schmirgelpapier beseitigt. Keinesfalls die Montageteile mit den Händen entfernen. Bei der Montage der Tafelnummerierung folgen. Pfeile zeigen die zu klebenden Teile während die weissen Pfeile die ohne Leim zu montierenden Teile anzeigen. Bitte nur Plastikklebstoff verwenden. Die Buchstaben (A - B - C...) neben den Nummern zeigen auf welchem Spritzling der zu montierende Teil zu finden ist. Die mit einem Kreuz markierten Teile sind nicht zu verwenden.

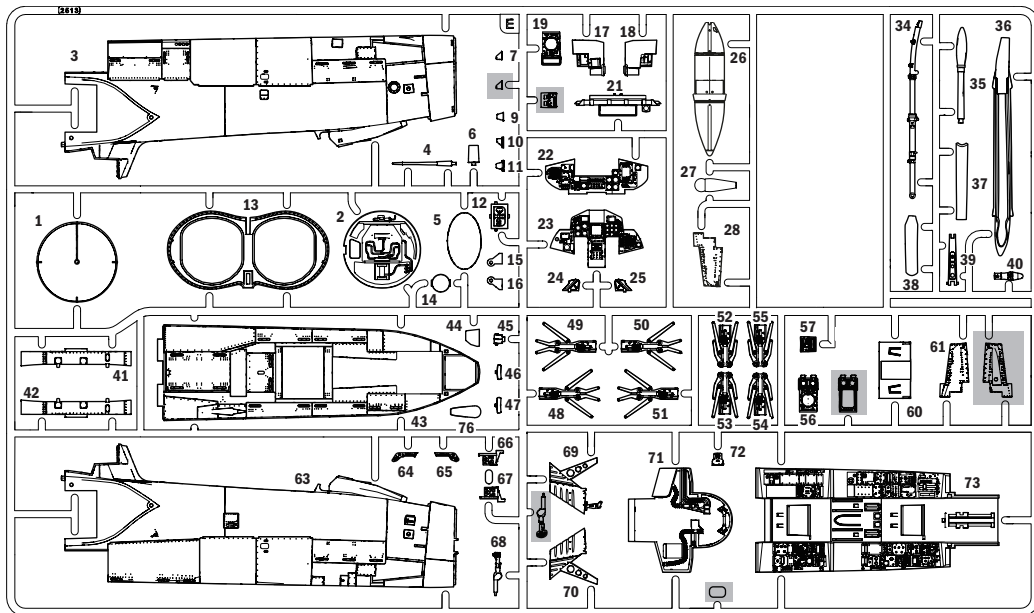
## **ES** ATENCION - Consejos útiles!

Estudiar las instrucciones cuidadosamente antes de comenzar el montaje. Separar las piezas de las bandejas con un cuchillo afilado o un par de tijeras y retirar el exceso de plástico o rebada. No arrancar las piezas. Montar las piezas en orden numérico. Utilizar SOLAMENTE pegamento para plástico y en poca cantidad para evitar que se dane el modelo. Las flechas negras indican las piezas que se deben pegar juntas. Las flechas blancas indican las piezas que deben ensamblarse SIN usar pegamento. Las letras (A - B - C...) indican en que bandeja se encuentran las piezas. Pintar las piezas pequeñas antes de separarlas de la bandeja. Retirar la pintura de los lugares por donde se deban pegar las piezas.

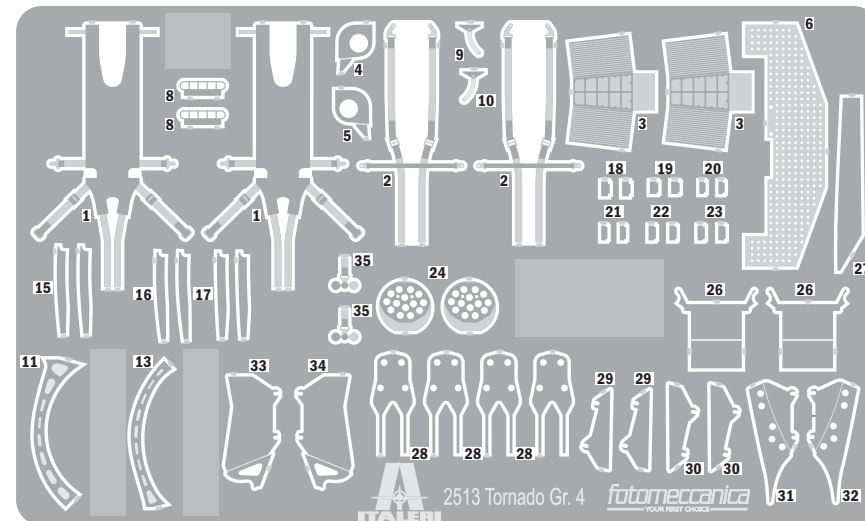
**A****B****C****D**

**F****G****F****G**

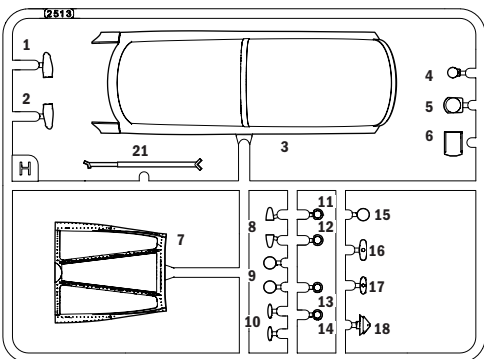
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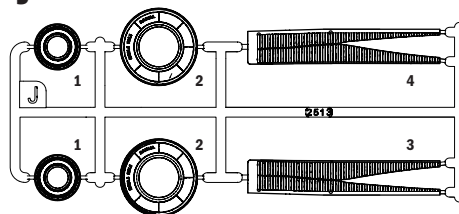
PE



H



J



Parti da non utilizzare  
Parts not for use  
Pièces à ne pas utiliser  
Telle werden nicht verwenden  
Partes a no utilizar  
Onderdelen niet te gebruiken



Aprire i fori  
Drill holes  
Ouvrir les trous  
Die Locher Ausbohren  
Perforar los agujeros  
Open gaten



Separare  
Cut  
Retirer  
Entfernen  
Separar  
Gesneden



Aggiungere un peso  
Add a weight  
Ajouter un poids  
Fügen Sie ein Gewicht  
Añadir un peso  
Voeg een gewicht



SCREW 14  
1,4 x 8mm

Vite  
Screw  
Vis  
Schraube  
Tornillo  
Schroef

SUGGESTED COLORS

A

FLAT BLACK  
F.S.37038  
Italeri AcrylicPaint 4768AP

B

FLAT DARK GULL GRAY  
F.S.36231  
Italeri AcrylicPaint 4755AP

C

FLAT LIGHT GREEN  
F.S.34230  
Italeri AcrylicPaint 4309AP

D

FLAT MEDIUM BLUE  
F.S.35095  
Italeri AcrylicPaint 4307AP

E

FLAT WHITE  
F.S.37875  
Italeri AcrylicPaint 4769AP

F

FLAT RED  
F.S.31400  
Italeri AcrylicPaint 4606AP

G

FLAT ORANGE  
F.S.32197  
Italeri AcrylicPaint 4302AP

H

FLAT YELLOW  
F.S.33538  
Italeri AcrylicPaint 4721AP

I

FLAT MIDDLE STONE  
F.S.30266  
Italeri AcrylicPaint 4304AP

J

FLAT LIGHT GRAY  
F.S.36495  
Italeri AcrylicPaint 4765AP

K

FLAT GUNSHIP GRAY  
F.S.36118  
Italeri AcrylicPaint 4752AP

L

METAL FLAT ALUMINIUM  
F.S.31178  
Italeri AcrylicPaint 4677AP

M

FLAT GREEN  
F.S.34102  
Italeri AcrylicPaint 4862AP

N

METAL GLOSS GOLD  
F.S.17043  
Italeri AcrylicPaint 4671AP

O

FLAT INTERIOR GREEN  
F.S.34151  
Italeri AcrylicPaint 4736 AP

P

FLAT LIGHT GHOST GRAY  
F.S.36375

Q

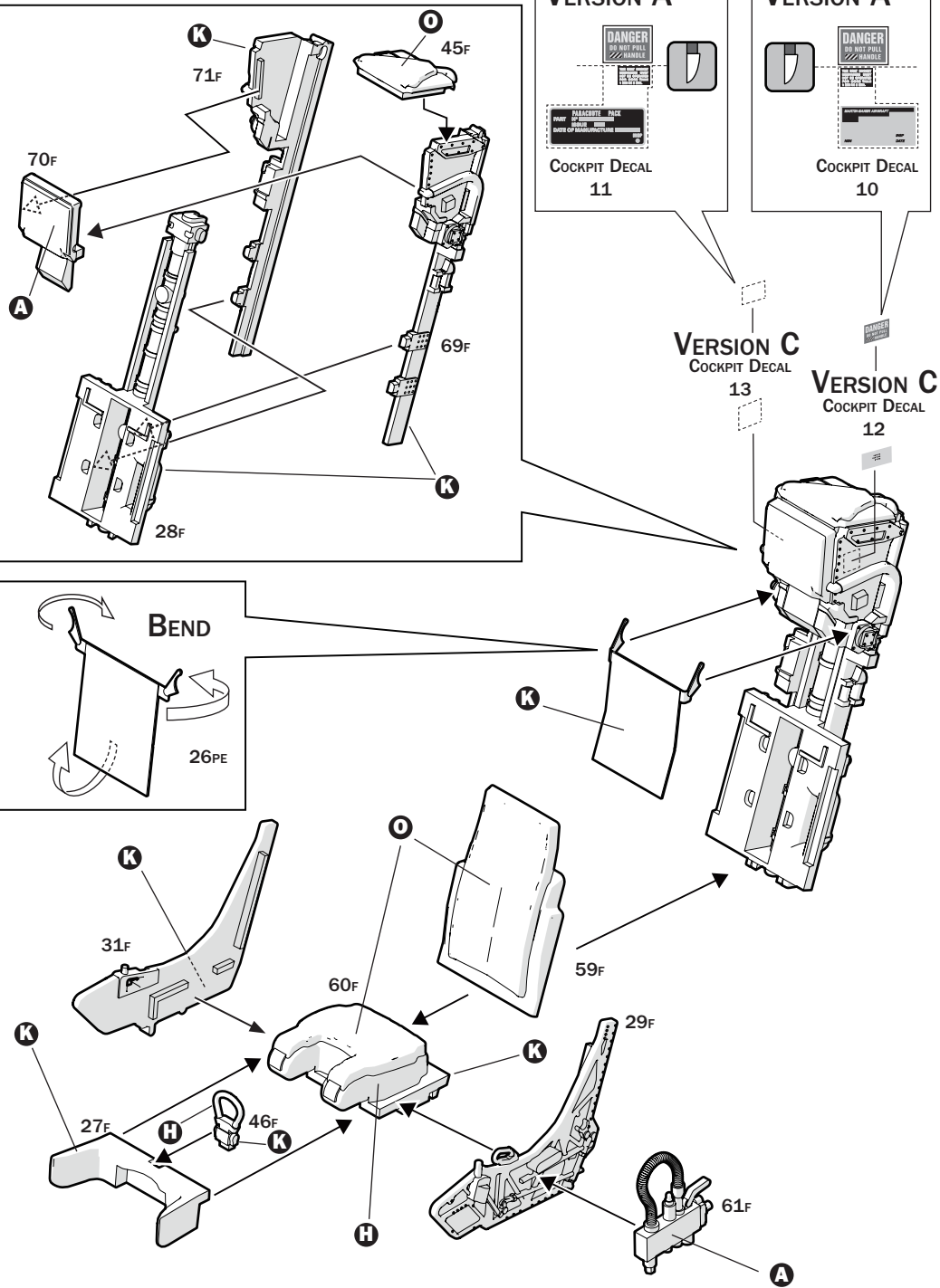
METAL FLAT STEEL  
F.S.37178  
Italeri AcrylicPaint 4679AP

R

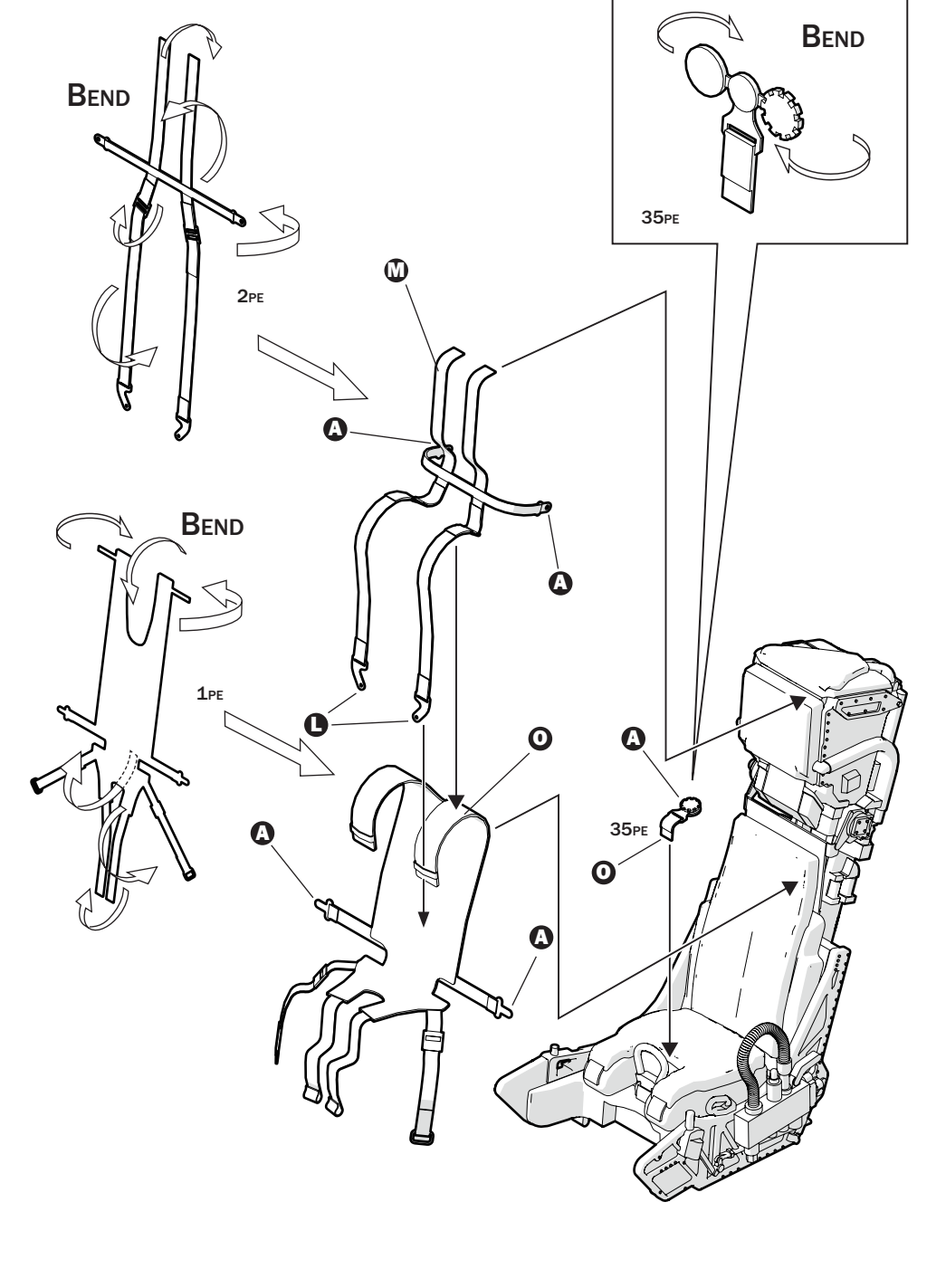
FLAT GUN METAL  
F.S.37200  
Italeri AcrylicPaint 4681 AP

CHOOSE VERSION BEFORE ASSEMBLY

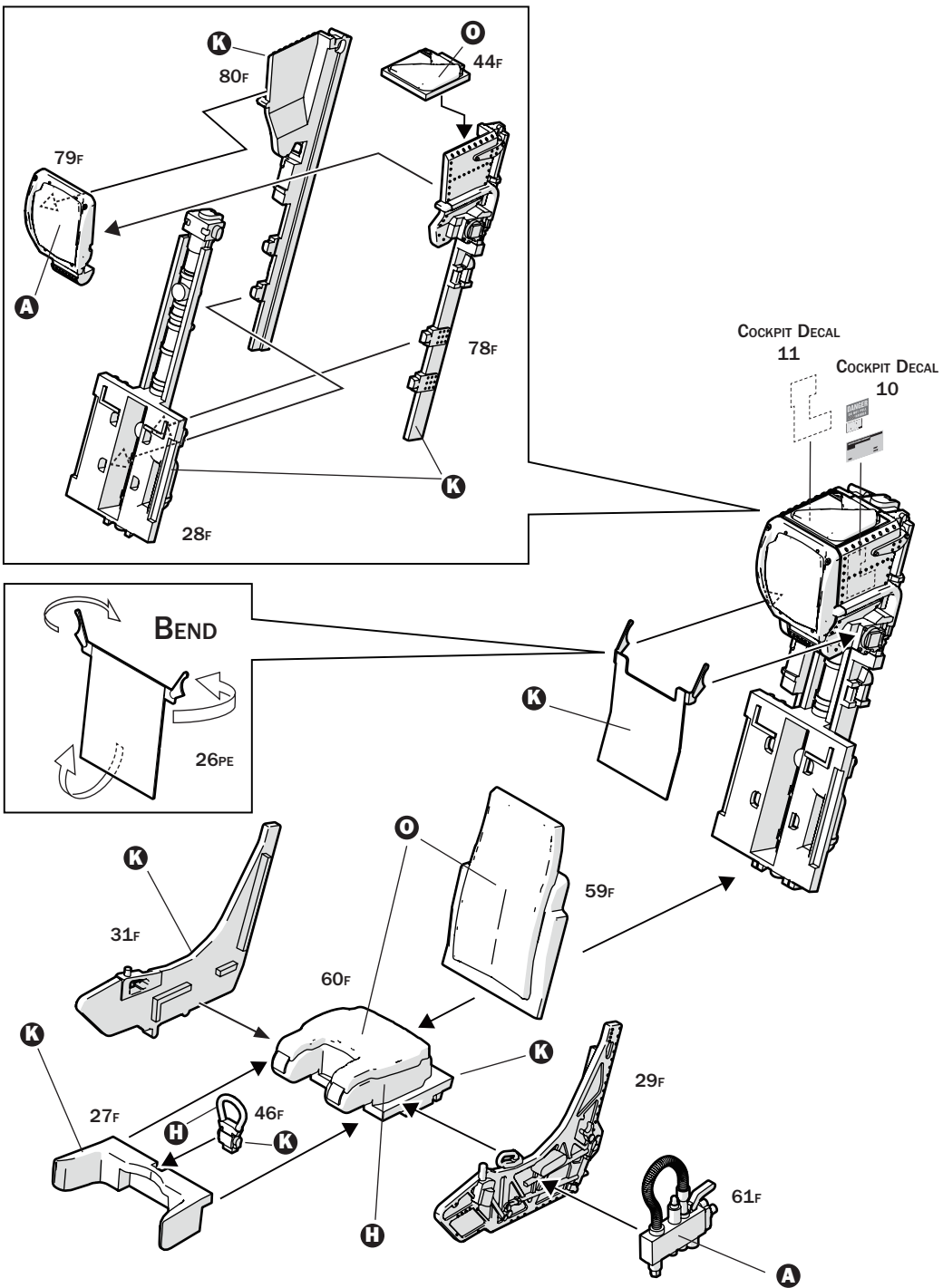
**1** 2x VERSIONS A-C



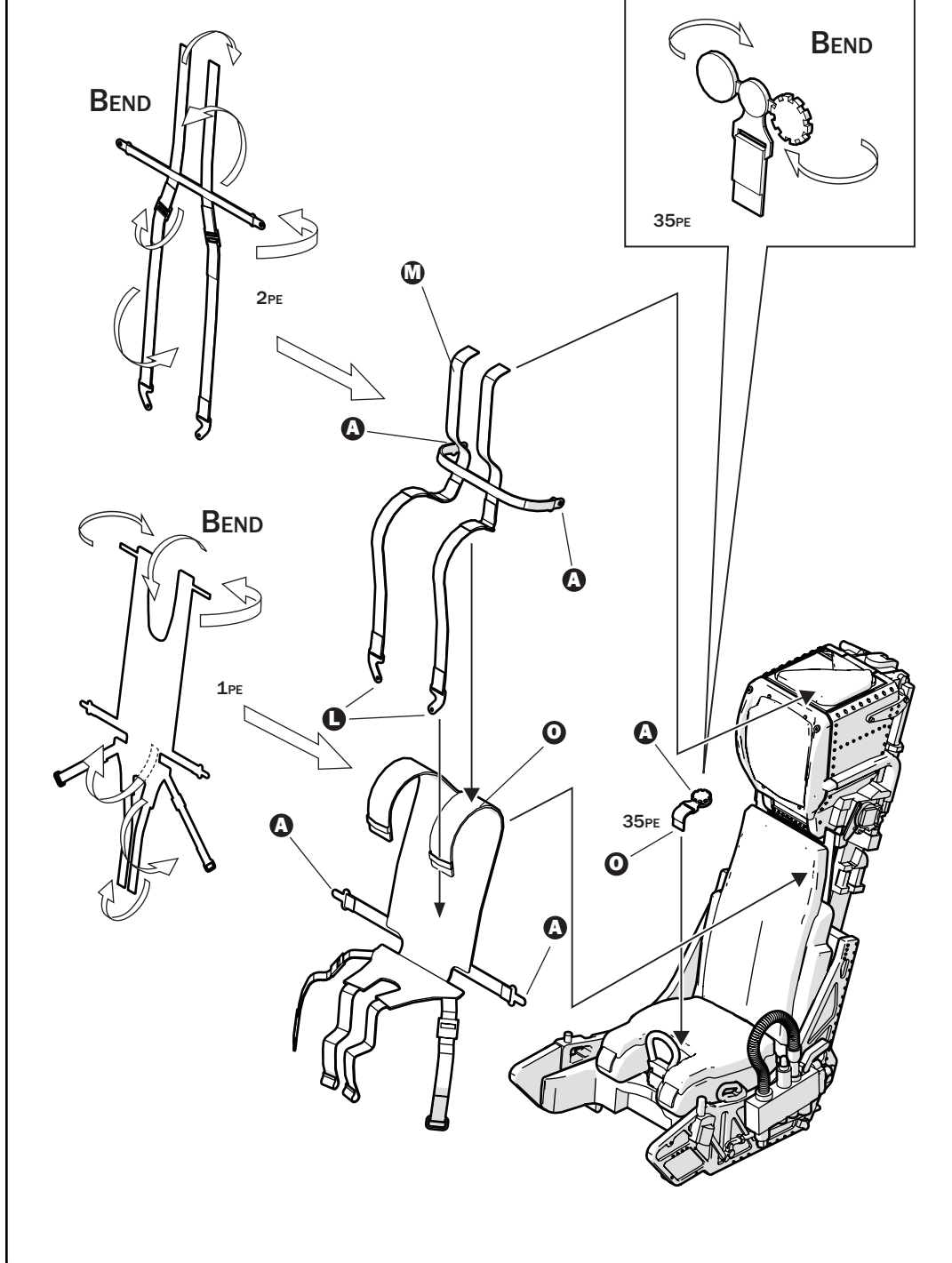
**2** 2x VERSIONS A-C



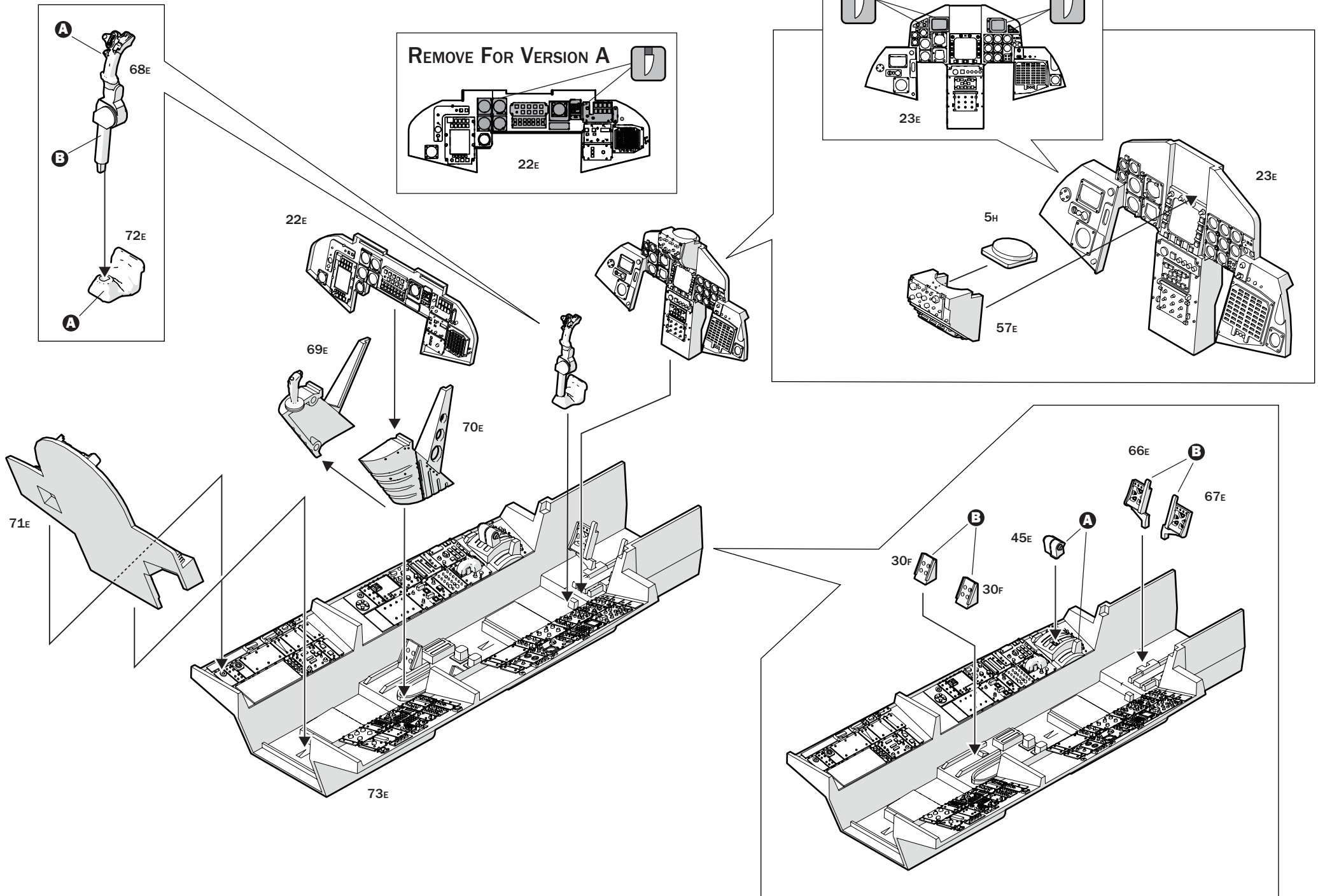
**3** 2x VERSION B



**4** 2x VERSION B

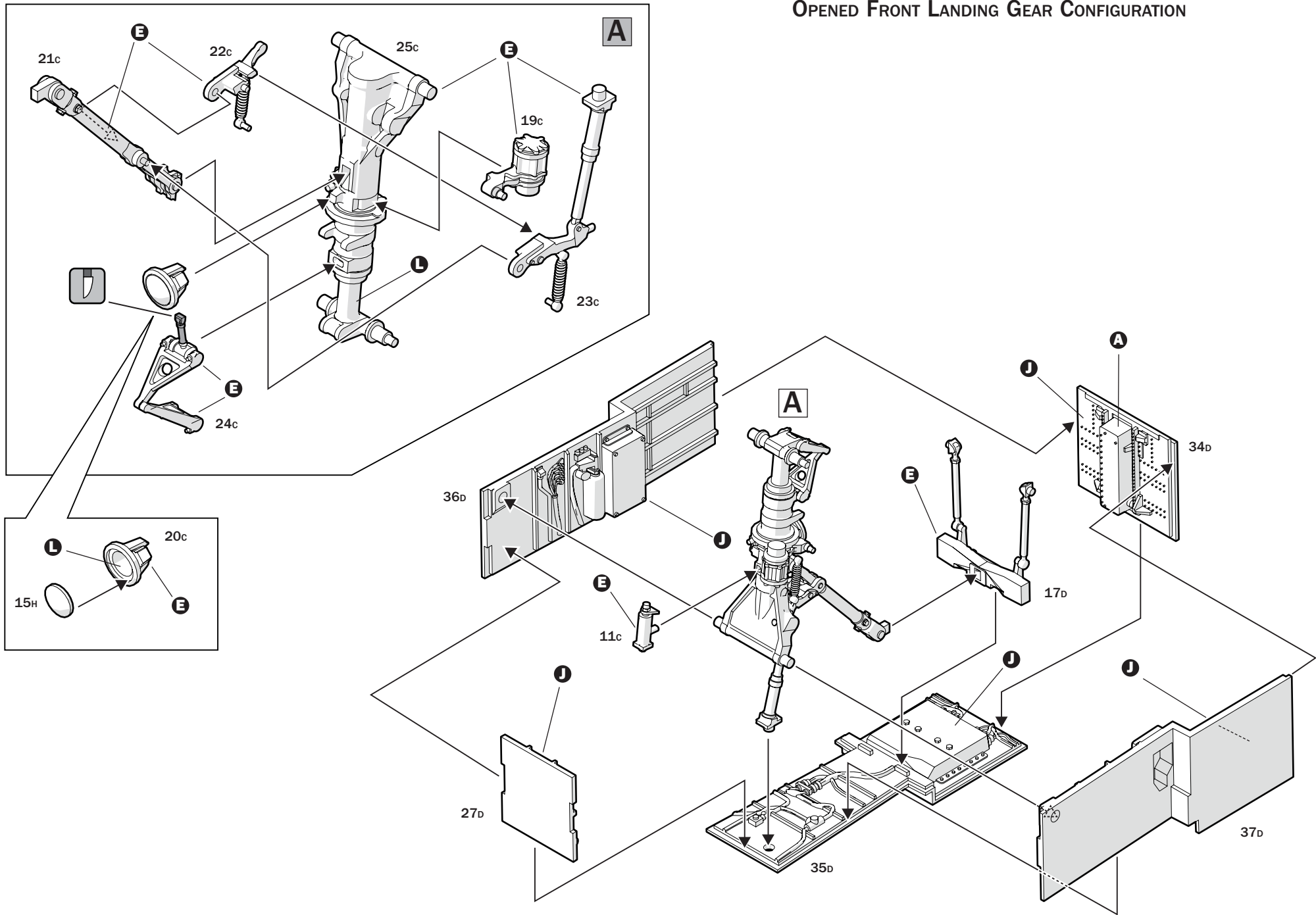


FOR COCKPIT PAINTING AND DECALS POSITIONING SEE THE PAINTING GUIDE (PAG.8)



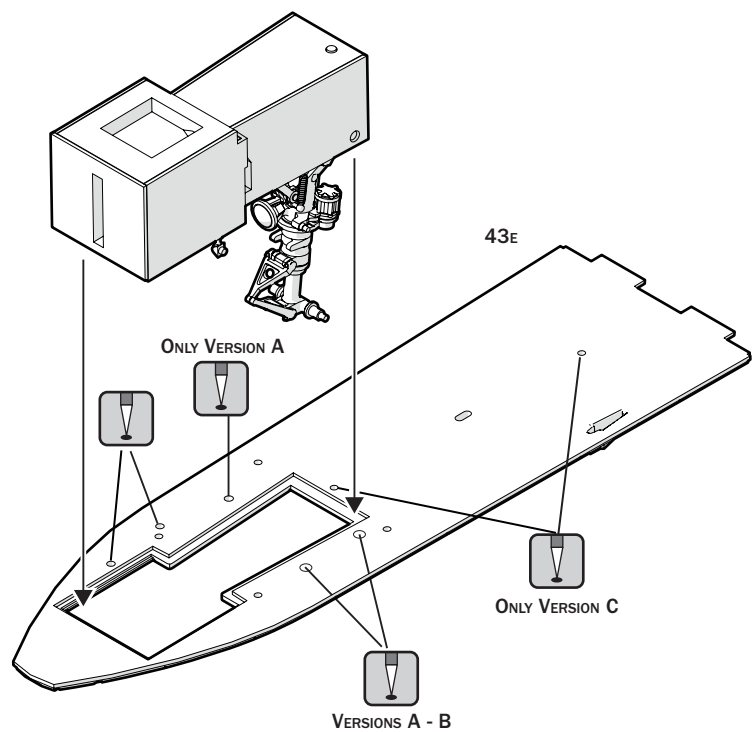


OPENED FRONT LANDING GEAR CONFIGURATION



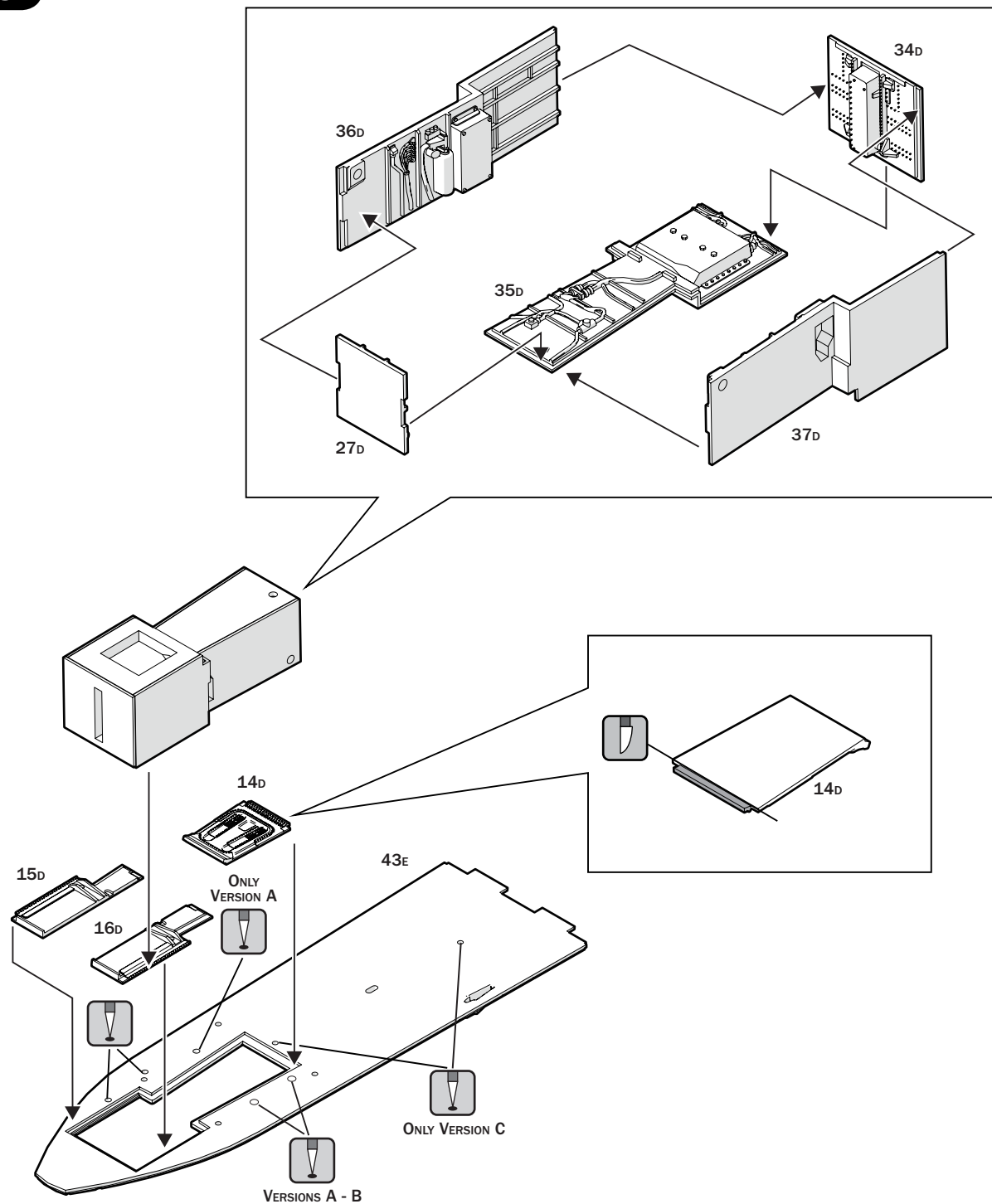
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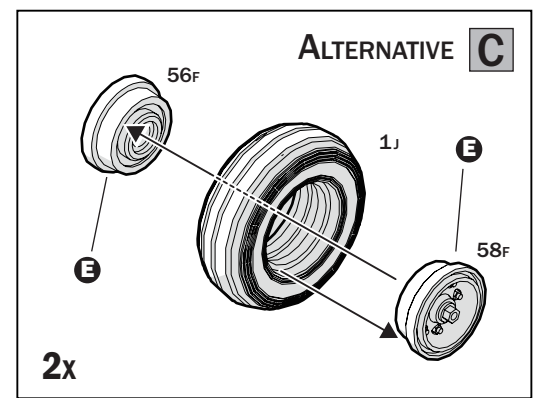
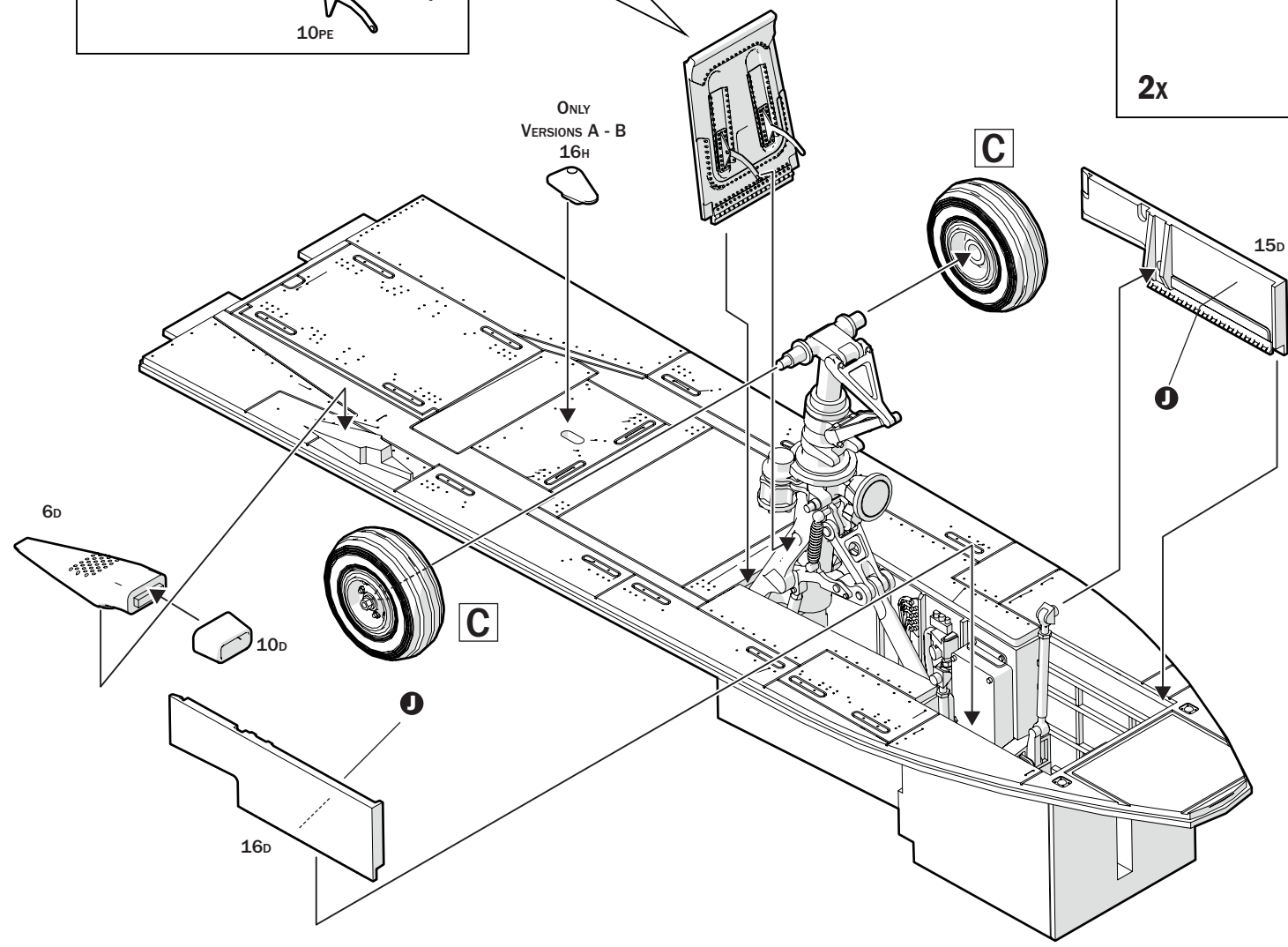
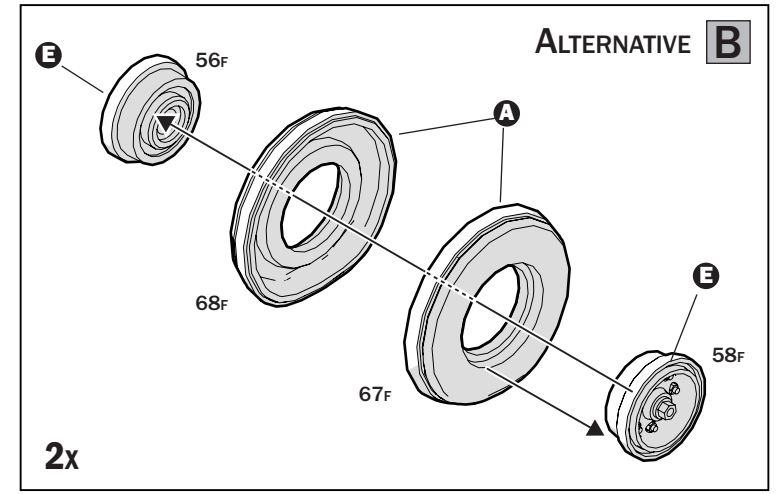
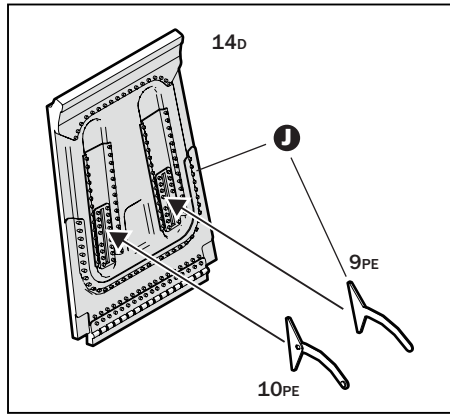
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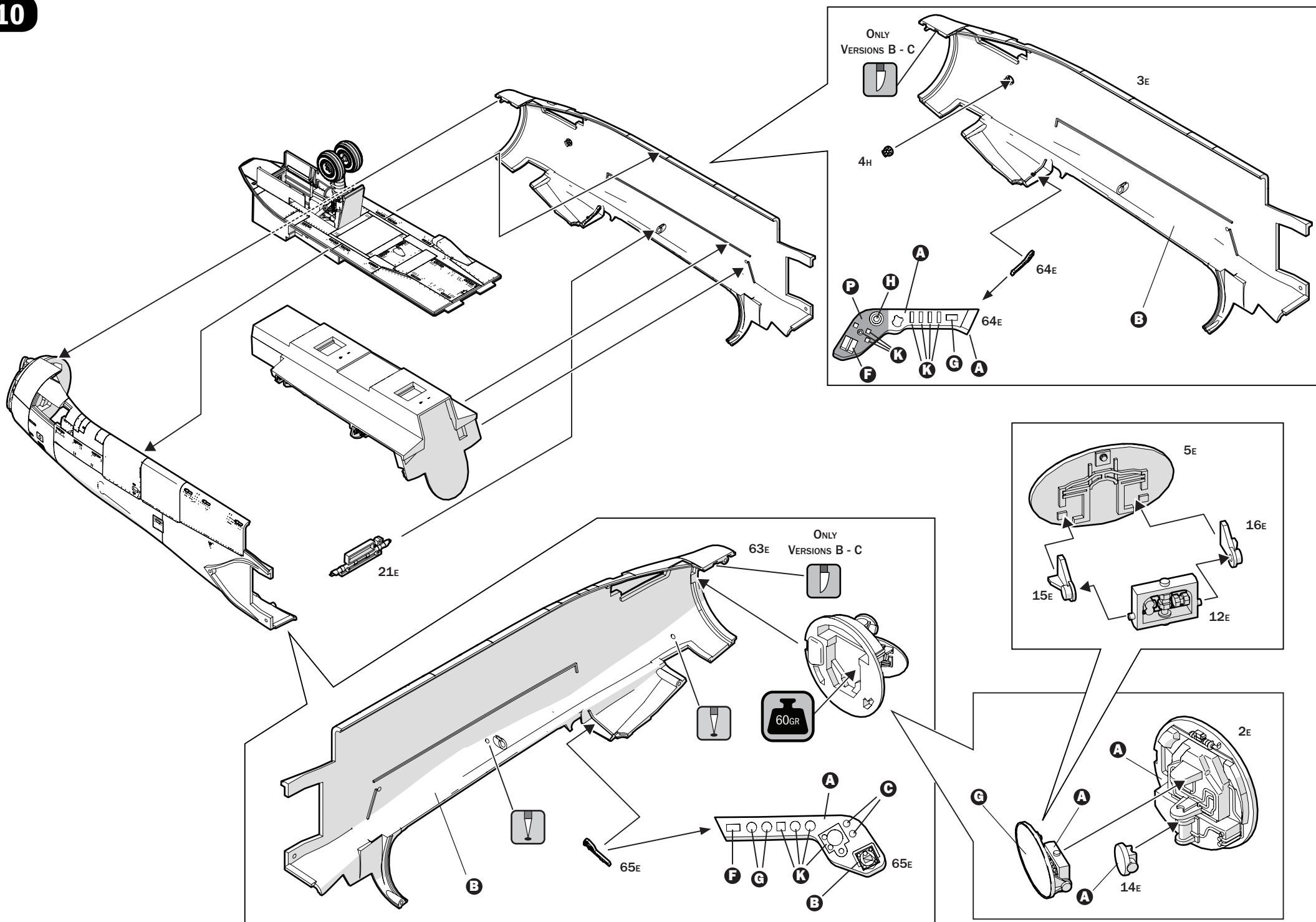


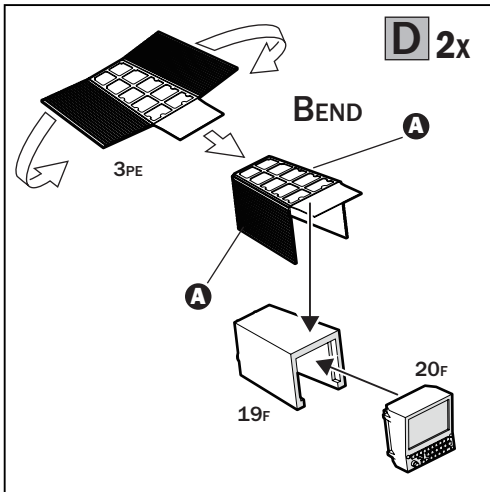
8

### CLOSED FRONT LANDING GEAR CONFIGURATION



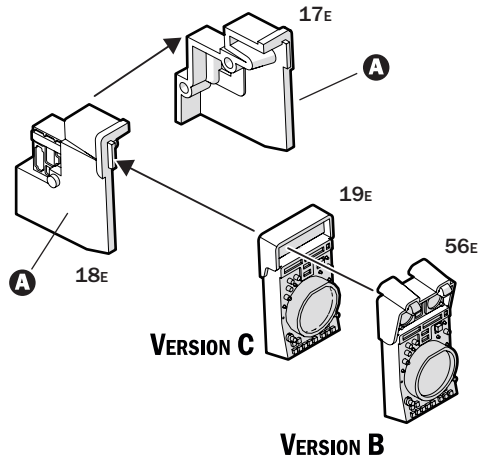




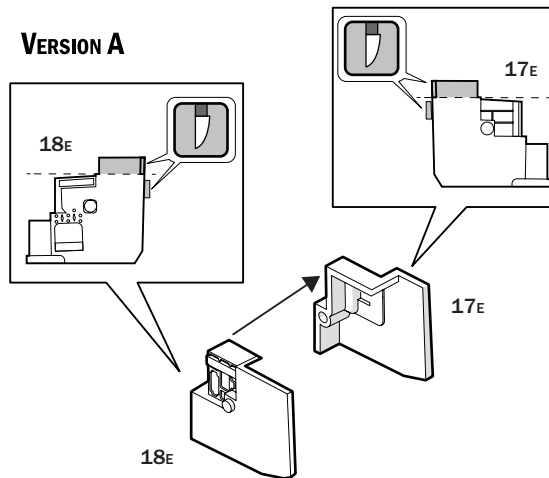


**E ALTERNATIVES**

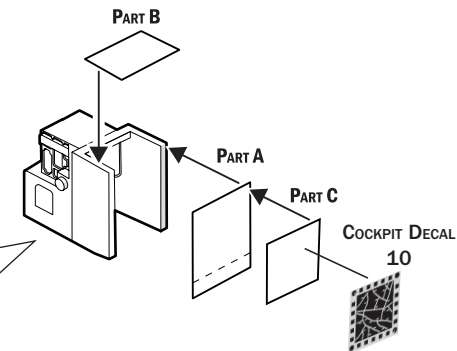
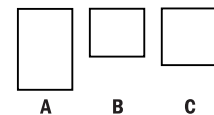
**VERSIONS B-C**



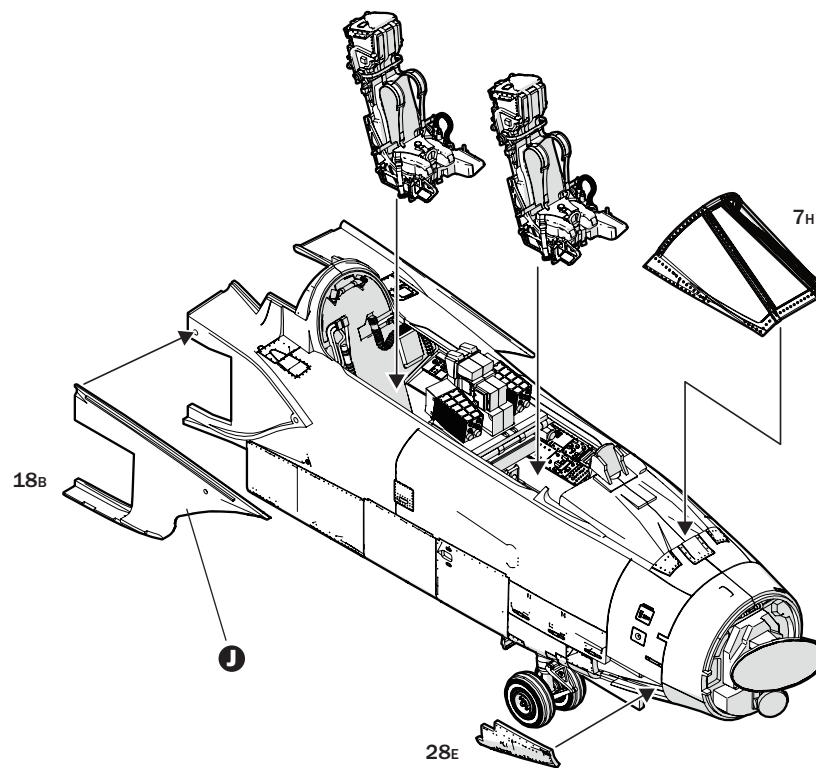
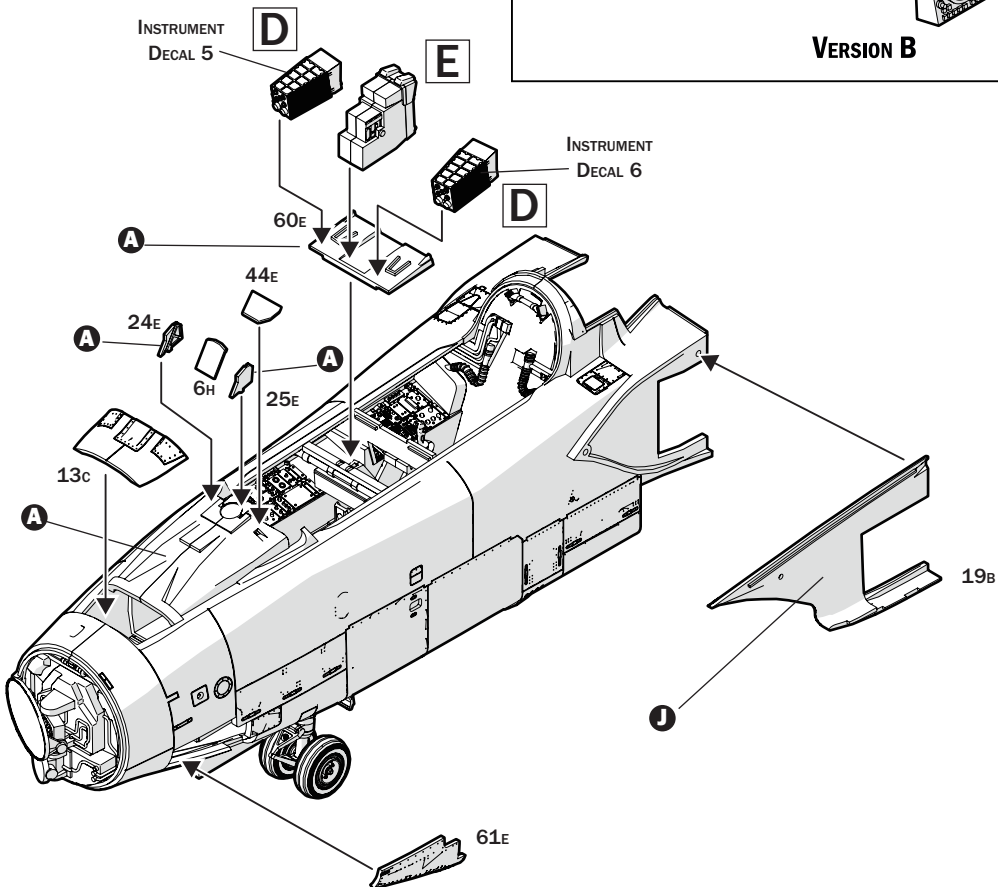
**VERSION A**

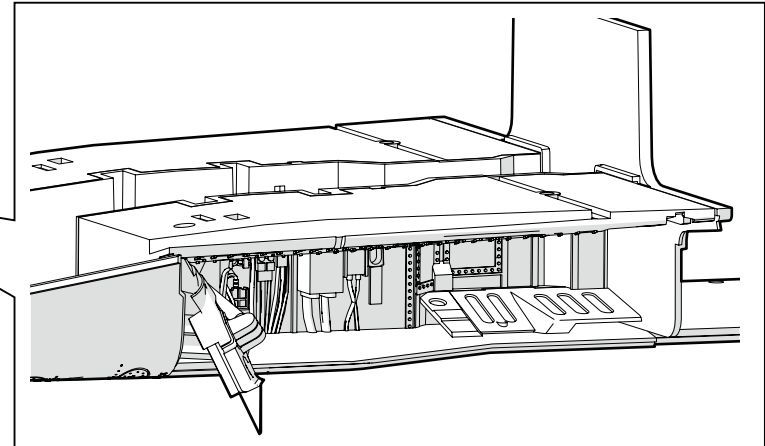
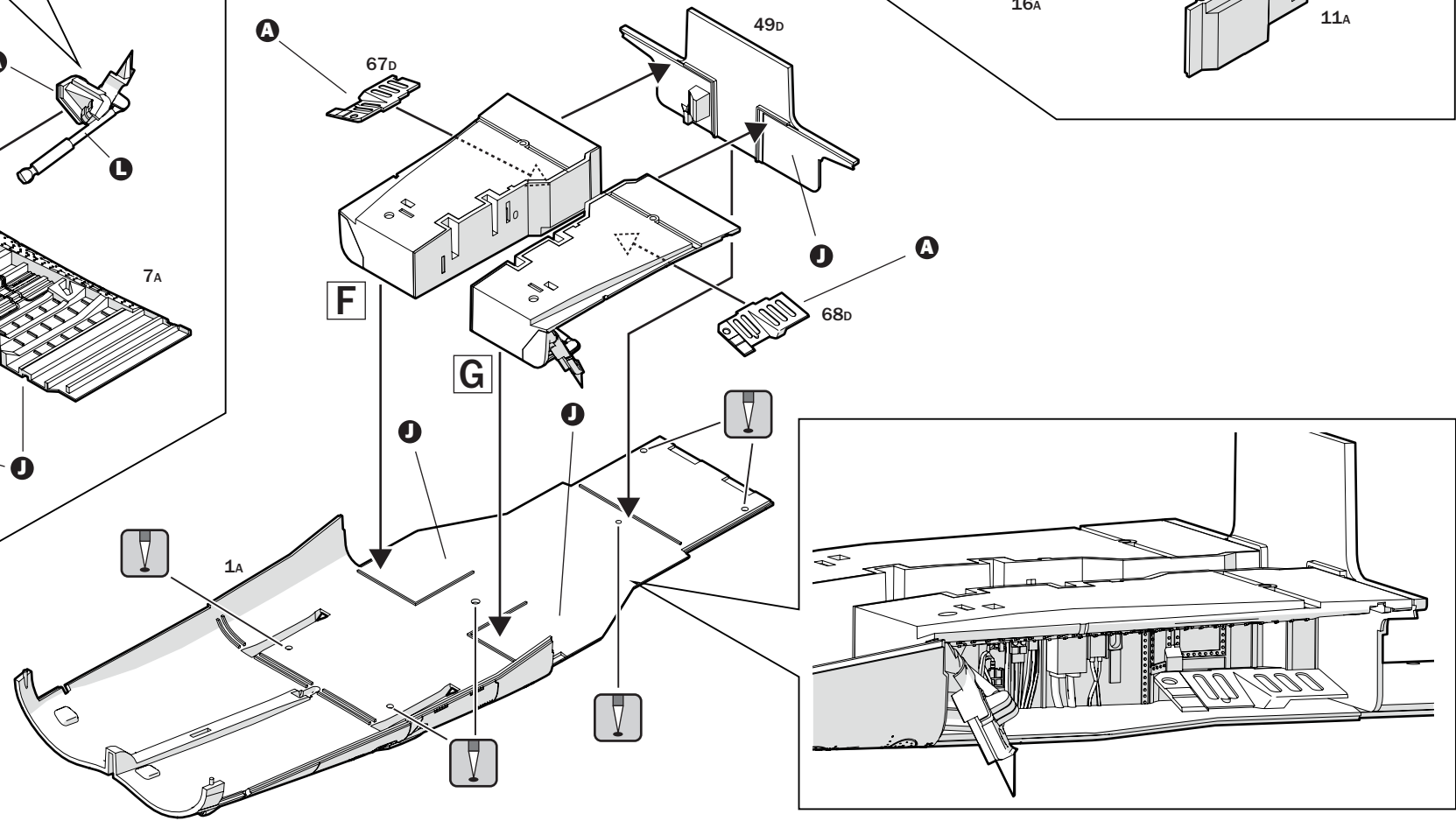
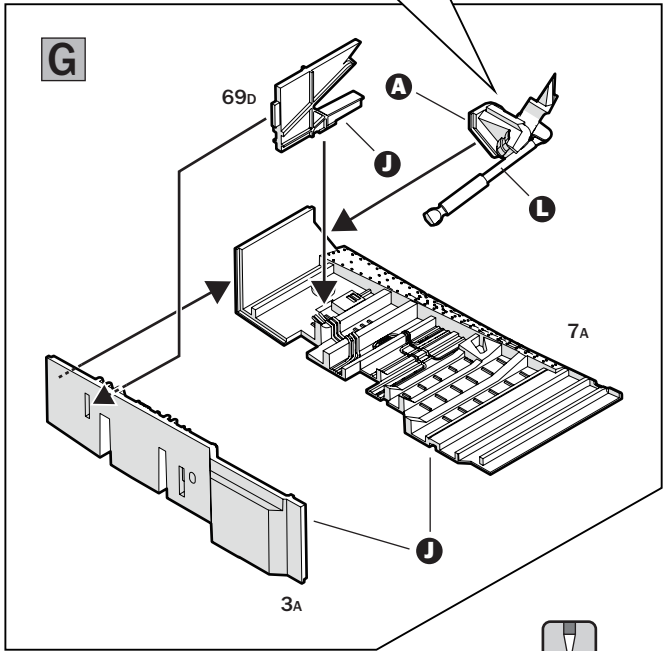
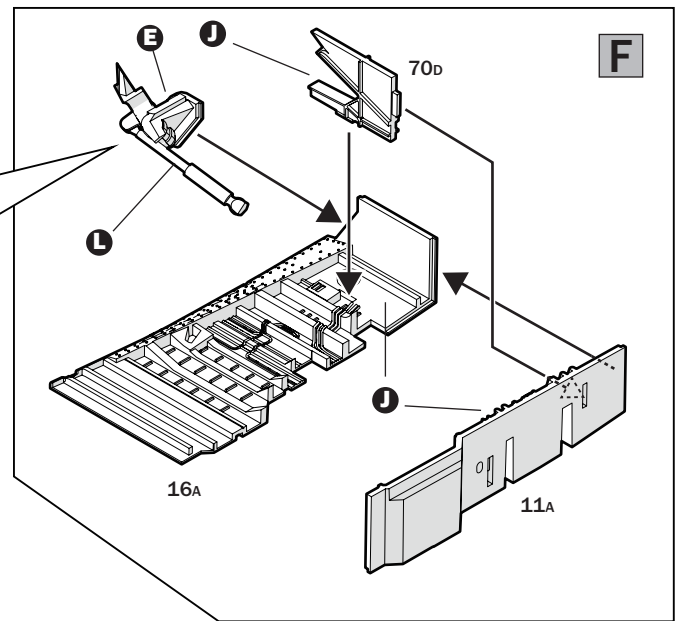
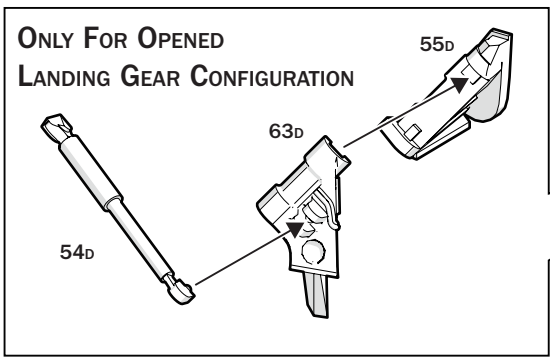
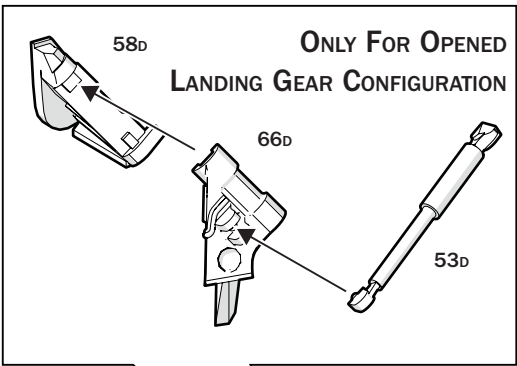


TEMPLATES FOR PLASTICARD PARTS

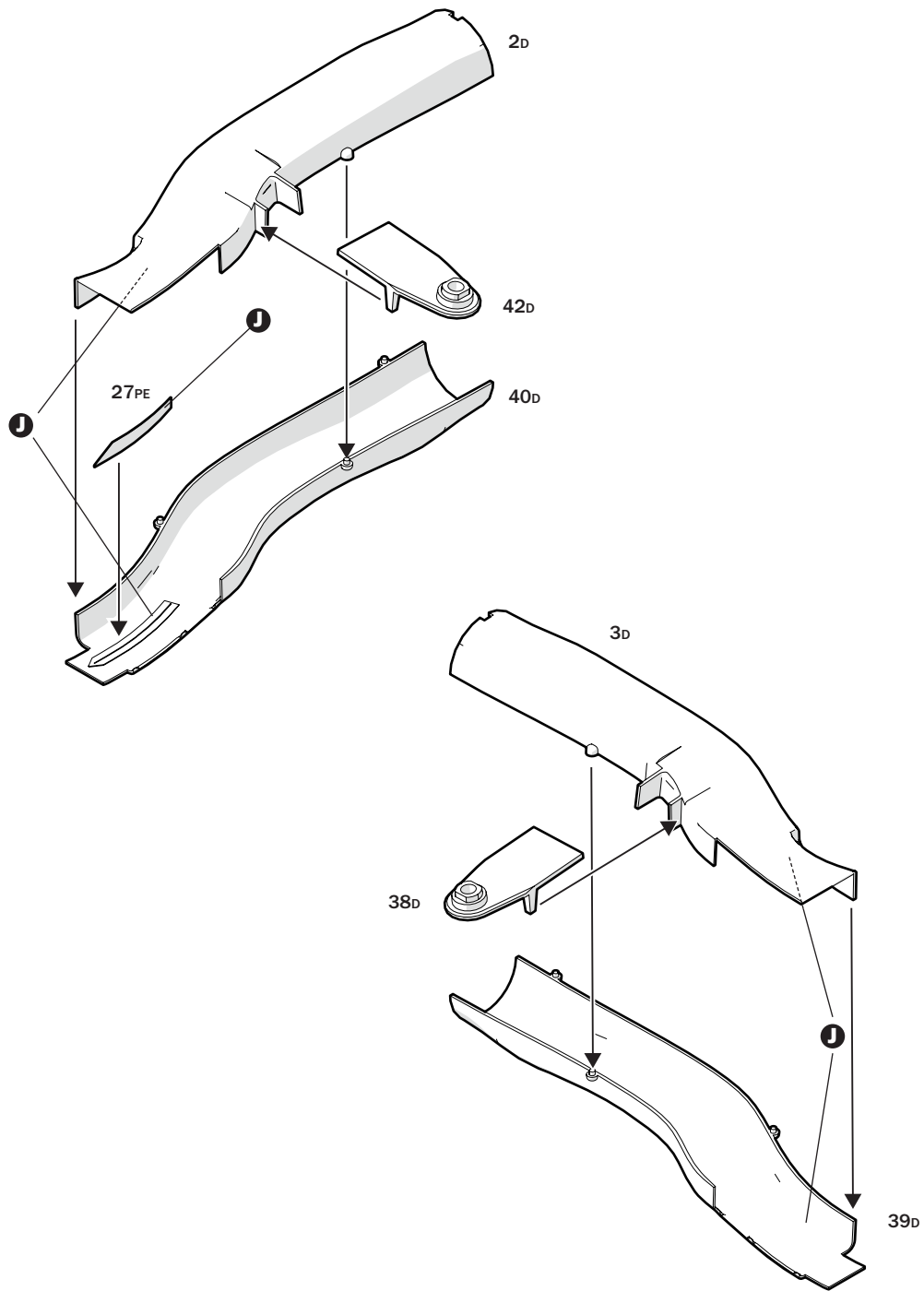


INSTRUMENT DECAL 5 (D)

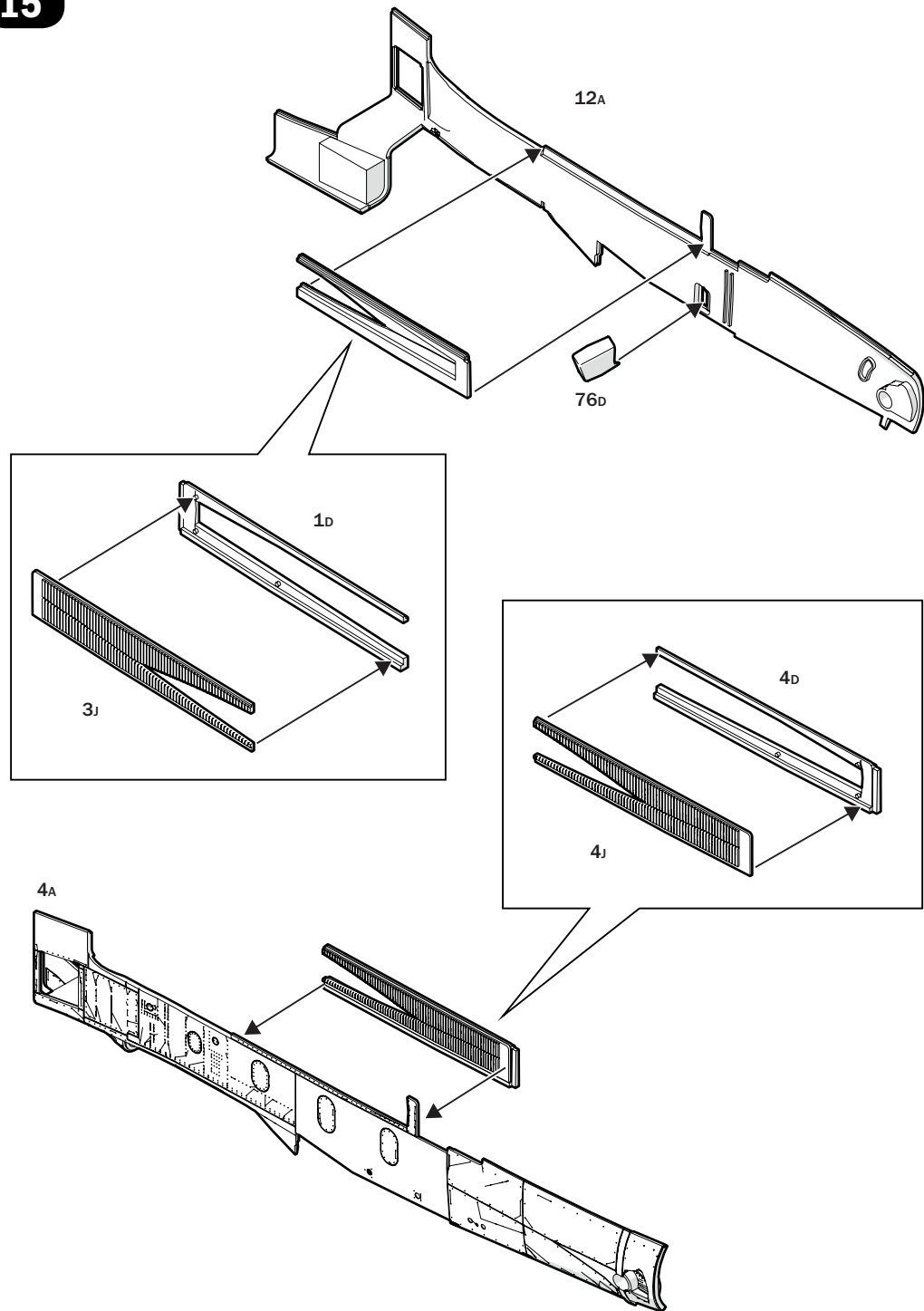


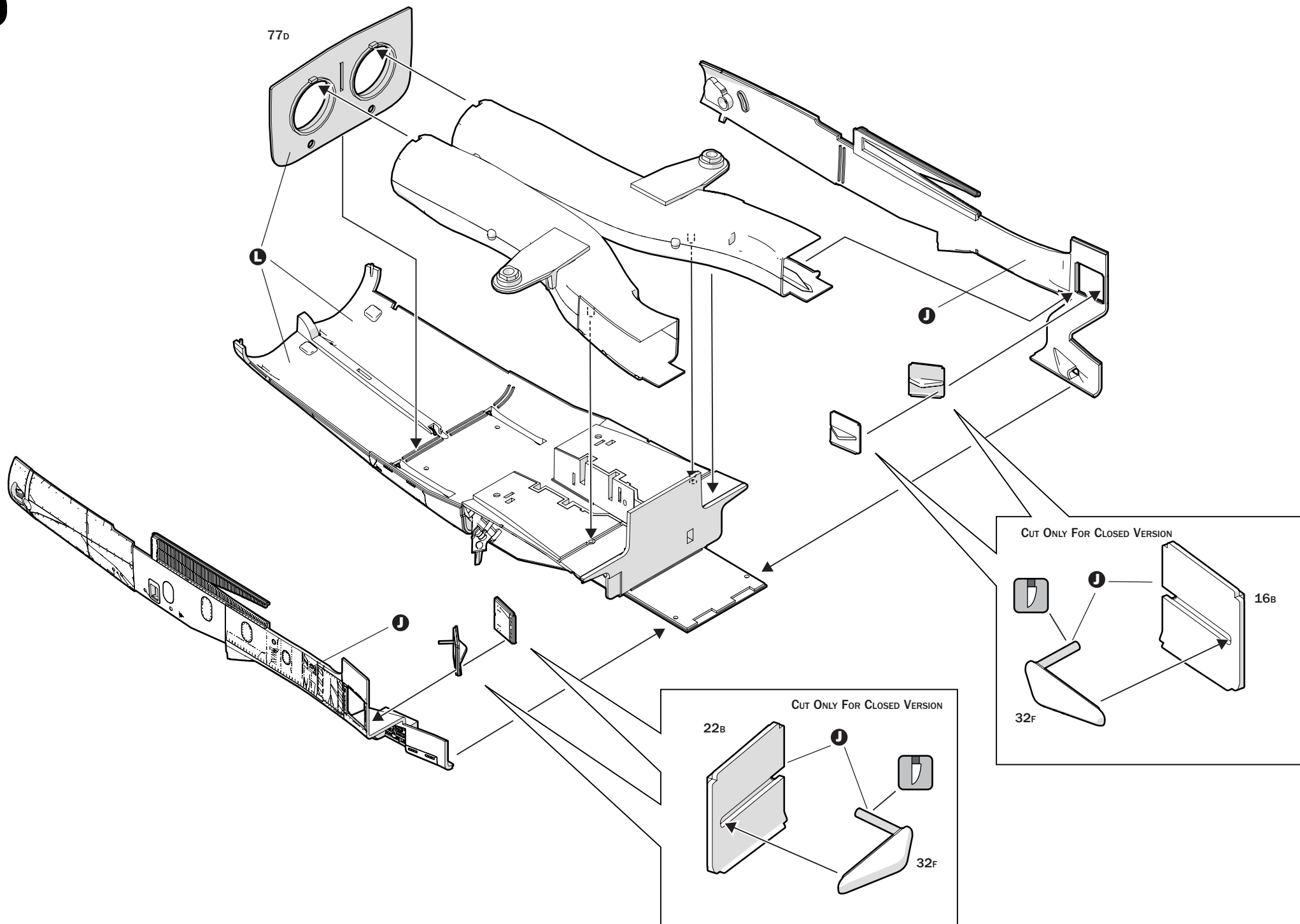


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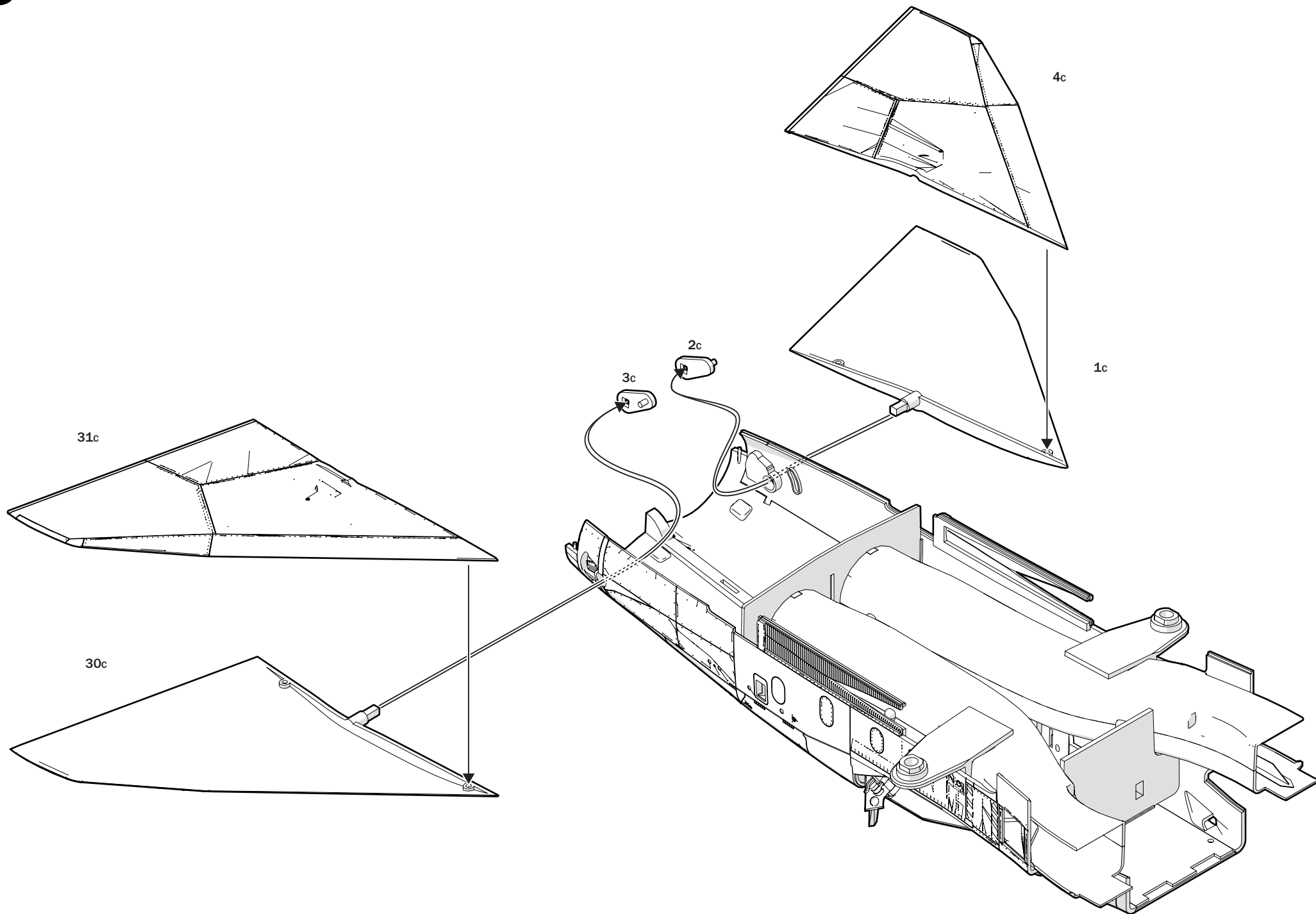


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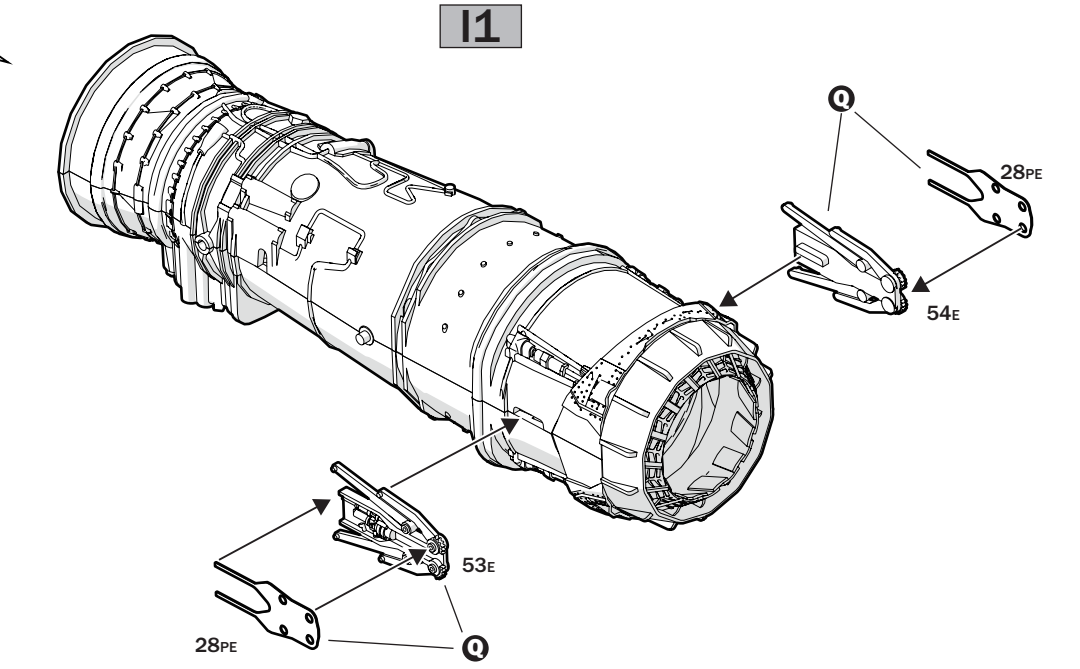
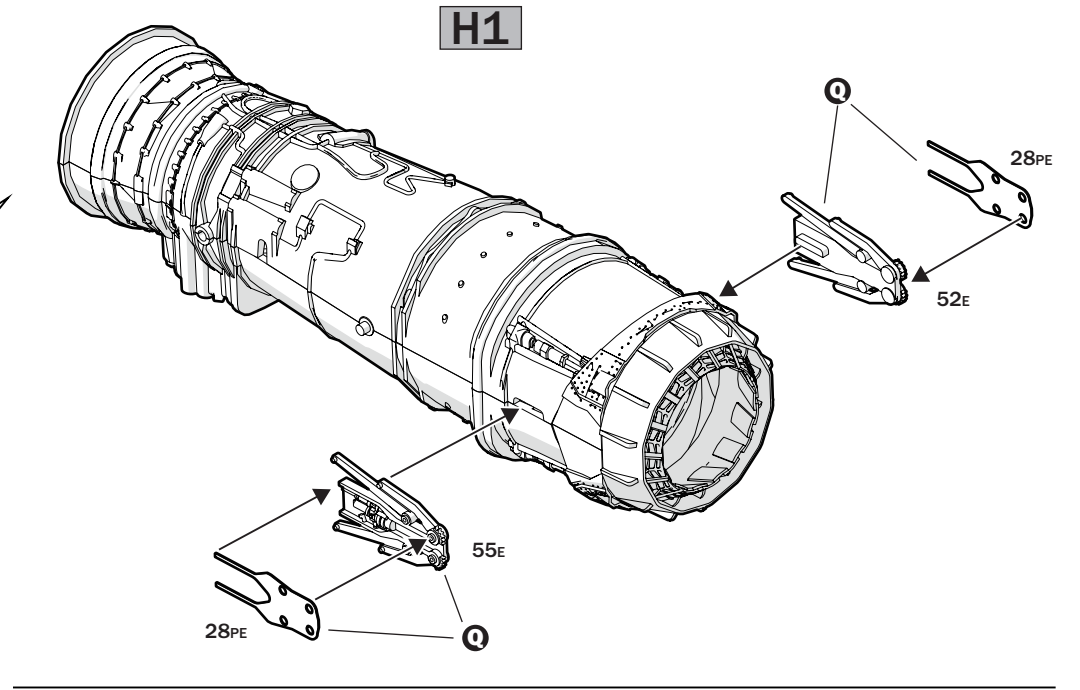
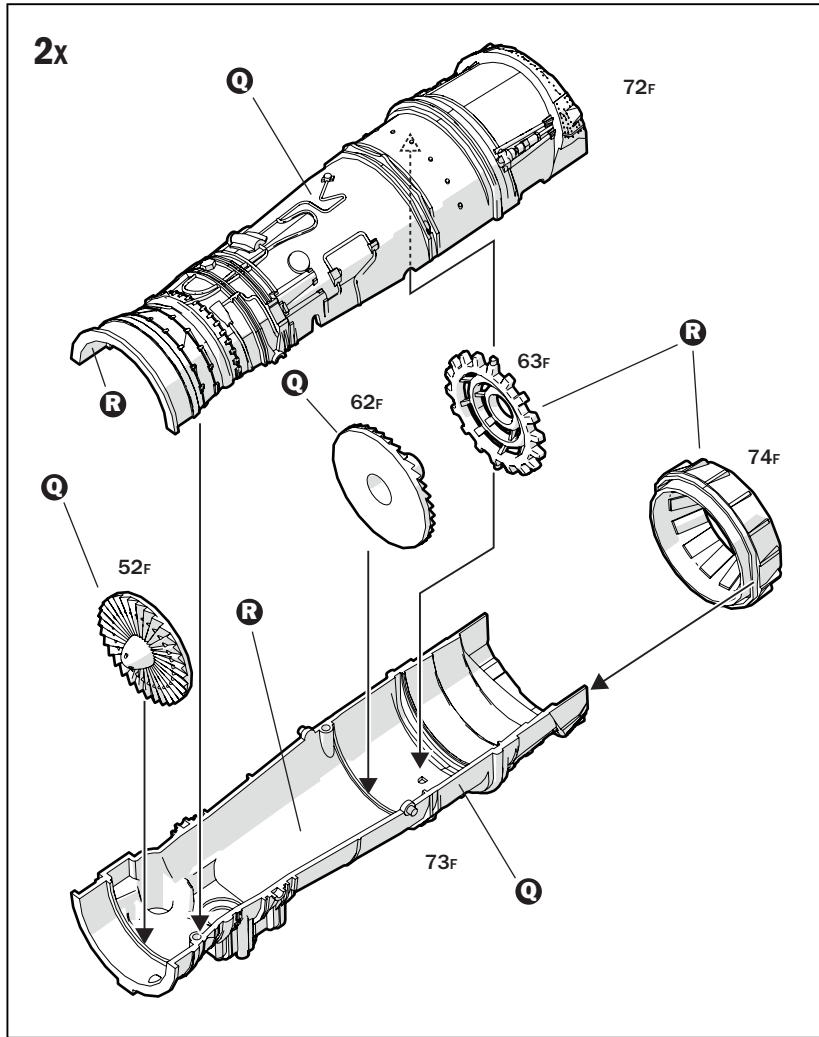




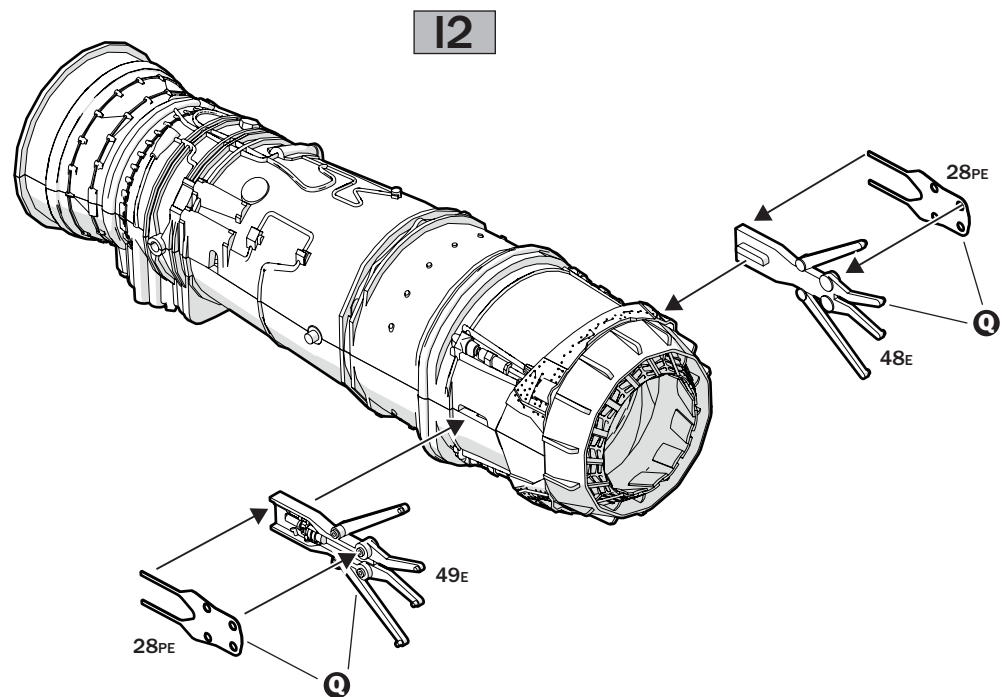
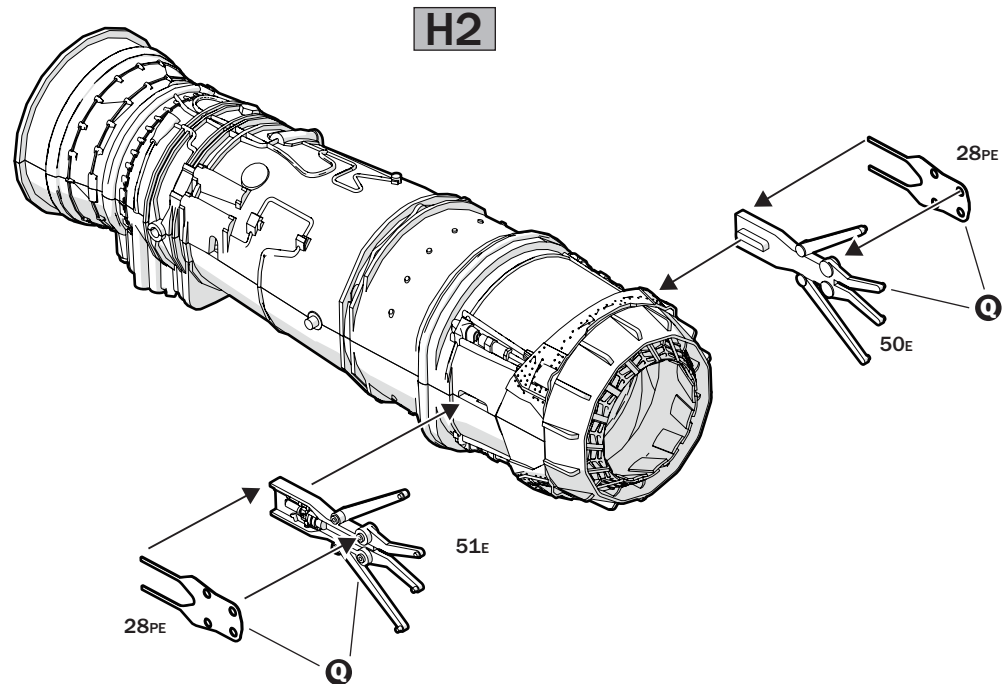
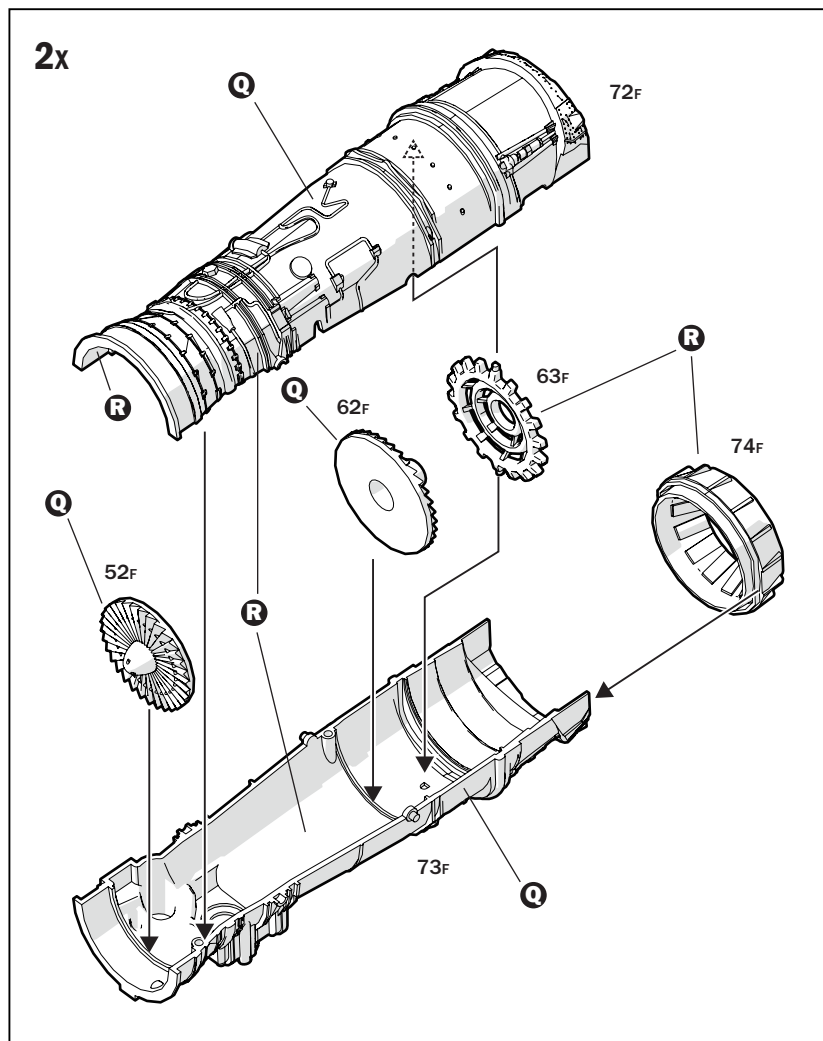


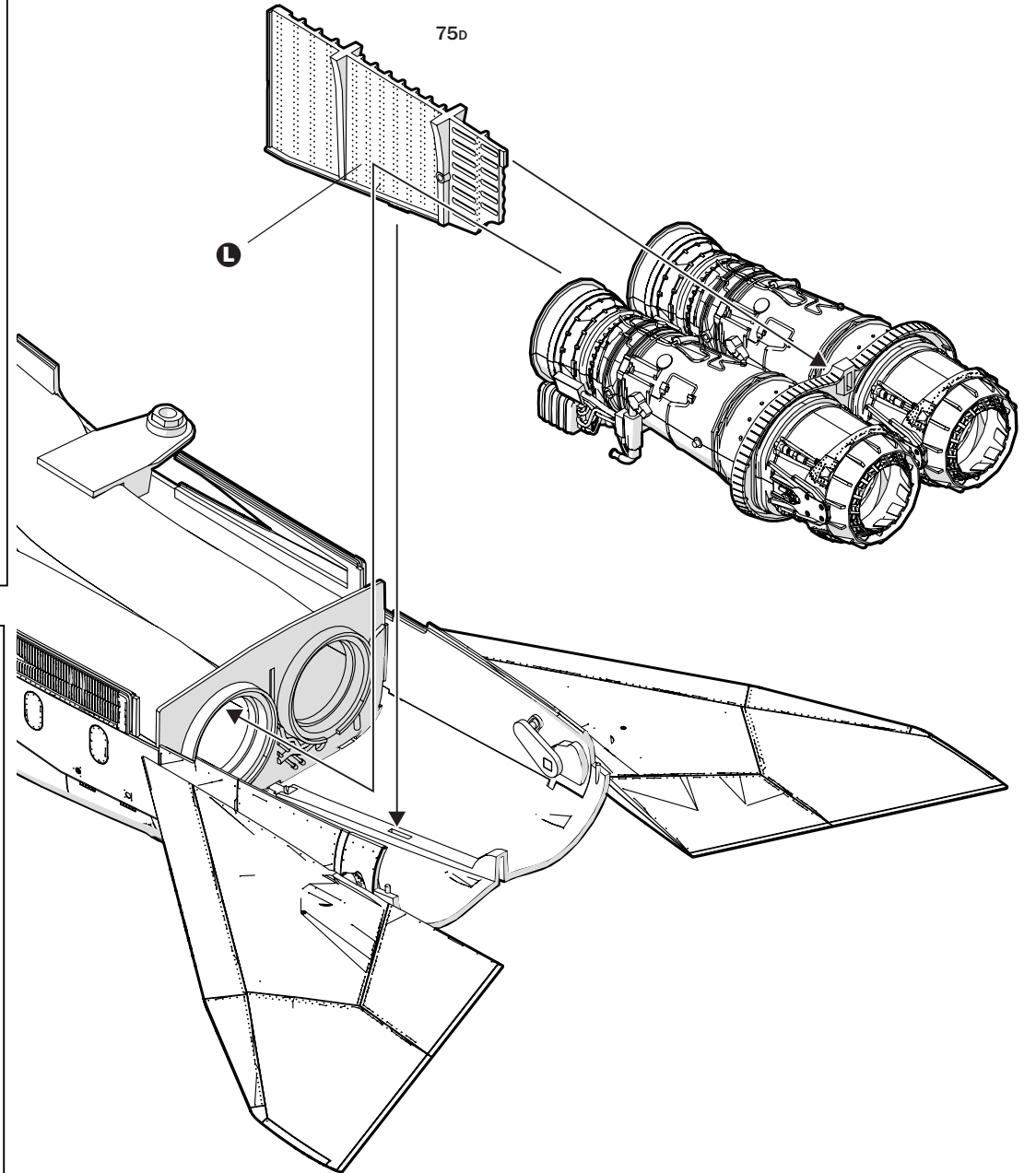
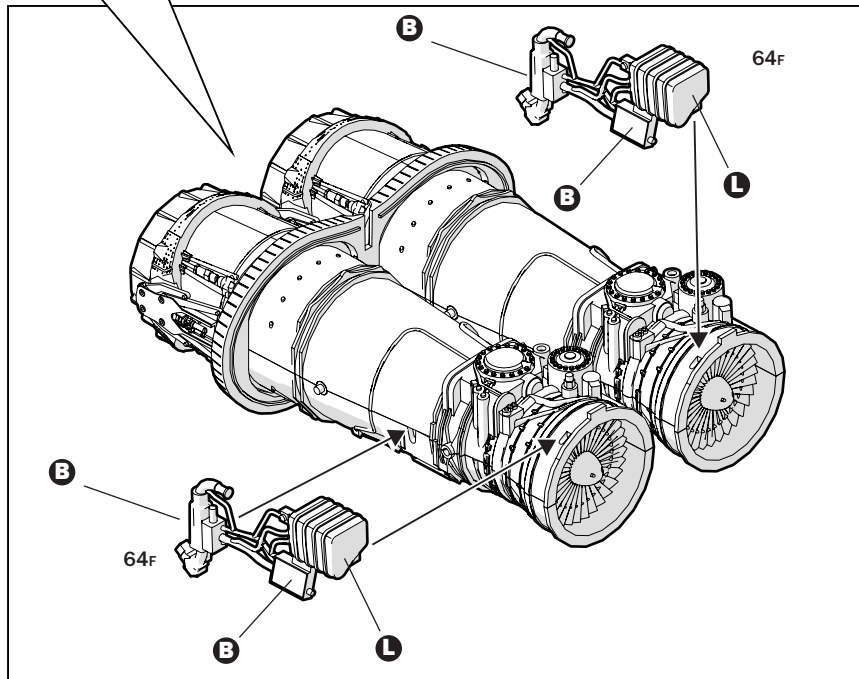
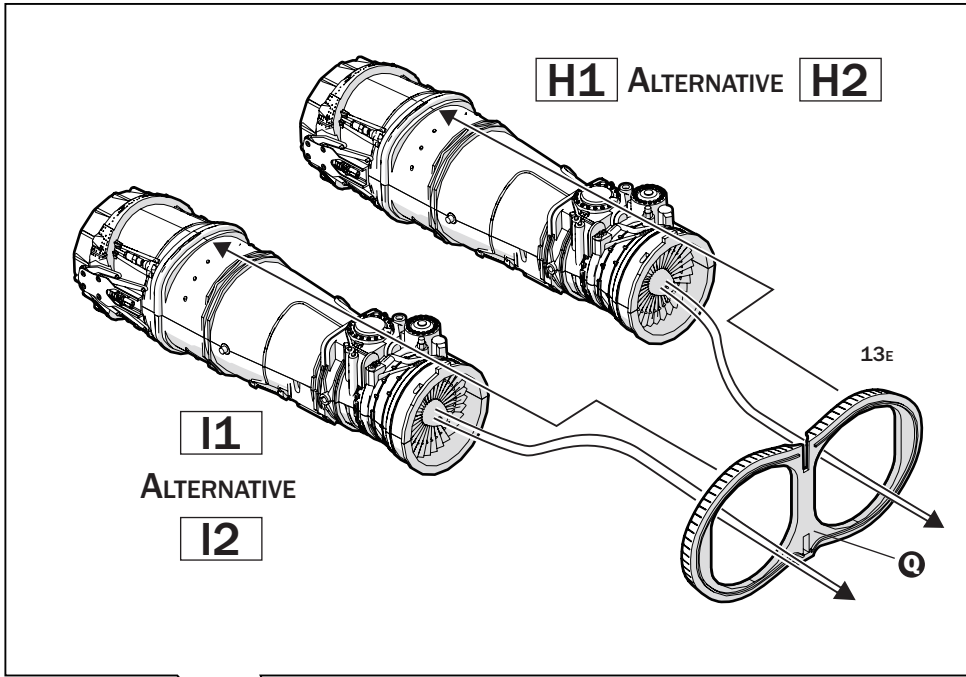


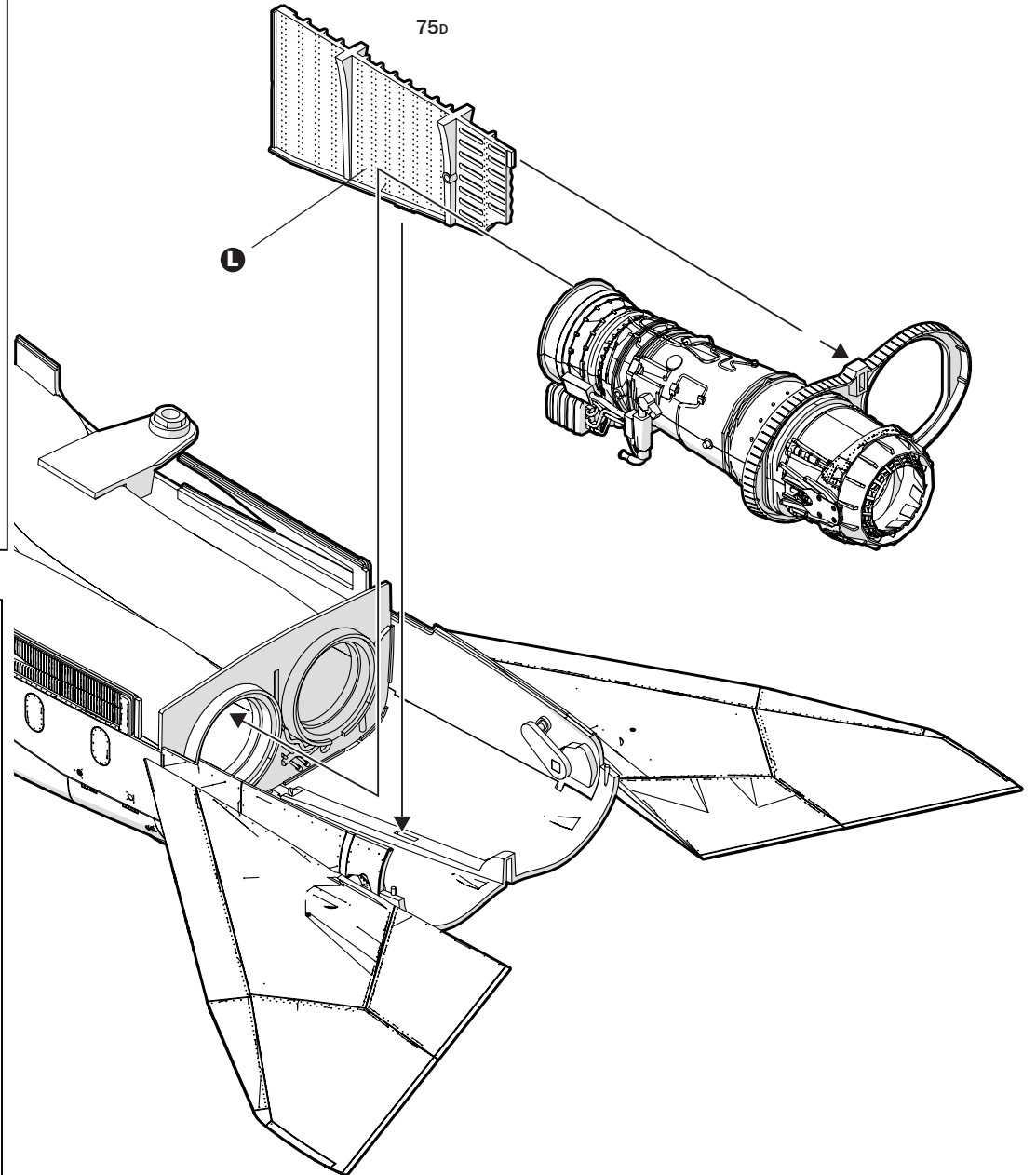
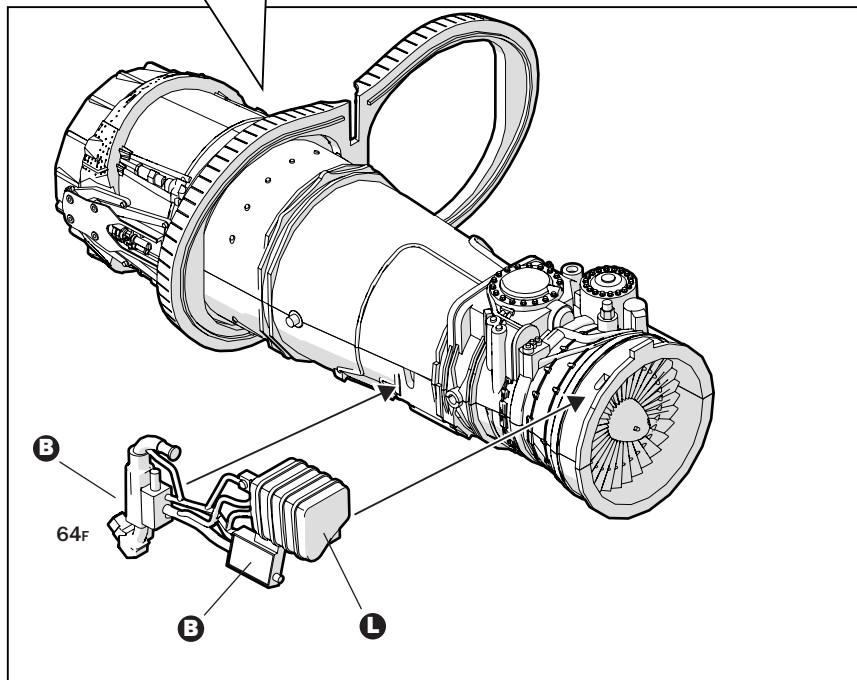
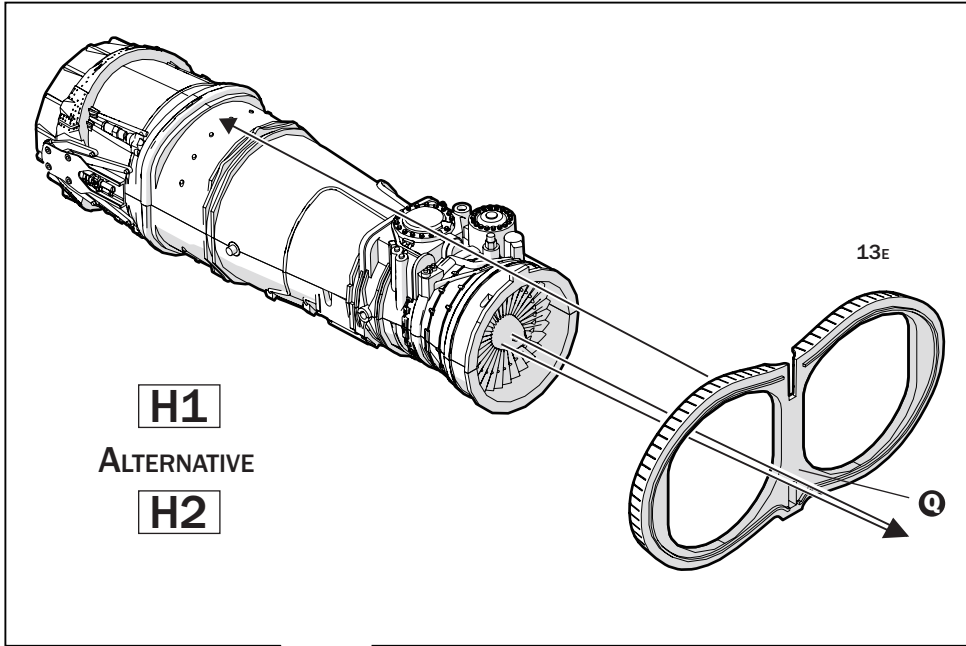
RETRACTED THRUST REVERSER CONFIGURATION



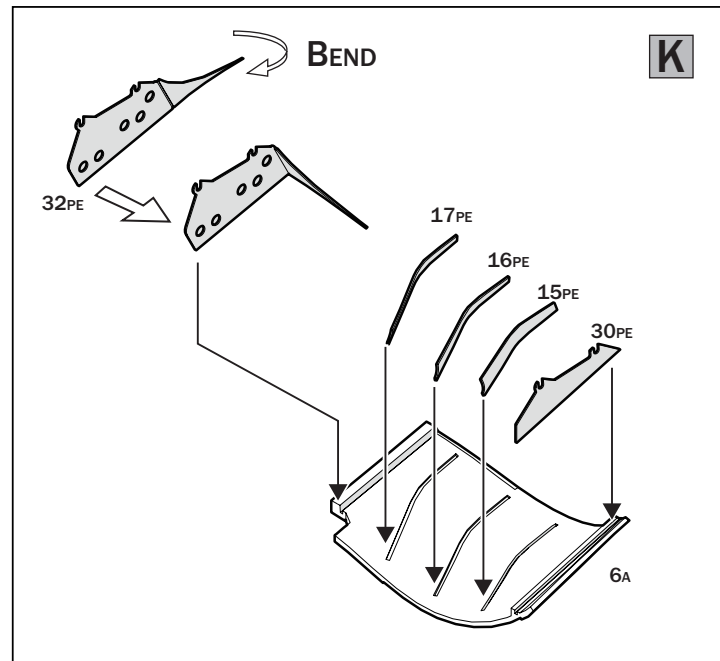
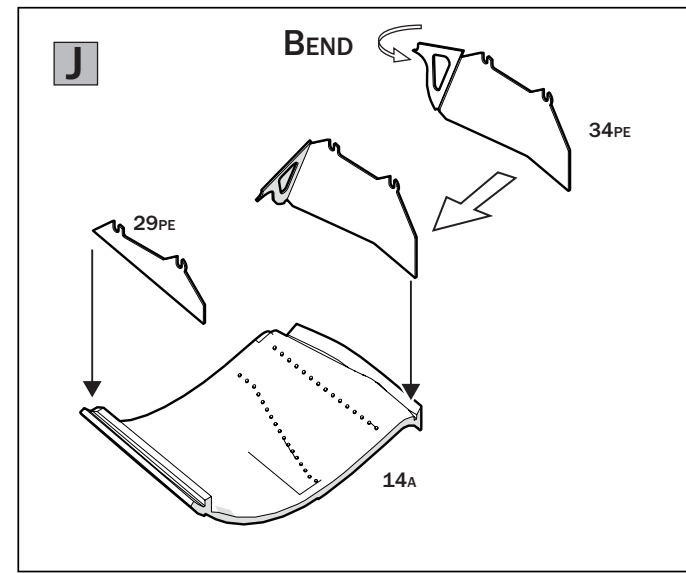
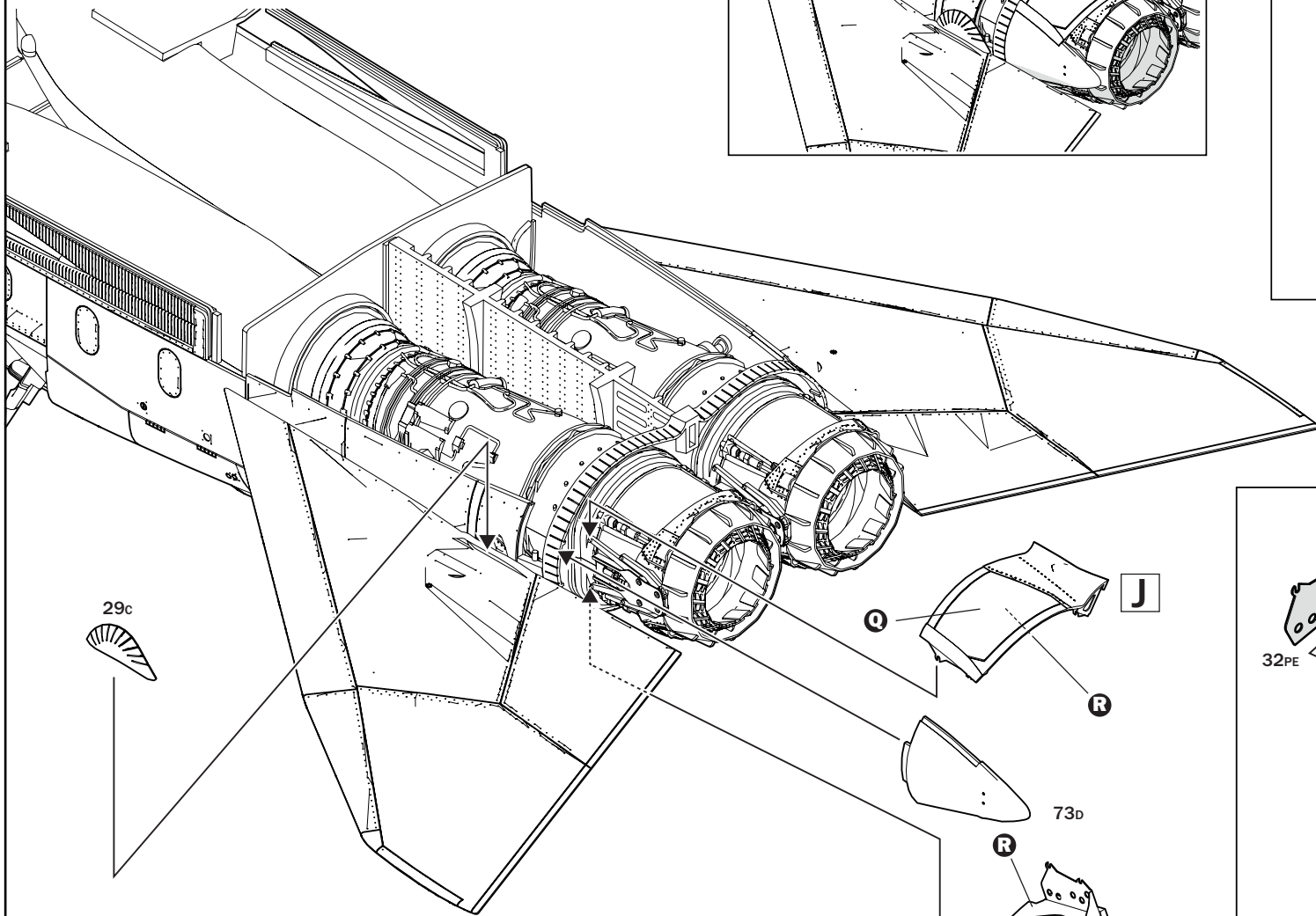
EXTRACTED THRUST REVERSER CONFIGURATION



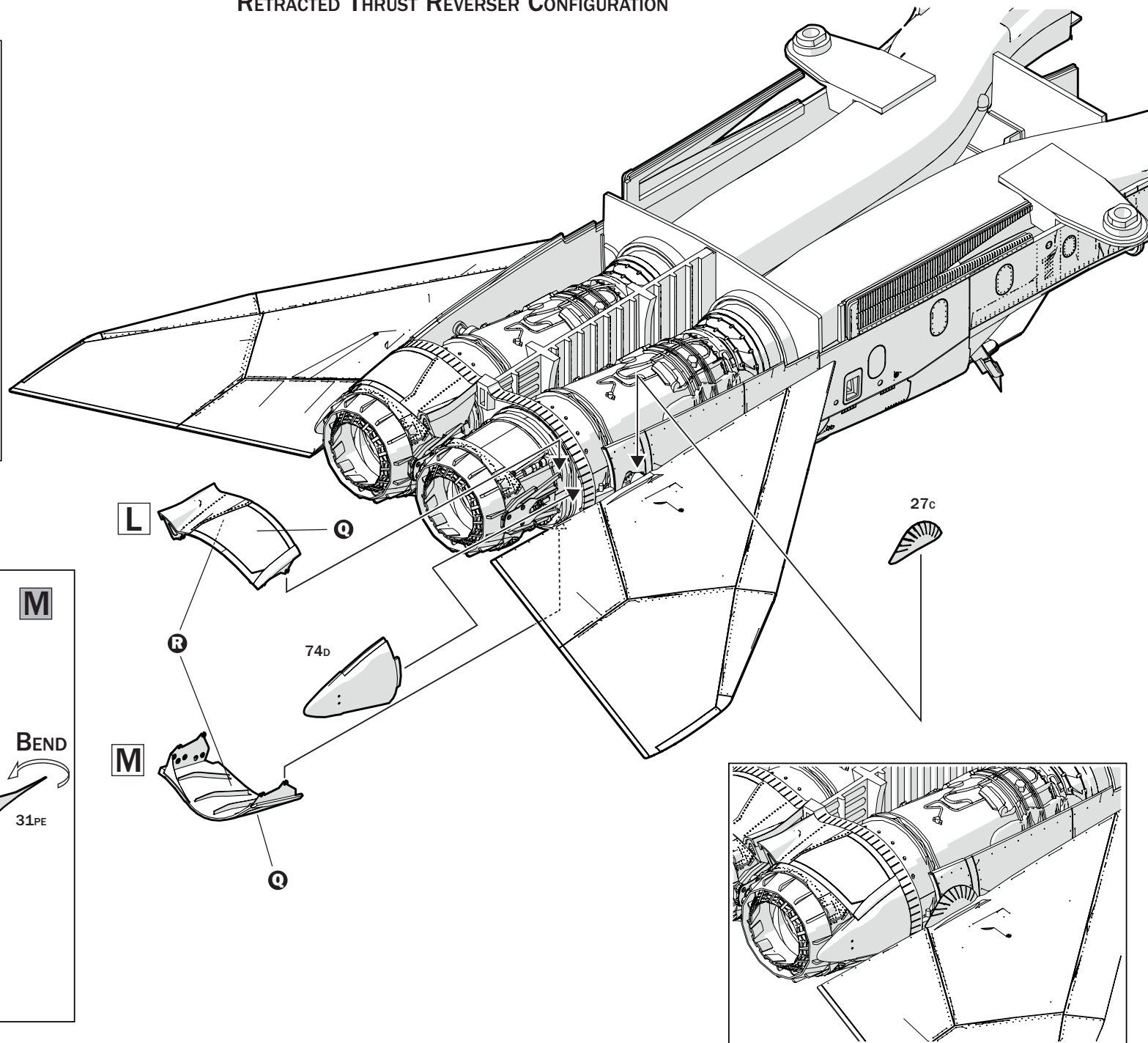
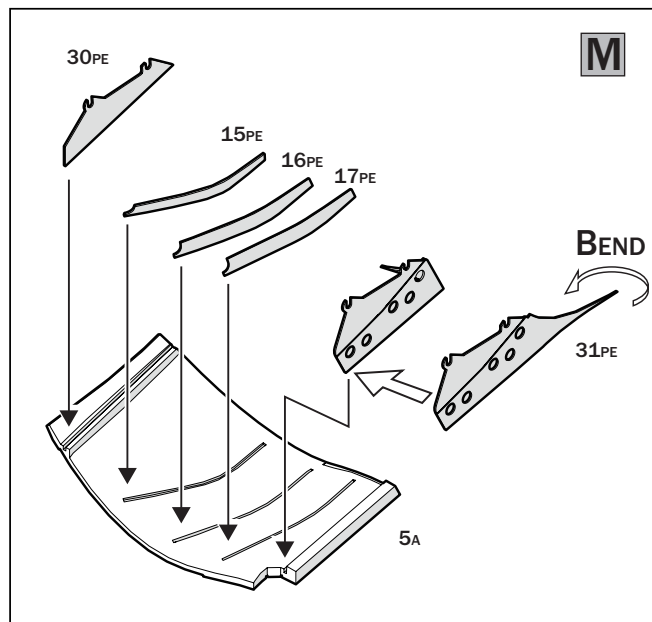
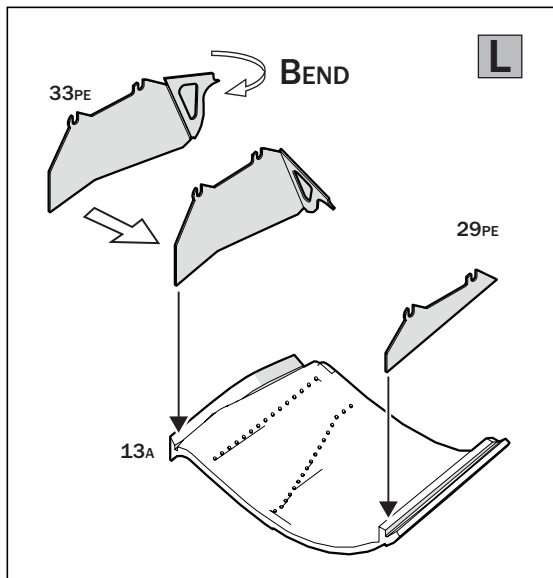




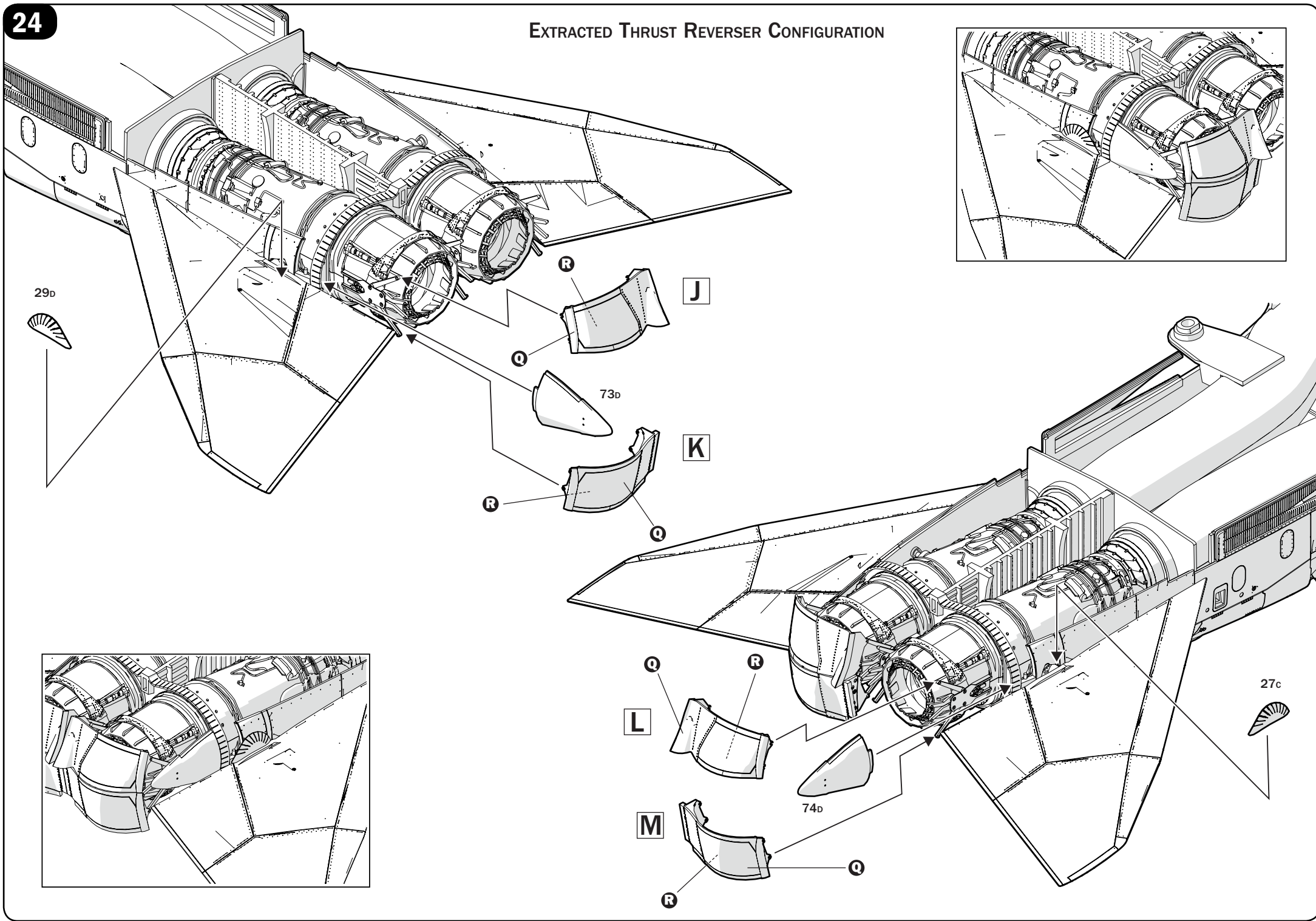
RETRACTED THRUST REVERSER CONFIGURATION



RETRACTED THRUST REVERSER CONFIGURATION

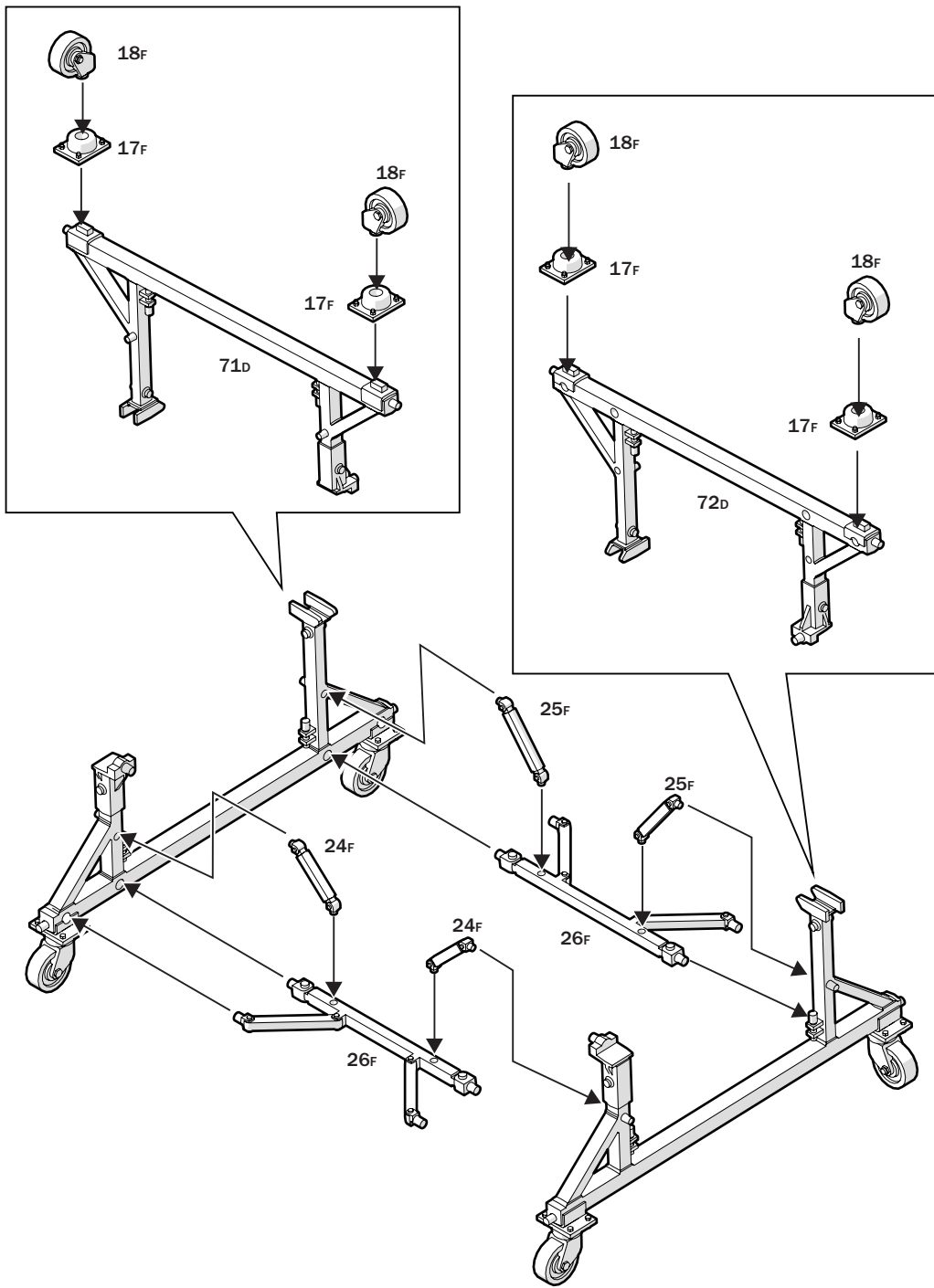


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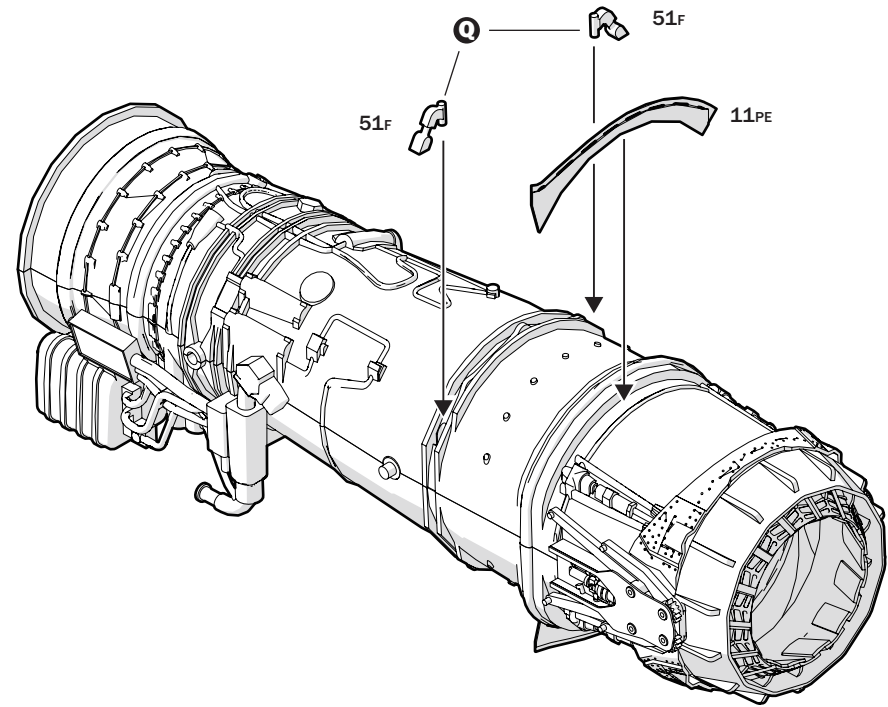
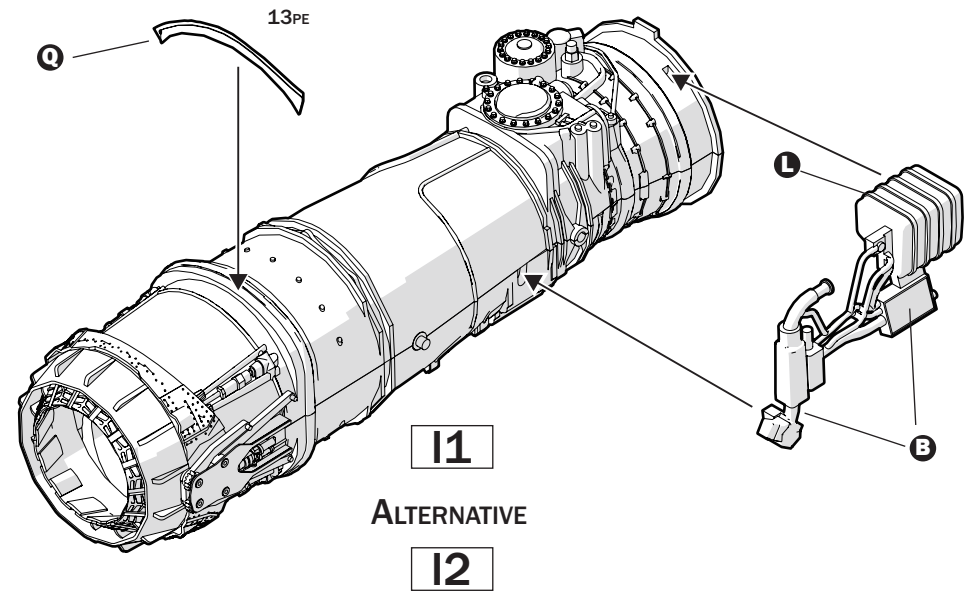




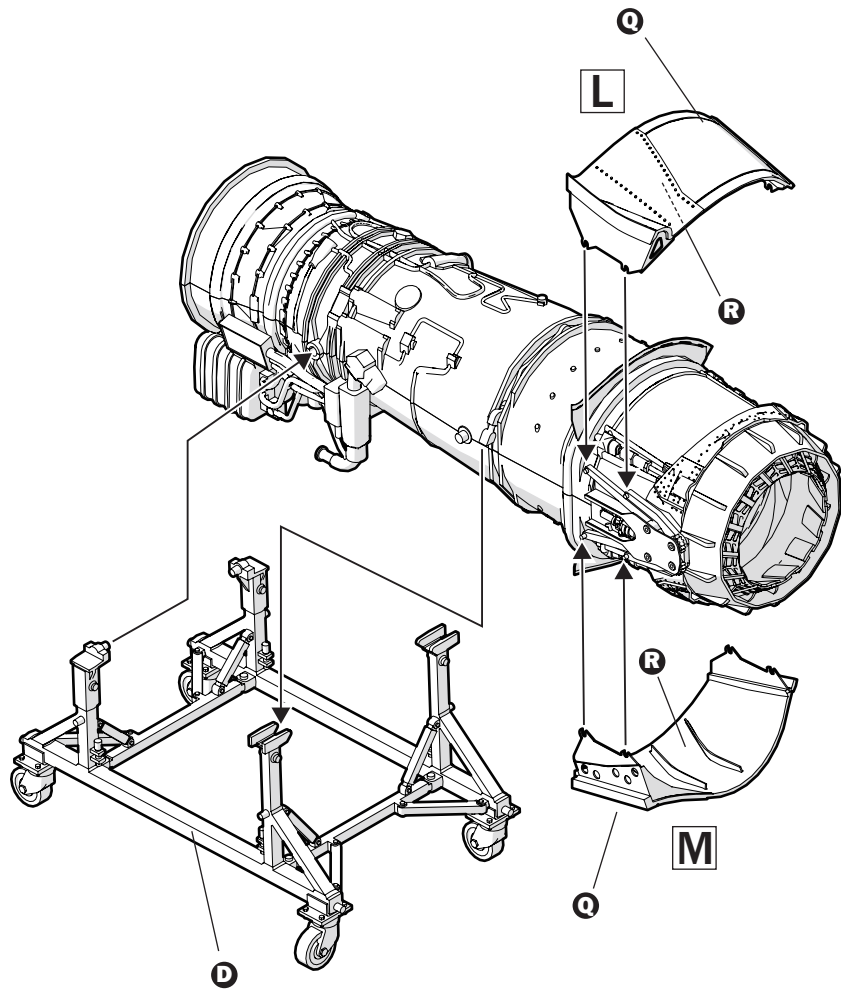
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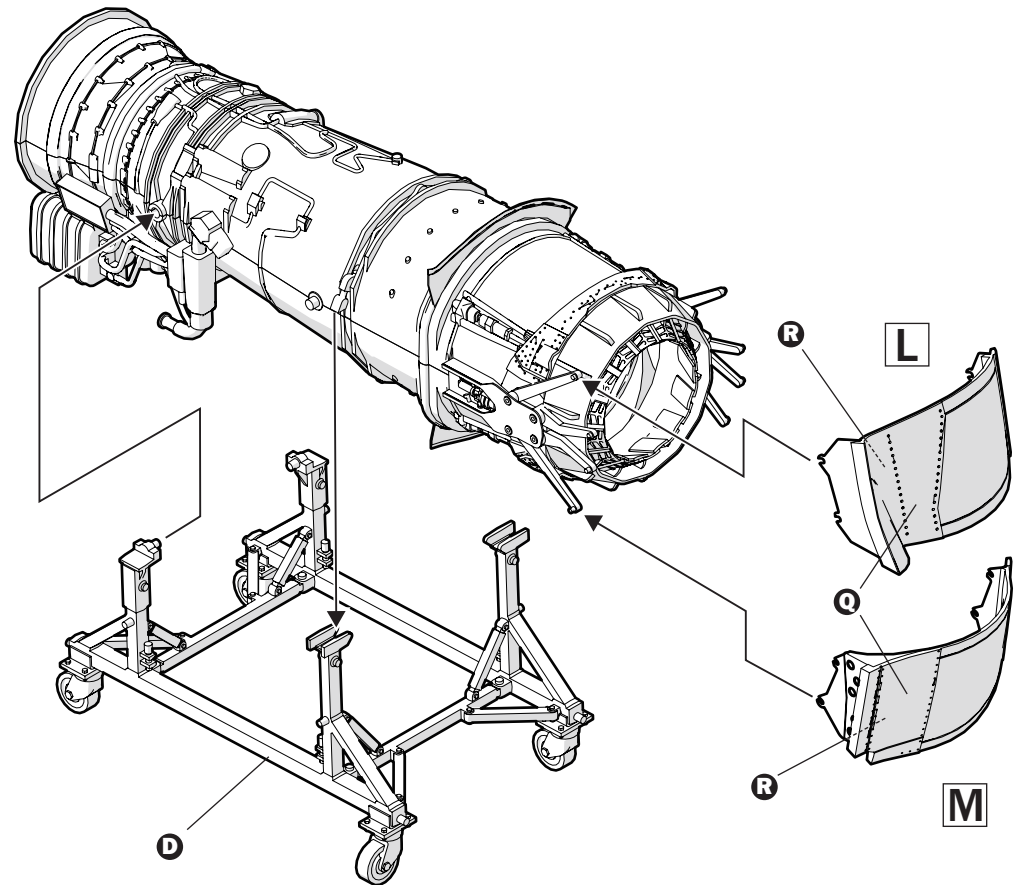
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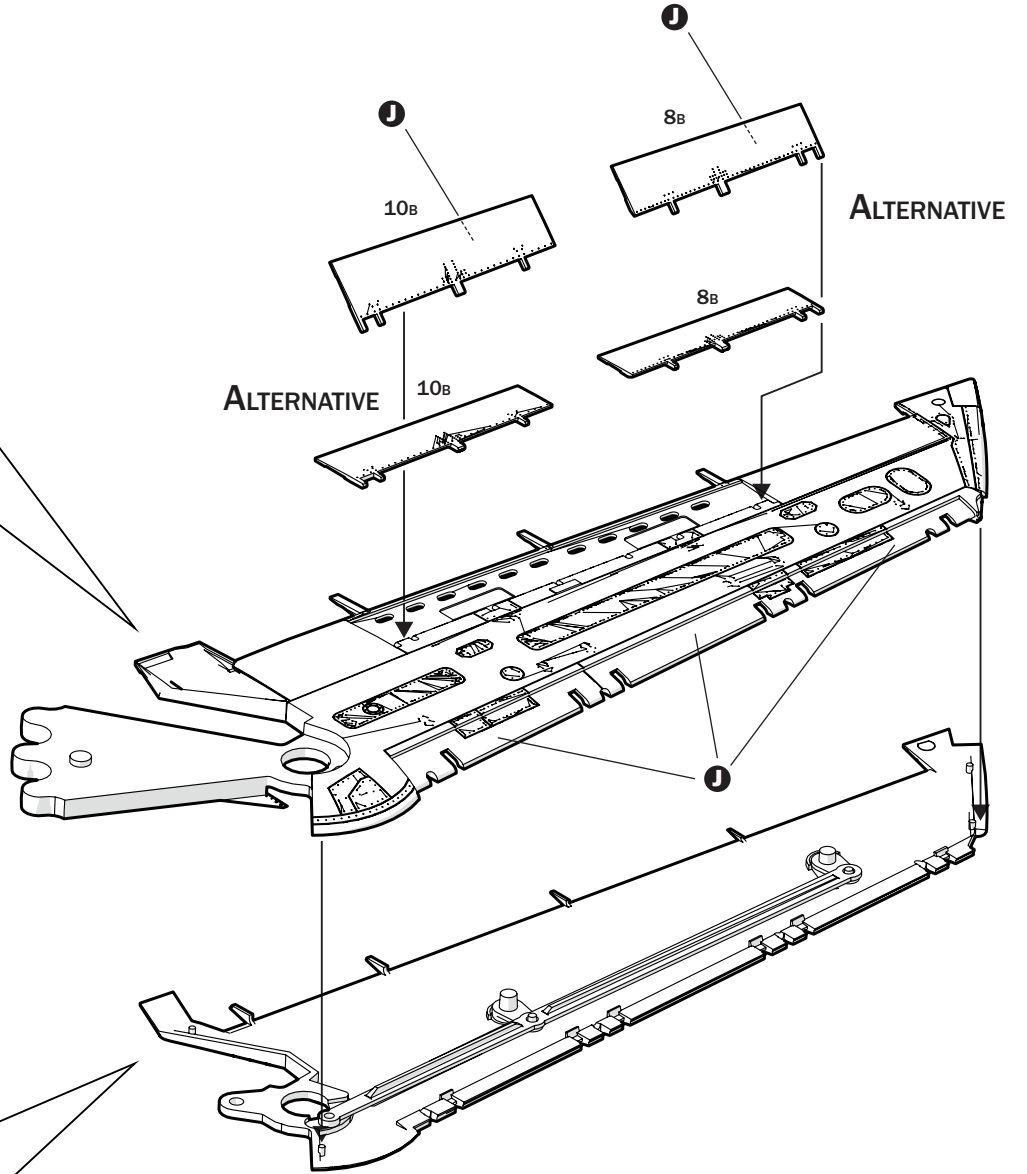
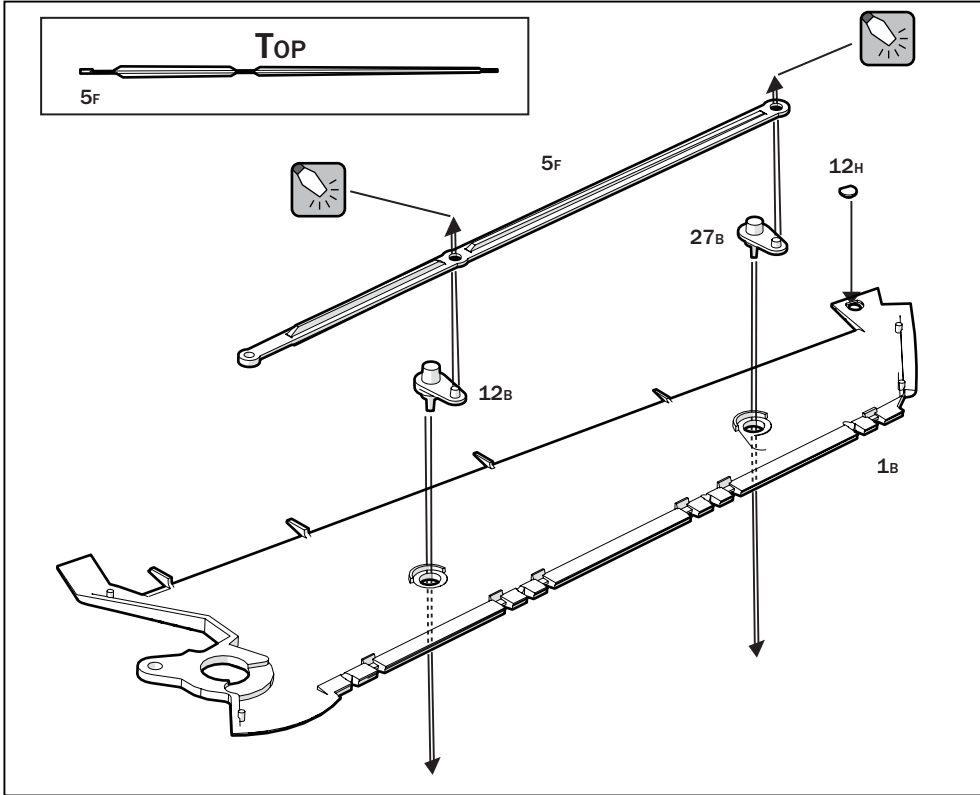
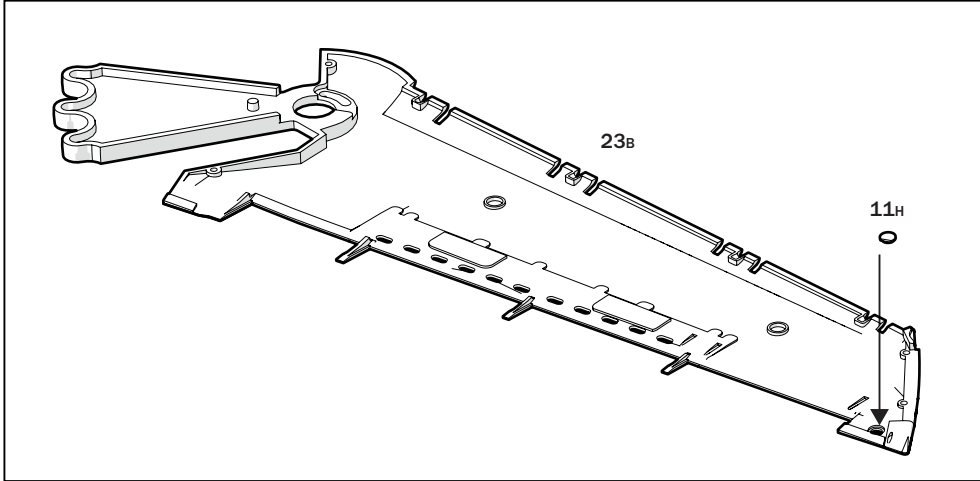


## RETRACTED THRUST REVERSER CONFIGURATION

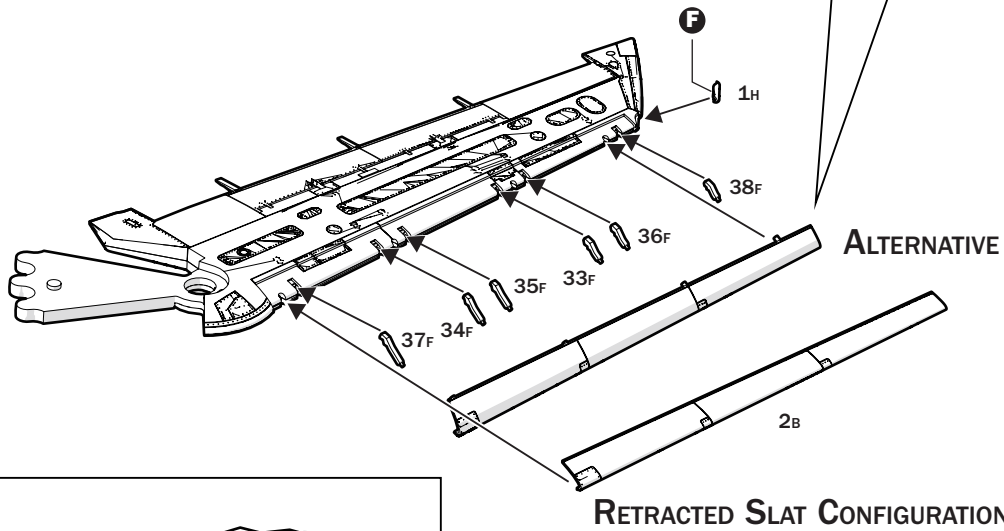
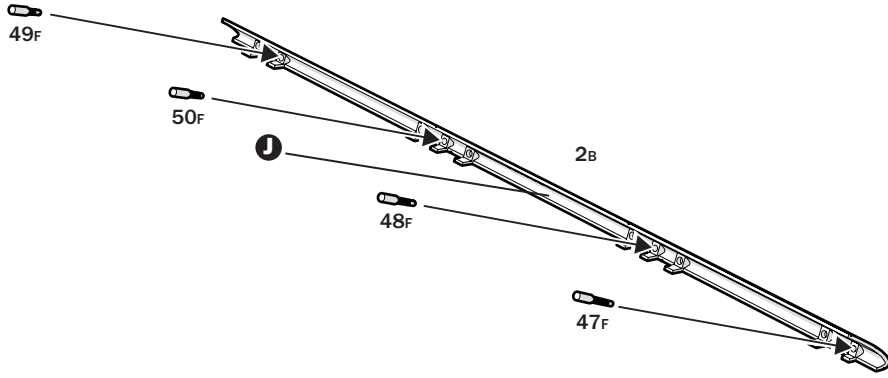


## EXTRACTED THRUST REVERSER CONFIGURATION

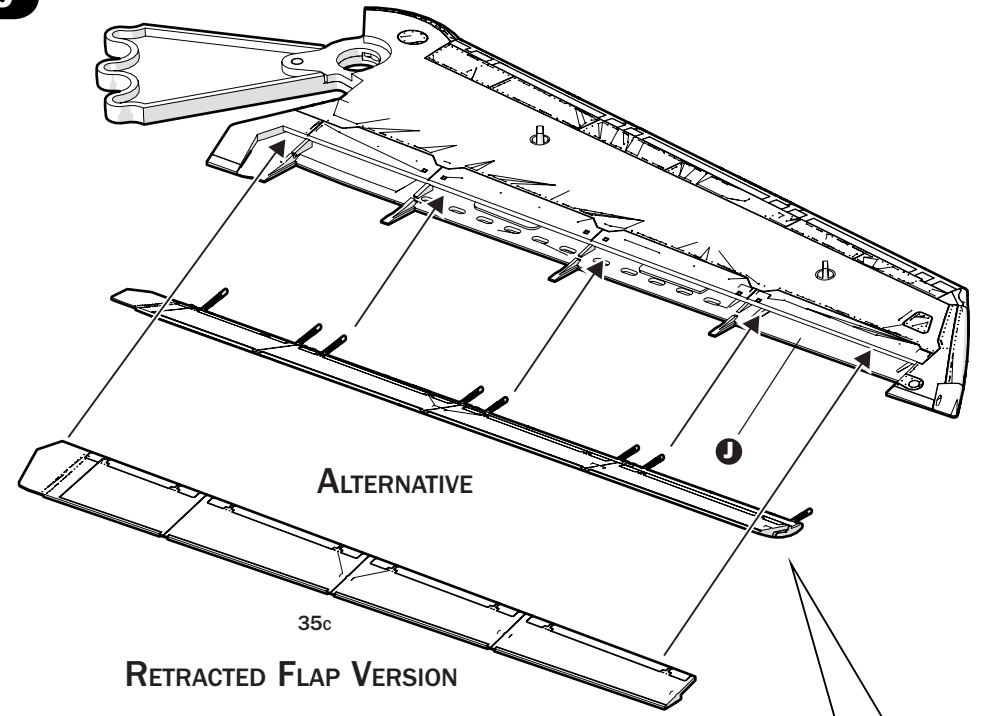
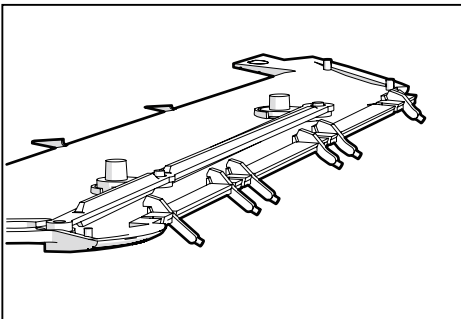




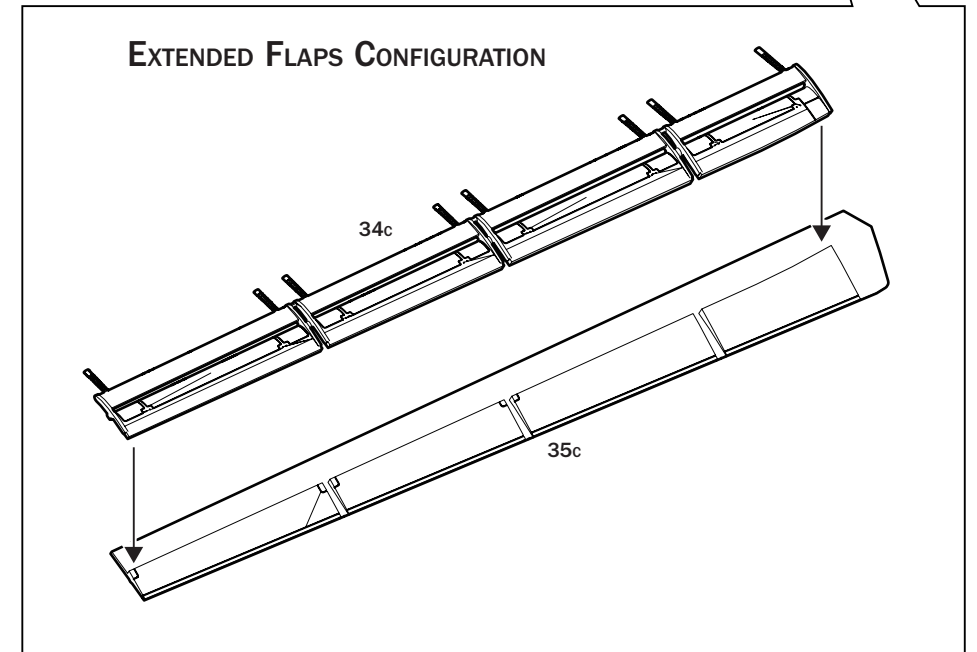
EXTENDED SLATS CONFIGURATION



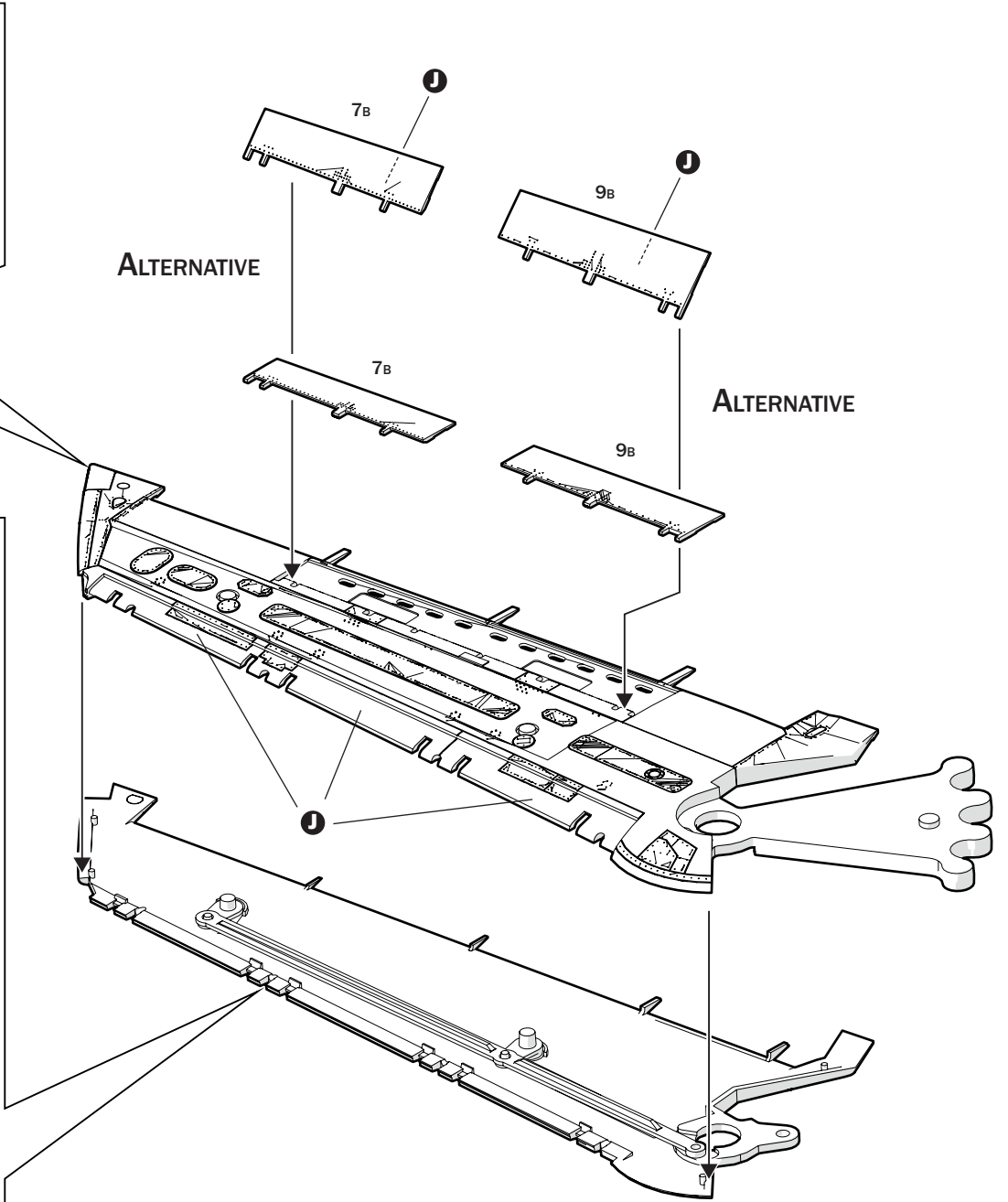
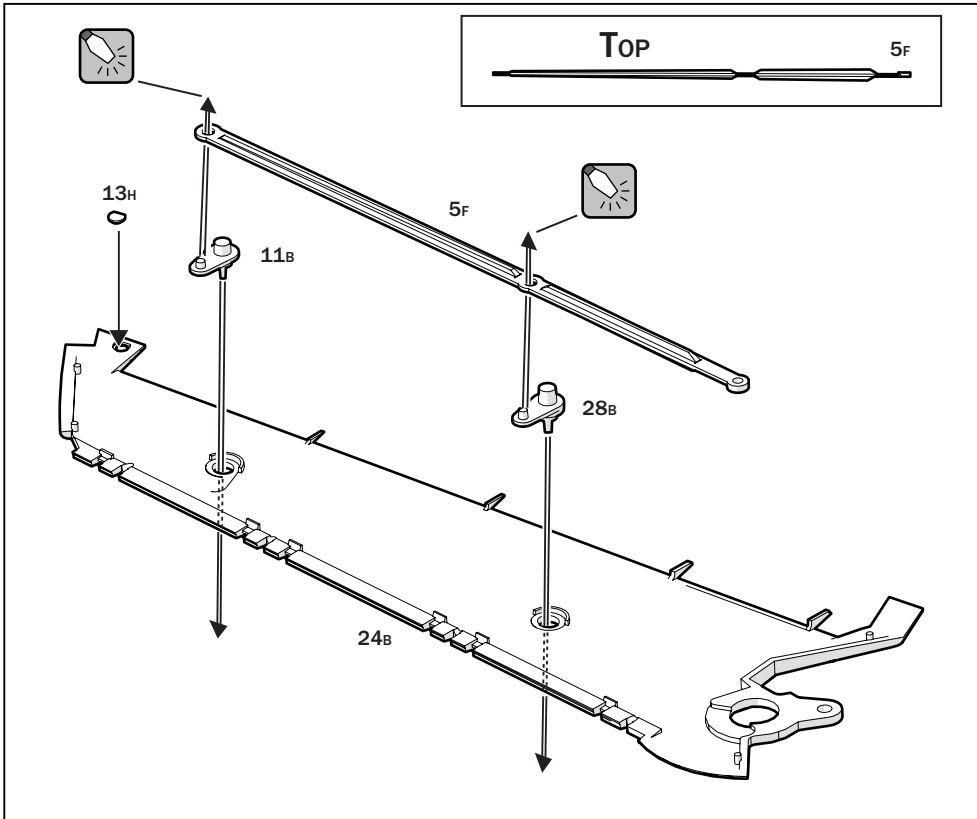
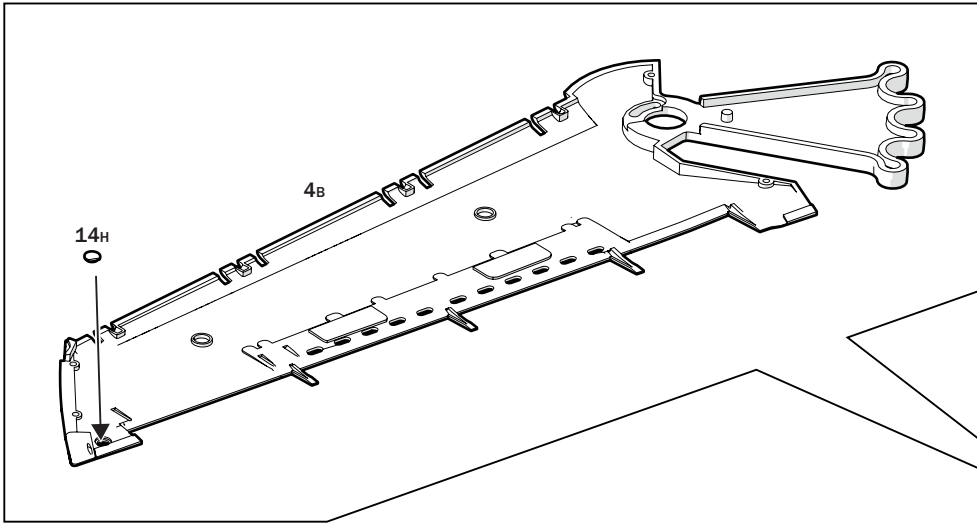
RETRACTED SLAT CONFIGURATION



RETRACTED FLAP VERSION

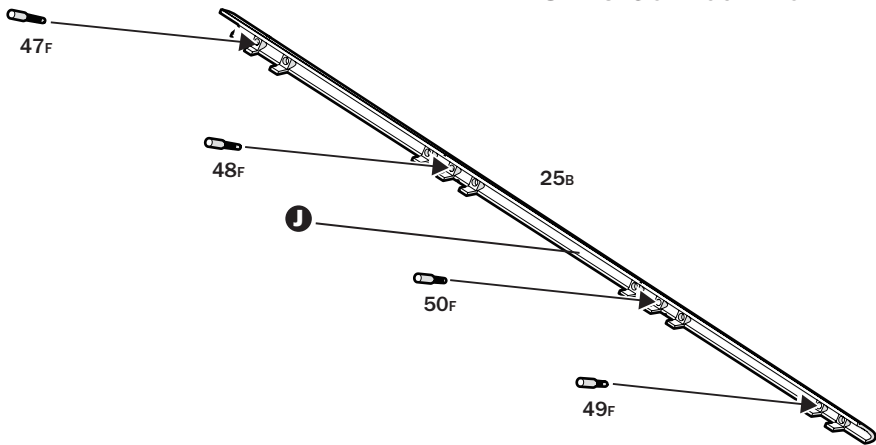


EXTENDED FLAPS CONFIGURATION

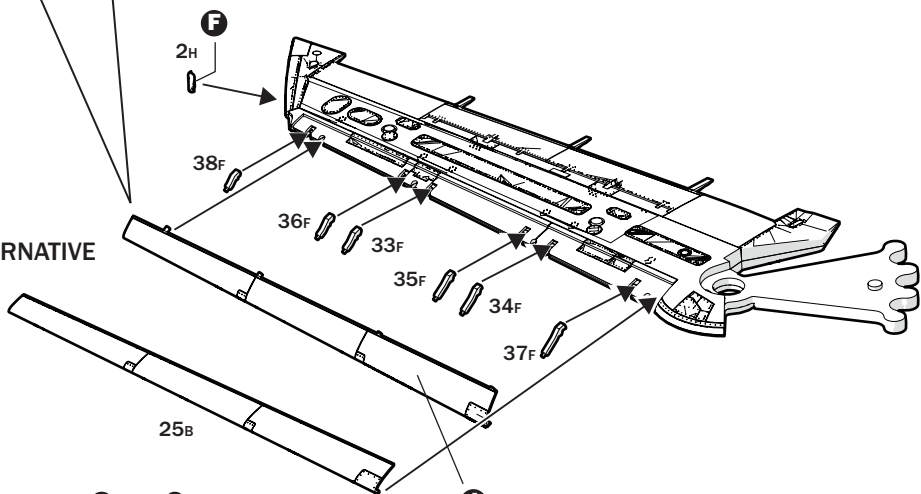


32

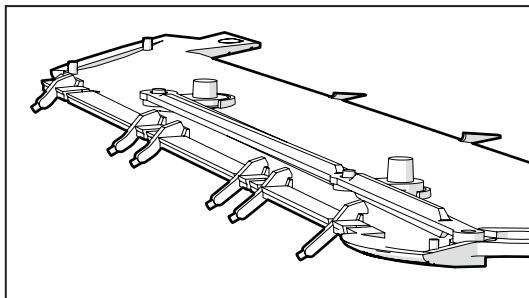
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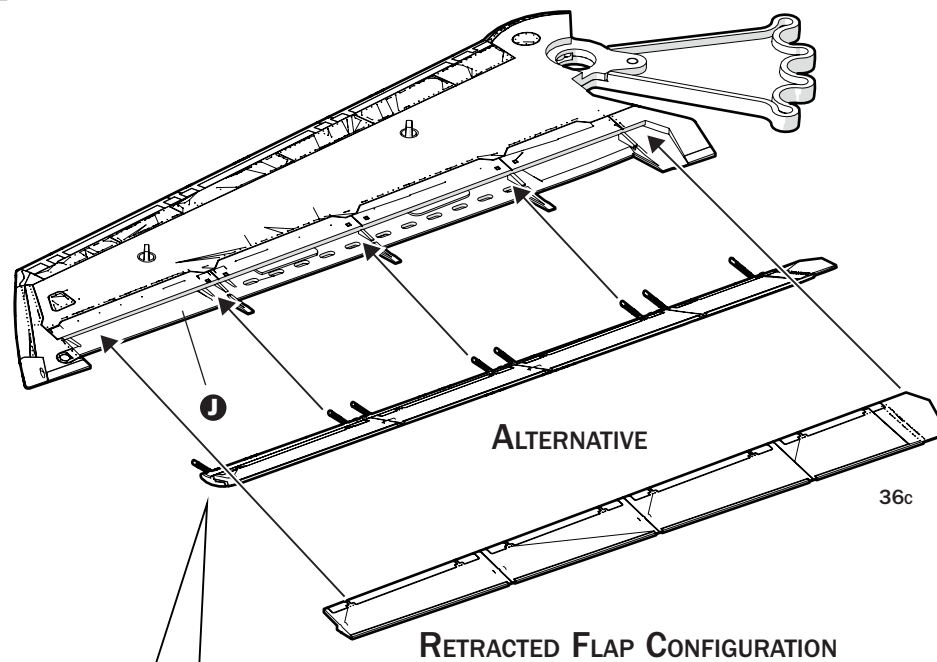
ALTERNATIVE



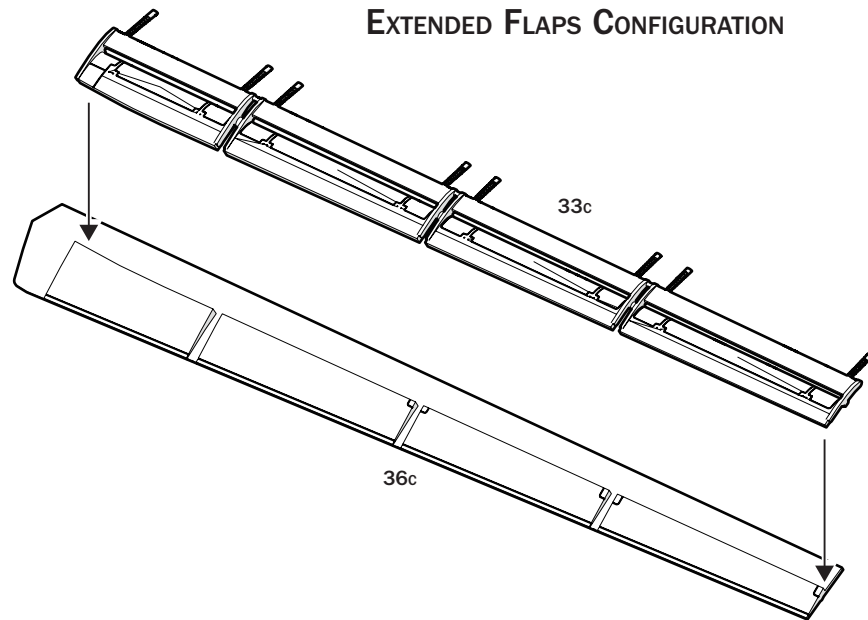
RETRACTED SLAT CONFIGURATION



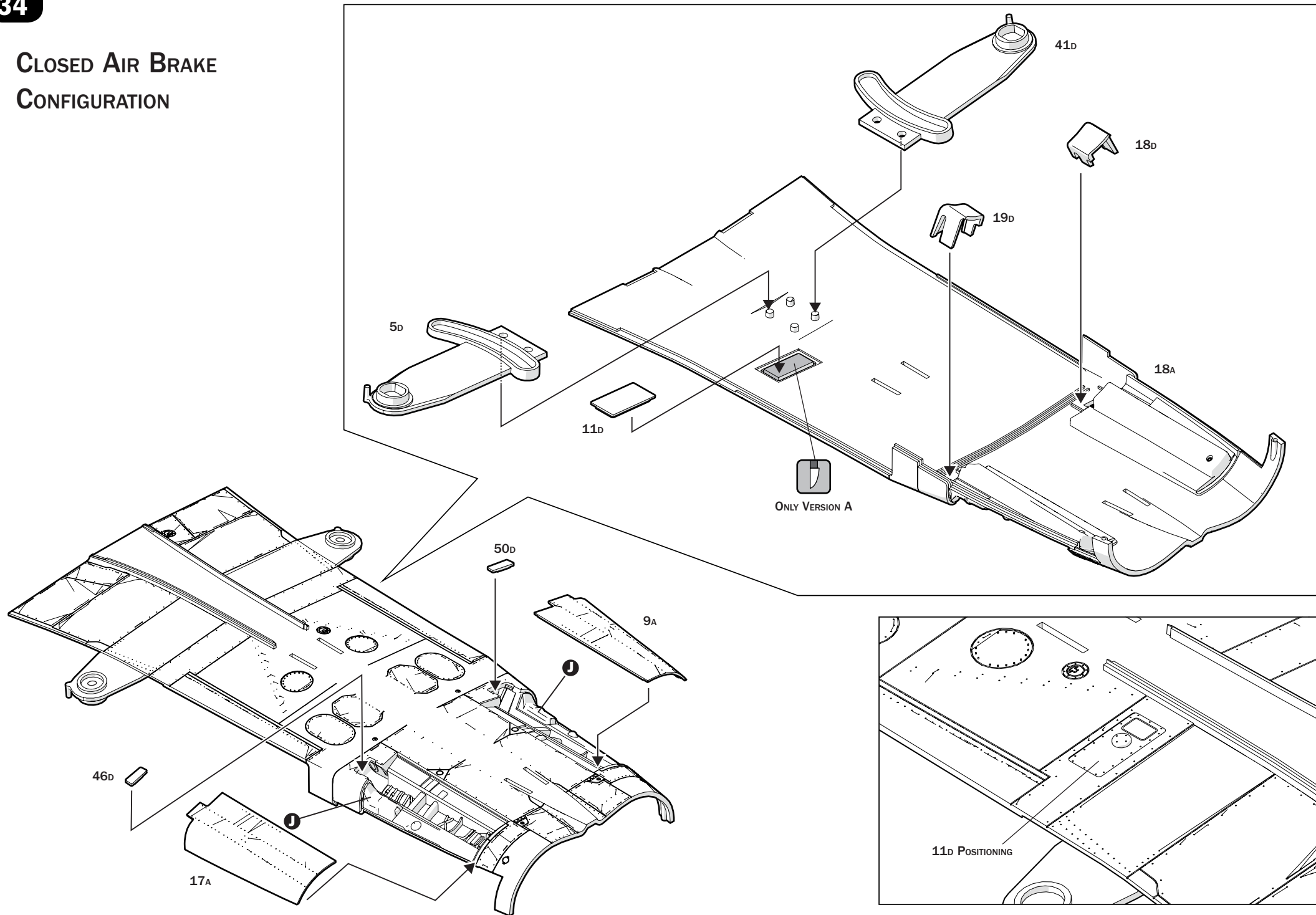
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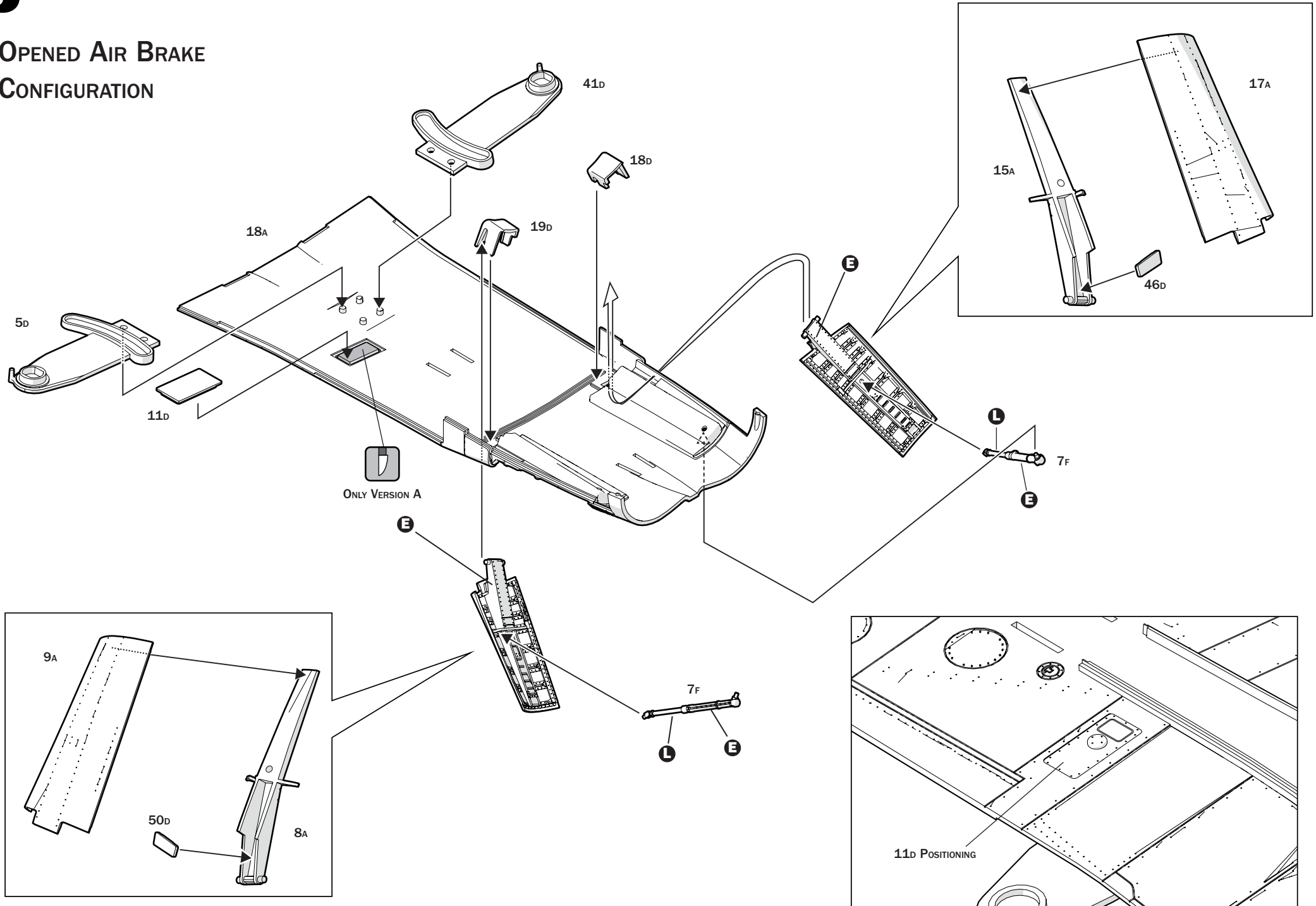
EXTENDED FLAPS CONFIGURATION



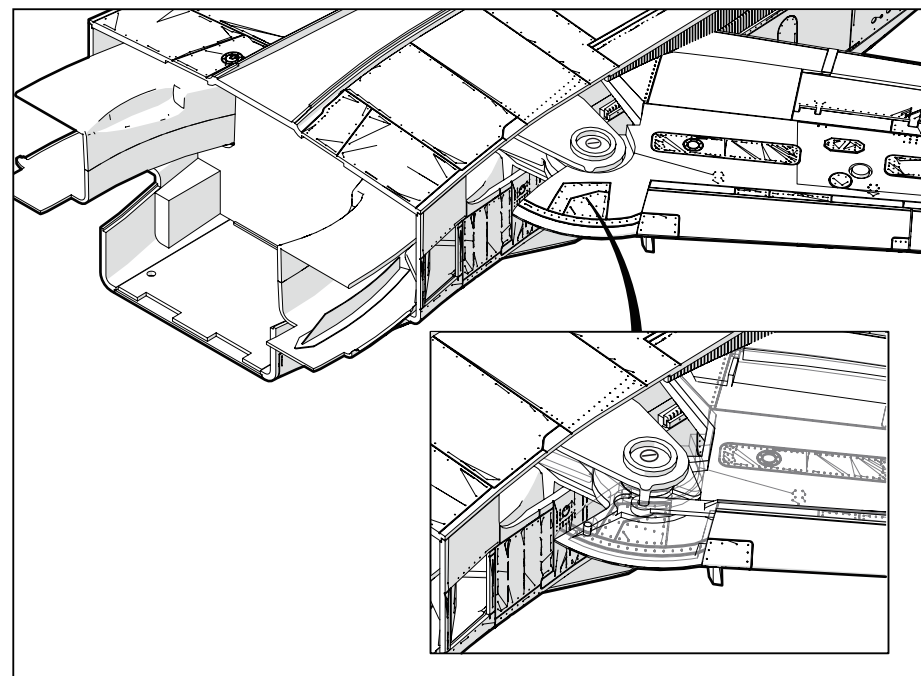
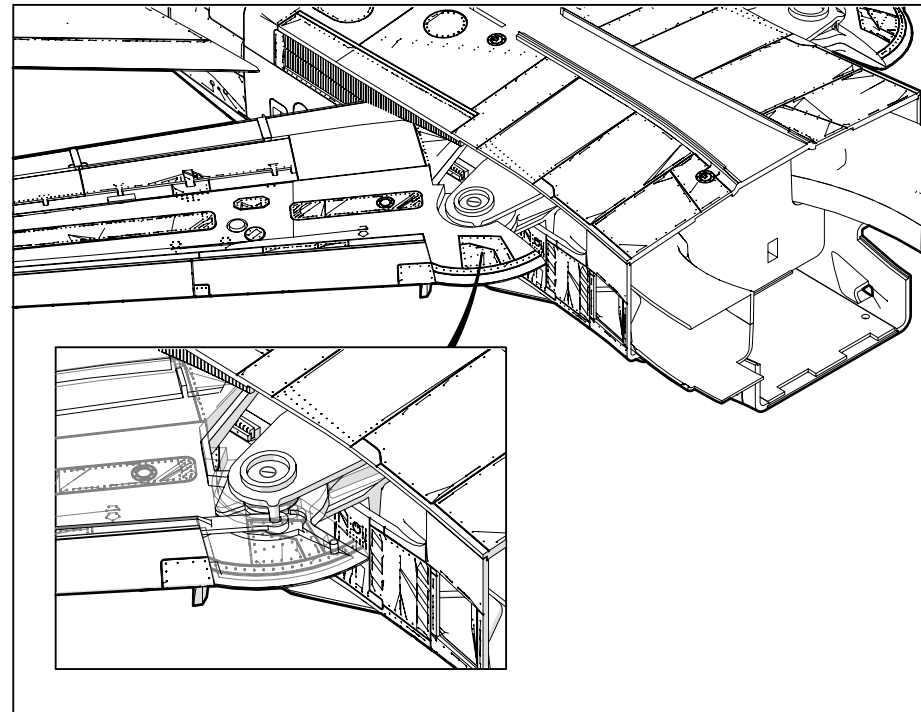
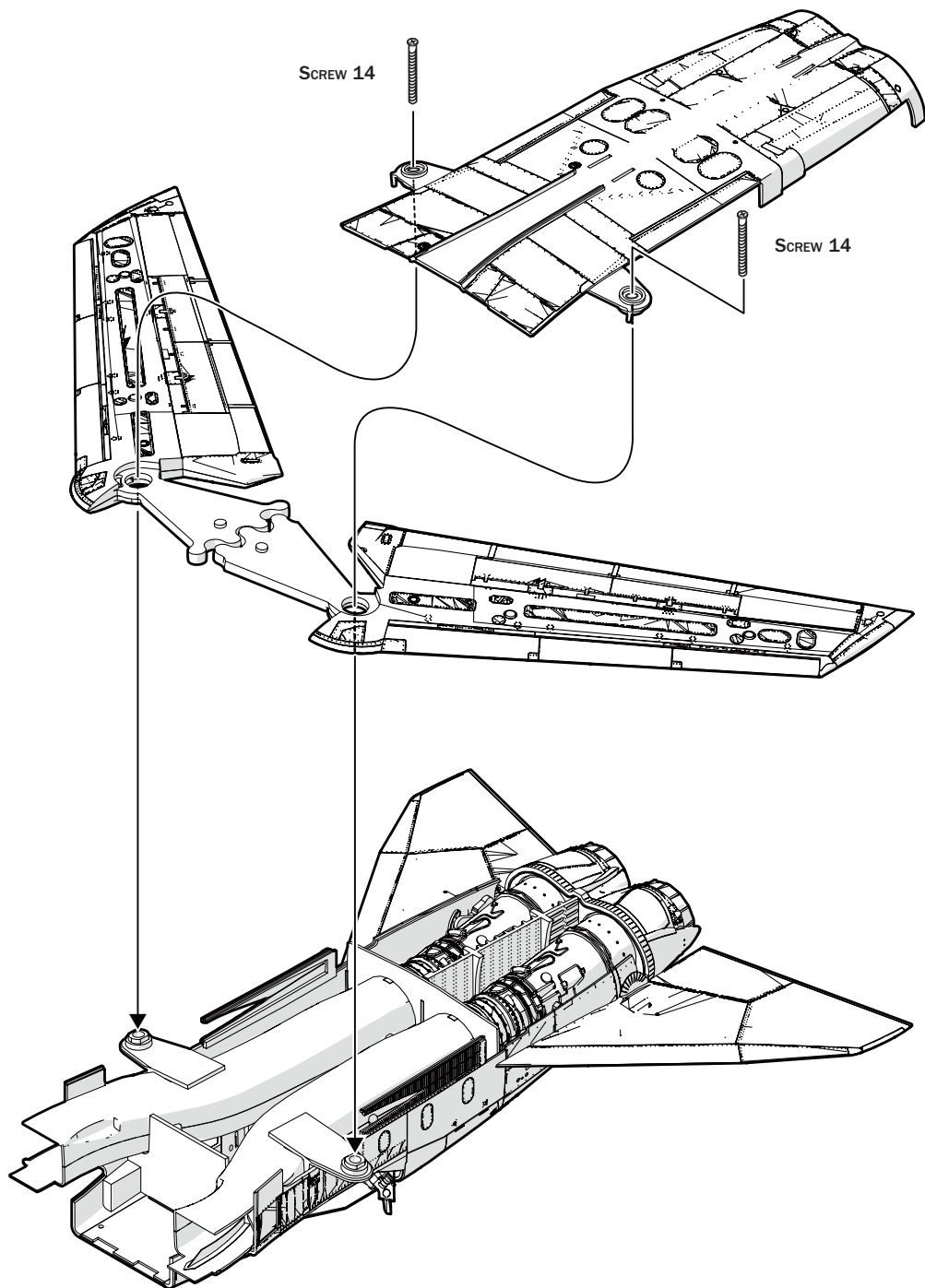
# CLOSED AIR BRAKE CONFIGURATION

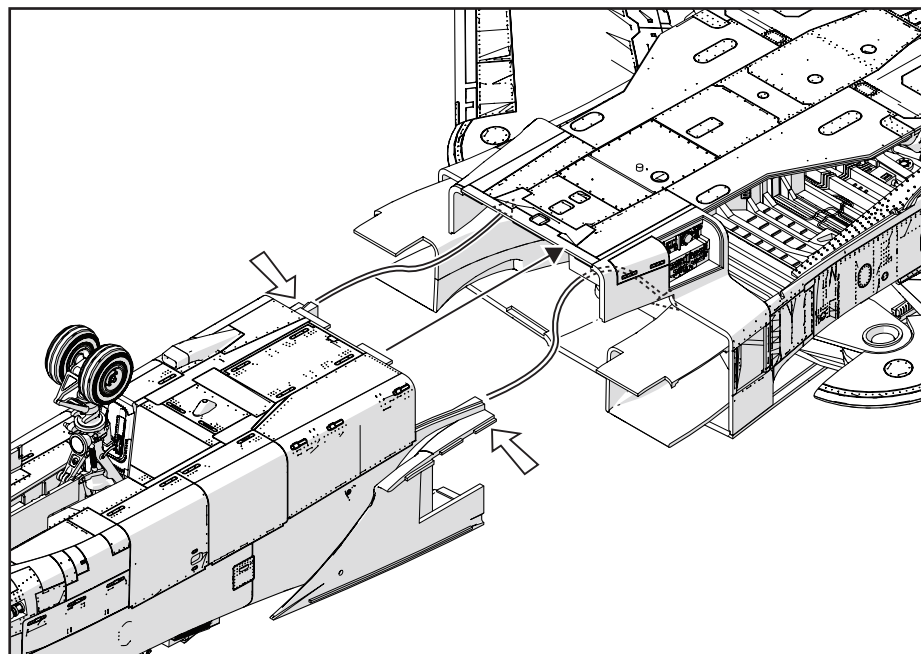
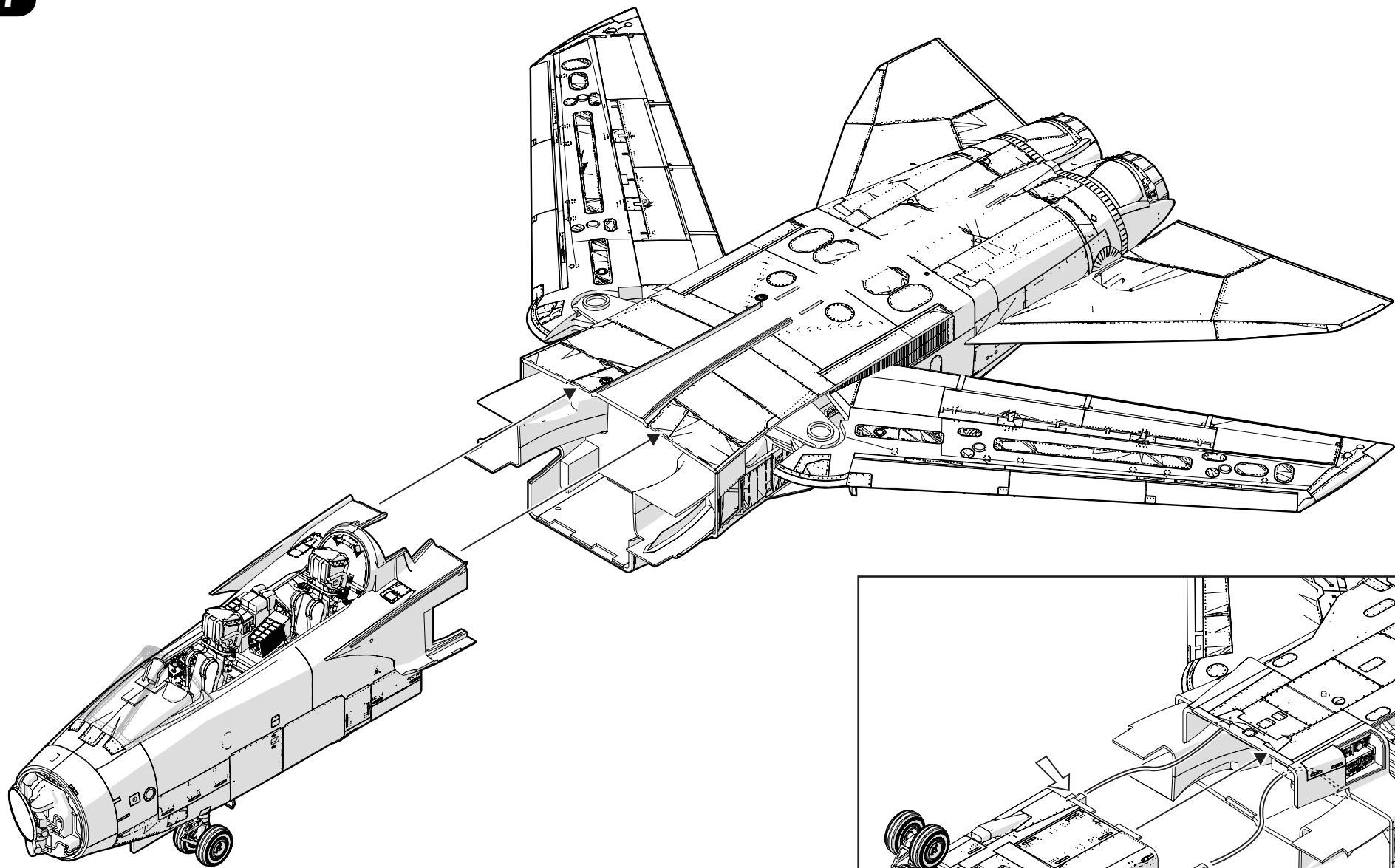


OPENED AIR BRAKE  
CONFIGURATION



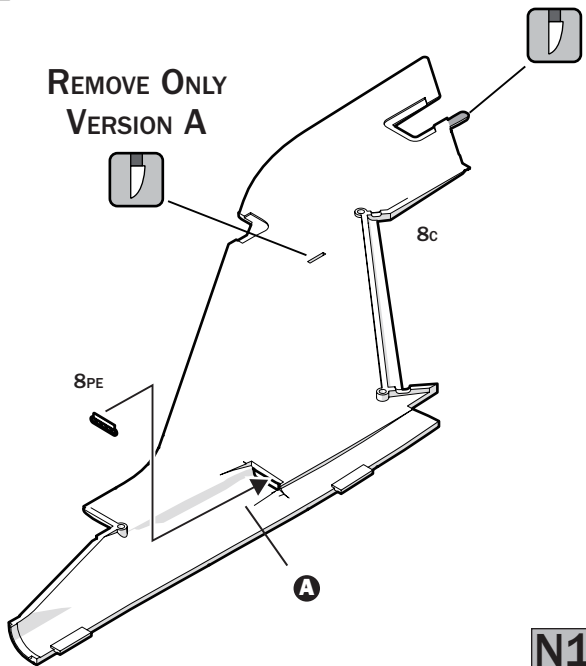






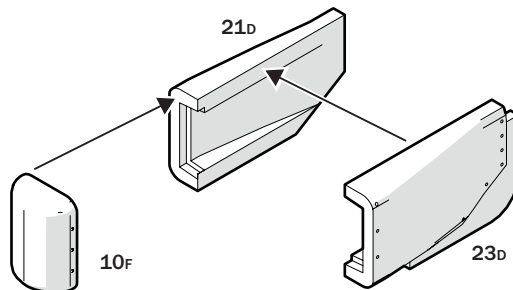
REMOVE ONLY VERSION C

REMOVE ONLY VERSION A

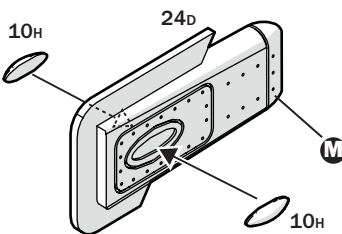


N1

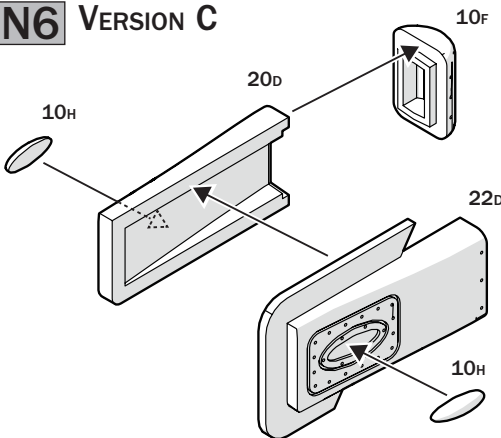
N2 VERSION C



N4 VERSIONS A - B

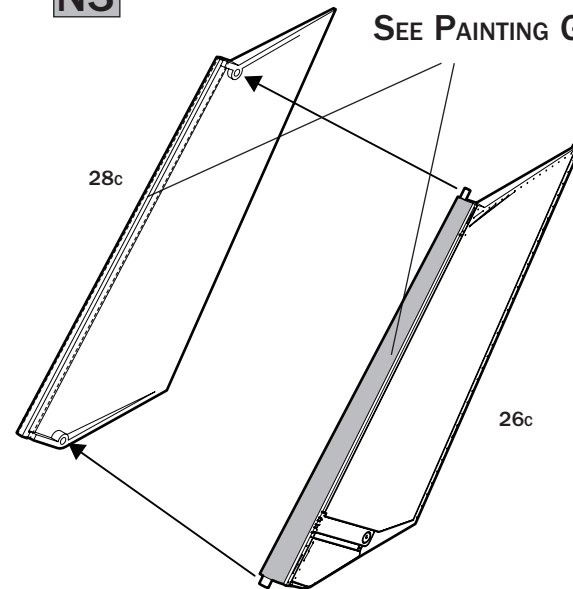


N6 VERSION C



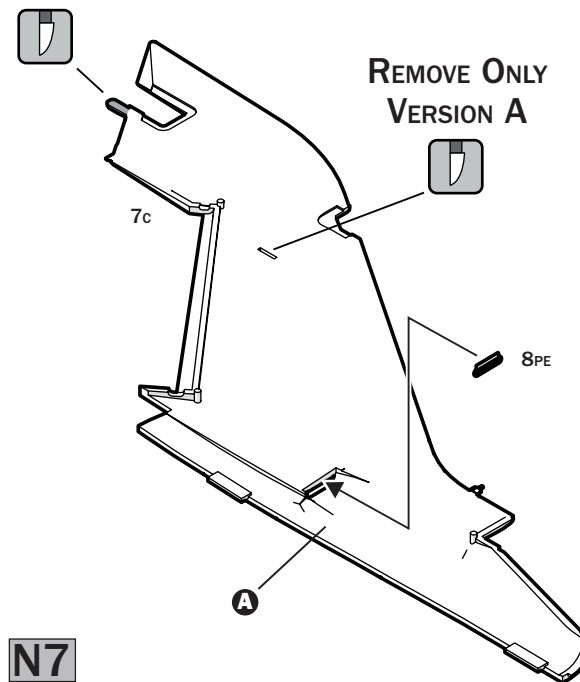
N3

FOR RUDDER COLORING  
SEE PAINTING GUIDE



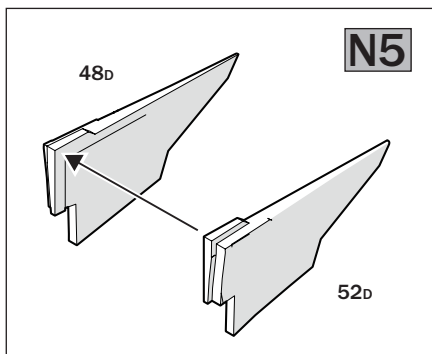
REMOVE ONLY VERSION C

REMOVE ONLY VERSION A

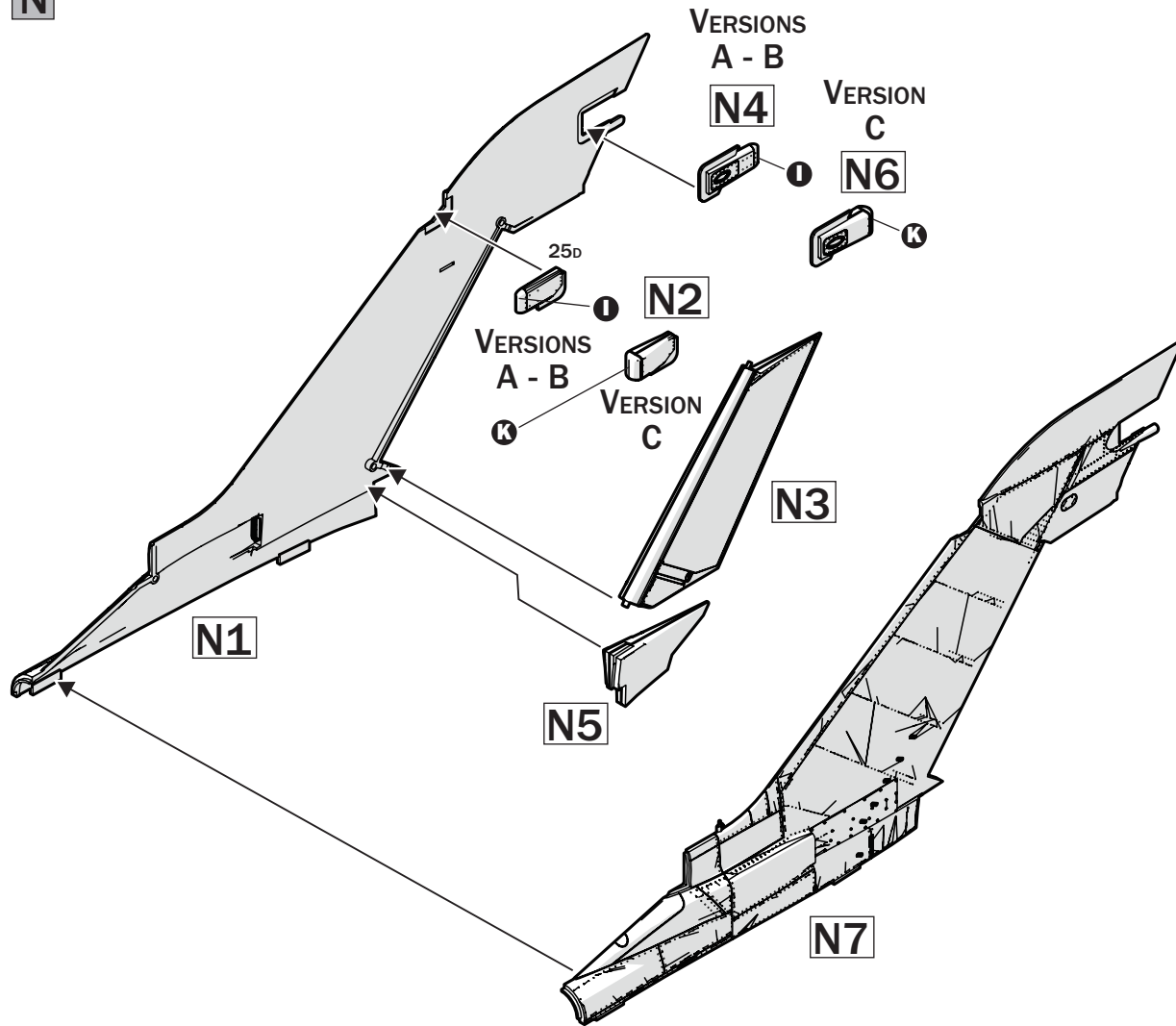


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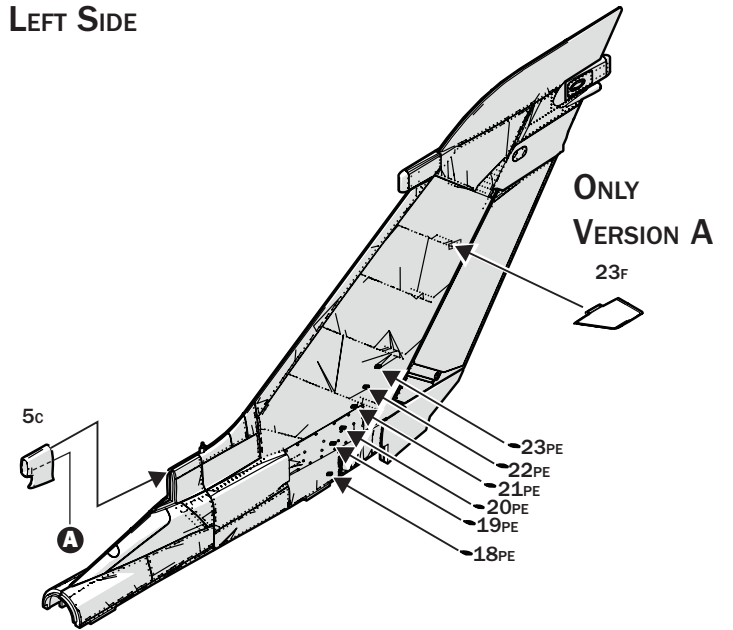
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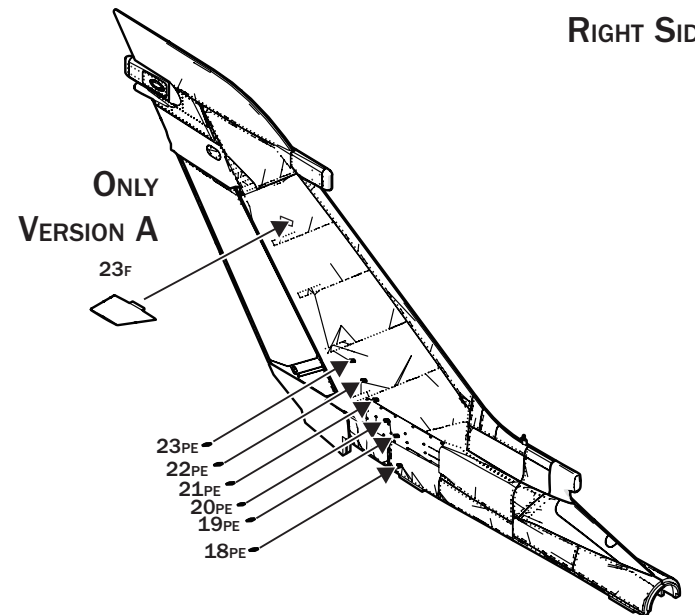
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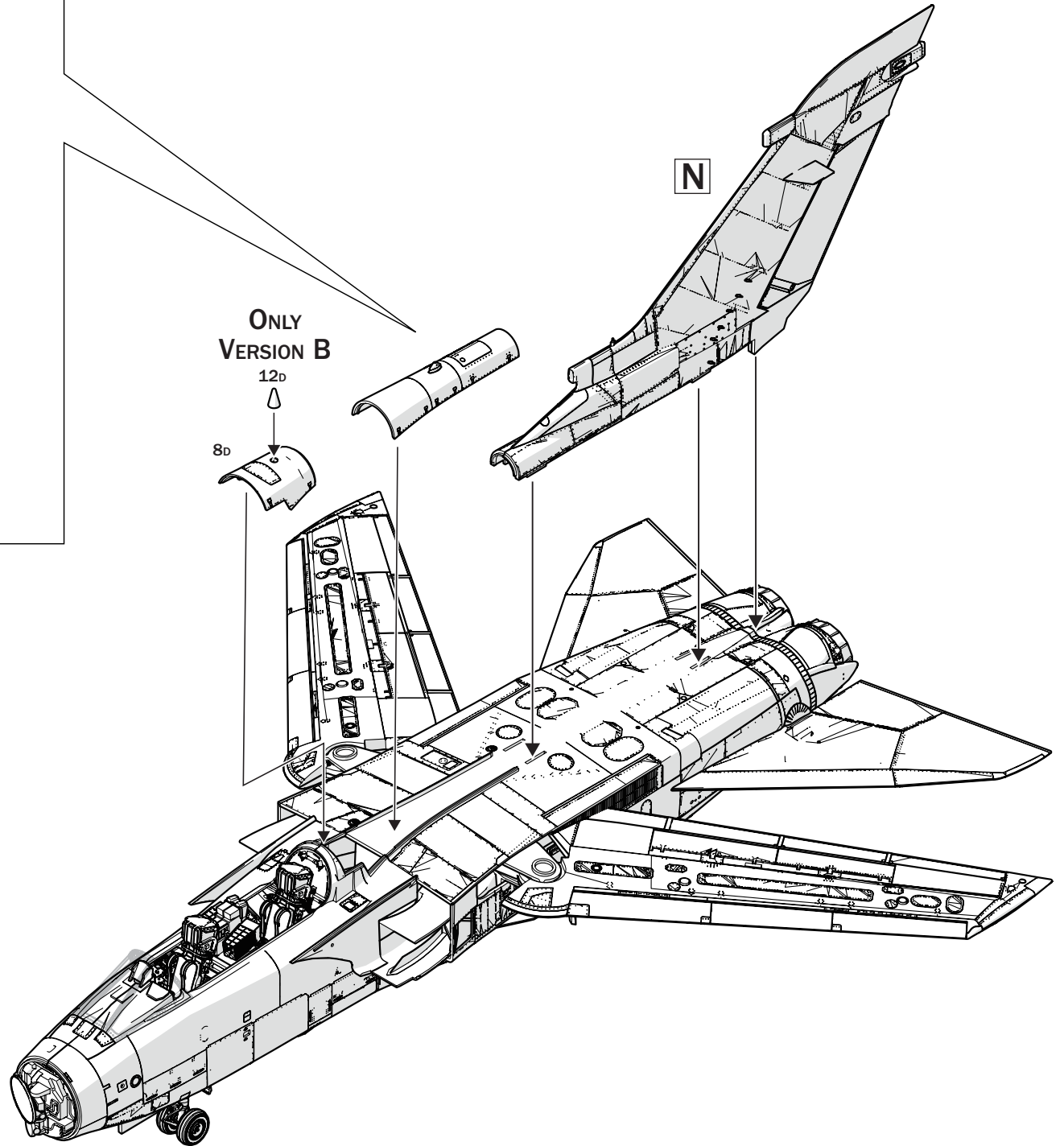
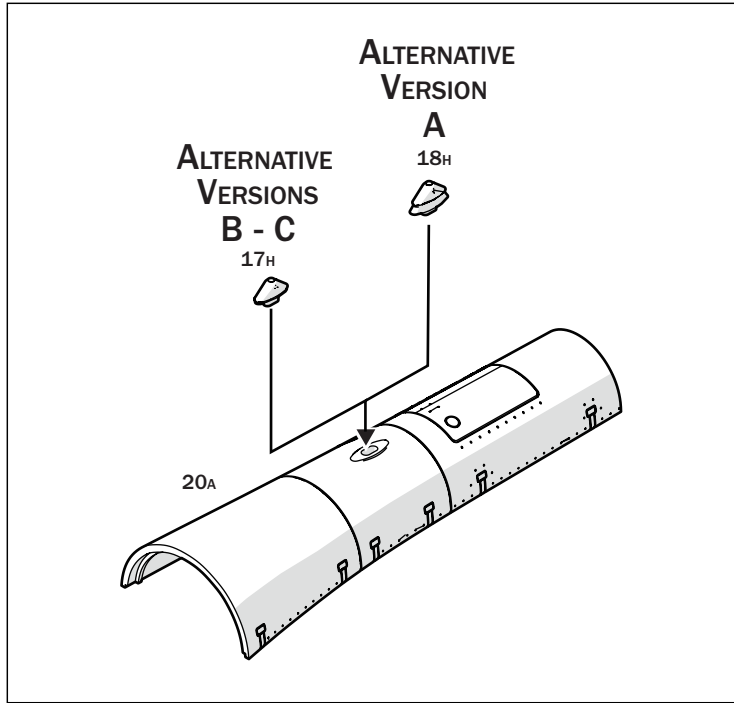


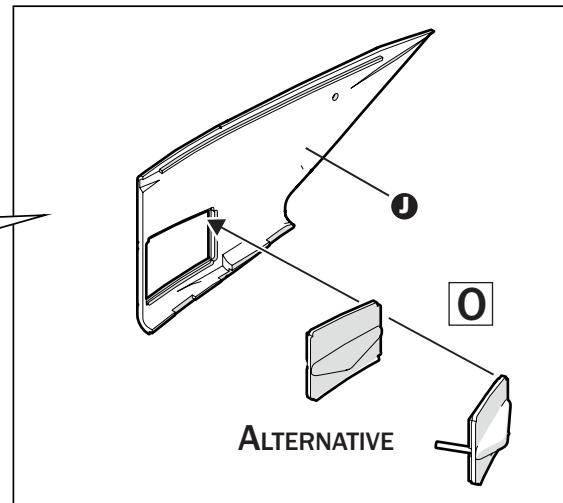
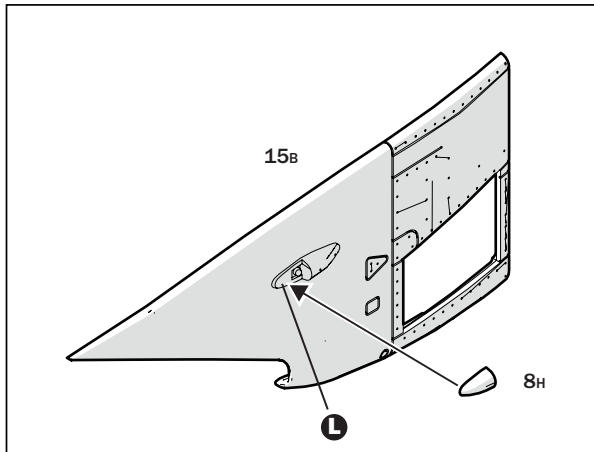
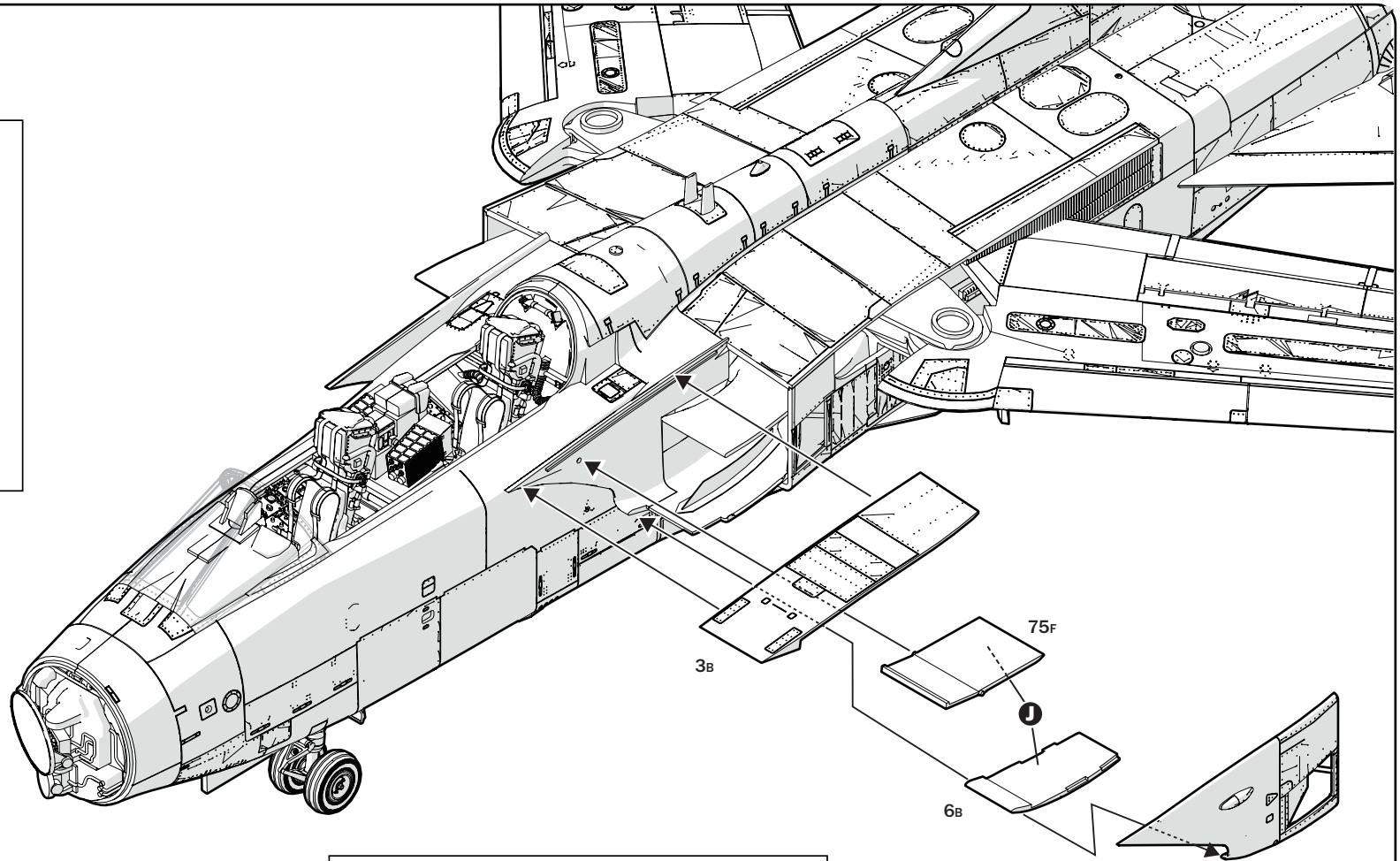
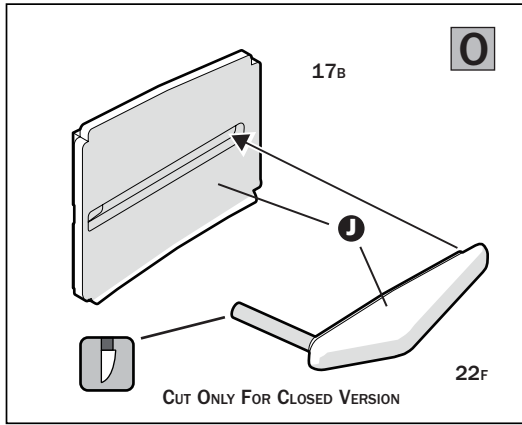
LEFT SIDE

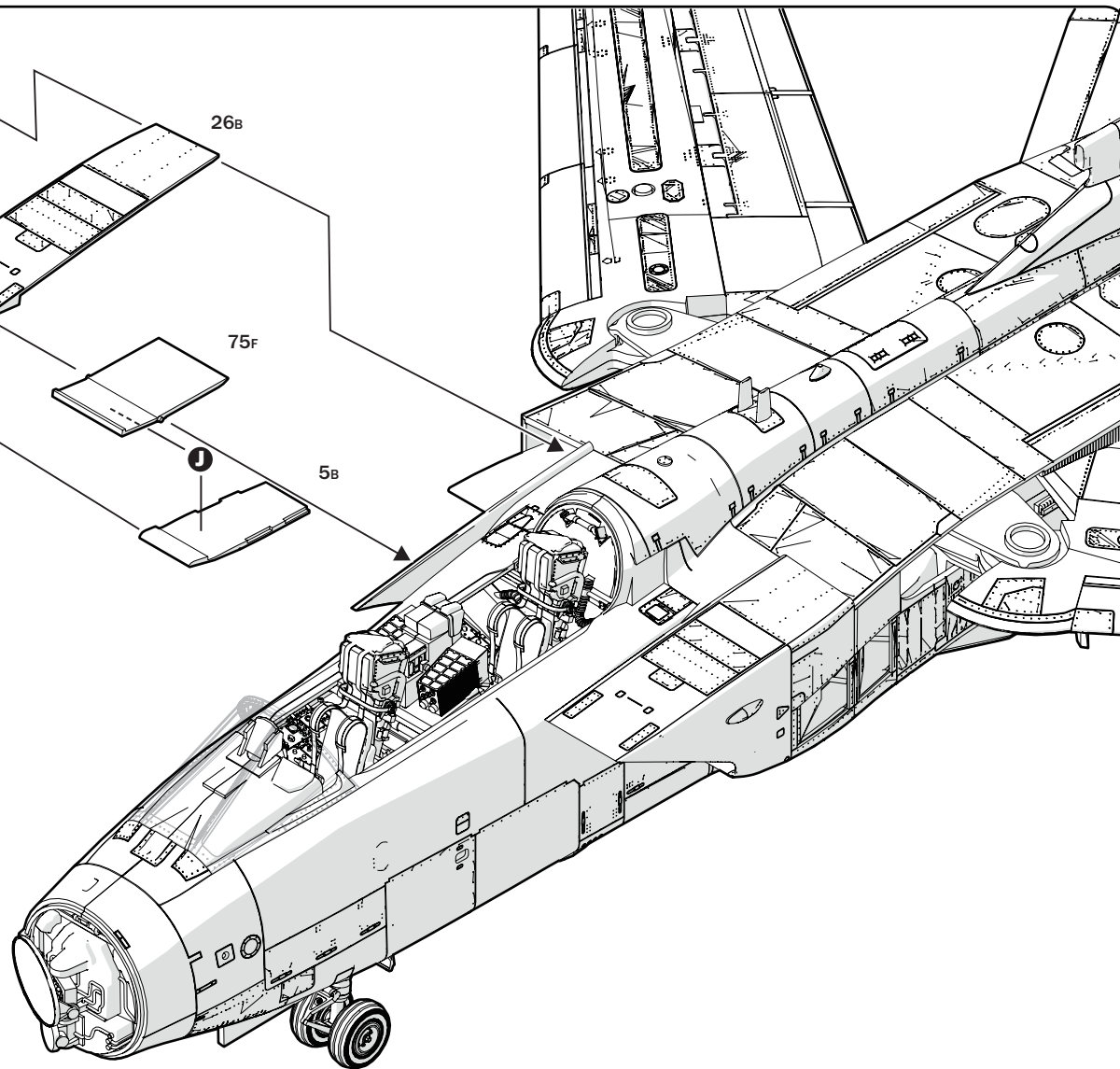
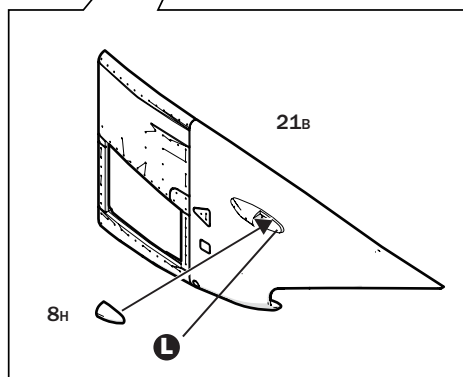
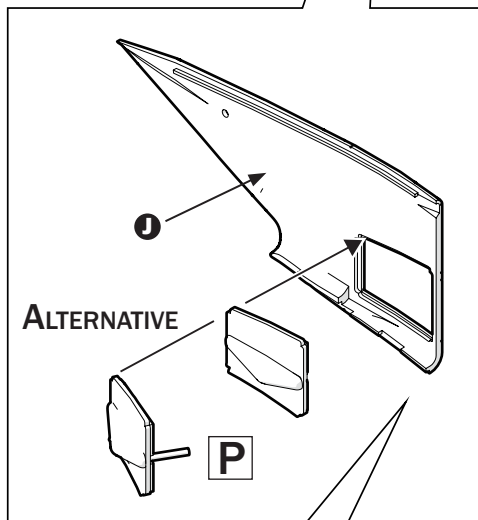
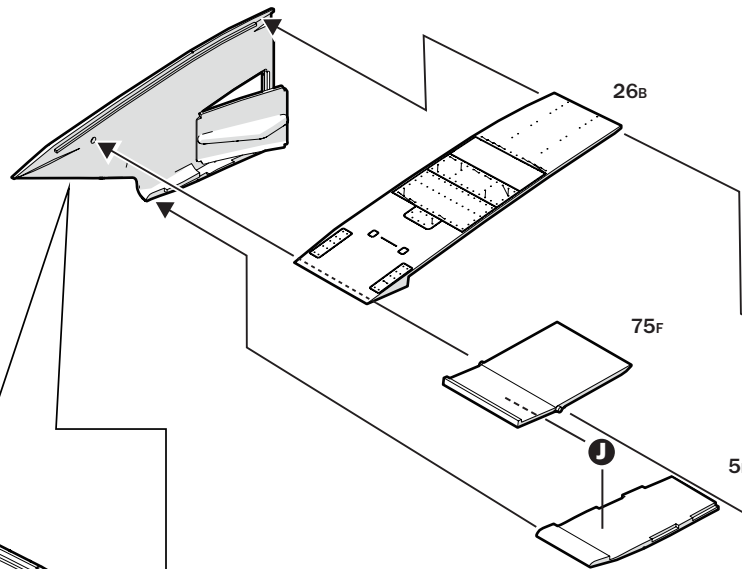
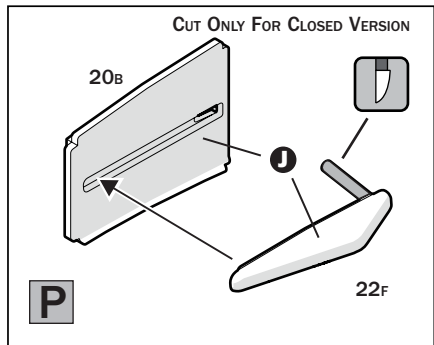


RIGHT SIDE

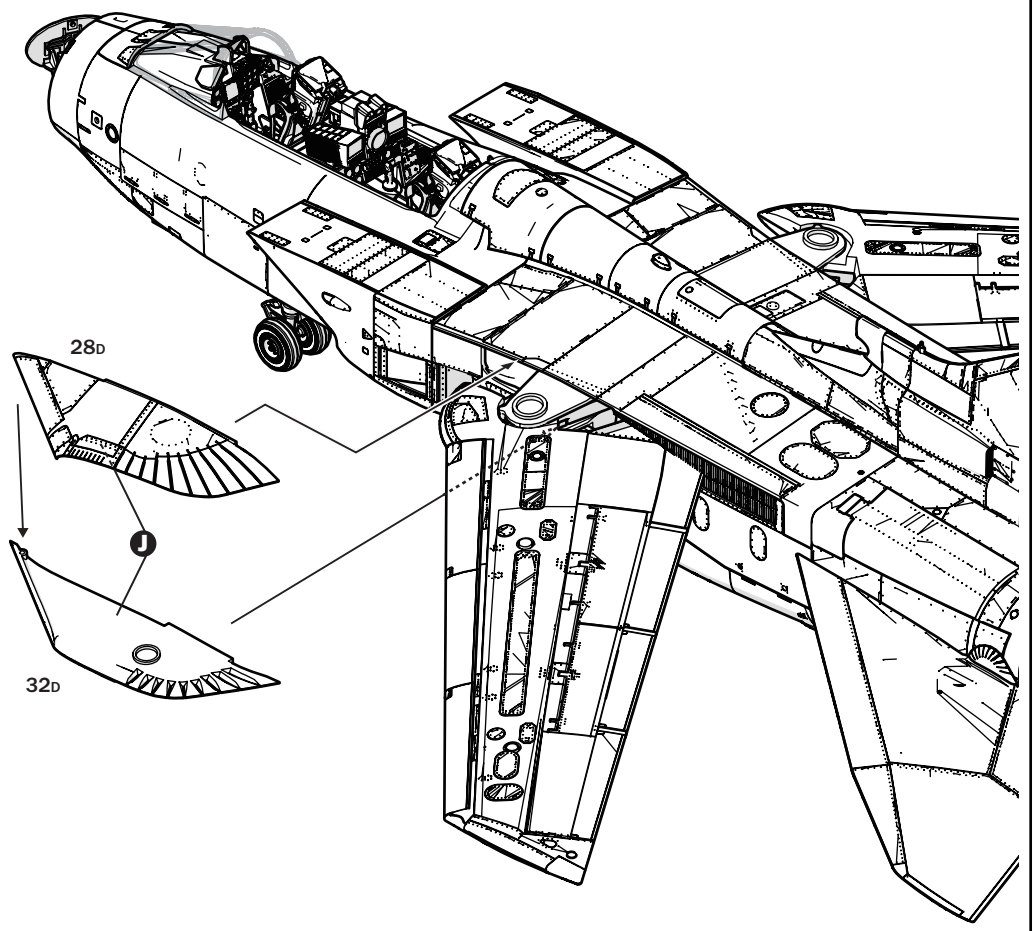




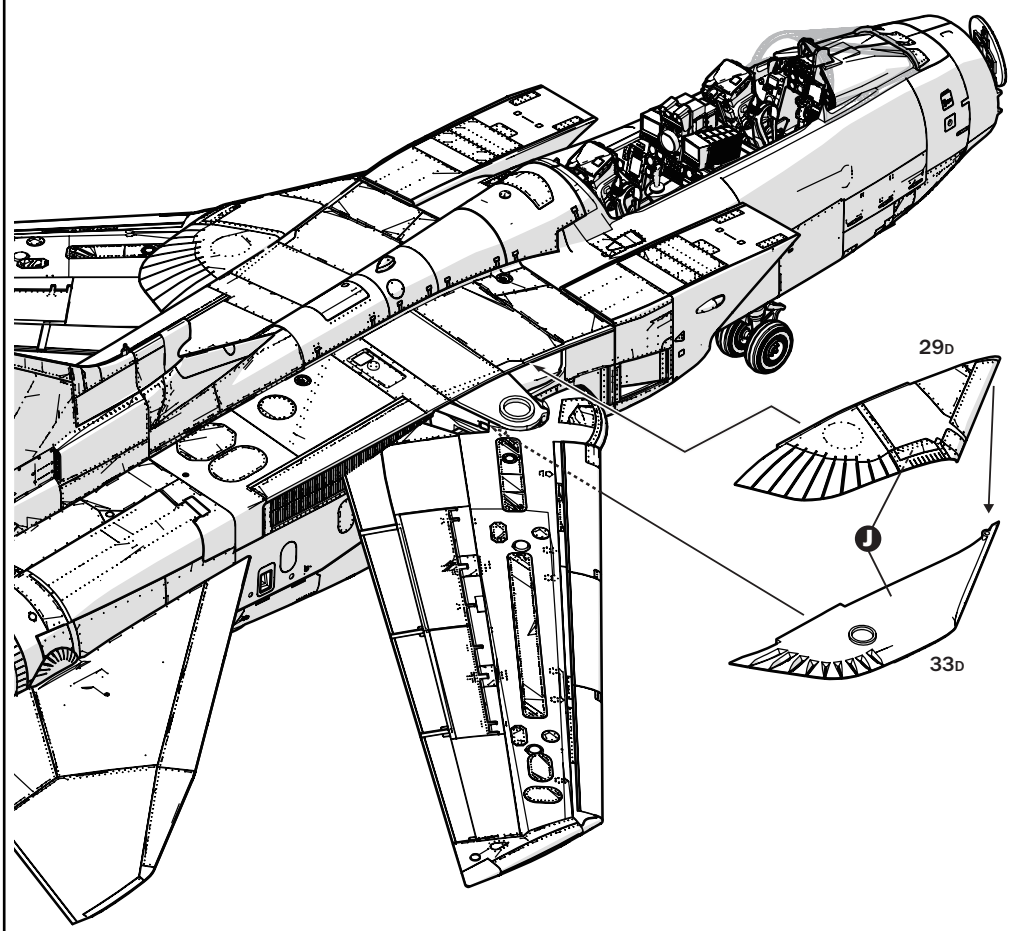




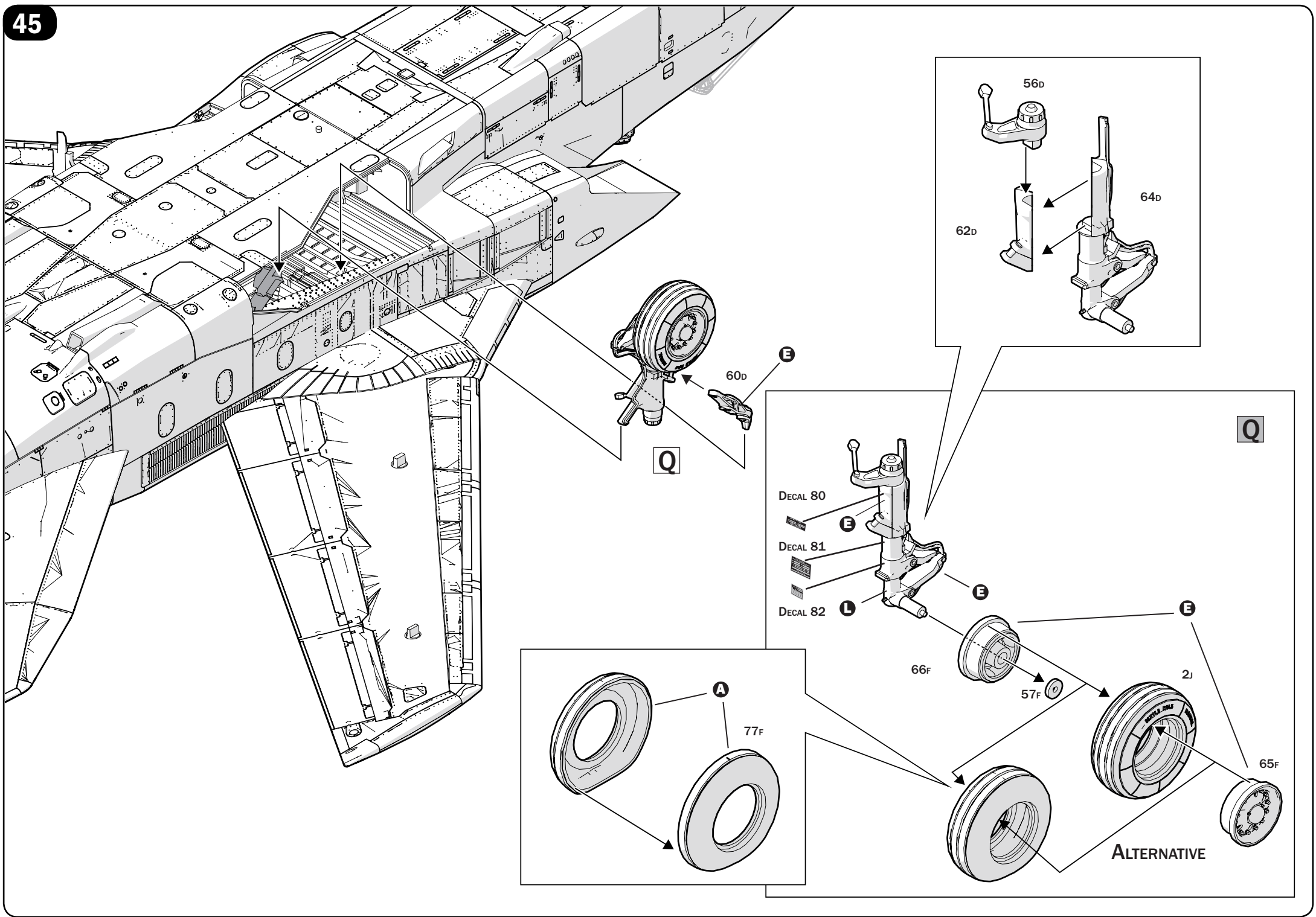
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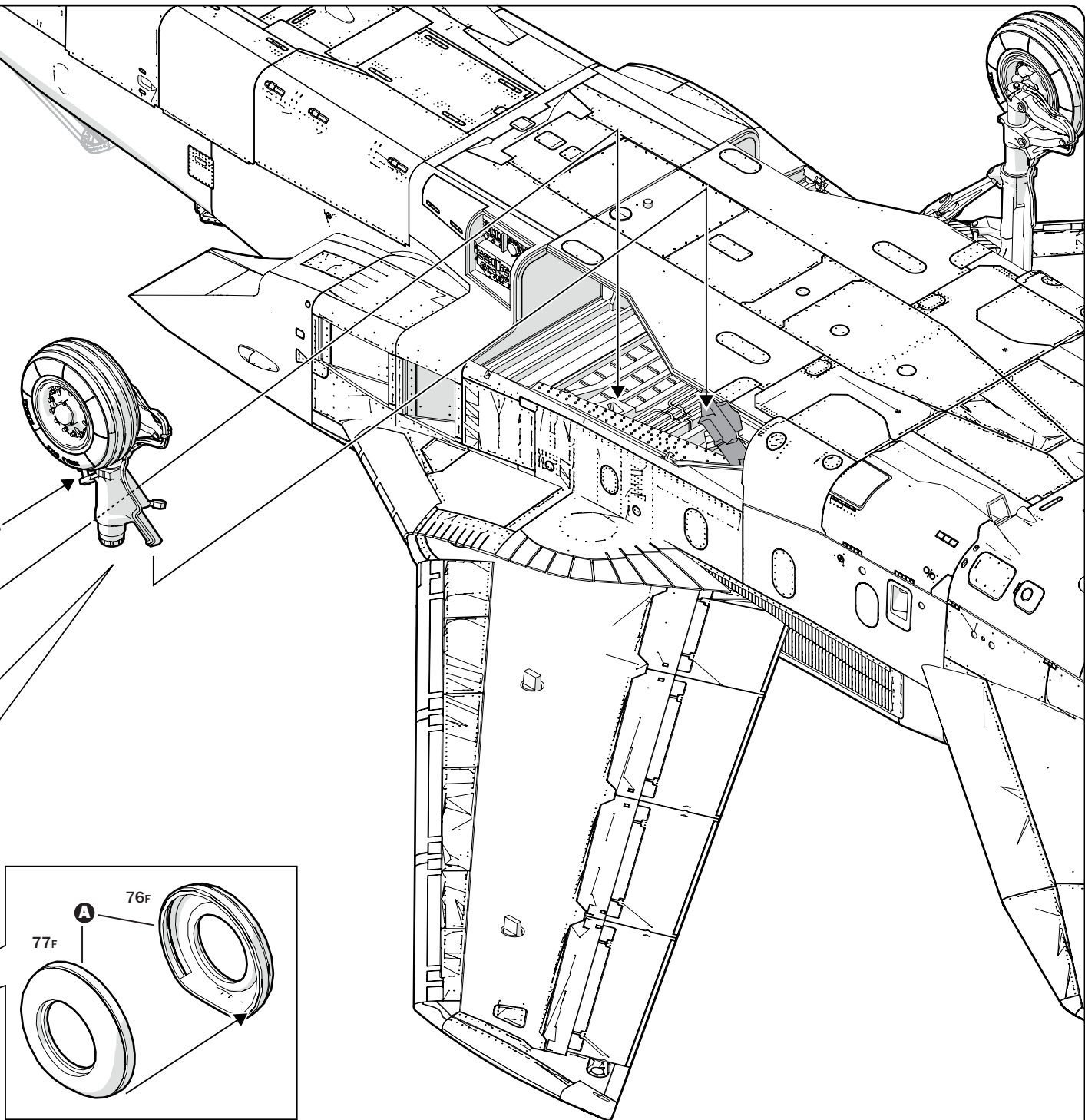
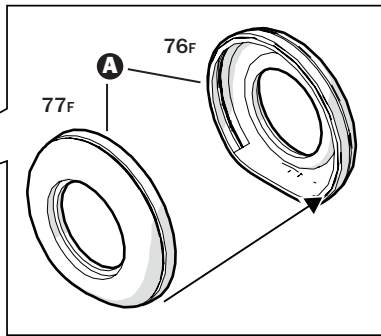
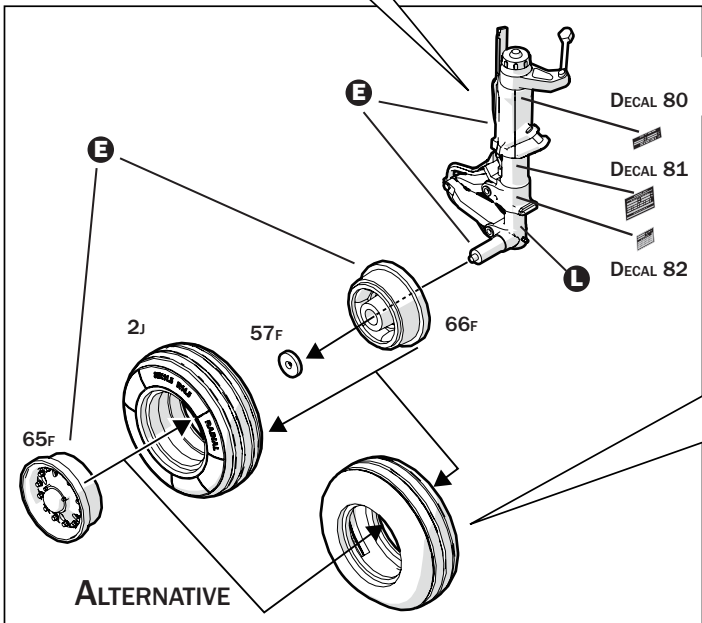
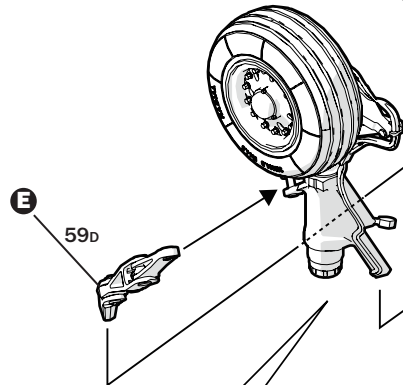
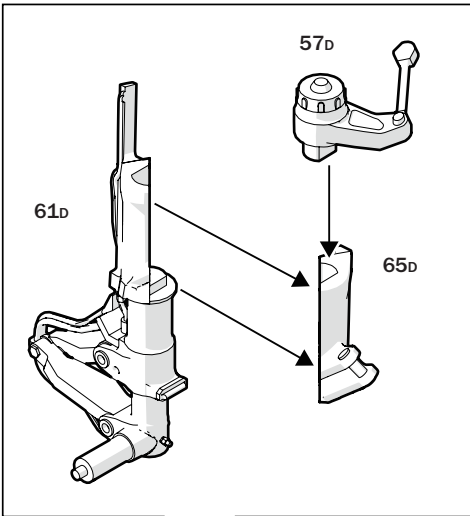


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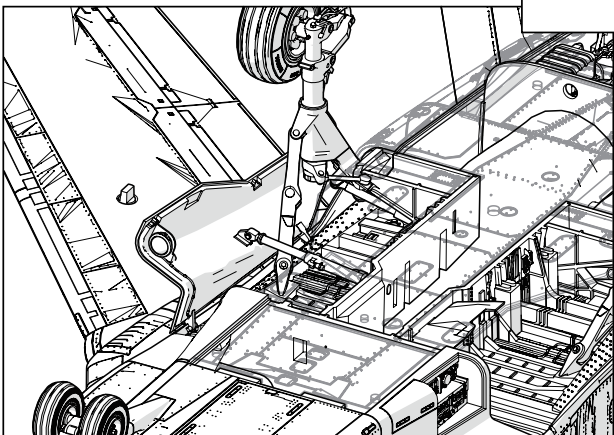
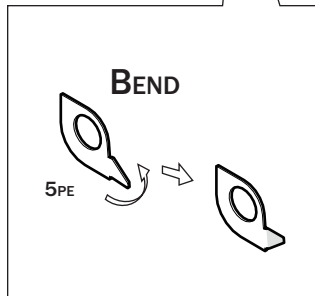
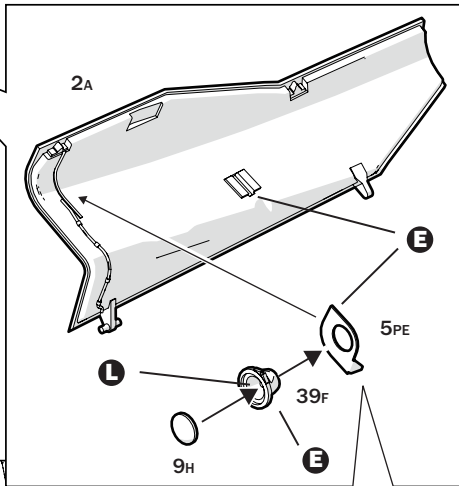
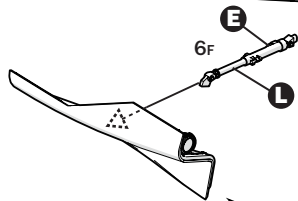
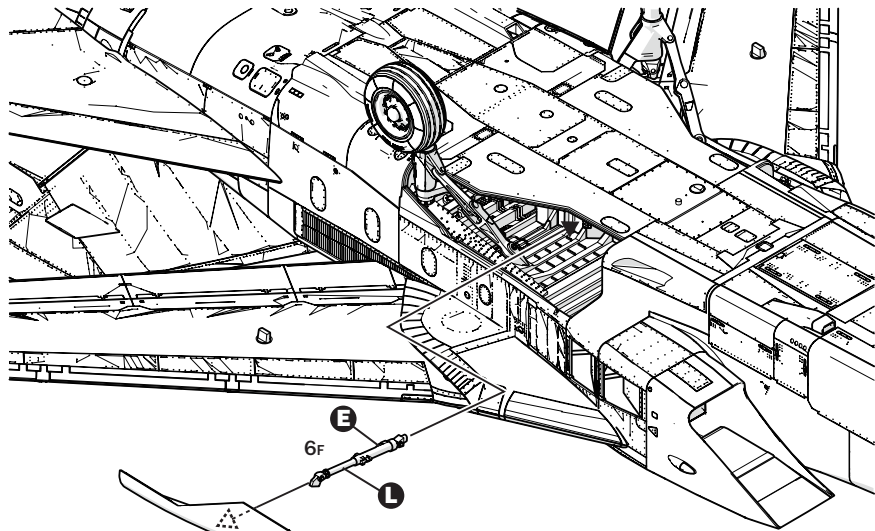




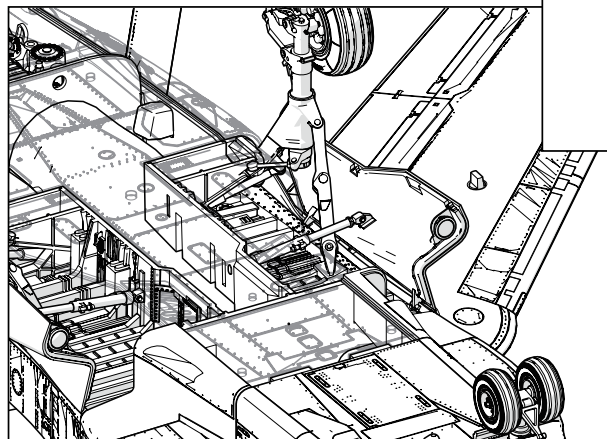
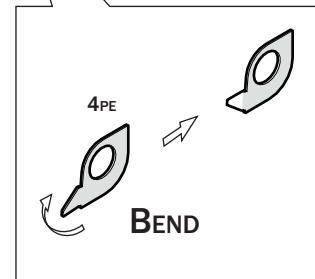
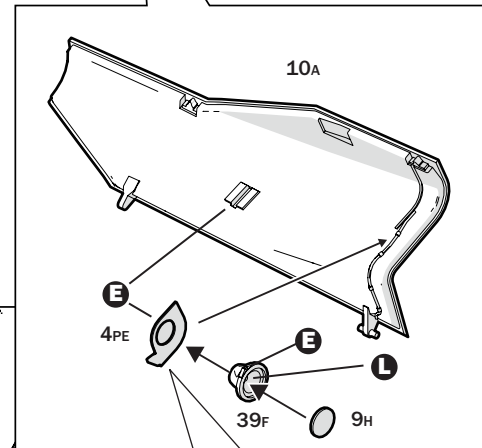
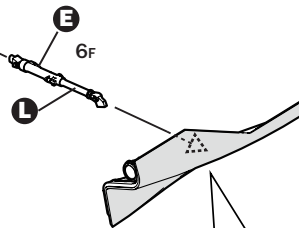
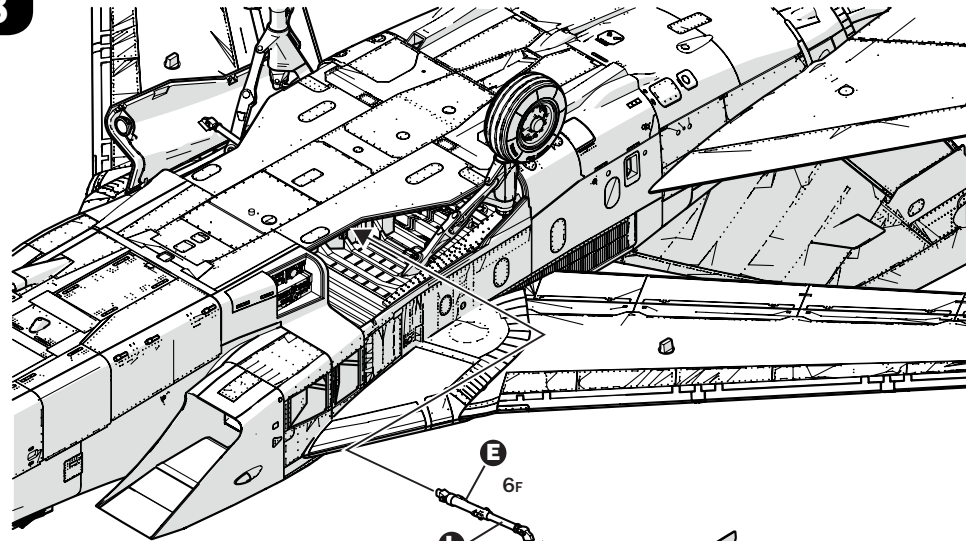




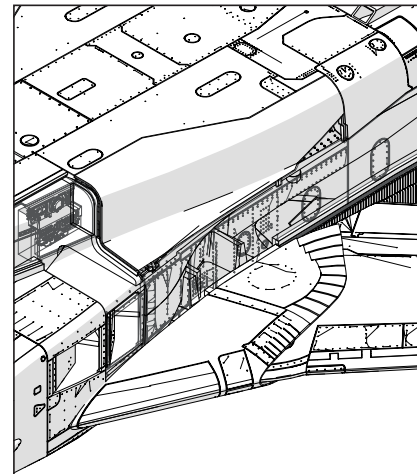
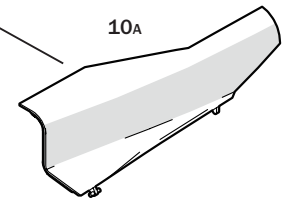
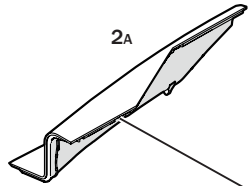
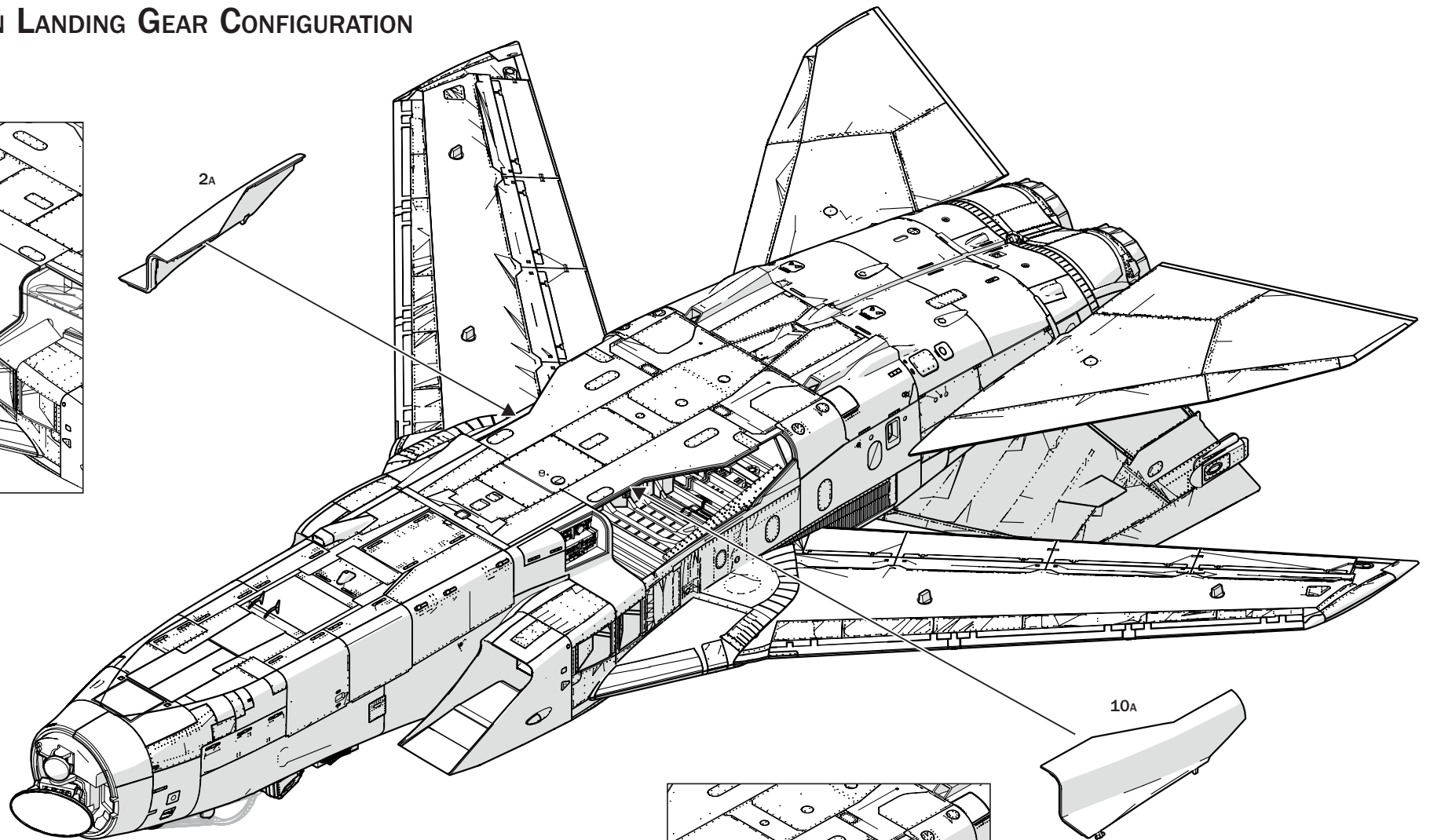
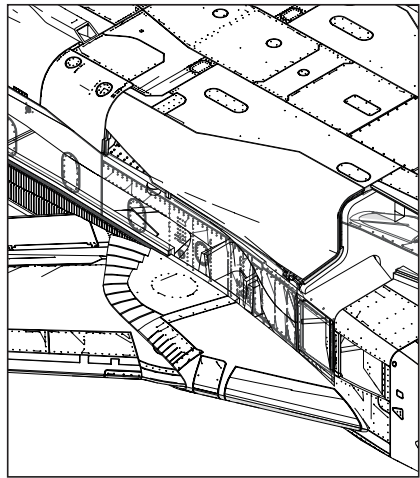
47



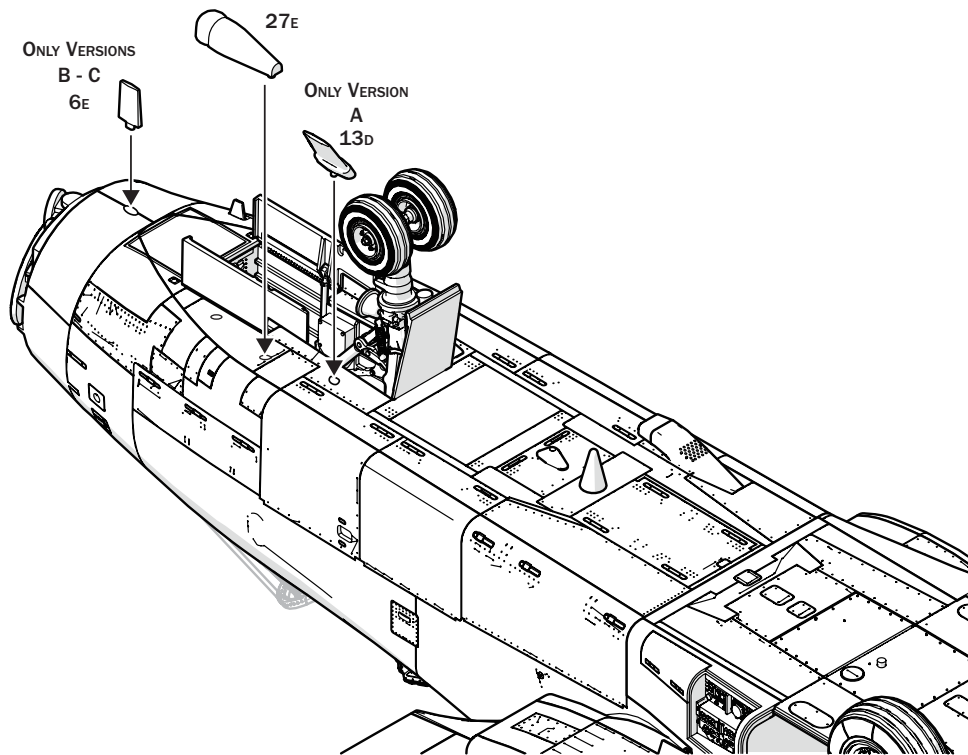
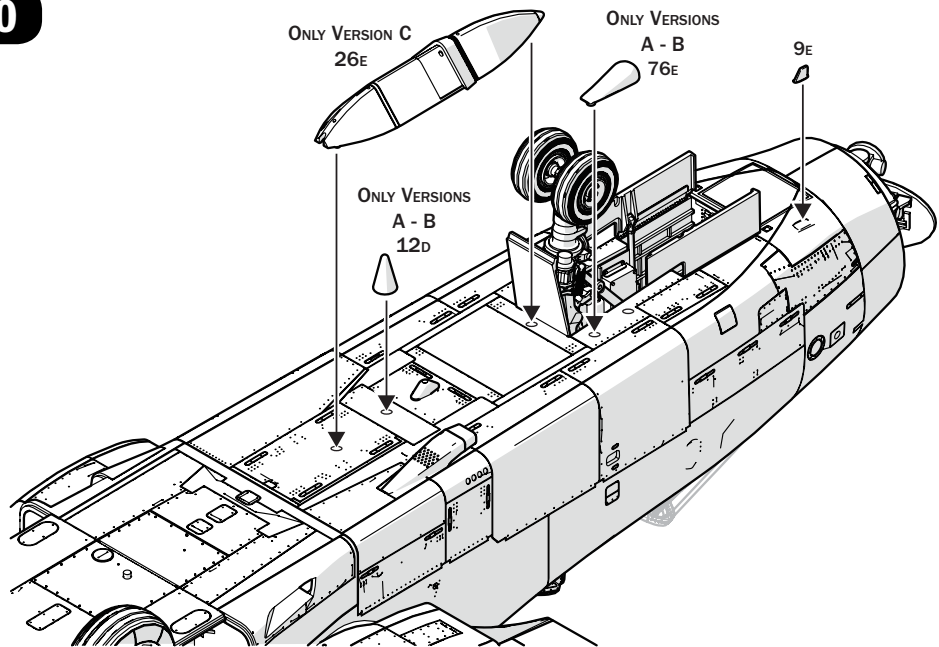
48



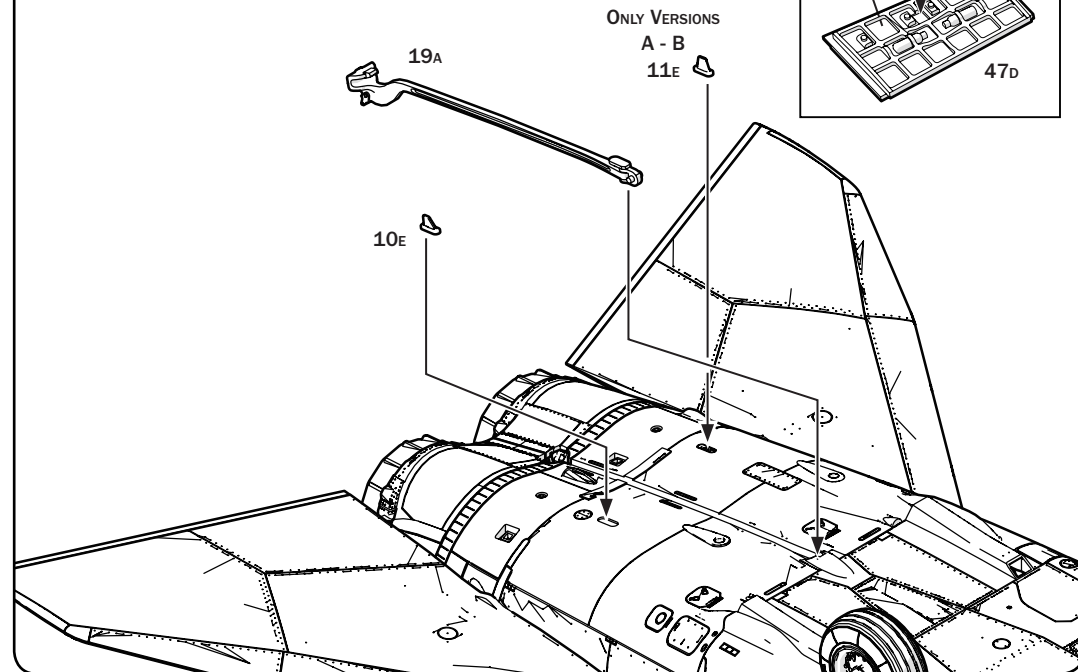
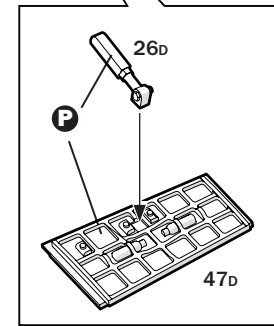
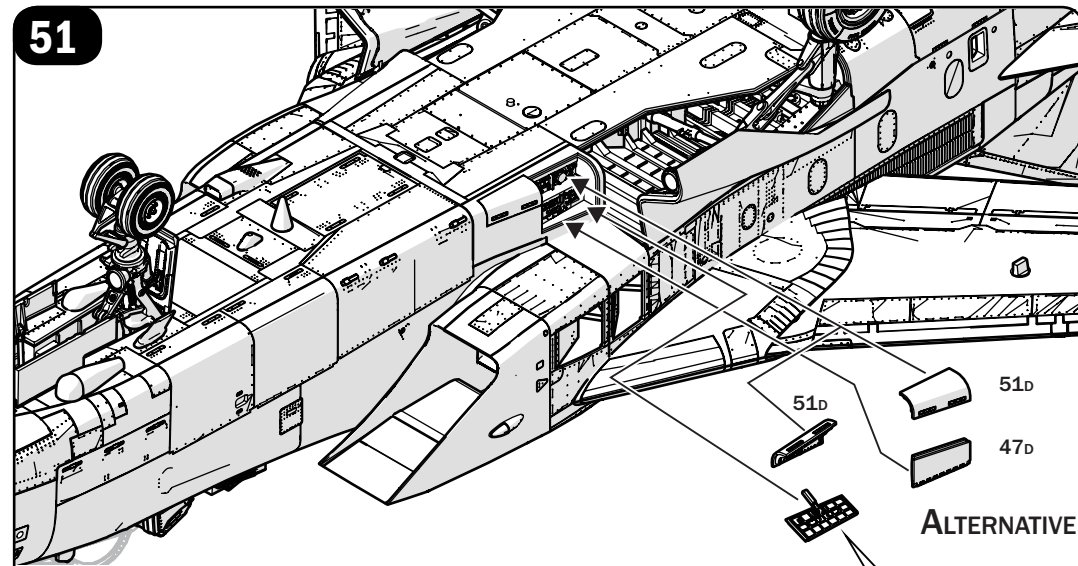
**49** CLOSED MAIN LANDING GEAR CONFIGURATION

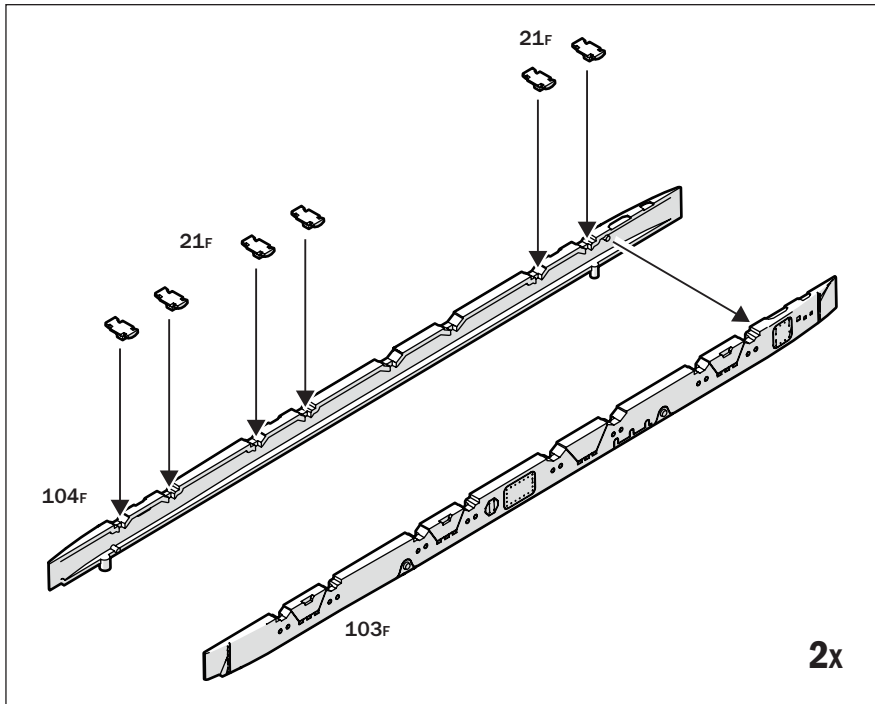


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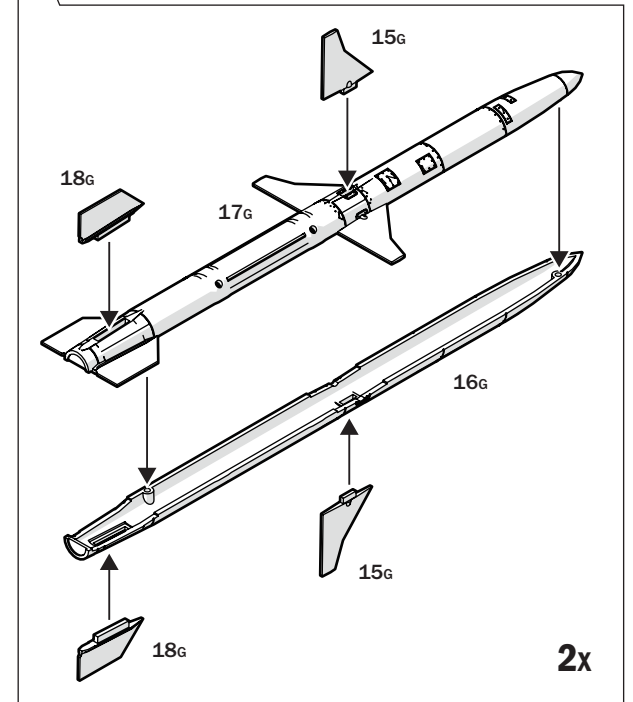
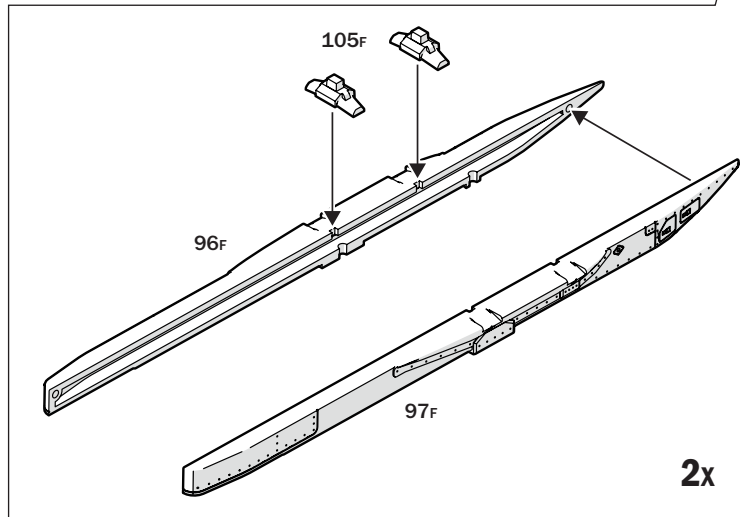
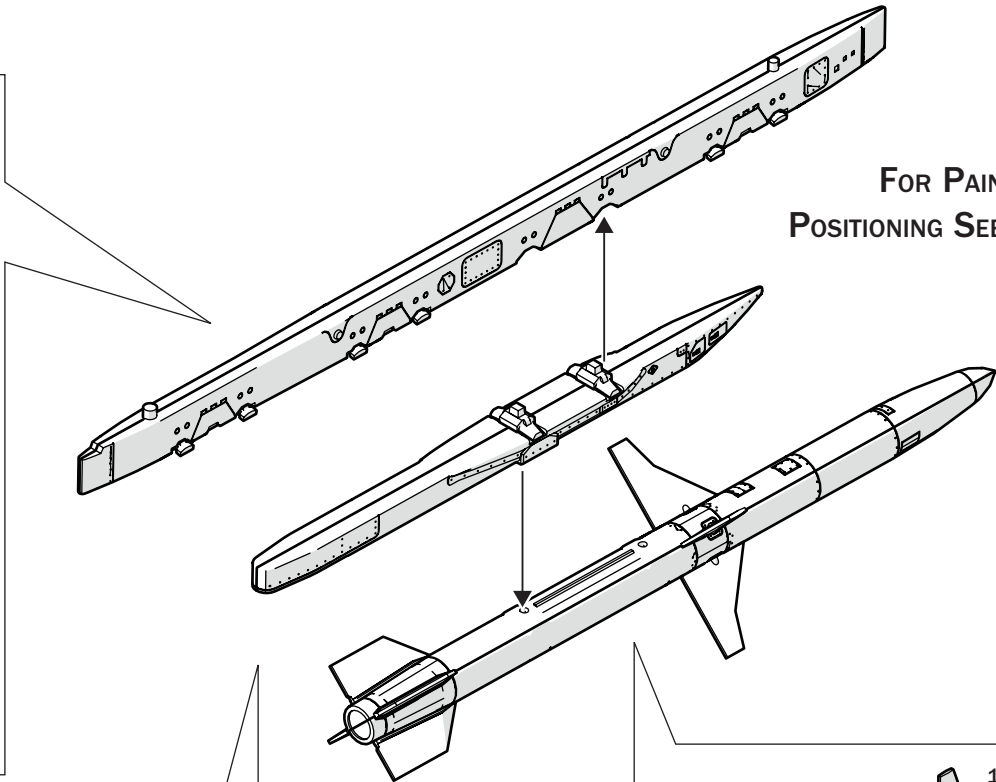


51

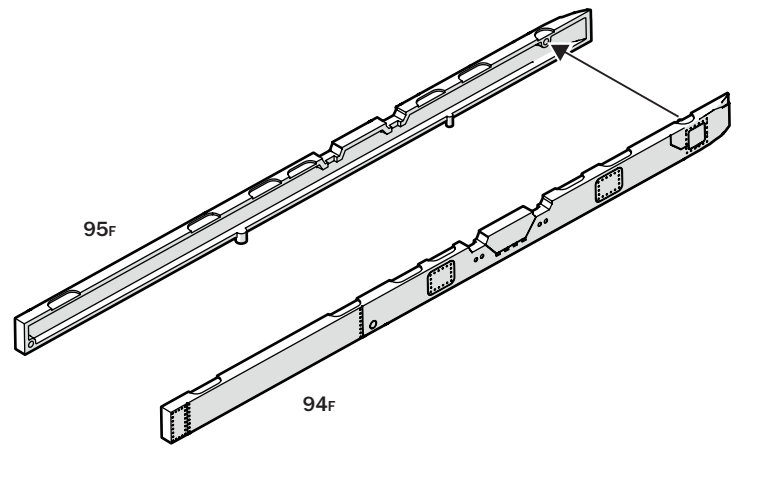




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POSITIONING SEE PAINTING GUIDE



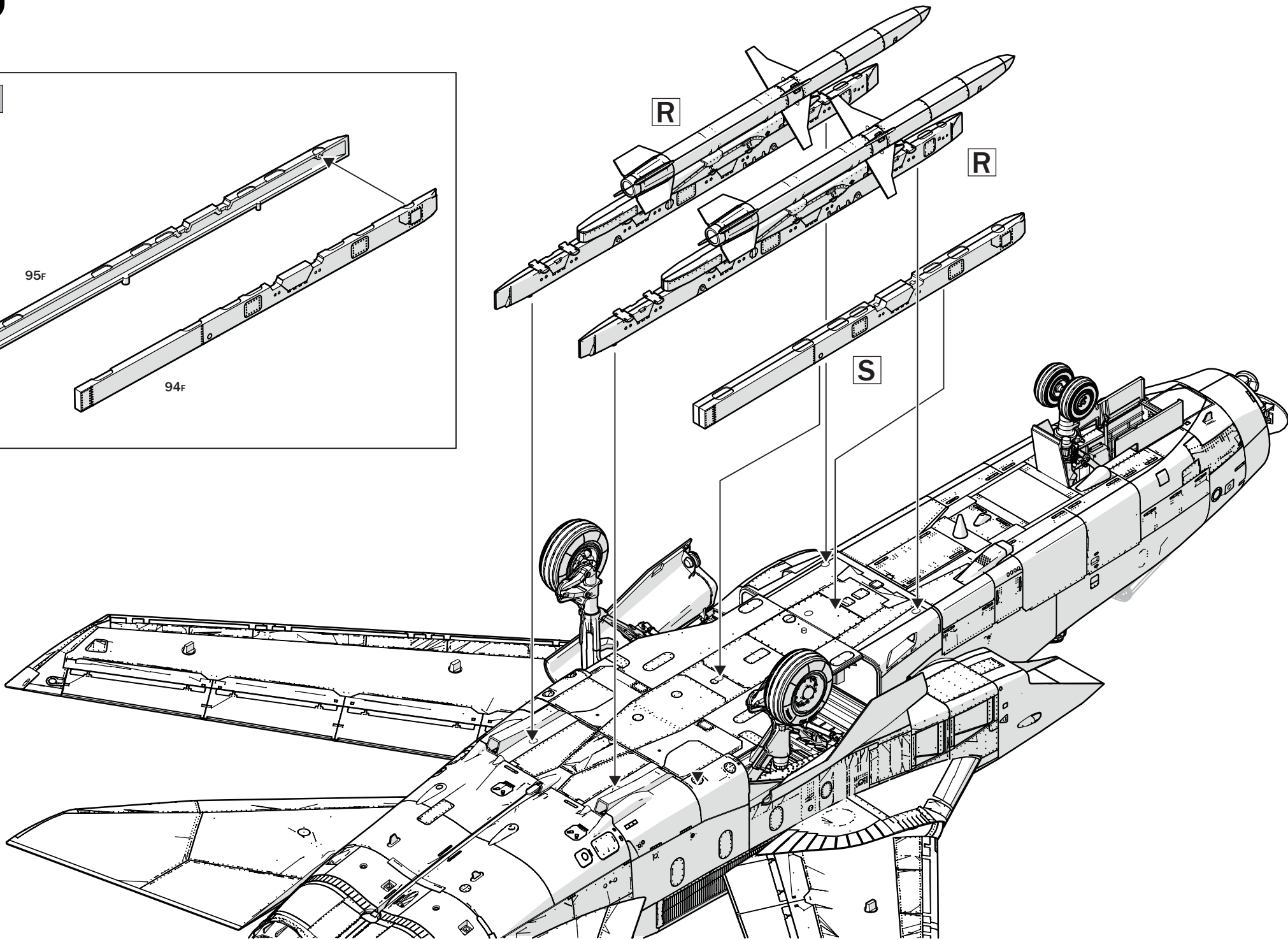
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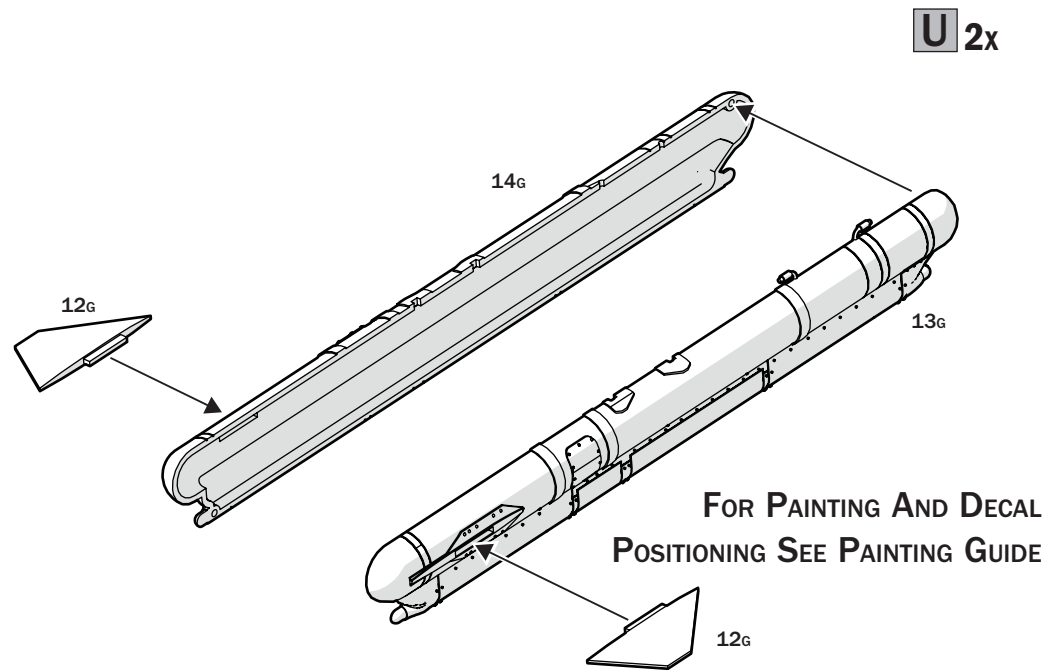
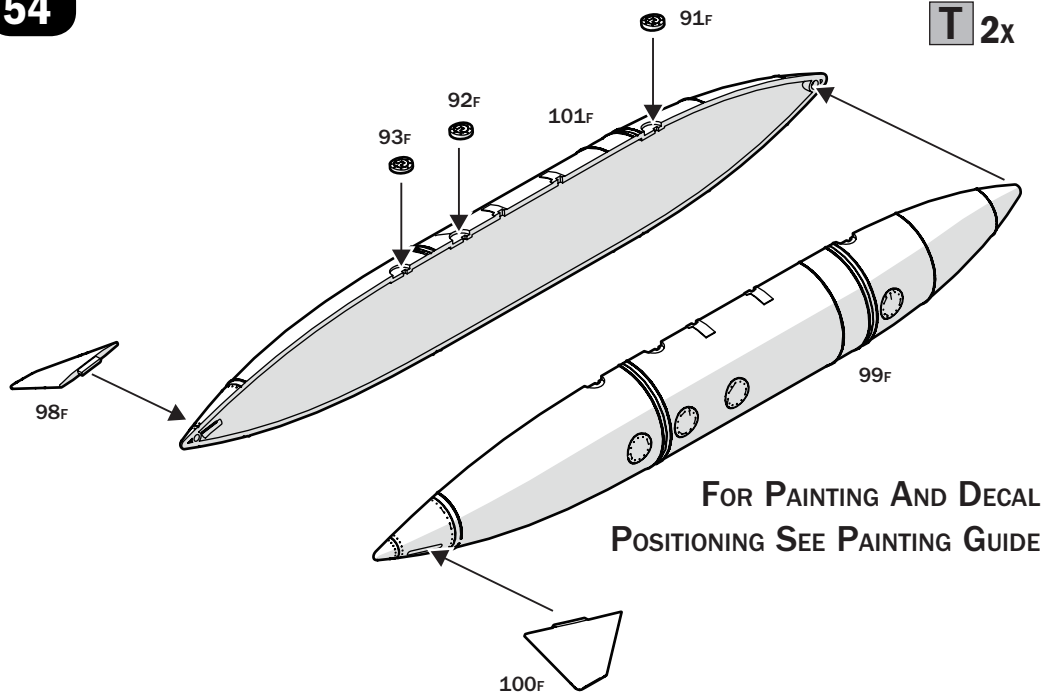


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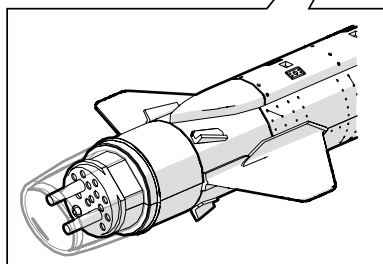
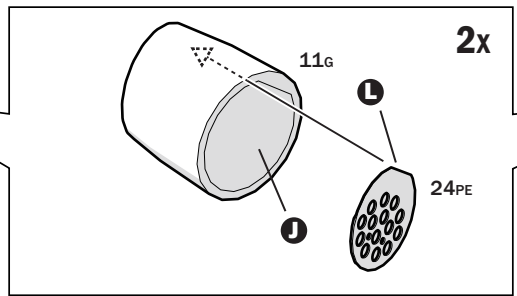
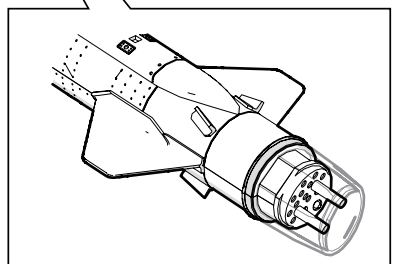
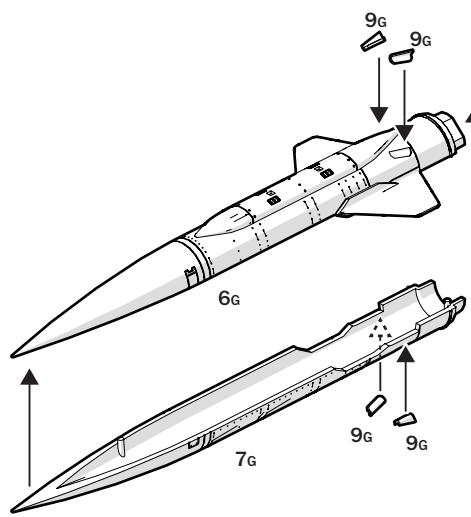
R

S

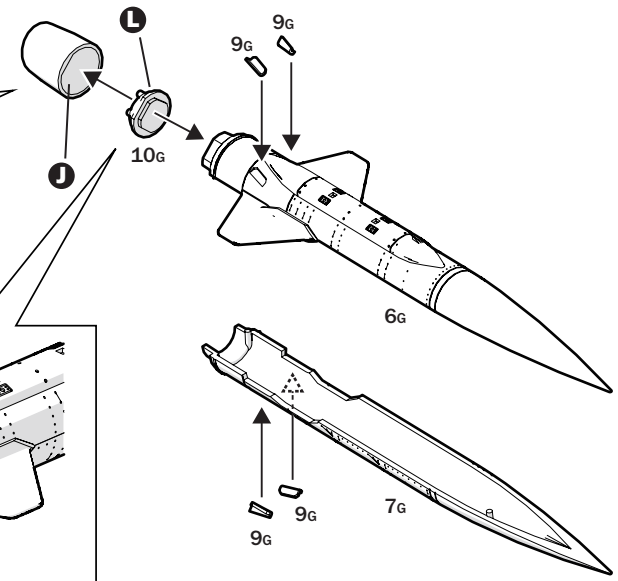




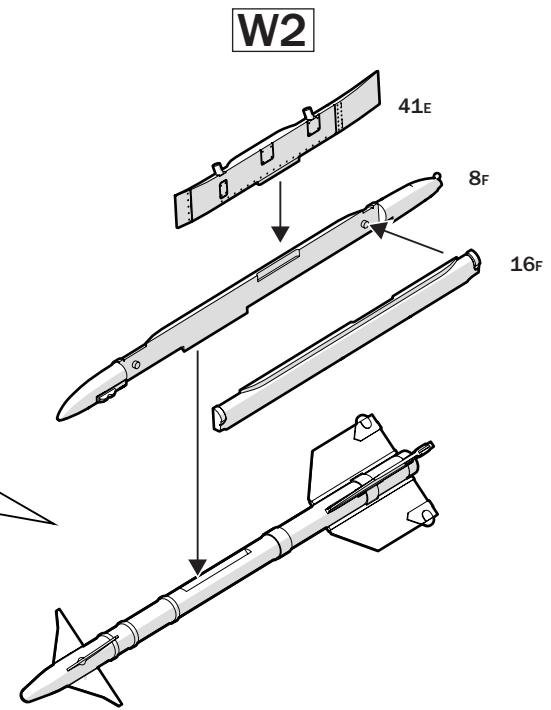
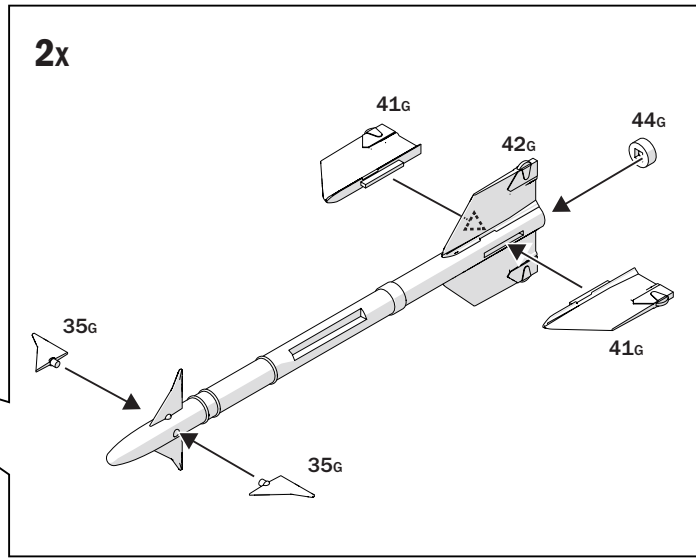
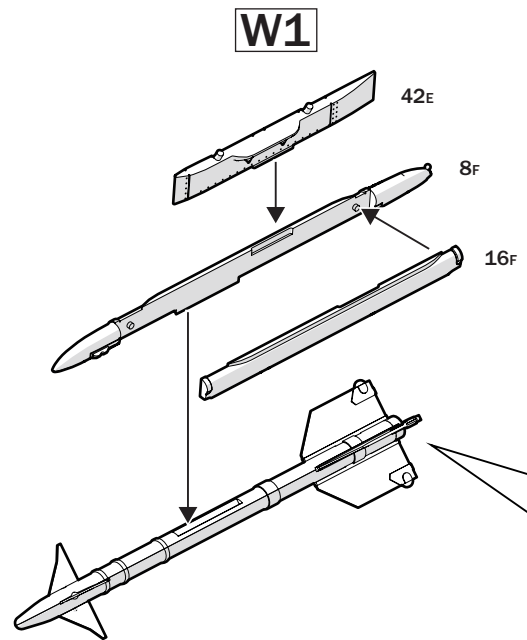
**V1 RIGHT SIDE**



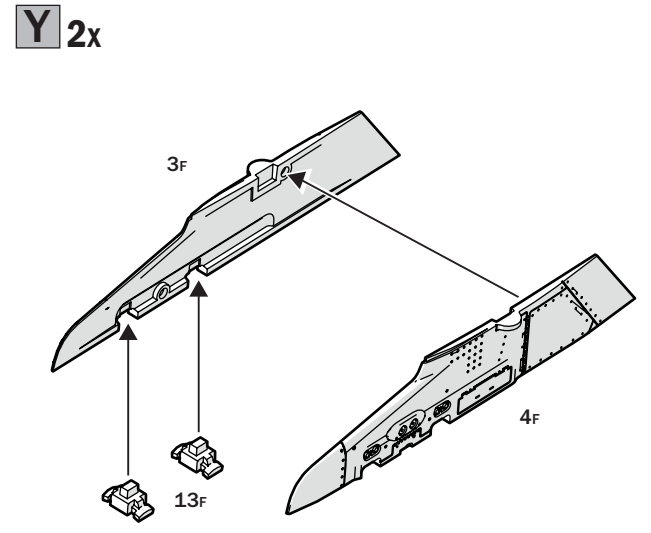
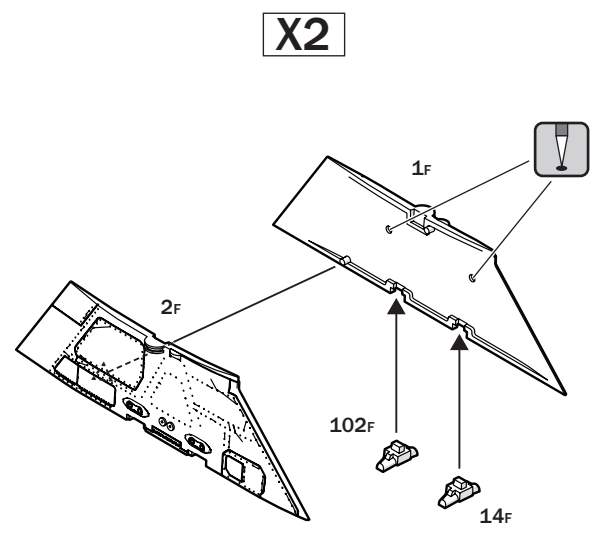
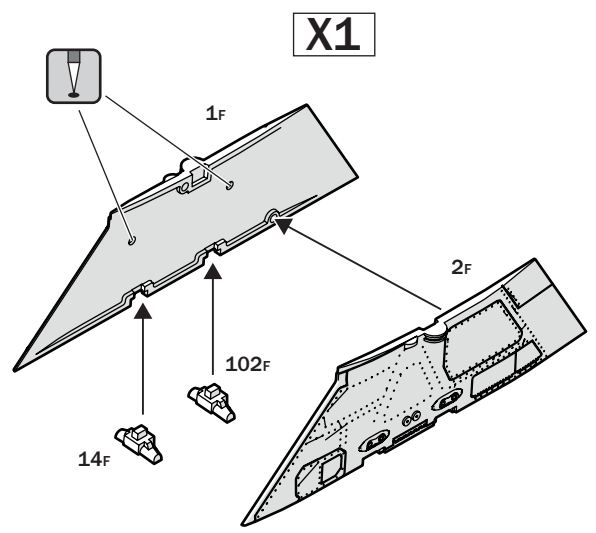
**LEFT SIDE V2**







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POSITIONING SEE PAINTING GUIDE



ONLY VERSION C

U

V1

T

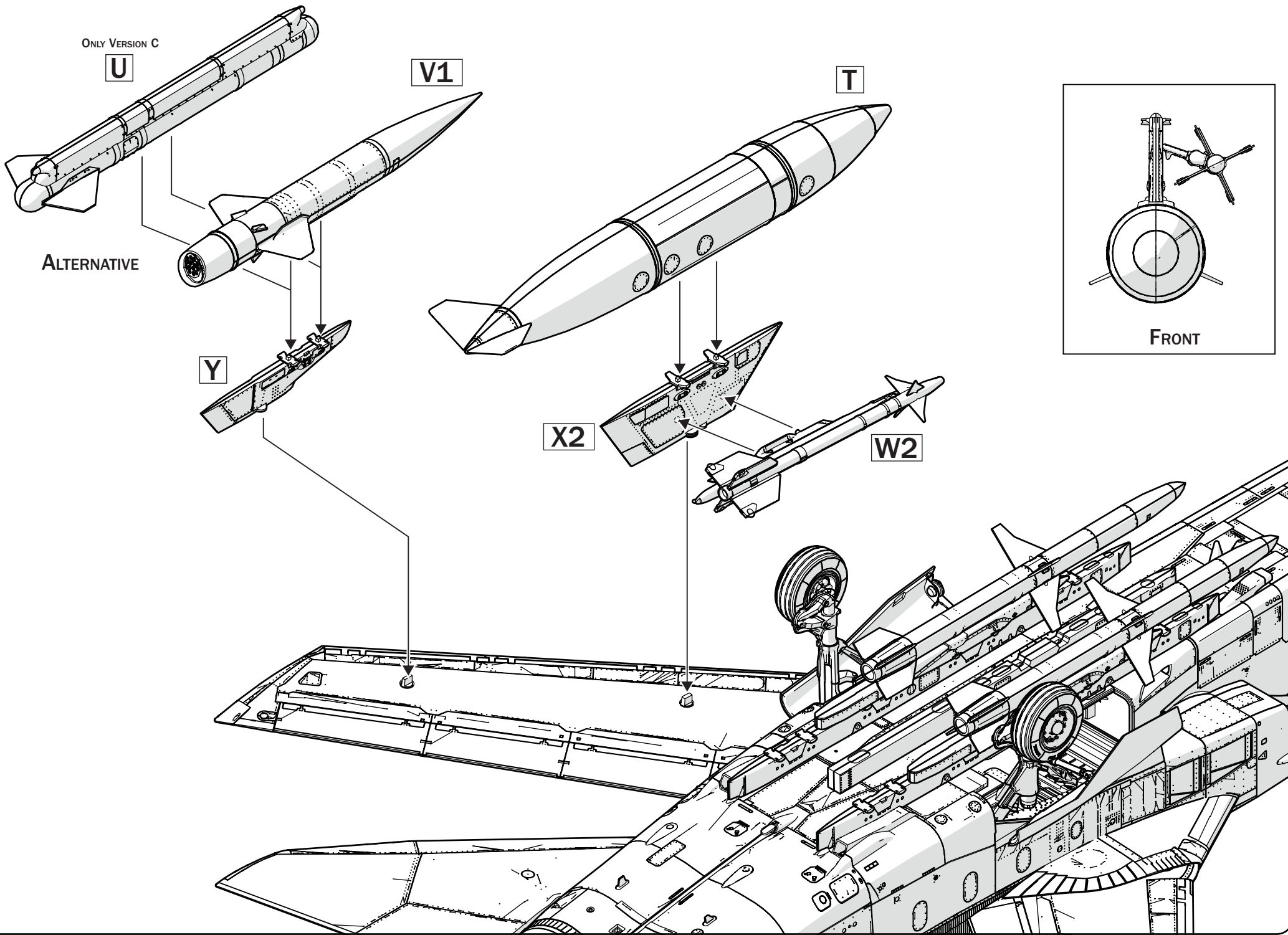
ALTERNATIVE

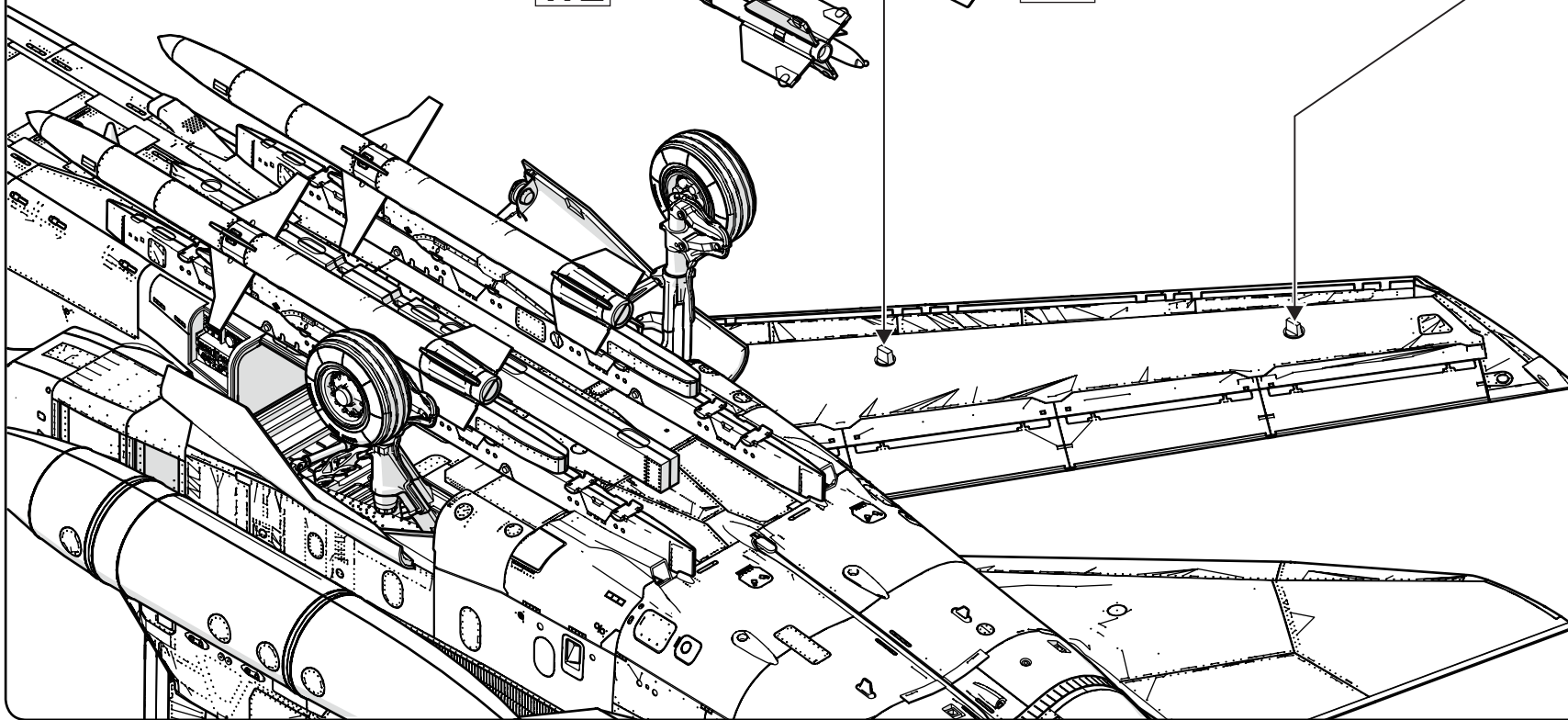
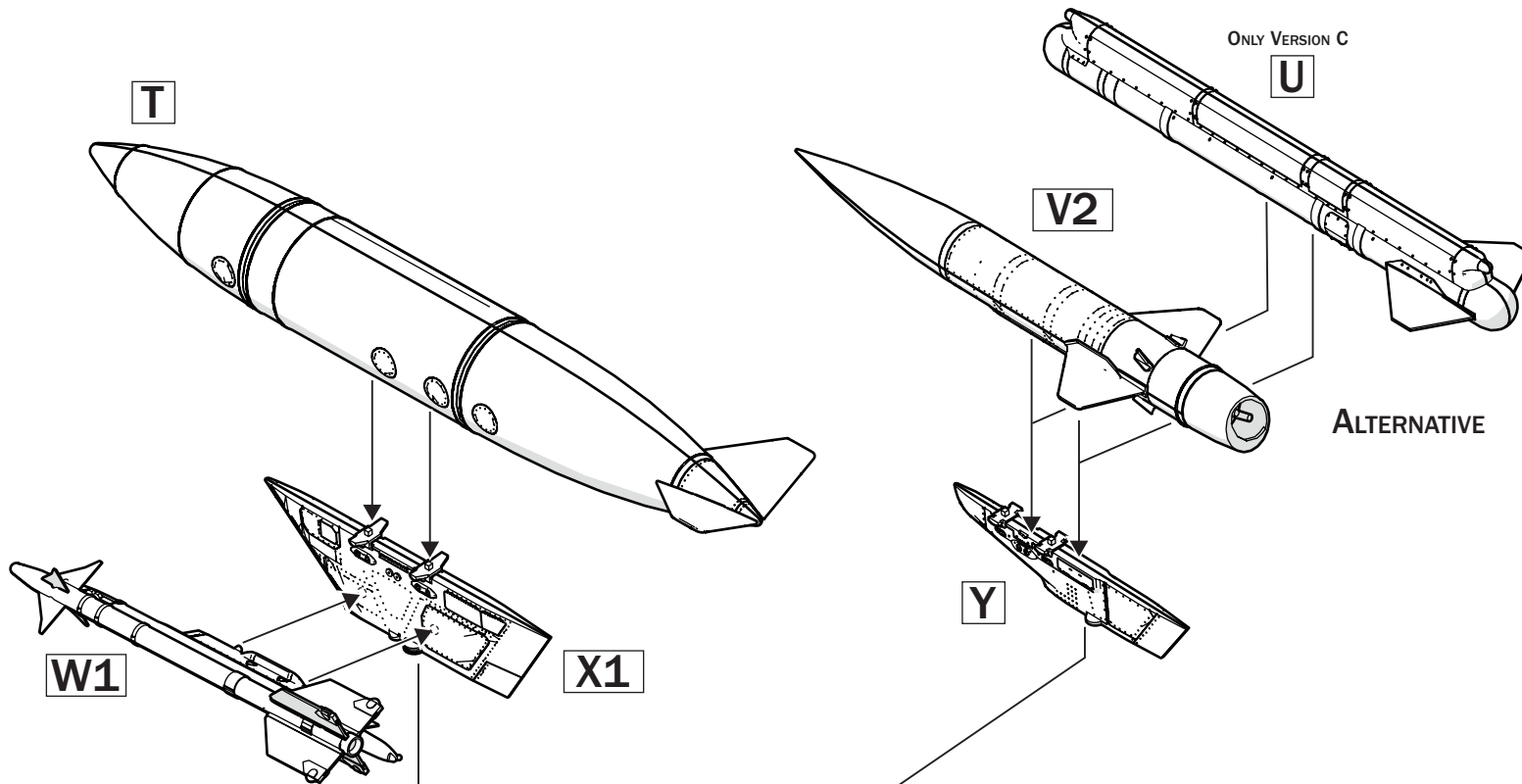
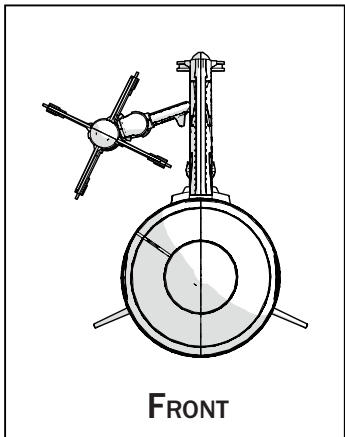
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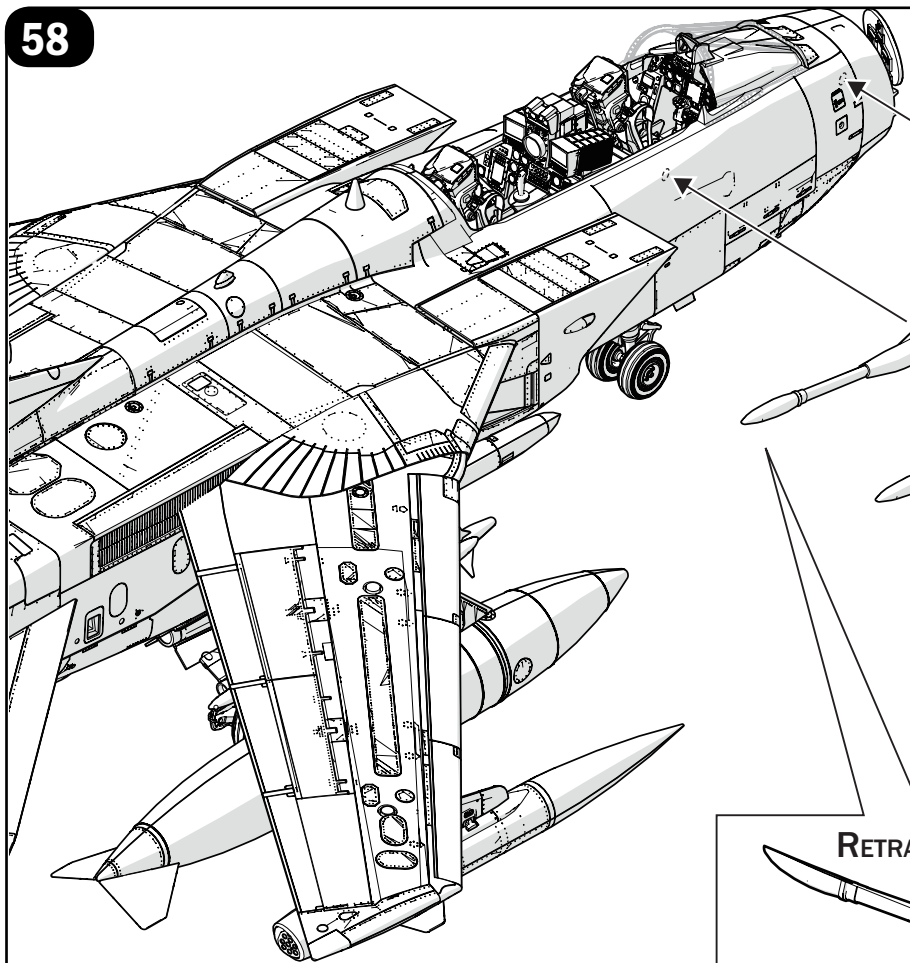
X2

W2

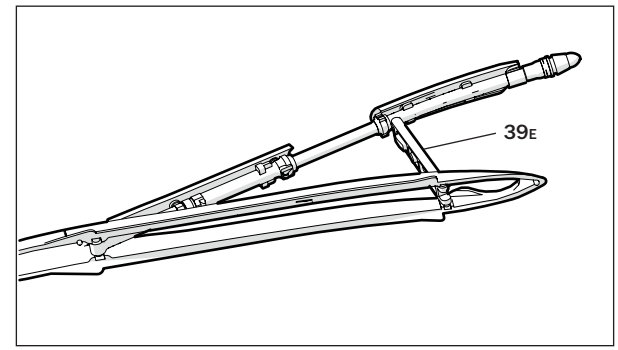
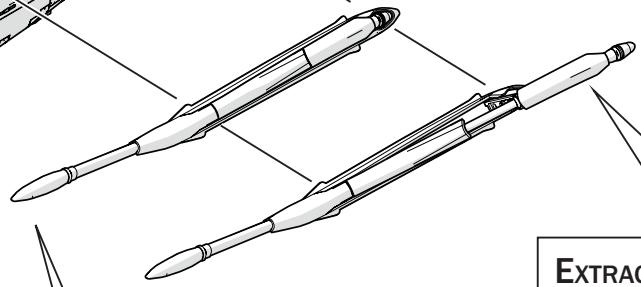
FRONT



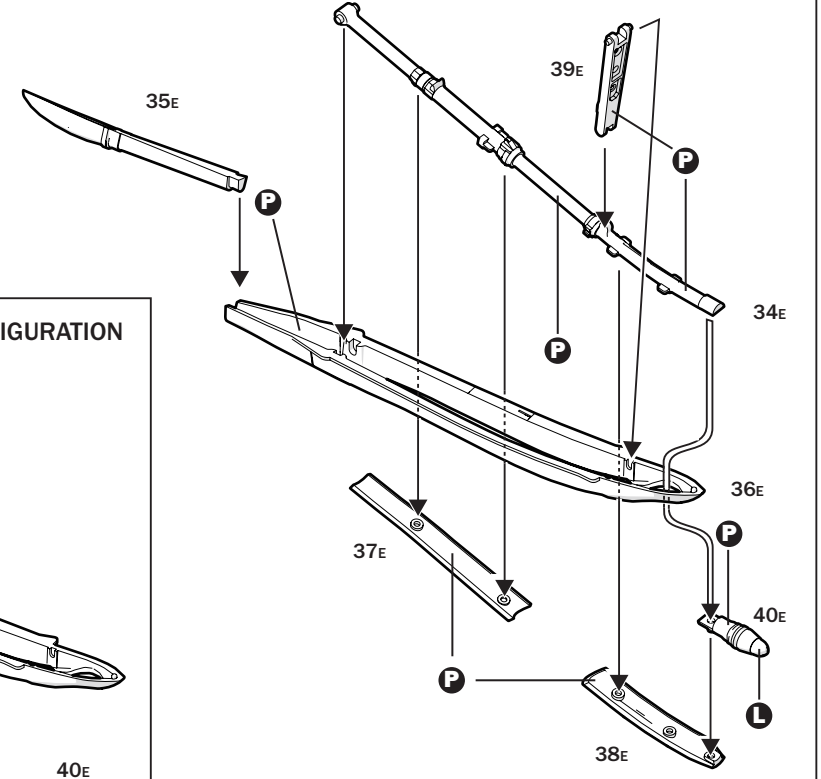




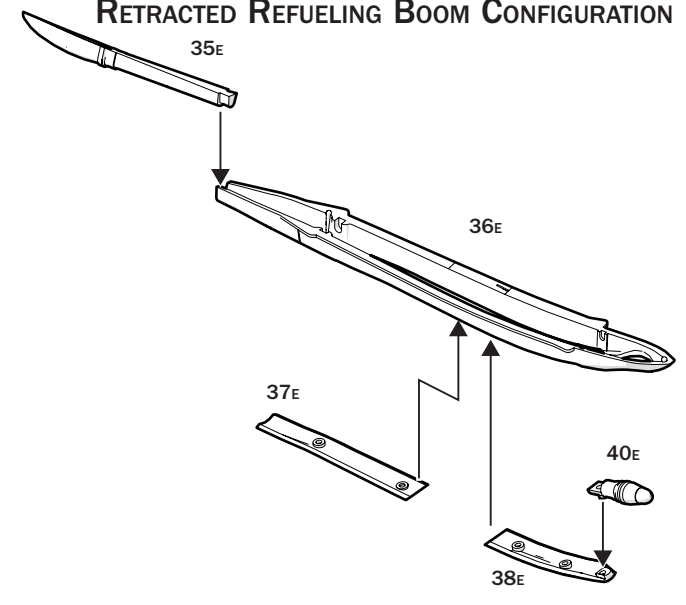
ALTERNATIVE

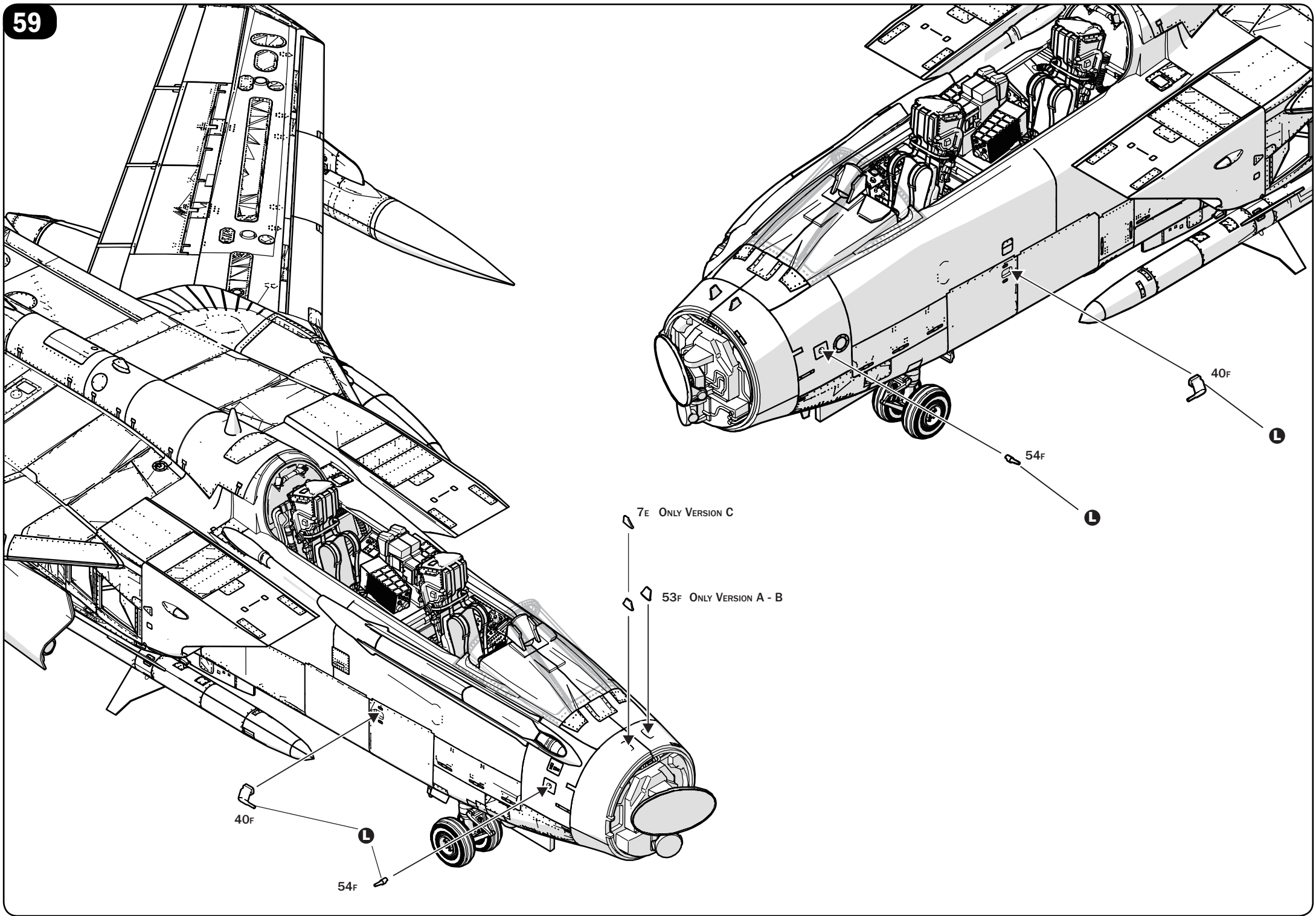


EXTRACTED REFUELING BOOM CONFIGURATION

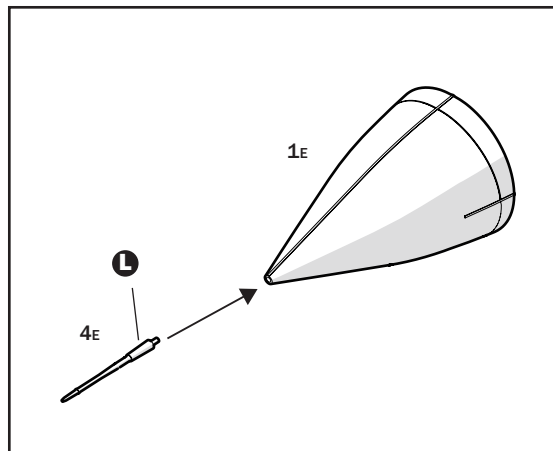
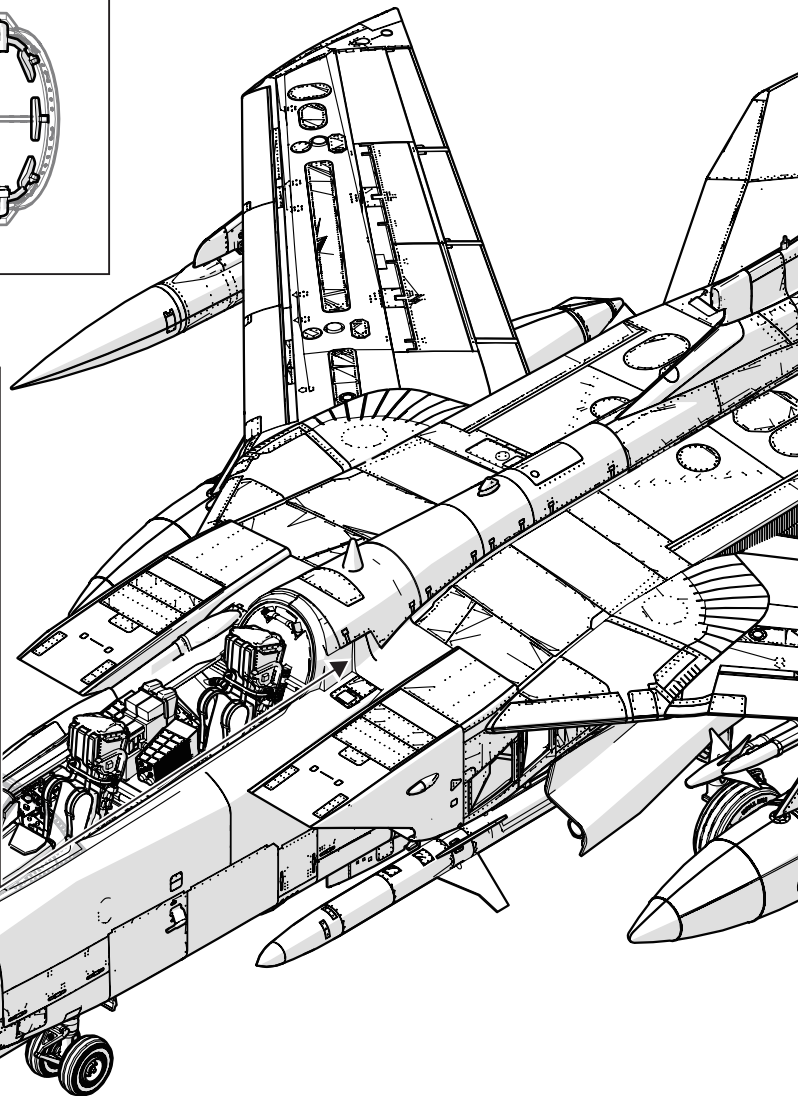
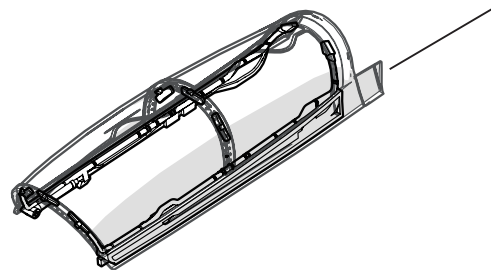
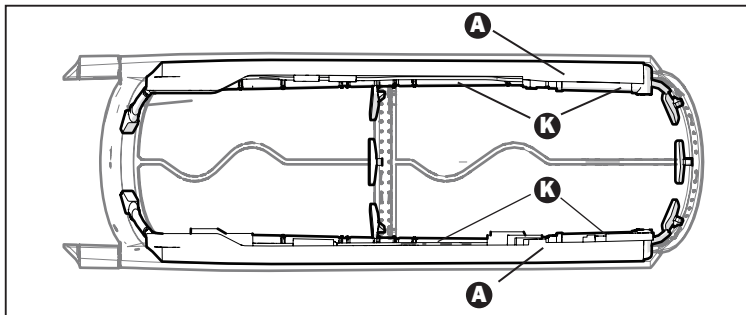
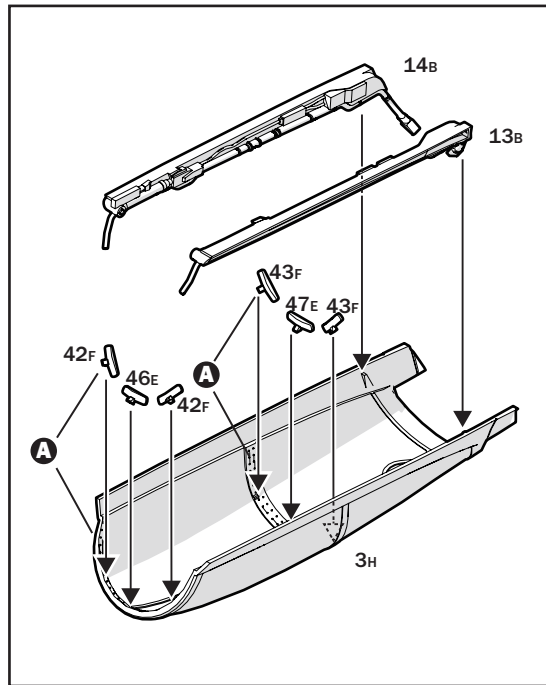


RETRACTED REFUELING BOOM CONFIGURATION

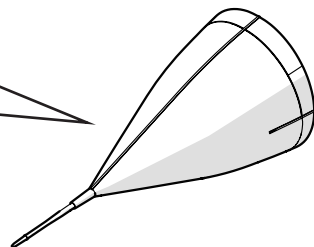




CLOSED CANOPY CONFIGURATION



ALTERNATIVE



OPENED CANOPY CONFIGURATION

