



F-5F

Fighter-Trainer

configuration K



The F-5E performed its maiden flight in 1972, and it was found that it is unsuitable to use F-5B to train F-5E pilots as the F-5E has much superior performance than F-5A/B. USAF therefore acquire F-5F trainer project, which entered evaluation phase in May 1973, after Congress approval. The project was approved by USAF in early 1974, and the prototype successfully completed maiden flight in September. By February 1976, first 2 prototypes completed all test items and mass production was implemented in the same year.

The F-5F adopts tandem cockpits arrangement. To retain air-to-air combat capability, F-5F came with a new, longer nose and balancing weight on aft fuselage. One M39 20mm cannon was retained in new nose, with reduced ammunition to 140 rounds, whereas avionics is installed on the other side and an air intake for cooling is installed on the opening for cannon originally. The F-5F was equipped with the Emerson AN/APQ-157 radar, with dual control and display systems. Wing fences were positioned at wing mid-span to avoid potential stalls at high AOA.

In addition 140 aircrafts were produced in the US, more were built under license overseas: Republic of China (Taiwan), Switzerland, Malaysia and South Korea. They all have been serving with F-5Es.

1972年、F-5Eの初飛行が成功すると、F-5A/Bよりもはるかに優れた性能だったために、F-5BではF-5Eのパイロット養成には、適さないことが明らかになった。そのため、米空軍は議会での承認の後、F-5F練習機計画を始動、1973年5月に検討に入った。1974年初頭には計画は米空軍の承認を得て、9月には試作機の初飛行に成功した。1976年2月までに、2機の試作機がすべてのテストを終え、同年中に量産が開始された。

F-5Fは、タンデム配置の複座コクピットを有し、空戦能力を保持するため、新設計の長い機首と胴体後部にバランス用のウェイトを備えていた。M39/20mm機関砲が1丁、搭載弾数を140発に減らした状態で残され、反対側に航空電子装置が取り付けられ、もとあった機関砲用の開口部に、冷却用のエアインテークが取り付けられた。F-5Fは、2つの操作/ディスプレイシステムを備えた、エマールソンAN/APQ-157レーダーを装備していた。また高仰角時の失速を防ぐため、ウイングフェンスが主翼中央部に設けられた。

F-5Fは、米国内で生産された140機のほかに、台湾、スイス、マレーシア、韓国等、F-5Eを装備した国でライセンス生産が行われ、さらに多くの機体が製造されたのだった。

1972年首架F-5E試飛成功之後、性能測試過程中發現相較於F-5A/B操控性能大幅提昇，以F-5B執行F-5E飛行員訓練並不適宜，因而提出了F-5F教練機計劃。美國空軍經國會批准後1973年5月開始評估，1974年初美國空軍核准F-5F方案。同年9月原型機首飛成功，1976年初2架原型機完成所有性能測試，同年開始量產。

F-5F採用前後縱列複座座艙配置，為維持一定的空戰能力，改採新設計的加長前機身，另在機身後段接近尾管處增加配重保持原重心。機身內因加長而多出餘裕空間使得M39型20mm機砲得以保留一門，載彈量減少至140發，另一側的空間則放置了航電設備，原機砲口位置配置冷卻用衝壓進氣口。火控雷達由原F-5E系統修改為雙座控制。另外為了改善加長機身後的俯仰安定性，F-5F在主翼中段增加了一對翼刀，藉此緩解可能在高攻角下所造成的失控情形。

除美國本土生產140架外，海外授權中華民國、瑞士、馬來西亞、南韓生產，與F-5E陸續在多國服役。

Illustration:圖示說明



Agglutinate
用膠黏合



No Agglutinate
不用黏合



×2
Make 2 Sets
二組製作



Cut Off
切除



Optional
選擇使用



Remove
將其磨去



File Hole
把孔填平



Instsnt Glue
使用瞬間膠



Be Careful
注意



Open Hole
鑽孔

Method For Applying Decals:

1. Clean Model Surface With Wet Cloth.
2. Cut Out Of Decal Sheet And Dip Them In Water For 15 Seconds.
3. Place it on proper position on model.
4. Slide off base paper leaving decals On Model With Wet Finger Tip.
5. Move Decals To Exact Position, Push Out Excess Water Under Decal With Soft Cotton Cloth.
6. When Decals Get Dry Then Complete.

水貼紙使用說明:

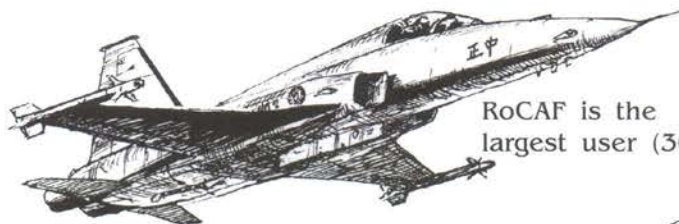
- 1.將模型表面擦乾淨
- 2.將貼紙剪下泡入清水中約15秒
- 3.將泡濕之貼紙取出置於欲貼處旁
- 4.用指尖輕推貼紙表面使其滑出底紙
- 5.將貼紙調整至適當位置並輕擦拭水份
- 6.待其自然乾燥後即完成

Color list: 塗料表

Color	Brand	Gunze Sangyo			Humbrol	Revell	Lifecolor
		Hobby Color	Mr.Color	Mr.Color Spray			
IJA Green	日陸軍綠	H60	C16	J16			UA122
Dark sea gray	深海灰	H75	C25		27		UA93
Steel	黑鐵	H18	C28	J28	53	91	LC76
Tire black	輪胎黑	H77	C33+C62		85	302	LC02
Red	紅	H3	C3	J3	19	31	LC56
Flat white	消光白	H11	C62	J62	34	05	LC01
Flat black	消光黑	H12	C33	J33	33	8	
Aircraft gray	飛機灰	H73	C23		30		UA91
Aluminum	鋁		MC218		27001-6	99	
Silver	銀	H8	C8	J8	11	90	LC74
Light blue	淺藍	H45			47		LC58
Burnt iron	燒鐵色	H76	C61				LC26
Gray FS36375	淺幽灰	H308	C308		127		UA26
Flat red	消光紅	H13			73		LC06
Yellow FS13538	黃	H329	C329		188		LC53
Gray FS36320	灰	H307	C307		128	374	UA27
Gray FS36270	中灰	H306	C306		126		UA28
Light gray	淺灰	H338	C338		147		UA23
Green FS34079	綠	H309	C309		116		
Brown FS30219	褐	H310	C310		119		UA15
Radome	天線罩	H318	C318		148		DR06
Light gull gray	淺鷗灰	H51	C11		129		UA25

F-5 Fighter Family

F-5E is an excellent lightweight supersonic fighter. More than 3800 have been produced from 60s to 80s and saw services in more than 20 countries.



RoCAF is the largest user (308).

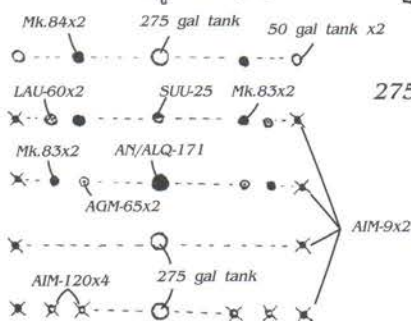
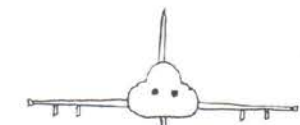
20mm M39A2 cannons x 2



AGM-65A Maverick air-to-ground tactical missile

907kg Mk.84 bomb

AIM-9 Sidewinder air-to-air missile



275 US gallons oil tank

150 US gallons oil tank

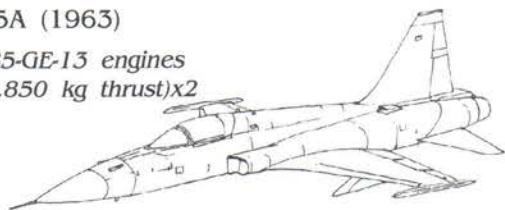
LAU-3/A 68mm Rocket

454kg Mk.83 bomb

CBU-24 Cluster Bomb 500lb bomb

F-5A (1963)

J85-GE-13 engines (1,850 kg thrust)x2



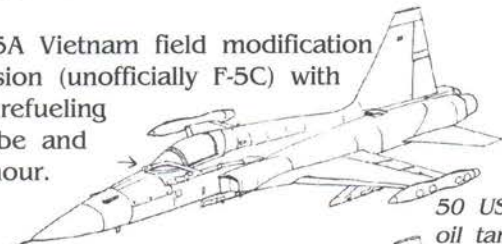
F-5E (1970), an upgraded version to confront MiG-21. The ultimate version among F-5 family.

Large antenna and 'Razor Back' tail fin can be seen on so called 'Export version'.



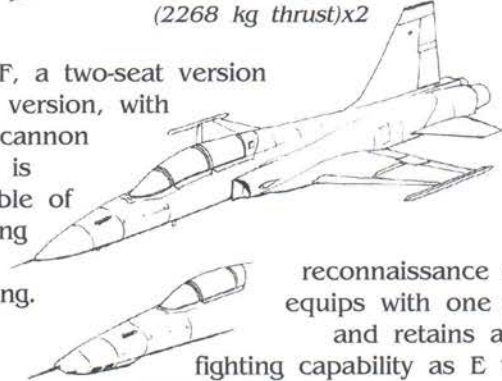
J85-GE-21 engines (2268 kg thrust)x2

F-5A Vietnam field modification version (unofficially F-5C) with air refueling probe and armour.

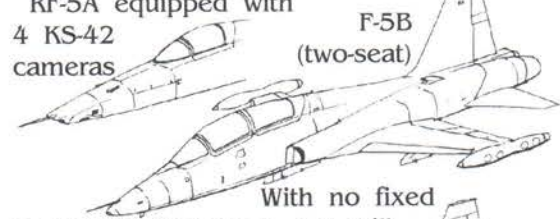


50 US gal oil tank

F-5F, a two-seat version of E version, with one cannon only, is capable of fighting and training.



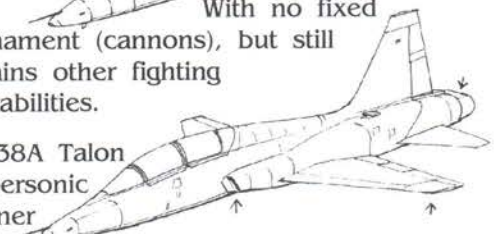
RF-5A equipped with 4 KS-42 cameras



F-5B (two-seat)

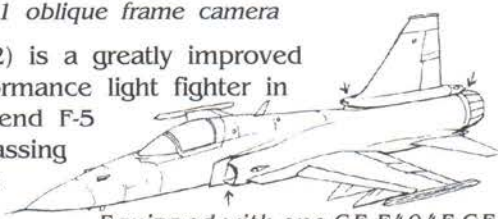
With no fixed armament (cannons), but still retains other fighting capabilities.

T-38A Talon supersonic trainer



J85-GE-13 engines (1,756 kg thrust)x2

F-20 (1982) is a greatly improved overall performance light fighter in order to extend F-5 series. Surpassing by F-16, the F-20 project was cancelled.



Equipped with one GE-F404F-GE-F1-GE turbofan engine (4,810 kg thrust)x1

RF-5E reconnaissance aircraft, equips with one cannon and retains all other fighting capability as E version.

KS-87D1 oblique frame camera

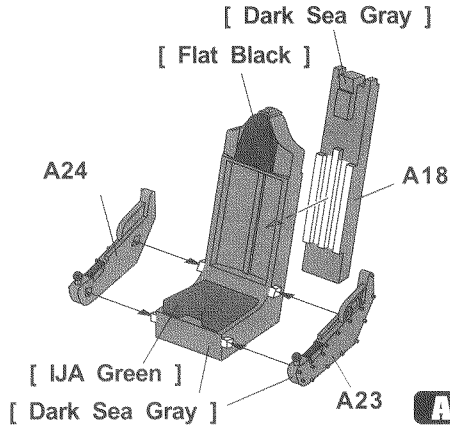
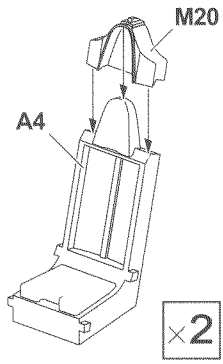
Shin.ueda

上田 信

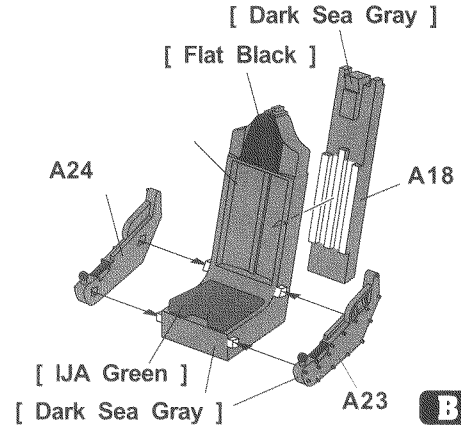
1

《 Front seat 》
《 前座 》

《 Rear seat 》
《 後座 》

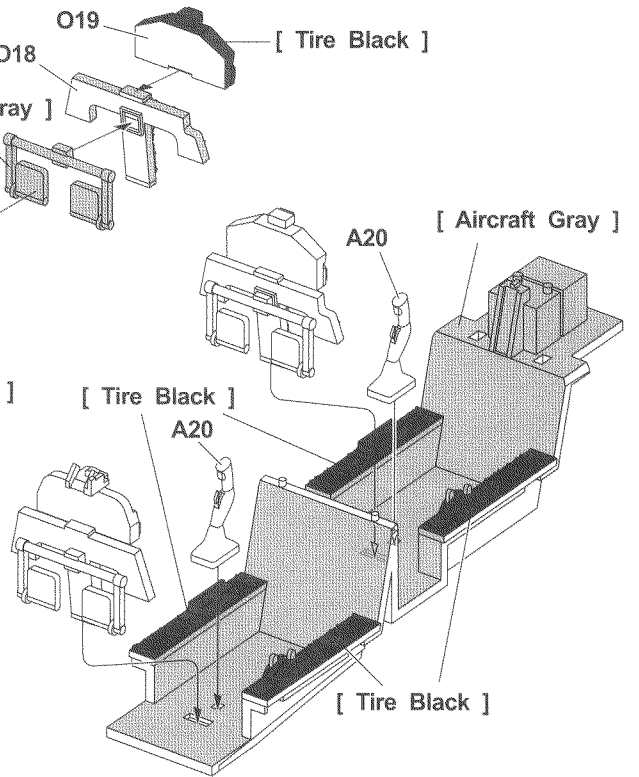
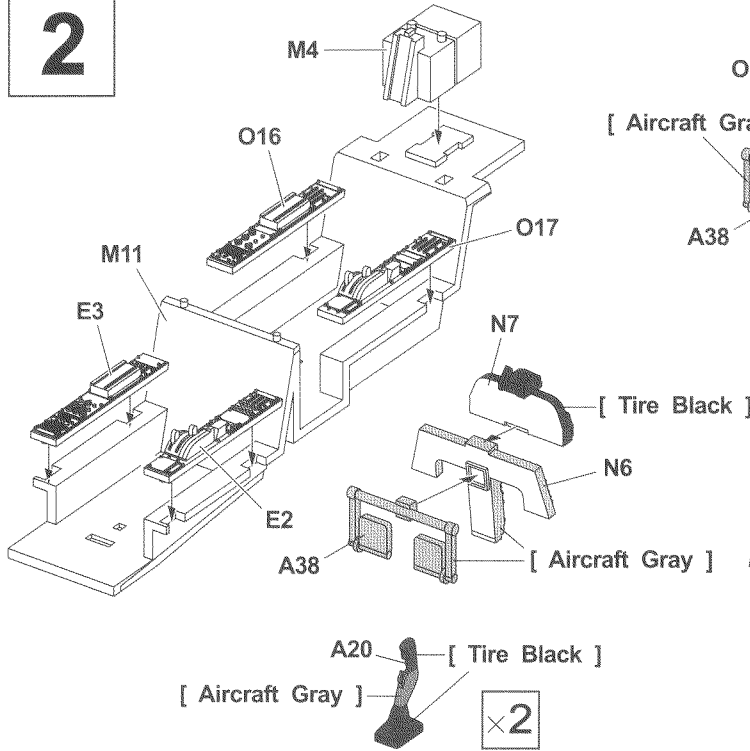


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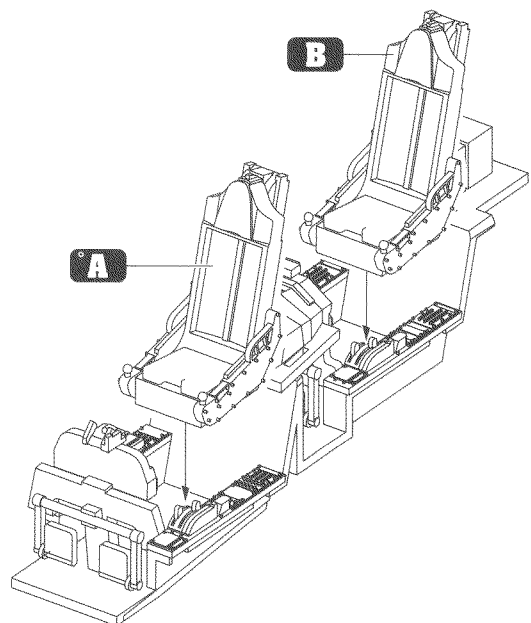
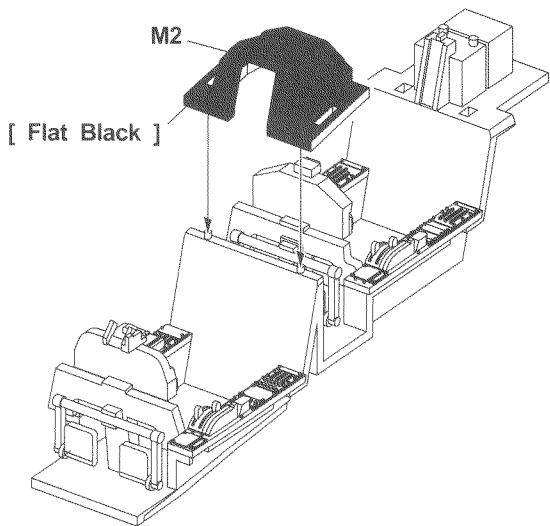


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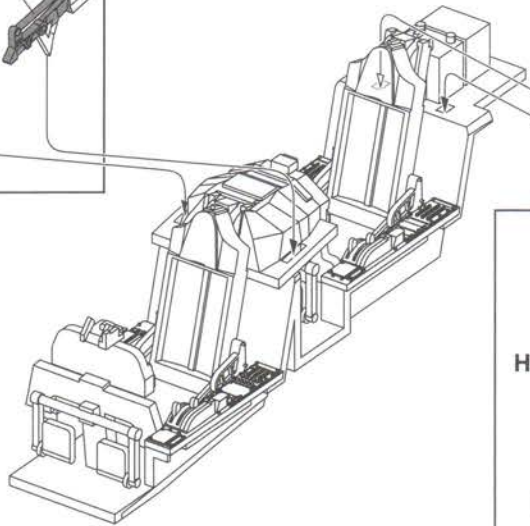
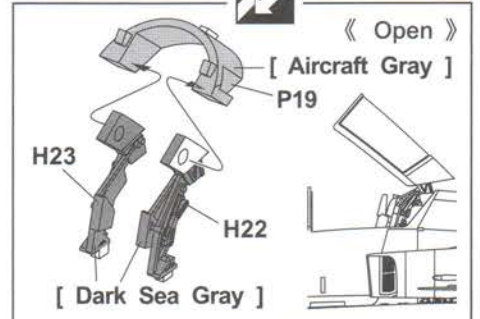
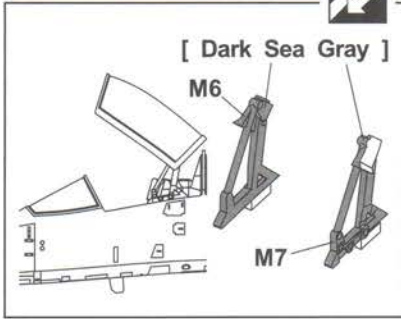
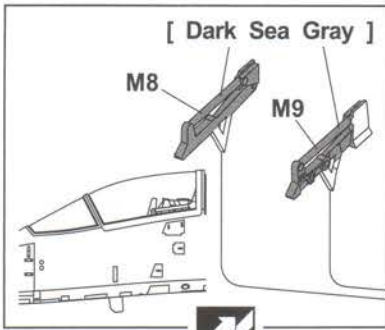
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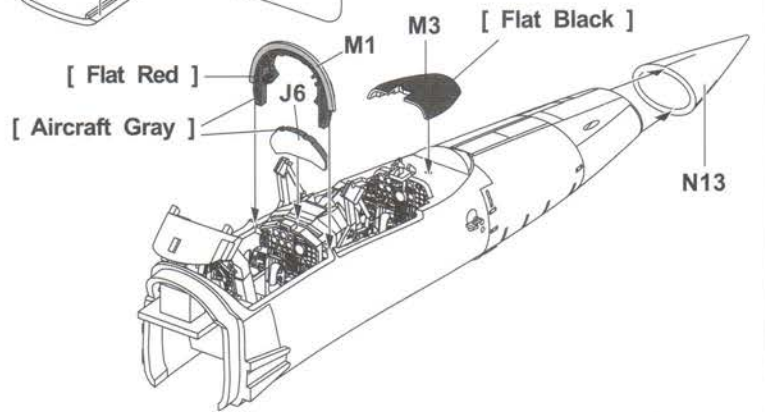
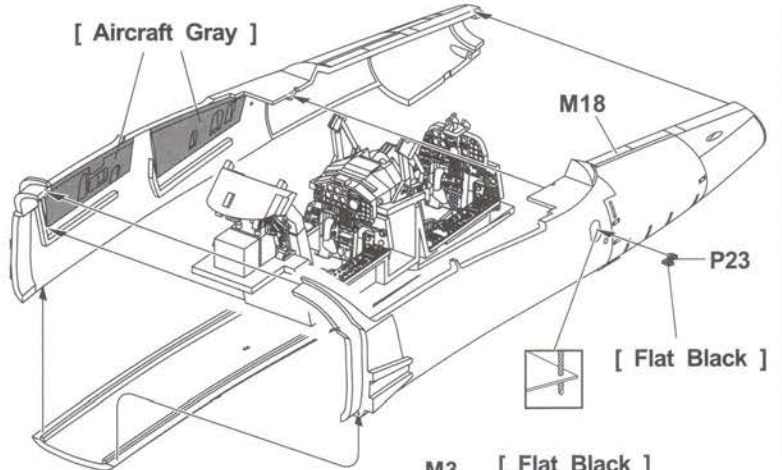
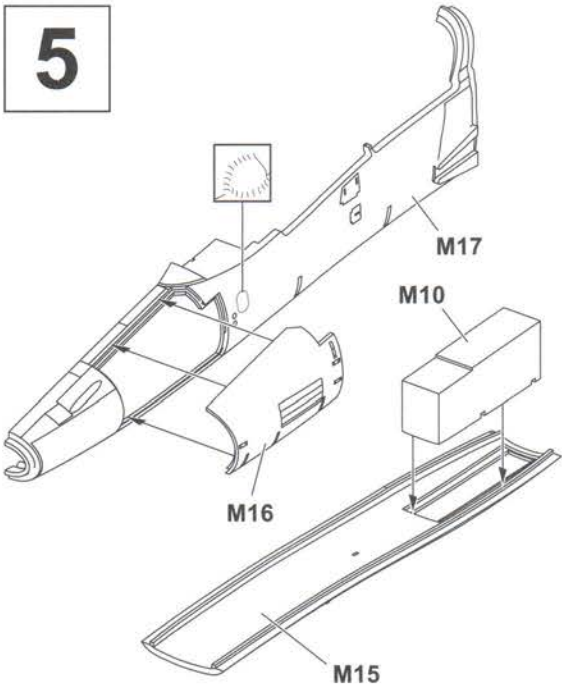
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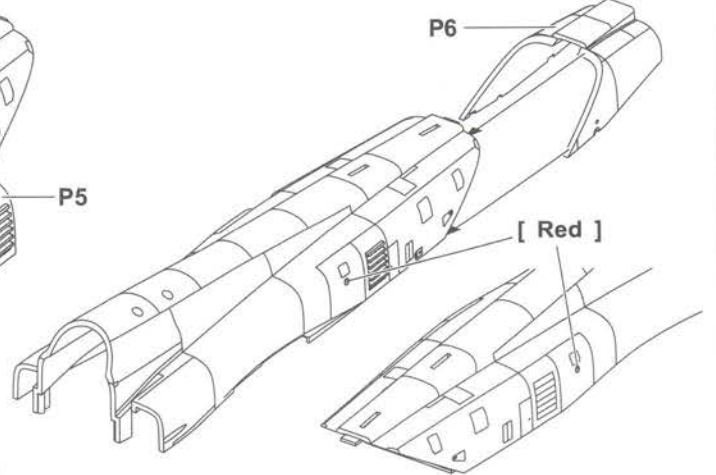
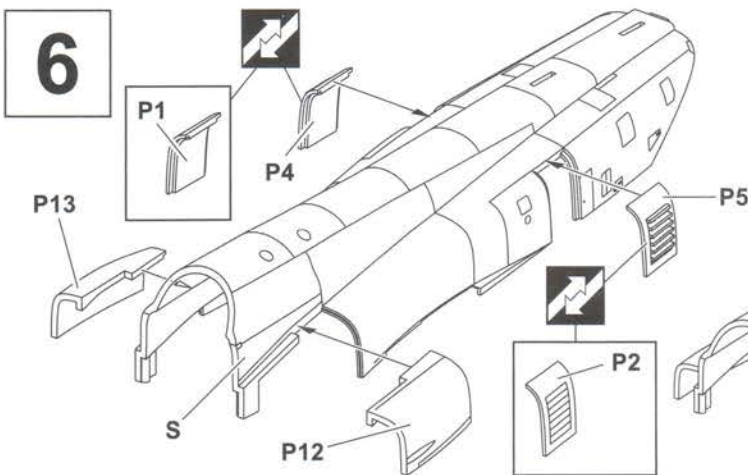
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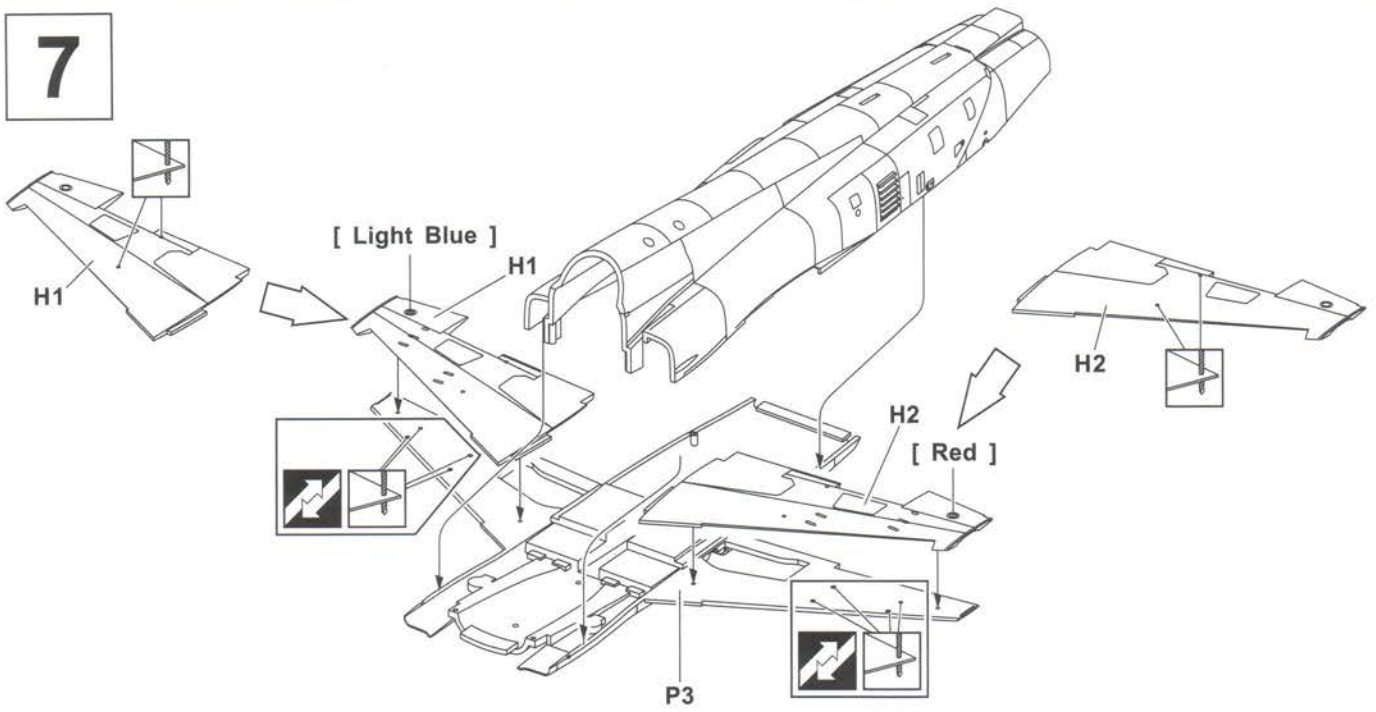
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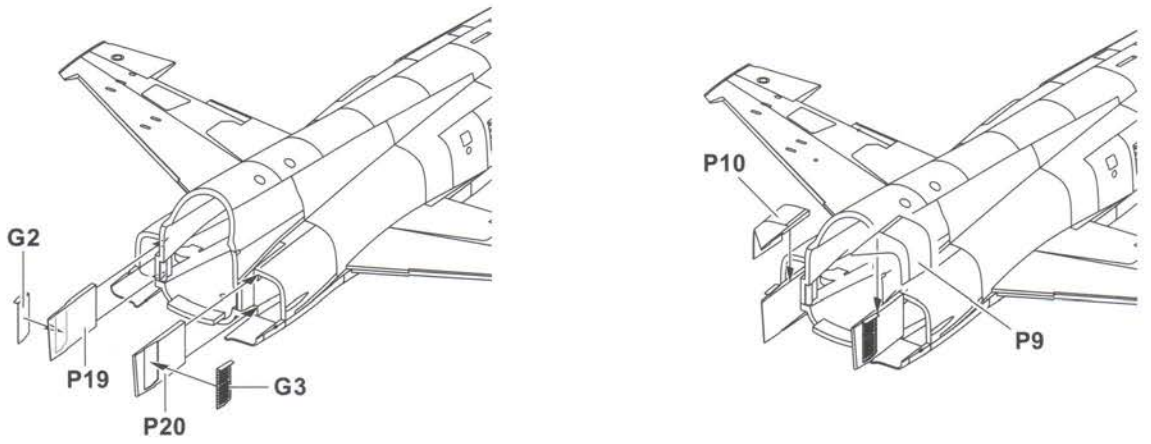
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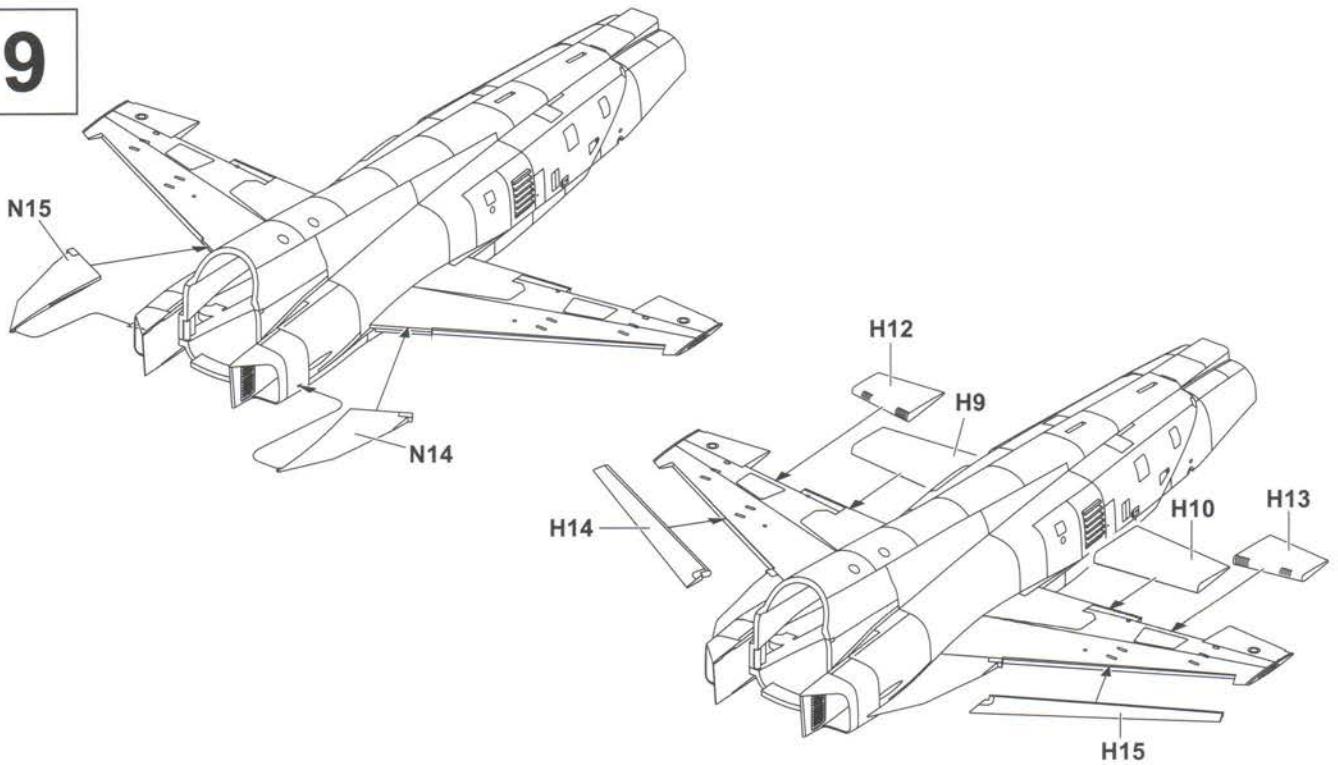
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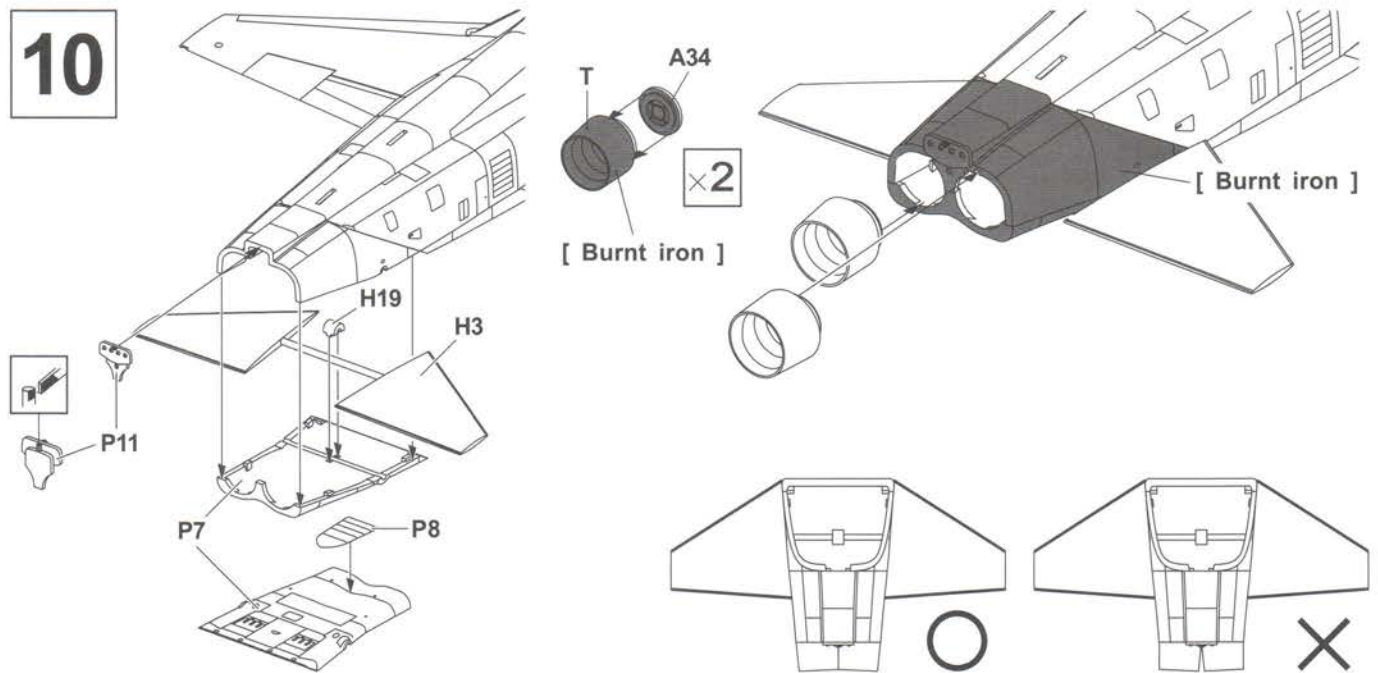
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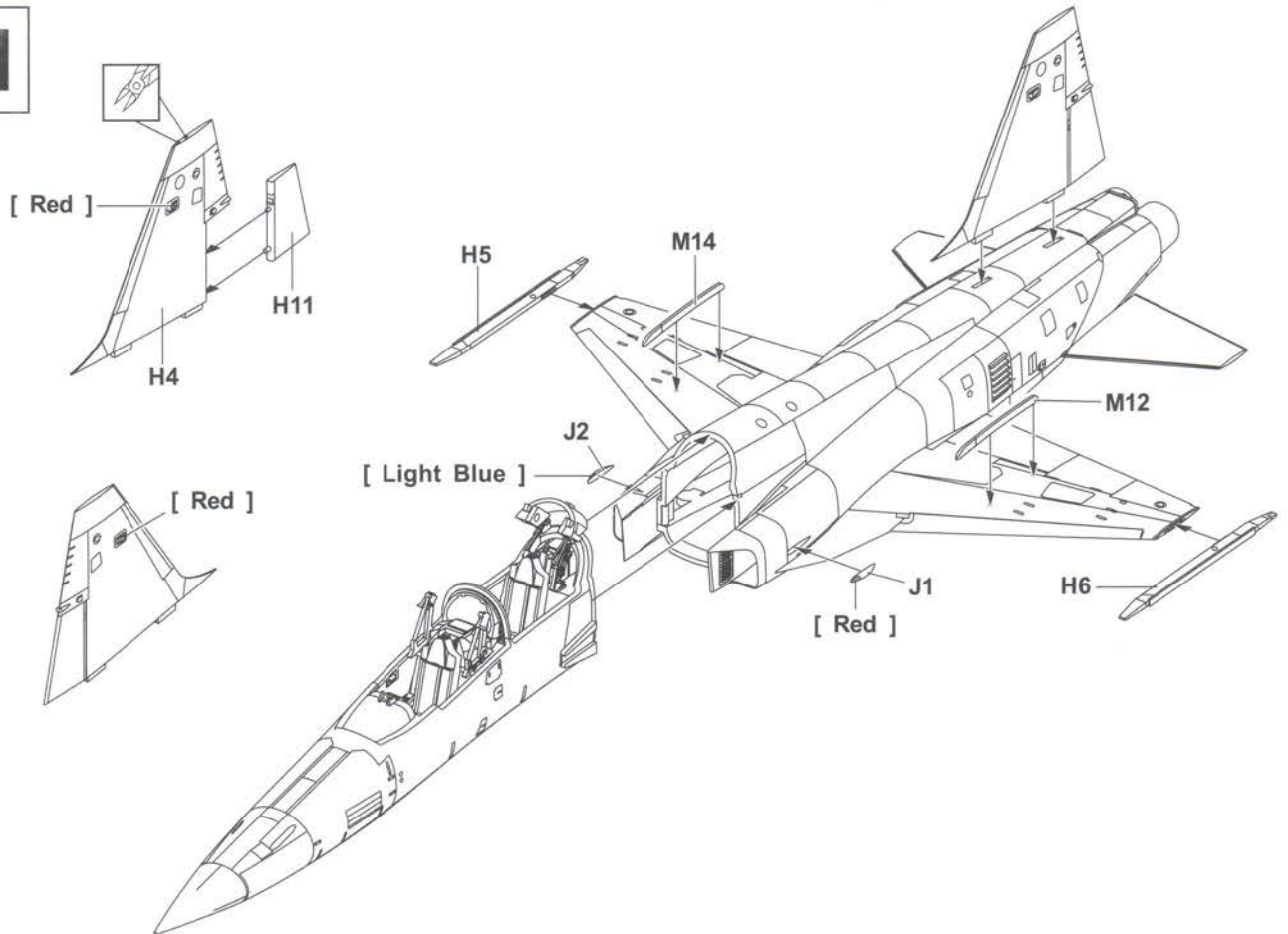
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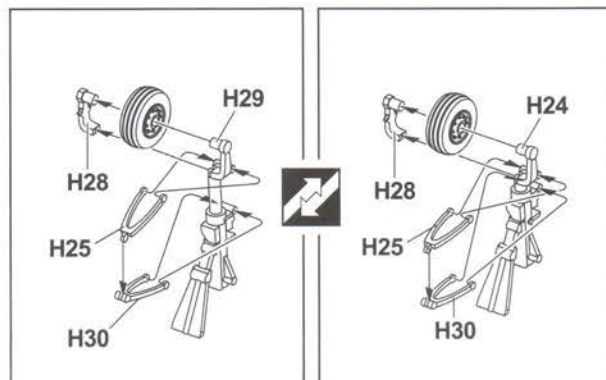
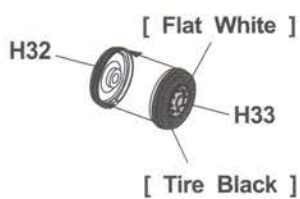


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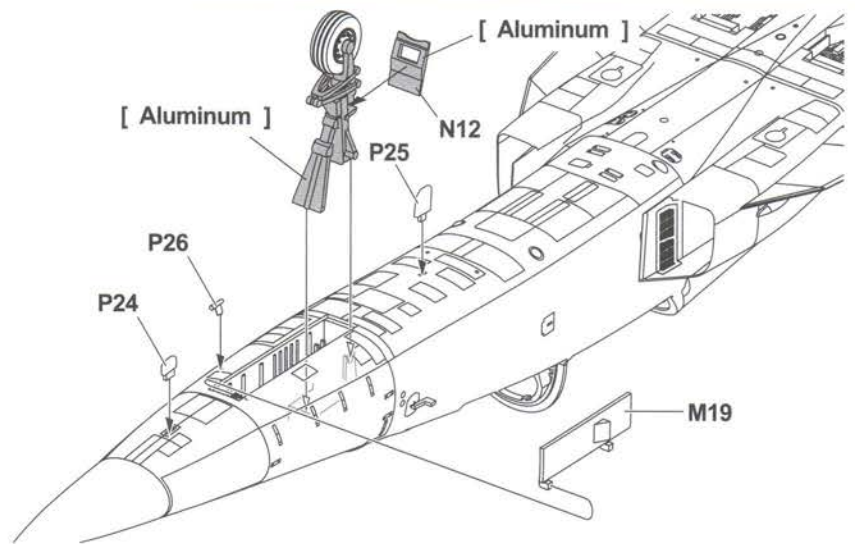
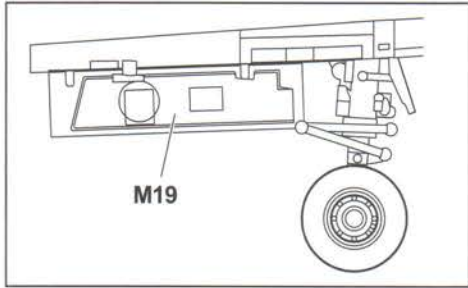


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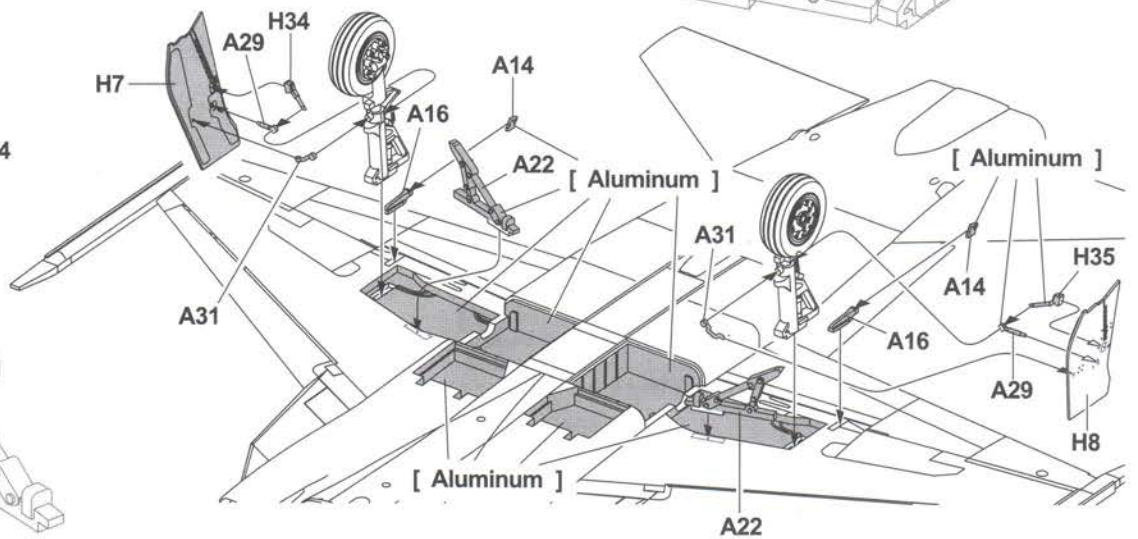
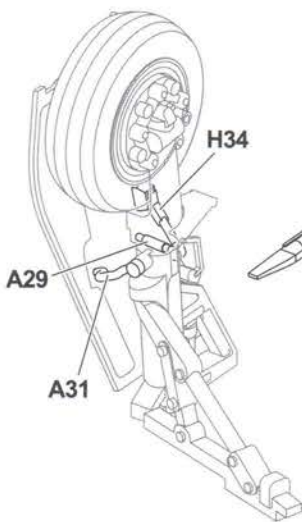
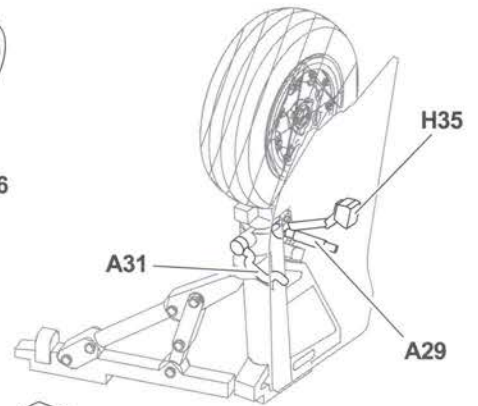
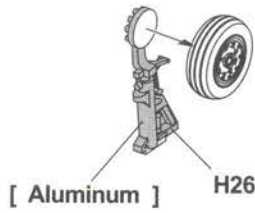
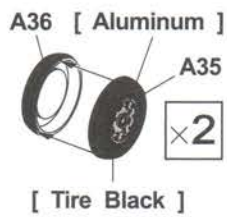
《 forward landing gear 》
《 前起落架 》



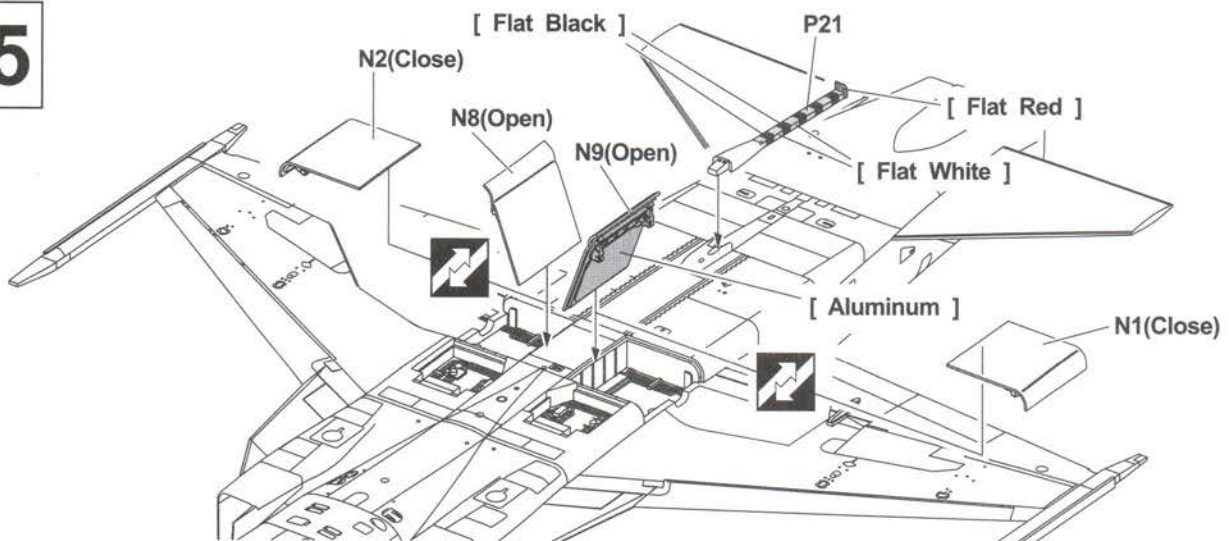
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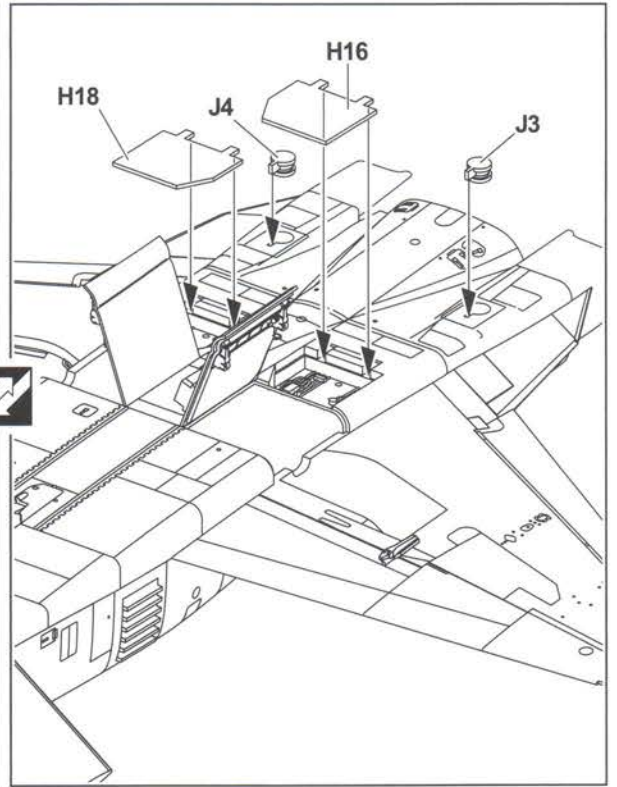
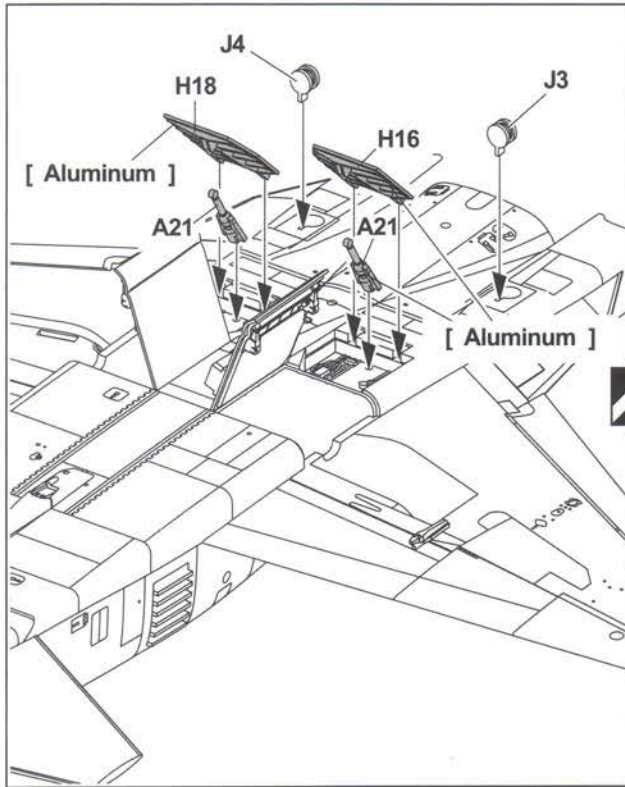
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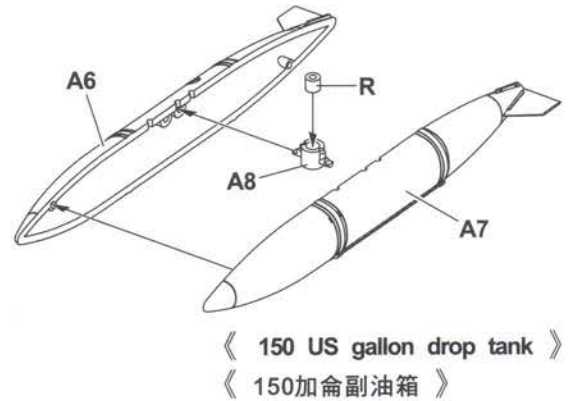
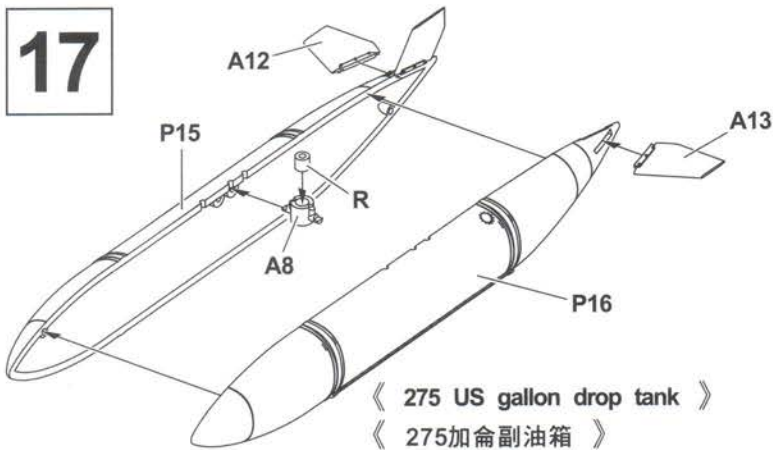
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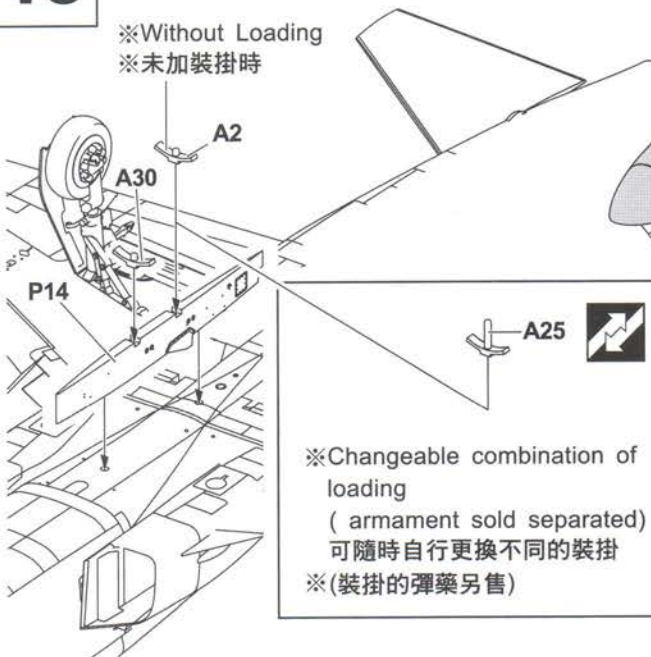


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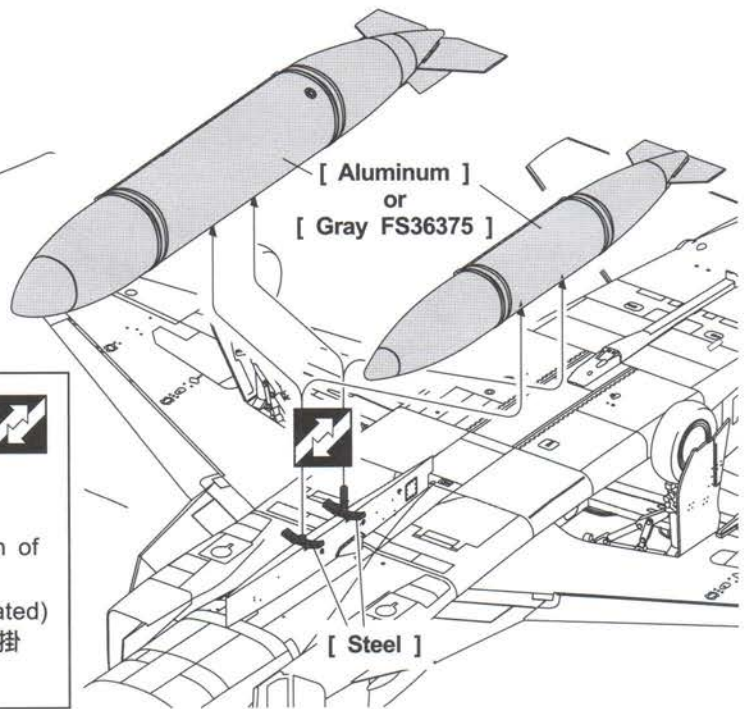


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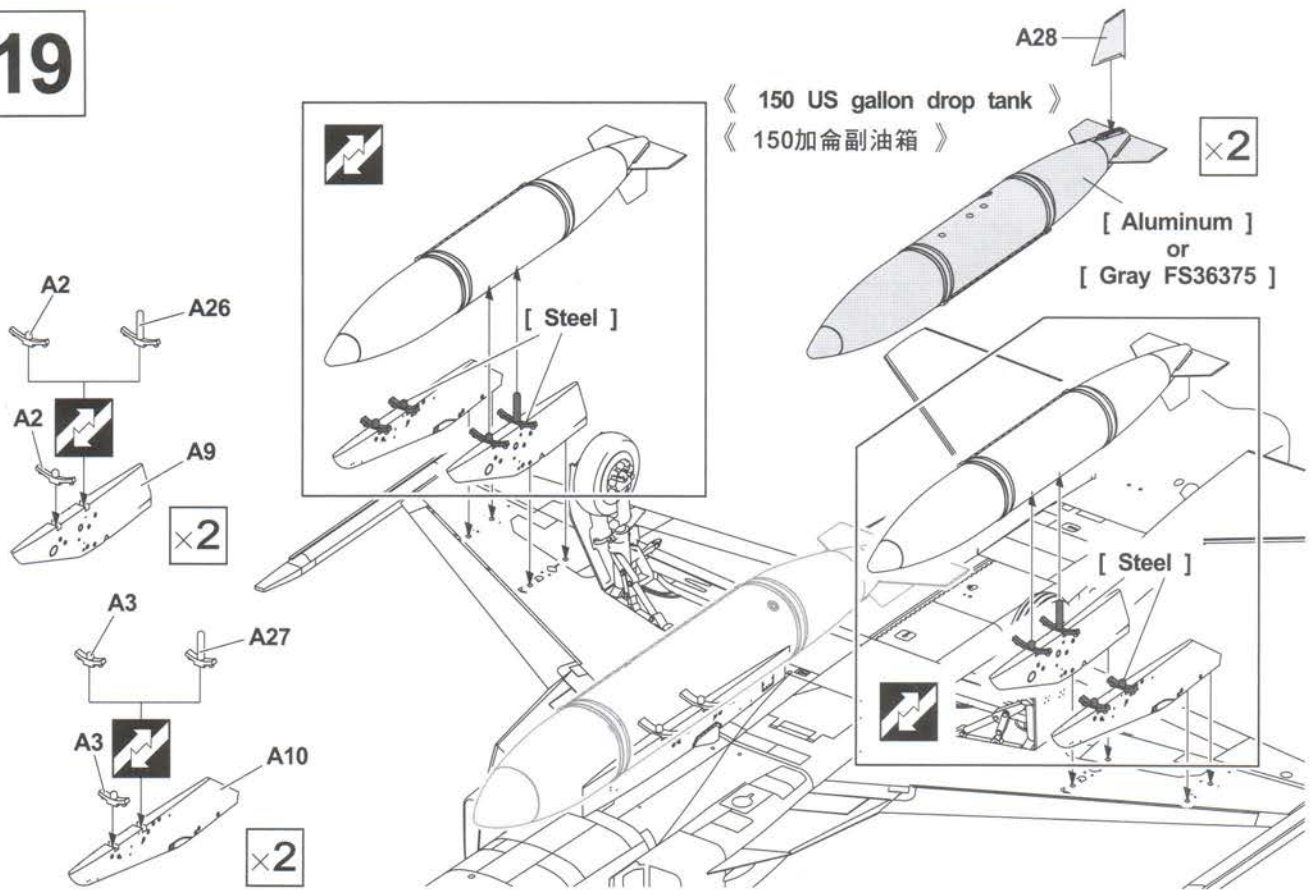
※Without Loading
※未加裝掛時



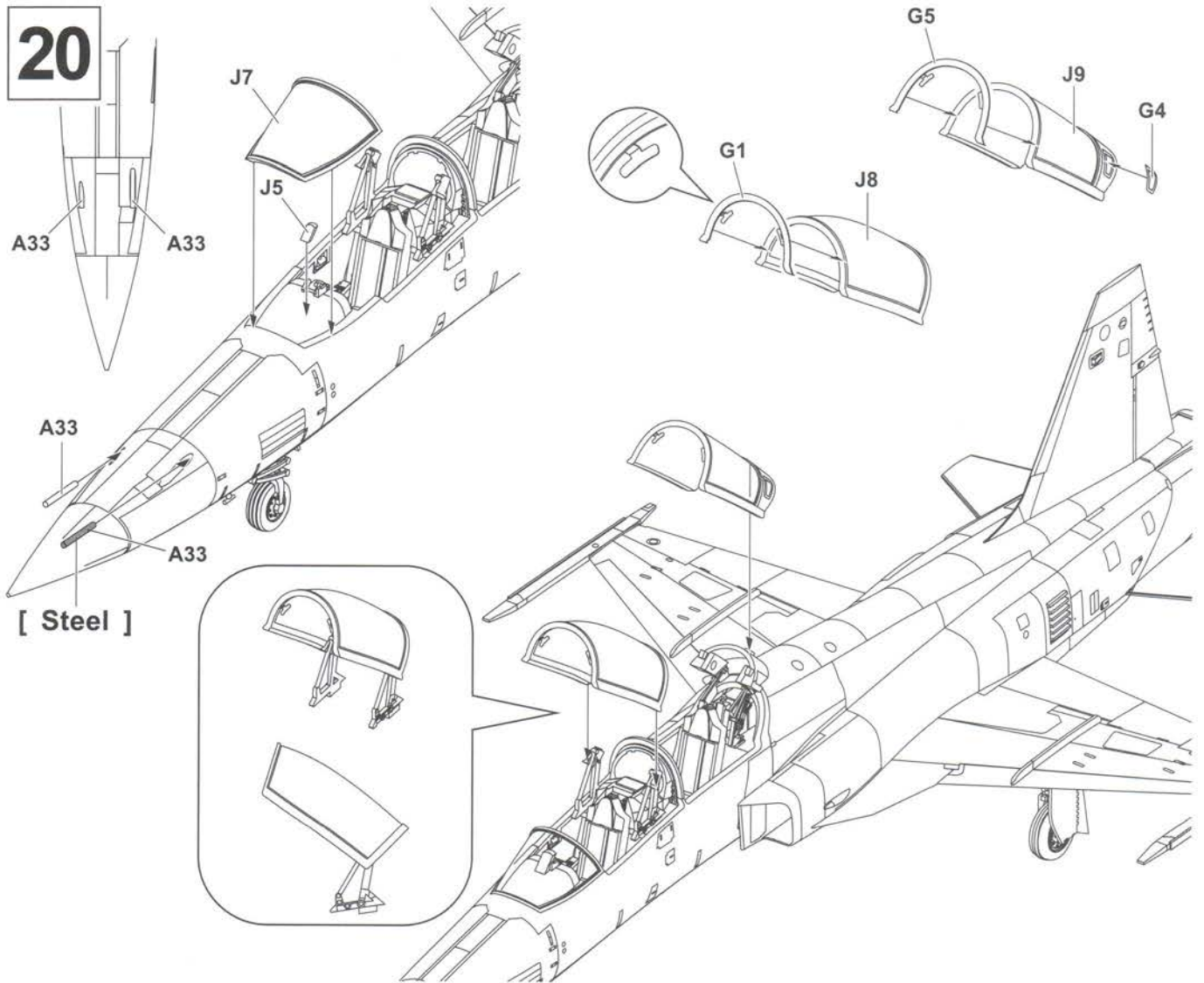
※Changeable combination of loading
(armament sold separated)
可隨時自行更換不同的裝掛
※(裝掛的彈藥另售)



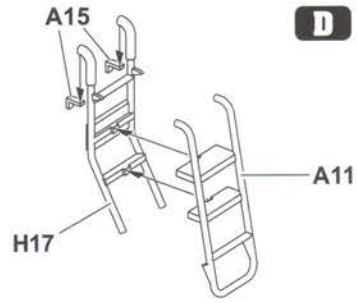
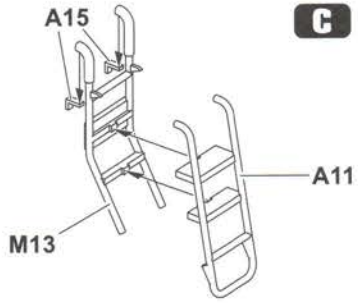
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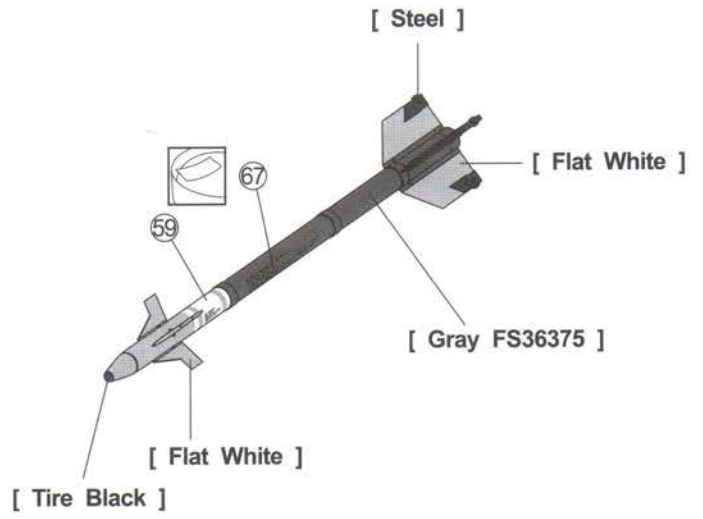
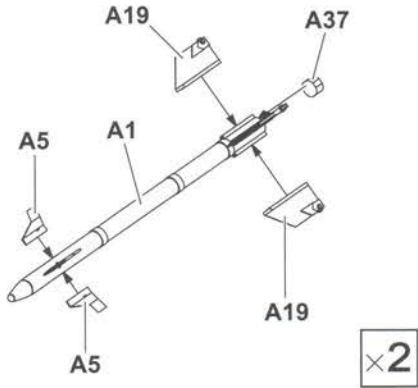
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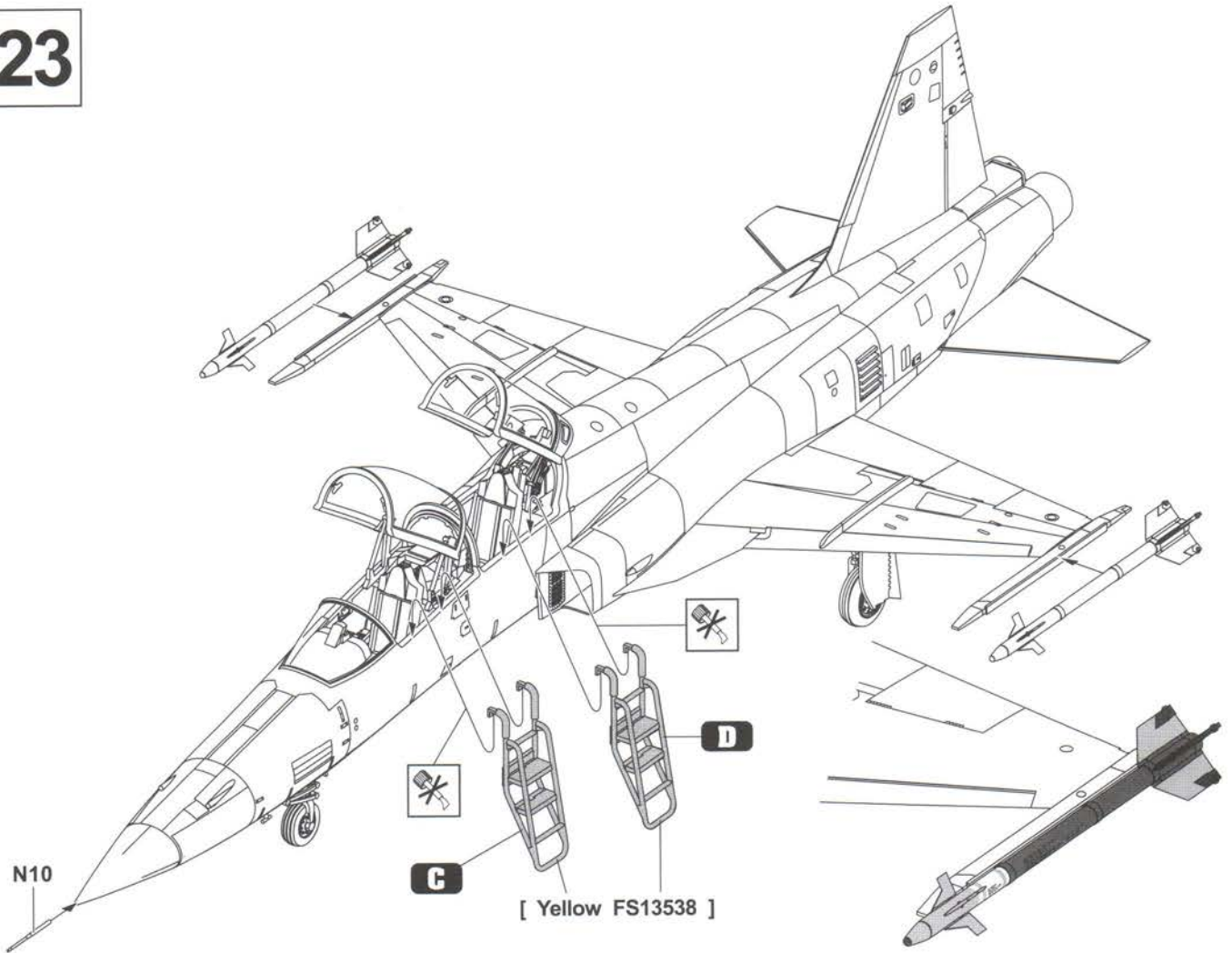
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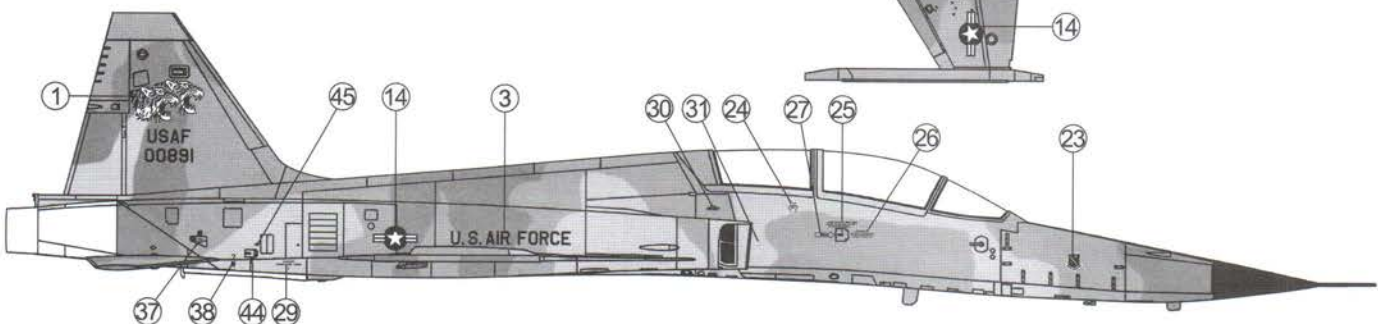
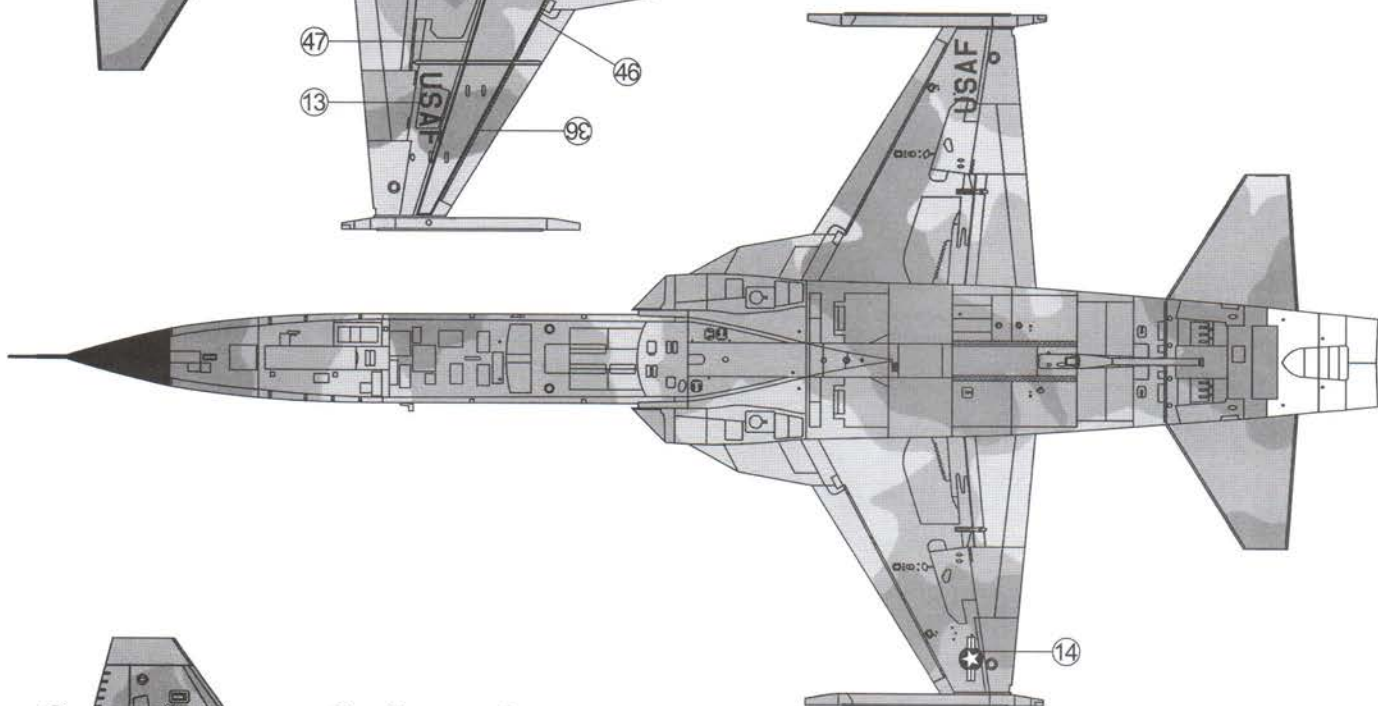
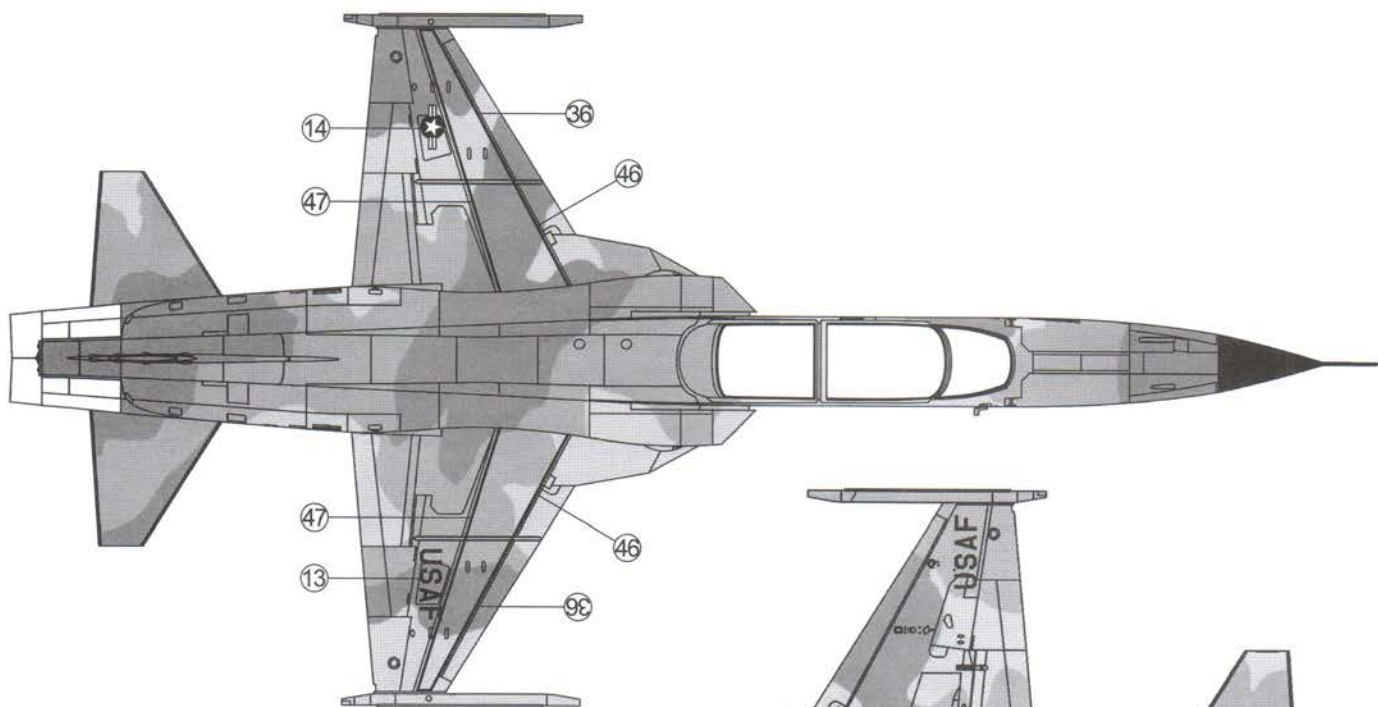
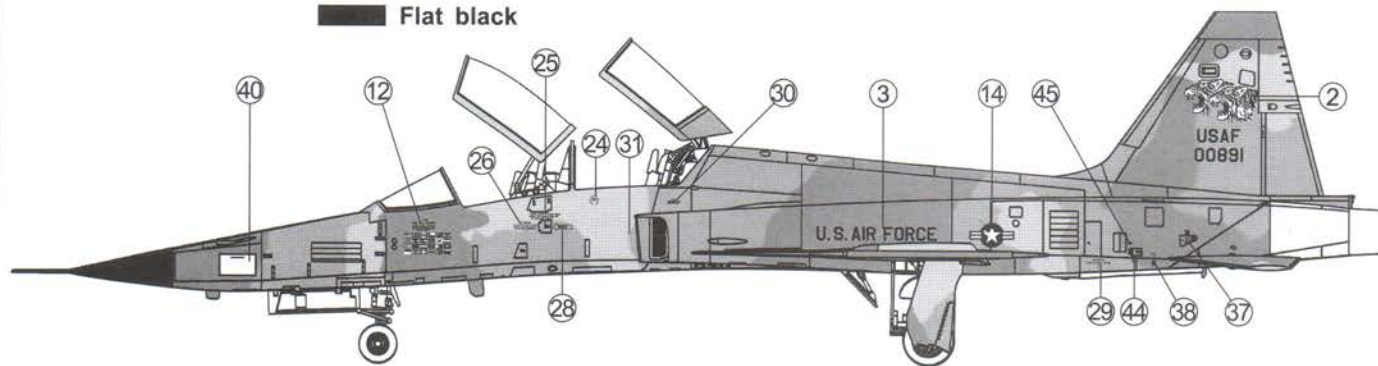
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A

USAF, Williams Air Force Base, 1979 美國空軍威廉斯空軍基地, 1979年

- Body Color:
-  Light gray FS36495
 -  Gray FS36440
 -  Gray FS36375
 -  Flat black



B

Islamic Republic of Iran Air Force 伊朗伊斯蘭共和國空軍

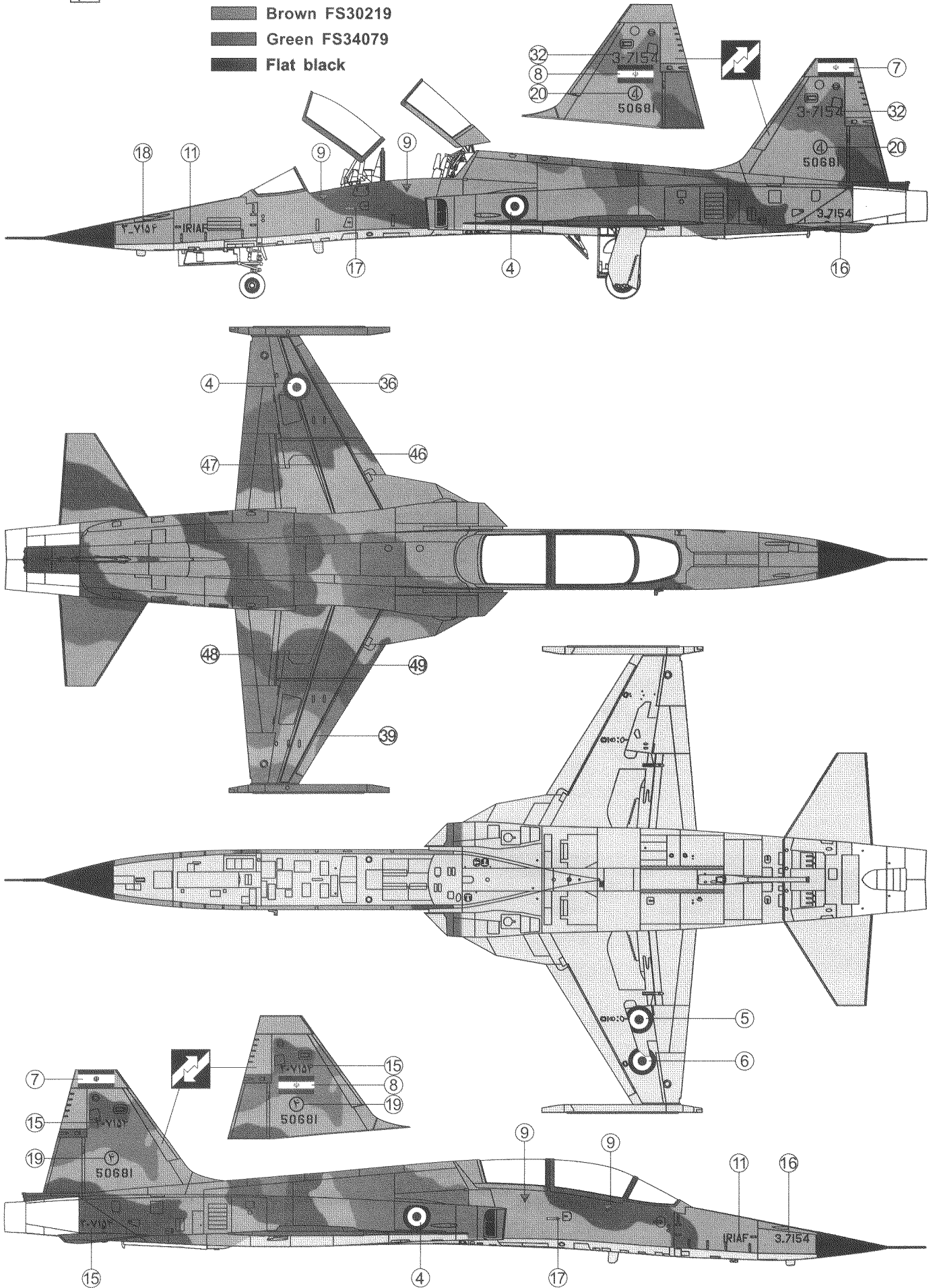


Body Color: Radome

Brown FS30219

Green FS34079

Flat black



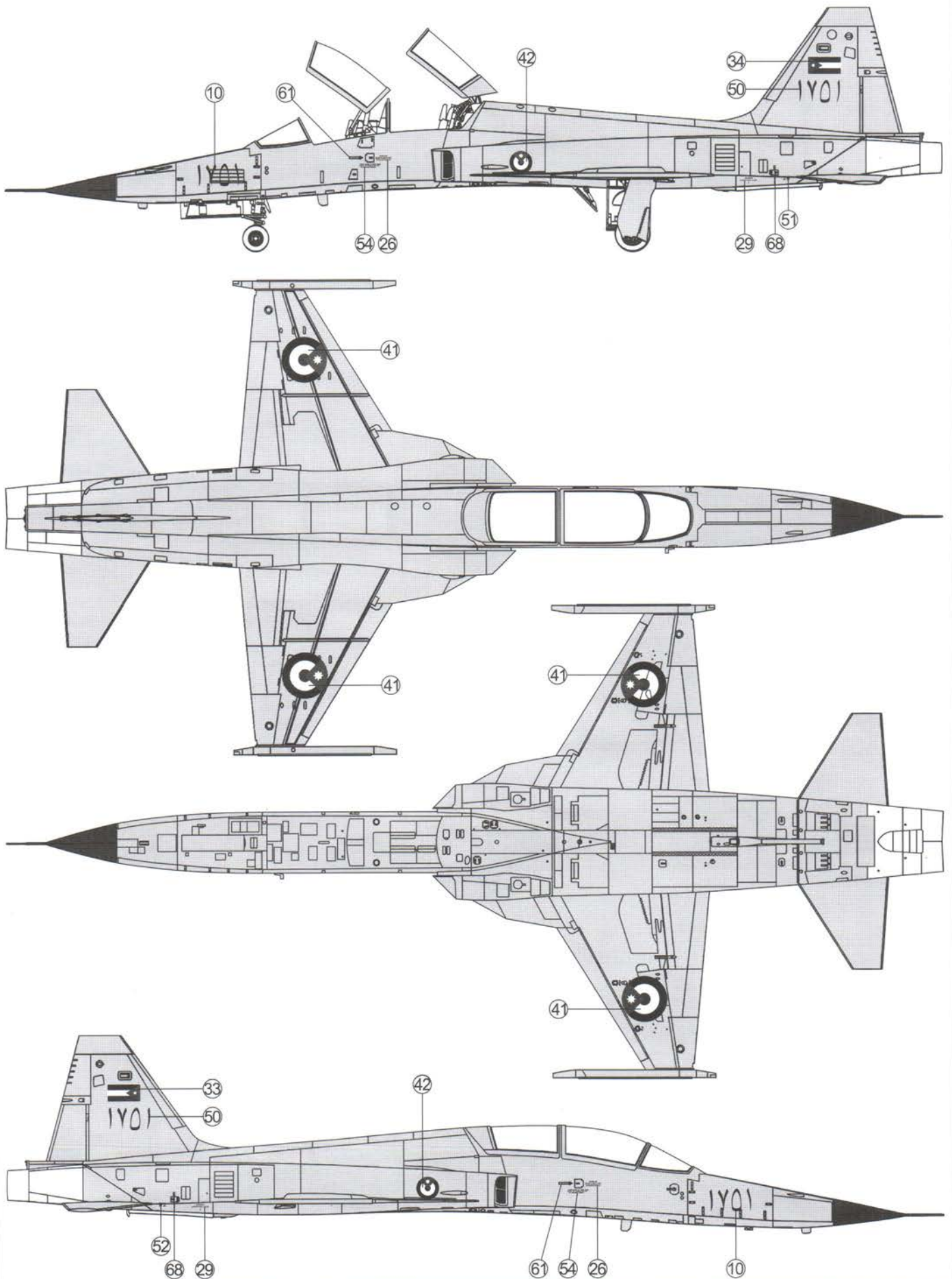
C

Royal Jordanian Air Force 約旦皇家空軍



Body Color:  Silver

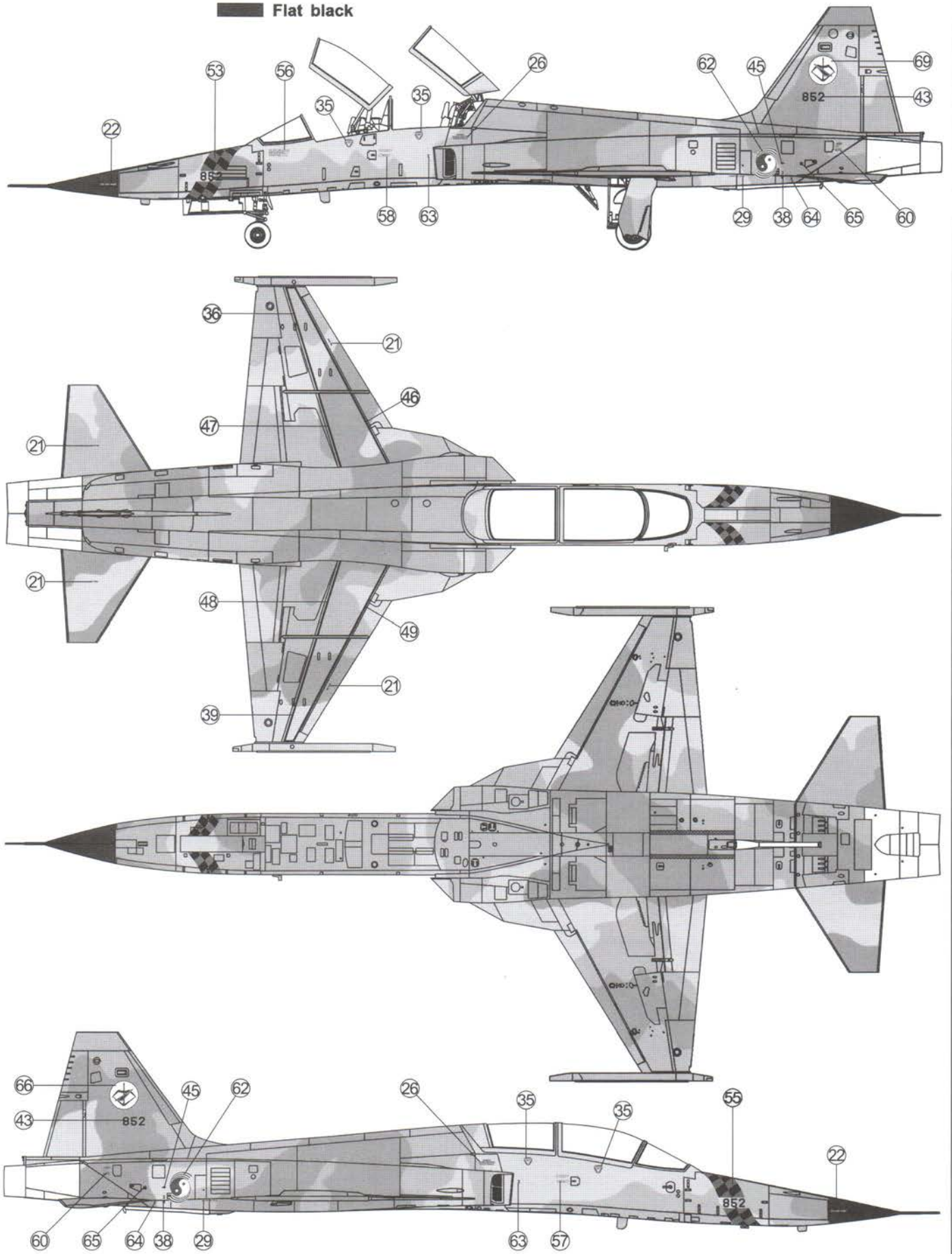
 Flat black



D

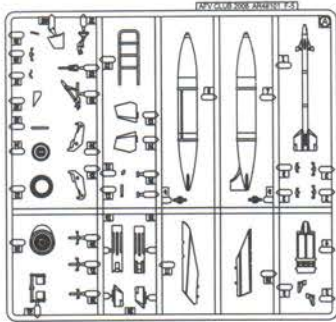
Singapore Air Force, No.144 Squadron 新加坡空軍第一一四中隊

- Body Color:
- Gray FS36375
 - Gray FS36270
 - Gray FS36320
 - Flat black

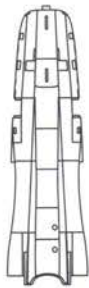


PARTS LIST 零件表

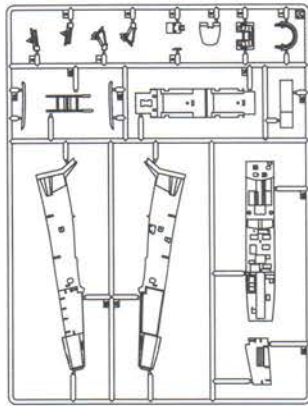
A X2



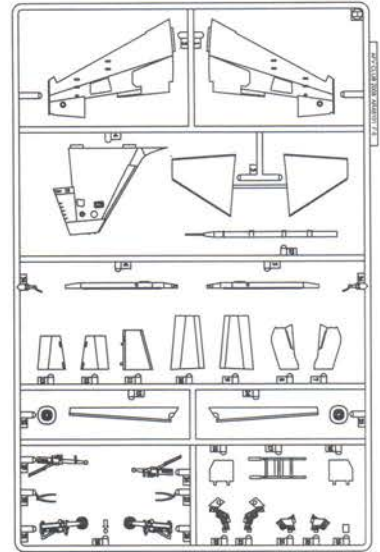
S X1



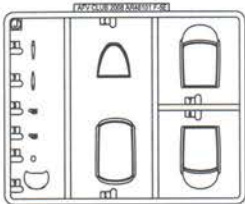
M X1



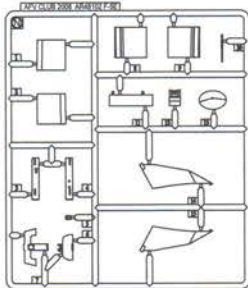
H X1



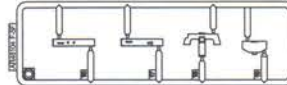
J X1



N X1



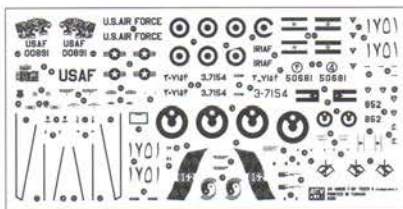
O X1



R X1

T X1

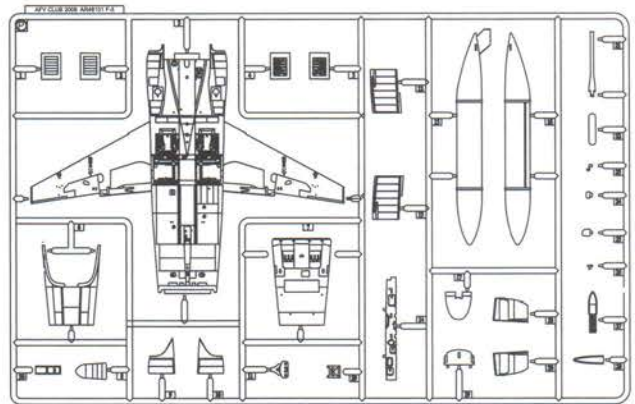
Z X1



G X1



P X1



Instructions:

If for some reason, you are not fully satisfied or have questions concerning our product; Please use the form provide, and send it to our nearest representative or mail it directly to our office.

We will deal with that A.S.A.P.



AR 48106 Parts Replacement Form

- | | |
|----------------------------------|----------------------------------|
| <input type="checkbox"/> A parts | <input type="checkbox"/> O parts |
| <input type="checkbox"/> G parts | <input type="checkbox"/> P parts |
| <input type="checkbox"/> H parts | <input type="checkbox"/> R parts |
| <input type="checkbox"/> J parts | <input type="checkbox"/> S parts |
| <input type="checkbox"/> M parts | <input type="checkbox"/> T parts |
| <input type="checkbox"/> N parts | <input type="checkbox"/> Z parts |

Reason for replacement: Missing
 Broken

Signature: _____

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總代理戰鷹企業客服部收本公司將儘速為您處理。
請將本表與該部品相同金額之郵政匯票一同寄至。



AR 48106 零件補充申請表

申請人
姓名 地址 電話

- | | |
|---------------------------------|----------|
| <input type="checkbox"/> A 部品零件 | NT\$ 400 |
| <input type="checkbox"/> G 部品零件 | NT\$ 200 |
| <input type="checkbox"/> H 部品零件 | NT\$ 400 |
| <input type="checkbox"/> J 部品零件 | NT\$ 200 |
| <input type="checkbox"/> M 部品零件 | NT\$ 350 |
| <input type="checkbox"/> N 部品零件 | NT\$ 300 |
| <input type="checkbox"/> O 部品零件 | NT\$ 200 |
| <input type="checkbox"/> P 部品零件 | NT\$ 400 |
| <input type="checkbox"/> R 部品零件 | NT\$ 150 |
| <input type="checkbox"/> S 部品零件 | NT\$ 150 |
| <input type="checkbox"/> T 部品零件 | NT\$ 100 |
| <input type="checkbox"/> Z 部品零件 | NT\$ 350 |

+郵寄費 NT\$ 80

(請填)總計NT\$ _____

零件補充原因:(請於打√)
原包裝即遺失或毀損,
製作途中遺失或毀損,
其他原因