



GREY FOX CONCEPTS

1/35 Australian Fire Support vehicle M113A1 (FS) Conversion
SKU: GFC350031

Description: Australian Fire Support Vehicle M113 (FS) conversion as used in Vietnam (VN) and Post Vietnam War (PVN) for construction for one M113A1 FSV vehicle.

History:

The FSVs were introduced into service around the mid-1960's. They were converted from M113A1 hulls, modified to fit Saladin turrets, which were removed from in-service Saladin armoured cars. A total of fifteen vehicles were configured with an adapter plate and other minor modifications to bring them into service. During the Vietnam conflict, eight Australian FSV M113 (FS) vehicles served from mid-1971 until early 1972. The deployment of the eight-strong FSV fleet gave sufficient operational flexibility to the 1st Australian Task Force to permit the withdrawal of the Squadron of Centurion tanks. Six of these vehicles were deployed for patrolling, convoy protection, ambushes, protection of land-clearing teams, and defense of established positions. The other two were held in reserve. After the Vietnam War, the Australian Army continued to use these vehicles until the mid-1980's.

Included are parts for both the Vietnam service FSV's, and for updates added to the FSV's during their post Vietnam service in the Royal Australian Armoured Corps giving the modeller the option to build either. Please take note of these instructions in order to use the correct parts for your desired build. In the instructions there are parts specific for the Vietnam era vehicle and parts specific for the post Vietnam era. The post Vietnam era are labelled as PVN.

These parts are made from printed resin and although GFC has gone to great lengths to ensure an accurate fit as possible, we do highly recommend the test fitting of all parts prior to gluing.

Cyanoacrylate (super glue/crazy glue) or epoxy glues must be used to ensure adhesion. Parts should be primed before painting.

If the modeller notices the rare occurrence of some resin liquids remaining on the printed parts, these parts can be sat in sunlight for no more than 3-5 minutes to fully cure them.

There are numerous fine parts printed in this conversion and the modeller will need to take extreme care when removing the printing support runners from all parts.

This conversion does not come with the GFC350013 M113 Sponson Armour or the GFC350015 M113 Belly Armour.

Safety: This is a 3D-printed resin product. When working with it, take precautions to avoid inhaling dust produced by cutting, sanding, or filing. Wear a dust mask and eye protection, and work in a well-ventilated area.

Parts: One complete conversion set for a Fire Support Vehicle M113 (FS). This conversion kit is suited to the AFV Club, **M113A1 ACAV AF35113**, **M113A1 APC AF35291**, and their **Australian Army M113 LRV AF35313**.

The hull top **GFC01** may require a very slight chamfering on the inside edges to help it sit firmly on the hull tub. The hinges for the trim vane extension **GFC07** are also quite fragile so please take care removing the runners from those points to prevent them breaking during the process.

In particular please note that the turret includes the numerous handles welded to the turret sides and these are extremely fine and can be easily damaged during this removal process. Same for the

travel lock for the crew commander's flex mounted .30 cal machine gun, and mounts for the smoke launchers. Both the gun Mantlet and the turret hatches can be made workable allowing the barrel to elevate and depress, and the hatches are workable to be opened or closed. But care must be taken when assembling the specific parts for these items for this to occur (refer closely to the build instructions). The turret can also rotate.

The majority of the parts are generic to the FSV throughout their service life, however parts specific to modifications post Vietnam (PVN) include:

Hull:

GFC09 – Gun Depression Rail for PVN

GFC10 – Front Headlights for PVN

GFC11 – Taillights for PVN

Turret:

GFC13 – MX-6707/VRC Antenna Mast Base -with Guard

GFC27 – Cable Reel - Pre and PVN

GFC29 – Smoke Grenade Launches - Pre and PVN

GFC43 – 76mm Main Gun barrel with bottom bump for PVN

Total Conversion Parts

Parts: Hull

GFC01 – FSV Hull Adapter Plate

GFC02 – FSV Hull Adapter Plate, engine hatch hinges

GFC03 – FSV Driver Hatch Post

GFC04 – FSV Engine Exhaust

GFC05 – M113 Empty Jerry Racks

GFC06 – M113 20L Fuel Jerry Racks

GFC07 – FSV Trim Vane Extension

GFC08 – Footman Loop Tie Downs

GFC09 – A-Frame Bracket Clamp

GFC10 – Gun Depression Rail for PVN

GFC11 – Front indicators for PVN

GFC12 – Rear indicators for PVN

GFC13 – Sponson Armour

Parts:Turret

Turret has 11 plates with parts located on these plates

Plate A Periscopes and Range Finder Glass

GFC14– Gunner gun sight

GFC15 – Commanders Rear periscope

GFC16 – Commander periscopes

Plate B 30 Calibre MG, Coax and Mount

GFC17 – 30Cal Coax barrel (option 1)

GFC18 – 30Cal Coax barrel (option 2)

GFC19 – 30Cal body

GFC20 – 30Cal feed tray

GFC21 – 30Cal Flex Mount bracket

GFC22 – 30Cal Flex mount (option 1)

GFC23 – 30Cal Flex mount extension (option 2)

Plate C Hatches and Pins

GFC24 – Commanders Turret Hatch

GFC25 – Gunner Turret Hatch

GFC26 – Commanders and Gunners Hatch hinges

Plate D Late Version Parts

GFC27 – Cable Reel - Pre and PVN

GFC28 – Antenna Base Guards

GFC29 – Smoke Grenade Launches - Pre and PVN

Plate E Mantlet and Gun Mount

GFC30 – Mantlet

GFC31 – Mantlet Extension

GFC32 – Mantlet back support

GFC33 – Coax mount

Plate F Optics and Radio

GFC34 – Gunners Sight assembly

GFC35 – Commanders rear periscope housing

GFC36 – Gunners periscope window wiper

GFC37 - Turret Antenna Base

GFC38 – Turret Antenna Base with guard

GFC39 – Turret Antenna backing plate

Plate G Barrels

GFC40 – 76mm Main Gun barrel

GFC41 – 76mm Main Gun barrel with safe depression stop PVN

Plate H Turret

GFC42 – Turret

Plate I Ring

GFC43 – Turret Ring

Plate J

GFC44 – Spare Turret handles

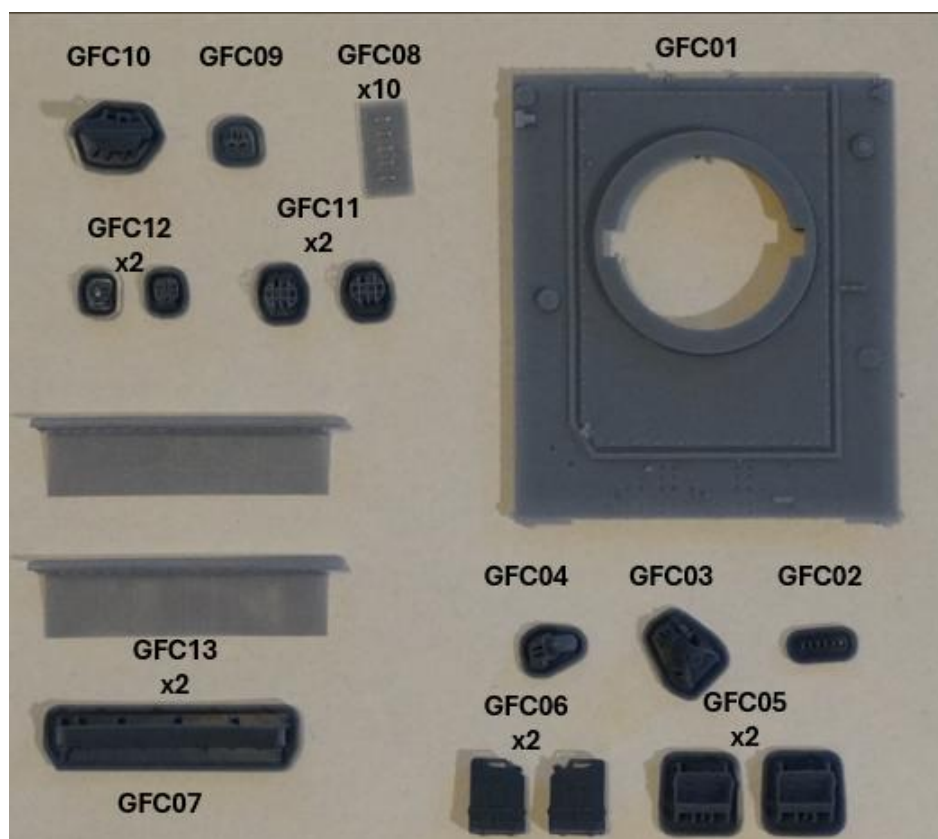


Figure 1: Parts: Hull

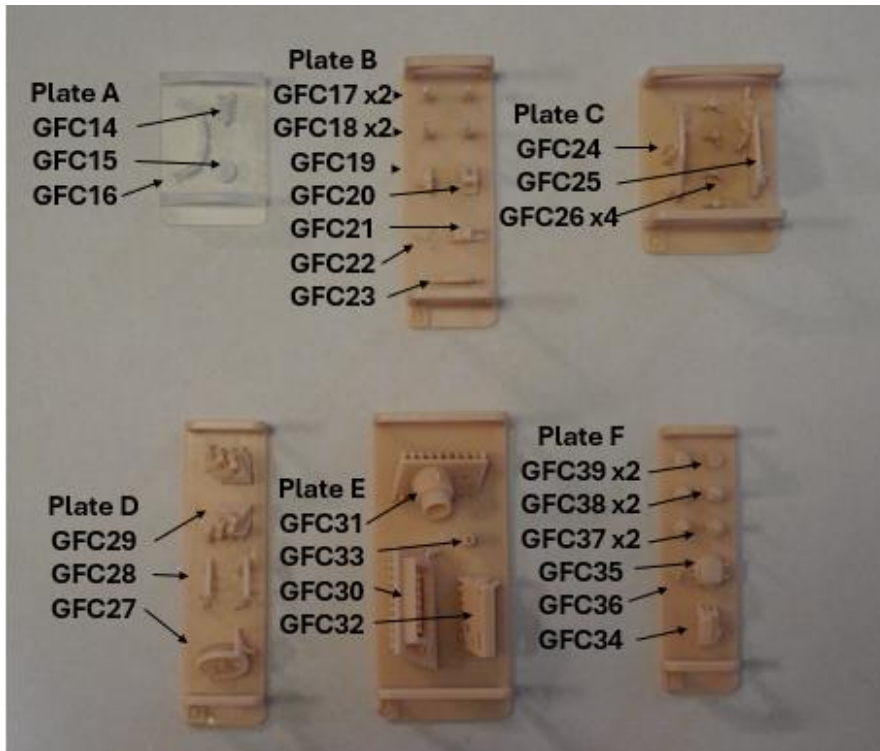


Figure 2: Parts: Turret

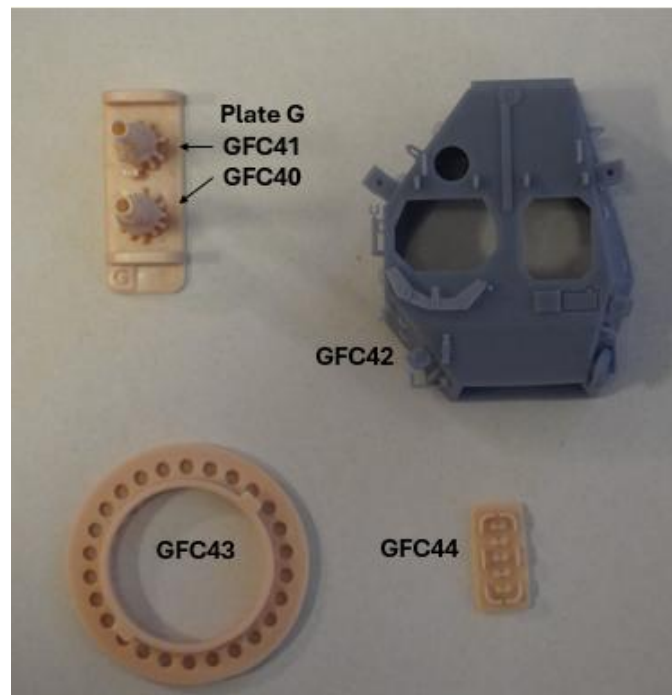


Figure 3: Parts: Turret

Instructions:

There are a number of separate parts to this instruction. This is due to some of the different variations of instruction sets for each model kit. One for the **M113A1 ACAV AF35113**, **M113A1 APC AF35291** and **M113 LRV AF35313**

For the M113A1 ACAV AF35113. Follow the following steps;

1. Step 1. Remove the raised protrusion on each side of the sponson, as in the Figure 4. Fit the parts **GFC13**, by placing the front edge of the sponson appropriately 1mm back from the vertical weld on the kit as per Figure 5 on each side. The sponson armour should overhang .5mm from the hull of the kit. Attached with CA glue
2. Step 10. Add Front indicators parts **GFC11** for a PVN Vehicle, as per Figure 6.
3. Step 11. Replace B21 with the **GFC01**. Cut B21 along red line as per Figure 13, keeping the drivers hole Add parts 3x H5 and H8 as per kit instructions. join this part to the GFC01 of the kit's instructions. It's important to conduct a test fit. The part will require some filing and sanding to fit properly. Then place onto the lower hull. Add **GFC09** to **GFC01** onto the bracket the middle of the right-hand side. Add **GFC02** to male hinges on parts B57 and B58.
4. Step 12. Remove the hinges on B1. Add, B3 and B4. Do not add D19, fill location points for D19 with filler.
5. Step 13. Add B2, then add the driver's lid B1 with the **GFC03**. Replace B36 with **GFC04** as per Figure 9. Add D23, B13, and B37 as per kit instructions. For the PVN variant add **GFC10** to part B2. See Figures 7 and 8
6. Step 14. Add B24 on the left side around the rear AMU backing plate. Add B23 on the right side around the forward AMU backing plate.
7. Step 16. Add Rear indicators parts **GFC12** for PVN, as per figure 10.
8. Step 18. Option to add either **GFC05** or **GFC06**, replacing the kits Fuel Jerries on both sides.
9. Step 20. Add **GFC07** onto B32, as figure 11.
10. Add **GFC08** to **GFC01** these are marked in blue in Figure 12.

For the M113A1 APC AF35291 Follow the following steps;

1. Step 1. Do not add part L16. Remove the raised protrusion on each side of the sponson, as in Figure 4. Dry fit the parts, by placing the front edge of the sponson appropriately 1mm back from the vertical weld on the kit as per Figure 5 on each side. The sponson armour should overhang .5mm from the hull of the kit.
2. Step 10. Add Front indicators parts **GFC11** for a PVN Vehicle, as per Figure 6.
3. Step 11. Replace L14 with GFC01.
4. Step 12. Add the complete Driver hole compartment L13 onto **GFC01**. Then join to the lower hull. It's important to **conduct a test fit**. The part will require some filing and sanding to fit properly. Add **GFC09** to **GFC01** onto the bracket the middle of the right-hand side. Add **GFC02** to male hinges on parts B57 and B58.
5. Step 13. Do NOT use L29, Use B1 supplied in the kit. Remove the hinges on B1. Add B3, H4 and B4. Add B2 to the hull and **GFC03**. Add D23, B13, B37. For the PVN variant add **GFC10** to part B2. See Figures 7 and 8.
6. Step 14. Replace B36 with **GFC04**, as per Figure 9
7. Step 15. Add B23, L5 on the left and right sides.
8. Step 17. Add Rear indicators parts **GFC12** for PVN, as per figure 10.
9. Step 19. Option to add either **GFC05** or **GFC06**, replacing the kits Fuel Jerries on both sides. P1, P2, F2, and L2.
10. Step 20. Add **GFC07** onto B32, as figure 11.
11. Add **GFC08** to **GFC01** these are marked in blue in Figure 12.

For the M113 LRV AF35313. Follow the following steps;

1. Step 1. Do not add part L16. Remove the raised protrusion on each side of the sponson, as in the Figure 4. Dry fit the parts, by placing the front edge of the sponson appropriately 1mm back from the vertical weld on the kit as per Figure 5 on each side. The sponson armour should overhang .5mm from the hull of the kit
2. Step 10. Add Front indicators parts **GFC11** for a PVN Vehicle, as per Figure 6.
3. Step 11. Replace L14 with GFC01.
4. Step 12. Add the complete Driver hole compartment L13 onto **GFC01**. Then join to the lower hull. It's important to conduct a test fit. The part will require some filing and sanding to fit properly. Add **GFC09** to **GFC01** onto the bracket the middle of the right-hand side. Add **GFC02** to male hinges on parts B57 and B58.
5. Step 13. Do NOT use L29, Use B1 supplied in the kit. Remove the hinges on. Add B3, H4 and B4. Add B2 to the hull and **GFC03**. Add D23, B13, B37. For the PVN variant add **GFC10** to part B2. See Figures 7 and 8.
6. Step 14. Replace B36 with **GFC04**, as per Figure 9.
7. Step 15. Add B23, L5 and L12 on the left and right sides.
8. Step 17. Do not use R5 and R6
9. Step 20 Add Rear indicators parts **GFC12** for PVN Do not use parts , R11, Q3 and R15, as per figure 10.
10. Step 21 . Option to add either **GFC05** or **GFC06**, replacing the kits Fuel Jerries on both sides.P1, P2, P3, P4, P5, R7 R17, R19, R28 and L2.
11. Step 23 Add **GFC07** onto B32, as figure 11
12. Add **GFC08** to **GFC01**, these are marked in blue in Figure 12.

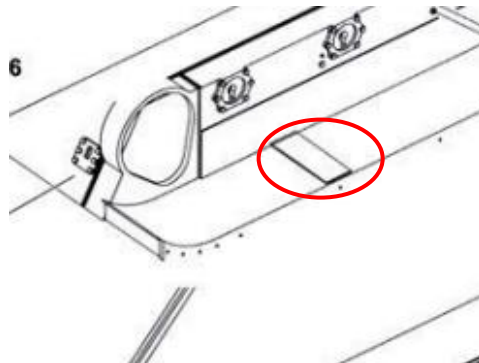


Figure: 4

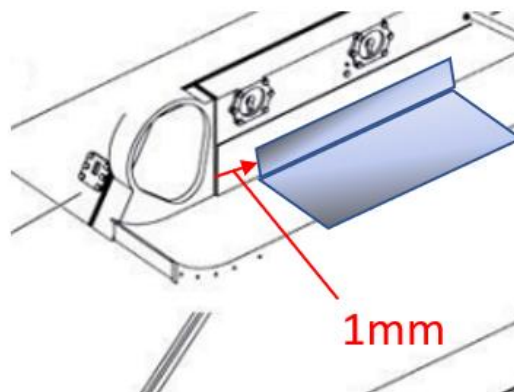


Figure: 5



Figure 6



Figure 7



Figure 8

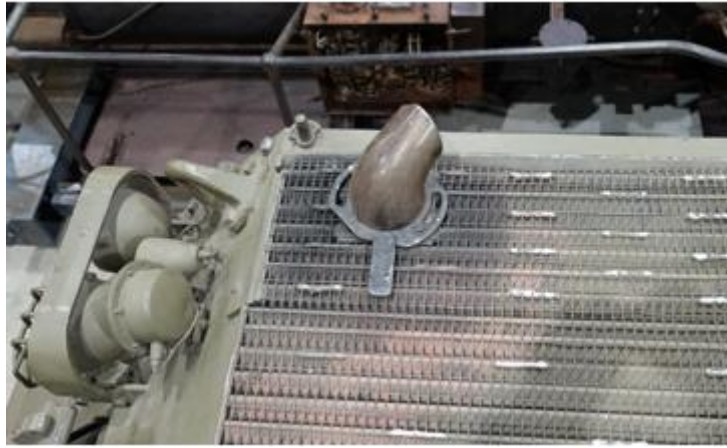


Figure 9



Figure 10



Figure 11

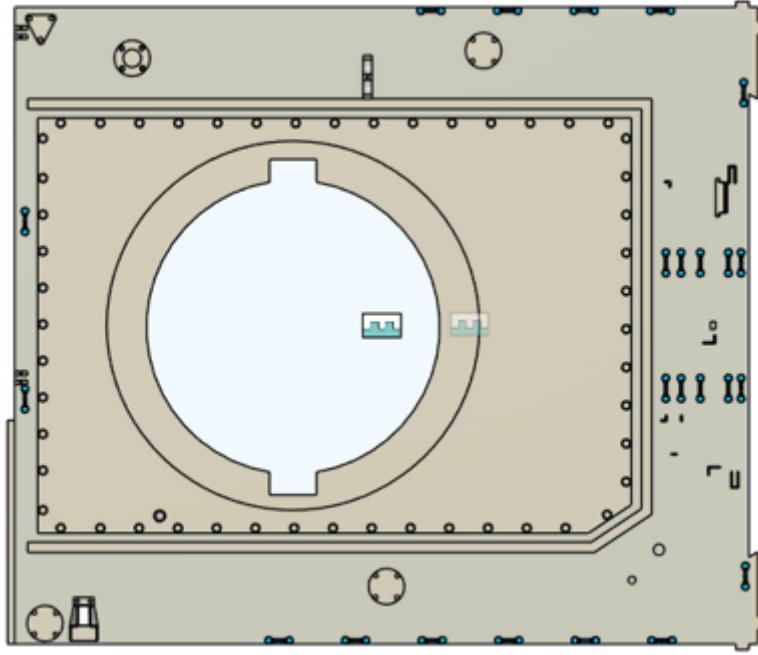


Figure 12

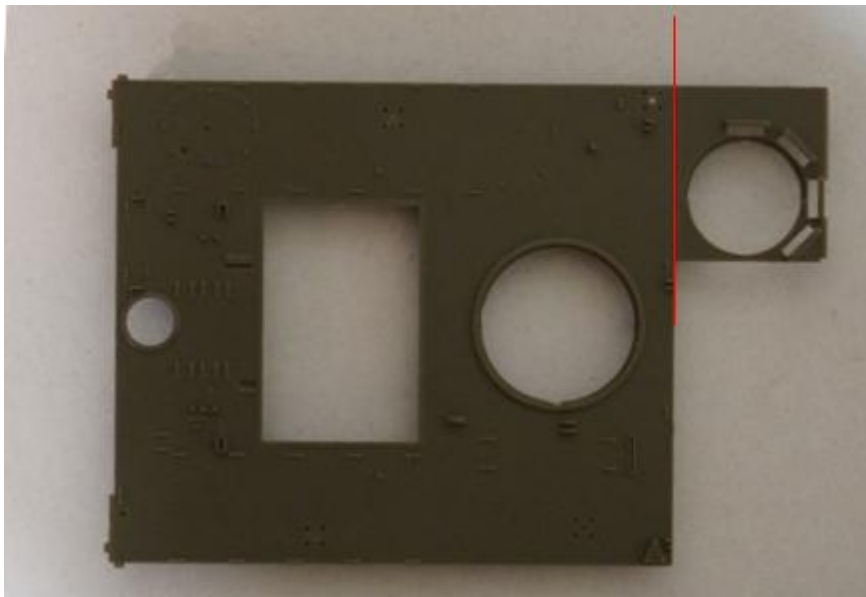
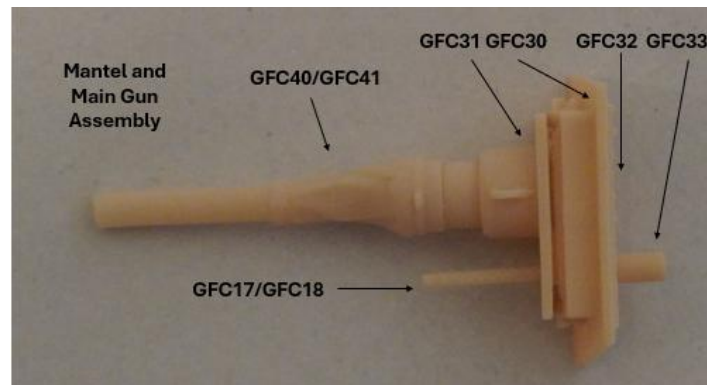


Figure 13

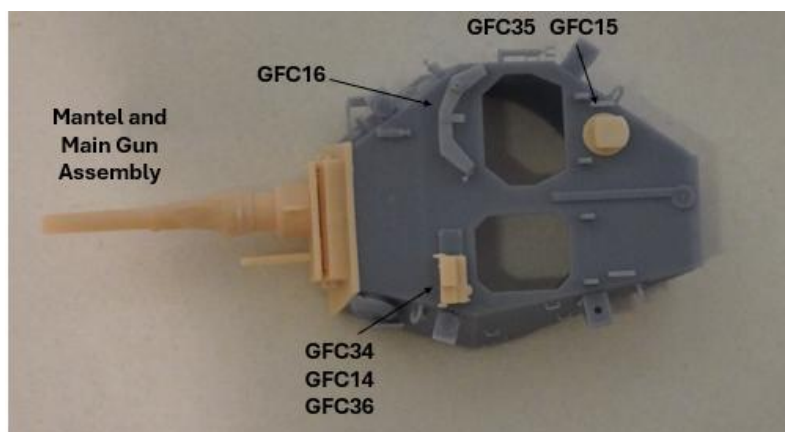
Turret Construction:

Step 1. Attached the GFC32, GFC30, GFC31 and GFC33. Then attached the Main Gun, either part GFC40 or GFC41 and the Coax either GFC17 or GFC18.



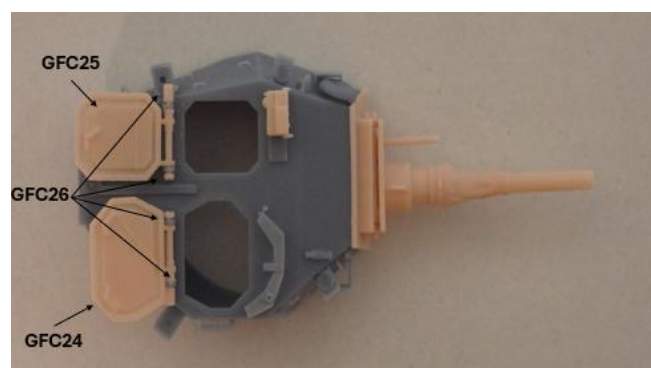
Step 1

Step 2. Join the complete mantel and main gun barrel onto GFC42. Assemble the Gunner sight head, by joining GFC14, onto GFC34, then GFC36. Once done place onto the Turret. Assemble the Commander periscope assembly by inserting GFC15 into GFC35, once done placing them onto the turret. Insert the Commanders periscopes GFC16.



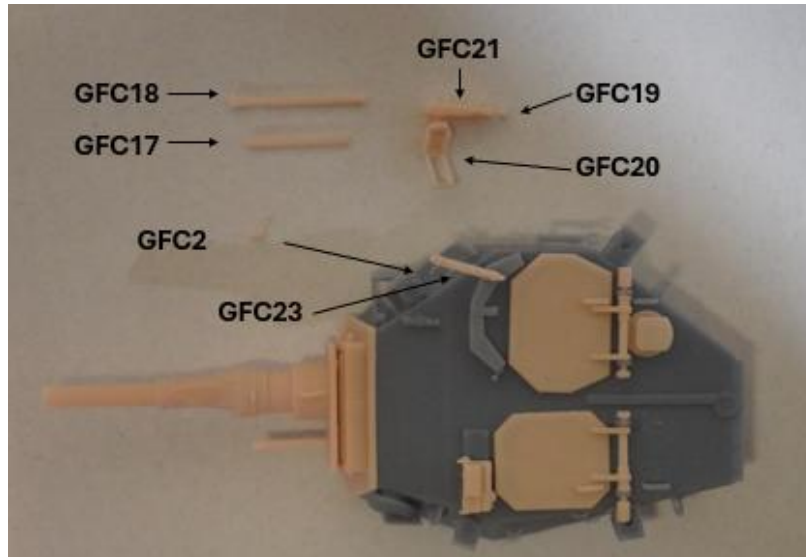
Step 2

Step 3. Attached the Commanders and Gunners hatches, GFC24 is the on the right side, with GFC25 on the left side of the turret. The hatches are attached by GFC26. The large part of GFC26, is outer side of the Turret. The smaller is on the inside of the Turret. This is for both hatches.



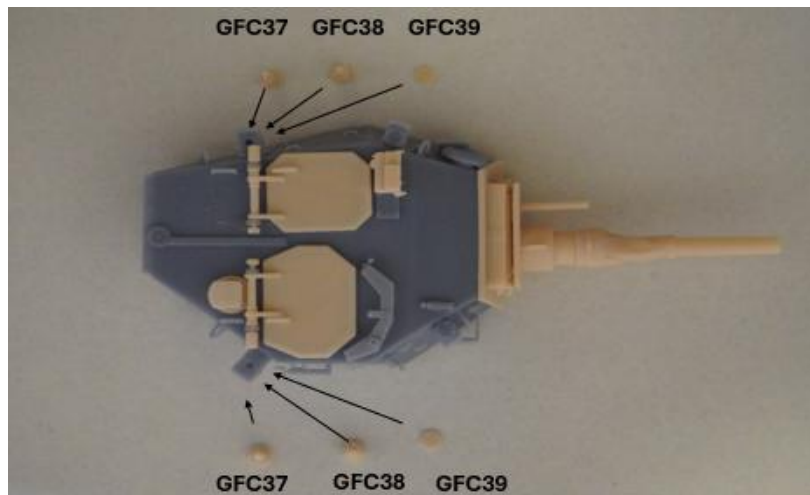
Step 3

Step 4. Construct the 30 cal Flex. Attaching either GFC17 or GFC18 to GFC19. Join onto GFC20. The 30 Cal then mounts onto GFC21. Either option of GFC22 and GFC23 can be used to mount the Flex mount onto the turret.



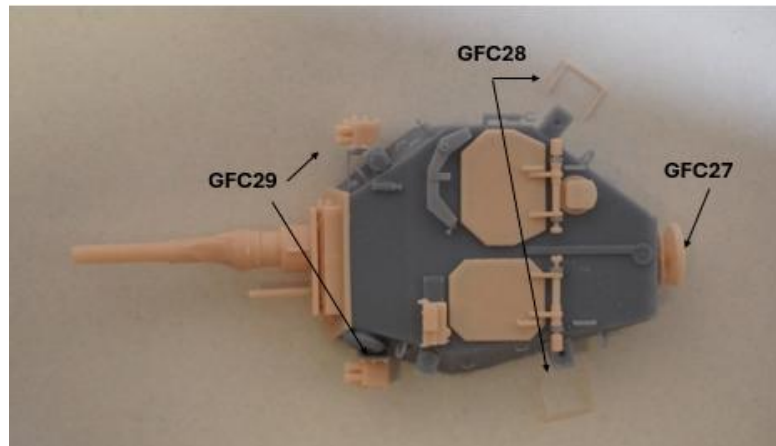
Step 4

Step 5. Attach either option GFC37, GFC38 or GFC39 to both side of the Turret.



Step 5

Step 6. For Pre and PVN versions, attach GFC37, GFC29 and GFC30, as per figure X.



Step 6

Step 7, Mount the Turret onto GFC44, then onto the Hull.



Step 7