

TJM-003 LEOPARD C2 MEXAS 1/35 SCALE CONVERSION KIT

For Use with Any Italeri or Revell Leopard 1 Kit

Kit Contains Complete Leopard C2 Turret, Hull and Turret MEXAS Armour,
Real Model PE and Resin Accessory Set, Perfect Scale L7A4 Resin Gun Barrel,
BMK Turned Brass Antennas, Echelon Fine Decals, RB Model Brass Shackles, Eureka Tow cables.

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In Cooperation with Maple Leaf Models
Mastered by Jim Carswell, JP Morgan and Paul Fredenburg

VEHICLE HISTORY

The Leopard C2 MEXAS is the latest and last version of the Leopard 1 tank in Canadian service. A total of 114 of these tanks were built in 1978 and began their lives as Leopard C1s. The C1 was the Canadian version of the Leopard 1A3 but included a Belgian SABCA fire control system and a Low Level TV as part of its target acquisition system. These tanks were upgraded to include a thermal pointer in the late 1980's but this addition proved no match for tanks equipped with thermal imagers.

The C2, which was developed in the late 1990's, is not simply an updated Leopard 1A5 (which was developed in Germany in the 1980's) but a combination of 2 tank designs to fulfill Canadian requirements. Essentially, the Leopard C2's are refurbished Leopard C1 hulls fitted with refurbished and upgraded German Leopard 1A5 turrets. These Leopard 1A5 turrets were equipped with EMES18 digital fire-control, thermal sights, and a laser muzzle reference system, all components that the C1 lacked. A large rear turret bustle was added to the Leo 1A5 turret to provide much needed stowage capacity. To provide Canada with sufficient replacement turrets for their entire Leopard C1 fleet, 123 refurbished German 1A5 turrets were purchased. These 1A5 turrets were modified by KMW in Kassel Germany, then the C2 turrets were shipped to Canada for installation on C1 hulls. The first Leopard C2 was re-delivered to the Canadian Forces in Spring of 1999. The Leopard C2 employs the same 4 man crew as the Leopard C1. The C2's 105-mm L7A3 gun (same gun as fitted in the C1) is capable of engaging targets day and night, while on the move, and under adverse weather conditions, through the use of a fully stabilized fire control system with an integrated thermal imaging system and laser range-finder. The Leopard C2 Tank is also fitted with a gunner's secondary fire control system and a commander's fire control system. It has two 7.62-mm C6 machine guns. One is mounted inside the turret and another can be mounted externally on either the commander's or the loader's station.

The Leopard C2 is also fitted with two banks of four 76mm Wegmann smoke grenade launchers on the turret. The tank may be "sealed-off" against nuclear-biologicalchemical (NBC) threats. The engine and transmission can possibly be changed in 30 minutes under field conditions. When properly fitted with a conning tower, it is capable of deep-fording or submerged fording where riverbanks are prepared for exit and entry. The 'standard' Leopard C2's are fitted with the Leopard 1A5 "Auxiliary Armour Plates".

In order to provide enhance armour protection all tanks were prepared to be fitted with MEXAS armour. The Modular Expandable Armor System (MEXAS) is a ceramic composite armour developed by the German company IBD Deisenroth Engineering. A total of 17 tanks were deployed to Afghanistan in 2006 as part of the Lord Strathconas Horse (Royal Canadians). Two were fitted with Dozer Blades, Two with Track Width Mine Ploughs and two with rollers. These tanks were eventually replaced with Leopard 2A6M Can and Leopard 2 A4M Can. The last of the Leopard C2 MEXAS returned to Canada in 2011.

Recommended References:

Canadian Leopard C2 MEXAS Project CD/DVD by Anthony Sowards.

Canadian Leopard C2 MEXAS in Afghanistan by Anthony Sowards, Rick Saucier and Miloslav Hraban, Real Model MPA-003.

Leopard 1 Trilogy by Michael Shackleton

Afghan Cat by Jim Carswell Leopard Club LF05

About the Kit

This kit is a partial reissue of tow of Maple Leaf Models kits MLM 1010 Leopard C2 and MLM 1031 C2A1. It is intended to be used with any Italeri or Revell Leopard 1 kit. Since we provide a complete turret, even the Italeri nr 224 Leopard 1A4 kit will suffice. We have provided some additional resin components such as the Electronic Counter Measures Module and its housing, as well as spade grips for the C6 GPMG. The glacis armour has also been reworked to allow for fitting of a dozer blade, plow or roller. Also included in the kit are Real Models Photo-etch and resin accessory set, turned brass antenna from BMK, RB Models brass tow shackles, Eureka Tow Cables, a Perfect Scale L7A4 gun barrel and Echelon Fine Decal sheet. We believe this is the most comprehensive conversion set available.

We have also included a kit for installing the thermal cover should you decide to do so. Rather than provide a resin cover, we have carefully selected a type of Faux Silk that closely resembles the colour of the actual shroud (it will still require painting) and will allow for battle damage to be simulated. Thus, you will be able to build any of the 17 tanks that deployed to Afghanistan at any time during their deployment. You will need to decide which one early in the construction so that you may decide upon options as you proceed. Also included is a supply bag with bolts, eye bolts, plastic rod and wire to complete the model. This kit is not for beginners, but we believe it is still the best option of all the resin kits on the market. We hope you enjoy your build. Happy Modelling!

Resin Parts List

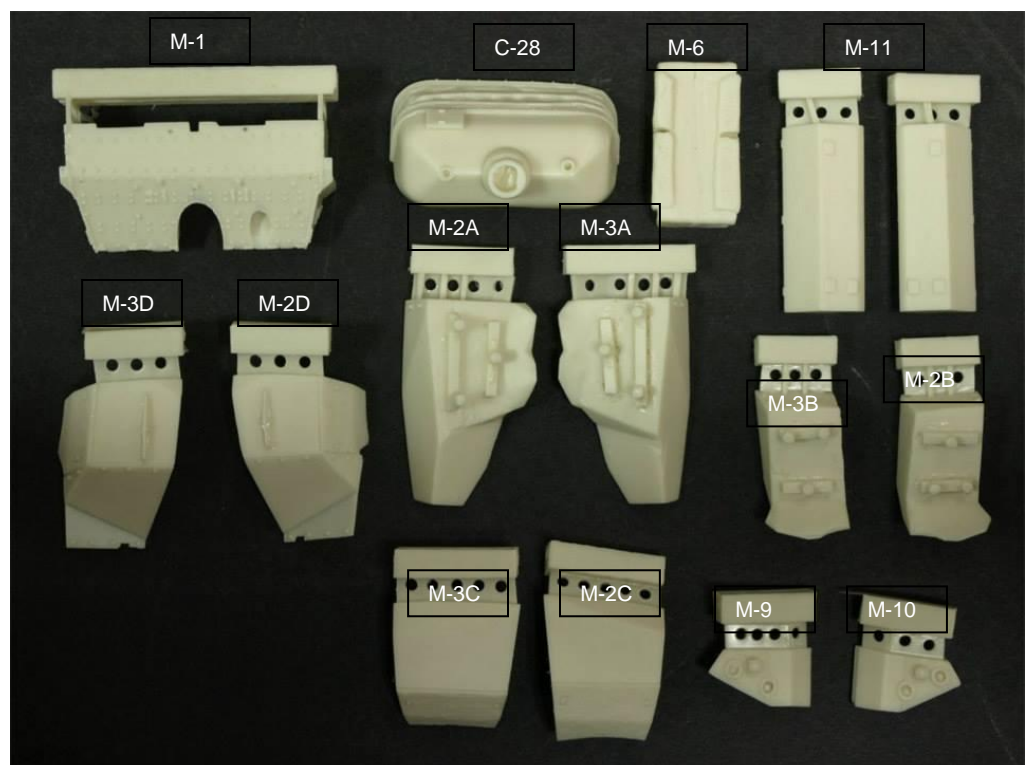
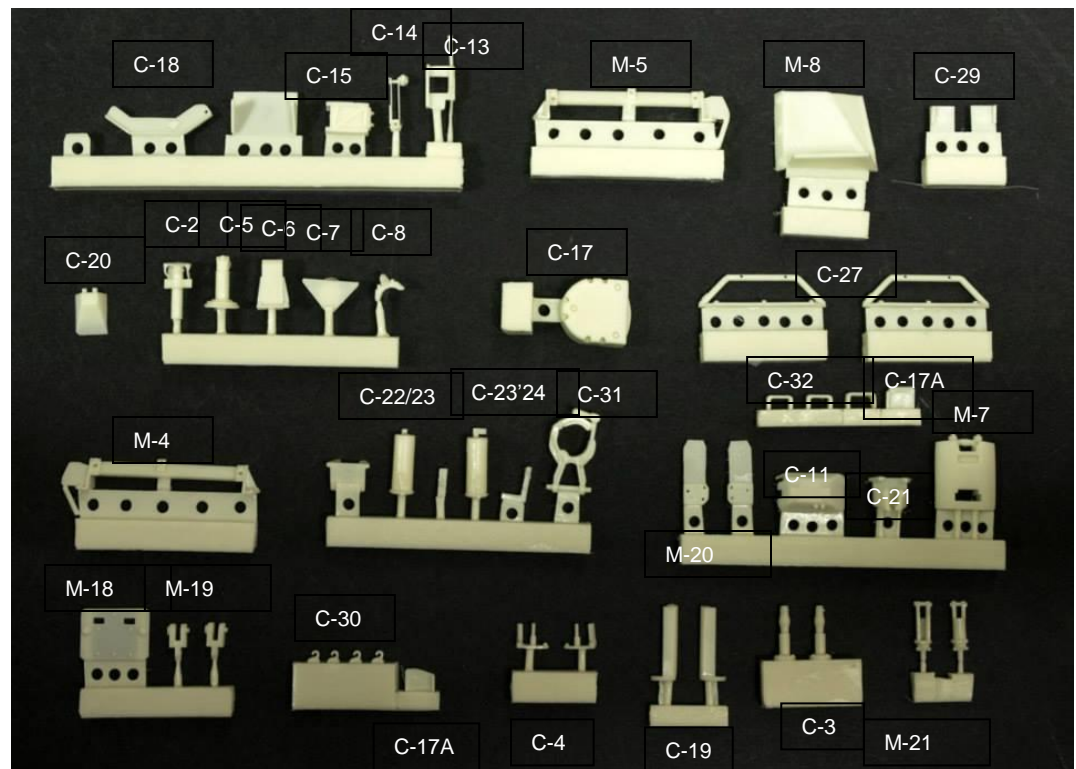
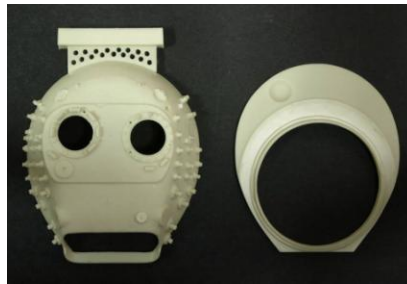
Basic C2 Parts

- C-1 Turret Bustle
- C-2 GPS Antenna
- C-3 Antenna Mounting Units (2)
- C-4 AMU Guards (2)
- C-5 Commander's Sight
- C-6 Commander's Periscope
- C-7 Comms Wire Dispenser
- C-8 Muzzle Reference Sensor
- C-9 Turret Top
- C-10 Turret Bottom
- C-11 NBC Bulge
- C-12 C6 MG
- C-12A C6 MG Spade Grip
- C-13 C6 MG Cradle
- C-14 C6 MG Mount
- C-15 MG Ammo Box
- C-16 TI Visor
- C-17 Thermal Imager
- C-17A TI Doors (2)
- C-18 Driver's Episcopes Guard
- C-19 Dozer Blade Mounts
- C-20 Armoured Power Coupling
- C-21 Glacis Bracket
- C-22 Bore Brush Container
- C-23 Bracket for C-22
- C-24 Bore Brush Container
- C-25 Bracket for C-24
- C-26 Cable Mounts (2)
- C-27 Cam Net Racks
- C-28 Mantlet
- C-29 Tow Cable Mounts
- C-30 Searchlight Mounts
- C-31 Gun travel Lock
- C-32 Episcopes Covers (3)

C-9

C-10

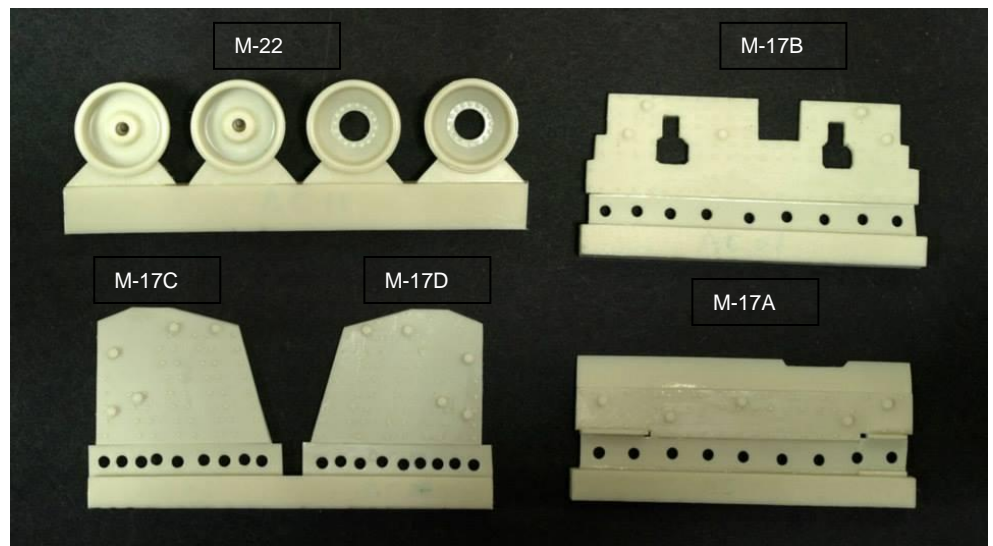
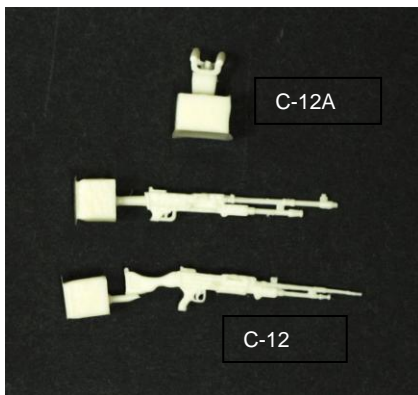
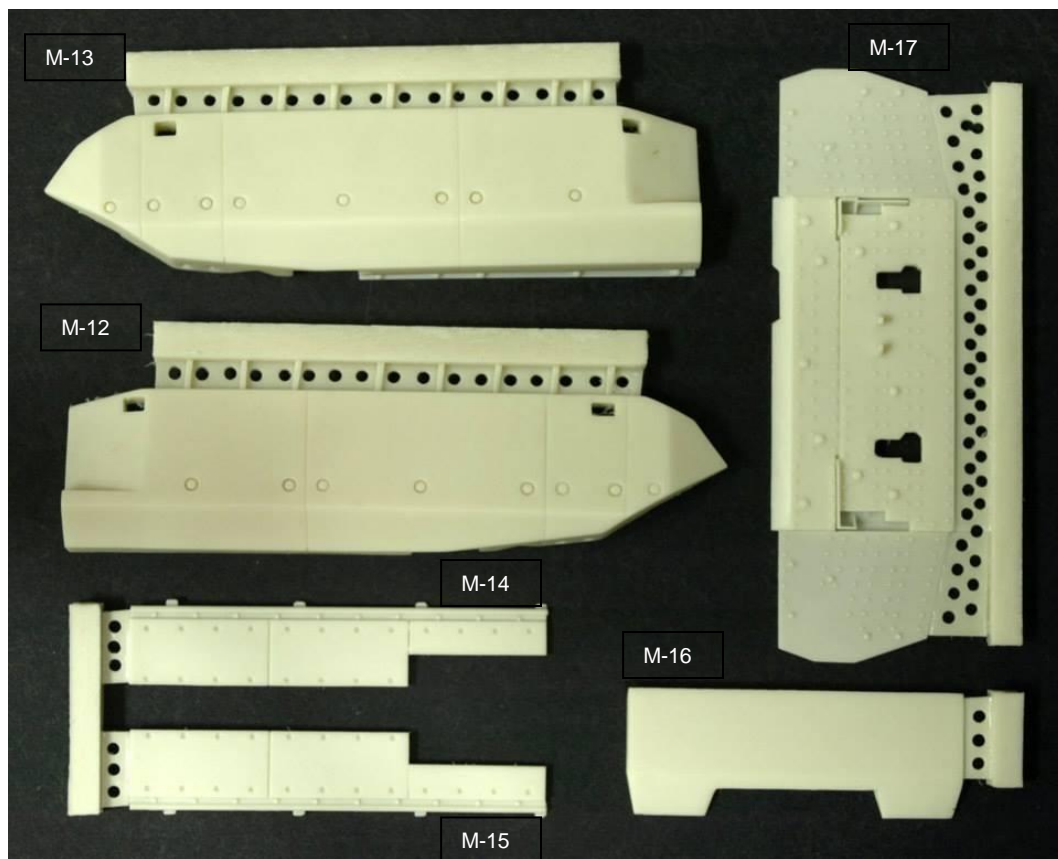
C-1



MEXAS Parts

- M-1 Mantlet Armour
- M-2ABCD LH Turret Armour
- M-3ABCD RH Turret Armour
- M-4 Smoke Grenade Mount LH
- M-5 Smoke Grenade Mount RH
- M-6 Smoke Gren Guard Template
- M-7 ECM Module

M-8 ECM Module Guard
 M-9 Corner Hull Armour Left
 M-10 Corner Hull Armour Right
 M-11 Hull Tool Boxes (2)
 M-12 Large Hull Armour Left
 M-13 Large Hull Armour Right
 M-14 Side Skirt Left
 M-15 Side Skirt Right
 M-16 Tow Plate Armour
 M-17 Glacis One Piece
 M-17A Glacis Upper
 M-17B Glacis lower
 M-17C Left Fender
 M-17D Right Fender
 M-18 Glacis Bracket Cover
 M-19 Tow Hook Extensions (2)
 M-20 Fender brackets (2)
 M-21 Headlight mounts (2)
 M-22 Leopard 2 Return Idlers



Aftermarket Parts included

BMK-002 Leopard C2 Antenna (2)
 103-108A RB Model Brass Tow Hooks (4)
 RMA 35202 Real Models Canadian Leopard C2 MEXAS PE and Resin set.
 ER 3507 Eureka Tow Cable set
 PS 35021 Perfect Scale L7A4 Gun Barrel
 D356006, D356049, D356050, or D356051 Echelon Leopard C1 Decals Part 1,2,3 or 4.

Assembly Instructions

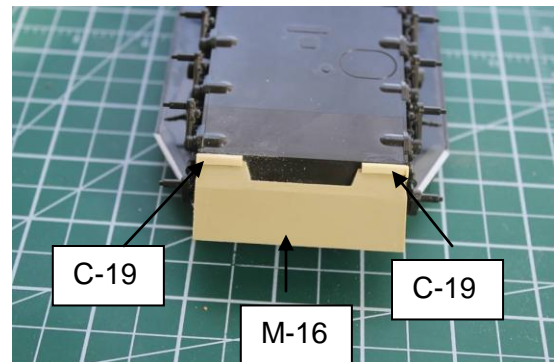
Step 1

Begin by assembling the hull of the Italeri or Revell kit. At this time, it is a good idea to install the replacement engine grill and intakes provided on the RMA 35202 PE sheet. There is a separate instruction for this accessory set, so it will not be repeated here. You will also want to remove the moulded on fenders at the front of the hull. It is not necessary to install a plastic spacer as shown in the photograph.



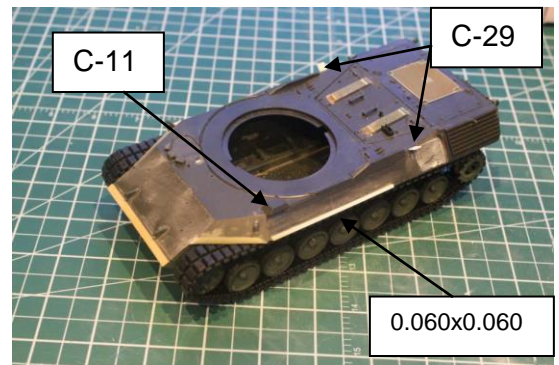
Step 2

Install the tow plate Armour (M-16) and the Dozer blade mounts (C-19) as shown. The tow plate armour will extend slightly above the top of the glacis. It will be necessary to sand the upper portion of this part until it is flush with the Glacis.



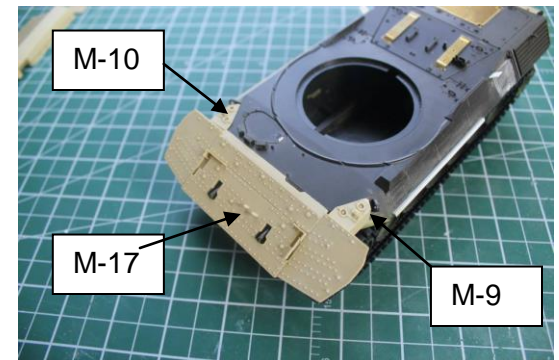
Step 3

At this point you will want to complete assembly, painting and weathering of your running gear as it will be inaccessible once the Hull armour is installed. The tow lugs and NBC bulge (C-11) should also be installed. You will find two pieces of .060x.060 styrene in the small supply bag. These should be installed on either side of the hull as shown. The lower surface of these strips should be flush with the bottom of the sponson. Also install the tow cable mounts (C-29). Use should use the Leopard 2 return idlers (M-22).



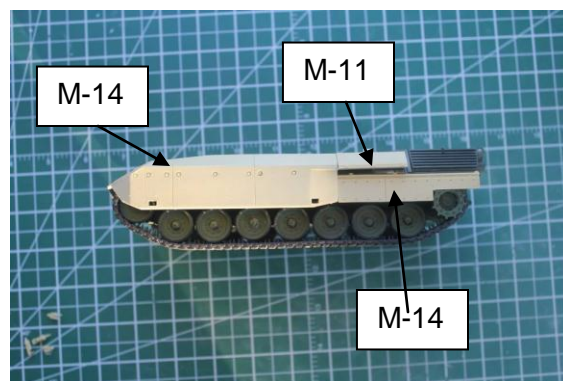
Step 4

At this point you have the option of installing the one piece glacis armour or the individual pieces. If you are going to use the additional dust fender option included in RMA 35202, the single piece is the appropriate choice. If not use parts M17A, B, C and D. Before attaching the Glacis armour, install the scornor hull armour components (M-9 and M-10). When installing these two components, it is best to affix a small piece of .010 styrene to the back of them using cyanoacrylate and then attaché them to the hull using liquid cement. This will allow time to manoeuvre the part before the glue sets. The front of the modules should line up with the fenders and the top with the top of the hull.



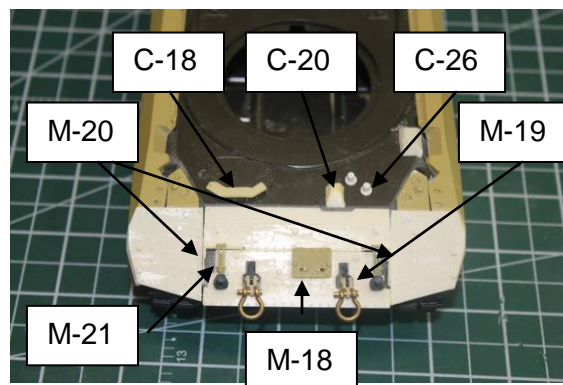
Step 5

The next step is to install the large side Armour modules (M-12 and M-13) and the side skirts (M-14 and M-15). The sloped forward edge of the large armour module should affix to the bottom surface of the fenders. If you are using the individual components for the glacis armour, it is recommended to attach the fenders after the large side armour. The top of the vertical inside edge of the large armour will rest on the 0.060x0.060 strip attached in Step 3. Install the two tool boxes (M-11).



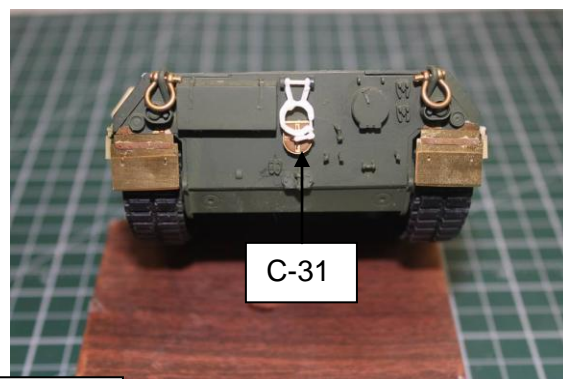
Step 6

Install the Driver's Episcopo Guard (C-18), Armoured power coupling (C-20) and the two cables Mounts (C-26) as shown. If you have used parts M17 A, B, C and D, you must now attach the two fender mounts (M-20). The glacis bracket (C-21) is can now be attached in the rectangular opening of the lower glacis armour. The bracket cover (M-18), Tow hook extensions (M-19) and two headlight extensions (M-21) can now be installed. It is recommended that the large tow hooks be installed after painting.



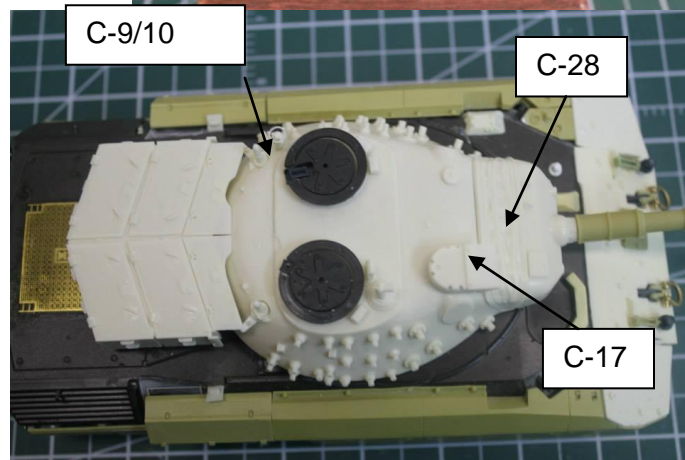
Step 7

The real hull detail can now be added. This is primarily upgrade parts using the RMA 35202 PE set, but also includes the more accurate travel lock (C-31). It is recommended that the large tow hooks be installed after painting.



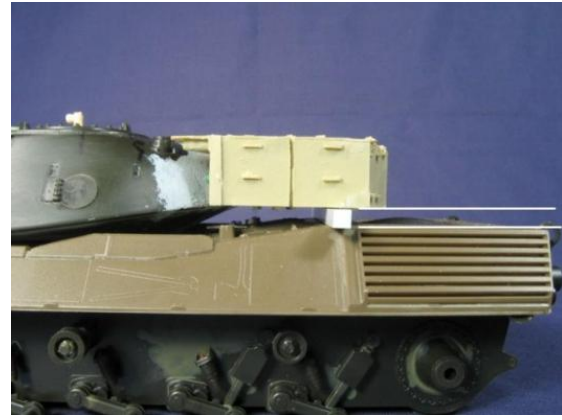
Step 8

Start assembling the turret by attaching the turret top (C-9) to the turret Bottom (C-10). The Mantlet (C-28) can be attached to the turret top. At this time you will need to decide if this model will include the thermal cover. If so, you should not attach the Mantlet armour (M-1) or the Thermal Imager Housing (C-17). You should also not install the turret hatches or cupola rings. Separate instructions for the thermal cover are attached. If you are not using the thermal cover, you can attach all of these items at this time. There are three small indentations on the top of the mantlet armour. These are for three small lifting eyes, which are included in the Supply Bag. Some of the vertical spacers on the Commander's cupola may not have come out in the casting process. To correct this a strip of styrene has been included in the Small supply bag.



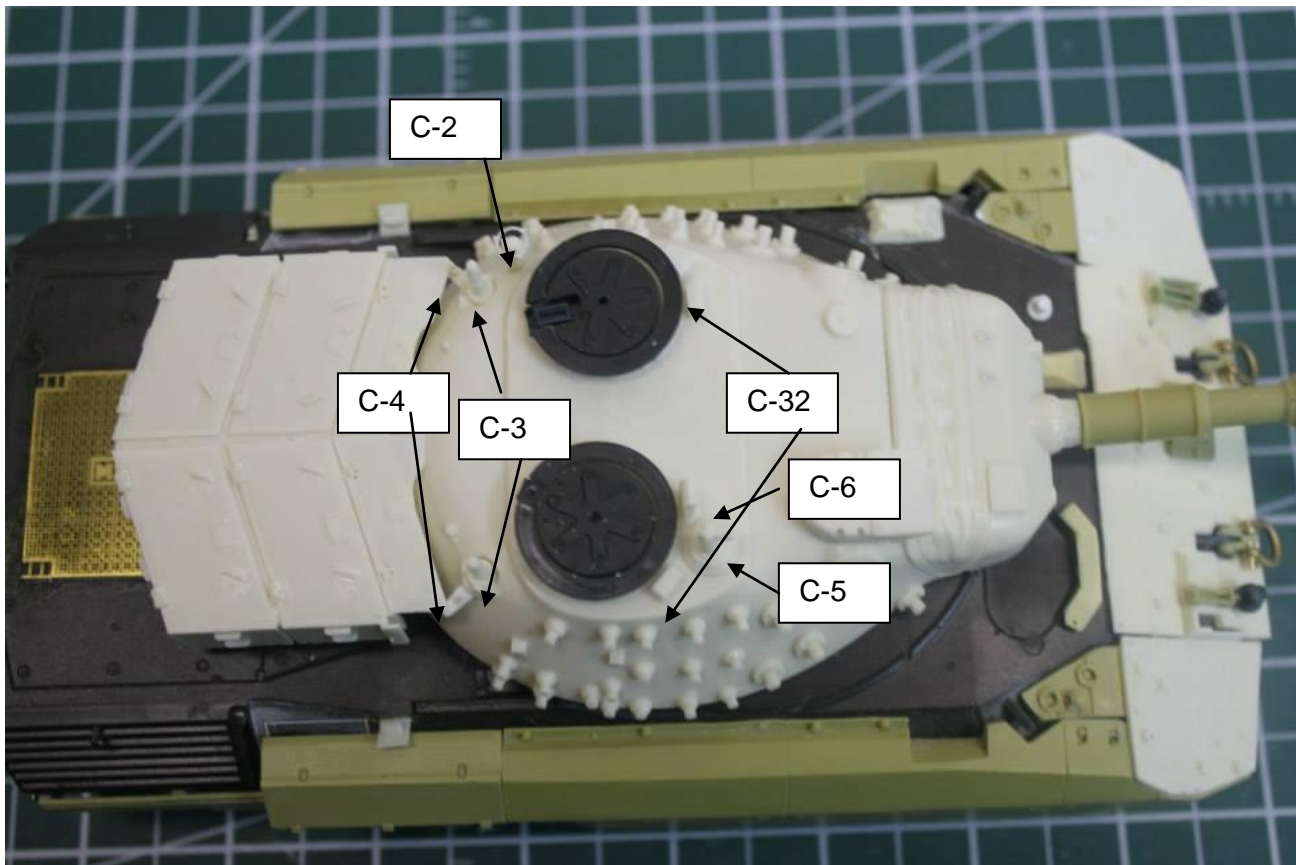
Step 8

To install the turret bustle (C-1) you must align the two resin posts on forward edge of the bustle with the two holes in the back of the turret. You may need to do some test fitting here. These two posts are in themselves not strong enough to hold the bustle in place. This is eventually overcome by the addition of the side armour. The best way of attaching the bustle is to use epoxy glue and build up the posts to provide strength when it hardens. Use a 0.050 inch spacer between the bottom of the bustle and the top of the hull. The bolts on the forward edge of the outside of the bustle should be sand off to allow for installation of MEXAS components.



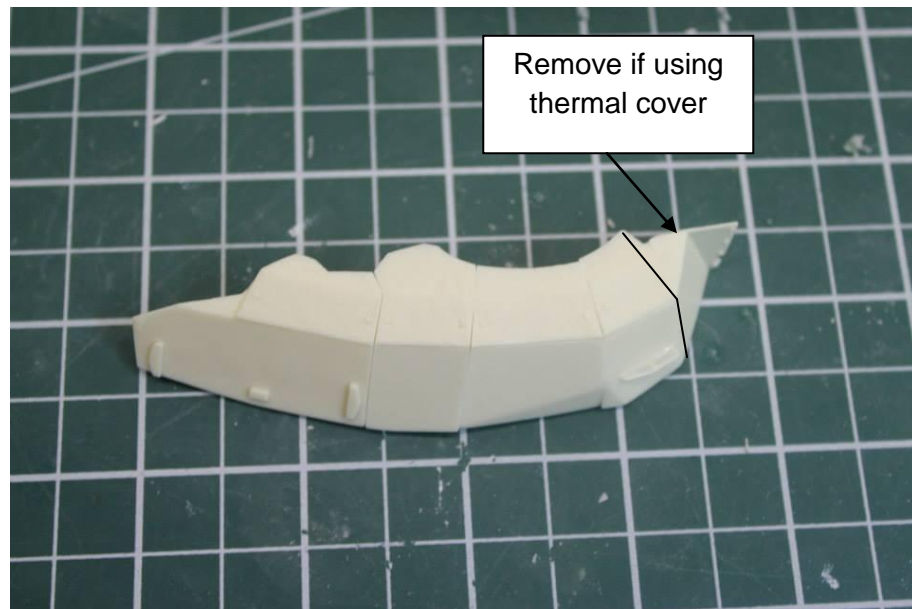
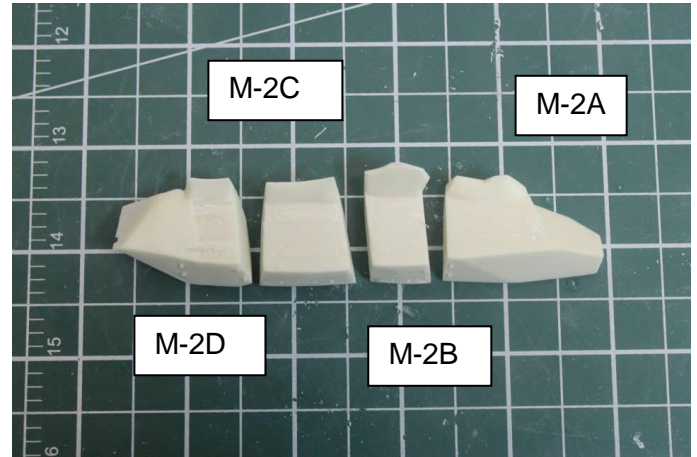
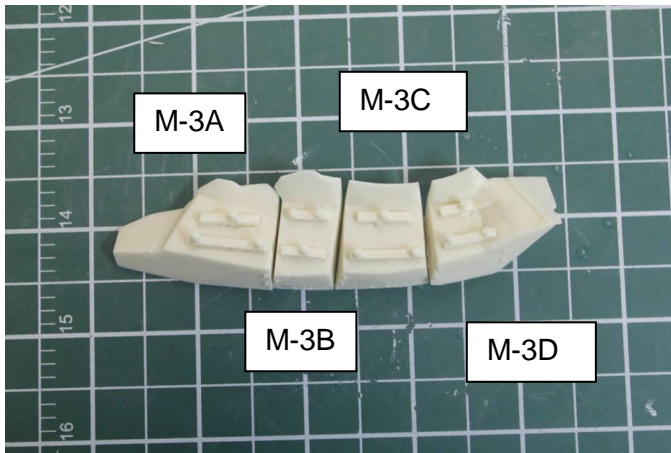
Step 9

Install the GPS Antenna, (C-2), The AMU Guards (C-4) and AMUs (C-3). There is a left and right hand for the AMU Guards. When test fitting these to the model, the guard itself should be outboard not inboard.. You can also install the Commander's sight (C-5) and Commander's Periscope (C-6), and the three episcopes covers (C-32).



Step 10

In order to prepare the turret armour for attachment to the turret, you must first identify the mounting lugs on the inside of each module, these must be carefully removed. Then the modules can be glued together. At this time you have the option of leaving a module off in a maintenance scenario. Furthermore, if you are going to use the thermal cover, The rear portion of part M-2D must be carefully cut off using a razor say. This is necessary in order to make room for the ECM Module>



Step 11

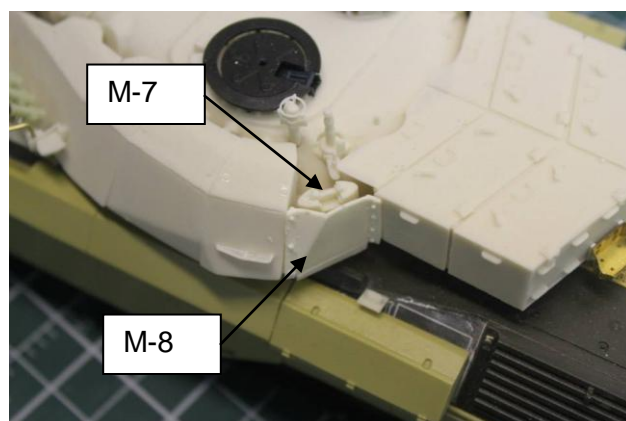
The turret armour is now ready to install. Place the mantlet armour on the mantlet without gluing it. The numerous attachment points must be careful sanded down to allow for the armour to fit. This is a slow process and you must be careful not to rush it. Once complete the internal surface on parts M-2A and M-3A must be vertical and be separated from the mantlet armour (M-1) by about 0.5mm. The vertical surface on the rear of parts M-2D and M-3D should line up with the forward edge of the turret bustle (C-1). Once the

attachment points have been adjusted the turret side armour can now be installed. Epoxy Glue is recommended. This takes time to set and gives you ample opportunity to get the armour in the correct spot.



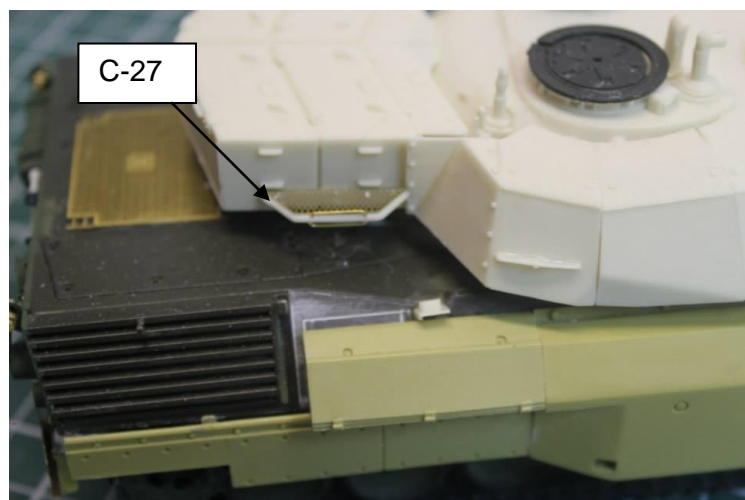
Step 11

If you chose to install the thermal cover, you must now install the ECM Module (M-7) and ECM Module Guard (M-8). The Module Guard closes the gap between the Left Rear Mexas Armour Module (M-2D) which was removed in step 10 and the turret bustle. The ECM Module fits onto a step on the inside of the guard.



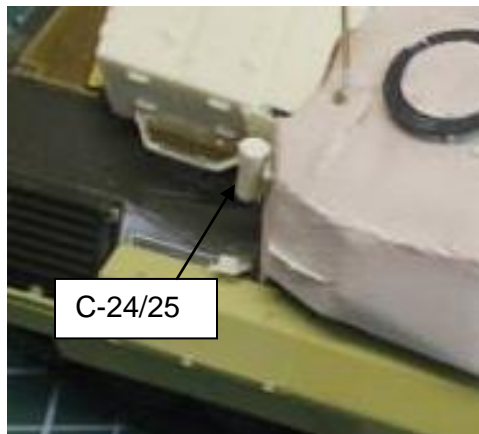
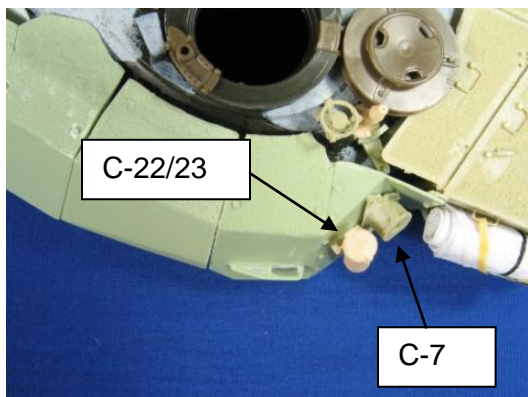
Step 12

Install the Cam Net Racks (C-27) on either side of the Turret Bustle. Use the PE mesh provided in the RMA35202 set, and wire included in the Small Supply Bage to complete this item. Do not install this item on the left hand side of the bustle if you are installing the thermal cover. This space will be occupied by the Air Conditioner.



Step 12

If you are not installing the thermal cover the Bore Brush Container (C-22/23) and Comms Wire Dispenser (C-7) should be installed on part M-2D as shown. These parts can be installed on part M-8 if the Thermal cover is used. The other Bore Brush Container (M-24/25) are installed on part M-3D with or without the thermal cover.



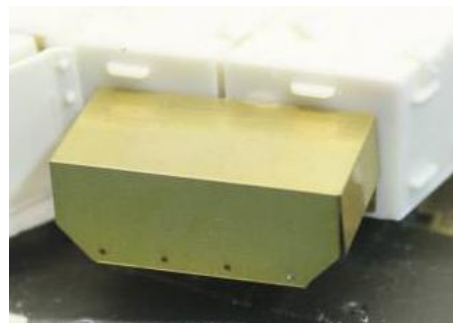
Step 13

Install the smoke grenade discharger brackets (M4 and M5) on the turret armour. These should be installed after you install the thermal cover if you chose to do so. The wire guards are fabricated from 0.025 wire, included in the small supply bag, using the template provided (M-6). The RMA 35202 includes smoke grenade dischargers and PE covers and chains.



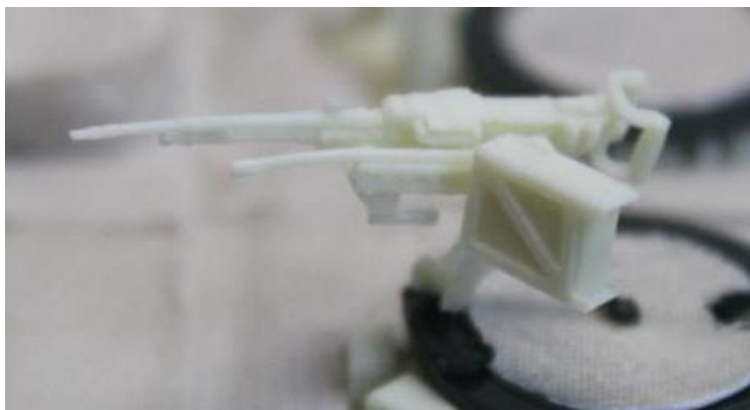
Step 14

If you are going to install the thermal cover, you will now need to install the Air Conditioning unit. This is provided in the RMA 35202 PE set. Once the two components have been detached from the sprue and folded in is necessary to attached a rectangular piece of styrene in the front right corner of the lower piece. This is to provide an attachment point for the four hoses and cables that run into the turret. A piece of thin black wire has been provided for this purpose in the Small Supply Bag. These need be no more than 1 cm in length and only need to pass underneath the ECM Guard into the space between the bustle and the turret.



Step 15

The final step is to add the AA Machine Gun, antennas and Tow Cables. Two versions of the C6 GPMG have been provided, one with a standard shoulder stock and one with spade grips.



This completes the assembly of the Leopard C2 MEXAS. We hope you have enjoyed the build. Please follow us on our website www.trackjam.com and on Facebook at <https://www.facebook.com/#!/Trackjam>. If you have any issues or suggestions regarding this kit or any other product or project, please contact us at trackjam@hotmail.com