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TECHNICAL ORDER

DBW-SOP-A10A-48-GWH-001

STANDARD OPERATING PROCEDURE

Scale Model Aircraft Assembly

GREAT WALL HOBBIES A-10A THUNDERBOLT II

1/48 SCALE — KIT No. L4826

DOCUMENT NUMBER	DBW-SOP-A10A-48-GWH-001
REVISION	REV 1.0 — JUL 2026
CLASSIFICATION	UNCLASSIFIED / HOBBY USE ONLY
APPLICABLE KIT	Great Wall Hobbies L4826 (A-10A, 1/48)
SKILL LEVEL	Intermediate to Advanced
EST. BUILD TIME	80–150+ hours (detail dependent)
CONTROLLING ORG	Dark Bench Works, LLC

NDLE WITH CARE — MINIATURE COMPONENTS — KEEP AWAY FROM CHILDREN UNDER

SECTION 1 PURPOSE, SCOPE, AND APPLICABILITY

1.1 Purpose. This Standard Operating Procedure (SOP) establishes the authorized sequence of operations, material requirements, safety precautions, and quality checkpoints for the complete assembly and finishing of the Great Wall Hobbies (GWH) A-10A Thunderbolt II 1/48 scale plastic model aircraft, Kit No. L4826. This document is formatted in accordance with USAF Technical Order documentation conventions to provide a clear, repeatable, and professional build framework consistent with Dark Bench Works (DBW) documentation standards.

1.2 Scope. This SOP covers all phases of model construction from initial kit inspection through final weathering and display mounting. It incorporates best practices gathered from the scale modeling community, including guidance from Hyperscale, Britmodeller, and IPMS forums, and recognized modelers within the 1/48 jet aircraft subject matter.

1.3 Applicability. Applicable to the GWH A-10A Thunderbolt II, Kit No. L4826 (any boxed variant) and any GWH A-10A variant sharing the same sprue configuration. Skill level: intermediate to advanced. Beginners should familiarize themselves with basic IPMS assembly techniques prior to commencing this procedure.

1.4 Precedence. Where this SOP conflicts with the manufacturer instruction sheet, the modeler exercises informed judgment. Manufacturer instructions provide part numbering and basic assembly sequence; this SOP supersedes the instruction sheet in all matters of technique, sequence optimization, and safety.

SECTION 2 REFERENCES AND APPLICABLE DOCUMENTS

2.1 Kit Documentation. Great Wall Hobbies L4826 instruction manual and GWH A-10A color & marking guide (included in kit).

2.2 Aircraft References. USAF A-10A/A-10C Pilot's Flight Operating Manual (T.O. 1A-10A-1); Walk-Around Series: A-10 Thunderbolt II (Squadron/Signal); Detail & Scale Vol. 19: A-10 Thunderbolt II; Aerofax Minigraph: A-10 Warthog.

2.3 Modeling References. Hyperscale.com build reviews / detail comparisons; Britmodeller.com community build threads and GWH corrections; IPMS/USA contest standards; Mig Jimenez: A Guide to Panel Line Washes and Weathering; Verlinden: Tips & Techniques for Scale Modelers, Vols. 1–3.

2.4 Paint References. Model Master / Testors FS595C cross-references; Gunze Sangyo / Mr. Color equivalent codes (Section 5); Tamiya Color cross-reference; AK Interactive Real Colors reference guide.

SECTION 3 SAFETY PRECAUTIONS AND HEALTH REQUIREMENTS

WARNING	Cyanoacrylate (CA / super glue) fumes irritate eyes and the respiratory system. Ensure adequate ventilation at all times. Keep CA activator away from skin and eyes.
WARNING	Lacquer paints, thinners, and primers contain flammable and toxic VOCs. Do not use near open flame. Use a respirator rated for organic vapors. Work in a ventilated space or outdoors.
WARNING	Airbrush propellant canisters and compressors operate under pressure. Follow manufacturer safety guidelines. Do not puncture canisters or expose them to heat.
CAUTION	Styrene cement (liquid and tube) is flammable — store away from heat, cap immediately after use. Superfine sanding dust and resin/PE microparticles are respiratory hazards — use an N95 minimum during sanding.

3.1 Required Personal Protective Equipment (PPE)

Operation	Minimum PPE	Recommended
Cutting / Scribing	Safety glasses, nitrile gloves	Cut-resistant glove on holding hand
Sanding / Scribing	N95 mask, safety glasses	P100 half-face respirator
Priming / Painting	OV/P100 respirator, nitrile gloves	Spray booth w/ carbon-filter exhaust

Operation	Minimum PPE	Recommended
CA Application	Nitrile gloves, ventilation	Safety glasses (CA splatter)

NOTE	Modelers with sensitivity to solvents, adhesives, or aerosols should consult product MSDS sheets and use appropriate PPE. Building in a garage with a fan venting outdoors is recommended.

SECTION 4 TOOLS, MATERIALS, AND SUPPLIES

4.1 Mandatory Tools. Sharp sprue cutters / flush-cut nippers (standard + micro); No. 11 hobby knife w/ fresh blades; self-healing cutting mat (min 12×18 in); sanding sticks 220–2000 grit; sanding sponges / Flex-I-File; panel-line scriber (Tamiya / Madworks) + template or straightedge; pin vise w/ 0.3/0.5/0.8/1.0/1.5 mm bits; straight + angled sprue tweezers; reverse-action tweezers; brushes 000/0/1/2/4 + dry-brush fan; dual-action gravity-feed airbrush (Iwata HP-CS or equiv.); compressor w/ moisture trap + regulator; spray booth; mixing cups, palette, pipettes; Tamiya 6/10/18 mm low-tack tape; liquid mask (Humbrol Maskol / Mr. Masking Sol); Blu-Tack.

4.2 Recommended Specialty Tools. PE bending tools (Hold & Fold / Etch Mate); stretched-sprue tool or fine wire for antenna rigging; UMM rivet tool (advanced); Tamiya Panel Line Accent tools; Mr. Mark Setter / Softer; Micro Sol / Micro Set; dental pick set; 5000K+ daylight task lamp (OttLite or equiv.); digital calipers.

4.3 Adhesives

Adhesive Type	Recommended Brand	Application
Liquid poly cement	Tamiya Extra Thin, Mr. Cement S	Primary styrene-to-styrene joins
Tube styrene cement	Testors, Revell Contacta	Gap filling on large joins
Thin CA	Bob Smith Insta-Cure, ZAP CA	PE, clear, resin, metal
Gel CA	Insta-Cure+, ZAP-A-GAP	Gap fill, detail joints, positioning
Two-part epoxy	Devcon 5-min, JB ClearWeld	Display mounting, heavy metal
White glue (PVA)	Elmer's, Micro Kristal Klear	Canopy glazing, small clear parts

SECTION 5 PAINT SCHEME, COLOR CODES, FINISHING

5.1 Typical A-10A Camouflage Schemes. The GWH kit provides markings for multiple variants. The two most common A-10A finishes are: Europe One (3-color) — FS 34092 (Medium Green), FS 34102 (Dark Green), FS 36081 (Dark Gray) on upper/side surfaces with FS 36375 (Light Ghost Gray) underside; and the Charcoal Lizard / Hill Gray II scheme — FS 36118 (Medium Gray) overall with darker tones for shading. A Desert / Gulf War scheme (overall FS 36307 Medium Gray with tan variations per unit) is also seen.

NOTE	Verify the specific marking option selected from the kit decal sheet before committing to a color scheme. Confirm color call-outs on the kit instruction sheet against FS595C references.

5.2 Master Paint Color Table — Europe One (Reference Scheme)

Area	FS595C	Tamiya	Gunze / Mr. Color	AK Real Color
Cockpit / interior	FS 34031	XF-61 / XF-58	C-361 / C-362	RC083
Upper — dark green	FS 34102	XF-61	C-304	RC219
Upper — med. green	FS 34092	XF-67	C-303	RC218
Upper — dark gray	FS 36081	XF-54	C-305	RC200
Lower — lt. ghost gray	FS 36375	XF-19	C-306	RC248
Wheel wells / gear	FS 37875 (gloss white)	XF-2 / X-2	C-62	RC001

Area	FS595C	Tamiya	Gunze / Mr. Color	AK Real Color
Exhaust / nozzles	Steel / gunmetal	XF-56	SM-08 / C-28	AK Metal Steel
Tires	Non-specular black	XF-1 + XF-53	C-92 semi-gloss	RC003

5.3 Primers and Topcoats. Primer: Mr. Surfacer 1000/1200 (gray) preferred; Alclad Gray Microfiller for resin/metal. Pre-decal gloss: Mr. Super Clear Gloss or Alclad Klear Kote Gloss. Final: Mr. Super Clear Semi-Gloss or Ultra Flat per scheme/preference. Wash medium: Tamiya Panel Line Accent, AK Panel Liner, or oils thinned with odorless mineral spirits.

SECTION 6 PRE-BUILD PREPARATION

CAUTION Perform kit inspection before opening any sealed bags. Document any damage to sprues for warranty purposes.

6.1 Kit Inspection & Inventory

1. Open the outer box; remove all sprue bags without tearing. Lay all sprues flat.
2. Count and inventory all sprues against the instruction sheet. GWH L4826 contains approximately 8–10 main sprues (A–H), a clear parts sprue, a landing gear sprue, and optional detail sprues.
3. Inspect all sprues for short shots, sink marks, flash, excessive parting lines, or damaged/broken parts.
4. Verify the decal sheet for completeness, yellowing, registration, and silvering. If yellowed, soak in 50/50 distilled water / IPA for 30 seconds and dry flat.
5. Confirm instruction-sheet completeness; download GWH's corrected instructions if available.
6. Photograph all sprues and the decal sheet for reference.

6.2 Workspace Preparation

7. Clear and clean the work surface; lay down the cutting mat. Organize tools: cutting left, adhesives center, sanding right.
8. Position lighting: primary overhead, secondary 45° from left, 5000K+ daylight temperature.
9. Decant and label each paint color to be used.
10. Open relevant instruction pages and place reference photos in view.
11. Set up airbrush/compressor. Test on scrap: 20–25 PSI primer, 15–18 PSI color; milk-consistency paint; verify pattern.

6.3 Dry-Fitting Protocol

NOTE Dry-fitting is the single most important pre-assembly step. Do not skip. GWH kits are high quality, but all complex assemblies benefit from dry-fitting prior to gluing.

12. Before applying any adhesive, dry-fit all major sub-assemblies: fuselage halves, wing halves, engine nacelles, tailplane. Flag gaps/steps with pencil on tape tabs.
13. Fuselage halves: tape-fit and check nose, wing roots, and tailcone. GWH A-10A fuselage fit is generally excellent; minor pressure during gluing is typically sufficient.
14. Engine nacelles: GWH's twin TF34 engines are split longitudinally — test-fit and expect fill/sand at the top and bottom seam.
15. Check landing-gear-bay alignment — this affects the final gear-down attitude.
16. Document all areas requiring putty/filler with tape tabs.

SECTION 7 COCKPIT AND INTERIOR ASSEMBLY

The cockpit is assembled and painted first, before the fuselage halves are joined. This is the most detail-oriented phase of the build. Install all interior components before closing the fuselage.

7.1 Ejection Seat — ACES II

NOTE	The GWH kit includes a well-detailed ACES II seat. Paint the seat before installation and add belt detail from kit PE or aftermarket. Martin-Baker scheme: frame dark gray/black, survival kit OD green, headrest gray.

19. Remove seat parts; clean gates with a fresh No. 11 blade. Dry-fit bucket, headrest, cushion, survival kit, harness points, armrests.
20. Paint seat bucket FS 36118 gray with black accents on handgrips.
21. Paint survival kit FS 34031 dark green.
22. Paint seat belts (kit PE) flat tan/khaki (FS 30219) with metallic buckles.
23. Assemble with Tamiya Extra Thin (capillary action). Detail with fine oils / enamel washes: dark brown in recesses, light gray on raised faces.
24. Add rigging (fine copper wire / stretched sprue) if modeling the harness.

7.2 Instrument Panel & Side Consoles

25. Paint the instrument panel gloss black (XF-1) as base.
26. Dry-brush panel faces with XF-19 medium gray to reveal detail.
27. Apply kit decals for instrument faces, or paint individual instruments (see note).
28. Apply Micro Kristal Klear or gloss varnish over faces for a lens effect.
29. Side consoles: flat black base w/ light gray dry-brush; switches white/red/yellow per reference.

NOTE	Advanced: an instrument-panel PE set (Eduard #73521 or similar) with dial decals gives the most realistic result and adds ~3–6 hours to cockpit construction.

7.3 Cockpit Tub & Interior Walls

30. Paint the tub interior FS 34031 (dark gull gray-green), thinned ~1:1.
31. Apply an overall dark brown/black wash; wipe back with mineral spirits after partial dry.
32. Dry-brush raised detail with light ghost gray (XF-19).
33. Paint the floor dark gray; add scuff/wear with a silver dry-brush along the footpath.
34. Install all tub components per GWH steps; install the completed seat last.
35. Final check: no bare plastic visible; all components secure.

CAUTION	Do not apply adhesive to the outer edge of the cockpit tub facing the fuselage halves — that gluing surface must remain clean for fuselage joining.

SECTION 8 FUSELAGE ASSEMBLY

8.1 Landing Gear Bay & Internal Structure

36. Before closing the fuselage, install all internal structures: gear-bay bulkheads, forward equipment bays, GAU-8 gun bay (if open option chosen).
37. Paint main and nose gear bays white (FS 37875) / gloss white as on the real aircraft; add a light tan-brown wash in recesses.
38. Optional: add hydraulic-line detail with stretched colored sprue or fine wire.
39. Install gear-bay doors if displaying closed (recommended for beginners); otherwise set aside.

8.2 Fuselage Join

CAUTION	This is a critical alignment step. The A-10 fuselage determines the alignment of the entire airframe. Verify alignment before cement sets.

40. Apply Tamiya Extra Thin to one half's interior mating surfaces; work quickly.
41. Bring halves together firmly; hold 60–90 sec while cement flashes.
42. Band with tape / rubber bands to maintain pressure. Verify the nose is straight — no twist above or below.
43. Allow 30 min minimum before handling; overnight before sanding. Mark any gaps with pencil.

8.3 Seam Treatment

44. Tight seams: brush Mr. Surfacer 500 into the seam, dry 15 min, sand 400 then 600 grit.
45. Larger gaps: Tamiya Basic Putty or Vallejo Plastic Putty; smooth before drying, sand when cured (1–2 hr).
46. Hairline seams: re-flow Tamiya Extra Thin, let fuse, sand — no filler needed.
47. Prime affected areas with Mr. Surfacer 1000 to reveal defects; repeat fill/sand/prime until smooth. Final sand to 1000 (1500 if using lacquer topcoats).

NOTE	The GWH A-10A is known for excellent fit. Most builders report only minor work on the engine-nacelle seams and the stabilizer join; the nose area generally fits tightly.

8.4 Panel Line Refinement

48. Re-scribe any panel lines lost to sanding using a Tamiya/Madworks scriber against a metal template (flexible plastic strip for curves).
49. Scribe in one direction with light multi-pass. Clear swarf with a stiff brush; verify consistency under raking light.

SECTION 9 WING AND EMPENNAGE ASSEMBLY

9.1 Wing Assembly

NOTE	GWH wings are molded in upper/lower halves. Assemble wings before attaching to fuselage. Build and paint the main gear doors during this phase if posing gear down.

50. Join upper/lower wing halves with Tamiya Extra Thin along interior mating surfaces.
51. Check leading/trailing edge alignment — trailing edge should be thin and sharp; sand if required.
52. Treat wing seams per Section 8.3. Attach wing-tip fairings (GWH provides optional config parts).
53. Dry-fit wings to fuselage; verify ~3.5° dihedral by measuring wingtip height on a flat surface.
54. The wing-to-fuselage join is a critical structural point — use Tamiya Extra Thin plus tube cement in the root for strength. Fill/sand any root gap.

9.2 Horizontal & Vertical Stabilizers

NOTE	The A-10 has twin vertical stabilizers at the ends of the horizontal tailplane (both A and C). Ensure both fins are vertical and parallel, and the horizontal stabilizer is perpendicular to the fuselage centerline (no twist).

55. Assemble the horizontal stabilizer from kit halves. The A-10 has all-moving stabilators — leave the mounting pin movable if preferred.
56. Assemble both vertical fins. Attach per kit instructions; verify symmetry front and rear. Treat all seams per Section 8.3.

9.3 Engine Nacelles — TF34-GE-100

NOTE	The GWH nacelles mount to pylons atop the rear fuselage — a distinctive A-10 feature deserving careful seam work.

57. Assemble each nacelle from upper/lower halves. These seams typically require the most filler work on the GWH A-10A.
58. Install fan-face (compressor) detail if selected; paint fan blades titanium/natural metal with a dark spinner.
59. Paint the nozzle interior with Alclad Jet Exhaust or equivalent metallic.

60. Mount nacelles to the rear-fuselage pylons; confirm both engines are parallel and level. Fill any nacelle-to-pylon gap.

9.4 Stores Pylons & Hardpoints

61. Select underwing/centerline pylons per the chosen marking option. Clean and dry-fit to hardpoints before painting.

62. Pylons are typically painted to match the adjacent wing surface. Set aside and attach after the main scheme to avoid masking complications.

SECTION 10 LANDING GEAR ASSEMBLY

NOTE	Gear assembly is straightforward but requires precision. The A-10 sits on a wide, low-slung tricycle gear; incorrect angle changes the final attitude dramatically.

10.1 Main Landing Gear

63. Clean all struts, doors, and wheels. Assemble the main strut; the A-10 main gear folds laterally into pods below the wing — verify orientation.

64. Paint struts/bays white (FS 37875); thin brown/gray wash in crevices.

65. Wheels: tires semi-gloss black (XF-85); hubs natural metal (Alclad Aluminum / XF-56); add red valve-stem dots. Do not flood the axle — leave slight rotation.

66. Install gear into bays after final paint: thin CA at strut base, hold vertical 30 sec. Fit inner door to strut, outer door to airframe.

10.2 Nose Landing Gear

67. Assemble nose fork, strut, and wheel. Install plumb vertical — verify with a square. Paint per main gear.

68. Install the two nose gear doors after the strut is set.

10.3 Landing Gear Final Check

69. Set the model on a flat surface — all three contact points must touch with no rocking.

70. Verify correct ground angle: A-10 gear-down sits fairly level with a very slight nose-up attitude.

CAUTION	If the model rocks, identify the high strut and shim the low side with stretched sprue before adhesive fully cures.

SECTION 11 PAINTING PROCEDURES

WARNING	Fingerprint oils prevent paint adhesion. Handle the model with nitrile gloves from this point forward.

11.1 Pre-Paint Cleaning

71. Wash the assembled model in warm water with a drop of dish soap; gentle soft-toothbrush scrub.

72. Rinse with distilled water; air-dry or blow out recesses with compressed air. Do not handle without gloves after washing.

11.2 Priming

73. Mount on a painting handle (dowel in an exhaust opening, secured with Blu-Tack).

74. Airbrush Mr. Surfacer 1000 thinned 1:1–1:1.5 with Mr. Leveling Thinner at 18–22 PSI, two to three thin coats, 10 min between.

75. Cure minimum 2 hr (24 hr preferred). Inspect under raking light; sand defects with 1500 grit and re-prime. Final: uniform gray, no bare plastic.

11.3 Pre-Shading (optional, recommended)

76. Airbrush thin black (XF-1 ~1:3) along all panel lines with a fine needle (0.15–0.2 mm); shadows ~0.5–1 mm, centered.

77. Dry 20 min. Pre-shading reads through the color coats to simulate panel-by-panel variation.

11.4 Base Color Coats — Europe One Scheme

78. Begin with the underside FS 36375 (Light Ghost Gray) — cover undersurface, gear-bay interiors, and lower fuselage sides.
79. Fully dry (30–60 min for lacquers). Do not mask over tacky paint. Freehand or soft-mask the soft underside/upper demarcation.
80. Apply FS 34102 (Dark Green) first — ~40% of upper surfaces per the kit pattern.
81. Apply FS 34092 (Medium Green) for remaining green areas; blend softly at boundaries.
82. Apply FS 36081 (Dark Gray) to the gray areas. Keep edges soft (~1–2 mm) using reduced pressure and greater standoff.
83. Allow full dry between colors; inspect for coverage, balance, and edge softness.

NOTE	Scale effect: real colors appear lighter/less saturated at 1/48 due to atmospheric perspective. Add ~5–10% white to upper-surface colors for scale fidelity.

11.5 Post-Shading / Color Modulation

84. After 24 hr cure, lightly spray panel centers with the base colors lightened ~15% for sun-fade modulation.
85. Keep it subtle — if obvious from 18 inches, it is too heavy.

11.6 Masking & Detail Painting

86. Mask the canopy (liquid mask or cut Tamiya-tape masks). Paint canopy framing FS 36081 dark gray per scheme (≤6 mm tape for crisp edges).
87. Paint intake interiors semi-gloss white; GAU-8 muzzle flat black (soot at weathering).
88. Detail position lights (Tamiya clears), pitot (natural metal), AoA vane (natural metal).
89. Paint stores per reference: most air-to-ground stores OD or gray; Mavericks OD with white guidance head.

SECTION 12 DECAL APPLICATION

CAUTION	Apply decals only over a gloss surface. A gloss coat is mandatory to prevent silvering (trapped-air halos).

12.1 Pre-Decal Gloss Coat

90. Airbrush Mr. Super Clear Gloss thinned 1:1 at ~20 PSI — two thin coats, 20 min apart.
91. Cure minimum 4 hr; surface must be mirror-smooth before decaling.

12.2 Decal Sequence

NOTE	Apply largest decals first, then smaller. Apply insignia and tactical codes before stencils.

92. Prep: distilled water, paper towel, tweezers, cotton swabs, Micro Set / Micro Sol.
93. Apply Micro Set at the location. Float the decal off the backing, slide into position with a wet swab (slide from the sides, never tweezer the face).
94. Blot excess water — do not wipe. Once positioned and dry (15–20 min), apply Micro Sol to conform. Small wrinkles self-level — do not touch.
95. Reapply Micro Sol over panel lines/raised detail as needed. Dry fully (24 hr) before topcoat.

CAUTION	Never apply Micro Sol to a fresh decal — allow positioning water to evaporate (10–15 min) first, or the film can wrinkle permanently.

12.3 Stencils. The GWH A-10A carries extensive stenciling (3–6 hr). Work nose-to-tail, top then bottom. Fully conform all stencils with Micro Sol before topcoat. GWH decals are generally high quality; USAF stencil accuracy can be improved with

Caracal or Afterburner sheets.

SECTION 13 WEATHERING PROCEDURES

NOTE	The A-10 is a working combat aircraft in harsh environments. Apply these modular techniques to taste based on the intended level of detail.

13.1 Intermediate Satin Coat. Apply a light satin coat (Mr. Super Clear Satin/Semi-Gloss 1:1, 1–2 coats) to protect decals/paint before enamel/oil washes. Cure 4+ hr.

13.2 Panel Line Washing. Watercolor-thin dark brown/black oils in odorless mineral spirits. Flow into lines by capillary action; work in sections. Set 20–45 min, then wipe faces one direction (following airflow) with a lightly moistened flat brush. Leave accumulation in recesses. Dry overnight.

13.3 Chipping & Paint Wear. Sponge-chip silver (Vallejo Aluminum / XF-56) sparingly at leading edges, step areas, and access hatches. Hairspray technique optional/advanced. Heavy sooting streaks aft from the GAU-8 muzzle. Hydraulic stains aft of gear-door and flap-hinge actuators.

13.4 Exhaust Staining. Airbrush thin dark brown/black (or XF-79 + XF-1) aft of the nozzles in progressive passes — moderate, not solid black. Add slight blue-steel heat tint (Alclad Transparent Blue) on nozzle interiors.

13.5 Fuel & Fluid Stains. Thin transparent gray-brown streaks aft of fuel filler caps (wing upper surface) and gear-door hinges. Finish with a near-transparent oil filter (raw umber/ochre) over the airframe to harmonize colors and age the finish.

13.6 Final Topcoat. Seal with Mr. Super Clear Semi-Gloss (2 light coats) — operational A-10s carry a slight sheen, not dead-flat. Remove canopy/gear masking at ~80% cure to prevent edge lifting.

SECTION 14 EXTERNAL STORES AND WEAPONS LOADING

14.1 Common A-10A Stores Configurations. Match stores to the chosen marking option; verify authentic loadouts with reference photos.

Store	Typical Finish	Notes
AGM-65 Maverick	OD body, white/gray seeker	2–6 on LAU-88 / LAU-117
AIM-9 Sidewinder	Light gray, white/silver seeker	Wingtip station
Mk.82 500 lb bomb	OD body, yellow/brown band	Per unit tasking
CBU-87/89/97	OD w/ band colors per T.O. 11A-1-47	Cluster munitions
ALQ-131 ECM pod	Dark gray	Common EW station
AN/AAQ-28 LITENING	Matte black	Later A-10A airframes
600-gal external tank	Scheme-matched	Ferry / long-range

14.2 Stores Assembly. Assemble stores fully, prime (Mr. Surfacer 1000), paint per above, add decals/stencils (kit sheet), and attach to pylons after their topcoat. Use thin CA for metal-to-metal or metal-to-plastic joints.

SECTION 15 FINAL ASSEMBLY AND DETAIL INSTALLATION

WARNING	The canopy is the most fragile clear part. Scratches are nearly impossible to repair invisibly — handle with extreme care.

15.1 Canopy

96. If painting separately, coat clear parts with Tamiya X-22 or Future/Pledge before masking.

97. Remove interior masking; clean overspray with a swab lightly dampened with saliva (enzymes lift paint without hazing).

98. Attach with PVA (Micro Kristal Klear) or clear-parts cement — frame only, never the clear. The GWH canopy can be posed open or closed; if open, paint and install the actuator arm.

99. Cure fully before handling.

15.2 Pitot & Antennas

100. Replace the fragile pitot with 0.5 mm aluminum tube or stretched sprue for durability; paint natural metal; install last.

101. Rod antennas are molded in; paint dark gray/black, install with thin CA. IFF blade antenna: install per instructions, paint to match.

15.3 Pylons & Final Stores. Attach pylons to hardpoints (thin CA if needed), then stores in correct orientation (bombs vertical; Mavericks angled slightly inboard). Add wingtip AIM-9 if applicable.

15.4 Navigation & Position Lights. Wingtips green (right) / red (left), tail white, plus anticollision strobes. Paint with Tamiya clears (X-25/X-27/X-22); second coat for depth; optional Kristal Klear lens drop.

15.5 Final Inspection Checklist

☐ No visible seam lines on fuselage, wings, or nacelles	_____
☐ All panel lines crisp and consistent in depth	_____
☐ Camouflage scheme accurately applied per reference	_____
☐ All decals flat, no silvering, no lifting edges	_____
☐ Landing gear plumb; model stable on all three points	_____
☐ Canopy clear, no paint on transparency, properly seated	_____
☐ All stores in correct orientation and position	_____
☐ All antennas and pitot tube installed and aligned	_____
☐ Nav lights correct (green right, red left, white tail)	_____
☐ Weathering consistent — no area notably heavier	_____
☐ Final topcoat uniform and of correct sheen level	_____
☐ No bare plastic; all touch-up complete; all joints secure	_____

SECTION 16 DISPLAY MOUNTING AND BASING

16.1 Options. Gear-down static (optional tarmac/flight-line diorama); gear-up flight on a support rod (gear wells closed); or an integrated CAS flight-line diorama.

16.2 Base Prep. Minimum 10×14 in footprint for a 1/48 A-10 gear-down. For tarmac, apply fine ballast/pumice or AK/Vallejo concrete texture over a painted base; build chocks, crew, and munitions carts before mounting.

16.3 Aircraft Mounting. For flight display, drill a 3 mm hole at the CG (~1/3 back from the nose); epoxy in a 3 mm brass rod (4–6 in, 24 hr cure); drill the base, set angle, and secure with epoxy.

SECTION 17 QUALITY STANDARDS / IPMS CRITERIA

17.1 Construction. Seams eliminated or consistent with real skin laps; panel lines correctly scribed and consistent (no over-scribing/wandering); no visible sink/ejector marks; no excess glue; parts correctly assembled per reference.

17.2 Painting. Smooth finish (no orange peel/runs/fish-eyes); demarcation matches reference sharpness/softness; colors represent the prototype at 1/48; all small details painted.

17.3 Decals. Flat and conformed, no silvering, no lifting/cracking; positioned per marking guide; film edges invisible.

17.4 Overall Impression. Conveys the scale and character of the prototype; weathering enhances without being cartoonish; base complements the model; clean professional finish for the skill level claimed.

SECTION 18 TROUBLESHOOTING GUIDE

Problem	Probable Cause	Corrective Action
Decal silvering	Non-gloss surface under decal	Sand + re-gloss; apply Micro Sol; re-lay if severe
Paint fish-eyes	Oil/silicone contamination	Sand, clean w/ IPA, re-prime, repaint
Orange peel	Paint too thick / low PSI / tip too close	Sand smooth, thin more, raise PSI
CA fogging on canopy	CA fumes condensing on clear	Use PVA on clear; Future may remedy fog
Tape pulls paint	Paint uncured / tape too sticky	Cure longer; lower-tack tape; re-prime
Seam visible after primer	Insufficient fill/sand	Re-fill Mr. Surfacer 500, sand, re-prime
Wing alignment off	Glued before dry-fit	Gently re-heat join, re-align, fill
Wash tidemarks	Mineral spirits too wet on removal	Thin satin coat; reapply wash sparingly
Airbrush spitting	Paint too thick / partial clog	Thin more; clean tip; reduce retraction
Small part broken	Fragile part / weak joint	Thin CA; pin w/ 0.3 mm wire if needed

SECTION 19 RECOMMENDED AFTERMARKET UPGRADES

The GWH A-10A kit is an excellent foundation. The following aftermarket products are commonly cited by community modelers as valuable enhancements. Confirm fitment against the GWH A-10A (L4826) before purchase.

19.1 Photo-Etch. Eduard 73521 — A-10A interior PE (belts, panels, cockpit); Eduard 73524 — A-10A exterior PE (grilles, panels, doors); Eduard Big Ed 1185 — combined PE for full detail work.

19.2 Resin. Wolfpack Design WP48154 — ACES II seat; ResKit RS48-0041 — TF34-GE-100A engine set with fan detail; Quickboost QB48 — exhausts, intake screens.

19.3 Decals. Caracal Models CD48032 — A-10 Warthog multi-unit/theater sheet; Afterburner Decals — specific USAF A-10 squadron sheets; Microscale 48-series — historical A-10 stenciling.

19.4 Masks. Eduard EX688 — canopy mask for GWH A-10A (saves significant time vs. hand-cutting); Kamizukuri — pre-cut kabuki masks for specific camouflage patterns.

NOTE	Aftermarket catalogs update frequently. Verify the current part number against the GWH A-10A application listing before ordering.

SECTION 20 DOCUMENT CONTROL AND REVISION HISTORY

Rev	Date	Author	Description
1.0	JUL 2026	Dark Bench Works, LLC	DBW-format release of the GWH A-10A 1/48 (L4826) assembly SOP. Full build coverage from kit inspection through display mounting, reformatted to DBW house standard. Corrected empennage note to reflect the A-10's twin vertical stabilizers.

— END OF TECHNICAL ORDER DBW-SOP-A10A-48-GWH-001 —