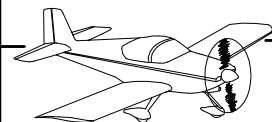12NPR 04-03-14-1 Reason For Revision

1) RV-12 SkyView Touch Avionics Kit

2) RV-12 SkyView AP-Knob Panels Kit (58)

3) Add instructions for installation of F-00062.

4) Allow use of lighter springs on RV-12 throttle

5) Improve functionality of canopy latch. Add switch to detect open canopy before takeoff. Re-Write ditching instructions in POH.

6) Placarding changes to match KAI and POH to the actual placarding on the aircraft.

7) Make a new optional section for installation of a rudder trim tab.

KAI Page 03-02 REV 12: In RV-12 BUILDER'S TOOL REQUIREMENTS, added "#43 drill bit" and "4-40 tap".

RV-12 BUILDER'S TOOL REQUIREMENTS (CONTINUED)

1X	Torque wrench (inch pounds scale)	1X	Carburetor synchronizing tool
1X	12' tape measure	1X	1/4" drive socket set (with inch & metric sockets)
1X	Needlenose pliers	1X	Socket and ratchet handle for 1 1/4"" nut (big!)
1X	Diagonal cutter	1X	Socket 19mm (3/4in)
		1X	Allen Sockets: 4mm, 5mm, 8mm
1X	Olfa RTY-2/G 45mm Rotary Cutter (or equivalent)	1X	Aviation flaring tool (tube)
		1X	Tubing cutter
1X	Left hand offset metal cutting snips	1X	Tubing bender
1X	Right hand offset metal cutting snips		
		1X	Battery powered drill motor
1X	Wire crimper/stripper		
1X	Multimeter (with continuity check capability)	1X	Cable tensiometer

Taps: Used to add internal threads to drilled holes. See required tool list for specific sizes.

Tubing bender: Although there are not a lot of aluminum tubes in the RVs, those that are there need to be bent properly. Fuel lines, pitot lines etc. need to be kink free.

Tubing Flaring Tool: Fuel lines need to have the proper 37° flare on the end in order to seal properly. Buy one or borrow one, but don't try to use an automotive 45° tool.

Heavy soft faced hammer: Select one between 12 and 24oz.

All required equipment can be purchased from one of the suppliers listed in our accessories catalog. While other suppliers are available, these have catalogs available which make shopping easier. These catalogs are also useful as a general information source about sheet metal tools. Several of the larger general parts suppliers such as Aircraft Spruce and Wicks publish extensive catalogs which are very valuable not only introducing the builder to the wide variety of hardware, tools, and parts available, but also including useful charts and table of aircraft standards.

Following is a list of tools compiled specifically for building the RV-12. While we feel that those tools we have listed are sufficient, some builders (or groups of builders) might have the resources and desire to have a super well equipped shop and should be aware that there is practically no limit to the variety of tools available. Within reason, money spent on good tools is seldom regretted.

RV-12 BUILDER'S SUPPLIES REQUIREMENTS

SUB-KIT	QTY	ITEM	SUB-KIT	QTY	ITEM
All	1 box	Sharpie pen - fine point; blue or black	Finish	1X	Balloon (Fuel tank test)
All	1 box	Sharpie pen - extra fine point; blue or black	Finish	1X	8 x 36 Protective paper
Emp	1 roll	String	Finish	1X	8 1/2 x 11 sheet of 60 grit sandpaper
Emp	1 tube	Super glue	Finish	2X	8 1/2 x 11 sheet of 80 grit sandpaper
Avionics	1 tube	Boelube	Finish	2X	8 1/2 x 11 sheet of 100 grit sandpaper
			Finish	1X	8 1/2 x 11 sheet of 150 grit sandpaper
Fuse	1 can	Pipe Thread Sealant	Finish	2X	8 1/2 x 11 sheet of 220 grit sandpaper
Fuse	1 can	Fuel Tank Sealant			
Fuse	1 tube	Firewall Sealant	Emp	1X	Rectangle sanding block
Fuse	1 tube	Permatex 16BR Black Sil. Adhsv./Seal. #81158	Emp	1X	Cylindrical sanding block; 1 - 1 1/4 Dia.
All	1 tube	RTV Sealant			
Pwr Plnt	1 tube	Clear Silicone			
Pwr Plnt	10 ml	Loctite 221	Finish	3X	1" wide paint brush (cheap, natural bristle type)
Wing	10 ml	Loctite 243	Finish	1X	2" wide paint brush (cheap, natural bristle type)
Pwr Plnt	1 tube	Loctite Heavy Duty Anti-Seize	Finish	1X	3" wide paint brush (cheap, natural bristle type)
Finish	3 yd	9oz/sq yd plain weave "E-glass" fabric			
Finish	1 yd	Peel ply (optional)			
Finish	1 qt	kit of epoxy resin & hardener			
Finish	1 qt	Acetone (for clean-up)			
Finish	25	Mixing cups (Solo™ clear plastic cups recycle code #1 or #5)			
Finish	50	Craft sticks (a.k.a. popsicle sticks)			
Finish	1/4 lb	flocked cotton fiber (a.k.a. "flox")			
Finish	1/4 lb	glass spheres (a.k.a. "micro-balloons")			
All	1 roll	Low-tack "painters" masking tape			
Finish	1 roll	Mylar Packing Tape			
Finish	1 roll	Duct tape			

RV-12 BUILDER'S TOOL REQUIREMENTS

1X	6" bench vise	1X	1/4-28 tap
10X	Small (2") "C" clamps	1X	5/16-24 tap
4X	Large (3") spring or "pony" clamps	1X	3/8-16 tap
		1X	3/8-24 tap
1X	3/32 rivet dimple die set (with a reduced dia. female die)	1X	4-40 tap
		1X	6-32 tap
1X	1/8 protruding head rivet set (tall, 1/2" thick)	1X	8-32 tap
1X	1/8 rivet dimple die set (100°)	1X	10-24 tap
1X	#8 screw dimple die set	1X	T-handle for taps
2X	Flush head rivet set (short, 1/8" thick)		
1X	Flush head rivet set (tall, 1/2" thick)	350X	#30 clecos
		50X	#40 clecos
1X	#3 drill bit	1X	Cleco pliers
1X	#11 drill bit		
2X	#12 drill bit	1X	Deburring countersink tool with flute cutter
1X	#16 drill bit	1X	Multi-burr deburring tool (Royal style)
2X	#19 drill bit	1X	Screwdriver with #2 Phillips bit
1X	#27 drill bit	1X	Combination wrench set (1/4"-3/4" & 10mm-17mm)
3X	#30 drill bit	1X	Allen wrenches, assorted (inch & metric)
1X	#43 drill bit		
1X	12" extension drill #30	1X	Feeler gauges: .012-.016in.
1X	#36 drill bit		
5X	#40 drill bit	1X	Fish scale (0-50lbs)
1X	#52 drill bit		
1X	1/4" drill bit	1X	Files (assorted)
1X	5/16" drill bit		
1X	Q or 11/32nd drill bit	1X	Fluting pliers
1X	3/8" drill bit		
1X	1/4" to 3/4" X 1/16 step drill (Unibit)	1X	Hacksaw with fine tooth (32 teeth per inch) blade
1X	100° machine countersink cutter with #12 pilot	1X	Hand blind rivet puller "POP" Riveter PRP-26A, USM Corp
1X	100° machine countersink cutter with #19 pilot	1X	Hand solid rivet squeezer with 3" yoke
1X	100° machine countersink cutter with #27 pilot		
1X	120° machine countersink cutter with #30 pilot	1X	Hand seamer
1X	100° machine countersink cutter with #30 pilot		
1X	100° machine countersink cutter with #40 pilot	1X	Heavy soft-faced hammer
1X	Countersink cage		