

Rev. AG 03/24/22

Changed Sonex Aircraft LLC to Sonex LLC.
Updated Secondary Ignition Instructions and schematics for ACV-A01-23 triggers that require user-installed ground wire.

Rev. AF 12/21/21

Rocker Shaft Assembly. Added note check for free rotation of rocker arms after installing the rocker shafts.

Rev. AE 04/27/21

Crankshaft Assembly, Step 5. Made drilling #1 Bearing hole optional. Pre-assembled cranks are not up-drilled.

Rev. AD 03/20/18

Corrected prop drive lug diameter from 9/16" nominal to .590 +/- .001".

Rev. AC 03/10/17

Updated connecting rod installation procedure. Removed "Starred Bolt" connecting rod option, redefined installation orientation.

Rev. AB 02/09/17

Oil Temp Limits changed: Max. increased to 240, Min. decreased to 80.
Heating time for prop hub installation increased to 180 minutes.
Deleted references to TDC mark on prop hub.
Intake Elbow installation performed with Red High Temp RTV rather than Form-A-Gasket #3.
Locktite 7088 Primer replaced with readily available Locktite 7471 Primer.
Top Mounted Oil Cooler Plate ACV-P01-111 replaces ACV-P01-106.
Approved Oils changed - Synthetic oils removed.

Rev. AA 08/05/15

Page 33, Part number was ACV-Z01-30, changed to MS21042-08
Pages 53 and 54, Bolts used to attach oil cooler top plate and oil cooler lengthened +1. Shorter bolts previously used are still acceptable.

Rev. Z 01/14/15

Updated some part numbers to match packing list.

Rev. Y 09/11/14

Added Intake Elbow Spacer to Intake Manifold Installation procedure.
Changed hardware requirements for installation. Spacers needed only on engines equipped with ACV-P07-47 Cylinder Heads.

Rev. X 08/15/14

Cylinder Head Installation, Step 5. Added note to not install O-ring if the supplied cylinder head does not have an O-ring recess.
Valve cover bolt torque specification reduced - tighten by feel, snug enough to secure and prevent leaks.

Rev. W 06/18/14

Added part number ACV-M01-20 Intake Hose

Rev. V 04/29/14

Added reference photos of cylinder head characteristics.
Added option to attach intake elbows with ACV-Z01-39 cap screws.

Rev. U 12/12/13

Added part number and packing list statement to the "Before You Begin" section of the manual.
Reformatted manual, de-emphasizing part numbers.
Removed non-current part number cross-references.
Added Part Number and Packing List Addendum to back of manual.

Rev. T 12/04/13

Corrected shim call-out for 8:1 compression ratio with -.07 measured deck height.

Rev. S 09/26/13

Deleted ACV-P02-21 Connecting Rods, added ACV-P06-33 Connecting Rods.

Rev. R 12/04/12

Added place to record engine's serial number.
Added ACV-P02-22 as interchangeable Super Case number.
Added note to remove clinging chips from machined surfaces of case.
Added photo of super tin installed.
Revised installation of trigger shaft to include longer screws (ACV-Z01-81) and specific tightening pattern.
Revised installation of stator mount plate to include priming screws (ACV-Z01-81) with Locktite primer.

Rev. Q 03/28/12

Changed recommended Top Mounted Oil Cooler. Was CB Performance p/n 1722, should be part number 1727.

Rev. P 02/28/12

Added top-mounted oil cooler installation details.
Revised Revision Log format.
Removed specific fuel system installation details and referenced the airframe plans for this detail.
Removed fuel and oil system specific shopping lists.
Reduced Spark Plug torque value from 22 ft. lbs. to 12 ft. lbs.

Rev. O 10/21/11

Expanded information on installing ACV-P01-56, non-ported oil pump.

Rev. N 09/1/11

Screws to attach stator is ACV-Z01-76, was ACV-Z01-12.
Added note to use ARP Ultra-Torque if provided. Increased torque of rod bolts to 30.

Rev. M 04/14/11

Added ACV-P02-21 as alternate part number for connecting rods.

Rev. L 02/08/11

Integrated Firewall Forward Manual in to Assembly manual.

Rev. K 01/14/11

Dipstick was ACV-P01-18, should be ACV-P01-24.
Added grounding wire to starter motor.
Added note to Accessory Plate photo referencing Mounting Pin Drawing.
Added Motor Mount Pin drawing.
Added ACV-P02-20 Oil Sump Plate.
Added Exhaust Gasket part number.
Added note to adjust exhaust manifold width.
Added torque specification for valve covers.
Added reference to dual pole Oil Pressure Sender, Part no. ACV-P01-135.
Added ACV-P01-104 as interchangeable number for Aft Woodruff Key.

Rev. J 10/14/10

Added step to check oil pump cover clearance.
Added note about not using the louvered metal gasket under the breather plate.
Added note to ground the oil pressure sender.

Rev. I 04/13/10

Elaborated on rocker shaft assembly and installation

Rev. H 12/18/09

Added torque value (14 ft. pounds) for rocker adjuster locking nut.
Added note to keep piston and pins together as a set.

Rev. G 09/25/09

Added specific oil recommendations and "Engine Priming" detail.

Rev. F 05/19/09

Removed Loctite application to Cylinder Head Studs.

Added ACV-P01-86 head studs.

7:1 Shim chart for -0.01 to -0.04 was .09+.06+.06 shims.

Added weight for Nikasil-equipped engines.

Corrected photo to show proper (flanged) bearing.

Added Shim Kit p/n ACV-P02-19.

Added optional ACV-P03-10 Nikasil Cylinder Kit.

Added additional package of ACV-P01-41 .060 barrel shims.

Added note for builders with pre-assembled crank to proceed to Cam Assembly page.

Rev. E 03/18/09

Changed minimum end play from .004" to .003".

Deleted cam stud gaskets.

Added Permatex coating to cam stud washers.

Added note to adjust spacers as needed on rocker assemblies.

Added flywheel installation and removal detail.

Rev. D 04/22/08

Removed incorrect mention of copper head gaskets.

Added interchangeable part numbers.

Rev. C 04/22/08

Replaced ACV-P01-65 Oil Slinger with ACV-P01-101.

Rev. B 04/07/08

Deleted ACV-P01-61 Shakeproof Nut Kit. Replaced with individual hardware part numbers.

Rev. A 03/08/08

General clean up from Rev N/C. No significant changes.

Rev. N/C 03/05/08

Original Publication of 2.1 engine Assembly Manual.