Alpha

aviation, inc.

PRODUCT CATALOG

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1500 East Main Street
Owatonna, Minnesota 55060

ALPHA AVIATION INC
ERCOUPE MODERNIZATION & UPGRADE STC's

9 CF Baggage Compartment SMK-15	SA330GL
Battery Master Relay Installation	SA02601CH
MLG Oleo Restoration SMK-61	SA01247CH
0200A Model "D" Engine Upgrade	SA2628WE
Super Nosebowl (Fiberglass) KE2-653	SA3502WE
Legacy Nosebowl (Fiberglass) KE2-653A	SA3502WE
Brake Master Cylinder Replacement SMK-88	SA01407CH
Brake Fluid Reservoir Conversion SMK-98	SA01409CH
Gross Weight Increase LSA #1320	SA02450CH
Metal Bowl Gascolator Conversion SMK-96	SA01246CH
Model E Elevator Installation	SA02757CH
Wing Mounted Landing Light SMK-101	SA1097GL
Alon A-2 Shoulder Harness Installation	SA02481AK
Ercoupe Shoulder Harness Installation	SA02493CH
MLG Oleo Spacer Installation	Minor Change

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ERCOUPE 9 CF BAGGAGE COMPARTMENT SMK 15

STC SA330GL - FAA / PMA

STC SA330GL, 9 cu-ft Baggage Compartment Kit (SMK 15) authorizes the removal of the factory supplied fabric storage area; replacing it with an open baggage area.

This installation involves the removal of the fabric storage bag, the slanted rear deck from fuselage frame “E” to frame “F” and the removal of the cross bar at frame “E”. SMK 15 is then made by the installation of an aluminum rear bulkhead at fuselage frame “F” and the installation of a load rated floor from frames “D” to frame “F”

The floor boards are cut from Marine Grade plywood and aluminum sidewall / seatback panels are provided. The floor boards are easily removed to provide access for maintenance. The rear bulkhead and sidewall / seatback panels are easily finished by adding a vinyl covering and the addition of carpeting to the load floor completes the installation. (Note: the vinyl finish material and carpeting are not included with this kit)

Kit SMK 15 includes the structural aluminum fittings (7 ea), Marine Grade plywood flooring, aluminum sheet sidewall / seatback panels (6 ea), cargo net, wooden fillers and all required hardware items.

APPROVED MODELS
UNIVAIR (Erco / Forney)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A			

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ERCOUPE
INSTALLATION of BATTERY MASTER RELAY
STC SA02601CH - FAA / PMA

STC SA02601CH authorizes the modification of Univair (ERCO) 415-C, -CD, -D, - E, -G, F-1, F-1A aircraft to incorporate the installation of a high current battery master relay and low current control circuit. This installation is accomplished through the addition of a high current master relay attached to the battery box, which reuses much of the existing factory installed wiring.

There are two methods developed and approved to accomplish this modification. Material is supplied to accomplish either installation method.

Method 1 – Provide a battery box mounted master relay controlled by the contacts of the existing AN3023 - 2 battery master switch.

Method 2 – Provide a battery box mounted master relay controlled by the contacts of a new AN3027-2 or MS35059-22 battery master switch at its current location or instrument panel mounted.

STC SA02601CH Includes;

- Master Relay
- Master DP/ST Switch
- AMP Connecter
- Insulating Boots
- Wire Ring Terminals
- Wire
- Wire Splice
- Diode
- Heat Shrink
- Screws, Washers & Nuts

Airframe Qualification;

The aircraft is a Univair (ERCO) Model 415-C, 415-CD, 415-D, - E, -G, F-1, F-1A.

The aircraft has a standard airworthiness certificate

The airworthiness certificate is in the Normal Category

The authorized aircraft serial number range is: All TCDS authorized serial Numbers

Previous modifications or applied STC's do not preclude the installation of this STC

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A			

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ERCOUPE MAIN LANDING GEAR OLEO RESTORATION KIT SMK-61

STC SA01247CH is intended to correct chronically leaking MLG oleo struts, caused by an inadequate "O" ring seal.

This kit includes the necessary modification parts and instructions to modify both Main Landing Gear (MLG) oleo strut assemblies.

The MLG piston "O" ring seal is removed and the piston is reworked by enlarging the orifice hole and cutting threads to accommodate the installation of an AN4-5A bolt, which is modified to provide the orifice function. The final assembly includes mounting an automotive style cup seal; similar to the arrangement found on early Model 415-C aircraft, serial numbers 112 thru 812.

The finished assembly is replenished with DOT 3 automotive brake fluid as shown in the Ercoupe Service Manual for Model 415-C aircraft, serial numbers 112 thru 812.

The use of MIL 5606 (Red) hydraulic fluid in the MLG oleos is discontinued.

When accomplished in conjunction with an Annual/ 100 Hour Inspection, the additional labor requirement is approximately 1 hour.

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A	A2-A	M10	

Serial #813 and above

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ERCOUPE 0200A MODEL "D" ENGINE UPGRADE

The TCM 0200A has several advantages over the C75 and C85 series engines

Increased performance.
Enhanced parts availability at lower cost
Uses a widely available McCauley 1A101/DCM6948 propeller

.

The installation is accomplished without the need for structural modification

The engine mount is reused and the mounting bolts and vibration dampeners are upgraded.
The engine baffling is reused; the front right baffle is reworked.
The induction system and exhaust system are reused.
An electric fuel transfer system replaces the C75/85 engine driven fuel pump.

APPROVED MODELS
UNIVAIR (Erco)

Ercoupe Model 415D and those Model 415C and 415CD aircraft converted to Model 415D per Type Certificate (T.C.) A-787, Note 3.

Additionally, other T.C. A-787 aircraft may be converted by FAA Field Approval, Form 337.

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ERCOUPE FIBERGLASS SUPER NOSE BOWL KE2-635

STC SA3502WE - FAA / PMA

Is your nose bowl in need of replacement?

Is it cracked, patched and just simply looking bad?

Worn out and wearing thin from years of vibration?

It's too expensive to purchase a new replacement and all the used nose bowls you have seen are as bad as yours?

Our fiberglass Super Nose Bowl is half the cost of an aluminum replacement

The KE2-635 Super Nose Bowl has been developed to allow owners and operators of Univair (ERCO 415-C, A-2, F1 and M10 series aircraft to replace their aging OEM aluminum nose bowls, ERCO PN 415-4021, 415-40451, 415-40460E, Forney F-406356, with a fiberglass replacement nose bowl.

The KE2-635 Super Nose Bowl provides the same fit and finish as the OEM aluminum article with the advantage of improved durability and repairability. The Super Nose Bowl also allows increased airflow resulting in increased cooling.

Advanced design provides increased cooling

Modern, rounded look which is easily painted

If damaged, can be easily repaired to it's original appearance

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	A-2	A-2A
Model E	Model G	F-1	F-1A	M10

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INSTALLATION OVERVIEW

FAA STC SA3502WE
SUPER Fiberglass Nose Bowl Replacement KE2-635

MODEL DESIGNATIONS

Model Number	Product Description
KE2-635	Replacement Fiberglass Nose Bowl

Product Description

The KE2-635 Super Nose Bowl has been developed to allow owners and operators of Univair (ERCO) 415-C, A-2, F-1 and M10 series aircraft to replace their aging OEM aluminum nose bowls; ERCO 415-40421, 415-40451, 415-40460E, Forney F40635 with a fiberglass replacement nose bowl.

The KE2-635 fiberglass replacement nose bowl provides the same fit and finish as the OEM aluminum article with the advantage of improved airflow, durability and repairability.

Airframe Qualification

Aircraft that have a standard airworthiness certificate are eligible for this installation.

Installation Overview

The KE2-635 Fiberglass Replacement Nose Bowl is designed and produced as a direct replacement article; replacing the OEM aluminum fabricated nose bowl.

On initial installation, the replacement nose bowl requires that it be fitted and drilled in a manner that ensures the bottom and side cowls are positioned properly and all items are in alignment prior to being fastened in place.

Note—if the previous nose bowl was equipped with a fresh air intake fitting; drill off the fitting and transfer it to the replacement nose bowl.

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INSTALLATION NOTES

KE2-635 STC SA3502WE
SUPER Fiberglass Replacement Nose Bowl
Univair (ERCO), Forney, Alon, Mooney

Per Approved Model List

KE2-635 Super Nose Bowl

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SUPER Fiberglass Replacement Nose Bowl KE-635

Model Designations

Model Number	Product Description
KE2-635	Super Replacement Fiberglass Nose Bowl

Product Description

The KE2-635 Super Replacement Fiberglass Nose Bowl has been developed to allow owners and operators of Univair (ERCO) 415 Series, Forney, Alon and Mooney M10 aircraft to replace their aging OEM aluminum nose bowls with an improved design which provides enhanced engine cooling and a rounded appearance. The KE2-635 Super Fiberglass Replacement Nose Bowl provides the same fit and finish as the OEM aluminum article; with the advantage of improved durability and ease of repair.

Weight and Balance

The KE2-635 replacement nose bowl has a location of station - 32 and a net weight change of approximately 1 pound.

FAA Documentation

When the installation is completed the installer should:

Update the aircraft equipment list.

Update the aircraft weight and balance record as necessary.

Make the appropriate maintenance entries in the aircraft log book.

Prepare and submit FAA Form 337 to document the installation of STC SA3502WE, article KE2-635

Installation

The KE2-635 Fiberglass Replacement Nose Bowl is designed and produced as an FAA STC / PMA approved direct replacement article; replacing the OEM aluminum fabricated nose bowl.

On initial installation the replacement nose bowl requires that it be fitted and drilled in a manner that ensures the bottom and side cowls are positioned properly and all items are in alignment prior to being permanently fastened in place.

Note - If the previous bowl was equipped with a fresh air intake fitting; drill off the fitting and transfer it to the replacement nose bowl.

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KE2-635 Super Nose Bowl

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ERCOUPE FIBERGLASS LEGACY NOSE BOWL KE2-635A

STC SA3502WE - FAA / PMA

Is your nose bowl in need of replacement?

Is it cracked, patched and just simply looking bad?

Worn out and wearing thin from years of vibration?

It's too expensive to purchase a new replacement and all the used nose bowls you have seen are as bad as yours?

Our fiberglass LEGACY Nose Bowl is half the cost of an aluminum replacement

The KE2-635A Legacy Nose Bowl has been developed to allow owners and operators of Univair (ERCO) 415 Series, Forney, Alon and Mooney M10 aircraft to replace their aging OEM aluminum nose bowls.

The KE2-635A Legacy Nose Bowl provides the same fit and finish as the OEM aluminum article with the advantage of improved durability and repairability.

Improved Durability

Modern, rounded look which is easily painted

If damaged, can be easily repaired to it's original appearance

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	A-2	A-2A
Model E	Model G	F-1	F-1A	M10

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INSTALLATION OVERVIEW

FAA STC SA3502WE
LEGACY Fiberglass Nose Bowl Replacement KE2-635A

MODEL DESIGNATIONS

Model Number	Product Description
KE2-635A	Replacement Fiberglass Nose Bowl

Product Description

The KE2-635A Legacy Replacement Nose Bowl has been developed to allow owners and operators of Univair (ERCO) 415 Series, Forney, Alon and Mooney M10 aircraft to replace their aging OEM aluminum nose bowls

The KE2-635A Fiberglass Replacement Nose Bowl provides the same fit, finish and appearance as the OEM aluminum article with the advantage of improved airflow, durability and ease of repair.

Airframe Qualification

Aircraft that have a standard airworthiness certificate are eligible for this installation.

Installation Overview

The KE2-635A Fiberglass Replacement Nose Bowl is designed and produced as an FAA STC / PMA approved direct replacement article; replacing the OEM aluminum fabricated nose bowl.

On initial installation the replacement nose bowl requires that it be fitted and drilled in a manner that insures the bottom and side cowls are positioned properly, and all items are in alignment prior to being fastened in place.

Note – if the previous nose bowl was equipped with a fresh air intake fitting; drill off the fitting and transfer it to the replacement nose bowl.

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INSTALLATION NOTES

KE2-635A STC SA3502WE
LEGACY Fiberglass Replacement Nose Bowl
Univair (ERCO), Forney, Alon, Mooney

Per Approved Model List

KE2-635A Legacy Nose Bowl

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LEGACY Fiberglass Replacement Nose Bowl KE-635A

Model Designations

Model Number	Product Description
KE2-635A	Legacy Replacement Fiberglass Nose Bowl

Product Description

The KE2-635A Legacy Replacement Fiberglass Nose Bowl has been developed to allow owners and operators of Univair (ERCO) 415 Series, Forney, Alon and Mooney M10aircraft to replace their aging OEM aluminum nose bowls.

The KE2-635A Fiberglass Replacement Nose Bowl provides the same fit, finish and appearance as the OEM aluminum article; with the advantage of improved durability and ease of repair.

Weight and Balance

The KE2-635A replacement nose bowl has a location of station - 32 and a net weight change of approximately 1 pound.

FAA Documentation

When the installation is completed the installer should:

Update the aircraft equipment list.

Update the aircraft weight and balance record as necessary.

Make the appropriate maintenance entries in the aircraft log book.

Prepare and submit FAA Form 337 to document the installation of STC SA3502WE, article KE2-635A

Installation

The KE2-635A Fiberglass Replacement Nose Bowl is designed and produced as an FAA STC / PMA approved direct replacement article; replacing the OEM aluminum fabricated nose bowl.

On initial installation the replacement nose bowl requires that it be fitted and drilled in a manner that ensures the bottom and side cowls are positioned properly and all items are in alignment prior to being permanently fastened in place.

Note - If the previous bowl was equipped with a fresh air intake fitting; drill off the fitting and transfer it to the replacement nose bowl.

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LEGACY Fiberglass Replacement Nose Bowl KE-635A

Tasks -

1. Removal of the propeller; Mark the spinner, back plate, propeller hub and crankshaft flange relative locations with a marking pen.

   Remove the propeller assembly.

2. Open and tie back the side cowl panels.

3. Remove the fasteners from the existing nose bowl and remove the nose bowl from the support frame.

4. Clean up the fastener holes and any bent, worn or sharp edges on the top, bottom and side cowl panels prior to beginning work on the new fiberglass nose bowl.

   Note – Consideration should be given to adding anti-chafe tape between the new fiberglass nose bowl flange and metal cowl components.

5. Begin the installation by positioning the replacement nose bowl in place and securing it using wide masking tape.

6. With the replacement nose bowl in position bring the side cowls down and fasten them using their quarter turn fasteners.

7. Adjust the nose bowl as needed and restore the temporary tape strips to insure the nose bowl will not move.

8. Temporarily install the propeller, back plate and dome to assure that the required clearance is attained. Adjust as necessary.

9. Carefully mark the fastener locations.

10. Install several fasteners to lock the nose bowl into position.

11. Remove the temporary tape and recheck the prop and spinner clearance.

12. Remove the propeller and complete the nose bowl installation.

13. Reinstall the propeller and spinner assembly;

    * For wooden Propellers per the Ercoupe Service Manual (ESM)

    * **For metal propellers refer to the propeller manufactures data or STC holder data to determine the correct torque value.**

14. Test run and re-inspect the installation for proper clearances and security.

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KE2-635A Legacy Nose Bowl - Installed

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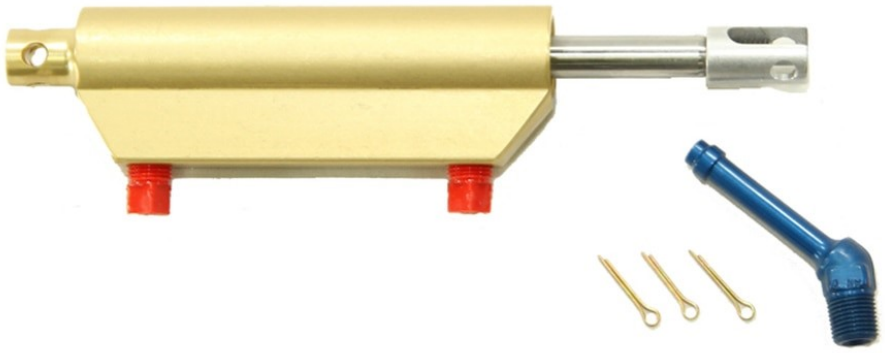
ERCOUPE BRAKE MASTER CYLINDER REPLACEMENT SMK-88

STC SA01407CH - FAA / PMA



This STC is designed to be installed in aircraft with the Brake Master Cylinder installed under the floor boards ahead of the front spar.

It is intended to replace aging Scott Model 4350 Master Cylinders that have reached the end of their service life.

This kit includes the necessary modification parts and instruction to replace an OEM Scott cylinder with a new design SS13000 Master Cylinder.

Outstanding results have been achieved with the Cleveland brake installation.

The SS13000 Master Cylinder works with the Goodyear brake system when combined with new discs and linings.

Goodrich - Hayes brakes will require the continued use of the OEM Scott Model 4350 master cylinder.

The use of MIL 5606 (Red) hydraulic fluid in the brake systems is continued.

When accomplished in conjunction with an Annual/100 Hour inspection with the floor boards removed, the additional labor requirements is approximately 2 hours.

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A			

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ERCOUPE BRAKE FLUID RESERVOIR CONVERSION SMK-98

STC SA01409CH - FAA / PMA

This STC is designed to be installed in aircraft with the Brake Reservoir installed on the firewall adjacent to the left lower motor mount attachment.

It is intended to replace aging soldered steel reservoirs that have reached the end of their service life.
The kit includes the necessary modification parts and instructions to replace an aged out steel reservoir with the all Aluminum, new design SS12800 Brake Reservoir.

The installation is compatible with Cleveland, Goodyear and Goodrich - Hayes brake systems.

When accomplished in conjunction with an Annual/ 100 Hour Inspection with the floor boards removed, the additional labor requirement is approximately 1 ½ hours.

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A			

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ERCOUPE GROSS WEIGHT INCREASE LSA #1320

STC SA02450CH - FAA

STC SA02450CH will increase the allowable Gross Weight of Univair (ERCO) 415-C and -CD Aircraft from their present 1260 pounds to a 1320 pound maximum weight.

This 60-Pound increase in Gross Weight will provide the operator with a greater margin of safety through the ability of the average aircraft to carry a full fuel load (24 Gallons) and two (2) 170-Pound occupants.

Airframe Qualification

The following criteria must be met prior to the application of STC SA02450CH and the use of the increased gross weight that it authorizes.

The aircraft is a Univair (ERCO) Model 415-C or Model 415-CD

The aircraft has not been converted to a Car 03, TCDS A-787 aircraft

The aircraft must be in compliance with CAR, Part 4a, approved TCDS A-718

The aircraft is to have a standard airworthiness certificate

The airworthiness certificate is in the Normal Category

The aircraft is powered by one of the following approved engines:

TCM: C75-12; C75-12F; C85-12 or C85-12F

The installed propeller is approved in combination with the installed engine

Previous modifications or applied STC s do not preclude the installation of this STC

Determine that an acceptable longitudinal control system is installed or can be installed

APPROVED MODELS
UNIVAIR (Erco)

415-C 415-CD

Serial #'s 113 - 4423 and 4500 and up

No Parts Required in Most Cases

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ERCOUPE MAIN LANDING GEAR OLEO SPACER INSTALLATION

Minor Change - STC Not Required

Spacers Only
Donuts not included

This installation is applicable to Ercoupe 415-C, CD, D, E, G, F-1, F-1A and Alon aircraft that are equipped with either the Hayes welded or Erco forged trailing link MLG assembles. Serial numbers 112 and up. The spacer installation becomes appropriate when a properly maintained aircraft is experiencing a tail low attitude, which is affecting its takeoff and landing characteristics.

Background

Ercoupe aircraft are designed with a number of unique safety features that add to its stability on the ground and in the air. Among those features are its ability to run on the ground up to 60 mph without flying off prior to the pilots' deliberate rotation. And, upon landing, to run out on the ground without the tendency to balloon back into the air. This feature is a function of a design that places the wings static angle of attack at a slightly negative angle (-2Degrees) when running on the ground. This negative angle of attack is only assured when the aircraft is rigged correctly, with the proper tail height. Any loss of tail height results in the static angle of attack moving positive, thus negating this design feature.

Why has this become a problem worth addressing

The original Ercoupe design was an 800 pound aircraft standing on 4" tires and wheels, NLG and MLG being virtually the same height and the tail at its 75" design height. Any loss of tail height due to a worn MLG taxi stack doughnuts could be corrected to restore the static angle of attack. As the fleet has aged, in addition to worn taxi stack doughnuts the addition of dual fork nose gear assemblies, 500x5 nose tires and 600x6 MLG tires have had their effect on the tail height of the aircraft and thus the wings static angle of attack.

Adding spacers to the MLG oleo struts

Many aircraft are experiencing a tail low condition even with the MLG taxi stack in a serviceable condition and one way to restore the proper static attack angle is to lower the stop on the taxi stack, which is the stop collar on the MLG oleo piston. Our method to lower the stop is to add up to 2 clamping collars to each piston. Each clamping collar is ½" in height and raises the tail by approximately 2".

FOR MODELS

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A			

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ERCOUPE METAL BOWL GASCOLATOR CONVERSION KIT SMK 96

STC SA01246CH - FAA / PMA

This STC is designed to be installed on aircraft with the Gascolator attached to the carburetor.

It is intended to replace aging glass bowl gascolators and metal bowl gascolators that lack a bowl quick drain.

The SS13100 Gascolator is of a modern design and includes a metal bowl, standard quick drain, heavy duty bail assembly, Viton (All Fuel) gasket and brass screen.

The Gascolator is sold as a standalone item and is intended to be installed by reference to the Ercoupe Service Manual, pertinent AD's, Service Bulletins and Memorandums.

When accomplished in conjunction with an Annual/ 100 Hour Inspection the additional labor requirement is approximately 1 hour.

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A	A-2	A2-A	M10

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ERCOUPE INSTALLATION of MODEL E ELEVATOR

STC SA027575CH - FAA

This STC was developed in order to improve the handling, landing performance and safety of certain Univair (ERCO) 415-C, -CD, - D aircraft through the installation of the later Model "E" split elevator assembly (Drawing 415-22037) and Low Speed Warning Cushion (Drawing 415-52025)

This installation improves the slow speed handling and landing performance of the aircraft without sacrificing the anti-spin

Required Changes; This effort will require that candidate 415-C aircraft be modified, if not previously accomplished, to include an elevator trim tab control system. Univair Installation SK-4. The Modification of 415-C, -CD and -D aircraft will include installing an "E" elevator assembly (415-22037), center hinge (415-22038), elevator control arm (415-52024), spring (415-22026) and link (415-52027); plus attaching hardware to complete the Low Speed Warning Cushion. Parts may be sourced as removed from the existing installation, salvaged parts or new production items.

Recent Developments; The Model -E elevator installation has proven to be effective. It remained the standard elevator installation until the flight controls were change by Mooney on the M10 Cadet, in the 1960's. With the advent of the Sport Pilot and Light Sport Aircraft (LSA) rules, the interest in the Erco 415 series aircraft has heightened and the number of owners modernizing their aircraft has increased, while at the same time the availability of mechanics and FAA personnel willing to accomplish this modification and authorize it through the FAA field approval process has decreased.

Required Changes; This effort will require that candidate 415-C aircraft be modified, if not previously accomplished, to include an elevator trim tab control system. Univiar Installation SK-4. The modification of 415-C, -CD and –D aircraft will include installing an "E" elevator assembly (415-22037), center hinge (415-22038), elevator control arm (415-52024), spring (415-22026) and link (415-52027); plus attaching hardware to complete the Low Speed Warning Cushion.

APPROVED MODELS
UNIVAIR (Erco)

415-C 415-CD 415-D
Serial #'s 113 through 4868

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ERCOUPE WING MOUNTED LANDING LIGHT KIT SMK 101

STC SA1097GL - FAA / PMA

STC SA1097GL Single Lamp Landing Light Kit (SMK 101) authorizes the installation of a single landing light in the leading edge of either or both wings.

This landing light installation replaces the MLG fairing mounted light assemblies, if installed.

This installation reduces drag, provides a broader light beam and accommodates various PAR36 Incandescent - Halogen - Quartz - LED bulbs.

It can be easily modified with the addition of a Landing Light Flashing System for increased in-flight safety. The installation of kit SMK 101 is made at the fourth rib bay inboard of the wing tip bow and is accomplish by creating the prescribed opening in the leading edge.

The landing light back plate and bulb mount is installed in the wing bay as a unit; the landing light frame and lens is furnished as an assembly and installed to finish the installation with six stainless steel screws.

The kit includes a circuit breaker switch, wire, clamps and detailed instructions - the landing light bulb is not included due to there being several types to choose from.

APPROVED MODELS
UNIVAIR (Erco)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A	A-2	A2-A	M10

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ERCOUPE STC KIT

STC SA02493CH 3-Point Diagonal Shoulder Harness Kit - FAA / PMA

Estimated Installation Time
4 - 6 hrs

This structurally integrated Alpha Aviation Inc. 3-point Diagonal Shoulder Harness installation STC kit is FAA / PMA using OEM quality AmSafe® restraint assemblies meeting TSO-C114. Shipped as a complete kit, this STC includes everything for the installation of shoulder harness restraints in the Pilot and Co-Pilot positions

This kit is stocked with **Black**, **Gray** or **Fawn** (Tan) Restraints.

Over 100 other colors are available by Special Order at no extra charge. Please allow 4 - 5 weeks for shipment of special order colors. Color Swatches are available upon request. ***We are not able to accept returns or provide refunds on special orders****

STC SA02493CH Includes;

2 Shoulder Harnesses; Fixed Strap
2 New Lap Belts, including new buckle and end fittings
8130-3 Airworthiness Certificate
Certificate of Conformance
All Required Parts and Hardware *(FAA / PMA)*
Detailed Installation Manual with Drawings
Supplemental Type Certificate
STC Authorization

APPROVED MODELS
UNIVAIR (Erco / Forney)

415-C	415-CD	415-D	Model E	Model G
F-1	F-1A			

Estimated installation times do not include the aircraft prep of removing seats, opening panels, pulling back headliners, etc.
Due to the differences between maintenance shops & installers we are not able to guarantee the estimated installation times provided.

Alpha aviation, inc.
1-800-653-5112 Fax 1-952-856-5158
1500 East Main Street
Owatonna, Minnesota 55060

ALON A-2 STC KIT

STC SA02481AK 3-Point Diagonal Shoulder Harness Kit - FAA / PMA

Estimated Installation Time
4 - 6 hrs

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STC SA02481AK Includes;

2 Shoulder Harnesses; Fixed Strap
2 New Lap Belts, including new buckle and end fittings
8130-3 Airworthiness Certificate
Certificate of Conformance
All Required Parts and Hardware *(FAA / PMA)*
Detailed Installation Manual with Drawings
Supplemental Type Certificate
STC Authorization

APPROVED MODELS

A-2

Estimated installation times do not include the aircraft prep of removing seats, opening panels, pulling back headliners, etc.
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ERCOUPE / ALON STC's APPROVED MODELS LIST

ALON						**STC SA02481AK**
A-2						
ERCOUPE (Univair - Erco/Forney)						**STC SA02493CH**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
ERCOUPE 0200A MODEL "D" ENGINE UPGRADE						**STC SA2628W**
415-D						
Model 415C and 415CD aircraft converted to Model 415D per Type Certificate (T.C.) A-787, Note 3						
ERCOUPE 9CF BAGGAGE COMPARTMENT (SMK 15)						**STC SA330GL**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
ERCOUPE BATTERY MASTER RELAY UPGRADE						**STC SA02601CH**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
ERCOUPE BRAKE MASTER CYLINDER REPLACEMENT						**STC SA01407CH**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
ERCOUPE BRAKE RESERVOIR CONVERSION						**STC SA01409CH**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
ERCOUPE GROSS WEIGHT INCREASE LSA #1320						**STC SA02450CH**
415-C	415--CD	Serial #'s 113 - 4423 and 4500 and up				
ERCOUPE MAIN LANDING GEAR OLEO REST. KIT						**STC SA01247CH**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
A-2	A2-A	M10	Serial #'s 813 and above			
ERCOUPE METAL BOWL GASCOLATOR CONVERSION						**STC SA01246CH**
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
A-2	A2-A	M10				
ERCOUPE MODEL E - ELEVATOR INSTALLATION						**STC SA02757CH**
415-C	415-CD	415-D	Serial #113 through #4868			

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ERCOUPE / ALON STC's APPROVED MODELS LIST

ERCOUPE WING MOUNTED LANDING LIGHT (SMK101) STC SA1097GL						
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
A-2	A2-A	M10				
ERCOUPE SMK72 FIBERGLASS NOSE BOWL STC SA3502WE						
SUPER NOSE BOWL KE2-635						
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
A-2	A2-A	M10				
LEGACY NOSE BOWL KE2-635A						
415-C	415-CD	415-D	MODEL-E	MODEL-G	F-1	F-1A
A-2	A2-A	M10				