

789		DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		SW-GADO-7		Form Approved Budget Bureau No. 04-R060.1	
MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)						APR 26 1984	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.							
1. AIRCRAFT	MAKE REPUBLIC			MODEL RC-3			
	SERIAL NO. 765			NATIONALITY AND REGISTRATION MARK N6499K			
2. OWNER	NAME (As shown on registration certificate) Edmond F. Freeman			ADDRESS (As shown on registration certificate) Greg Terrace Apt. Johnson City, TN			
	<p>The alteration identified in item 4 above is in accordance with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, section 43.7.</p> <p>4-24-84 (Date) <i>Anthony J. Puello</i> (Signature of FAA Inspector, Lubbock, Texas)</p>						
4. UNIT IDENTIFICATION							
UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE			
AIRFRAME	***** (As described in item 1 above) *****			REPAIR	ALTERATION		
POWERPLANT					X		
PROPELLER							
APPLIANCE	TYPE						
	MANUFACTURER						
6. CONFORMITY STATEMENT							
A. AGENCY'S NAME AND ADDRESS				B. KIND OF AGENCY		C. CERTIFICATE NO.	
Edmond F. Freeman 342 Westridge Ave. Abilene, Tx 79605				<input checked="" type="checkbox"/> U.S. CERTIFICATED MECHANIC <input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC <input type="checkbox"/> CERTIFICATED REPAIR STATION <input type="checkbox"/> MANUFACTURER		1580607	
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.							
DATE 4-16-84				SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Edmond F. Freeman</i>			
7. APPROVAL FOR RETURN TO SERVICE							
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED							
BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)		
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT			
DATE OF APPROVAL OR REJECTION 4-24-84		CERTIFICATE OR DESIGNATION NO. 1580607		SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Edmond F. Freeman</i>			

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

ENGINE AUXILIARY INSTRUMENT PANEL

- (1). Manufactured panel face from .050 alclad aluminum sheet.
- (2). Manufactured attach angles and brackets from .063 alclad sheet.
- (3). Attached angles, brackets and panel face to airframe, and engine overhead control quadrant.
- (4). Installed Davtron Model 811B clock in center of panel face, in accordance with mechanical installation instructions from Davtron see attachment #1. Attached clock battery to side of quadrant with a MS21919 clamp.
- (5). Installed Westberg P/N K29PX internally lighted cylinder head temperature indicator in the right outboard 2 1/4" hole in panel face, in accordance with installation instruction sheet provided, see attachment #3.
- (6). Installed Westberg P/N K28PX internally lighted exhaust gas temperature indicator in the left outboard 2 1/4" hole in panel face, in accordance with installation instruction sheet provided, see attachment #2.
- (7). Installed, CHT Sender on engine #6 cyl., EGT Probe Sender on #2 cyl., routed leads and patch cables through lt. accessory compt. and firewall, across top of aircraft above headliner and connected to indicators in accordance with wiring instructions provided.
- (8). Manufactured bracket from .050 al. sheet and attached speed switch to radio rack support behind main instrument panel, plumbed high pressure side of switch into pitot system tubing and checked for leaks, none noted. Low pressure side vented to ambient. See attachment #4.
- (9). Wired components using Mil-5086 wire in accordance with diagrams, see attachment #4 & 5, using wire size as indicated in blocks.
- (10). Component installations made using standard A.N. or M.S. hardware, following standard aircraft maintenance practices. (A.C. 43.13-1A, Chapter 5, Section 1)

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☒ ADDITIONAL SHEETS ARE ATTACHED

Cont. . . .

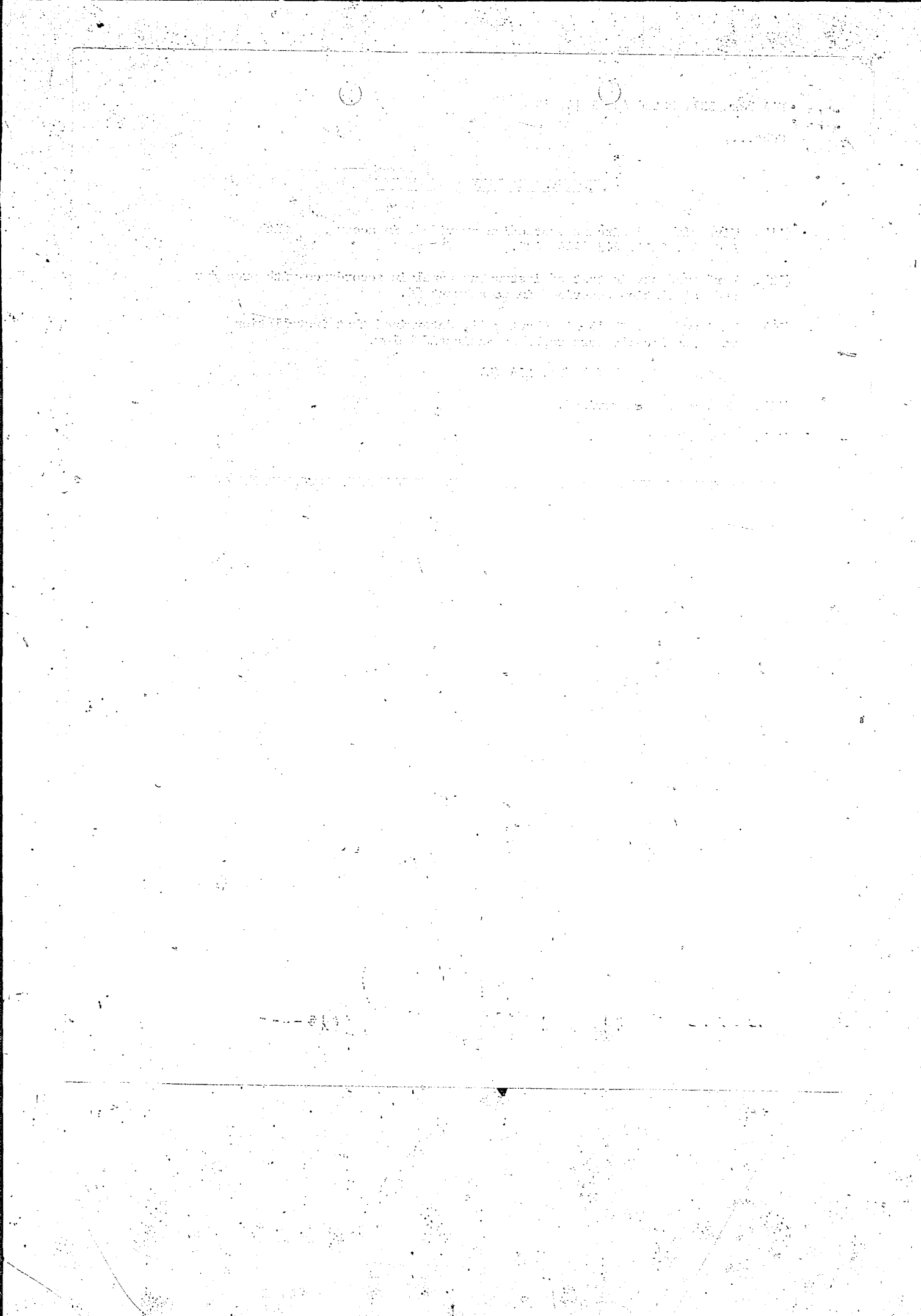
ENGINE AUXILLARY INSTRUMENT PANEL

- (11). Wire size and circuit protection provided, in accordance with A.C. 43.13-1A, 443, 444, 429.
- (12). Performed static test of instrument panel in accordance with procedure and calculation described in attachment #6.
- (13). Reviewed A.C. 43.13-2A, Chapter 11, determined that installation meets applicable paragraphs as indicated below:

212, 213 (a) (e) (b), 214 (b)

- (14). Equipment list revised.
- (15). Aircraft reweighed.

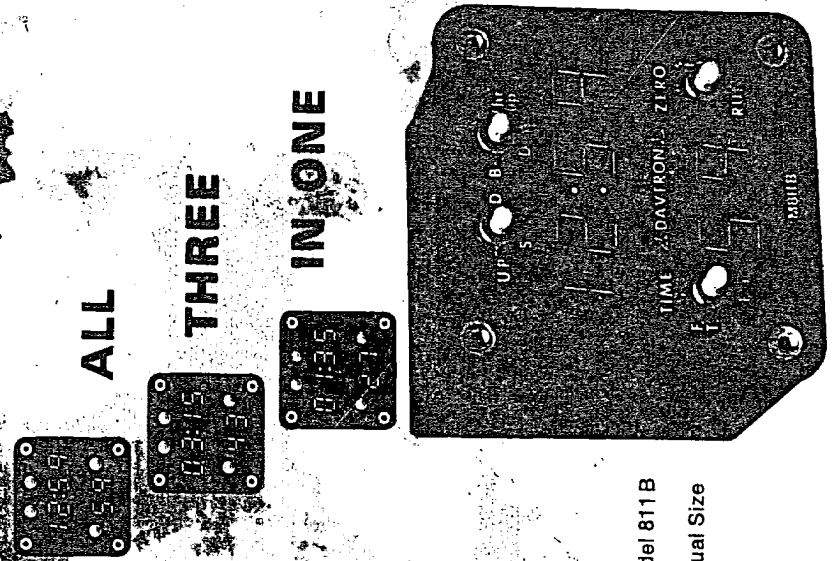
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RC-3, SN 765, MP 99K ATTACHMENT #1
F.A.A. Form 337
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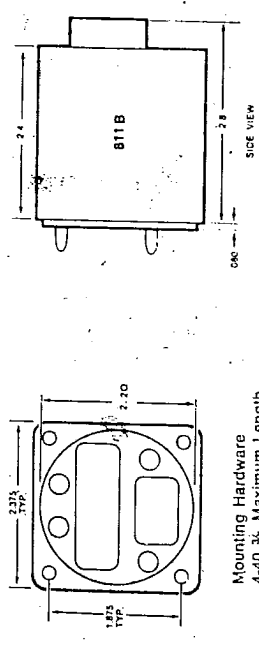
DIGITAL CLOCK FLIGHT TIME RECORDER ELAPSED TIME METER

ALL
THREE
IN ONE

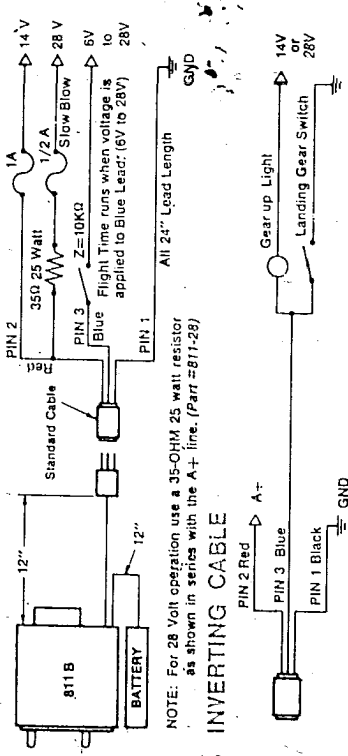


Model 811 B
Actual Size

MECHANICAL



ELECTRICAL



When using the Inverting cable (Part #811-INV) the Flight Time runs when the Blue Lead is grounded.

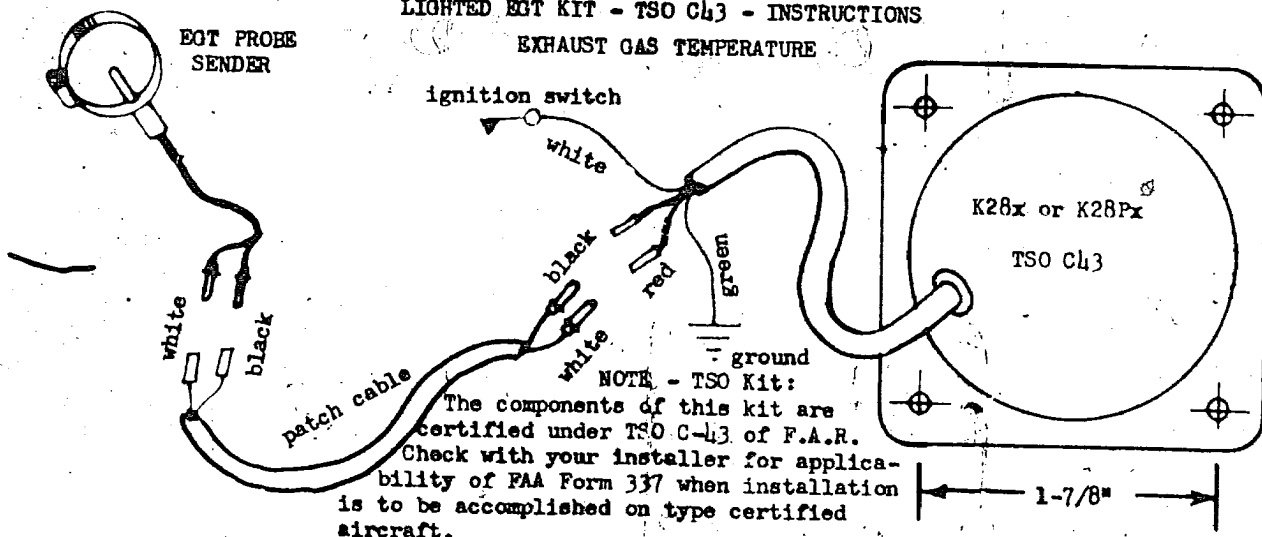
SPECIFICATIONS

- Six-digit display on all three functions
- Time function with 12- or 24-hour clock.
- Specify when ordering.
- Flight time recorder: 24 hour
- Elapsed time meter: 24 hour
- Battery supplied with a typical two-year operating life, 6 volts—1 amp hr.
- Polaroid filter.
- Input voltage: 14 volts
- Input current: .4 AMPS
- Maximum depth from mounting surface: 2.8"
- Weight: 7.5 oz.
- Crystal Reference: .001% —40°C to +50°C
- Warranty: 1 year

PRICE
\$379.00

DAVIDSON INC.
427 HILLCREST WAY
REDWOOD CITY, CA 94061

LIGHTED EGT KIT - TSO C43 - INSTRUCTIONS EXHAUST GAS TEMPERATURE



Mount the hose clamp over 3/16" hole drilled in exhaust pipe about 6" from manifold. Do this on the leanest cylinder as defined by engine manufacturer. Leanest cylinder will vary with engine and carburetor setups.

Mount the instrument in 2-1/16" hole for front panel mount (2 1/4" hole for behind panel mount) in convenient operating place. Use diagram for mounting template.

Connect patch cable to instrument as shown. Black lead to black lead and red lead to white lead. Connect the patch cable to sender as shown. Black lead to black lead and white lead to white lead. Patch cable can be omitted or lengthened 4 feet without effecting accuracy of instrument. To lengthen use 18 gage wire (WESTACH INSTRUMENT only). NOTE: If no reading, reverse sender leads.

Internal light operation: The green and white wires are for internal light operation. For off-on control, wire green lead to ground and white lead to ignition switch (light dimmer). For continuous operation, wire green lead to ground and white lead to +12 volt battery. NOTE: If used on 24 volt, order 24 volt adapter Cat. #329-24.

Route wires away from hot manifold and pipes. Tie to other wire bundles, if available, and support wires every 12-15" intervals. Use grommets when going through metal.

WESTACH INSTRUMENTS are made with the highest quality material and workmanship. With reasonable care, instruments should give long and satisfactory service.

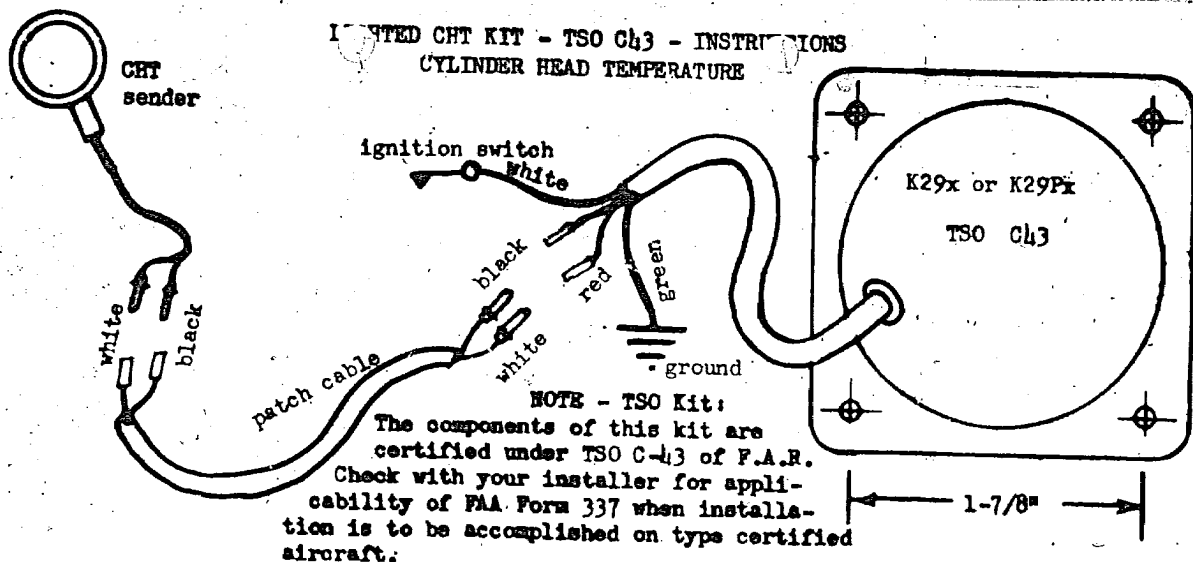
WESTACH INSTRUMENTS are guaranteed against defective material and workmanship for 1 year of service or 18 months from manufacturing date. Our obligation is limited to correct and return instruments prepaid and covers no liability for damage from shipment, improper installation, rough handling or if opened. UNDER NO CIRCUMSTANCES WILL WESTBERG MFG. INC. REIMBURSE CUSTOMER FOR COST(S) INCURRED IN REMOVING AND/OR REINSTALLING REPLACEMENT PARTS.

WESTBERG MFG. INC., 3400 WESTACH WAY, SONOMA, CA 95476-9710 - PHONE #(707) 938-2121

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ATTACHMENT #2
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Mount the ring sender under spark plug. The gasket is usually removed. Do this on the leanest cylinder as defined by engine manufacturer. The leanest cylinder will vary with engine and carburetor setups.

Mount the instrument in 2-1/16" hole for front panel mount (2 1/4" hole for behind panel mount) in convenient operating place. Use diagram for mounting template.

Connect patch cable to instrument as shown. Black lead to black lead and red lead to white lead. Connect the patch cable to the sender as shown. Black lead to black lead and white lead to white lead. Patch cable can be omitted or lengthened 4 feet without effecting accuracy of instrument. To lengthen use 18 gage wire (WESTACH INSTRUMENT only). NOTE: If no reading, reverse sender leads.

Internal light operation: The green and white wires are for internal light operation. For off-on control, connect green lead to ground and white lead to ignition switch (light dimmer). For continuous operation, connect green lead to ground and white lead to +12 volt battery. NOTE: If used on 24 volt, order 24 volt adapter Cat. #329-24.

Route wires away from hot manifold and pipes. Tie to other wire bundles, if available, and support wires every 12-15" intervals. Use grommets when going through metal.

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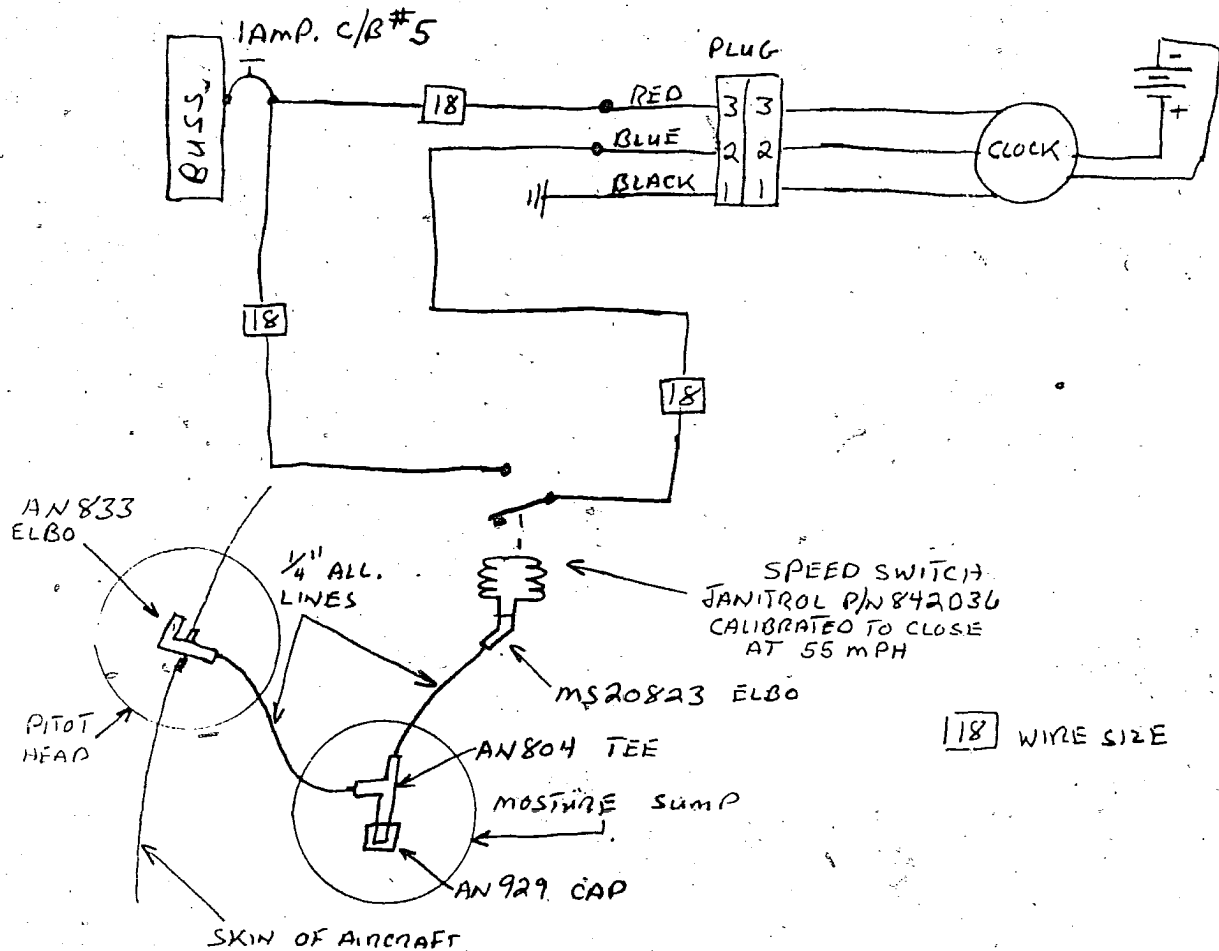
ATTACHMENT #3

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DATED: 4-16-84

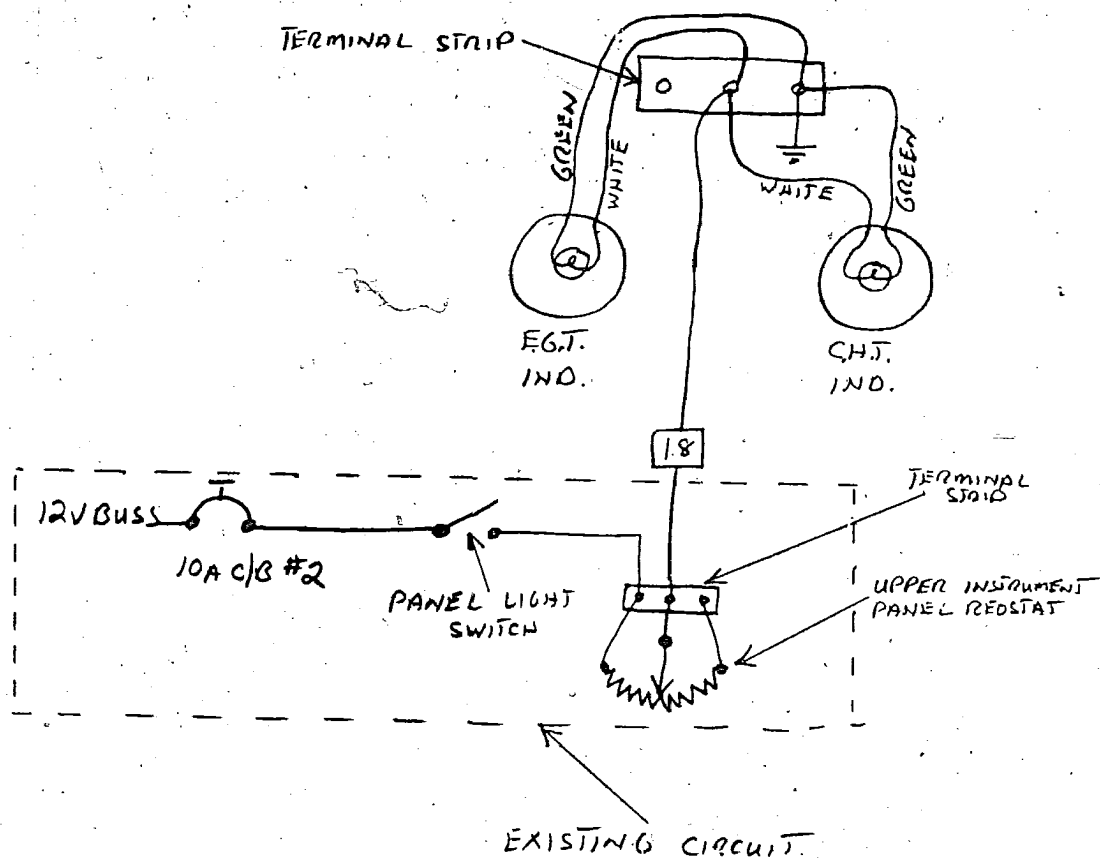
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DAVTRON 811B
CLOCK WIRING DIAGRAM



ATTACHMENT #4
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WESTBERG CHT. AND E.G.T. IND.
LIGHTING WIRING DIAGRAM



ATTACHMENT #5

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STATIC TEST CALCULATION + PROCEDURE

TOTAL WEIGHT CALCULATION

ITEM	WEIGHT
* (1.) MANIFOLD-PRESS. AND FUEL FLOW COMBINATION INDICATOR, A.I.M. P/N 21-1000	1.0 LBS.
* (2.) TACHOMETER INDICATOR, A.I.M. P/N 30-100	1.0 LBS.
(3.) CLOCK, DAVTRON P/N 811B	.5 LBS.
(4.) E.G.T. INDICATOR, WESTBERG P/N K28PX	.25 LBS.
(5.) C.H.T. INDICATOR, WESTBERG P/N K29PX	.25 LBS.
(6.) PANEL AND ATTACHMENTS	.25 LBS.

* ITEM TO BE ADDED AT A LATER DATE

TOTAL
WEIGHT 3.25 LBS.

TEST LOAD CALCULATION (AC 43.13-2A, CHAPTER 1, PAGE 1)

LOAD FACTORS	STATIC TEST LOADS (LBS)
SIDEWARD 1.5G	4.87
UPWARD 3.0G	9.75
DOWNWARD 6.6G	21.45
FORWARD 2.0G	6.50

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ATTACHMENT #6
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STATIC TEST PROCEDURE

(FOR SIDEWARD, DOWNWARD + FORWARD TEST)

- (1.) ATTACHED .041 STAINLESS WIRE TO EACH PANEL ATTACH POINT (4EA) APPROX. 3' LONG.
- (2.) JOINED EACH WIRE TOGETHER AT A COMMON POINT IN FRONT OF, ALONG THE SIDE, OR FORWARD OF THE PANEL INSTALLATION, SO THAT A EQUAL PULL COULD BE PLACED ON EACH WIRE.
- (3.) ATTACHED A CHATILLON MODEL DPP-50 CALIBRATED SPRING SCALE AND APPLIED THE TEST LOAD AS CALCULATED.

(UPWARD)

DUE TO THE FACT THAT THE INSTALLATION PASSED THE DOWNWARD TEST, IT COULD REASONABLY BE EXPECTED TO PASS THE UPWARD TEST, DUE TO THE MAIN STRUCTURE, IS ITSELF LOCATED ABOVE THE PANEL.

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ATTACHMENT #6

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