

THE
adlogTM

AIRCRAFT
MAINTENANCE
RECORDKEEPING
SYSTEM

**AVIONICS
MAINTENANCE
RECORDS**



AVIONICS MAINTENANCE RECORDS

(including transponder biennial checks)

Log No. 1

Aircraft Registration No. N309 LH

Aircraft Manufacturer CESSNA

Model 177RG

Serial No. 177RG 1346

EQUIPMENT LISTING

List all installed avionics, autopilot and flight director equipment.

	Mfg.	Model	Serial No.
1.	GARMIN	GTX 330	84110842
2.	UNITED	5934P-1	M 6520
3.		SSD 120-P2-T	35919
4.			
5.			
6.			
7.			
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20.			



AEROTECH PUBLICATIONS INC.

P.O. Box 1359 / Southold, NY 11971-0965
(631) 765-9375
1-800-235-6444
FAX: (631) 765-9359

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
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Higginsville Avionics Lab
 FAA Certified Repair Station #SK2R164L

Aircraft **Cessna 177RG** N Number **N309LL** Current Tach/Hobbs **2356.3**

Date: September 12, 2013

Refer to WO # 28232
 I certify that Transponder Model GTX 330 s/n 84110842 installed in this aircraft has been tested and inspected and found to comply with requirements of F.A.R. 91.413. The altimeter, static system and encoder tests required by F.A.R. 91.411 have been performed. I certify the transponder, altimeter and encoder were tested to altitudes indicated and are approved for return to service.

Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point	Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point
-1000	+20	-930	22000	-	-
0	+20	-50	25000	-	-
500	0	450	30000	-	-
1000	0	960	35000	-	-
1500	+10	1460			
2000	0	1950			
3000	+10	2950			
4000	0	3950			
6000	0	5950			
8000	-10	7950			
10000	-30	9920			
12000	-20	11920			
14000	-20	13930			
16000	0	15950			
18000	+20	17950			
20000	+10	19950			

Signed: *[Signature]*
 Insp. # 2584537

Altimeter: United 5934P-1 M 6520
 Encoder: T.C.I. Model # SSD120-P2-T Serial Number 35919

Leak Test: 0
 Friction Test: OK
 Hysteresis #1: +40
 Hysteresis #2: +20
 After Effect Test: +10

Valid only when properly inserted in aircraft logbook.

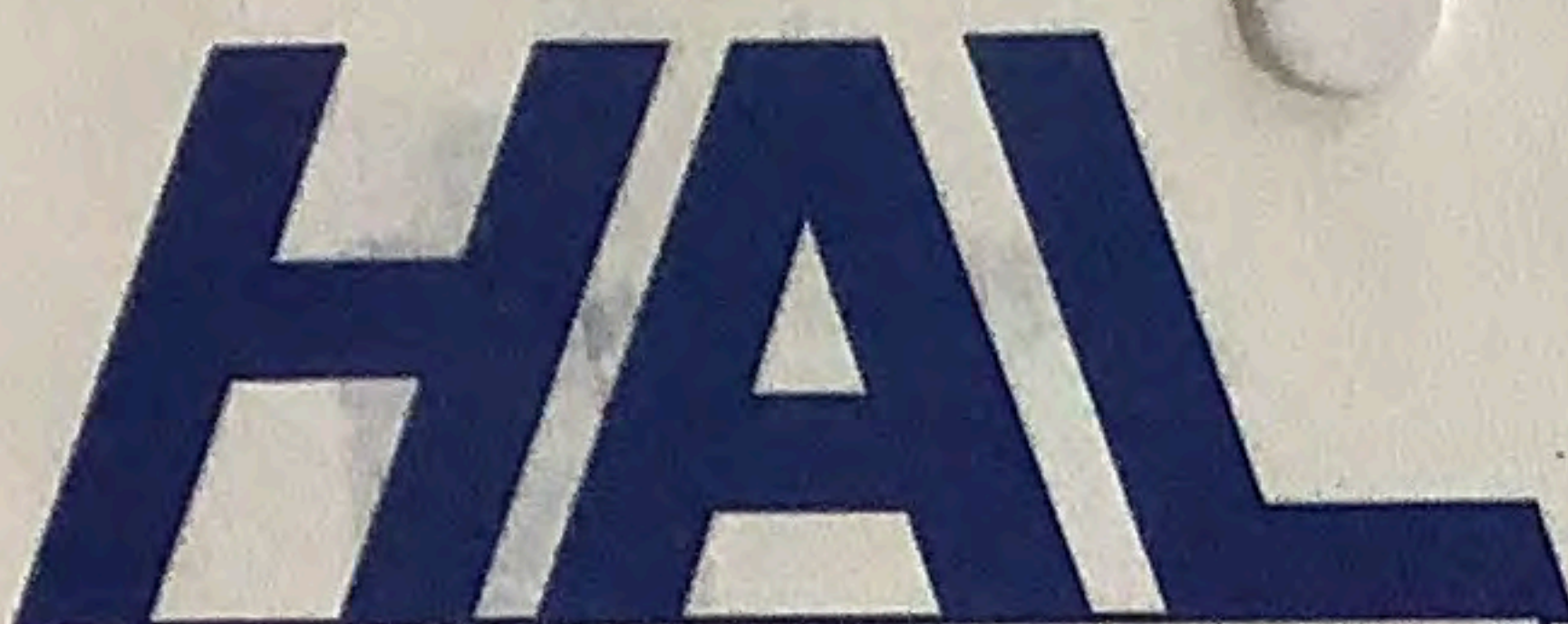
Higginsville Avionics Lab
 FAA Certified Repair Station #SK2R164L

Aircraft **Cessna 177RG** N Number **N309LL** Tach/Hobbs **2386.3**

Date: 12/31/2013 I certify that the following equipment was installed in this aircraft according to current manufacturers specifications and AC-43.13-1B/2B. Removed Garmin GTX 330 transponder and sent unit to Garmin International for extended squitter upgrade. Updated GNS 530W main software to 5.03 and GPS software 5.0 per SB# 1315 Rev A and SB# 1317 Rev A . Added necessary wiring to comply with GTX 330 ES ADS-B out requirements. Inserted new AFMS for the the GNS 530W and GTX 330 ES into the POH. No weight change.

All work was inspected and tested by *[Signature]*
 Insp. for HAL. FAA Repair Station #SK2R164L. Refer to WO #27457 2584737

Valid only when properly inserted in logbook



Higginsville Avionics Lab, Inc.

P O Box 187
11671 Airport Road
Higginsville MO 64037-0187
660-584-3222
e-mail - avionics@ctcis.net
Certificated Repair Station
Number SK2R164L

WORK ORDER No 28457
INVOICE

Work to be performed for:

Name John Sweeney Date 12-10-13

Address

City State Zip

Notify by: [] E-Mail [] Phone [] Will pick up

Telephone No. () - Day

E-mail

Aircraft Type C177R6 N 309LL

This work order contains information concerning repair or modification to an airframe or accessory and should be retained in the permanent aircraft record.

This Labor and Material is ordered by me, for which I have authority to order, to be listed at your regular prices. I agree to pay cash when the work is completed, or on satisfactory terms to you; and until paid in full, it shall constitute a lien on this airplane or accessory. If collection is made by suit or otherwise, I agree to pay interest until paid, also collection costs including a reasonable attorney's fee and waive all rights to claim exemption under State Laws. I further agree that you will not be held responsible for plane or articles left in plane in case of loss by fire, theft, accident or other causes beyond your control. Full permission is given to take plane for test flight by a certificated pilot if you consider it necessary. My plane is flown by your pilot at my own risk.

Authorized by

Problem Reported: Change GTX 330 To ES
No. 1 Unit GTX330 S/n 84110842
No. 2 Unit S/n
No. 3 Unit S/n
No. 4 Unit S/n

Description of work accomplished: Hidden Damage SW Preliminary Inspection SW In Progress SW
Removed GTX330 and sent unit to GARMEN for Extended Squitter upgrade. Updated GNS 530W software to Main 5.03 + GPS 5.0 per SB #1315 rev A + SB #1317 rev A, added require wiring. Inserted new AFMS for the GTX330ES AND GNS 530W into POH NO weight change.

I certify that I have performed the final inspection of the work accomplished and that the above aircraft or component is airworthy.

For HAL [Signature] 2584737

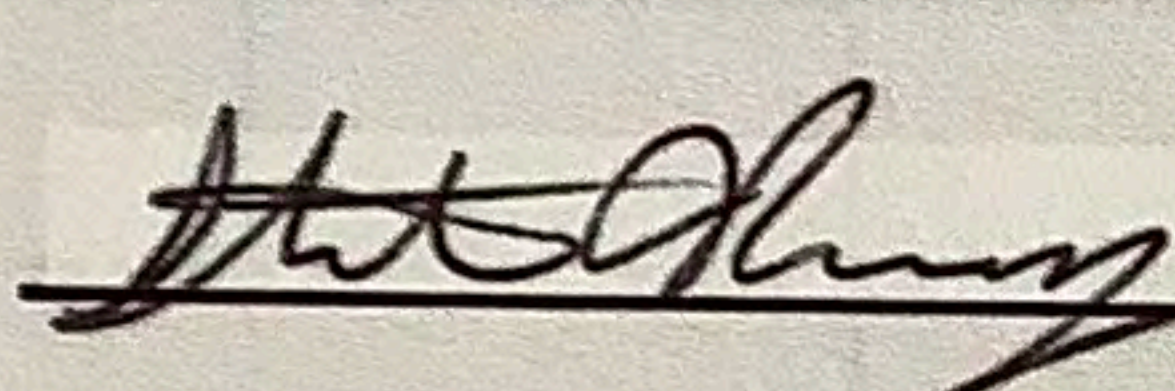
Table with 4 columns: PARTS RECORD, HRS., LABOR RECORD, BILLING RECORD. Rows include TOTAL PARTS, SALES TAX, TOTAL LABOR, TOTAL INVOICE, REC. NO., and Warranty.

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
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Higginsville Avionics Lab
 FAA Certified Repair Station #SK2R164L

Aircraft	N Number
CESSNA 177RG	309LL
Current Tach/Hobbs	Work Order
2386.3	28457

I certify that Transponder Model **GTX 330 ES**
 s/n **84110842** installed in this aircraft has been
 tested and inspected and found to comply with
 requirements of F.A.R. 91.413.
 Date: **January 2, 2014**

Signed:  **2584737**

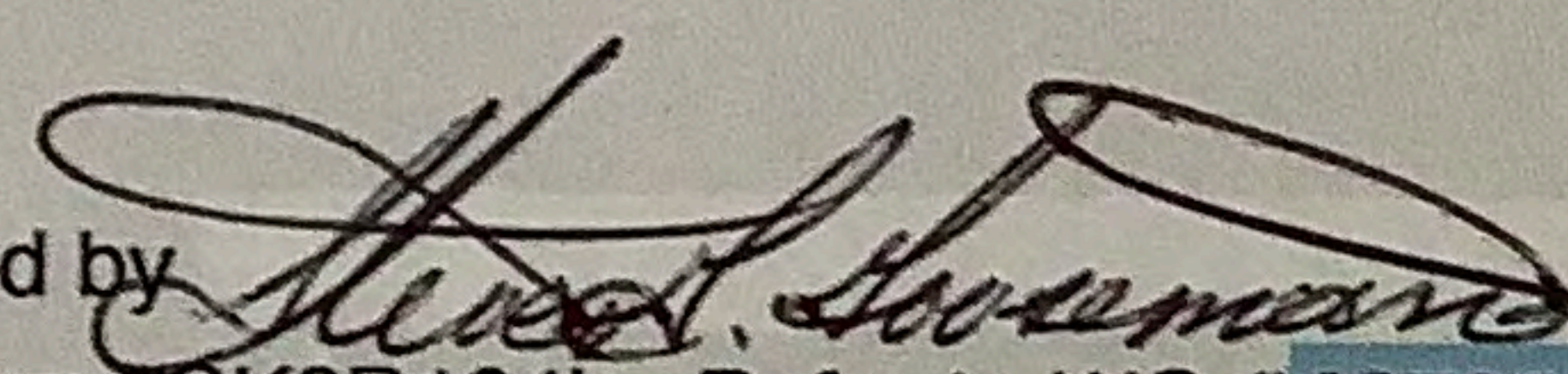
Valid only when properly inserted in logbook

Higginsville Avionics Lab
 FAA Certified Repair Station #SK2R164L

Aircraft	N Number	Tach/Hobbs
Cessna 177RG	N309LL	2449.2

Date: 1-7-2015

Updated GNS 530W main software to Ver5.20 per STC SB 1474 Rev A and SSB# 1461 Rev A. Replaced Gamin GNS 530W FMS in POH and provided applicable pilot guide supplements.

All work was inspected and tested by  **2584537**
 Insp. for HAL. FAA Repair Station #SK2R164L. Refer to WO # **28727**

Valid only when properly inserted in logbook

Page No. _____

DATE AIRFRAME TIME IN SERVICE AVIONICS TIME IN SERVICE

DESCRIPTION OF WORK PERFORMED—
SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK

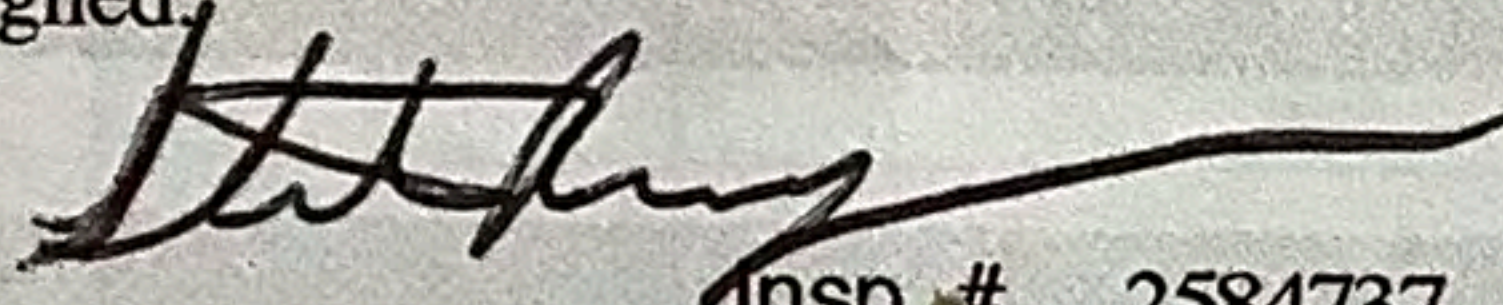
Higginsville Avionics Lab

FAA Certified Repair Station #SK2R164L

Aircraft **Cessna 177RG** N Number **N309LL** Current Tach/Hobbs **2538.0**

Date: September 8, 2016

Refer to WO # 29166
I certify that Transponder Model GTX 330 s/n 84110842 installed in this aircraft has been tested and inspected and found to comply with requirements of F.A.R. 91.413. The altimeter, static system and encoder tests required by F.A.R. 91.411 have been performed. I certify the transponder, altimeter and encoder were tested to altitudes indicated and are approved for return to service.

Signed: 
Insp. # 2584737

Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point	Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point
-1000	-0	-950	22000	-	-
0	-0	-50	25000	-	-
500	-0	460	30000	-	-
1000	-0	950	35000	-	-
1500	-10	1460			
2000	-10	1950			
3000	-10	2950			
4000	-20	3950			
6000	-25	5940			
8000	-40	7940			
10000	-40	9930			
12000	-30	11930			
14000	-30	13930			
16000	-10	15970			
18000	-0	17950			
20000	-0	19950			

Altimeter United 5934P-1 M 6520 0 OK -30 -40 0
Encoder T.C.I. Model # SSD120-P2-T Serial Number 35919
Leak Test 0
Friction Test
Hysteresis #1
Hysteresis #2
After Effect Test

Valid only when properly inserted in aircraft logbook.

ALTIMETER SCALE CORRECTION CARD

Aircraft No. _____
Altimeter S/N: M6520

SCALE CORRECTIONS

For	Read
-1000	-0
0	-0
500	-0
1000	-0
1500	-10
2000	-10
3000	-10
4000	-20
6000	-25
8000	-40
10000	-40
12000	-30

For	Read
14000	-30
16000	-10
18000	-0
20000	-0
22000	-0
25000	
30000	
35000	
40000	
45000	
50000	

Tested By T.G. Date 9.2.16
WO# 77457

Butler Avionics, Inc. R/S# TF2R185L



Higginsville Avionics LLC

11671 Airport Road • Higginsville MO 64037-0187
660-584-3222

e-mail - avionics@ctcis.net

Certificated Repair Station Number SK2R164L

This work order contains information concerning repair or modification to an airframe or accessory and should be retained in the permanent aircraft record.

This Labor and Material is ordered by me, for which I have authority to order, to be listed at your regular prices. I agree to pay cash when the work is completed, or on satisfactory terms to you; and until paid in full, it shall constitute a lien on this airplane or accessory. If collection is made or otherwise, I agree to pay interest until paid, also collection costs including a reasonable attorney's fee and waive all rights to claim exemption under State Laws. I further agree that you will not be held responsible for plane or articles left in plane in case of loss by fire, theft, accident or other causes beyond your control. Full permission is given to take plane for test flight by a certificated pilot if you consider it necessary. My plane is flown by your pilot at my own risk.

WORK ORDER

29963

Work to be performed for:

Name John Sweeney Date 9-26-18

Address _____

City _____ State _____ Zip _____

Notify by: E-Mail Phone Will pick up _____

Telephone No. (____) _____ - _____ Day

E-Mail _____

Aircraft Type Cessna 177RG N 309LL

Tach / Hobbs 2669.1

Authorized by _____

Problem Reported: IFR Cert
No. 1 Unit GTX330 S/n 84110812
No. 2 Unit 5934P-1 S/n M6520
No. 3 Unit SD20P2T S/n 35919
No. 4 Unit _____ S/n _____

Description of work accomplished: Hidden Damage SN Preliminary Inspection SN In Progress SN
Re-certified transponder per FAR 91.413. Checked accuracy for altimeter & encoder to 20,000 ft. Final checked per FAR 91.411.

I certify that I have performed the final inspection of the work accomplished and that the above aircraft or component is airworthy.

For HA LLC [Signature] 2334737

PARTS RECORD

PN	SN	PN	SN

Log Entry FMS 337 W&B Invoice # _____

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
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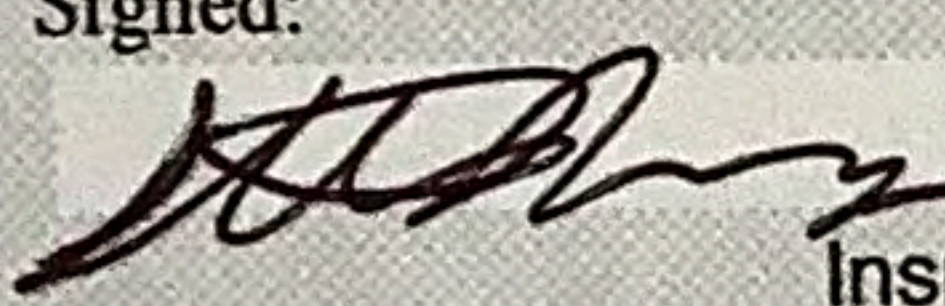
Higginsville Avionics LLC
 FAA Certified Repair Station #SK2R164L

Aircraft Cessna 177RG **N Number** N309LL **Current Tach/Hobbs** 2669.1

Date: September 26, 2018

Refer to WO #29963
 I certify that Transponder Model GTX 330 s/n 84110842 installed in this aircraft has been tested and inspected and found to comply with requirements of F.A.R. 91.413. The altimeter, static system and encoder tests required by F.A.R. 91.411 have been performed. I certify the transponder, altimeter and encoder were tested to altitudes indicated and are approved for return to service.

Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point	Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point
-1000	0	-940	22000	-	-
0	0	-60	25000	-	-
500	0	450	30000	-	-
1000	10	950	35000	-	-
1500	-10	1440			
2000	-10	1950			
3000	-10	2960			
4000	-10	3980			
6000	-20	5950			
8000	-30	7950			
10000	-30	9950			
12000	-20	11940			
14000	-30	13970			
16000	-20	15970			
18000	-10	17960			
20000	0	19950			

Signed:  Insp. # 2584737

Altimeter: United 5934P-1 M 6520 0 OK -20 -10 0
 Encoder: Manufacturer Model # SSD120-P2-T Serial Number 35919 Leak Test 0 Friction Test Hysteresis #1 Hysteresis #2 After Effect Test

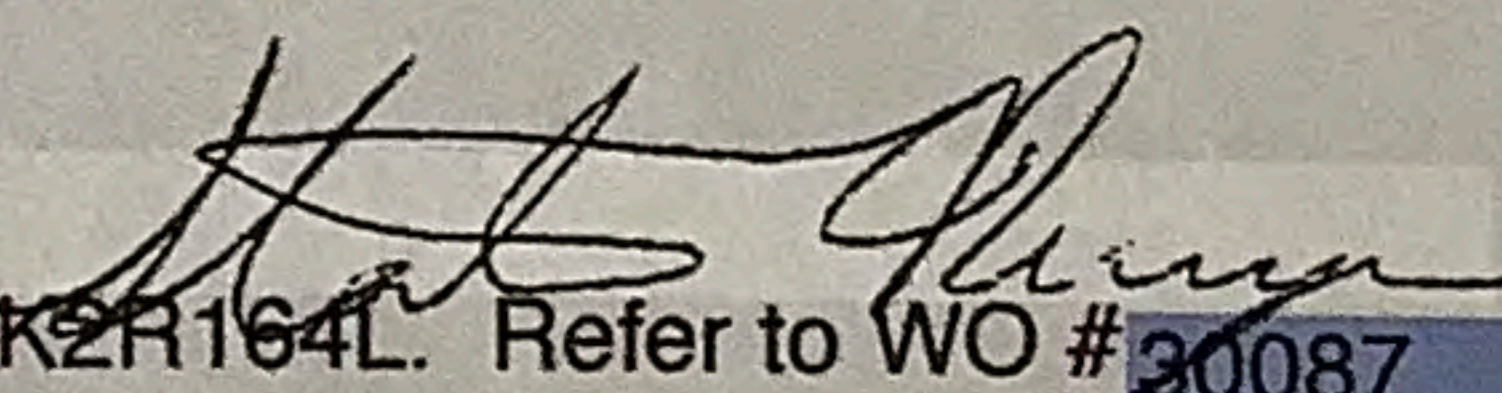
Valid only when properly inserted in aircraft logbook.

Higginsville Avionics LLC
 FAA Certified Repair Station #SK2R164L

Aircraft Cessna 177RG **N Number** N309LL **Tach/Hobbs** 2712.1

Date: 7/16/2019 I certify that the following equipment was installed in this aircraft according to current manufacturers specifications and AC-43.13-1B/2B.

Removed GNC 300XL, System 30 Autopilot, Horizon, DG, King KNI 520, EDM 830, engine gauge cluster and GDL 69. Installed Trutrak Vizion PMA autopilot, Aspen EFD 1000 E5, Garmin GNS 430W GPS/Nav/Com, GA 35 GPS antenna and JPI EDM 900 and all necessary equipment and accessories IAW FAA Form 337 dated 6/30/19. Computed weight and balance and updated equipment list.

All work was inspected and tested by  Insp. for HAL. FAA Repair Station #SK2R164L. Refer to WO # 30087

Valid only when properly inserted in logbook



Higginsville Avionics LLC

11671 Airport Road • Higginsville MO 64037-0187
660-584-3222

e-mail - avionics@ctcis.net

Certificated Repair Station Number SK2R164L

This work order contains information concerning repair or modification to an airframe or accessory and should be retained in the permanent aircraft record.

**WORK ORDER
30087**

Work to be performed for: Explore Aviation
Name John Sweeney Date 5-13-19
Address P O Box 429
City Carrollton State MO Zip 64633

Notify by: E-Mail Phone Will pick up _____

Telephone No. (____) _____ - _____ Day

E-Mail _____

Aircraft Type Cessna 177RG N 309LL

Tach / Hobbs _____

This Labor and Material is ordered by me, for which I have authority to order, to be listed at your regular prices. I agree to pay cash when the work is completed, or on satisfactory terms to you; and until paid in full, it shall constitute a lien on this airplane or accessory. If collection is made or otherwise, I agree to pay interest until paid, also collection costs including a reasonable attorney's fee and waive all rights to claim exemption under State Laws. I further agree that you will not be held responsible for plane or articles left in plane in case of loss by fire, theft, accident or other causes beyond your control. Full permission is given to take plane for test flight by a certificated pilot if you consider it necessary. My plane is flown by your pilot at my own risk.

Authorized by _____

Problem Reported: Install GNS430W, ES, EDM900 No. 1 Unit _____ S/n _____
Trutrak 2/P No. 2 Unit _____ S/n _____
No. 3 Unit _____ S/n _____
No. 4 Unit _____ S/n _____

Description of work accomplished: Hidden Damage Preliminary Inspection In Progress

Removed GNC300XL, System 30 autopilot, horizon, DG, King KNI 520, EDM 830, engine gauge cluster and GA 69. Installed Trutrak Vision Autopilot, GNS430W & GA 35 antenna, Aspen EFD1000 ES and EDM900 and all necessary equipment & accessories. Computed weight & balance & updated equipment list.

I certify that I have performed the final inspection of the work accomplished and that the above aircraft or component is airworthy.

For HA LLC [Signature] 2581737

PARTS RECORD

PN	SN	PN	SN
90-0003-002	650157		

Log Entry FMS 337 W&B Invoice # 557

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE
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DESCRIPTION OF WORK PERFORMED—
SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK

Higginsville Avionics LLC

FAA Certified Repair Station #SK2R164L

Aircraft

Cessna 177RG

N Number

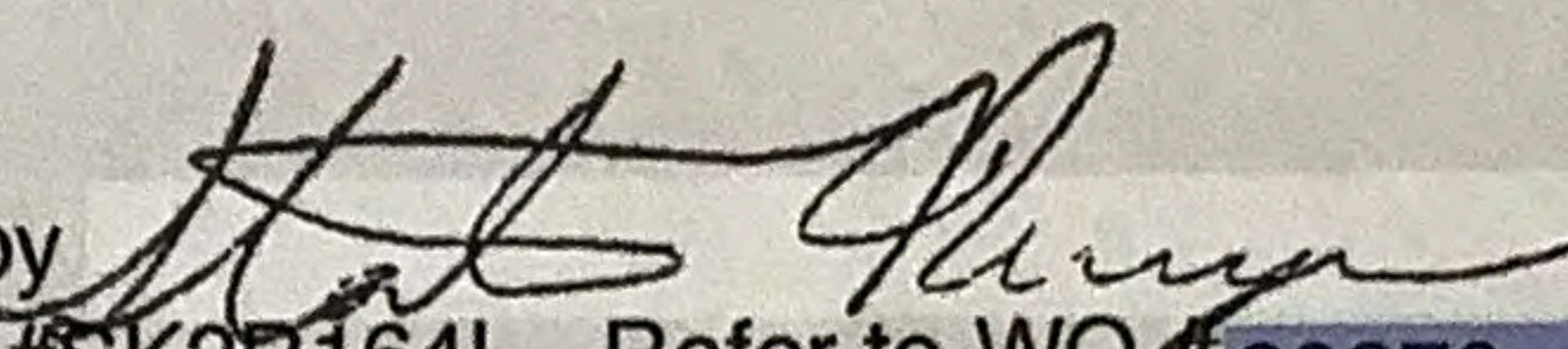
N309LL

Tach/Hobbs

[REDACTED]

Date: 1/13/2020 I certify that the following equipment was installed in this aircraft according to current manufacturers specifications and AC-43.13-1B/2B.

Performed software update for Aspen E5 per SB 2019-06. Performed Tech Note 2019-05 for Aspen E5 to enable advanced features. Checked operation.

All work was inspected and tested by  2584737
Insp. for HAL. FAA Repair Station #SK2R164L. Refer to WO #30270 [REDACTED]

Valid only when properly inserted in logbook

Higginsville Avionics LLC

FAA Certified Repair Station #SK2R164L

Aircraft

Cessna 177RG

N Number

N309LL

Current Tach/Hobbs

2842.6

Date: June 29, 2021

Refer to WO # 30587

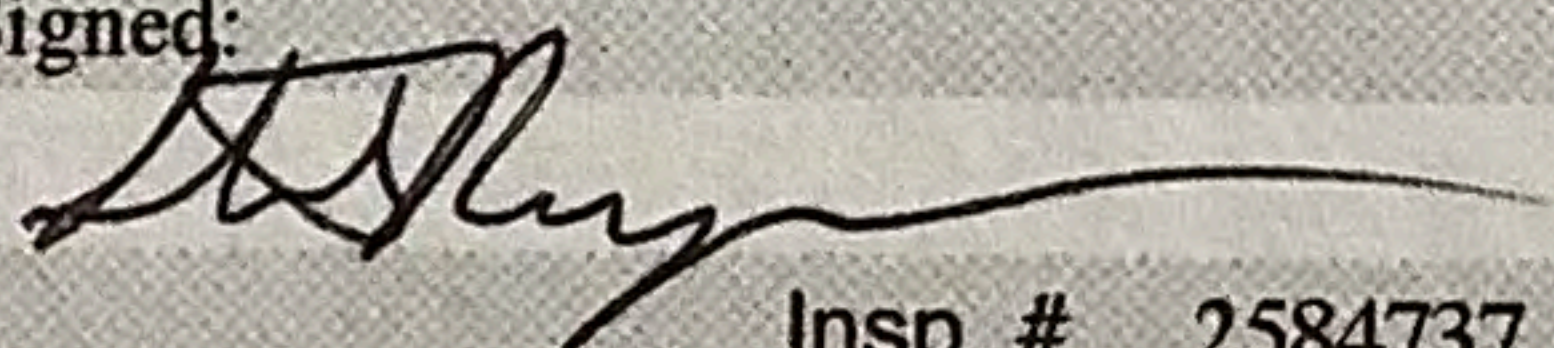
I certify that Transponder

Model GTX 330

s/n 84110842

installed in this aircraft has been tested and inspected and found to comply with requirements of F.A.R. 91.413. The altimeter, static system and encoder tests required by F.A.R. 91.411 have been performed. I certify the transponder, altimeter and encoder were tested to altitudes indicated and are approved for return to service.

Signed:



Insp. # 2584737

Valid only when properly inserted in aircraft logbook.

Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point	Test Altitude Feet	Altimeter Scale Error	Encoder Transition Point
-1000	-20	-950	22000	0	21950
0	0	-50	25000	0	24950
500	0	450	30000	40	29950
1000	0	950	35000	-	-
1500	0	1450			
2000	0	1950			
3000	-10	2950			
4000	0	3950			
6000	0	5950			
8000	0	7950			
10000	0	9950			
12000	-10	11950			
14000	0	13950			
16000	0	15950			
18000	0	17950			
20000	-10	19950			

Altimeter	Manufacturer	Encoder
Aspen	Manufacturer	Aspen
EFD 1000 E5	Model #	EFD 1000 E5
29646	Serial Number	29646
0	Leak Test	0
OK	Friction Test	
10	Hysteresis #1	
10	Hysteresis #2	
0	After Effect Test	

WORK ORDER
30587



Higginsville Avionics LLC

11671 Airport Road • Higginsville MO 64037-0187
660-584-3222
e-mail - avionics@ctcis.net
Certificated Repair Station Number SK2R164L

This work order contains information concerning repair or modification to an airframe or accessory and should be retained in the permanent aircraft record.

This Labor and Material is ordered by me, for which I have authority to order, to be listed at your regular prices. I agree to pay cash when the work is completed, or on satisfactory terms to you; and until paid in full, it shall constitute a lien on this airplane or accessory. If collection is made or otherwise, I agree to pay interest until paid, also collection costs including a reasonable attorney's fee and waive all rights to claim exemption under State Laws. I further agree that you will not be held responsible for plane or articles left in plane in case of loss by fire, theft, accident or other causes beyond your control. Full permission is given to take plane for test flight by a certificated pilot if you consider it necessary. My plane is flown by your pilot at my own risk.

Work to be performed for:

Name John Sweeney Date 6-29-21

Address 2 N Main St

City Camollton State MO Zip 64633

Notify by: E-Mail Phone Will pick up _____

Telephone No. (____) _____ - _____ Day

E-Mail _____

Aircraft Type C177RG N 309LL

Tach / Hobbs 2842.6 / 2140.1

Authorized by _____

Problem Reported: IFR Cert No. 1 Unit EFD 1000 S/n 29646

No. 2 Unit GTX 330 S/n 84110042

No. 3 Unit _____ S/n _____

No. 4 Unit _____ S/n _____

Description of work accomplished: Hidden Damage SN Preliminary Inspection SN In Progress SN
Recertified transponder per FAR 91.413. Checked accuracy for altimeter & encoder to 30,000 ft. Final checked per FAR 91.411.

I certify that I have performed the final inspection of the work accomplished and that the above aircraft or component is airworthy.

For HA LLC [Signature] 2584737

PARTS RECORD			
PN	SN	PN	SN

Log Entry FMS 337 W&B Invoice # 1293

DATE	AIRFRAME TIME IN SERVICE	AVIONICS TIME IN SERVICE	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
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Airframe

page 1 of 1

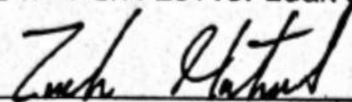
N309LL
TACH: 224.5

CESSNA, 177RG, S/N: 177RG1346

November 11, 2022

Performed Aspen EFD1000 air data calibration IAW Aspen Technical Note TN2017-02. Replaced mechanical altimeter with a overhauled United 5934P-1 S/N L6119. Leak check, satisfactory.

Zachary Gatewood A&P IA 3799160



SkyWorld Avionics LLC CRS 9MIR
540-788-9300

5060 Airport Road
Midland, VA 22728

N 309LL (Tach) / Flight Hour Recorder: 224.5 Test Date: 11/11/2022

I certify that the altimeter and static system tests required by 14 CFR Part 91, § 91.411, and transponder system tests including data correspondence required by §91.413 have been performed and found to comply with 14 CFR Part 43 Appendices E & F.

Altimeter #1 Make/Model United 5934P-1 Serial # L6119

Altimeter #2 Make/Model Aspen EFD1000 Serial # 29646

Transponder #1 Make/Model Garmin GTX330ES Serial # 84110842

Encoder or ADC Make/Model Aspen EFD1000 Serial # 29646

Data Correspondence and Altimeter was tested to: 20,000 ft.

Signature  Certificate Number 9MIR

Work Order No. 13971

REV 4.1 SA-Form-3

