SYMBOL	REVISION	DRAWN	APPRVD

PRELIMINARY FUNCTIONAL TEST

☐ 1. REFER TO AIRCRAFT OWNERS OR MAINTENANCE MANUAL AND RE-CONNECT THE BATTERY. THE MAG SWITCH SHOULD REMAIN OFF.

☐ 2. CLOSE THE STANDBY ALTERNATOR "FIELD" AND "SENSE" CIRCUIT BREAKERS.

☐ 3. TURN ON THE BATTERY AND STANDBY ALTERNATOR MASTER SWITCHES. CHECK THAT NEITHER STANDBY ALTERNATOR BREAKER TRIPS. CHECK THAT THE "STBY ALT ON" ANNUNCIATOR ILLUMINATES.

☐ 4. USING A HIGH IMPEDANCE VOLTMETER (PREFERABLY DIGITAL) CHECK THE VOLTAGE BETWEEN PIN 7 OF THE STANDBY REGULATOR AND BOTH THE AIRFRAME AND THE BATTERY NEGATIVE POST. THE VOLTAGE SHOULD BE NEAR 0 VDC.

☐ 5. USE PIN 7 OF THE REGULATOR OR AIRFRAME AS NEGATIVE REFERENCE. MEASURE THE VOLTAGE ON PIN 1 OF THE REGULATOR. THE VOLTAGE SHOULD BE EQUAL TO THE BUS VOLTAGE.

☐ 6. USE PIN 7 OF THE REGULATOR OR AIRFRAME AS NEGATIVE REFERENCE. CHECK THE VOLTAGE ON PIN 6 OF THE REGULATOR. THE VOLTAGE SHOULD BE WITHIN 1.0 VOLT OF THE BUS VOLTAGE.

☐ 7. USE PIN 7 OF THE REGULATOR OR AIRFRAME AS NEGATIVE REFERENCE. CHECK THE VOLTAGE ON PIN 5 OF THE REGULATOR. THE VOLTAGE SHOULD BE 13 TO 15 VOLTS.

☐ 8. CHECK THAT OPENING THE "STBY ALT" MASTER SWITCH CAUSES THE VOLTAGE ON PIN 6 TO GO TO ZERO AND THE "STBY ALT ON" ANNUNCIATOR TO GO OFF, CLOSE THE "STBY ALT" MASTER SWITCH.

☐ 9. CHECK THAT PULLING THE STANDBY ALTERNATOR "SENSE" CIRCUIT BREAKER CAUSES THE VOLTAGE ON PIN 1 TO GO TO ZERO AND THE "STBY ALT ON" ANNUNCIATOR TO GO OFF, CLOSE THE BREAKER.

☐ 10. MOVE TO THE ENGINE COMPARTMENT. USING A CLEAN ENGINE GROUND FOR NEGATIVE REFERENCE, CHECK THE VOLTAGE ON THE ALTERNATOR FIELD TERMINAL. THE CONNECTOR MUST NOT BE DISCONNECTED FOR THIS MEASUREMENT. USE A THIN PROBE OR SMALL WIRE TO ACCESS THE TERMINAL THRU THE BACK OF THE CONNECTOR. THE VOLTAGE SHOULD MEASURE WITHIN 1.0 VOLT OF THE VALUE ON PIN 5 OF THE REGULATOR.

☐ 11. USING ENGINE GROUND AS NEGATIVE REFERENCE CHECK THE VOLTAGE ON THE "B" LEAD (OUTPUT TERMINAL) OF THE ALTERNATOR. THE VOLTAGE SHOULD BE EQUAL TO THE BUS VOLTAGE.

☐ 12. TURN OFF THE BATTERY MASTER.

FINAL TEST

☐ 1. PERFORM A NORMAL PREFLIGHT INSPECTION.

☐ 2. MOVE THE AIRCRAFT TO AN AREA SAFE FOR ENGINE START.

☐ 3. PERFORM A NORMAL ENGINE START AND ALLOW THE ENGINE TO REACH PROPER TEMPERATURE FOR RUNUP RPM.

☐ 4. ASSURE THAT THE "STBY ALT" AND "STBY ALT SENSE" CIRCUIT BREAKERS AND "STBY ALT" MASTER SWITCH ARE IN THE ON POSITION.

☐ 5. REDUCE SYSTEM ELECTRICAL LOADS TO APPROX 10-15 AMPS.

☐ 6. SET ENGINE TO 2000 RPM MINIMUM.

☐ 7. SWITCH PRIMARY ALTERNATOR FIELD SWITCH TO OFF.

☐ 8. CHECK THAT THE "STBY ALT ON" ANNUNCIATOR LIGHTS.

☐ 9. INCREASE THE ELECTRICAL LOAD TO OVER 20 AMPS. THE "STBY ALT ON" ANNUNCIATOR SHOULD BE BLINKING. REDUCE THE ELECTRIAL LOAD TO LESS THAN 20 AMPS. THE "STBY ALT ON" ANNUNCIATOR SHOULD BE ON STEADILY.

☐ 10. SWITCH THE PRIMARY ALTERNATOR FIELD SWITCH TO ON. THE "STBY ALT ON" ANNUNCIATOR SHOULD GO OFF.

☐ 11. RETURN THE ENGINE TO IDLE RPM.

ITEM	-1	PART NO.	DESCRIPTION
	USED ON		

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMAL 0.XX = ±0.03
DECIMAL 0.XXX = ±0.005
ANGLES = ±0.5 DEGREES

B & C Specialty Products
P.O. Box B, Newton, Kansas 67114

	NAME	DATE
ENGINEER		
DRAWN	TH	12/27/00
CHECKED	JJ	1/1/99
PROJECT		

TITLE: INSTALLATION, BC425 ON 210L/M/N, T210L/M/N, & P210N

DRAWING NO. 425-502-1 | REVISION | DATE

SCALE FULL | JOB NO. | PAGE 7 OF 7