

United States Of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SA1246WE

This Certificate issued to Hartzell Engine Technologies LLC
2900 Selma Highway
Montgomery, Alabama 36108

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.
(See type Certificate Data Sheet No. A-782)

Original Product Type Certificate Number: A-782

Make: Navion Aircraft Corporation

Model: Navion, Navion A

Description of Type Design Change: Installation of "Jasco" Alternator Kit. Models 6555-2 and 6555-2-2, in accordance with Installation Instructions (pages 1-3) dated December 17, 1965 or the installation of Jasco Alternator Part Number 6560-1 12 volt system per FAA sealed Skytronics, Inc. Top Drawing 3014 no change revision, or later FAA approved revision.

Limitations and Conditions: The installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. The approval of this modification applies to the above noted airplane model series only. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: December 17, 1965

Date reissued: March 13, 1969, March 6, 2014

Date of issuance: July 8, 1968

Date amended: October 28, 1976



By direction of the Administrator

Navija Haj-Sid
(Signature)

Supervisor, Technical & Administrative
Support Staff, Los Angeles Aircraft
Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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SPECIFICATION CLASSIFICATION		
CLASSIFICATION	DIMENSION CONVENTION	NOTE NO CONVENTION
CRITICAL	<XX.XX>	-#>
MAJOR	[XX.XX]	[#]
MINOR	XX.XX	#
REFERENCE	(XX.XX)	(#)

REVISIONS				
EN	REV.	DESCRIPTION	BY	DATE
1401075	A	1) REDRAWN IN SOLIDWORKS; 2) FIRST RELEASE INTO HET DESIGN DATA; 3) ADDED HET TITLE BLOCK	EAB	01/23/14
1403010	B	1) REMOVED LISTING OF KIT COMPONENTS; 2) REMOVED ACCOMPANYING DRAWING LIST PER REDLINE	EAB	03/06/14

FAA APPROVED

MAR 21 2014 CR

CHICAGO AIRCRAFT
CERTIFICATION OFFICE
CENTRAL REGION

TOP DRAWING

HARTZELL ENGINE TECHNOLOGIES

JASCO ALTERNATOR SYSTEM 6560-1 (12V-50AMP)

INSTALLATION INSTRUCTION AND DRAWING P1001



UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES AND APPLY AFTER HEAT TREAT AND PLATING

.X = ±.015
.XX = ±.010 ANGLES ±1°
.XXX = ±.005

BREAK ALL EDGES AND MACHINE ALL INSIDE CORNER FILLETS .015 MAX.

SURFACE FINISH $\sqrt{125}$

THIS DRAWING CONTAINS INFORMATION THAT IS CONFIDENTIAL AND PROPRIETARY TO HARTZELL ENGINE TECHNOLOGIES. THIS DRAWING IS FURNISHED ON THE UNDERSTANDING THAT THE DRAWING AND THE INFORMATION IT CONTAINS WILL NOT BE COPIED OR DISCLOSED TO OTHERS EXCEPT WITH THE WRITTEN CONSENT OF HARTZELL ENGINE TECHNOLOGIES. WILL NOT BE USED TO THE DETRIMENT OF HARTZELL ENGINE TECHNOLOGIES, AND WILL BE RETURNED UPON REQUEST BY HARTZELL ENGINE TECHNOLOGIES.

GEOMETRIC SYMBOLS PER ANSI Y14.5	
	FLATNESS
	STRAIGHTNESS
	ROUNDNESS
	CYLINDRICITY
	PROFILE
	PERPENDICULARITY
	POSITION
	CONCENTRICITY
	SYMMETRY
	ANGULARITY
	PARALLELISM
	CIRCULAR RUNOUT
	TOTAL RUNOUT
SCALE 1:1	

DRAWN	EAB	01/23/14
CHECKED	LWE	3/17/14
ENG.	CMB	3/18/14
FINISH	N/A	
WEIGHT	N/A lbs	
MATERIAL	N/A	
SIZE A	SH 1 OF 1	CODE ID 65PY1



2900 Selma Highway
Montgomery, AL 36108

JASCO ALTERNATOR
SYSTEM 6560-1 (12V-50AMP)

DRAWING NO. TD3014	REV. B
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SPECIFICATION CLASSIFICATION		
CLASSIFICATION	DIMENSION CONVENTION	NOTE NO CONVENTION
CRITICAL	<XX.XX>	<#>
MAJOR	[XX.XX]	[#]
MINOR	XX.XX	#
REFERENCE	(XX.XX)	(#)

REVISIONS				
EN	REV.	DESCRIPTION	BY	DATE
1403033	NEW	INITIAL RELEASE	EAB	03/13/14

B

B

THE ALTERNATOR SYSTEM KIT 6560-1 CONSISTS OF:

- 1 EA 6560 BASIC ALTERNATOR
- 1 EA J12M20 VOLTAGE REGULATOR
- 1 EA SVP-3 VOLTAGE PROTECTOR

User is responsible for verification of current revision before using this document. Document considered "reference only" if not the current revision.

A

A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND APPLY AFTER HEAT TREAT AND PLATING .X = ±.015 .XX = ±.010 ANGLES ±1° .XXX = ±.005 BREAK ALL EDGES AND MACHINE ALL INSIDE CORNER FILLETS .015 MAX. SURFACE FINISH $\sqrt{125}$	GEOMETRIC SYMBOLS PER ANSI Y14.5 	DRAWN EAB 03/13/14	
		CHECKED <i>DJK</i> 03/17/14	
THIS DRAWING CONTAINS INFORMATION THAT IS CONFIDENTIAL AND PROPRIETARY TO HARTZELL ENGINE TECHNOLOGIES. THIS DRAWING IS FURNISHED ON THE UNDERSTANDING THAT THE DRAWING AND THE INFORMATION IT CONTAINS WILL NOT BE COPIED OR DISCLOSED TO OTHERS EXCEPT WITH THE WRITTEN CONSENT OF HARTZELL ENGINE TECHNOLOGIES, WILL NOT BE USED TO THE DETRIMENT OF HARTZELL ENGINE TECHNOLOGIES, AND WILL BE RETURNED UPON REQUEST BY HARTZELL ENGINE TECHNOLOGIES.	SCALE 1:1	ENG. <i>CMB</i> 3/18/14	JASCO ALTERNATOR SYSTEM KIT (12V, 50A)
		FINISH N/A	
		WEIGHT N/A lbs	REV. NEW
		MATERIAL N/A	
		SIZE SH 1 OF 1 CODE ID 65PY1	

2

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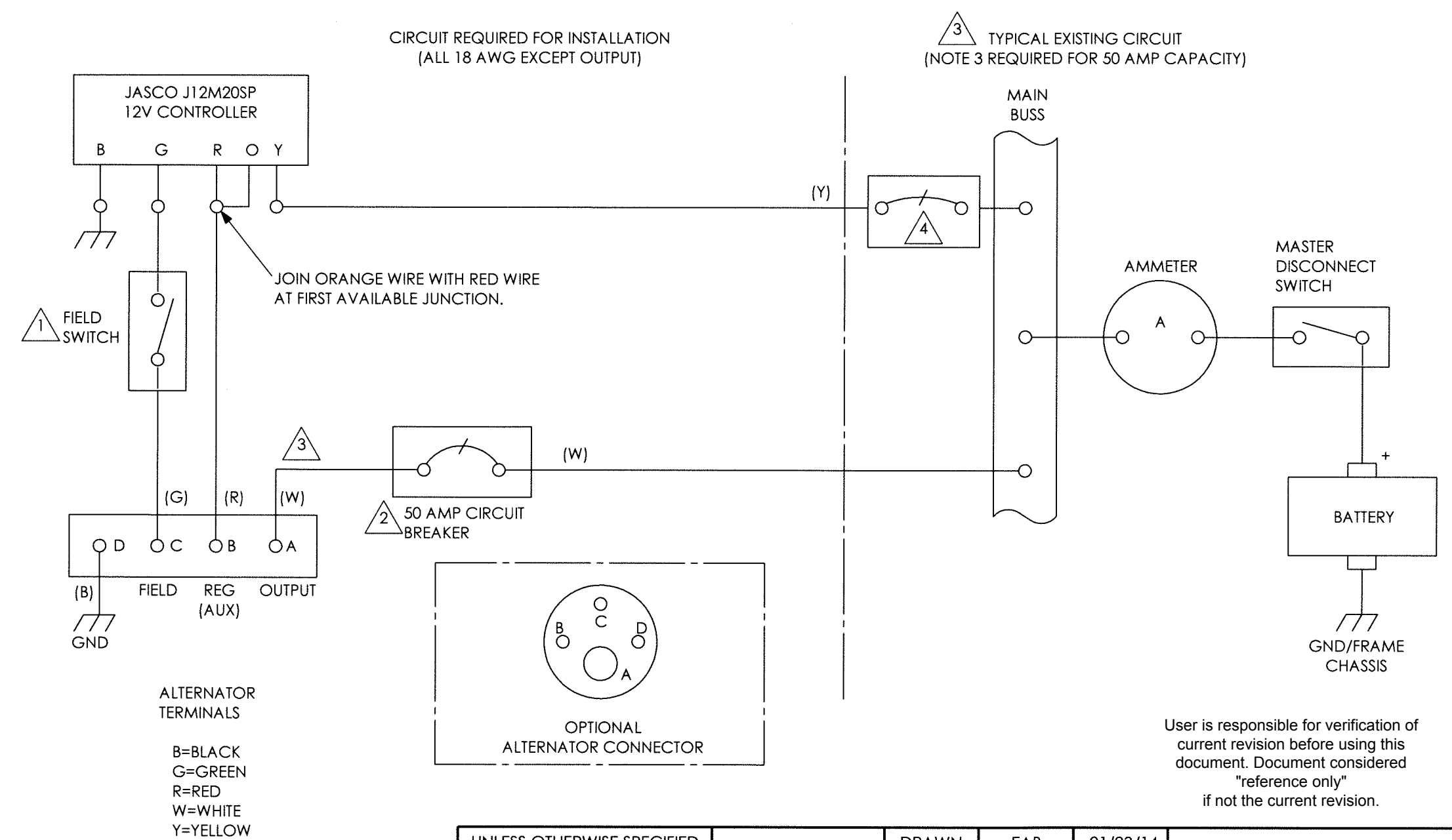
REVISIONS				
EN	REV.	DESCRIPTION	BY	DATE
1401080	B	1) REDRAWN IN SOLIDWORKS; 2) FIRST RELEASE INTO HET DESIGN DATA; 3) REPLACED TITLE BLOCK WITH HET TITLE BLOCK	EAB	01/23/14

- NOTES:
- COMBINATION FIELD SW & 5 AMP CIRCUIT BREAKER NOT SUPPLIED. POTTER-BRUMFIELD P/N W31X2M16-5 RECOMMENDED.
 - 50 AMP CIRCUIT BREAKER NOT SUPPLIED. POTTER-BRUMFIELD P/N W23X1A1G-50 RECOMMENDED.
 - FOR SINGLE WIRE ROUTING USE 8 AWG PER MIL-W-5086. FOR CONDUIT OR BUNDLE ROUTING USE 6 AWG, MIL-W-5086 OR EQUAL AIRCRAFT QUALITY WIRE.
 - IN COMPLIANCE WITH FAA REGULATIONS, REGULATOR CIRCUIT IS TO BE PROTECTED WITH CIRCUIT BREAKER OR FUSE LOCATED IN CLOSE PROXIMITY TO BUSS. FUSE OR BREAKER SIZE IN ACCORDANCE WITH THE FOLLOWING:

WIRE SIZE	CKT BKT	FUSE
22 GA	5 AMP	5 AMP
20 GA	7.5 AMP	5 AMP
18 GA	10 AMP	10 AMP
16 GA	15 AMP	10 AMP

CIRCUIT BREAKER OR FUSE ASSEMBLY NOT SUPPLIED.

- NEW VOLTAGE REGULATOR P/N J12M20SP INCORPORATES THE VOLTAGE PROTECTOR SVP-3. THUS, THE J12M20SP SUPERSEDES AND OBSOLETES BOTH THE J12M20 AND THE SVP-3 UNITS.



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SPECIFICATION CLASSIFICATION		
CLASSIFICATION	DIMENSION CONVENTION	NOTE NO. CONVENTION
CRITICAL	<XX XX>	<#>
MAJOR	[XX XX]	[#]
MINOR	XX XX	#
REFERENCE	(XX XX)	(#)

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES AND APPLY AFTER HEAT TREAT AND PLATING
 .X = ±.015
 .XX = ±.010 ANGES ±1°
 .XXX = ±.005
 BREAK ALL EDGES AND MACHINE ALL INSIDE CORNER FILLETS .015 MAX.
 SURFACE FINISH $\sqrt{125}$
 THIS DRAWING CONTAINS INFORMATION THAT IS CONFIDENTIAL AND PROPRIETARY TO HARTZELL ENGINE TECHNOLOGIES. THIS DRAWING IS FURNISHED ON THE UNDERSTANDING THAT THE DRAWING AND THE INFORMATION IT CONTAINS WILL NOT BE COPIED OR DISCLOSED TO OTHERS EXCEPT WITH THE WRITTEN CONSENT OF HARTZELL ENGINE TECHNOLOGIES, AND WILL BE RETURNED UPON REQUEST BY HARTZELL ENGINE TECHNOLOGIES.

GEOMETRIC SYMBOLS PER ANSI Y14.5	
□	FLATNESS
—	STRAIGHTNESS
○	ROUNDNESS
○	CYLINDRICITY
○	PROFILE
⊥	PERPENDICULARITY
⊕	POSITION
⊙	CONCENTRICITY
⊖	SYMMETRY
∠	ANGULARITY
∥	PARALLELISM
↺	CIRCULAR RUNOUT
↻	TOTAL RUNOUT

UNLESS OTHERWISE SPECIFIED	DRAWN	EAB	01/23/14
DIMENSIONS ARE IN INCHES AND APPLY AFTER HEAT TREAT AND PLATING	CHECKED	JWL	1/27/14
.X = ±.015	ENG.	CMB	1/28/14
.XX = ±.010 ANGES ±1°	FINISH	N/A	
.XXX = ±.005	WEIGHT	N/A lbs	
BREAK ALL EDGES AND MACHINE ALL INSIDE CORNER FILLETS .015 MAX.	MATERIAL	N/A	
SURFACE FINISH $\sqrt{125}$	SIZE	SH 1 OF 1	CODE ID
THIS DRAWING CONTAINS INFORMATION THAT IS CONFIDENTIAL AND PROPRIETARY TO HARTZELL ENGINE TECHNOLOGIES. THIS DRAWING IS FURNISHED ON THE UNDERSTANDING THAT THE DRAWING AND THE INFORMATION IT CONTAINS WILL NOT BE COPIED OR DISCLOSED TO OTHERS EXCEPT WITH THE WRITTEN CONSENT OF HARTZELL ENGINE TECHNOLOGIES, AND WILL BE RETURNED UPON REQUEST BY HARTZELL ENGINE TECHNOLOGIES.	B		65PY1
	SCALE	1:1	

	2900 Selma Highway Montgomery, AL 36108	INSTALLATION	
		WIRING FOR 12V-50AMP NEG. GND. ALTERNATOR	
DRAWING NO. P1001	REV. B	DRAWING NO.	REV.