



777 Aviation Dr Camarillo,
CA 93010 USA

Doc No. RHSI-R22-RFMS

FAA APPROVED
ROTORCRAFT FLIGHT MANUAL SUPPLEMENT FOR
ROBINSON R22 HELICOPTER

Serial No. _____ **Aircraft Reg. Number:** _____

STARTER INTERRUPT KIT P/N RHSI

This supplement must be attached to the appropriate FAA Approved Rotorcraft Flight Manual when the AKV Starter Interrupt is installed in accordance with STC No. SR02754LA.

The information contained herein supplements or supersedes the basic manual only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic rotorcraft flight manual.

FAA Approved Nevada Jo Ryan
Manager, West Flight Test Section, AIR-716
Federal Aviation Administration
Los Angeles, Ca

Digitally signed by Nevada
Jo Ryan
Date: 2021.06.14 07:27:30
-07'00'

Date: _____ 14-Jun-21

RECORD OF REVISIONS

Rev. No.	Page No.	Date	Description	FAA Approval
NC	All	14-Jun-21	Installation of the AKV Starter Interrupt Kit P/N RHSI	FAA Approved <div> <div>Nevada Jo Ryan</div> <div> Digitally signed by Nevada Jo Ryan Date: 2021.06.14 07:27:16 -0700 </div> </div> Manager, West Flight Test Section, AIR-716 Federal Aviation Administration Los Angeles, Ca Date: 14-Jun-21
Rev. No.	Page No.	Rev	Description	FAA Approval

Revision log Continued next Pg

Rev. No.	No.	Page Date	Description	FAA Approval

GENERAL INFORMATION

Revisions to this document are distributed to all operators. Notify AKV, Inc in writing of any change of ownership and/or address. This will ensure that you, the current operator, will receive the latest available information. Contact AKV for the latest revision.

The latest revision of this document is indicated by the highest revision letter as listed below in the Revision History and List of Effective Pages. This document will be completely replaced at each revision. All superseded documents should be discarded.

REVISION HISTORY

Rev NC _____ Nov. 12TH, 2020

LIST OF EFFECTIVE PAGES

Title	Page	Rev
Cover	i	NC
Record of Revisions	ii	NC
Record of Revisions	iii	NC
List of Effective pages	iv	NC
Table of Contents	v	NC
Document page	1	NC
Document page	2	NC
Document page	3	NC

FAA Approved 14-Jun-21 _____

iv

TABLE OF CONTENTS

SECTION	TITLE	PAGE
1	General	1
2	Limitations	2
3	Emergency & Malfunction Procedures	2
4	Normal Procedures	2
5	Performance	2
6	Weight & Balance	2
7	System Description	3



SECTION 1: GENERAL

This Rotorcraft Flight Manual Supplement (RFMS) for the AKV Starter Interrupt Kit P/N RHSI provides information that is in addition to the Robinson Helicopter Pilot Operating Handbook (POH). This RFMS provides information that must be followed to insure correct and safe operation of the RHSI kit when installed.

Assuring that the helicopter is in airworthy condition is the responsibility of the owner. The pilot in command is responsible for determining that the helicopter is safe for flight. The pilot is also responsible for remaining within the operating limitations as outlined by instrument markings, placards, and this handbook.

Since it is very difficult to refer to a handbook while flying a helicopter, the pilot should study this RFMS and become very familiar with the procedures of the RHSI kit before flight.

Warnings, Cautions, and Notes

WARNING

FAILURE TO FOLLOW INSTRUCTIONS GIVEN IN A WARNING MAY
RESULT IN PERSONAL INJURY OR DEATH

CAUTION

FAILURE TO FOLLOW INSTRUCTIONS GIVEN IN A
CAUTION MAY RESULT IN DAMAGE TO THE HELICOPTER

Note

A note includes supplemental data about the procedure, practice, condition, etc.



SECTION 2: LIMITATIONS

No change from the basic flight manual

SECTION 3: EMERGENCY AND MALFUNCTION PROCEDURES

If after an inflight engine failure and during a restart attempt the engine starter does not engage, then pull the circuit breaker marked “**AKV RHSI**”. After the circuit breaker is pulled, repeat the OEM Air Restart Procedure

SECTION 4: NORMAL PROCEDURES

1. BATTERY SWITCH ON.
2. THROTTLE MIXTURE IS PULLED TO CUTOFF POSITION.
3. VERIFY CLUTCH SWITCH IS DISENGAGED.
4. ROTOR BRAKE IS DISENGAGED AND ROTOR BRAKE LIGHT IS EXTINGUISHED.
5. PRESS-TO-TEST THE RHSI AMBER INDICATOR LIGHT.
6. IF THE AMBER LIGHT IS ALREADY ILLUMINATED, VERIFY THROTTLE IS IN THE CLOSED POSITION.
7. START ENGINE PER FLIGHT MANUAL.
8. AFTER START IS COMPLETE AND THE HELICOPTER IS AT GROUND IDLE, PRESS-TO-TEST THE AMBER LIGHT AGAIN TO VERIFY IT DOES **NOT** ILLUMINATE. THIS VERIFIES THE STARTER INTERRUPT KIT HAS BEEN PROPERLY DE-ENERGIZED WHICH ALLOWS FOR ENGINE RESTARTS AFTER AN IN-FLIGHT ENGINE FAILURE.

NOTE: IF THE ROTOR BRAKE AND AMBER INDICATOR LIGHT ARE EXTINGUISHED AND THE STARTER FAILS TO ENGAGE OR THE AMBER LAMP TEST PROCEDURE FAILS, CONTACT MAINTENANCE PRIOR TO FLIGHT.

SECTION 5: PERFORMANCE

No change from the basic flight manual.

SECTION 6: WEIGHT AND BALANCE

The RHSI kit is considered a permanent installation, and is accounted for in the revised aircraft weight and balance data.

SECTION 7: System Description

The AKV Starter Interrupt Kit is designed to prevent engine starter engagement with the throttle open. This prevents exceeding the engine RPM on initial ground starts with no rotor load which can result in removal of the engine for inspection and repair.

The kit provides a micro switch that detects the throttle in the closed position and electrically interrupts the starter solenoid if the throttle is open. It is wired in series with the rotor brake which also provides interruption of the starter engagement when the rotor brake is engaged.

An amber indicator light marked "**RHSI L1 PTT**" is located next to the pilot collective and when lighted, indicates to the pilot that the throttle is in the open position. It also has a built in press-to-test to verify the bulb is operational.

Power to the starter interrupt kit is provided via a 1 amp circuit breaker located on the circuit breaker panel in front of the copilot seat and is marked "**AKV RHSI**"

In order for the press-to-test function to operate, the battery switch must be ON, the rotor brake off, circuit breaker pushed in and the clutch switch disengaged. The starter interrupt circuit is electrically removed from the starter circuit after clutch engagement.

NOTE: The starter interrupt kit can be de-energized or overridden by pulling the circuit breaker. Normal operation of initial on ground engine starting without over speed protection is then provided.

After normal engine start, the AKV Starter Interrupt kit is disabled via the red instrument panel clutch engagement switch. This allows for in-flight engine restarts in the event of an engine failure.

CAUTION: When the starter Interrupt is disabled after engagement of the clutch switch, it will not provide over speed protection during in-flight engine restarts. It is therefore important that the pilot follow the basic rotorcraft flight manual (RFM) in-flight engine restart procedure.