

Quilter
Guitar Amplifiers



**AVIATOR PILOT'S
HANDBOOK**

- › PRE-FLIGHT CHECKLIST
- › TONEWORTHINESS CERTIFICATE
- › REGISTRATION

PILOT NAME

RANK

BRANCH



REGISTRATION (TRANSFERABLE)

UNITED STATES OF AMERICA Department of Amplification – QUILTER AVIATION ADMINISTRATION CERTIFICATE OF AVIATOR REGISTRATION		This certificate does not need be present to legally operate the Aviator Amplifier.	
NATIONALITY AND REGISTRATION MARKS		QAV8OR	
I S S U E D T O		AVIATOR SERIAL NO:	
(Fill in Pilot's name here)		This certificate is issued for registration purposes only and is not a certificate of title. The Quilter Aviation Administration does not determine rights of ownership as between private persons.	
This document certifies that the above named Aviator has been entered on the register of the Quilter Aviation Administration of America in accordance with the International Conventions on international Civil Amplification dated February 15 th , 2013, and with the Federal Amplification Act of 2013 and regulations issued as applicable.		US Department of Amplification QUILTER AMPLIFICATION ADMINISTRATION	
DATE OF ISSUE February 13, 2013		ADMINISTRATOR	
AC Form QUIL-P100026 Supersedes previous editions			

UNITED STATES OF AMERICA Department of Amplification – QUILTER AVIATION ADMINISTRATION STANDARD TONEWORTHINESS CERTIFICATE			
1	NATIONALITY AND REGISTRATION MARKS QAV8OR	2 Manufacturer and Model Quilter AV8OR	3 Aviator Serial Number 4 CATEGORY Exceptional
5 AUTHORITY AND BASIS FOR ISSUANCE This toneworthiness certificate is issued pursuant to the Quilter Aviation Administration Act of 1957 and certifies that as of the date of issuance the Aviator to which issued has been inspected and found to conform to the type certificate thereunto, to be in condition for sale or operation, and has been shown to meet the requirements of the applicable comprehensive and detailed toneworthiness code as provided by Annex Q to the Convention on International Civil Amplification, with exceptions as noted herein: <p style="text-align: center;">NONE</p>			
6 TERMS AND CONDITIONS Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administration, this toneworthiness certificate is effective as long as the maintenance, preventive maintenance, and any alterations are performed in accordance with Parts 68, 69, and 102 of the Quilter Aviation Administration Regulations as appropriate, and the Aviator is registered in the United States.			
DATE OF ISSUANCE 02-15-2013		QAA REPRESENTATIVE CHRISTOPHER PARKS	
		DESIGNATION NUMBER QL-AV8OR-1	
Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding 1/1000 th of 1 cent or confinement in atonal prison not exceeding three (3) years or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE GIG IN ACCORDANCE WITH APPLICABLE QUILTER AVIATION REGULATIONS			
QAA Form 8100-2 (8-82)		GPO 210-112	

Quilter™

Guitar Amplifiers



Guitar Amplifier

Pilot's Handbook

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IMPORTANT SAFETY INSTRUCTIONS (PRE-FLIGHT SAFETY)

- 1 – Read and keep these instructions.
- 2 – Heed all warnings and follow all instructions.
- 3 – **WARNING:** To prevent fire or electric shock, do not expose this equipment to rain or moisture. Do not use this apparatus near water.
- 4 – Clean only with a dry cloth.
- 5 – Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 6 – Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for the replacement of the obsolete outlet.
- 7– Protect the power cord from being walked on or pinched, particularly plugs, convenience receptacles, and the point where they exit from the apparatus.
- 8 – Unplug the apparatus during lightning storms or when unused for long periods of time.
- 9 – The appliance coupler (or attachment plug) is the mains disconnect device and should remain readily accessible when amplifier is in use.
- 10 – Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 11 – This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- 12 – Changes or modifications made by the user that are not expressly approved by the manufacturer may void your authority to operate the amplifier.

Explanation of symbols



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous" voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in this manual.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.



WARNING: To prevent fire or electric shock, do not expose this equipment to rain or moisture.

IMPORTANTES PRECAUCIONES DE SEGURIDAD

- 1 – Lea estas instrucciones y conserve estas instrucciones.
- 2 – Observe todas las advertencias y siga todas las instrucciones.
- 3 – **ADVERTENCIA:** Para prevenir incendios o descargas eléctricas, no exponga este equipo a la lluvia ni a la humedad. No use este aparato cerca del agua.
- 4 – Límpielo sólo con un paño seco.
- 5 – No lo instale cerca de fuentes de calor tales como radiadores, registros térmicos, estufas ni otros aparatos (incluso amplificadores) que produzcan calor.
- 6 – No anule la característica de seguridad del enchufe con conexión a tierra del cable eléctrico de tres patillas. El enchufe con conexión a tierra tiene dos hojas y una patilla de conexión a tierra. La tercera patilla se suministra para su seguridad. Si el enchufe que se le proporciona no cabe en su tomacorriente, consulte con un electricista para reemplazar el tomacorriente obsoleto. **No corte la patilla de conexión a tierra ni utilice un adaptador que anule el circuito de conexión a tierra.** Este aparato debe estar correctamente conectado a tierra para su seguridad.
- 7– Proteja el cable de alimentación para que no se camine sobre él ni se le comprima, particularmente en los enchufes, los receptáculos y el punto en donde éstos salen del aparato.
- 8 – Desenchufe el aparato durante tormentas eléctricas o cuando no lo vaya a usar durante periodos prolongados de tiempo.
- 9 – El acoplador del equipo es la desconexión de la línea principal de CA y debe permanecer fácilmente operable después de la instalación.
- 10 – Refiera todo el servicio a personal calificado. Es necesario dar servicio al aparato cuando sufra algún daño, como cuando se daña el cable de alimentación eléctrica o el enchufe, cuando se derraman líquidos o caen objetos sobre el aparato, cuando éste ha estado expuesto a la lluvia o humedad, cuando no opere normalmente o cuando se haya caído.
- 11 – Este dispositivo cumple la parte 15 de las Reglas de la FCC. Su funcionamiento está sujeto a las dos condiciones siguientes: (1) este dispositivo no causará interferencias nocivas y (2) este dispositivo debe aceptar cualquier interferencia que reciba, incluidas las que puedan causar un funcionamiento no deseado.

EXPLICACIÓN DE LOS SÍMBOLOS



El símbolo de un rayo con punta de flecha dentro de un triángulo equilátero tiene el propósito de alertar al usuario de la presencia de voltaje “peligroso” no aislado dentro de la caja del producto, que puede ser de suficiente magnitud para constituir un riesgo de descarga eléctrica a los seres humanos.



manual.

El signo de exclamación dentro de un triángulo equilátero tiene la intención de alertar al usuario de la presencia de importantes instrucciones de operación y mantenimiento (servicio) en este



PRECAUCIÓN: PARA REDUCIR EL RIESGO DE DESCARGA ELÉCTRICA, NO quite la cubierta del amplificador. El interior no contiene piezas a las que el usuario pueda dar servicio. Refiera el servicio a personal calificado.



¡ADVERTENCIA!: PARA PREVENIR INCENDIOS O DESCARGAS ELÉCTRICAS, NO EXPONGA ESTE EQUIPO A LA LLUVIA NI A LA

PRÉCAUTIONS IMPORTANTES

- 1 – Lire et conserver ces instructions.
- 2 – Respecter tous les avertissements et toutes les instructions.
- 3 – **AVERTISSEMENT** : Pour écarter les risques d'incendie et d'électrocution, ne pas exposer ce matériel à la pluie ou l'humidité. Ne pas utiliser cet appareil près de l'eau.
- 4 – Nettoyer uniquement avec un chiffon sec.
- 5 – N'installer à proximité d'aucune source de chaleur comme des radiateurs, des registres de chaleur, des poêles ou d'autres appareils (y compris des amplis) qui dégagent de la chaleur.
- 6 – Ne pas éliminer la sécurité de la fiche de terre du câble d'alimentation de style Edison à 3 broches. La fiche de terre a deux lames et une broche de terre. La troisième broche est fournie pour votre sécurité. Si la fiche fournie n'entre pas dans la prise, consulter un électricien pour faire remplacer la prise obsolète. Ne pas couper la fiche de terre et ne pas utiliser d'adaptateur qui rompe le circuit de mise à la terre. Par mesure de sécurité, cet appareil doit être correctement mis à la terre.
- 7 – Protéger le cordon d'alimentation pour que personne ne puisse marcher dessus, qu'il ne puisse pas être pincé, surtout les fiches, les prises de courant d'entretien et le point d'émergence du cordon de l'appareil.
- 8 – Débrancher l'appareil en cas d'orage électrique ou lorsqu'il est inutilisé pendant longtemps.
- 9 – Le coupleur de l'appareil est l'interrupteur général et il doit être immédiatement utilisable après l'installation.
- 10 – Confier toutes les réparations à un personnel qualifié. Une réparation s'impose lorsque l'appareil a été endommagé d'une manière quelconque, par exemple endommagement du cordon d'alimentation ou de sa fiche, déversement de liquide ou chute d'objets sur ou à l'intérieur de l'appareil, exposition de l'appareil à la pluie ou l'humidité, fonctionnement anormal ou chute de l'appareil.
- 11 – Ce matériel est conforme à la partie 15 des règlements de la FCC. Le fonctionnement est soumis aux deux conditions suivantes : (1) Ce matériel ne doit pas causer de brouillage préjudiciable, et (2) Ce matériel doit accepter tout brouillage reçu, y compris le brouillage pouvant provoquer un mauvais fonctionnement.

EXPLICATION DES SYMBOLES



L'éclair fléché situé dans un triangle équilatéral a pour objet de signaler à l'utilisateur la présence d'une tension « dangereuse » non isolée dans le boîtier du produit suffisante pour présenter un risque d'électrocution pour l'homme.



Le point d'exclamation dans un triangle équilatéral a pour objet de signaler à l'utilisateur la présence d'instructions importantes d'utilisation et de maintenance (réparation) dans ce manuel.



ATTENTION : POUR RÉDUIRE LES RISQUE D'ÉLECTROCUTION, NE PAS RETIRER LE CAPOT DE L'AMPLIFICATEUR. AUCUNE PIÈCE RÉPARABLE PAR L'UTILISATEUR À L'INTÉRIEUR. CONFIER TOUTE RÉPARATION À UN PERSONNEL QUALIFIÉ.



AVERTISSEMENT!: POUR ÉCARTER LES RISQUES D'INCENDIE ET D'ÉLECTROCUTION, NE PAS EXPOSER CE MATÉRIEL À LA PLUIE OU L'HUMIDITÉ.

WICHTIGE SICHERHEITSVORKEHRUNGEN

- 1 – Diese Anleitung sorgfältig durchlesen. Diese Anleitung gut aufbewahren.
- 2 – Alle Warnhinweise beachten. Alle Anweisungen befolgen.
- 3 – **ACHTUNG:** Zur Vermeidung von Bränden und Stromschlägen darf diese Ausrüstung weder Regen noch Feuchtigkeit ausgesetzt werden. Dieses Gerät nicht in Wassernähe verwenden.
- 4 – Nur mit einem trockenen Tuch reinigen.
- 5 – Nicht in der Nähe von Wärmequellen wie Heizkörpern, Warmluftschiebern, Öfen oder anderen Geräten (einschließlich Verstärkern) aufstellen, die Wärme abstrahlen.
- 6 – Die Sicherheitsfunktion des dreipoligen (nur für USA/Kanada) Schutzkontaktsteckers am Edison-Netz Kabel nicht außer Kraft setzen. Der Schutzkontaktstecker besitzt zwei Stifte und einen Erdungspol (nur für USA/Kanada). Der dritte Stift dient der Sicherheit. Wenn der im Lieferumfang enthaltene Stecker nicht in Ihre Steckdose passt, ist diese veraltet und muss von einem Elektriker ersetzt werden. Den Erdungsstift nicht abschneiden und keinen Adapter verwenden, der den Erdungsschaltkreis unterbricht. Dieses Gerät muss zu Ihrer Sicherheit ordnungsgemäß geerdet werden..
- 7– Das Netzkabel so verlegen, dass niemand darauf treten oder es eingeklemmt werden kann. Dies gilt insbesondere für Stecker, Steckdosen und die Stelle, an der das Kabel aus dem Gerät austritt.
- 8 – Das Netzkabel des Geräts während Gewitters, oder wenn es längere Zeit nicht benutzt wird, von der Steckdose abziehen.
- 9 – Der Gerätekoppler fungiert als Netzstrom-Trennvorrichtung und sollte nach der Installation jederzeit betriebsfähig sein.
- 10 – Wartungsarbeiten nur von qualifiziertem Instandhaltungspersonal ausführen lassen. Das Gerät muss immer dann gewartet werden, wenn es auf irgendeine Weise beschädigt wurde, z. B. wenn das Netzkabel oder der Netzstecker beschädigt ist, Flüssigkeit auf dem Gerät verschüttet wurde oder Gegenstände in das Gerät gefallen sind, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, es nicht normal funktioniert oder fallen gelassen wurde.
- 11 – Dieses Gerät stimmt mit Abschnitt 15 der FCC Vorschriften überein. Der Betrieb des Geräts unterliegt folgenden zwei Bedingungen: (1) dieses Gerät darf keine schädliche Interferenz verursachen, und (2) dieses Gerät soll alle Interferenz akzeptieren, die es empfängt, einschließlich solcher, die den Betrieb auf unerwünschte Weise beeinflusst.

SYMBOLERKLÄRUNG



Das aus einem Blitz mit einer Pfeilspitze bestehende Symbol in einem Dreieck soll den Benutzer auf das Vorhandensein nicht isolierter, gefährlicher Spannungen innerhalb des Gehäuses aufmerksam machen, die stark genug sein können, um einen elektrischen Schlag abzugeben.



Das Ausrufezeichen in einem Dreieck soll den Benutzer auf das Vorhandensein wichtiger Betriebs- und Wartungsanleitungen in diesem Handbuch aufmerksam machen.



VORSICHT: ZUR REDUZIERUNG DES STROMSCHLAGRISIKOS DIE ABDECKUNG DES VERSTÄRKERS NICHT ABNEHMEN. KEINE VOM BENUTZER ZU WARTENDEN INNENKOMPONENTEN. FÜR ALLE WARTUNGSARBEITEN DAFÜR QUALIFIZIERTES PERSONAL EINSETZEN.



ACHTUNG!: Zur Vermeidung von Bränden und Stromschlägen darf diese Ausrüstung weder Regen noch Feuchtigkeit ausgesetzt werden.

Chapter 1

Introduction to Flight Training

PURPOSE OF FLIGHT TRAINING

The overall purpose of primary and intermediate amplifier flight training as outlined in this handbook is the acquisition and development of **basic tonemanship skills**. Tonemanship can be defined as:

- A sound acquaintance with the principles of tone;
- The ability to operate a Quilter Aviator with competence and precision both on both rhythm and lead, and
- The exercise of sound judgment, resulting in optimal operational efficiency and safety.

Learning to fly an Aviator has often been likened to driving a modeling amplifier. This analogy is misleading. Since an Aviator operates in a three dimensional space, it requires a high standard of tone skill development that is more sensitive to this environment, such as:

- **Coordination** – the ability to roll your volume knob down, or moderate your pressure on your guitar's strings, and feel the tone "clean up". Once this skill becomes instinctive, the tonal orientation and overall satisfaction of both Pilot and listener will be enhanced in most live music situations.
- **Avoiding the Stall** – typical amplifiers of this horsepower rating may experience static motion resistance or sudden drops when handled by inexperienced assistants. By contrast, Aviator users enjoy "easy lifting" (rapid altitude gain), and may even request that companions of the other sex transport their equipment to field locations.
- **Comprehensive Attitude Control** – the ability to get great tone at any volume. The euphoric sensation of full throttle operation may be obtained at any speed or altitude with the Aviator. It's now possible to turn down without losing tone.

Chapter 2

Role of the Quilter Aviation Administration

The Quilter Aviation Administration (QAA) is self-empowered to provide Aviator safety by prescribing safety standards for civil amplification. This is accomplished through the Code of Amplification Regulations. (CAR's) formerly referred to as the "Tone Standards".

Role of the Flight Instructor

The flight instructor is the cornerstone of Aviation safety. The QAA has adopted an operational training concept that ensures complete responsibility for training the Aviator student in all necessary areas of knowledge and skill required to operate safely and get outstanding tone. This training will include tonemanship skills, pilot judgment, decision making, and accepted good operating practices.



Our QAA certificated flight instructors have broad tone experience, are required to pass rigid knowledge and practical tests, and demonstrate the ability to apply recommended techniques before being certificated. Furthermore their certification must be renewed every 24 months by showing continued success in tonemanship skills.

Flight safety practices

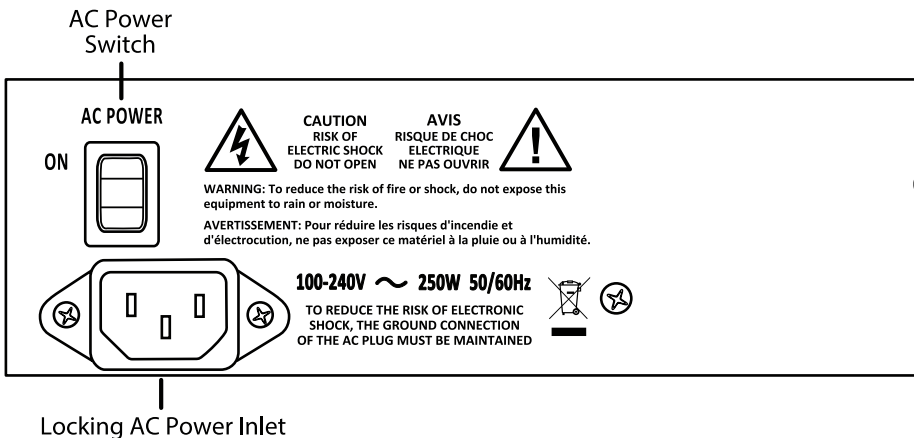
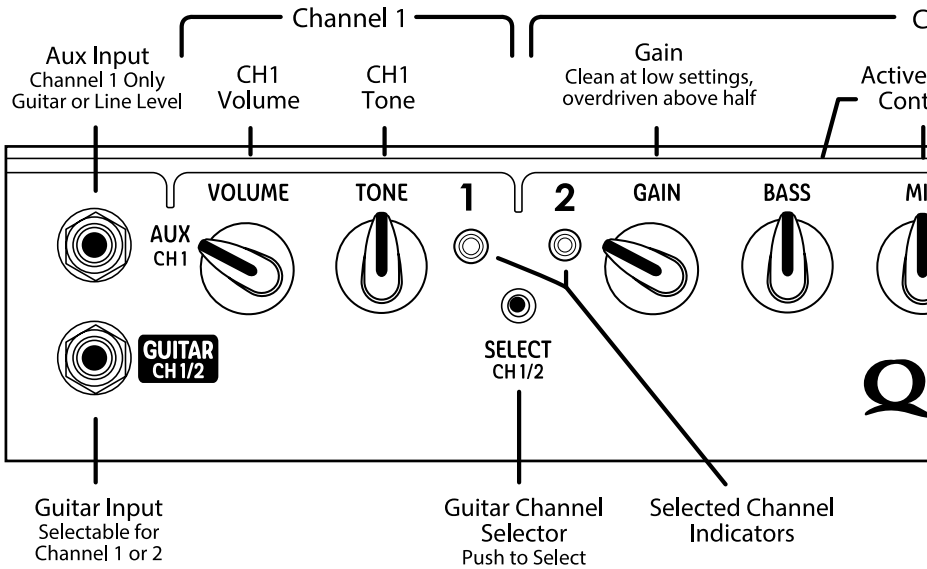
In the interest of safety and good tonemanship skills, there are certain basic flight safety practices and procedures that must be emphasized by your flight instructor and adhered to both by instructor and student.

Chapter 3

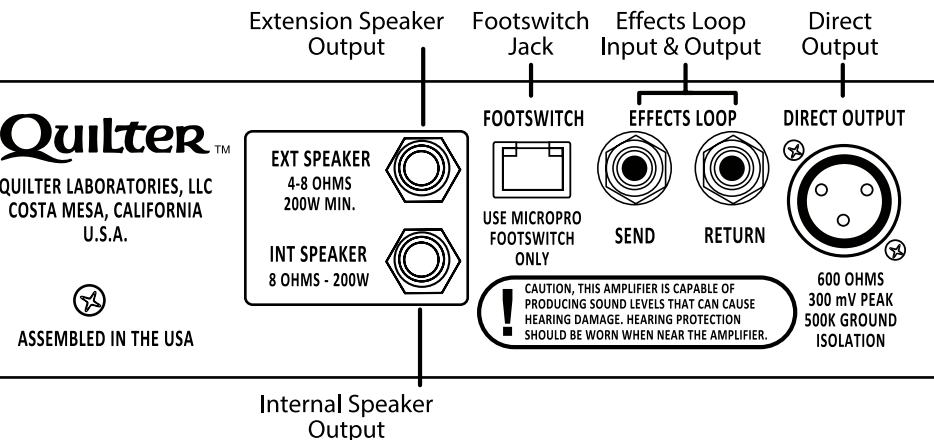
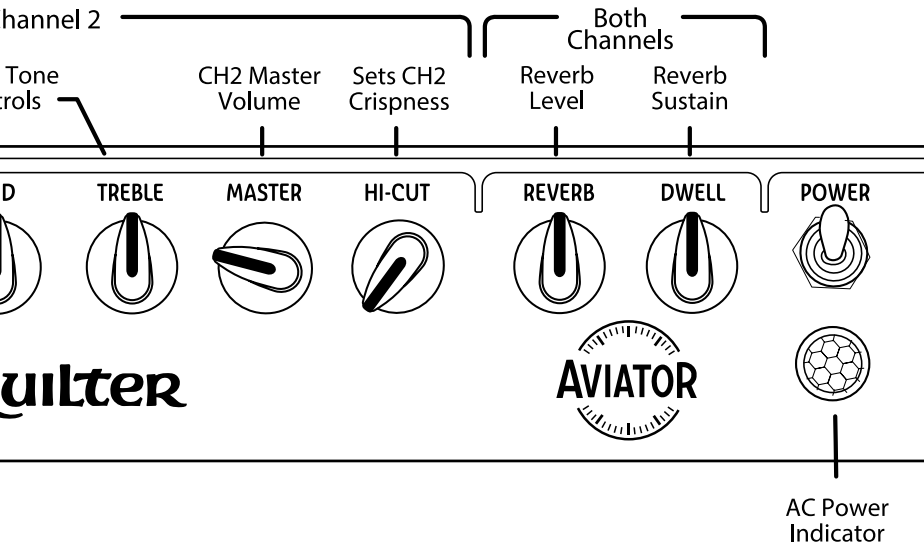
Ground operations

Front Panel

Visually inspect your cockpit.



Ensure that all of your instruments are in good working order.



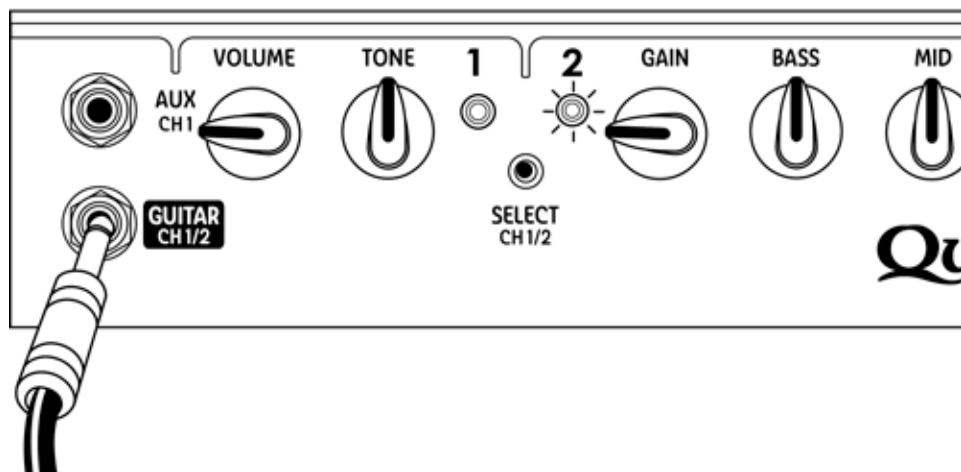
Chapter 4

Your first flight

Prior to your first taxi be sure to review your takeoff checklist.



Set up the front panel controls as shown in the illustration below:



Initial Settings:

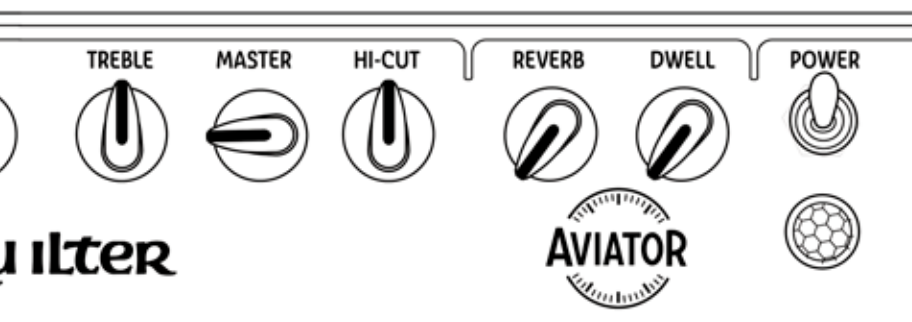
- Set **THROTTLE (VOLUME)** to about 25%.
- Set **MIXTURE (TONE)** to 50% (straight up).
- Set **FUEL PUMPS (GAIN)** to about 25%.
- Set **BASS, MID** and **TREBLE (TONE TRIMS)** to 50%.
- Set **CRUISE (MASTER)** to about 25%.
- Set **HI-CUT, REVERB**, and **DWELL** to minimum for now.
- Press **SELECT CH 1/2** until the Channel 2 indicator is lit.

Plug your **guitar** into the **GUITAR CH1/2** input jack and prepare for takeoff. The person standing in front should shout "**CONTACT!**" and then engage the **POWER** toggle switch.

As you achieve takeoff speed, adjust the **GAIN** and **MASTER** to obtain the desired overdrive distortion and overall loudness of the amplifier.



The trim controls (**BASS, MID** and **TREBLE**) are neutral in the middle position. Increase or decrease them to achieve level and stable tone.



You are now airborne! Experiment with the **HI-CUT** control by rolling it to the right. Notice how the overall tone changes from crisp to mellow.

Advanced Flight Controls

To add reverb, turn up the **REVERB** control. The **DWELL** control sets the decay time of the reverb tail. A 50% setting matches typical spring systems.

After reaching full altitude, cruise speed may be selected using the **SELECT CH 1/2** pushbutton button to engage Channel 1. The left-hand Channel 1 beacon indicator lights up. Adjust loudness with the **VOLUME** control. **TONE** is neutral in the middle, cleaner to the left and more aggressive to the right.

Chapter 5

Operation and Maintenance Reference Manual

In order to produce a reliable and safe flying experience, the Quilter Aviator is engineered to provide maximum enjoyment with minimal maintenance and effort. The flight controls are simple to read, simple to use, and simple to operate.

We hope you enjoy flying your new amplifier. May it give you many years of flawless service and provide a source of inspiration and creativity.



Packing Crate Contents:

- 1 Quilter Aviator Amplifier
- Dust Cover
- 2-Function Foot Controller (optional)
- 1 AC Power Cord, IEC type
- 1 Pilot's Handbook (Owner's Manual)

FLIGHT INSTRUMENT PANEL: OPERATING CONTROLS

Aux Input (Channel 1 only)



**AUX
CH1**

The **AUX** input is a mono or stereo-summing input which can amplify your cockpit radio, portable music players, dynamic microphones, keyboards, or any other line-level signal.

A second guitar can be used with the **AUX** input. Keep in mind though that like any aircraft, it is difficult to have two pilots. The Aux input has lower impedance than the guitar input which can decrease upper frequency “sparkle”.

The **AUX** input is a good choice if you use a preamp or modeling processor before the amplifier. The rich, open sound of the amplifier works as an ideal canvas for digital modeling and effects.

Channel 1 has no intentional overdrive augmentation; audible breakup indicates that the maximum 100 watt airspeed rating has been reached.

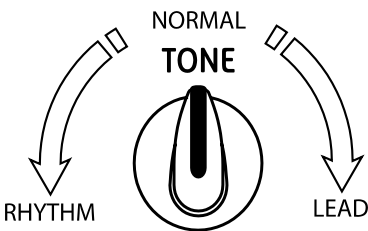
If the **GUITAR** input is switched to Channel 1, the Guitar and Aux inputs will be mixed together.

Channel 1 Volume (“Cruise” or “Clean”)

VOLUME



CH 1 VOLUME controls the loudness of Channel 1. The maximum position delivers the highest available clean output level from this channel.



CH 1 TONE: The mid position (50%) produces neutral response (level flight). Left-of-center scoops out the midrange frequencies for a cleaner rhythm tone. Right-of-center boosts mids and highs for more penetration.

Guitar Input (Channel 1/2)



**GUITAR
CH 1/2**

The **GUITAR** input is tailored for electric guitars and features a 2 meg input impedance that preserves the delicate overtones of standard magnetic pickups.

The guitar input can be routed to either Channel 1 or 2 by pressing the **SELECT** button on the front panel or the **CH 1/2** footswitch.

Channel Select Annunciator Lights

1



2



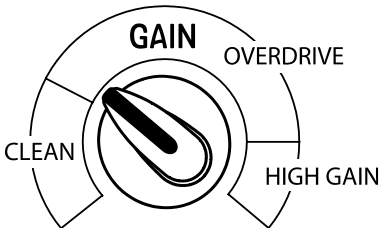
A pair of lighted indicators show which channel is receiving the guitar signal.



**SELECT
CH 1/2**

Press the **SELECT** button to change the channel assignment (NOTE: when the footswitch is plugged in, it overrides the **CH 1/2 SELECT** button).

Channel 2 Gain (“Throttle” or “Prop Speed”)



The channel 2 **GAIN** control sets the indicated airspeed for Ch 2, ranging from clean cruising to mild overdrive to full emergency dive.

At low settings, the tone will remain clean. Mid settings will allow louder notes to start breaking up. High settings will produce full overdrive on

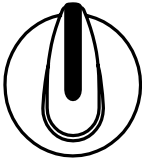
all notes.

The threshold of overdrive depends on playing style, pickup type and the guitar's volume control.

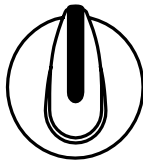
As the **GAIN** is increased, the “airspeed” of the amplifier will increase. Use the **MASTER** control to adjust the overall loudness or “altitude”.

Channel 2 Tone Controls (TONE TRIMS)

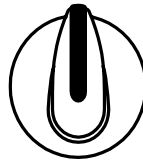
BASS



MID



TREBLE



The **BASS**, **MID** and **TREBLE** controls adjust frequency equalization or tone balance for Channel 2. The controls are active boost/cut controls with a neutral response at 50% (straight up).

The tone trim controls will help you achieve level and neutral flight regardless of your operating environment, while compensating for outside conditions such as the guitar's tonal balance, and the conditions in the airspace.

Unlike traditional attitude-adjustment controls, the Aviator tone controls are totally neutral in their center position. This allows the pilot to observe the guitar's natural tone prior to making adjustments. Many are surprised to discover the pleasures of clear level flight in the neutral position, and may only need to make adjustments depending on the room characteristics.

Channel 2 Master Volume (ALTITUDE)

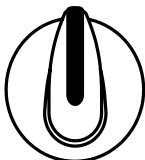
MASTER



MASTER regulates the overall loudness of Channel 2 without altering the amplifier's tone or overdrive. The lower settings are suitable for ground practice or flight simulations while gaining mastery of the controls. High Master settings unleash the Aviator's full power for operating in effective formation with other high power machines, whether in free flight or controlled

airspace.

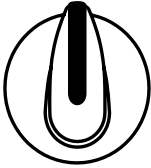
HI-CUT



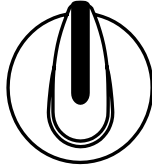
Channel 2 Hi-Cut (CONTROL ATTACK)

Reverb Section

REVERB



DWELL



The Aviator uses a premium digital reverb chip with a smoother decay and a lower noise floor than a classic spring tank. The reverb is voiced to “soar” nicely above the mix.

The **REVERB** control allows you to increase the richness (Level) of the reverb in your mixture. A slight noise floor is normal on very rich settings.

The **DWELL** control adjusts the decay time from a short “klonk” to a lush “heavenly choir.” Reverb affects both channels equally.

Footswitch control:

The footswitch LED illuminates when the reverb is active. Check the footswitch setting if the Reverb control doesn’t seem to work. The footswitch controls the signal entering the reverb stage. When turned off, the remaining reverb tail decays naturally. This means you can “deposit” a burst of music and let it taper off while you continue to play dry.

Power Switch and Indicator

POWER



POWER activates AC power when in the up position. The “jewel” light indicates that the amplifier is running.

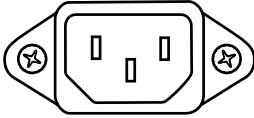
INTERNATIONAL FLIGHT QUALIFICATIONS



The Aviator can be used on all world-wide AC voltages from 100 to 250V, which allows you to navigate just about anywhere on the planet without an Auxiliary Power Unit. No adjustments are required to operate in other countries.

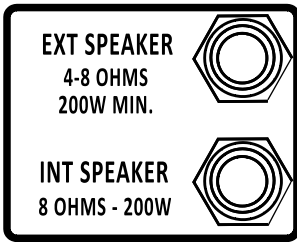
Simply obtain the correct AC cord for the local AC service, plug in and engage **POWER**.

Locking IEC Power Cord



The power cord that comes with your amplifier locks into the AC inlet to reduce the chance it will come unplugged during use. Press the yellow button on the cord to release it. Any normal 3-prong IEC cord may also be used if required. Always ensure that the ground contact is intact on both the cord and receptacle.

Dual-Prop Operation (Extension Speaker Outputs)



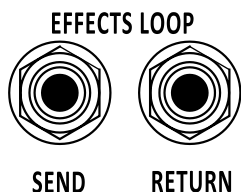
Aviator combo amplifiers come with the internal speaker plugged into the **INT SPEAKER** output. An external 8 ohm speaker may be used in place of the internal speaker by unplugging this cable and connecting the external speaker. An external 4 ohm speaker cabinet should be connected to the **EXT SPEAKER** output.

To use two speaker cabinets simultaneously, connect an 8 ohm cabinet (or the internal speaker) to the **INT SPEAKER** output, and connect a 4-8 ohm extension speaker with a minimum of 200 watts continuous power handling to the **EXT SPEAKER** output. Internal circuitry adjusts the output impedance to split the power between the two outputs.

CAUTION: the amplifier can deliver up to 300 watts peak, well beyond the capacity of many single speakers. We recommend Quilter extension cabinets with “full-altitude-tested” speakers. Quilter Labs will



External Navigation Equipment (Effects Loop)

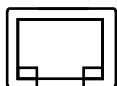


The **SEND** jack combines the output of both channels at -10dB which matches most consumer and pro effects. The **RETURN** jack interrupts the internal signal, and returns the effects output directly to the power amplifier.

Signal impedance is low to preserve tone, and the send jack remains active even in bypass which keeps effects synchronized. Effects are therefore applied to the overall sound of both channels with outstanding headroom and clarity.

Footswitch Jack

FOOTSWITCH



The foot controller connects using the supplied cable. A standard network cable (CAT 5,6,7, etc...) with RJ-45 connectors may be used as an emergency replacement or if you need a longer cable.

Direct Output

DIRECT OUTPUT



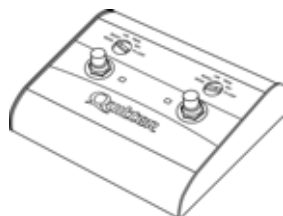
600Ω, 300 mV PEAK
500K ISOLATION

The isolated direct output allows you to route the output sound of the amp to a mixing board or external powered loudspeakers without using a microphone. The signal level is compatible with mic inputs, and is padded down from the actual signal across the speaker, to preserve as much of the tone quality as possible.

A high frequency roll off is included to prevent high frequency system instability, and produces the same tone quality through full-range speakers as the internal single-cone driver.

Using the floor controls (Foot Controller)

The optional foot controller allows you to route the **GUITAR** input to Channel 1 or 2, and to bypass the reverb, without having to access the amplifier's front panel.



Plug one end of the supplied cable into the jack on the foot controller. Plug the other end of the cable into the footswitch jack on the rear of an Aviator amplifier. To remove the cable, press the plastic tab on the plug to unlock it.



Channel Switching

When the footswitch LED is on, the **GUITAR** input is routed to the high gain Channel 2, as also shown on the front panel indicator. When the footswitch LED is off the **GUITAR** input is routed to Channel 1, and the CH 1 front panel indicator will be lit. NOTE: While the footswitch is connected, the front panel SELECT button is non-operational.

Reverb Bypass

When the footswitch LED is on, the Reverb is activated. The amount of Reverb is set by the **REVERB** knob. If the **REVERB** knob is at its minimum position (fully counter-clockwise), Reverb will not be heard.

The FC-2 foot controller is designed to work with Quilter Aviator amplifiers only. There are no user-serviceable parts inside the foot controller. If the device is exposed to a liquid spill or excessive moisture, unplug it immediately and allow to dry thoroughly before using.

Specifications

Amplifier Module Specifications: (All Models)	
Power Output:	Channel 1: 100 W RMS Channel 2: 100 W RMS Total: 200 W RMS
AC Power Req.:	100–240V, 50–60 Hz, 250 W maximum.
Input Connections: ¼"	" mono jacks (Aux and Guitar)
Input Impedance: A	UX: 100K ohms GUITAR: 2M ohms
Effects Loop: S	end: ¼" mono, -10dB, 1K ohms Return: ¼" mono, -10dB, 50K ohms
Speaker 1 Output:	8 ohms, 200 W minimum rating
Speaker 2 Output:	4-8 ohms, 200 W minimum rating
Ultralight (8 inch)	22.6 Pounds (10.3 Kg)
Open Cockpit (12" open back)	33.8 Pounds (15.4 Kg)
The twin (2x10" open back)	33.8 Pounds (15.4 Kg)

Note: Power ratings are provided by the loudspeaker manufacturer and are only a guideline when selecting a suitable speaker. Quilter Labs qualifies our speaker selections using a lengthy full power test that ensures that the speaker can stand up to the power output of our amplifiers.



Troubleshooting

Symptom	Action
No power, no lights	<ul style="list-style-type: none"> • Ensure that the AC cord is fully seated and connected to a live source. • Check the AC source by trying another device such as a lamp.
Amp turns off then after a short time, turns back on	<ul style="list-style-type: none"> • Automatic thermal protection is activating. Reduce the volume at least 30% and keep the amplifier out of direct sunlight or tightly enclosed spaces. • The chassis will feel hot.
No audio (using the GUITAR input)	<ul style="list-style-type: none"> • Ensure the guitar plug is inserted fully into the input jack. • Try using a different guitar cable. • Check that the pickup selector switch and volume on the guitar are set correctly. • Remove any cables from the RETURN jack of the Effects Loop. If this corrects the problem, ensure that the signal from the SEND jack passes through all effects in the chain. • Ensure that the rear panel speaker plug is fully inserted into the INT SPEAKER jack. <p>If the SELECT switch is set to CH1:</p> <ul style="list-style-type: none"> • Check that the VOLUME control is turned up. <p>If the SELECT switch is set to CH2:</p> <ul style="list-style-type: none"> • Check that the GAIN control is turned up. • Check that the MASTER control is turned up.
No audio (using the AUX input)	<ul style="list-style-type: none"> • Ensure that the ¼" plug is fully inserted. • Try using a different cable. • Check that the VOLUME control is not on its minimum setting. • Ensure that the rear panel speaker plug is fully inserted into the INT SPEAKER jack. • Remove any cables from the RETURN jack of the Effects Loop.
Distorted audio on Channel1	<ul style="list-style-type: none"> • Lower the source level. • Lower the VOLUME control. • Check the speaker (see "Garbled Sound" below)
No reverb is heard	<ul style="list-style-type: none"> • Confirm that REVERB is turned up. • If the footswitch is connected, it overrides the front panel controls.
Reverb sound has too much "echo"	<ul style="list-style-type: none"> • Adjust the REVERB and DWELL controls

Background hum	<ul style="list-style-type: none"> • Ensure the guitar plug is fully inserted. • Try using a different guitar cable. • Any AC powered sources or effects should be plugged into the same receptacle as the amplifier to help avoid ground loops. <p>If the hum goes away when you turn down the guitar:</p> <ul style="list-style-type: none"> • Single coil pickups can be a source of hum, especially near hum sources such as light dimmers or neon lights. Experiment with different pickup settings and guitar positions to identify possible null zones. • Check that the guitar's cavities are well shielded.
Excessive noise	<ul style="list-style-type: none"> • At high gain settings, some audible hiss or whoosh is normal. • Intermittent crackles or hum can be caused by bad cables, guitar or effect connections.
Amp sounds garbled at all volumes	<ul style="list-style-type: none"> • Check speaker by temporarily trying an external speaker. Caution: reduce Master volume until sound level has been confirmed. • If still garbled at all volumes, amp needs servicing.
Desire clean tone, getting too much overdrive	<ul style="list-style-type: none"> • Channel 2: Turn down the GAIN control and turn up MASTER. • Channel 1: Turn down the VOLUME control.
Desire overdrive tone, not getting enough overdrive	<ul style="list-style-type: none"> • Turn up guitar volume. • Use Ch 2 and turn up GAIN. • Try higher output pickups or overdrive pedal.
Tone sounds "dull" or muffled	<ul style="list-style-type: none"> • Set the HI-CUT control to a lower setting • Check your guitar and amplifier tone controls.
CH 1/2 SELECT switch doesn't work.	<ul style="list-style-type: none"> • If the footswitch is connected, it overrides the front panel switch.
CH 1 does not stay selected when the amp is turned off.	<ul style="list-style-type: none"> • The amp normally powers up with Ch 2 selected. • The footswitch will retain its setting between sessions.
<p>Amplifier Requires Service: If any of the below occur, immediately unplug the amplifier and refer to a service technician.</p> <ul style="list-style-type: none"> • Amplifier emits smoke, sparks or popping sounds • Amplifier is dropped or chassis is dented or bent • Liquid has been spilled into the amplifier • Loose parts inside the amplifier • AC breaker trips 	

Caring For Your Amplifier

Clean the outer surfaces with a clean, damp cloth or vacuum with a soft brush. Never use any abrasives, harsh cleaners or solvents.

The Aviator amplifier is manufactured with high quality components using modern industrial processes that greatly reduce production defects. Each amplifier goes through an intensive testing process before it leaves the factory ensuring that your amplifier will give you years of flawless service. There are no user-serviceable parts inside the amplifier. Any repairs should be performed by a trained service professional.

Always use the amplifier in a well-ventilated environment and protect from external heat sources such as furnaces or direct sunlight.

Prolonged high-volume playing causes heat buildup in the speaker which reduces its working lifetime. If you find it necessary to consistently use the amp at full Master volume, we recommend using an extension speaker to prolong speaker life and improve sound coverage.

Factory Service

To return an amplifier to Quilter Labs for service under the warranty policy, please visit www.quilterlabs.com and fill out the Return Request Form. If you do not have access to the website, you may send a request by letter to Quilter Labs at 1700 Sunflower, Suite A, Costa Mesa, CA 92626. Please include the serial number of the amplifier and a copy of your sales receipt. Instructions on how to send your amplifier will be provided.

Do not attempt to open the amplifier and service it yourself. Any attempt to service the amplifier by a non-authorized service technician may void your warranty.

LIMITED TRANSFERABLE WARRANTY

IMPORTANT: PLEASE READ THIS DOCUMENT COMPLETELY. IT CONTAINS IMPORTANT INFORMATION ABOUT YOUR RIGHTS AND OBLIGATIONS, AS WELL AS LIMITATIONS AND EXCLUSIONS THAT MAY OR MAY NOT APPLY TO YOU. BY ACCEPTING DELIVERY OF THE PRODUCT(S), YOU AGREE TO BE BOUND BY AND ACCEPT THESE TERMS AND CONDITIONS.

Quilter Laboratories, LLC (Quilter Labs) guarantees its products to be free from defective material and/or workmanship and will replace defective parts and repair malfunctioning products under this warranty when the defect occurs under normal installation and use—provided the unit is returned to our factory via pre-paid transportation with a copy of proof of purchase. (i.e. sales receipt). This warranty provides that the examination of the return product must indicate, in our judgment, a manufacturing defect. This warranty does not extend to any product which has been subjected to misuse, neglect, accident, or where the date code or serial number has been defaced or removed. Quilter Labs shall not be liable for incidental and/or consequential damages. This warranty gives you specific legal rights.

This limited warranty is freely transferable during the term of the warranty period. The warranty on Quilter products is NOT VALID if the products have been purchased from an unauthorized dealer/online e-tailer, or if the factory serial number has been removed, defaced, or replaced in any way.

Customers may have additional rights, which vary from state to state or from country to country. In the event that a provision of this limited warranty is void, prohibited or superseded by local laws, the remaining provisions shall remain in effect. The Quilter Labs limited warranty in the United States is valid for a period of three (3) years from date of purchase except that foot controllers, covers, cabinets, handles, and cabinet hardware are warranted for a period of one (1) year and speakers, and all other included accessory products for a period of ninety (90) days from date of purchase.

IMPORTANT: PLEASE RETAIN YOUR SALES RECEIPT OR ONLINE ORDER RECORD, AS IT IS YOUR PROOF OF PURCHASE COVERING YOUR LIMITED WARRANTY. TO TRANSFER THE WARRANTY TO A SUBSEQUENT PURCHASER, YOU MUST ENDORSE THE SALE OF THE PRODUCT TO THE SUBSEQUENT PURCHASER ON THE FRONT OF THE SALES RECEIPT. THIS LIMITED WARRANTY IS VOID WITHOUT SUCH ENDORSED SALES RECEIPT.

Defective products that qualify for coverage under this warranty will be repaired or replaced, (at Quilter Labs' discretion) with a like or comparable product, without charge. To receive warranty service, return the complete product to Quilter Labs, LLC, with proof of purchase, during the applicable warranty period. The Quilter Labs Dealer from whom you purchased your product may also be authorized for warranty service and should be the first point of contact when service is required. TRANSPORTATION COSTS ARE NOT INCLUDED IN THIS LIMITED WARRANTY. Any repair or service performed by any person or entity other than an Authorized Quilter Labs Electronics Service Center is not covered by this limited warranty.

Other questions regarding this warranty can be answered by calling (714) 519-6114 or by contacting your authorized Quilter distributor. Email: info@quilterlabs.com



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

"The sky is the limit"
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