



# Feedback Ferret<sup>®</sup> D

precision stereo digital dynamic  
anti-feedback filter array

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## Operating Manual





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 persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** Risk of electrical shock — DO NOT OPEN!

**CAUTION:** To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

**WARNING:** To prevent electrical shock or fire hazard, this apparatus should not be exposed to rain or moisture, and objects filled with liquids, such as vases, should not be placed on this apparatus. Before using this apparatus, read the operating guide for further warnings.



Este símbolo tiene el propósito, de alertar al usuario de la presencia de “(voltaje) peligroso” sin aislamiento dentro de la caja del producto y que puede tener una magnitud suficiente como para constituir riesgo de descarga eléctrica.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la información que viene con el producto.

**PRECAUCION:** Riesgo de descarga eléctrica ¡NO ABRIR!

**PRECAUCION:** Para disminuir el riesgo de descarga eléctrica, no abra la cubierta. No hay piezas útiles dentro. Deje todo mantenimiento en manos del personal técnico cualificado.

**ADVERTENCIA:** Para prevenir choque eléctrico o riesgo de incendios, este aparato no se debe exponer a la lluvia o a la humedad. Los objetos llenos de líquidos, como los floreros, no se deben colocar encima de este aparato. Antes de usar este aparato, lea la guía de funcionamiento para otras advertencias.



Ce symbole est utilisé dans ce manuel pour indiquer à l'utilisateur la présence d'une tension dangereuse pouvant être d'amplitude suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé dans ce manuel pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions concernant l'utilisation et l'entretien de l'appareil dans le paragraphe signalé.

**ATTENTION:** Risques de choc électrique — NE PAS OUVRIR!

**ATTENTION:** Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confiez l'entretien et la réparation de l'appareil à un réparateur Peavey agréé.

**AVIS:** Dans le but de réduire les risques d'incendie ou de décharge électrique, cet appareil ne doit pas être exposé à la pluie ou à l'humidité et aucun objet rempli de liquide, tel qu'un vase, ne doit être posé sur celui-ci. Avant d'utiliser de cet appareil, lisez attentivement le guide fonctionnant pour avertissements supplémentaires.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.



Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

**VORSICHT:** Risiko — Elektrischer Schlag! Nicht öffnen!

**VORSICHT:** Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

**WARNUNG:** Um elektrischen Schlag oder Brandgefahr zu verhindern, sollte dieser Apparat nicht Regen oder Feuchtigkeit ausgesetzt werden und Gegenstände mit Flüssigkeiten gefüllt, wie Vasen, nicht auf diesen Apparat gesetzt werden. Bevor dieser Apparat verwendet wird, lesen Sie bitte den Funktionsführer für weitere Warnungen.

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** When using electrical products, basic cautions should always be followed, including the following:



1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. 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 type plug has two blades and a third grounding plug. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
11. Only use attachments/accessories provided by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when 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.
15. Never break off the ground pin. Write for our free booklet "Shock Hazard and Grounding." Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
16. If this product is to be mounted in an equipment rack, rear support should be provided.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:
  - a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow.
  - b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black.
  - c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. This electrical apparatus should not be exposed to dripping or splashing and care should be taken not to place objects containing liquids, such as vases, upon the apparatus.
19. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures:

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss, if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

**SAVE THESE INSTRUCTIONS!**

## WICHTIGE SICHERHEITSHINWEISE



**ACHTUNG:** Beim Einsatz von Elektrogeräten müssen u.a. grundlegende Vorsichtsmaßnahmen befolgt werden:

1. Lesen Sie sich diese Anweisungen durch.
2. Bewahren Sie diese Anweisungen auf.
3. Beachten Sie alle Warnungen.
4. Befolgen Sie alle Anweisungen.
5. Setzen Sie dieses Gerät nicht in der Nähe von Wasser ein.
6. Reinigen Sie es nur mit einem trockenen Tuch.
7. Blockieren Sie keine der Lüftungsöffnungen. Führen Sie die Installation gemäß den Anweisungen des Herstellers durch.
8. Installieren Sie das Gerät nicht neben Wärmequellen wie Heizungen, Heizgeräten, Öfen oder anderen Geräten (auch Verstärkern), die Wärme erzeugen.
9. Beeinträchtigen Sie nicht die Sicherheitswirkung des gepolten Steckers bzw. des Erdungssteckers. Ein gepolter Stecker weist zwei Stifte auf, von denen einer breiter ist als der andere. Ein Erdungsstecker weist zwei Stifte und einen dritten Erdungsstift auf. Der breite Stift bzw. der dritte Stift dient Ihrer Sicherheit. Sollte der beiliegende Stecker nicht in Ihre Steckdose passen, wenden Sie sich bitte an einen Elektriker, um die ungeeignete Steckdose austauschen zu lassen.
10. Schützen Sie das Netzkabel, sodass niemand darauf tritt oder es geknickt wird, insbesondere an Steckern oder Buchsen und ihren Austrittsstellen aus dem Gerät.
11. Verwenden Sie nur die vom Hersteller erhältlichen Zubehörgeräte oder Zubehörteile.
12. Verwenden Sie nur einen Wagen, Stativ, Dreifuß, Träger oder Tisch, der den Angaben des Herstellers entspricht oder zusammen mit dem Gerät verkauft wurde. Wird ein Wagen verwendet, bewegen Sie den Wagen mit dem darauf befindlichen Gerät besonders vorsichtig, damit er nicht umkippt und möglicherweise jemand verletzt wird.
13. Trennen Sie das Gerät während eines Gewitters oder während längerer Zeiträume, in denen es nicht benutzt wird, von der Stromversorgung.
14. Lassen Sie sämtliche Wartungsarbeiten von qualifizierten Kundendiensttechnikern durchführen. Eine Wartung ist erforderlich, wenn das Gerät in irgendeiner Art beschädigt wurde, etwa wenn das Netzkabel oder der Netzstecker beschädigt wurden, Flüssigkeit oder Gegenstände in das Gerät gelangt sind, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, nicht normal arbeitet oder heruntergefallen ist.
15. Der Erdungsstift darf nie entfernt werden. Auf Wunsch senden wir Ihnen gerne unsere kostenlose Broschüre „Shock Hazard and Grounding“ (Gefahr durch elektrischen Schlag und Erdung) zu. Schließen Sie nur an die Stromversorgung der Art an, die am Gerät neben dem Netzkabel angegeben ist.
16. Wenn dieses Produkt in ein Geräte-Rack eingebaut werden soll, muss eine Versorgung über die Rückseite eingerichtet werden.
17. Hinweis – Nur für Großbritannien: Sollte die Farbe der Drähte in der Netzleitung dieses Geräts nicht mit den Klemmen in Ihrem Stecker übereinstimmen, gehen Sie folgendermaßen vor:
  - a) Der grün-gelbe Draht muss an die mit E (Symbol für Erde) markierte bzw. grüne oder grün-gelbe Klemme angeschlossen werden.
  - b) Der blaue Draht muss an die mit N markierte bzw. schwarze Klemme angeschlossen werden.
  - c) Der braune Draht muss an die mit L markierte bzw. rote Klemme angeschlossen werden.
18. Dieses Gerät darf nicht ungeschützt Wassertropfen und Wasserspritzern ausgesetzt werden und es muss darauf geachtet werden, dass keine mit Flüssigkeiten gefüllte Gegenstände, wie z. B. Blumenvasen, auf dem Gerät abgestellt werden.
19. Belastung durch extrem hohe Lärmpegel kann zu dauerhaftem Gehörverlust führen. Die Anfälligkeit für durch Lärm bedingten Gehörverlust ist von Mensch zu Mensch verschieden, das Gehör wird jedoch bei jedem in gewissem Maße geschädigt, der über einen bestimmten Zeitraum ausreichend starkem Lärm ausgesetzt ist. Die US-Arbeitsschutzbehörde (Occupational and Health Administration, OSHA) hat die folgenden zulässigen Pegel für Lärmbelastung festgelegt:

Dauer pro Tag in Stunden	Geräuschpegel dBA, langsame Reaktion
<b>8</b>	<b>90</b>
<b>6</b>	<b>92</b>
<b>4</b>	<b>95</b>
<b>3</b>	<b>97</b>
<b>2</b>	<b>100</b>
<b>1 ½</b>	<b>102</b>
<b>1</b>	<b>105</b>
<b>½</b>	<b>110</b>
<b>¼ oder weniger</b>	<b>115</b>


Laut OSHA kann jede Belastung über den obenstehenden zulässigen Grenzwerten zu einem gewissen Gehörverlust führen. Sollte die Belastung die obenstehenden Grenzwerte übersteigen, müssen beim Betrieb dieses Verstärkungssystems Ohrstöpsel oder Schutzvorrichtungen im Gehörgang oder über den Ohren getragen werden, um einen dauerhaften Gehörverlust zu verhindern. Um sich vor einer möglicherweise gefährlichen Belastung durch hohe Schalldruckpegel zu schützen, wird allen Personen empfohlen, die mit Geräten arbeiten, die wie dieses Verstärkungssystem hohe Schalldruckpegel erzeugen können, beim Betrieb dieses Geräts einen Gehörschutz zu tragen.

**BEWAHREN SIE DIESE SICHERHEITSHINWEISE AUF!**

## INSTRUCTIONS IMPORTANTES DE SECURITE

ATTENTION: L'utilisation de tout appareil électrique doit être soumise aux précautions d'usage incluant:



1. Lire ces instructions.
2. Gardez ce manuel pour de futures références.
3. Prêtez attention aux messages de précautions de ce manuel.
4. Suivez ces instructions.
5. N'utilisez pas cette unité proche de plans d'eau.
6. N'utilisez qu'un tissu sec pour le nettoyage de votre unité.
7. N'obstruez pas les systèmes de refroidissement de votre unité et installez votre unité en fonction des instructions de ce manuel.
8. Ne positionnez pas votre unité à proximité de toute source de chaleur.
9. Connectez toujours votre unité sur une alimentation munie de prise de terre utilisant le cordon d'alimentation fourni.
10. Protégez les connecteurs de votre unité et positionnez les cablages pour éviter toutes déconnexions accidentelles.
11. N'utilisez que des fixations approuvées par le fabricant.
12. Lors de l'utilisation sur pied ou poteau de support, assurez dans le cas de déplacement de l'ensemble enceinte/support de prévenir tout basculement intempestif de celui-ci.
13.  Il est conseillé de déconnecter du secteur votre unité en cas d'orage ou de durée prolongée sans utilisation.
14. Seul un technicien agréé par le fabricant est à même de réparer/contrôler votre unité. Celle-ci doit être contrôlée si elle a subi des dommages de manipulation, d'utilisation ou de stockage (humidité,...).
15. Ne déconnectez jamais la prise de terre de votre unité.
16. Si votre unité est destinée à être montée en rack, des supports arrière doivent être utilisés.
17. Note pour les Royaumes-Unis: Si les couleurs de connecteurs du câble d'alimentation ne correspondent pas au guide de la prise secteur, procédez comme suit:
  - a) Le connecteur vert et jaune doit être connecté au terminal noté E, indiquant la prise de terre ou correspondant aux couleurs verte ou verte et jaune du guide.
  - b) Le connecteur Bleu doit être connecté au terminal noté N, correspondant à la couleur noire du guide.
  - c) Le connecteur marron doit être connecté au terminal noté L, correspondant à la couleur rouge du guide.
18. Cet équipement électrique ne doit en aucun cas être en contact avec un quelconque liquide et aucun objet contenant un liquide, vase ou autre ne devrait être posé sur celui-ci.
19. Une exposition à de hauts niveaux sonores peut conduire à des dommages de l'écoute irréversibles. La susceptibilité au bruit varie considérablement d'un individu à l'autre, mais une large majorité de la population expérimentera une perte de l'écoute après une exposition à une forte puissance sonore pour une durée prolongée. L'organisme de la santé américaine (OSHA) a produit le guide ci-dessous en rapport à la perte occasionnée:

Durée par Jour (heures)	Niveau sonore moyen (dBA)
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 ou inférieur	115

D'après les études menées par le OSHA, toute exposition au delà des limites décrites ci-dessus entraînera des pertes de l'écoute chez la plupart des sujets. Le port de système de protection (casque, oreillette de filtrage,...) doit être observé lors de l'opération cette unité ou des dommages irréversibles peuvent être occasionnés. Le port de ces systèmes doit être observé par toutes personnes susceptibles d'être exposées à des conditions au delà des limites décrites ci-dessus.

**GARDEZ CES INSTRUCTIONS!**

## INSTRUCCIONES IMPORTANTES PARA SU SEGURIDAD



**CUIDADO:** Cuando use productos electrónicos, debe tomar precauciones básicas, incluyendo las siguientes:

1. Lea estas instrucciones.
2. Guarde estas instrucciones.
3. Haga caso de todos los consejos.
4. Siga todas las instrucciones.
5. No usar este aparato cerca del agua.
6. Limpiar solamente con una tela seca.
7. No bloquear ninguna de las salidas de ventilación. Instalar de acuerdo a las instrucciones del fabricante.
8. No instalar cerca de ninguna fuente de calor como radiadores, estufas, hornos u otros aparatos (incluyendo amplificadores) que produzcan calor.
9. No retire la patilla protectora del enchufe polarizado o de tipo "a Tierra". Un enchufe polarizado tiene dos puntas, una de ellas más ancha que la otra. Un enchufe de tipo "a Tierra" tiene dos puntas y una tercera "a Tierra". La punta ancha (la tercera) se proporciona para su seguridad. Si el enchufe proporcionado no encaja en su enchufe de red, consulte a un electricista para que reemplaze su enchufe obsoleto.
10. Proteja el cable de alimentación para que no sea pisado o pinchado, particularmente en los enchufes, huecos, y los puntos que salen del aparato.
11. Usar solamente añadidos/accesorios proporcionados por el fabricante.
12. Usar solamente un carro, pie, trípode, o soporte especificado por el fabricante, o vendido junto al aparato. Cuando se use un carro, tenga cuidado al mover el conjunto carro/aparato para evitar que se dañe en un vuelco. No suspenda esta caja de ninguna manera.
13. Desenchufe este aparato durante tormentas o cuando no sea usado durante largos periodos de tiempo.
14. Para cualquier reparación, acuda a personal de servicio cualificado. Se requieren reparaciones cuando el aparato ha sido dañado de alguna manera, como cuando el cable de alimentación o el enchufe se han dañado, algún líquido ha sido derramado o algún objeto ha caído dentro del aparato, el aparato ha sido expuesto a la lluvia o la humedad, no funciona de manera normal, o ha sufrido una caída.
15. Nunca retire la patilla de Tierra. Escríbanos para obtener nuestro folleto gratuito "Shock Hazard and Grounding" ("Peligro de Electrocutación y Toma a Tierra"). Conecte el aparato sólo a una fuente de alimentación del tipo marcado al lado del cable de alimentación.
16. Si este producto va a ser enracado con más equipo, use algún tipo de apoyo trasero.
17. Nota para el Reino Unido solamente: Si los colores de los cables en el enchufe principal de esta unidad no corresponden con los terminales en su enchufe, proceda de la siguiente manera:
  - a) El cable de color verde y azul debe ser conectado al terminal que está marcado con la letra E, el símbolo de Tierra (earth), coloreado en verde o en verde y amarillo.
  - b) El cable coloreado en azul debe ser conectado al terminal que está marcado con la letra N o el color negro.
  - c) El cable coloreado en marrón debe ser conectado al terminal que está marcado con la letra L o el color rojo.
18. Este aparato eléctrico no debe ser sometido a ningún tipo de goteo o salpicadura y se debe tener cuidado para no poner objetos que contengan líquidos, como vasos, sobre el aparato.
19. La exposición a altos niveles de ruido puede causar una pérdida permanente en la audición. La susceptibilidad a la pérdida de audición provocada por el ruido varía según la persona, pero casi todo el mundo perderá algo de audición si se expone a un nivel de ruido suficientemente intenso durante un tiempo determinado. El Departamento para la Salud y para la Seguridad del Gobierno de los Estados Unidos (OSHA) ha especificado las siguientes exposiciones al ruido permisibles:

### Duración por Día en Horas Nivel de Sonido dBA, Respuesta Lenta

8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ o menos	115

De acuerdo al OSHA, cualquier exposición que exceda los límites arriba indicados puede producir algún tipo de pérdida en la audición. Protectores para los canales auditivos o tapones para los oídos deben ser usados cuando se opere con este sistema de sonido para prevenir una pérdida permanente en la audición, si la exposición excede los límites indicados más arriba. Para protegerse de una exposición a altos niveles de sonido potencialmente peligrosa, se recomienda que todas las personas expuestas a equipamiento capaz de producir altos niveles de presión sonora, tales como este sistema de amplificación, se encuentren protegidas por protectores auditivos mientras esta unidad esté operando.

**GUARDE ESTAS INSTRUCCIONES!**



## **Feedback Ferret® D precision stereo digital dynamic anti-feedback filter array**

Find it and eliminate it. The Feedback Ferret D solves your feedback problems automatically. With the Feedback Ferret D Dual Channel Digital Anti-Feedback System on the job, feedback can be eliminated in stereo, or eliminated independently in either channel when configured as a dual mono processor. The Feedback Ferret D features precise digital filters, fast feedback analysis and an audio friendly approach to feedback elimination.

The Feedback Ferret D applies 16 stereo digital dynamic filters (or 32 filters in dual mono mode) at a resolution of 24-bits, automatically controlling feedback without sacrificing volume or tone. The Feedback Ferret D, armed with sophisticated algorithms, distinguishes between music and feedback, seeking and destroying the feedback, leaving your music alone. Although there is no substitute for a good soundperson, the Feedback Ferret D can greatly improve your sound application.

Please read this guide carefully to ensure your personal safety as well as the safety of your equipment.

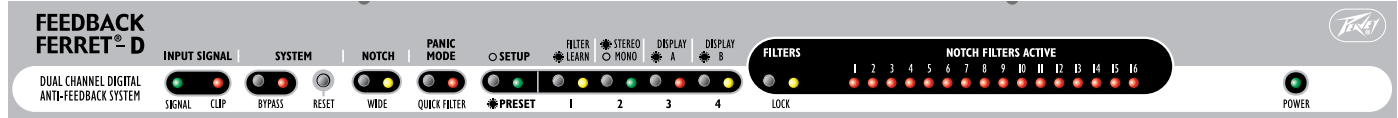
### **FEATURES:**

- Sophisticated seek and destroy algorithms that find, lock in and reduce offending frequencies
- 24-bit converters and a sample rate of 48 kHz
- 16 stereo, dynamically controlled digital notch filters (or 32 filters in dual mono mode) configured for 1/12 octave performance give the Feedback Ferret D more feedback control than any other unit on the market
- Four preset locations allow you to store settings for your most common performance venues
- Disable button located on rear panel allows you to quickly disable the front panel once your settings are made
- +4 or -10 dB switches on each in/out
- Wide/Narrow button changes the width of filters
- Reset button resets some or all of the filters

### **QUICK SETUP**

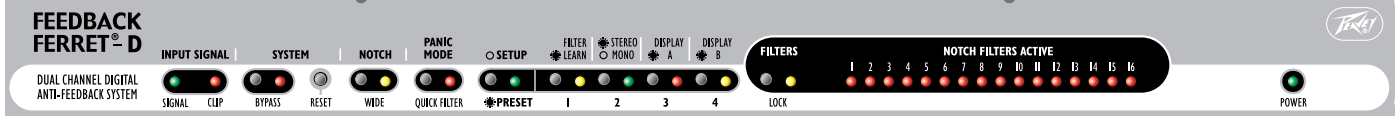
1. Turn off power to all units in your signal path.
2. Insert the Feedback Ferret D into your signal path between the mixer and power amp. Make sure your speakers are connected. Connect the mixer's main output and/or monitor output (depending on your application) to the Feedback Ferret D's input. Connect one of the Feedback Ferret D's outputs to the power amp input. Connect all microphones.
3. Power up all units with the master volume completely down. (Remember: You should turn your power amp on last and off first.) Make sure the Feedback Ferret D is set to Fixed Filter Learn (LED ON). (Remember: you want a fairly quiet room with the microphone levels up and no signal going through the system.)
4. Slowly bring up the master volume. The Feedback Ferret D starts to work as feedback occurs, beginning with filter 1. The filter LEDs will blink as the filters are needed, letting you know that a feedback frequency has been found and the filter defined. Expect some LEDs to light solidly as filters lock down on a problem! Increases the volume only as much as needed.
5. Once the feedback is eliminated and filters are set, depress the Normal button on the front panel of the Feedback Ferret D and return the mixer gain to a normal level. That's it! Your Feedback Ferret D is working for you.

**FOR BEST RESULTS, PLEASE READ THE ENTIRE OPERATING GUIDE.**



- 1 **Input Signal**  
The SIG LED illuminates when a signal is present (40 dB down from full scale). The CLIP LED lights when the signal is 1/2 dB down from clipping.
- 2 **Bypass**  
To bypass the Feedback Ferret D, press and hold the reset button until the LED stops blinking and has constant illumination. This bypasses all feedback filters. USE CAUTION WHEN BYPASSING THE Feedback Ferret D. Feedback could occur again ---- Very Loudly!
- 3 **Reset**  
The Reset button has two stages. By pressing and holding the reset button, all filter LEDs will begin to flash. Filters 9–16 (dynamic) will clear first, as indicated by their non-lit LEDs. Releasing the button at this point will leave the static filters (1–8) in their current state. Continuing to hold the reset button will clear the remaining filters 1–8 (static).
- 4 **Notch Wide**  
Engaging the Wide button increases the range of frequencies each filter affects. The LED illuminates when Wide is activated. (Note: Feedback often occurs around a range of pitches or frequencies, not necessarily at a single pitch. By engaging this button, the Feedback Ferret D widens the effective range of each filter and subsequently uses fewer filters to accomplish the same result.)
- 5 **Panic Mode (Quick Filter)**  
Panic filters are a special class of filters designed to quickly control sudden, extreme feedback. Panic is automatically engaged in Normal operating mode. The LED illuminates when Panic is activated.
- 6 **Setup/Preset**  
This switch toggles the next bank of buttons between SETUP mode and PRESET mode.
- 7 **Preset Mode (LED on)**  
The four buttons labeled 1-4 are used to store and recall Feedback Ferret D settings. To store, press and hold the desired preset button until the LED stops blinking. To recall a stored preset, press the corresponding preset button.  
**Note:** using the power up recall switch on the rear panel, the Feedback Ferret D can be set to recall preset 1 automatically each time the power is turned on.
- 8 **Setup Mode (LED off)**  
In this mode the four function buttons each take on a separate function as indicated on the front panel.
- 9 **Normal/Filter Learn**  
FILTER LEARN mode is used to preempt feedback by setting fixed filters before the performance starts. Pressing the button will turn the LED on to indicate you are no longer in NORMAL operation mode. To take advantage of this mode, see “Operating Instructions” later in the manual.





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## Stereo/Mono

This button and LED combination is used to select Stereo or Dual Mono as the Feedback Ferret D's operating mode. This feature adds great flexibility. In stereo mode, the Feedback Ferret D reacts to feedback in both the left and right channels by configuring stereo filters. In dual mono mode, each channel of the Feedback Ferret D acts independently to seek out and eliminate feedback. In dual mono mode the left and right channel selector buttons are used to switch the display and function buttons between channels.

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## Mono View Left and Mono View Right

These buttons are used to switch the front panel buttons and display between channels in the dual mono mode. The LED for the selected channel will be lit.

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## Lock

Stops the Feedback Ferret D from setting any new filters but keeps the filters already defined in place.

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## Filters

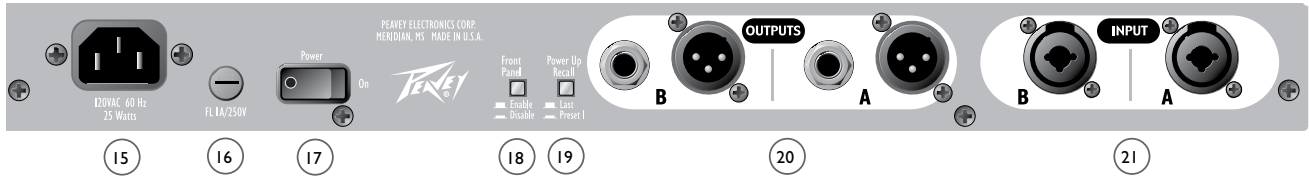
There are two sets of filters on the Feedback Ferret D. Filters 1–8 are static and always set before the dynamic filters. Once these static filters are defined, they lock and maintain their status until they are reset. The dynamic filters (9–16) are those filters that change as input changes (i.e., volume changes, etc.).

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## Power (On)

This LED illuminates when AC power is supplied and the power switch is on.

## Rear Panel



### 15 AC Power

This is a standard IEC power connector. A mains cord with the appropriate AC plug and ratings for the intended operating voltage is included. The mains cord should be connected to the unit before plugging into a suitable AC outlet.



### 16 Fuse

Domestic: 1 Amp Slow-Blow  
Export: 500 mA Time Delay

### 17 Power Switch

This switch supplies AC mains power to the internal power supply. When the unit is functioning, the Power LED on the front panel will illuminate.

### 18 Front Panel Disable Switch

When the Disable switch is engaged, all buttons on the front of the unit are disabled. Use this switch to prevent accidental changes to your settings once you've set up your system.

### 19 Power-Up Recall

This button determines, upon powering up, whether the unit recalls the last settings used or preset 1.

### 20 Outputs

1/4" TRS balanced audio outputs  
[tip = positive; ring = negative; sleeve = ground]  
XLR balanced audio outputs  
[pin 1 = ground; pin 2 = positive; pin 3 = negative]  
unbalanced  
[tip = positive; sleeve = ground]

### 21 Inputs

XLR and 1/4" combo jack, 1/4" TRS balanced audio inputs  
[tip = positive; ring = negative; sleeve = ground]  
XLR balanced audio inputs  
[pin 1 = ground; pin 2 = positive; pin 3 = negative]  
unbalanced  
[tip = positive; sleeve = ground]

## Feedback Ferret® D Specifications

**Input Impedance:**

40 k ohm

**Output Impedance:**

120 k ohm

**Dynamic Range:**

103 dBr @ 1 kHz ref to  
+18 dBu Output  
22 Hz to 22 kHz unweighted

**Total Harmonic Distortion:**

0.005% @ 1 kHz typical

**Input Sensitivity:**

+4 dBu nominal,  
+18 dBu full scale

**Output Drive:**

+4 dBu nominal  
+18 dBu full scale

**Dimensions:**

Width: 19.000" (48.26cm)  
Depth: 8.000" (20.32cm)  
Height: 1.750" (4.45 cm)  
Weight: 7.1 lbs (3.95 kg)

**Power:**

Domestic:120VAC; 60 Hz; 25 Watts  
Export:230 VAC; 50/60 Hz; 25 Watts

**Bypass:**

True power-off bypass

**Mounting:**

One EIA rack space

**Connections:**

Balanced combo female  
XLR/female 1/4" TRS for input  
Separate balanced male XLR and  
female 1/4" TRS for output

**Sample Rate:**

48 kHz

**Converters:**

24 bit

**Frequency Response:**

+/- 0.5 dB  
(20 Hz to 20 kHz, ref. 1 kHz)

**Input Level:**

+4 dBu

**Output Level:**

+4 dBu

**Gain:**

Unity balanced  
-6 dB unbalanced

**Other Back Panel Controls:**

Front panel disable  
Power-up recall select

Features and specifications subject to change without notice.

### **Where To Put Your Feedback Ferret® D**

The Feedback Ferret D can be used in a variety of locations within a sound system. Place a Feedback Ferret D at the input insert of every microphone, or process multiple microphones together by placing a single Feedback Ferret D on the output of a vocal subgroup. One of the most common uses is to install the Feedback Ferret D between the power amp's input and the mixer's output (the main output or the monitor output, depending on your needs). You can also place the Feedback Ferret D on a single channel's insert to eliminate feedback from a single microphone or instrument. Once the Feedback Ferret D has determined the problem frequencies for a particular setup, you can save that group of filter settings to one of the four preset buttons for instant recall.

### **How Does It Work?**

The Feedback Ferret D's dual sets of 16 digital notch filters employ sophisticated algorithms to seek and destroy feedback without destroying your tone. There are two sets of filters on the Feedback Ferret D, static and dynamic. Filters 1–8 are static and always set before the dynamic filters (9–16). Once these static filters are set, they lock and maintain their status until the user either resets them or selects a preset. The dynamic filters (9–16) are those that change as your needs change. Any filter (static or dynamic) that is set but not locked in (as indicated by blinking filter LED) will slowly return to flat (0 dB) and be available for use.

The Feedback Ferret D applies a filter when it locates an offending frequency (feedback), starting with filter 1. This filter is centered at the feedback frequency and uses only as much attenuation as needed to remove the feedback. If feedback continues, the filter depth is progressively increased until the feedback is gone. If the feedback is momentary, such as a short squeal, the Feedback Ferret D applies a filter but slowly releases it in .10 dB steps until it is returned to flat (0 dB). If the same frequency causes feedback again, the same filter will be reapplied. This process continues as additional filters are engaged until all feedback is gone. Monitoring continues as the Feedback Ferret D attempts to release each active unlocked filter .10 dB at a time. Once a filter reaches 0 dB, the Feedback Ferret D returns the filter to the available queue.

### Setup (Filter Learn)

For best results, complete the Filter Learn in a relatively quiet room. This allows the Feedback Ferret D to find primary acoustic feedback frequencies. Every room and setup has problem frequencies. This makes each room different and creates different feedback problems. It is important to understand that while in Filter Learn mode, the Feedback Ferret D does not distinguish between feedback and music. If you play music through the system while in Filter Learn mode, the Feedback Ferret D will try to eliminate it.

#### Step One

These instructions assume you have connected the Feedback Ferret D from the mixer outputs and not from a single channel insert. Make sure that the Normal/Filter Learn LED is lit (this engages Filter Learn Mode) and that your microphone levels are set. Slowly bring up the master level. You should see the filters seek and lock as feedback starts to occur. The Feedback Ferret D will begin with filter 1 and progress from left to right automatically. You will notice that each filter will first blink and then light solidly as each frequency is locked down. This is accomplished with the minimum amount of attenuation.

#### Step Two

Continue bringing the master level up until you've reached the required volume level. As you start to hear feedback, stop adjusting the levels momentarily to allow the Feedback Ferret D to complete its filter adjustment. Normally, you should hear the onset of feedback before the Feedback Ferret D takes control. In most applications, this should give you plenty of gain and still leave additional filters open for later use. If all or most of the filter LEDs are lit up, bring the master level back down, reset the filters and start over. But this time, push the Wide button on the front panel. This allows each filter to work on a wider range of frequencies, thereby freeing up additional filters for other uses. A typical room should only set one to six filters during this soundcheck setup. (Note: If all or most of the filter LEDs light up, this probably indicates a bad room, bad system setup or too much volume!)

#### Step Three

Finally, switch the unit to Normal (Filter Learn Off) mode. This automatically engages the Panic button. Your system should now be performance-ready! At this point, it is advisable to engage the Front Panel Disable Switch in order to minimize accidental changes. Once you are content with your settings, press and hold one of the preset buttons (1-4) to save your filter settings.

**Note:** The Feedback Ferret D is not a replacement for a good soundperson. Good sound system performance starts with good microphone and speaker placement.



## FCC Compliancy Statement

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, that may cause undesired operation.

**Warning:** Changes or modifications to the equipment not approved by Peavey Electronics Corp. can void the user's authority to use the equipment.

**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 and 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 equipment 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.





# PEAVEY ELECTRONICS CORPORATION LIMITED WARRANTY

EFFECTIVE DATE: JULY 1, 1998

## What This Warranty Covers

Your Peavey Warranty covers defects in material and workmanship in Peavey products purchased and serviced in the U.S.A. and Canada.

## What This Warranty Does Not Cover

The Warranty does not cover: (1) damage caused by accident, misuse, abuse, improper installation or operation, rental, product modification or neglect; (2) damage occurring during shipment; (3) damage caused by repair or service performed by persons not authorized by Peavey; (4) products on which the serial number has been altered, defaced or removed; (5) products not purchased from an Authorized Peavey Dealer.

## Who This Warranty Protects

This Warranty protects only the original retail purchaser of the product.

## How Long This Warranty Lasts

The Warranty begins on the date of purchase by the original retail purchaser. The duration of the Warranty is as follows:

Product Category	Duration
<b>Guitars/Basses, Amplifiers, Pre-Amplifiers, Mixers, Electronic Crossovers and Equalizers</b>	<b>2 years (+ 3 years)*</b>
<b>Drums</b>	<b>2 years (+ 1 year)*</b>
<b>Enclosures</b>	<b>3 years (+ 2 years)*</b>
<b>Digital Effect Devices and Keyboard and MIDI Controllers</b>	<b>1 year (+ 1 year)*</b>
<b>Microphones</b>	<b>2 years</b>
<b>Speaker Components (incl. speakers, baskets, drivers, diaphragm replacement kits and passive crossovers) and all Accessories</b>	<b>1 year</b>
<b>Tubes and Meters</b>	<b>90 days</b>

**[\*Denotes additional warranty period applicable if optional Warranty Registration Card is completed and returned to Peavey by original retail purchaser within 90 days of purchase.]**

## What Peavey Will Do

We will repair or replace (at Peavey's discretion) products covered by warranty at no charge for labor or materials. If the product or component must be shipped to Peavey for warranty service, the consumer must pay initial shipping charges. If the repairs are covered by warranty, Peavey will pay the return shipping charges.

## How To Get Warranty Service

- (1) Take the defective item and your sales receipt or other proof of date of purchase to your Authorized Peavey Dealer or Authorized Peavey Service Center.
- OR**
- (2) Ship the defective item, prepaid, to Peavey Electronics Corporation, International Service Center, 412 Highway 11 & 80 East, Meridian, MS 39301 or Peavey Canada Ltd., 95 Shields Court, Markham, Ontario, Canada L3R 9T5. Include a detailed description of the problem, together with a copy of your sales receipt or other proof of date of purchase as evidence of warranty coverage. Also provide a complete return address.

## Limitation of Implied Warranties

ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

**Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.**

## Exclusions of Damages

PEAVEY'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT PEAVEY'S OPTION. IF WE ELECT TO REPLACE THE PRODUCT, THE REPLACEMENT MAY BE A RECONDITIONED UNIT. PEAVEY SHALL NOT BE LIABLE FOR DAMAGES BASED ON INCONVENIENCE, LOSS OF USE, LOST PROFITS, LOST SAVINGS, DAMAGE TO ANY OTHER EQUIPMENT OR OTHER ITEMS AT THE SITE OF USE, OR ANY OTHER DAMAGES WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

**Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.**

**This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.**

If you have any questions about this warranty or service received or if you need assistance in locating an Authorized Service Center, please contact the Peavey International Service Center at (601) 483-5365 / Peavey Canada Ltd. at (905) 475-2578.

FEATURES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



Logo referenced in Directive 2002/96/EC Annex IV (OJ(L)37/38, 13.02.03 and defined in EN 50419: 2005  
The bar is the symbol for marking of new waste and is applied only to equipment manufactured after 13 August 2005



Features and specifications subject to change without notice.

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