



# **MIXING** CONSOLES

DIGITAL AND ANALOG MIXERS

# RCF Sound Culture

Since 1949, RCF has been developing components such as drivers and woofers used by some of the world's most prestigious loudspeaker manufacturers. For more than 30 years, RCF has produced its own speakers, that have become a standard reference in sound reinforcement applications at all professional levels, from one-man bands to major rock concerts. RCF also has a major presence in thousands of civil and industrial installations such as stadia, railways, airports and theme parks worldwide.

This constant presence in the world of speakers has led RCF on to new challenges in their quest to complete its product range, and RCF mixer product lines have been created, featuring compact and high performance analog and digital audio mixing desks with enhanced flexibility. The elegant and modern design contributes to the appeal of these indispensable tools in any live audio application from the performance of a rock band or a jazz group, to supporting small festivals or corporate events, conference rooms or media centers rather than museums or libraries.



## / DSP AND Z.CORE DSP FX

M series digital mixing consoles are based on floating-point DSP (digital signal processors), running at a sample rate of 48 kHz, ensuring maximum audio quality and low noise floor. The internal audio effects are based on this choice, and have been repackaged as the Z.CORE DSP FX and fitted into the E series analog mixers as well.

## / AMP EMULATION

High-quality amplifier and cabinet emulations, licensed from Overloud™, suitable for guitar and bass, have been implemented into the M 18 digital mixer, with the goal to provide a complete, self-contained package for the performing musician.

Specific key features have been addressed on all product lines: excellent audio quality, attention to ease of use, and compact form factors.

Special care of overall audio quality has been a key point for both analog and digital mixers, to match the sound offered on active amplification systems. Microphone preamps have been designed to provide a clear and smooth sound, and these features have been ported across product families. Furthermore, the detailed and high-quality reverb algorithms available in the M series digital mixing consoles have been repackaged as the Z.CORE DSP FX and adapted into the E series analog mixers, providing a powerful and useful sonic tool for the sound engineer.

Within each product concept, ease of use has been a priority: on digital products, every function is reachable in a few passages, to minimize sub-menu navigation. On analog mixers, controls are clearly laid out, and operations are simple and intuitive. The remote control app that connects via WIFI to the M series digital mixers has been designed to allow an intuitive navigation across all functions, and has been optimized for both 10-inch and 8-inch tablets.

All products have been packed with features in the most compact form factor possible, as RCF believes today's demands include ease of transport and convenient footprint. The M series, in particular, has been designed with extensive signal processing features and minimal form factor, so that they can be suitable for any context.



### / SMOOTH SOUNDING PREAMPS

A novel preamp design has been included in all analog and digital mixers, for optimal audio results. In the digital mixers, all analog preamps are remotely controlled.

### / HIGH AUDIO QUALITY

All mixers have been designed to offer the highest audio quality, an essential requirement for modern audio applications.

# M20

## DESKTOP DIGITAL MIXER

### M 20X

#### DESKTOP DIGITAL MIXER

M 20X offer all-in-one mixing, processing and routing capabilities, including a comprehensive set of recording and playback functions. The User Interface has been designed so that every parameter is reachable within a few operations. It is equipped with 20 analog inputs (16 of which are with remote controlled preamps) and 14 output channels, between the balanced analog outputs and the AES/EBU digital output.

- 16 preamp inputs (8 Mic + 8 Mic/Line)
- 4 auxiliary line inputs
- 12 balanced outputs + phones
- AES3 digital output
- 20-Tracks SD card Rec/Play
- Stereo USB drive Play/Rec (WAV, MP3, AIFF)
- 24 x 24 USB Audio Interface (24-bit/48kHz)
- 28 x 16 Mixing matrix
- LAN / WiFi control, up to 10 clients

#### / USER KEYS

A set of 8 User Keys with extensive programming options are always available, and offers immediate control of scene selection, play/record transport, tap tempo, user interface shortcuts.

#### / FADER LAYERS AND FADER VIEW

4 layers of faders assignments allow immediate access to input channels 1-10 and 11-20, to FX returns and outputs. The FADER VIEW button shows all fader details on a single screen view.

#### / MOTORIZED FADERS

11 x 100-mm motorized faders allow precise mix control with immediate visual feedback. Special care has been taken to minimize movement noise.



“ a full-featured and compact digital mixer ”



**/ CAPACITIVE TOUCH SCREEN**

A highly responsive 5-inch TFT touchscreen offers intuitive navigation of all the available features, and can be optionally paired with an external tablet to augment interaction with the M 20X.

**/ USB HOST PORTS**

Two USB host ports on the top panel are available for WiFi dongles, USB-MIDI devices, and USB mass storage devices that can be used for stereo audio record/playback, system backups and firmware updates.

**/ SD CARD MULTITRACK SECTION**

An integrated SD card multitrack engine offers a maximum of 20 simultaneous tracks at 24-bit, 48 kHz, with extensive routing options.

**/ 14 BUSES**

The control surface can be assigned to 4 effect busses, 8 MIX busses and the stereo MAIN mix buss; the MASTER fader is always associated to the output level of the selected buss.



# M20

## DESKTOP DIGITAL MIXER

### ENHANCED Z-CORE FX ENGINES

All M 20 models boast 4 stereo FX engines available on dedicated busses, offering two high quality digital reverbs, a programmable delay and a 4th effect which can be configured as a modulation or a second delay. All FX Engines offer multiple algorithms to match the specific needs of a show.

### ALGORITHM LIST

#### REVERB

Hall: Large Bright/Warm, Medium Bright/Warm  
 Plate: Vintage, Modern  
 Room: Medium Bright/Warm, Small Bright/Warm  
 Ambience: 2 models

#### DELAY

Stereo, Modern, Vintage, Dual

#### MODULATION

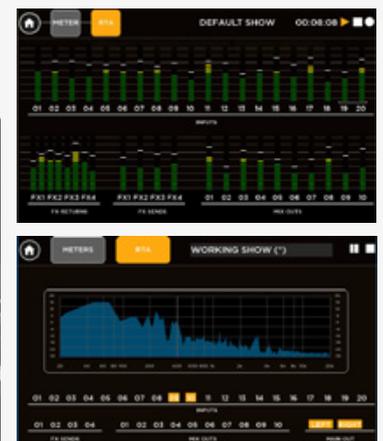
Chorus, Flanger, Tremolo



### INTUITIVE USER INTERFACE

A fast reacting 5-inch capacitive touchscreen, 5 dedicated encoders and 4 menu keys allow an intuitive and immediate control of every function and parameter. You have full control of your live mix, all within one of the most compact systems on the market. A dedicated VIEW button, that shows all inputs and outputs at once, including assigned names, allows an immediate jump to the desired channel strip section. All audio paths

can be monitored at any time via the CUE bus, which features a real-time analyzer (RTA) and headphone output. A bank of User Keys is always available, and several functions can be assigned to each of the buttons. The User Key functions can also be driven remotely via MIDI (through the MIDI-USB interface).





## M 20X REAR PANEL



On the M 20X rear panel, 8 Mic inputs equipped with XLR connector and 8 Mic/Line inputs with COMBO connectors are available, with two additional TRS jacks line inputs. The MIX output section includes 8 male XLR and 2 TRS jacks on which all the internal audio output paths can be routed. A pair of male XLR, preassigned to the Main Mix output, and an assignable

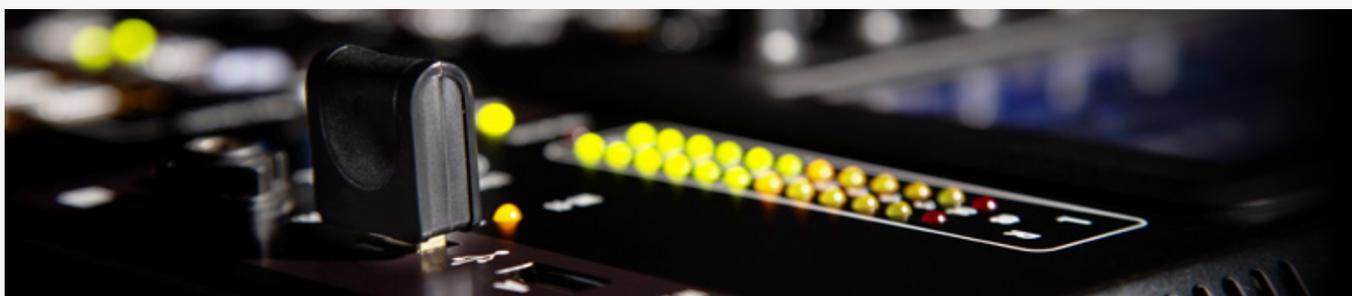
AES/EBU output complete the set of output connectors. A USB device port allows the connection of a dedicated computer for multitrack recording and playback, and a LAN port is present for the connection of an external Wi-Fi access point and other communication applications.

## MWD 1

### USB WI-FI DONGLE FOR M 20X DIGITAL MIXER

The MWD 1 Wireless USB Adapter is a WiFi peripheral for use with the M20X digital audio mixer. It allows the user to remotely control the M20X, via the M20 MixRemote app, without the need to connect an external WiFi router or access point via LAN.

- Standards: IEEE 802.11 b/g/n
- Port type: USB2.0
- Frequency range: 2.4GHz



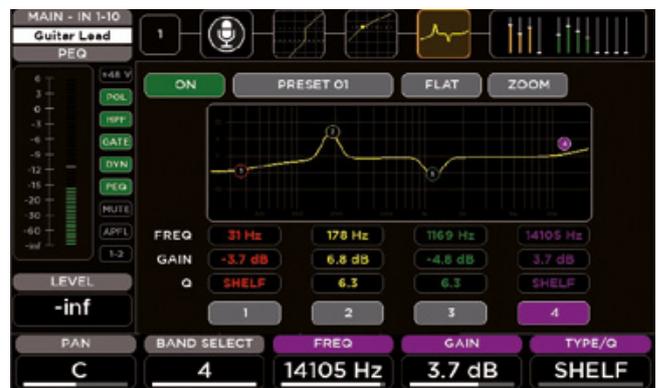
# M20

## DESKTOP DIGITAL MIXER

### INPUT PROCESSING

Each of the 20 inputs features a 12 dB/oct HPF, noise gate, a compressor/de-esser (inputs 1-16 only), a flexible 4-band parametric EQ, and a delay line; the source can be selected between the analog input, the USB audio interface, the SD card player, into different insertion points for maximum flexibility.

A SEND VIEW page allows immediate verification, for the specified input channel, of send levels on all busses, including on/off and pre/post information.



4-Band Parametric Equalizer



Compressor/De-Esser



Sends Overview

### RECORD AND PLAYBACK OPTIONS

All M 20 models offer several ways of recording and playing back pre-recorded material:

#### Internal SD multitrack record/playback

All 20 inputs can be recorded in multitrack WAV format on the local SD card, and later reproduced with individual selection on each channel.

#### Multichannel USB Audio Interface

A 24-track, 24-bit, 48-kHz audio interface is available and allows access to all inputs and several internal signal nodes. Extensive routing options allow both offline soundcheck and host-based effects processing.

#### USB drive stereo player/recorder

A flexible stereo file player can access USB mass storage devices (up to 4 different drives), with arbitrary sample rate, in MP3, WAV and AIFF formats.





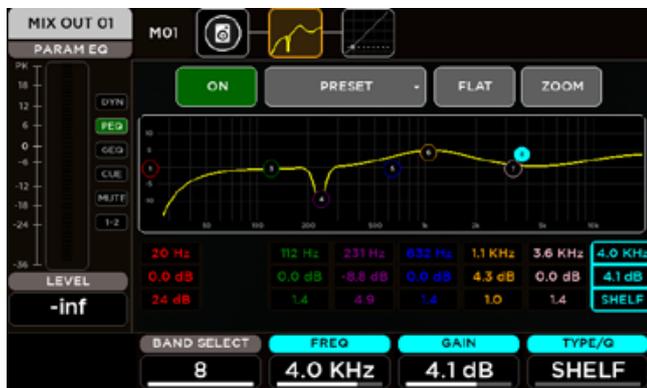
## OUTPUT PROCESSING

A complete processing section is available on all outputs: a flexible 8-band parametric EQ with several selectable modes, that also allow different slopes, a delay with up to 85 meters compensation, a compressor/limiter.

A stereo 30-band graphic equalizer is available on the MAIN outputs for precise correction of the overall frequency response. Extensive routing options allows flexible use of physical outputs.



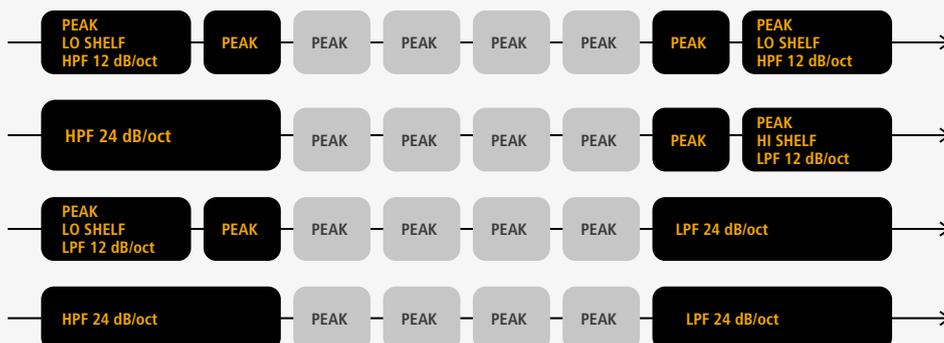
Graphic Equalizer



8-Band Parametric Equalizer



Compressor/Limiter



### PEQ8 OPERATING MODES

On all outputs, the 8-band parametric equalizer can be configured in various operating modes: the first two and last two bands have selectable filter types, and they can be combined into a single, 24-dB/oct HPF or LPF. This also allows for crossover filtering, useful in combination with the extensive routing capabilities, when a subwoofer is connected to one of the MIX outputs.

# M20

## DESKTOP DIGITAL MIXER



### M20 MIXREMOTE CONTROL APP

Complete remote control of all M 20 models is available with **M20 MixRemote**, a dedicated App developed for both iOS and Android. There are several options to connect with the Digital Mixer:

- **Wireless**, via an external WiFi Access Point connected to the LAN
- **USB tethering** to an Android tablet;
- **Wired** to an iOS or Android tablet (via LAN adapter);
- **WiFi Dongle**, 2 clients maximum.





Access permissions ensure that critical parameters are edited only by selected users.

It is also possible to augment the existing control surface by enabling the ATTACH mode and correlating the navigation on M20 MixRemote to physical control interactions: when pressing a SEL button on the mixer, the app jumps directly to the related Channel View page; in this way, a tablet can be used to quickly edit channel parameters, minimizing navigation on the onboard screen.

This mode allows operation in dual screen mode, augmenting the control options. The app can be detached at any time, so that it becomes a separate edit surface when moving away from the mixer itself.

A separate app, optimized for iOS and Android smartphones, is also available for controlling monitor mixes (MyRemote).



## M20 MYREMOTE APP

M20 MyRemote is a personal monitor mixing app for the RCF M 20 mixer giving you control of your own monitor mix on stage. Connect your smartphone or tablet to the same wireless network used by the RCF M 20 console.



M20 MyRemote lets you:

- SeleSelect the monitor mix (MIX1 to MIX8); if the MIX buss is linked in stereo, the stereo pair will be selected
- View channels numbers, names and mix master meter
- Control the mix master level
- Control the mix send levels

M20 MyRemote is designed to fit on the screen of a smartphone and is developed for both iOS and Android devices.

Easy to configure and to use, the RCF M20 MyRemote app will allow every performer to take control of their own mix.



# M18

## SMALL DIGITAL MIXER

### M 18

#### SMALL-FORMAT WIFI-CONTROLLED DIGITAL MIXER

M 18 Mixer represents a fully integrated solution for musicians. Maximum flexibility and comfort are granted by internal power supply, integrated Wi-Fi access point: the only thing musicians need to carry are their instruments. Avoid transporting heavy and bulky cabinets, thanks to the internal amp modeling simulators, expressly conceived for guitarists and bass players.



#### MIXREMOTE APP

The MixRemote app ensures a comprehensive control of M Series mixer: all the processing you need, on your tablet computer. Featuring attractive and intuitive graphics created by audio professionals, the app allows you to navigate between pages and fully control the mixer's parameters even while playing. The MixRemote app is available for iOS and Android operating systems.

#### ENHANCED Z-CORE FX ENGINES

Four busses are dedicated to internal FX engines, arranged as two high-quality digital reverbs, a programmable delay and a 4th FX which can be configured as a delay or a modulation. All FX engines offer multiple algorithms to match the specific needs of a show. It is possible to reserve one reverberator for some inputs and use the second reverb as a general-purpose FX for other sources.

#### INTEGRATED DUAL BAND Wi-Fi

M Series Digital Mixers are equipped with an internal Wi-Fi double antenna supporting dual band connection (2,4 GHz and 5 GHz). If the M Mixer is rack installed or used in a demanding environment, an improvement of Wi-Fi connection is possible thanks to the provided external antenna.

#### SMALL-FORMAT WIFI-CONTROLLED DIGITAL MIXER



#### INTERNAL AUDIO PLAYER/RECORDER

The built-in stereo file player and recorder can reproduce also 4-track files. This option allows for the usage of full stereo backing tracks along with an additional click track. The multitrack files can be stored on a USB drive as other stereo audio files. For both the additional audio channels, a configuration option of MixRemote App. allows selecting between the analog input source and the 4-track player source. The required file format for a 4-track playback is a multitrack WAV file, whereas the internal Recorder creates stereo WAV files.

#### EFFECT SENDS - PREMIUM REVERBS

M 18 provides three studio-grade internal effects. FX1 is a particularly deep and transparent reverb, providing a realistic simulation of large ambients, such as halls, or rooms and plates. FX2 is a professional delay with a tap time up to 2500 ms and dedicated filters on the feedback signal, thus creating interesting sounds and complex tapping effects. FX3 is an assignable multi-effect with several choices: chorus, flanger, pitch shifter, among the others.



“ complete processing in your hands ”

### MULTIFX EFFECTS CHAIN

The Multi Effects Chain is a powerful feature that allows insert of a freely ordered chain of 5 effects (into channels 9 and 10) or 3 effects (into channels 5 and 6 or, alternatively, 7 and 8). Available effects are Delay, Chorus/Flanger, Pitch Shifter, Overdrive, Ring Modulator, Auto Wha, Octaver and Amp Emulation, with a powerful preset of 15 choices, including super realistic guitar and bass amp simulations.



### TWO REALISTIC AMP MODELLING CHANNELS

Designed for musicians. Two line inputs can be switched to a Hi-Z mode and host several realistic amp modeling simulators. Guitar and bass players can count on as many as 11 simulators specifically created for them: Darkface '65 (US), JazzC (JP), Rock '64 (UK), Rock 800 (UK) Crunch, Rock 900 (UK) Lead, Top30 (UK), Modern (US), BassMate (US), BassAmp (DE), Markbass Little Mark III (IT), Markbass TTE 500 (IT). The new firmware version adds a further four Amp Simulators: Slo88 Crunch (US), Slo 88 Lead (US), Overrange 120 (UK) and Heavy 51 (US). It is also possible to substitute one of the Amp Simulators with a versatile Acoustic Simulator. Combine each amp with many different cabinets and explore various sound possibilities, emulating three types of microphone and three distinct positions: Near on axis, Near off axis, and Far from cabinet (1 m). The wide range of integrated sound options will allow every musician to re-create his own personal familiar sound without the need to transport heavy and bulky amplifiers and cabinets.

### THREE PROFESSIONAL EQ CHOICES

All the input channels feature a four band parametric EQ, offering three intervention methods enabling different sound timbres. A standard parametric EQ is present on all AUX output channels. You can select among STANDARD, VINTAGE and SMOOTH algorithms, each with two different control modes: either ADVANCED, providing full control on the whole range of parameters, or EASY, with simplified but still musically effective interaction.



### / HI-END REMOTED MIC PREAMP

Eight input channels on M 18 are provided with hi-end discrete MIC preamps. Their 60dB gain range is digitally controlled by the MixRemote app. Two line inputs can be switched to a Hi-Z mode, particularly effective for acoustic and electric guitars and basses.

### OUTPUT CHANNELS PROCESSING

The six auxiliary sends of the M 18 are provided with a four-band parametric equalizer on their signal path. Furthermore the master out channel can benefit from stereo Graphic EQ, Valve Warmer, Xciter and Maximizer plug-ins in order to better process your final mix.



# F MIXING CONSOLES

## ANALOG MIXING CONSOLES WITH SUPERIOR EFFECTS AND EQS

RCF E Series is a line of analog mixing consoles with enhanced effects and EQs, offering a rich combination of professional features.

From the combination of the classic design with a fresh look&feel derives the appeal of these audio mixers. The E Series includes some indispensable tools for transforming the sound during live performances of bands of any size, or at bars, clubs and professional installations.

All models are distinguished by uncompromising audio quality, thanks to Mic preamps designed by historical gurus of audio electronics, a re-designed "single-control" dynamic compressor and semi-parametric 4-bands EQs with a superior degree of control for this class of compact mixers.

### HIGH-GRADE PREAMPLIFIERS

Purpose-designed high-grade preamplifiers, based on modern solutions and accurately selected components, offer high dynamics and exceptional sound clarity. Re-designed single-control dynamic compressors on mic input channels adjust the dynamic behavior of any instrument and voice. Two onboard Hi-Z inputs solve the need for the D.I. Boxes.



### CONSTRUCTION

The best overall quality on the market: touring grade metal construction with plastic protections on the sides make it easy to grab the mixers and move them swiftly without difficulty. High contrast graphics and knobs, premium quality connections and 100 mm low maintenance faders with dust cover, as well as digital stereo driverless class-compliant USB IN/OUT, USB powered port for personal devices or USB lamp. The multi-voltage power supply makes it perfect for worldwide touring use.



E 24 Analog Mixing Console

*“professional analog mixing”*

## Z.CORE DSP FX

The E Series internal effects section is powered by an impressive floating-point DSP featuring high-quality digital effects for the best results. The DSP unit offers 80 predefined presets: 40 reverbs, 20 delays and 20 modulation effects. The reverbs are available with a choice of 4 different algorithms (Hall, Plate, Room, Ambience). For each of these presets, two responsive parameters can be freely modified to suit the needs of the mix. In addition, a bank of 20 user presets is available and easily accessible through a shortcut. Any preset can be stored in 20 locations with the desired name and the two parameters tweaked to any chosen value.

Therefore, the user can save his preferred effects, each with its own settings, and keep them conveniently stored in sequence for immediate recall without having to navigate through the whole preset list. The FX section at power-on recalls the last preset being saved or loaded, so that your mixing desk is always ready for use, immediately after turning it on. A footswitch can be connected on the rear panel, and it can be used to mute the effects' output lines.



### / DUAL PARAMETERS

Press the parameter button and turn the knob to adjust the effect.



### / TAP BUTTON

The TAP tempo button recognizes the BPM. Hold the button to keep the selected tempo.



### / STORE AND RECALL FX

Adjust the 80 available effects and store them on the 20 banks memory for quick access.



### / COMPLETE SET OF CONNECTORS ON BACK PANELS

The back panel contains XLR connectors for Main L&R replicated with balanced jacks, Mono, Aux 1 to Aux 4 outputs, balanced jacks for Aux 5 & 6 and bus 1 to 4. The TRS jack provides insert points on input channels 7 to 10. A pair of balanced jacks configures a Control Room output for local studio monitor speakers. The back panel also houses 2 tracks IN and OUT with RCA sockets for the connection of low-level unbalanced devices.

# MIXING CONSOLES

ANALOG MIXING CONSOLES WITH SUPERIOR EFFECTS AND EQS



## / HiZ INSTRUMENT INPUTS

The Hi-Z inputs are very useful when connecting low level musical instruments such as acoustic instruments with piezo transducers, passive electric guitars and bass with passive pick-ups, or stompboxes. This on-board solution allows you to forget about the D.I. Box.

## / SINGLE CONTROL COMPRESSORS

The transparent and accurate single control compressors limit the dynamic behavior of any instrument and voice, on demand. Just plug in the instrument or microphone, adjust gain and shape the dynamics by rotating the single control knob.

## / EQ LIKE NO OTHERS

Shaping the sound can be both fast and precise, the ultra-musical four-band EQ, featuring two semi-parametric EQs with a narrow/wide Q selector and two shelving EQs. The switchable Q brings the accuracy of the parametric EQ on the small form factor of the mixer. The smooth yet precise +/- 15 dB semi parametric EQ narrow/wide selector enables an augmented range of sound nuances.

## / AUXILIARY SENDS

On each channel there are no less than 6 AUX sends. The AUX send number 5 can globally be switched into PRE or POST fader position. The sixth POST-fader AUX send also feeds the internal effects Z.CORE DSP FX.

## USB Power Port

Charge your USB devices or power up an external USB lamp thanks to the 5V – 500 mA USB port on top of the mixer.



## Foot Switch

For connecting to a third-party foot switch. The FX send can be muted by pressing the foot switch.



### USB RECORDING AND PLAYBACK

Superb, professional-quality recordings straight to your computer. No longer the need for external delicate audio interfaces, multiple connections and levels to check. Just plug in a USB lead from the mixer to a computer, select the USB routing and you have CD quality recording and stereo playback from you computer effortlessly. The driver-less Class Compliant design allows recording and playback from Windows, MacOs and iOS (through USB adapter) without any additional software.



### E 24

- 18 Mic/line IN, 3 stereo line IN
- 1 Stereo return input
- 8 Single-control dynamic compressors (ch.1 - ch.8)
- 4 Band semiparametric EQ
- 3 Band EQ on stereo inputs
- 6 Aux sends per channel
- 100 mm progressive faders with dust cover
- 2 Stereo groups
- 32-Bit floating-point Z.CORE DSP effects section



### E 16

- 12 Mic/line IN, 2 stereo line IN
- 1 Stereo return input
- 6 single-control dynamic compressors (ch.1 - ch.6)
- 4 Band semiparametric EQ
- 3 Band EQ on stereo inputs
- 6 Aux sends per channel
- 100 mm progressive faders with dust cover
- 2 Stereo groups
- 32-Bit floating-point Z.CORE DSP effects section

# F MIXING CONSOLES

## ANALOG MIXING CONSOLES WITH MULTI-FX & RECORDING

Premium RCF next-generation F Series mixers build on the rich analog legacy found in the professional RCF mixers, staging high-quality sound in four formats ranging from 6 to 16 channels. Aesthetically pleasing panel and high contrast graphics, premium quality connections and easy routing make it possible to mix your music with minimal technical expertise and the best results. Housed in a sturdy metal chassis, each mixer builds on a fully balanced and low noise audio path from input to output, with single control compressors (on some models) to limit signal peaks and a modern sounding EQ.

### WORKFLOW IS FAST AND SIMPLE

A compact and robust mixing console for any musician or audio enthusiast, the F Series is entirely conceived and designed by the RCF R&D team. With powerful routing capabilities, premium digital effects, and a stereo USB I/O, it has never been so enjoyable to create and mix.

### POWERFUL DIGITAL FX AND RECORDING

16 studio quality effects and multiple auxes increase the musical power of the pioneering internal routing in this class: FX returns path can route to Auxes to have your FX on personal monitors, while the busses and the control room panel simplify complex routings.

Recording your gigs or your rehearsals is even easier, thanks to the USB audio interface onboard (on some models), ready for 2-tracks playback and recording on a computer. High profile electronic design with low power consumption. The multi-voltage power supply makes it perfect for worldwide use, giving you the ability to travel safely with full awareness of peak performance and reliability of your F series mixer, everywhere.

### HIGH QUALITY PREAMPLIFIERS

High quality preamplifiers with phantom power with pristine sound and dynamics. Line level signals are less noisy when connected using the separate line input jack socket.



F 16XR Analog Mixing Console

“ *high performance mixing and recording* ”



### / HiZ INSTRUMENT INPUT

The Hi-Z input is very useful when connecting low level musical instruments such as acoustic instruments with piezo transducers, passive electric guitars and bass with passive pick-ups, or stompboxes. This on-board solution allows you to forget about the D.I. Box.

### / SINGLE CONTROL COMPRESSOR

The F Series compressor is completely transparent and limits the dynamic range of any instrument and voice. Simply plug in the instrument or microphone, set your gain, and shape the sound by adjusting a single knob. Incredibly ease to use, the end result is musical, without compromising your sound.

### / STATE OF THE ART EQ

Precise and exquisitely transparent shaping of sound. Any timbre is adjustable via the powerful F series equalizer. The F 16XR equalizer features a semi parametric mid-band EQ with selectable frequency.

### / ROUTE YOUR SIGNALS

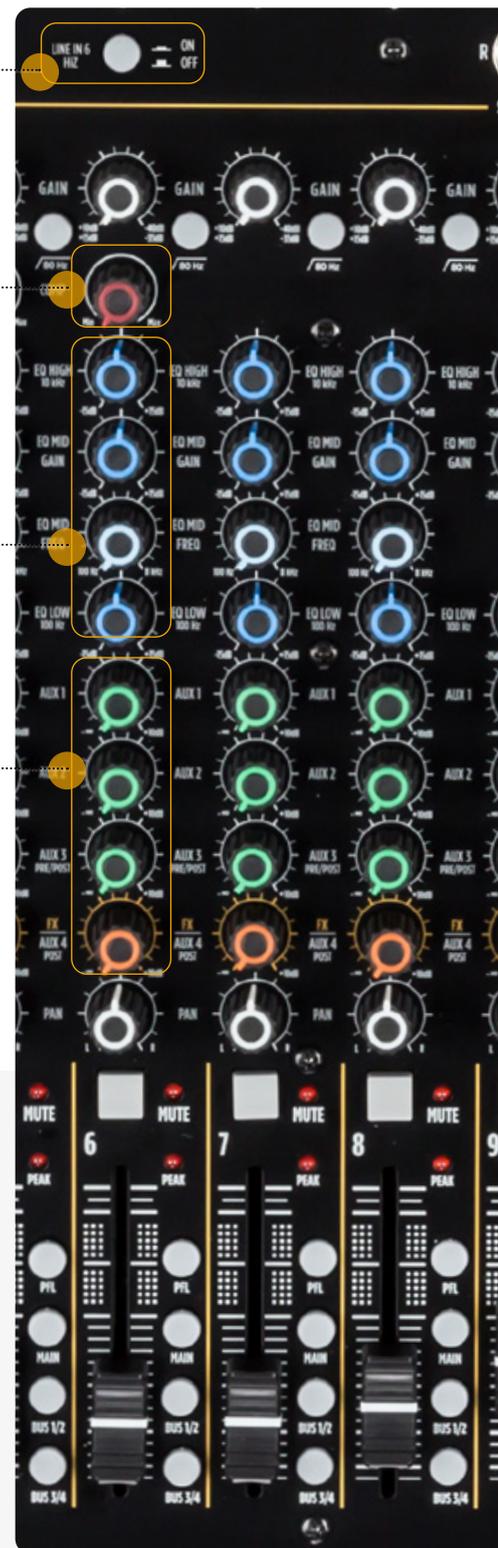
AUX sends can feed stage monitors and/or the PRO DSP FX, independent of the main mix. In addition to the input/output options, the F 12XR provides one stereo output BUS and two AUX sends while the F 24XR and F 16XR provide two stereo output BUSSES and 4 AUX sends.

### RUGGED CONSTRUCTION

Built to last, the F Series features a durable metal chassis with protective plastic bumpers on each side, making it easy to grab-and-go.

### DURABILITY OVER THE YEARS

High-contrast graphics and knobs, premium quality connections and smooth controls increase usability.

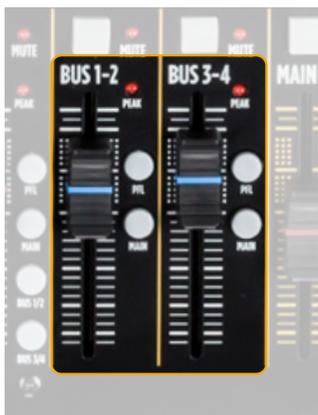


### 24 BIT STUDIO QUALITY EFFECTS

RCF has selected 16 studio quality effects, designed for everyday use when you need great quality FX without the need of an external FX unit. The F series feature the powerful 24 bits PRO DSP FX effects engine packed with 16 professional effects such as Reverbs (Halls, Rooms, Plates, Spring), Delays (Mono, Stereo and Multitap), Chorus, Flangers and Echoes.

# F MIXING CONSOLES

ANALOG MIXING CONSOLES WITH MULTI-FX & RECORDING

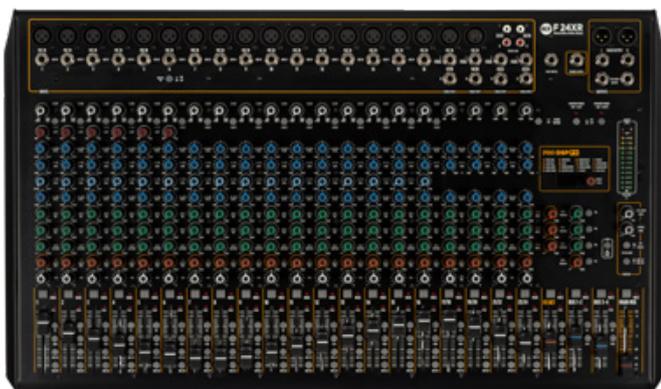


## STEREO BUS

Useful to create separate audio groups (F 24XR, F 16XR and F 12XR only)\*. Audio busses allow the management of different audio channel groups, enabling different zones to be fed, or individual groups of instruments to be controlled, such as drums, background vocals, brass or percussion.  
\*The model F 12XR is provided with one Stereo Bus, F 16XR and F 24XR with two Stereo Busses.

## TOURING GRADE CONSTRUCTION

Touring grade metal construction with plastic protective bumpers on the sides, making it easy to grab the mixers and move them swiftly. High contrast graphics and knobs, premium quality connections and long-lasting controls increase both functionality and durability over the years. The multi-voltage power supply makes it perfect for worldwide use, giving you the ability to travel safely with full awareness of peak performance and reliability of your F series mixer, everywhere.



## F 24XR

- 18 Mic preamp inputs, 16 mono line inputs
- 4 Stereo line inputs
- PRO DSP FX onboard with 16 presets
- Stereo recording and playback via USB port
- 6 single control compressors
- Balanced main output +28 dB (Stereo XLR + TRS)
- Two stereo output busses and 4 aux sends (2 pre, 1 pre/post, 1 post)
- 60 mm faders



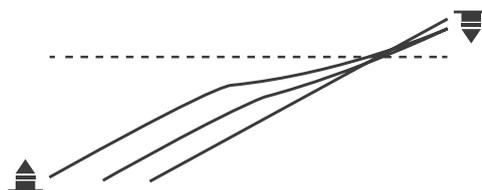
## F 16XR

- 10 Mic preamp inputs, 8 mono line inputs
- 4 Stereo line inputs
- PRO DSP FX onboard with 16 presets
- Stereo recording and playback via USB port
- 6 single control compressors
- Balanced main output +28 dB (Stereo XLR + TRS)
- Two stereo output busses and 4 aux sends (2 pre, 1 pre/post, 1 post)
- 60 mm faders



## USB RECORDING AND PLAYBACK

Superb, professional-quality recordings straight to your computer. No longer the need for external delicate audio interfaces, multiple connections and levels to check. Just plug in a USB lead to a PC, or to your iPhone / iPad (2 or later). Select the USB routing and you have CD quality recording and stereo playback effortlessly. The driver-less Class Compliant design allows recording and playback from Windows, MacOs and iOS (through USB adapter) without any additional software.



### SINGLE CONTROL COMPRESSORS

The transparent and accurate single control compressors limit the dynamic behavior of any instrument and voice, on demand. Just plug in the instrument or microphone, adjust gain and shape the dynamics by rotating the single knob. While simple and easy to use, the ultra-musical compressor design smooths out signal peaks. The resulting signal lets any squashing or pumping sound to perfectly and gently fit your mix.



### F 12XR

- 6 Mic preamp inputs, 4 mono Line inputs
- 4 Stereo line inputs
- PRO DSP FX onboard with 16 presets
- Stereo recording and playback via USB port
- 4 single control compressors
- Balanced main output +28 dB (Stereo XLR + TRS)
- One Stereo output bus and 2 Aux sends (1 pre, 1 pre/post)
- 60 mm faders



### F 10XR

- 4 Mic preamp inputs, 2 mono line inputs
- 4 Stereo line inputs
- PRO DSP FX onboard with 16 presets
- Stereo recording and playback via USB port
- 2 single control compressors
- Balanced main output +28 dB (Stereo XLR + TRS)
- 1 aux/FX (post)
- Sturdy metal chassis



### F 6X

- 2 Mic/Line inputs
- 2 Stereo line inputs
- One Aux/FX (post)
- Balanced main output audio path from input to output
- PRO DSP FX onboard with 16 presets
- Sturdy metal chassis
- External universal power supply

# M 20 SERIES

## TECHNICAL SPECIFICATIONS

### M 20X

#### INPUTS

MIC preamps CH 1-8	XLR input connectors Gain range = 60 dB Input impedance = 3,3 kΩ Maximum input level = +18dBu
MIC/LINE preamps CH 9-16	COMBO input connectors Gain range = 60 dB Input impedance (XLR/TRS) = 3.3 kΩ / 12.8 kΩ Maximum input level (XLR/TRS) = +18dBu / 29dBu
Balanced Line inputs CH 17-18	2 channels 1/4" TRS jack Input impedance = 18 kΩ Maximum input level = +18 dBu
Unbalanced inputs CH 19-20	Stereo 3.5mm mini jack Input impedance = 15 kΩ Maximum input level = +18 dBu

#### OUTPUTS

MAIN LR	Balanced XLR Output impedance = 50 Ω Maximum output level = +24 dBu
MIIX 1-8	Balanced XLR Output impedance = 150 Ω Maximum output level = +24 dBu
OUT 9-10, routable	2 channels 1/4" TRS jack Output impedance = 150 Ω Maximum output level = +24 dBu
Digital output, routable	AES3 (XLR)

#### DSP ENGINE

Processing	32-bit floating-point, 48 kHz Sample Rate
Internal Mixing Matrix	28 x 16

#### INPUT PROCESSING

CH 1-16	Hi-Pass filter Delay (up to 100 ms) Gate 4-band Parametric EQ Compressor / De-Esser
CH 17-20	Hi-Pass filter Delay (up to 100 ms) Gate 4-band Parametric EQ

#### OUTPUT PROCESSING

MIX 1-8 (option to link in stereo pairs)	8-band Parametric EQ Compressor/Limiter Delay (up to 250 ms)
MAIN LR output (with Stereo/Mono switch)	30-band Graphic EQ 8-band Parametric EQ Compressor/Limiter Delay (up to 250 ms)
PAFL	Real-Time Analyzer Delay (up to 250 ms)

#### INTERNAL FX (4x Z-CORE FX Engine)

FX1 bus	Stereo Reverb (Hall, Plate, Room, Ambience)
FX2 bus	Stereo Reverb (Hall, Plate, Room, Ambience)
FX3 bus	Stereo Delay (Stereo, Modern, Vintage, Dual, ER)
FX4 bus	Stereo Delay / Modulation (Chorus, Flanger, Tremolo)

#### ON-BOARD MULTITRACK

SD Card Play/Rec	Recording: 20 channel WAV, 48kHz 24-bit, patchable Playback: 20 channel WAV, 48kHz 24-bit, patchable
USB Audio Interface	Upstream: 24 channel WAV, 48kHz 24-bit, patchable Downstream: 24 channel WAV, 48kHz 24-bit, patchable

#### USB DRIVE PLAY/REC

2-channel Play/Rec	Recording: WAV 48kHz, 24-bit Playback: WAV (16/24-bit), MP3, AIFF; allowed sample rates from 44.1 to 96 kHz
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#### CONTROL INTERFACES

LAN	1000-BaseTX for remote control Dual 1000-BaseTX for Dante audio streaming and remote control
USB host	2 ports MIDI interface, WiFi dongle (must be enabled), USB mass storage

#### POWER

Input Voltage Range	100-240 VAC, 50/60 Hz
Power Requirements	65 W

#### PHYSICAL

Weight	7.9 kg
Dimensions [D x L x H]	428 x 388 x 131 mm

#### PART NUMBER

P.N. EU (90-240 V)

### M 20X

171.40.093

# M 18



## TECHNICAL SPECIFICATIONS

### M 18

#### INPUTS

Mic:	8
Gain Range:	0 dB ÷ 60 dB
Mic Inputs Impedance:	1 kohm
Low Cut:	10 Hz ÷ 500 dB
Phantom Power +48V:	Yes
Mono Line:	10
Gain Selection:	-10 dB ÷ 4 dB
Line Input Impedance:	10 kohm
Hi-Z Line Inputs:	2
Hi-Z Line Inputs Impedance (Mohm):	1 Mohm
A/D Dynamic range:	114 dB

#### OUTPUTS

Main MIX:	2
FX Send:	3
AUX Send:	6
AUX Output:	6
Phones:	1

#### OUTPUTS SPECIFICATIONS

Main Out Impedance:	50 ohm
Main Out Level:	21 dBu
Aux Out Impedance (ohm):	50 ohm
Aux Out Level:	21 dBu
Phones Out impedance (ohm):	40 ohm
Phones Out Level:	35 dBm
D/A Dynamic Range:	114 dB

#### PROCESSING

Processing Channels:	20
Signal Processing:	32 Bit Floating Point
A/D-D/A conversion:	24 Bit @ 48.0 kHz
Dynamic Range:	114

#### EQ

Input Channels EQ:	2 Full Parametric / 2 Semi Parametric /
AUX Output EQ:	2 Full Parametric / 2 Shelving

#### AUXILIARY SENDS

AUX:	4 PRE / 2 PRE/POST
FX POST:	3

#### INTERNAL EFFECTS

Send Effects:	3
MultiFX Insert Effects:	16

#### MASTERING PROCESSORS

Main OUT processors:	4.00
Main OUT type:	"Valve Warmer, Xciter, Maximizer, 31 band Graphic EQ present on MAIN MIX"

#### USB AUDIO

Type:	A
Play trk:	2
Rec trk:	2
Supported Sample Rate:	48.0
Supported Play Formats:	MP3, WAV, AIFF
Compressed File format play (kbps max):	320 Kbps
Supported Rec Format:	WAV

#### ELECTRONIC SPECIFICATIONS

Frequency Response:	20 Hz ÷ 20000 kHz
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#### WIRELESS SPECIFICATIONS

Internal Access Point	Yes
Dual Band:	Yes
IEEE802.11 b/g standard (GHz):	2.4 / 5.0
Internal Antennas:	2
External Antennas:	1

#### ELECTRICAL SPECIFICATIONS

Power supply:	Internal
Voltage requirements:	90 V - 240 V
Power consumption (MAX):	40 W

#### PHYSICAL SPECIFICATIONS

Cabinet/Case Material:	ABS
Color:	Black
Rack mounting:	2U , Optional rack mounting accessory required
Height:	88 mm / 3.46 inches
Width:	340 mm / 13.39 inches
Depth:	180 mm / 7.09 inches
Weight:	2.5 kg / 5.51 lbs

### PART NUMBER

P.N. EU (90-240 V)	M 18	171.40.073
P.N. US (90-240 V)		171.40.074

# MIXING CONSOLES

## TECHNICAL SPECIFICATIONS

	<b>E 24</b>	<b>E 16</b>
MIC INPUTS	18	12
PHANTOM POWER	48V	48V
MONO LINE INPUTS	18	12
STEREO LINE INPUTS	3	2
SELECTABLE HIZ INPUTS	2	2
HIGHPASS FILTERS	@80Hz ON MONO CHANNELS	@80Hz ON MONO CHANNELS
SINGLE CONTROL COMPRESSORS	8	6
MAIN OUTPUT	1 (2 XLR and 2 TRS JACK)	1 (2 XLR and 2 TRS JACK)
AUX OUT	6 (4XLR and 2 TRS JACK)	6 (4XLR and 2 TRS JACK)
FX TO AUX SEND	5	5
BUS OUTPUT	2 STEREO	2 STEREO
PHONES	1 (STEREO JACK)	1 (STEREO JACK)
EQ FOR MONO CHANNELS	2 shelving, 2 Semi Parametric with Q selectable	2 shelving, 2 Semi Parametric with Q selectable
EQ FOR STEREO CHANNELS	3 BANDS	3 BANDS
INTERNAL FX	DSP - 80 Preset + 20 User Presets	DSP - 80 Preset + 20 User Presets
PROCESSING	32 bit floating point	32 bit floating point
USB AUDIO PORT	YES (Stereo)	YES (Stereo)
AUX/FX SEND	6	6
PFL FUNCTION	YES	YES
FOOTSWITCH	TS Jack (for mute/unmute FX internal)	TS Jack (for mute/unmute FX internal)
POWER SUPPLY	INTERNAL 90V-240V	INTERNAL 90V-240V
DEPTH mm   inch	550   21.65	550   21.65
WIDTH mm   inch	700   27.56	510   20.08
HEIGHT mm   inch	135   5.31	135   5.31
WEIGHT kg   lbs	14.3   31.53	10.3   22.71
<b>PART NUMBER</b>		
P.N. EU (90-240 V)	171.40.087	171.40.084
P.N. UK (90-240 V)	171.40.113	171.40.110
P.N. JP (90-240 V)	171.40.114	171.40.111
P.N. US (90-240 V)	171.40.112	171.40.109

# MIXING CONSOLES

## TECHNICAL SPECIFICATIONS

F 24XR	F 16XR	F 12XR	F 10XR	F 6X
18	10	6	4	2
48V	48V	48V	48V	48V
16	8	4	2	2
4	4	4	4	2
1	1	1	-	-
@80Hz ON MONO CHANNELS				
6	6	4	2	-
1 (2 XLR and 2 TRS JACK)				
4 (TRS JACK)	4 (TRS JACK)	2 (TRS JACK)	1 (TRS JACK)	1 (TRS JACK)
3	3	1	-	-
2 STEREO	2 STEREO	1 STEREO	-	-
1 (STEREO JACK)				
3 Bands with selectable mid freq.	3 Bands with selectable mid freq.	3 BANDS	3 BANDS	3 BAND
3 BANDS	3 BANDS	2 BANDS	2 BANDS	2 BANDS
YES (16 PRESETS)				
20/27 bit digital signal DSP processing	20/27 bit digital signal DSP processing	20/27 bit digital signal DSP	20/27 bit digital signal DSP	20/27 bit digital signal DSP
YES (STEREO)	YES (STEREO)	YES (STEREO)	YES	-
4	4	2	1	1
YES	YES	YES	-	-
TS Jack (for effect return mute and unmute)	TS Jack (for effect return mute and unmute)	TS Jack (for effect return mute and unmute)	TS Jack (for effect return mute and unmute)	TS Jack (for effect return mute and unmute)
INTERNAL 90V-240V	INTERNAL 90V-240V	INTERNAL 90V-240V	EXTERNAL 90V-240V	EXTERNAL 90V-240V
406.2   16	406.2   16	350.4   13.8	270.9   10.66	250.9   9.88
720   28.35	479   18.86	373.5   14.70	294.8   11.61	210   8.27
107.4   4.23	107.4   4.23	97.2   3.83	82.6   3.25	79   3.11
10.3   22.71	6.4   14.11	4.5   9.92	2.8   6.17	1.8   3.97
171.40.101	171.40.091	171.40.090	171.40.089	171.40.088
-	171.40.099	171.40.097	-	-
-	171.40.100	171.40.098	-	-
-	171.40.096	171.40.095	-	-

# ACCESSORIES

## PROTECTION



**p.n. 133.60.332**  
**STAGE BUMPERS M 18**  
Protect the digital mixer from bumps and scratches for M 18 mixer.

## RACK MOUNT KITS



**p.n. 133.60.343**  
**RM-KIT M 18**  
Rack mount accessories for M 18 mixer.



**p.n. 133.60.416**  
**RM-KIT F 12XR**  
Rack Mount accessory for mixer F 12XR

## COVERS



**p.n. 133.60.435**  
**BG M 18**  
Transportation bag for M 18 mixer.

## COVERS



**p.n. 133.60.417**  
**BG F 6X**  
Transportation bag for F 6X mixer.



**p.n. 133.60.418**  
**BG F 10XR**  
Transportation bag for F 10XR mixer.



**p.n. 133.60.419**  
**BG F 12XR**  
Transportation bag for F 12XR mixer.



**p.n. 133.60.420**  
**BG F 16XR**  
Transportation bag for F 16XR mixer.



**p.n. 133.60.441**  
**BG M 20X - E 12**  
Padded duffle bag for mixers RCF M 20X and E 12 with handle and shoulder carrying strap.





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