

# MM-04

4U 19" Rack Mounted Club Mixer

19"- 4HE- CLUBMIXER FÜR RACKEINBAU

MEZCLADOR CLUB DE 4U PARA MONTAR EN RACK 19"

CONSOLE DE MIXAGE CLUB RACKABKE 19" X 4U

OPERATIONS MANUAL

BEDIENUNGSHANDBUCH

MANUAL DEL OPERADOR

MANUEL D'INSTRUCTIONS

# 04



## MULTI LANGUAGE INSTRUCTIONS

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### PLEASE READ BEFORE USING APPLIANCE, IMPORTANT WARNING & SAFETY INSTRUCTIONS!



## CAUTION

RISK OF ELECTRICAL SHOCK DO NOT OPEN!



**CAUTION:** This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

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

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 persons.

**READ INSTRUCTIONS:** All the safety and operating instructions should be read before the product is operated.

**RETAIN INSTRUCTIONS:** The safety and operating instructions should be retained for future reference.

**HEED WARNINGS:** All warnings on the product and in the operating instructions should be adhered to.

**FOLLOW INSTRUCTIONS:** All operating and use instructions should be followed.

**CLEANING:** The product should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzene, insecticides or other volatile liquids since they may corrode the cabinet.

**ATTACHMENTS:** Do not use attachments not recommended by the product manufacturer as they may cause hazards.

**WATER AND MOISTURE:** Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

**ACCESSORIES:** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

**CART:** A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn. See Figure A.

**VENTILATION:** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

**POWER SOURCES:** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

**LOCATION:** The appliance should be installed in a stable location.

**NON-USE PERIODS:** The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

#### GROUNDING OR POLARIZATION:

- If this product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other), it will fit into the outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- If this product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin, it will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

**POWER-CORD PROTECTION:** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

**OUTDOOR ANTENNA GROUNDING:** If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with

regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure B.

**LIGHTENING:** For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

**POWER LINES:** An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

**OVERLOADING:** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

**OBJECT AND LIQUID ENTRY:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

**SERVICING:** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

**DAMAGE REQUIRING SERVICE:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance, this indicates a need for service.

**REPLACEMENT PARTS:** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

**SAFETY CHECK:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

**WALL OR CEILING MOUNTING:** The product should not be mounted to a wall or ceiling.

**HEAT:** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



Fig. A

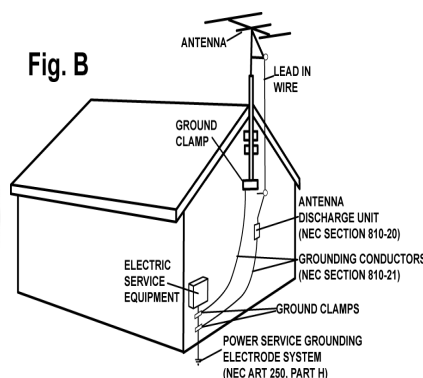
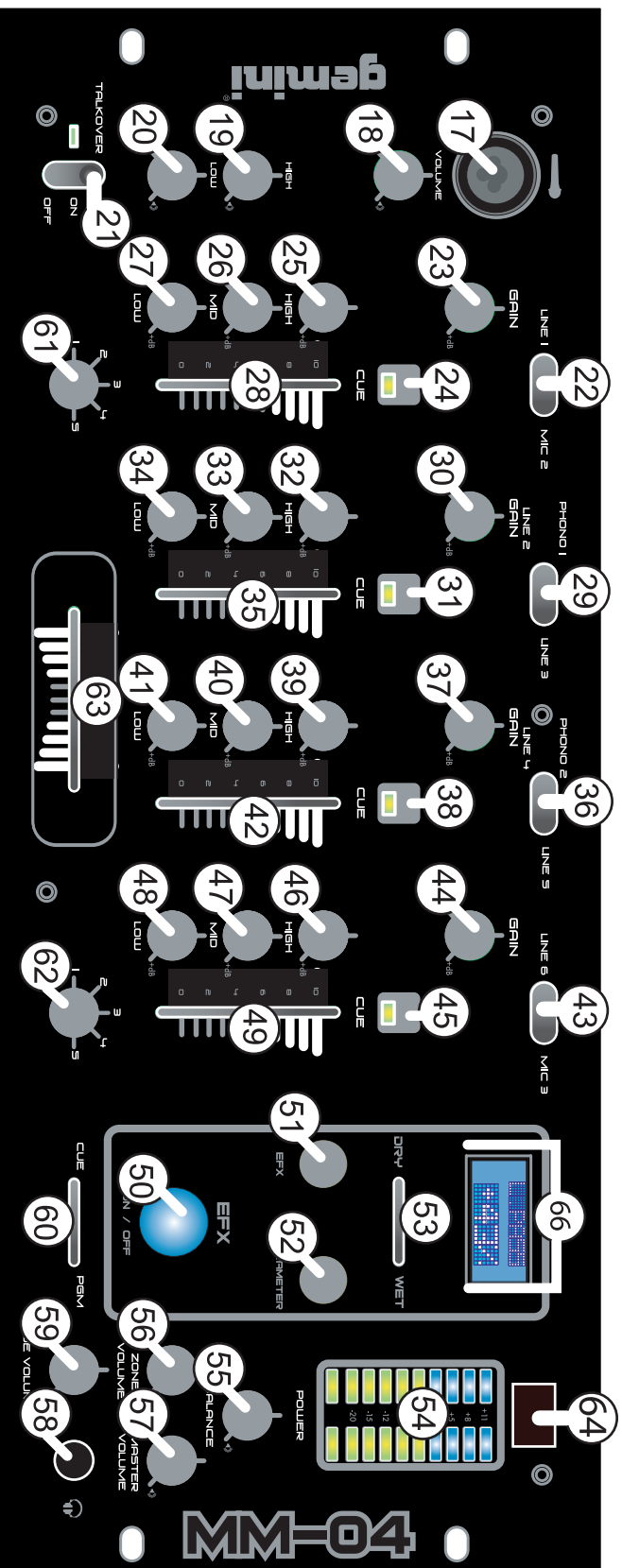


Fig. B

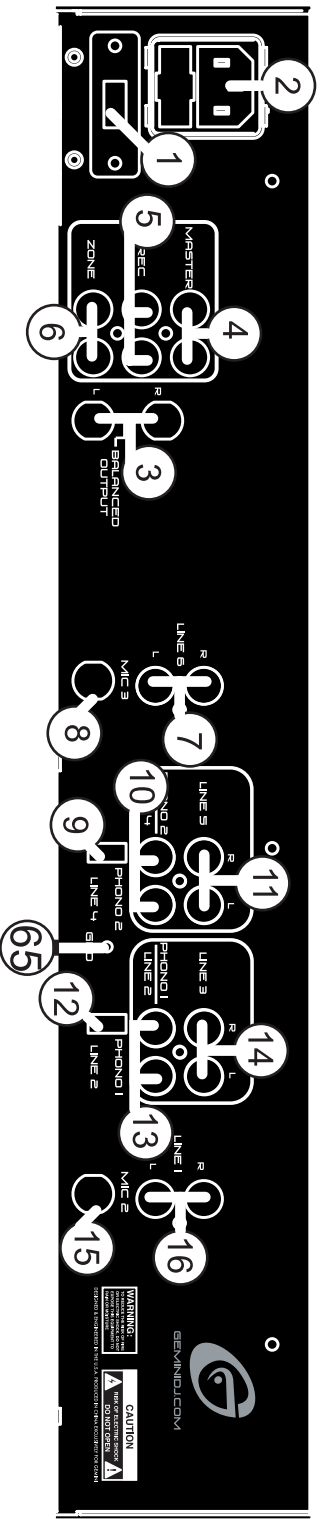
NEC — NATIONAL ELECTRICAL CODE

# FRONT



MM-04

# REAR



## INTRODUCTION:

Congratulations on purchasing a **Gemini MM-04 4U 19", 4 channel, rack mounted audio FX mixer**. This state of the art mixer is backed by a three year warranty, excluding crossfader. The crossfader is backed by a separate **90 day warranty**. Prior to use we suggest that you carefully read all the instructions.

## FEATURES:

- 4U 19" rack mounted audio FX mixer
- 4 stereo channels
- 6 line, 3 mic, 2 convertible phono/line RCA inputs
- 3 band rotary line EQ control per channel with cut feature
- Bright blue LCD display
- 25 DSP effects module with a wide range of parameters
- Dry/Wet fader control
- Rotary control FX selector
- Rotary parameter control
- Large backlit soft touch on/off EFX button
- Fully removable, user replaceable Rail Glide cross fader
- Assignable cross fader
- Rotary gain control per channel
- Dual VU display with bright LED
- Push-button cue section with cue/PGM fader control
- Rotary master, zone, balance and cue volume controls
- Master, zone & record RCA outputs
- Balanced master output
- XLR-1/4" combo mic input & 2 x 1/4" Mic inputs
- 2 band rotary mic EQ controls
- Rotary mic volume control
- Talk-Over feature
- Face plate located 1/4" headphone jack

## CAUTIONS:

1. All operating instructions should be read before using this equipment.
2. To reduce the risk of electrical shock, do not open the unit. Please refer servicing to a **Gemini** qualified service technician.

IN THE USA ~ IF YOU EXPERIENCE PROBLEMS WITH THIS UNIT CALL GEMINI CUSTOMER SERVICE AT: 1 (732) 738-9003. DO NOT ATTEMPT TO RETURN THIS EQUIPMENT TO YOUR DEALER.

3. Do not expose this unit to direct sunlight or to a heat source such as a radiator or stove.
4. This unit should be cleaned only with a damp cloth. Avoid solvents or other cleaning detergents.
5. When moving this equipment, it should be placed in its original carton and packaging. This will reduce the risk of damage during transit.
6. **DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**
7. **DO NOT USE ANY SPRAY CLEANER OR LUBRICANT ON ANY CONTROLS OR SWITCHES.**

## CONNECTIONS:

1. Before plugging the power cord in, make sure that the **VOLTAGE SELECTOR** (1) switch is set to the correct voltage (115 or 230).
2. Located on the rear panel is the **115/230V PLUG** (2). Before plugging the power cord in, make sure the **POWER SWITCH** (64) located on the face panel is turned off.
3. The **MM-04** has 4 sets of outputs:
  - The **MASTER OUTPUT** (4) jacks also connect to the main amplifier with **RCA** cables.
  - The **BALANCED MASTER OUTPUT** (3) jacks connect the mixer to main amplifier using standard cables with 1/4" TRS connectors. We recommend using balanced cables if the distance to your amp is 10 feet or more.

- The **REC OUTPUT** (5) jacks can be used to connect the mixer to the record input of your recording unit, thus enabling you to record your mix by connecting these units with **RCA** cables.

- The **ZONE OUTPUT** (6) jacks allow the connection of an additional amplifier with **RCA** cables.

4. Located on the rear panel are **2 PHONO(PH)/LINE(LN) convertible RCA** inputs (13, 10), and **4 LN RCA** inputs (16, 14, 11, 7). The **convertible RCA inputs** (13, 10) for **CHANNEL (CH) 2** (35) & **CH 3** (42) allow **PH** and **LN** level equipment to be connected to the mixer. To adjust the **CONVERTER(S)** (9, 12), just flip the switch **UP** to operate **PH 1** or **PH 2**. Flip the switch **DOWN** to operate through **LN 2** or **LN 4**. The **PHONO INPUTS** (10,13) only accept turntables with a magnetic cartridge. When using (a) turntable(s), you will need to ground the **RCA** cable(s) by screwing in the grounding fork(s) to the **GROUNDING SCREW** (65) located in the back panel of the **MM-04** mixer. This is located in between the **CONVERTER SWITCHES** (9, 12). The stereo **LN INPUTS** only accept line level inputs such as a **CD, DAT, MiniDisc, etc.**

**NOTE: WHEN USING A TURNTABLE, NOT ATTACHING A GROUND MAY CAUSE A SYSTEM "HUM."**

5. Headphones may be plugged into the face-plate located 1/4" **HEADPHONE JACK** (58).
6. The **MIC 1** (17) input (located on the face panel) is a combination **XLR & 1/4"** connector. The **MIC 2** (15) & **MIC 3** (8) inputs (in the rear panel) accept only 1/4" connectors. The **MIC** inputs accept balanced and unbalanced connections.

## OPERATIONS:

1. Once all of your connections have been made in the rear panel, turn on the mixer by pressing the **POWER SWITCH** (64).
2. **CH 1:** To bring this channel into **program (PGM)**, you must first decide which line will be in use. Use the line switch to toggle from **LN 1** (16) to **MIC 2** (15) on this channel. Slowly raise the **CH 1 SLIDE CONTROL** (28) to a comfortable level, once you've selected the proper line. You can further modify the sound output of this channel by adjusting the rotary **GAIN** (23), **HIGH** (25), **MID** (26), **LOW** (27) controls located to the left of the **CH 1 SLIDE CONTROL** (28).
3. **CH 2:** To bring this channel into **PGM**, you must first decide which line will be in use. Use the **LN SWITCH** (29) to toggle from **PH1/LN 2** (13) to **LN 3** (14) on this channel. Slowly raise the **CH 2 SLIDE CONTROL** (35) to a comfortable level, once you've selected the proper line. You can further modify the sound output of this channel by adjusting the rotary **GAIN** (30), **HIGH** (32), **MID** (33), **LOW** (34) controls located to the left of the **CH 2 SLIDE CONTROL** (35).
4. **CH 3:** To bring this channel into **PGM**, you must first decide which line will be in use. Use the **LN SWITCH** (36) to toggle from **PH2/LN 4** (10) to **LN 5** (11) on this channel. Slowly raise the **CH 3 SLIDE CONTROL** (42) to a comfortable level, once you've selected the proper line. You can further modify the sound output of this channel by adjusting the rotary **GAIN** (37), **HIGH** (39), **MID** (40), **LOW** (41) controls located to the left of the **CH 3 SLIDE CONTROL** (42).
5. **CH 4:** To bring this channel into **PGM**, you must first decide which line will be in use. Use the **LINE SWITCH** (43) to toggle from **LN 6** (7) to **MIC 3** (8) on this channel. Slowly



raise the **CH 4 SLIDE CONTROL** (49) to a comfortable level, once you've selected the proper line. You can further modify the sound output of this channel by adjusting the rotary **GAIN** (44), **HIGH** (46), **MID** (47), **LOW** (48) controls located to the left of the **CH 4 SLIDE CONTROL** (49).

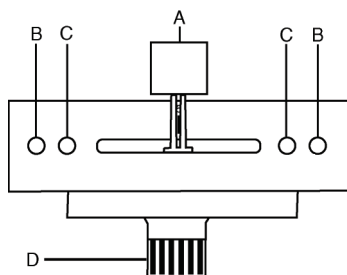
**NOTE: FOR OPTIMAL PERFORMANCE, BEGIN PROGRAM MIX WITH ROTARY GAIN (23, 30, 37, 44) CONTROLS SET TO NOON (ROTATE IT TO THE MIDDLE POSITION). MAKE ALL ADJUSTMENTS IN SOUND OUTPUT WITH THE USE OF YOUR CHANNEL SLIDE CONTROLS (28, 35, 42, 49), ZONE (56), BALANCE (55), AND MASTER (57) VOLUME ROTARY CONTROLS. THIS WILL PREVENT SIGNAL OVERLOAD & DECREASE DISTORTION. ONCE YOU HAVE MODIFIED YOUR SOUND & WOULD LIKE TO INCREASE THE OUTPUT OF YOUR SOUND, THEN YOU MAY ADJUST THE ROTARY GAIN CONTROLS IF NEEDED.**

6. **ASSIGN:** There are 2 rotary controlled **ASSIGN SWITCHES** (61, 62), each having 5 settings 1, 2, 3, 4 or OFF). The **LEFT** (61) assign control allows you to direct **CH 1, 2, 3, 4** through the **LEFT** side of the **CROSS FADER** (63). The **RIGHT** (62) **ASSIGN SWITCH** allows you to direct **CH 1, 2, 3, 4** through the **RIGHT** side of the **CROSS FADER** (63).

7. **CROSS FADER SECTION:** The **CROSS FADER** (63) allows you to mix from one source to another. The mixer features an assignable **CROSS FADER** (63). The **ASSIGN SWITCHES** (61, 62) allow you to select which channel will play through each side of the **CROSS FADER** (63). The **CROSS FADER** (63) in your unit is removable and if the need arises can be easily replaced. Your **Gemini** mixer comes with an **RG-45 (RAIL-GLIDE™) Dual-Rail cross fader**. Rail Glide™ cross faders have internal dual stainless steel rails that allow the slider to ride smoothly & accurately from end to end. Another cross fader we have available is the **RG-45 PRO (PRO SCRATCH™) cross fader** with a special curve designed for scratch mixing. Just purchase one from your **Gemini** dealer & follow the instructions:

### REPLACEABLE CROSSFADER

1. Unscrew the outside FADER plate screws (B). Do not touch INSIDE SCREWS (C).
2. Carefully remove old cross fader and unplug CABLE (D).
3. Plug new Cross fader into CABLE (D) and place back into mixer.
4. Screw Cross fader to mixer with the FADER PLATE SCREWS (B).



**NOTE: DO NOT APPLY PRESSURE WHILE USING THE CROSSFADER. LIGHTLY GLIDE THE CROSSFADER BACK AND FORTH. PRESSING DOWN ON THE CONTROLS CAN BEND CONTACTS AND CAUSE A LOSS OF SOUND.**

7. **OUTPUT SELECTION CONTROL:** Once you are comfortable with the sound level of your music you may adjust the volume with the **MASTER** (57) rotary control. You may adjust the volume of the **ZONE** (6) output with the **ZONE** (56) rotary control. You may also adjust the **BALANCE** from left to right with the **BALANCE** (55) rotary control.

8. **CUE:** By connecting a set of headphones to the **HEADPHONE** (58) jack, you can monitor any or all **CH(s)**. Press **CUE BUTTONS** (24, 31, 38, 45) for **CH(s) 1** through 4 to assign the **CH(s)** to be monitored. The respective **CUE LED indicators** will glow when in use. Use the **CUE** (59) rotary control to adjust the cue volume

without changing the overall mix. By moving the **CUE/PGM fader control** (60) to the **LEFT** you will be able to monitor the assigned cue signal. Moving the control to the **RIGHT** allows you to monitor the **PGM**. Moving the **CUE/PGM fader control** (60) to the **MIDDLE** allows **CUE** mix with **PGM**.

9. **MIC SECTION:** Plug your main **MIC** into the **XLR-1/4"** (17) jack located on the face panel. The rotary controls for **HIGH** (19) & **LOW** (20) allow you to adjust the tone of **MIC 1** (17). **MIC 1** rotary volume control (18), above the **HIGH(19)/LOW(20)** controls, adjusts the decibel level of **MIC 1** (17). You may also plug a second mic into the rear panel **1/4" MIC input** (15). The tone & decibel level of **MIC 2** (15) and **MIC 3** (8) are controlled by the **CH 1** (28) & **CH 4** (49), slide controls, respectively, the 3 band rotary **EQ (HIGH (25, 46), MID (26, 47), LOW (27, 48))** controls & **GAIN** (23, 44) rotary controls.

10. **TALKOVER:** The purpose of the **TALKOVER** (21) is to allow the program playing to be attenuated so that the **MIC** may be heard above the music. The **MIC/TALKOVER switch** (21) controls **MIC 1** (17) and has 3 settings:

- When **MIC/TALKOVER** (21) is in the **BOTTOM** position, **MIC 1** (17) and **TALKOVER** (21) are **OFF**.
- When **MIC/TALKOVER** (21) is in the **CENTER** position, **MIC 1** (17) is **ON**. The **LED INDICATOR** glows when **TALKOVER** (21) is **OFF** and **MIC 1** is **ON**.
- When **MIC/TALKOVER** (21) switch is in the **TOP** position, **MIC 1** (17) and **TALKOVER** (21) are **ON** and the volume of all sources except **MIC 1** is lowered by **-16 dB**.

11. **EFX SECTION:** This unit features **EFX** controls to augment the sound of your mix. To activate the effects pad press the **EFX ON/OFF** (50) button. Use the rotary **EFX** (51) control to change the function of the effects. Use the rotary **PARAMETER CONTROL** (52) to alter the dynamics of the effect. Use the **DRY/WET** (53) fader control to adjust the amount of effect running through to **PGM**. All adjustments made with the **EFX** section will be shown in the **EFX Liquid Crystal Display** (66).

12. **VU METER:** The **VU METER** (54) indicates the **MASTER** (4, 3) output of the left & right stereo levels.

## SPECIFICATIONS:

### INPUTS:

Phono:.....3 mV, 47 kOhm  
Line:.....150 mV, 10 kOhm  
Mic 1, 2, & 3:.....1.5 mV, 1 KOhm Balanced

### OUTPUTS:

Amp/Zone:.....0 dB 1V, 400 Ohm  
Max:.....20V Peak-to-Peak  
Rec:.....225 mV, 5 kOhm

### GENERAL:

Frequency Response:.....20Hz - 20KHz +/- 2 dB  
Distortion:.....0.02%  
S/N Ratio:.....Better Than 80 dB  
Talkover Attenuation:.....-16 dB  
Headphone Impedance:.....16 Ohm  
Power Source:.....115/230V, 50/60Hz, 10W  
Unit Dimensions:.....W 19" x H 3.4" x D 7"  
.....(482.6 x 86.36 x 177.8 mm)  
Weight:.....8.95 lbs (4.05 kg)

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTIFICATION FOR IMPROVEMENT.**