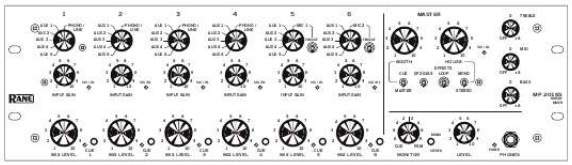
RANE **OPERATORS MANUAL** **MP 2016S**
ROTARY DJ MIXER



QUICK START

You asked for it, you got it! The MP 2016S now has Split Cue! If you don't know what that is, we suggest you take the time to read this entire manual so you learn lots of other things to get the best sound and features out of your new mixer. But if you know what Split Cue is, at least read this section to refresh your knowledge of the rest of the MP 2016S.

There are four dedicated phono preamplifiers. One each for Input channels 1-4. Switches on the rear panel set each preamplifier for **LINE** or **PHONO** operation. Make sure you have these switches set correctly for your application.

There are two dedicated **MIC** preamplifiers, one each for Input channels 5-6. Rear panel switches set each preamplifier for **LINE** or **MIC** operation. Make sure you have these switches set correctly. **MIC GAIN** controls adjust each preamplifier for the correct sensitivity. With a **MIC** selected and **ENGAGED**, set the front **INPUT GAIN** control to "**10**" and adjust the rear **MIC GAIN** to just keep the Input Channel **SIG / OL** indicator green, not red. Set the rear panel tone controls as desired. The **MIC ENGAGE** switch ducks the **BOOTH** Output by 12 dB unless defeated with internal jumpers.

Before installing this mixer permanently, be sure to read the MIC / LINE INPUTS section on page Manual-6.

All five stereo line-level **AUX** Inputs are available for each of the six Input Channels.

Adjust the **INPUT GAIN** controls so they blink the green **SIG / OL** indicators. If an indicator is red, the **INPUT GAIN** control is set too high. This provides optimum signal to noise, dynamic range and **MIX LEVEL** control consistency.

The **BOOTH** may select **CUE** or **MASTER** as its source. **CUE** allows monitoring Inputs in the booth without headphones.

The **XP 2016S** switch engages the optional XP 2016S processor. If the XP 2016S is not connected, the switch has no effect.

The **EFFECTS LOOP** switch switches the Loop in (*up*) or out (*down*). If nothing is connected to the **EFFECTS LOOP RETURN**, the switch has no effect.

The **MASTER MONO / STEREO** switch influences both **BOOTH** and **HOUSE OUTPUTS**. It does not affect the **EFFECTS LOOP** or **TAPE OUTPUTS**.

Two **TAPE OUTPUTS** are provided. One is a **PRE-EFFECTS** Loop and one is a **POST-EFFECTS** Loop. The **POST-EFFECTS** Loop Tape Output has a **LEVEL** control and may be used as a pre-tone control **AUX** Output.

The MP 2016S Master Output uses *Accelerated Slope™* tone controls that provide full "kill" for **TREBLE**, **MID** and **BASS**.

The **MASTER SIG / OL** indicator monitors the master mix before and after the tone controls. This indicator should light green most of the time. It is OK for it to flash red on occasion. This provides optimum signal-to-noise and dynamic range. **HOUSE** and **BOOTH** are the only level controls that do not affect the **MASTER SIG / OL** indicator.

The **HOUSE OUTPUT** has both balanced (XLR) and unbalanced (RCA) Outputs. To avoid hum, always use the balanced (XLR) Outputs for longer cable runs (typically greater than 10 feet, or 3 meters).

Headphone cueing allows monitoring **MASTER** or **CUE** sources. If **MIX LEVEL** controls are operated at less than "7", be sure to turn the **PHONES LEVEL** down before selecting a **CUE** as it may be *much* louder than the Master Mix. The Headphone Output is low-impedance high-current, so ***do not*** short the tip and ring together or to ground.

WEAR PART
The MP 2016S contains no wear parts. The XP 2016S contains the following wear part subject to the ninety (90) day warranty period described on page Service-1: *(1) Active Crossover Assembly F 60X.*

Manual abstract:

One each for Input channels 1-4. @@Make sure you have these switches set correctly for your application. There are two dedicated MIC preamplifiers, one each for Input channels 5-6. Rear panel switches set each preamplifier for LINE or MIC operation. Make sure you have these switches set correctly. MIC GAIN controls adjust each preamplifier for the correct sensitivity. With a MIC selected and ENGAGED, set the front INPUT GAIN control to "10" and adjust the rear MIC GAIN to just keep the Input Channel SIG / OL indicator green, not red. Set the rear panel tone controls as desired. The MIC ENGAGE switch ducks the BOOTH Output by 12 dB unless defeated with internal jumpers. Before installing this mixer permanently, be sure to read the MIC / LINE INPUTS section on page Manual-6.

All five stereo line-level AUX Inputs are available for each of the six Input Channels. Adjust the INPUT GAIN controls so they blink the green SIG / OL indicators. If an indicator is red, the INPUT GAIN control is set too high. This provides optimum signal to noise, dynamic range and MIX LEVEL control consistency. The BOOTH may select CUE or MASTER as its source.

CUE allows monitoring Inputs in the booth without headphones. The XP 2016S switch engages the optional XP 2016S processor. If the XP 2016S is not connected, the switch has no effect. The EFFECTS LOOP switch switches the Loop in (up) or out (down). If nothing is connected to the EFFECTS LOOP RETURN, the switch has no effect.

The MASTER MONO / STEREO switch influences both BOOTH and HOUSE OUTPUTS. It does not affect the EFFECTS LOOP or TAPE OUTPUTS. Two TAPE OUTPUTS are provided. One is a PRE-EFFECTS Loop and one is a POST-EFFECTS Loop. The POSTEFFECTS Loop Tape Output has a LEVEL control and may be used as a pre-tone control AUX Output. The MP 2016S Master Output uses Accelerated Slope TM tone controls that provide full "kill" for TREBLE, MID and BASS. The MASTER SIG / OL indicator monitors the master mix before and after the tone controls. This indicator should light green most of the time. It is OK for it to flash red on occasion. This provides optimum signal-to-noise and dynamic range.

HOUSE and BOOTH are the only level controls that do not affect the MASTER SIG / OL indicator. The HOUSE OUTPUT has both balanced (XLR) and unbalanced (RCA) Outputs. To avoid hum, always use the balanced (XLR) Outputs for longer cable runs (typically greater than 10 feet, or 3 meters). Headphone cueing allows monitoring MASTER or CUE sources. If MIX LEVEL controls are operated at less than "7", be sure to turn the PHONES LEVEL down before selecting a CUE as it may be much louder than the Master Mix. The Headphone Output is low-impedance high-current, so do not short the tip and ring together or to ground. WEAR PART The MP 2016S contains no wear parts. The XP 2016S contains the following wear part subject to the ninety (90) day warranty period described on page Service-1: (1) Active Crossover Assembly F 60X. Manual-1 MP 2016S FRONT PANEL CONTROLS 1 AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 5 6 7 8 9 SIG / OL 2 PHONO / LINE AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 5 6 7 8 9 SIG / OL 3 PHONO / LINE AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 5 6 7 8 9 SIG / OL 4 PHONO / LINE AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 5 6 7 8 9 SIG / OL 5 PHONO / LINE AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 5 6 7 8 9 SIG / OL ENGAGE 6 MIC 1 AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 5 6 7 8 9 SIG / OL ENGAGE MIC 2 3 5 4 6 2 1 BOOTH CUE 10 INPUT SELECTORS 1-4 1 10 1 10 1 10 Each six-positionINPUT GAIN Input Selector chooses a GAIN INPUT dedicated PHONO GAIN INPUT / LINE preamplifier, or one of five stereo line-level AUX Inputs as its Input Channel source. (PHONO / LINE switches are on the 5 6 5 6 5 6 rear panel).

7 7 7 4 4 4 3 2 1 10 MIX LEVEL 8 9 CUE 1 3 2 1 10 MIX LEVEL 8 9 CUE 2 3 INPUT SELECTORS 5-6 1 10 1 10 1 10 Each six-position Input Selector chooses a dedicated mono MIC INPUT GAIN INPUT GAIN INPUT GAIN Input, or one of five stereo AUX Inputs as its Input Channel source. (MIC GAIN trim, MIC / LINE switch and MIC tone 5 6 5 6 5 6 controls 4 located on the rear panel).7 are 7 7 4 4 3 8 3 8 3 8 MASTER 4 6 8 CUE 2 2 1 AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 1 10 INPUT GAIN 5 6 7 8 9 SIG / OL 2 PHONO / LINE AUX 1 AUX 2 AUX 3 AUX 4 AUX 5 4 3 2 1 10 INPUT GAIN 5 6 7 8 9 SIG / OL PHONO / LINE AUX 2 AUX 3 AUX 4 MIC ENGAGE 2 9 2 9 2 9 2 9 MIC 1 and MIC 2 ENGAGE 1 switches allow switching a10 on mic 1 1 10 1 10 10 CUE CUE CUE CUE MIX LEVEL (up) or off (down). A MIC Input must be selected and LEVEL EN3 MIX LEVEL 4 MIX LEVEL 5 MIX MIC 6 GAGE on to activate a MIC Input. When a mic is not in use, be sure to switch MIC ENGAGE off.

The MIC ENGAGE switches also activate the Booth Ducker. This attenuates the Booth Output -12 dB whenever a MIC ENGAGE switch is on, even if MIC 3 4 5 6 Input is not selected (internal jumpers allow disabling the Booth AUX 1 PHONO / AUX 1 PHONO / AUX 1 MIC 1 AUX 1 MIC 2 Ducker--see Mic/Line Inputs on page Manual-6). LINE LINE AUX 2 AUX 2 AUX 2 AUX 4 AUX 5 5 6 7 8 9 1 10 SIG / OL 8 MONITO 5 4 3 2 1 6 AUX 3 AUX 4 AUX 5 5 6 7 8 9 1 10 SIG / OL AUX 3 AUX 4 AUX 5 5 6 7 8 9 1 10 SIG / OL ENGAGE AUX 3 ENGAGE AUX 5 4 3 2 INPUT GAIN 10 4 3 2 4 3 2 4 3 2 1 5 6 7 8 9 SIG / OL BOOTH CUE 10 INPUT GAIN INPUT GAIN INPUT GAIN MASTER 5 4 3 2 1 6 7 8 9 10 3 2 CUE 1 1 4 5 6 7 8 9 10 3 2 CUE 2 1 4 5 6 7 8 9 10 3 2 CUE 3 1 4 5 6 7 8 9 10 3 2 CUE 4 1 4 5 6 7 8 9 10 3 2 CUE 5 1 4 5 6 7 8 9 10 6 8 CUE 6 CUE 4 2 2 MIX LEVEL MIX LEVEL MIX LEVEL MIX LEVEL MIX LEVEL MIX LEVEL MONITO INPUT GAIN INPUT GAIN controls allow the user to match input levels. Adjust these to make the SIG / OL indicator flash green. If the indicators turn red, reduce the INPUT GAIN.

Adjusting the INPUT LEVEL controls correctly maximizes dynamic range and provides consistent MIX LEVEL response. Input SIG / OL These dual-color indicators provide help in setting correct input levels. A flashing green indication is optimal. A red light that lasts more than a flash is a request to turn down the INPUT GAIN. MIX LEVEL These studio-grade controls determine the Master MIX LEVEL. For optimum performance, set the INPUT GAIN controls as indicated previously, and then operate MIX LEVELS between "7" and "10" for full volume. Use the HOUSE and BOOTH LEVEL controls to set the output levels. Always set the MIX LEVEL controls to minimum when not in use. CUE The CUE signal is selected using CUE 1-6 switches in any combination. The associated yellow indicator lights when a CUE is active.

Manual-2 MASTER MIC 2 3 2 1 6 7 8 9 10 GAIN SIG / OL 0 5 6 7 8 9 1 10 HOUSE SIG / OL TREBLE 5 4 6 7 8 9 10 3 2 4 ENGAGE OFF 0 +6 MID The BOOTH CUE / MASTER switch selects MASTER mix or CUE selection as the Booth source. This allows CUE monitoring in the Booth without headphones.

The BOOTH Level controls the volume to the Booth Output. MASTER HOUSE Level This studio-grade control sets the HOUSE Output level. MASTER MONO / STEREO switch This sets the MASTER mix signal to MONO or STEREO operation. It effects both BOOTH and HOUSE Outputs. MASTER SIG / OL indicator This dual color indicator helps set correct MASTER mix levels. A flashing or steady green indication is optimal. The red indicator may flash only briefly on rare occasion..

.regular flashing or steady-on means that distortion is imminent and Levels need reducing. XP 2016S switch This engages the optional XP 2016S External Processor. If the XP 2016S is not connected, the switch does nothing. If an XP 2016S is connected and the switch is on (up), it routes the MIX LEVEL Outputs to the XP 2016S and returns a stereo MASTER signal to the MP 2016S.

EFFECTS LOOP switch This engages the EFFECTS LOOP when up. If nothing is connected to the EFFECTS LOOP RETURN, the switch has no effect. TREBLE tone control Allows adjusting the amplitude of frequencies above 4 kHz from +6 dB to OFF (full kill). MID tone control Allows adjusting the amplitude of frequencies between 300 Hz and 4 kHz from +6 dB to OFF (full kill). BASS tone control Allows adjusting the amplitude of frequencies below 300 Hz from +6 dB to OFF (full kill).

POWER indicator This yellow indicator lights whenever AC power is connected to the unit. BOOTH CUE XP 2016S EFFECTS LOOP MONO OFF 0 +6 BASS MASTER STEREO MP 2016S OFF +6 ROTARY MIXER 6 7 8 9 10 VEL CUE 6 6 8 CUE 4 2 2 4 6 8 PGM STEREO MONO 4 3 2 1 5 6 7 8 9 10 POWER MONITOR LEVEL PHONES HEADPHONE MONITOR MONITOR determines the source of the PHONES signal. With the MONITOR MONO switch out, the control pans between stereo CUE and stereo PGM signals. The PGM signal follows the HOUSE Output (same signal going to the Master House). With MONITOR MONO selected (in), the MONITOR control pans between mono CUE (left ear) and mono PGM (right ear). The Phones LEVEL control determines the headphone output level. If you are mixing with the MIX LEVEL controls below "7", be sure to turn the Phones LEVEL down before selecting a CUE source as it may be much louder than the Master Mix. The PHONES output is very low impedance and high current so do not short tip and ring together or tie to ground, as is common with many low- cost mono cups. Use resistors of 300 to 600 in series with each output for mono applications, although this significantly reduces output power. BOOTH CUE / MASTER switch and Level T = LEFT R = RIGHT S = GROUND TO MONO PHONE Manual-3 REAR PANEL INPUTS & OUTPUTS MIC 2 MP 2016S MADE IN U.

S.A. RANE CORP. U.S. PATENT 7,043,032 MIC 1 BASS TREBLE 0 0 BASS 0 TREBLE 0 4 L 3 INPUTS L R 2 L R 1 L R LINE PHONO GAIN MIC LINE -12 GAIN MIC LINE R -12 ACN 001 345 482 +12 -12 +12 +12 -12 +12 XLR WIRING PIN 2 = POSITIVE PIN 3 = NEGATIVE PIN 1 = CHASSIS GROUND COMMERCIAL AUDIO EQUIPMENT 24TJ This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. -- PHONO GROUND -- R 100-240 V 50/60 Hz 12 WATTS MIC 1 and MIC 2 XLR jacks RIGHT LEFT L The MIC 1 Input provides a dedicated balanced preamplifier LEFT L LEVEL for Input Channel 5, while MIC 2 provides the preamplifier for R RIGHT R Input Channels 6. Each may operate in MIC or LINE mode. Each of these preamplifiers features GAIN trim with BASS and TREBLE tone controls.

MIC / LINE switches These select MIC or LINE mode for the MIC Inputs. In MIC mode, the gain range is 20 to 50 dB. In LINE mode, the gain range is 0 to 30 dB. In addition to setting the proper gain range for MIC or LINE level Inputs, these switches also select the proper Input impedance. @@@@To properly sManual-6).

@@For long runs, we highly recommend using the balanced XLR outputs. @@@@@@@@@@@@@@@@This may be used as an Auxiliary Output. @@RANE CORP. U.S.

@@@@@@@@@@@@The SIG / OL indicator should not flash red. This will ensure optimum signal to noise ratio and dynamic range. @@If your levels are set too low, signal-to-noise ratio is compromised. @@@@@@Mix Level Taper 100 90 80 70 60 50 40 30 20 10 0 100 the INPUT GAIN SIG / OL indicator to accurately indicate the signal level. Adjust the MIC GAIN so the red OL indicator just stays off during the highest signal peaks (if a microphone is in use, yell into it). The MIC GAIN control should only have to be set once for the source in use. Use the front panel INPUT GAIN control for trimming the gain after installation. Next adjust the rear panel MIC 1 and MIC 2 BASS and TREBLE controls for the desired tonal quality. If you add a lot of BASS or TREBLE boost, you may want to readjust the MIC GAIN control to avoid possible overloading. MIC 1 and MIC 2 each have an ENGAGE switch to the right of the Input Selector.

For a mic signal to be active, the selector must be set to MIC and the MIC ENGAGE switch set to ENGAGE (up). When either of the switches is set to the ENGAGE position, the BOOTH OUTPUT is ducked (attenuated) by 12 dB (about ¼th) to reduce potential feedback. If you do not want the BOOTH OUTPUT to duck when a MIC source is engaged, you can remove the top cover and set the internal jumper accordingly. There is an independent Ducker select jumper for MIC 1 and MIC 2. It sounds like a lot of trouble to set the input stages up correctly, however, you will be amazed at how much better your performance sounds. MIX LEVEL With the Input stages properly adjusted, you are free to use the MIX LEVEL control for mixing. For most applications, channels will be mixed at about 70% to 100% rotation. BOOTH and HOUSE level controls then set the output volume. The MASTER SIG / OL indicator displays the signal level of the mix. The Green SIG indicator should flash or remain on.

The Red OL indicator should remain off (it may flash occasionally, but if it is on every beat it is too hot). To correct an overload condition, one or more of the MIX LEVEL controls must be turned down. The MASTER SIG / OL indicator monitors the signal before and after the tone control, so if you use a lot of boost, remember to monitor this indicator. TONE CONTROLS The MP 2016S uses high-performance tone control circuits that isolate the signal into three bands. The level of each band is independently controlled, and then recombined.

This topology provides full "kill" for TREBLE, MID and BASS. If all three bands are set to the same level, there will be no change in frequency response, only amplitude. It is the difference in settings that determines the tonal quality of the signal. These advanced tone controls provide excellent dynamic response with fixed phase shift. Control is smooth and predictable.

The tone controls can isolate beats, vocals and "high-hat," as well as adjust general tonal quality.

Remember that the dedicated Mic tone controls (on the rear panel) are used to equalize the Microphone Inputs. 10 20 30 40 50 60 70 80 90 Rotation MIC / LINE INPUTS Input channels 5 and 6 each have dedicated preamplifiers. A rear panel switch allows setting these Inputs for MIC or LINE level signals. @@While these Inputs are designed for use with dynamic microphones (no phantom power) or wireless microphones with line level output, they will accept just about any mono signal. While balanced operation is highly recommended, these Inputs may be operated unbalanced with short cables to the source (less than 10 feet or 3 meters). The source selectors for Input channels 5 and 6 may select the dedicated MIC / LINE preamplifier or one of the five stereo AUX inputs. Prior to permanent installation, adjust the preamplifier GAIN, BASS and TREBLE controls (located on the rear panel) for the intended source. In addition to the MIC / LINE switch, each preamplifier has a rear panel MIC GAIN trim. To properly set the MIC GAIN, set the front panel INPUT GAIN control to "10.

" This allows Manual-6 Attenuation OPTIONAL XP 2016S EXTERNAL PROCESSOR Combining the optional XP 2016S EXTERNAL PROCESSOR with the MP 2016S adds three-band, full-cut, Accelerated-SlopeTM tone controls and A-POST-B Crossfader Assign switches for each of the six Input channels. @@@@@@The+6 the +6 mixed +6 OFF +6 OFF signal is returned to BASS MP 2016S. @@If the XP 2016S engage switch is not active, the MASTER signal +6 just gets the MP 2016S mix. OFF +6 OFF +6 OFF +6 BCHANNEL 1-6 TREBLE A POST B A POST B A POST B Allows adjusting the amplitude of frequencies above 4 kHz from +6 dB to OFF (full kill). 3 0 POWER CUE METER LEFT / CUE -20 -10 -7 -4 -2 0 +2 +4 +7 +10 OFF 0 RIGHT / PGM OFF 0 CROSSFADER CONTOUR XP 2016S 0 2 4 6 8 10 OFF B EXTERNAL PROCESSOR F 60X A POST A 10 8 6 4 2 0 CHANNEL 1-6 MID Allows adjusting the amplitude of frequencies between 300 Hz and 4 kHz from +6 dB to OFF (full kill). CHANNEL 1-6 BASS Allows adjusting the amplitude of frequencies below 300 Hz from +6 dB to OFF (full kill). CHANNEL 1-6 A/POST/B Assign These switches assign each of the six input channels to the A side of the Crossfader, B side of the Crossfader or POST Crossfader. CROSSFADER This implements using Ranes' proprietary Active CrossfaderTM design. All audio is isolated from the control element, greatly extending the life and performance of the control. See page Manual-8 for cleaning and replacement instructions. CROSSFADER CONTOUR This control allows adjusting the "shape" of the Crossfader response from a gentle curve for smooth long running fades, to the steep pitch required for performance cut and scratch effects. (See the graph in the Data Sheet.) PEAK PROGRAM / CUE METER The stereo 10-segment Cue Meter on the XP 2016S monitors the same signal as the headphones. See the HEADPHONE MONITOR section on page Manual-3. POWER indicator This yellow indicator lights whenever AC power is connected.

1 0 TREBLE 2 0 TREBLE 3 0 TREBLE 4 0 TREBLE 5 0 TREBLE 6 0 TREBLE OFF 0 +6 MID OFF 0 +6 MID OFF 0 +6 MID OFF 0 +6 MID OFF 0 +6 MID OFF 0 +6 MID -20 -10 OFF 0 +6 BASS OFF 0 +6 BASS OFF 0 +6 BASS OFF 0 +6 BASS OFF 0 +6 BASS OFF 0 +6 BASS OFF +6 OFF +6 OFF +6 OFF +6 OFF +6 OFF +6 F 60X A POST B A POST B A POST B A POST B A POST B A POST B A Manual-7 MP 2016S Mixer Port This is the required socket to connect the XP 2016S to the MP 2016S, using the ribbon cable supplied with the XP 2016S. If a ribbon longer that that supplied with the XP 2016S is used, crosstalk may increase, and immunity to RF, magnetic and conducted interference may be compromised. So don't do it! POWER This power jack receives the cable from the RS 1 power supply shipped with the unit. The chassis ground screw located just above the jack is intended for earth grounding the chassis (see the Chassis Grounding note on page Manual-4). XP 2016S Ribbon Connections: (PIN 1 marked Ñ) 1) GND 2) GND 3) MIX RIGHT OUT 4) MIX LEFT OUT 5) GND 6) METER LEFT IN 7) METER RIGHT IN 8) GND 9) CH 6R IN 10) CH 6L IN 11) GND 12) CH 5R IN 13) CH 5L IN 14) GND 15) CH 4R IN 16) CH 4L IN 17) GND 18) CH 3R IN 19) CH 3L IN 20) GND 21) CH 2R IN 22) CH 2L IN 23) XP 2016 ENABLE (GND) 24) CH 1R IN 25) CH 1L IN 26) GND Fader Cleaning With heavy use in harsh environments, the faders may need lubrication.

This treatment extends longevity and can make used faders as good as new. The fader assembly must be removed from the XP 2016S for proper cleaning. We recommend any of the following cleaning solutions: Caig DeoxIT FaderLube F100 spray lubricant (www.caig.com) Caig DeoxIT FaderLube F5 spray cleaner (www.caig.com) CRC 2-26 (www.crcindustries.com) Order DeoxIT® from: CAIG Laboratories, Inc. 12200 Thatcher Ct.

Poway, CA 92064 Phone 858-486-8388 Fax 858-486-8398 Web www.caig.com CLEANING INSTRUCTIONS A. Fader assembly removal 1. Remove (2) 3mm screws. 2. Draw fader assembly out through hole. 3. Remove ribbon cable. B.

Fader cleaning 1. Hold the fader assembly away from the mixer. 2. Position the fader at mid-travel. 3.

Spray cleaner/lubricant into both ends of the fader. 4. Move the fader over its full travel back and forth a few times. 5. Shake excess fluid from the fader assembly.

6. Wipe off excess fluid. XP 2016S MADE IN U.S.A. RANE CORP. U.S. PATENT 7,043,032 ACN 001 345 482 This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

COMMERCIAL AUDIO EQUIPMENT 24TJ R 100-240 V 50/60 Hz 12 WATTS MP 2016S MIXER ©Rane Corporation 10802 47th Ave. W., Mukilteo WA 98275-5098 TEL 425-355-6000 FAX 425-347-7757 WEB www.rane.com Manual-8 .