

1073[®] OPX

8 channel Microphone, Line and Instrument Preamplifier

Installation Guide
Issue 1



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FOR YOUR OWN SAFETY AND FOR THE PROTECTION OF OTHERS PLEASE OBSERVE THE FOLLOWING HEALTH AND SAFETY INSTRUCTIONS



- READ THESE INSTRUCTIONS AND KEEP THEM HANDY
- · HEED ALL SAFETY WARNINGS
- DO NOT USE NEAR WATER
- · CLEAN ONLY WITH A DRY CLOTH
- · DO NOT INSTALL NEAR HEAT SOURCES
- DO NOT BLOCK VENTILATION OPENINGS
- PROTECT THE POWER CORD
- USE ONLY ACCESSORIES SPECIFIED BY THE MANUFACTURER
- UNPLUG WHEN UNUSED FOR LONG PERIODS OF TIME
- OPTIONAL CARDS SHOULD NOT BE INSERTED OR REMOVED WITH THE POWER ON
- REFER ALL SERVICING TO QUALIFIED PERSONNEL ONLY
- NO USER SERVICEABLE PARTS INSIDE

FAILURE TO OBSERVE THESE PROCEDURES AND RECOMMENDATIONS WILL INVALIDATE THE MANUFACTURER'S WARRANTY

Important Safety Instructions



- Read these instructions
- Keep these instructions
- Heed all warnings
- ▶ Follow all instructions
- ▶ Do not use this apparatus near water
- Clean only with a dry cloth
- Do not block any ventilation openings.
- Install in accordance with the manufacturer's instructions.
- ▶ Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- ▶ Do not defeat the safety purpose of the polarized or grounding-type plug.

A polarized plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety.

If the provided plug does not fit into your external PSU, consult an electrician for replacement of the obsolete outlet.

As this apparatus is constructed to Class I, it shall be connected to the external PSU MAINS socket outlet with protective earthing connection.

▶ Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit the apparatus.

Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

- ▶ Only use attachments / accessories specified by the manufacturer.
- ▶ Unplug this apparatus during lightning storms or when unused for long periods of time.
- ▶ Refer all servicing to qualified service personnel.

Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled, or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

WARNING:

THIS APPARATUS HAS CLASS I CONSTRUCTION AND SHALL BE CONNECTED TO THE EXTERNAL PSU MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

WARNING:

WHERE THE MAINS PLUG OR AN APPLIANCE COUPLER IS USED AS THE DISCONNECT DEVICE, THE DISCONNECT DEVICE SHALL REMAIN READILY OPERABLE.

For full operational instructions, please refer to the 1073 OPX User Manual.

Warning Symbols



Please refer to the manual before operating



Danger of electric shock Disconnect from the MAINS before opening cover



No user serviceable parts inside

Environmental considerations

Temperature	Operating	5°C to 30°C
		(41°F to 86°F)
	Non-operating	-20°C to 50°C
		(-2°F to 122°F)
	Max Gradient	15°C/Hour
		(59°F/Hour)
Relative Humidity	Operating	20% to 80%
	Non-operating	5% to 90%
	Max wet bulb	28°C non-condensing
		(or 57°F non-condensing)
Altitude	Operating	0 to 2,000m
	Non-operating	0 to 12,000m

Cooling



Care must be taken not to place any accessories that could block the ventilation above or below the units external PSU or the Units ventilation system.

The external PSU will operate over an ambient temperature range of -10°C to +30°C (14°F to 86°F).

Important Safety Instructions





- **▶** READ THESE INSTRUCTIONS AND KEEP THEM HANDY
- **▶ HEED ALL SAFETY WARNINGS**
- ► THE UNIT MUST BE EARTHED WHEN OPERATED
- **DO NOT USE NEAR WATER**
- **▶** CLEAN ONLY WITH A DRY CLOTH
- **▶** DO NOT INSTALL NEAR HEAT SOURCES
- **▶** DO NOT BLOCK VENTILATION OPENINGS
- ► THE AMBIENT ROOM TEMPERATURE SHOULD BE NO GREATER THAN 30°C / 86°F
- **▶** PROTECT THE POWER CORDS
- **▶** USE ONLY ACCESSORIES SPECIFIED BY THE MANUFACTURER
- ► UNPLUG WHEN UNUSED FOR LONG PERIODS OF TIME OR DURING LIGHTNING STORMS
- ► OPTIONAL CARDS SHOULD NOT BE INSERTED OR REMOVED WITH THE POWER ON
- ▶ REFER ALL SERVICING TO QUALIFIED PERSONNEL ONLY
- NO USER SERVICEABLE PARTS INSIDE

IMPORTANT POWER NOTICE



THE UNIT POWER SUPPLY IS SUPPLIED WITH A 3-CORE AC POWER CABLE APPLICABLE TO THE REGION IT IS TO BE OPERATED IN, AND MUST BE CONNECTED TO A 3-PIN EARTHED SUPPLY.

IF A REPLACEMENT CABLE IS USED, THEN THE EARTH FROM THE MAINS SOCKET OR TECHNICAL EARTH TO THE CONSOLE MUST BE MAINTAINED.

IF ONLY A 2-PIN (NO EARTH) SUPPLY IS AVAILABLE, THEN THE EXTERNAL PSU MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN TO ENSURE THAT THE UNITS METALWORK IS PERMANENTLY EARTHED.

THE EXTERNAL PSU SHOULD ONLY BE POWERED FROM A SINGLE-PHASE SUPPLY WITH THE NEUTRAL CONDUCTOR AT EARTH POTENTIAL.

FAILURE TO FOLLOW THESE PROCEDURES AND RECOMMENDATIONS COULD INVALIDATE THE MANUFACTURER'S WARRANTY

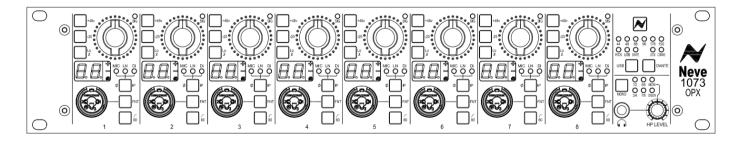
Dimensions& Power Requirements

Unit Physical / Technical Information

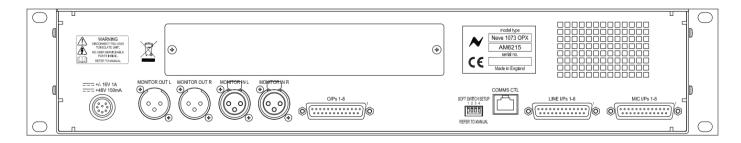
Height	89mm/3.5 inches
Width	484mm/19.05 inches
Depth	360mm/14.17 inches
Weight	7.8Kg
Heat Dissipation	40 Watts
Power factor	>0.90
Voltage	Input Voltage Range 90-240V AC Only
Current Amps RMS 240V	0.135A
Current Amps RMS 90V	0.330A
Current	Switch-On surge current –65A Peak @ 240V

Front & Back Panels

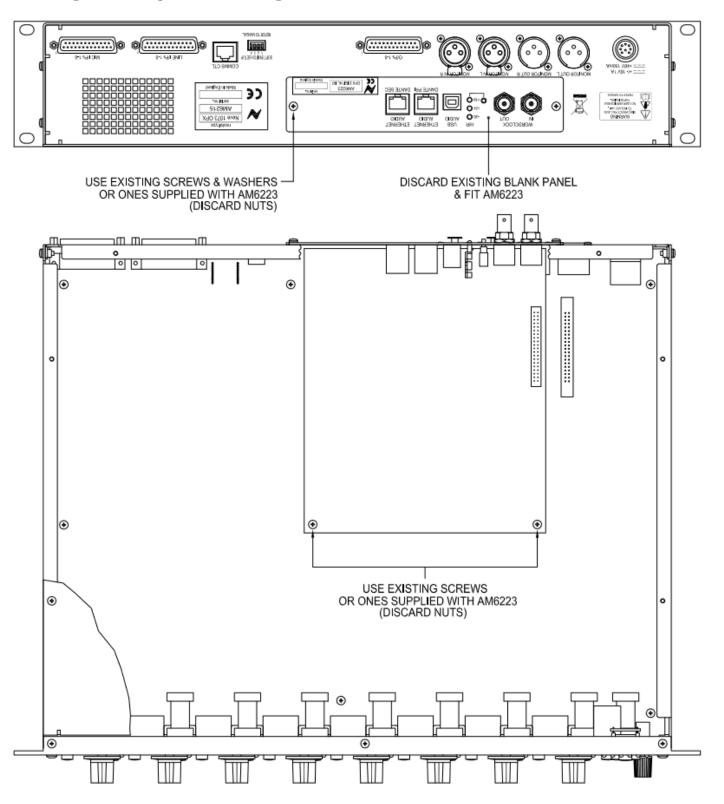
1073 OPX Front Plate



1073 OPX Rear Plate



Fitting the Optional Digital Card



FITTING AM6223 ASSY INTO AM6215 ASSY

Unit Connection Tables

External PSU Mains, fused @ 4 amps	IEC male
Preamp Microphone Inputs (Front)	XLR 3-pin plug female
Preamp Microphone Inputs (Rear)	25-way D-Type, Tascam convention
Preamp Line Inputs (Front)	1/4" TRS Jack sockets
Preamp Line Inputs (Rear)	25-way D-Type, Tascam convention
Preamp D.I inputs	1/4" TRS Jack sockets
Preamp Outputs (Rear)	25-way D-Type, Tascam convention
Headphone Output	1/4" TRS Jack socket
Monitor Inputs	XLR 3-pin plug Female
Monitor Outputs	XLR 3-pin plug Male
Comms	CAT 5/6 ethernet socket

Unit 25-Way D-Type Pin Outs

Preamp Mic Input 1-8 D-Type 25-Way Pin Outs

(25-way D-type)

Signal	Nome		Pin	
Signal	Signal Name	Hi	Lo	Screen
1	Microphone Input 1	24	12	25
2	Microphone Input2	10	23	11
3	Microphone Input3	21	9	22
4	Microphone Input4	7	20	8
5	Microphone Input5	18	6	19
6	Microphone Input6	4	17	5
7	Microphone Input7	15	3	16
8	Microphone Input8	1	14	2

Preamp Line Input 1-8 D-Type 25-Way Pin Outs

(25-way D-type)

Ciamal.	gnal Name	Pin		
Signai		Hi	Lo	Screen
1	Line Input 1	24	12	25
2	Line Input 2	10	23	11
3	Line Input 3	21	9	22
4	Line Input 4	7	20	8
5	Line Input 5	18	6	19
6	Line Input 6	4	17	5
7	Line Input 7	15	3	16
8	Line Input 8	1	14	2

Preamp Outputs 1-8D-Type 25-Way Pin Outs

(25-way D-type)

Giama I	Name		Pin	
Signal	Name	Hi	Lo	Screen
1	Preamp Output 1	24	12	25
2	Preamp Output 2	10	23	11
3	Preamp Output 3	21	9	22
4	Preamp Output 4	7	20	8
5	Preamp Output 5	18	6	19
6	Preamp Output 6	4	17	5
7	Preamp Output 7	15	3	16
8	Preamp Output 8	1	14	2

Line & D.I Inputs & Headphone output.

All ¼" Line Inputs & Outputs on the unit have the same wiring

Tip	Hot	
Ring	Cold	
Sleeve	Ground	

XLR Inputs& Outputs

All XLR Inputs & Outputs on the unit have the same wiring

Pin 2	Hot
Pin 3	Cold
Pin 1	Ground

Audio Specification

General Specifications				
Headroom	>+26dBu @ 1kHz (<0.5% THD+N)			
Frequency Response	Typically +/- 0.15dB, 20Hz to 20kHz			
Distortion (THD+N)	Typically 0.002% @ 1kHz (measured at +20dBu, 10Hz to 80kHz filter)			
General Noise	<-85dBu (20Hz to 22kHz filter)			
Mic EIN Noise	Typically -125dBu (20Hz to 20kHz)			
Microphone Inputs	Input Impedance $\approx 300\Omega$ or $\approx 1.3 k\Omega$ (PAD out). Transformer coupled. Gain 20dB to 70dB in 1dB steps.			
Line Inputs	Input Impedance ≈10kΩ Bridging (PAD out). Gain -20dB to +20dB in 1dB steps.			
DI Inputs	Input Impedance >680k Ω . Transformer-less Class A Gain 30dB to 60dB in 1dB steps.			
Cro	osstalk			

Crosstalk		Ī
Inter-channel crosstalk	<100dBu @ 1kHz	