



# R1 ST

## Vintage Style Stereo Ribbon Microphone

### INTRODUCTION

Congratulations on choosing the Golden Age Project R1 ST microphone!

The R1 ST is two high quality vintage style ribbon microphone sections with transformer balanced outputs in a classic Blumlein configuration for stereo and mono recordings. It offers the unique and natural sound that has been available in classical microphones like the RCA 44 and 77 that are still used to make high quality recordings today after over 80 years.

The R1 ST is very well suited for the recording of most sound sources like vocals, acoustic instruments, strings, horns, orchestras and choral groups and many live sound applications.

In spite of its low cost, the R1 ST meets the most stringent demands.

To get maximum benefit and trouble free use out of the R1 ST please read this manual carefully.

### UNPACKING, INSPECTION, STORAGE AND TRANSPORT

The R1 ST was carefully tested and packed at the factory. The hard and soft cases has been designed to protect the microphone when you store, ship or move it. Please always use one of them, or both, when you need to transport the R1 ST.

### IMPORTANT NOTICE:

The ribbon assemblies in the R1 ST, as in any ribbon microphones, are sensitive and fragile and can be damaged if handled the wrong way.

That is why it is important that you immediately after you have received the R1 ST, verifies that both sections are working properly and that they have not been damaged during shipments.

Connect the supplied cable between the microphone and the cable splitting box. Then connect standard balanced mic cables from the two outputs of the splitting box to the input to two preamp channels and verify the function.

The warranty of the ribbon assemblies in the R1 ST does not extend beyond this initial inspection, since it can be damaged if it isn't handled properly.

In the very rare case that the R1 ST is not working properly when receiving it, please contact your dealer.

### FEATURES

- Two ribbon elements, one placed above the other; each aimed 45 degrees from center in a classic Blumlein configuration.
- Creates a wonderful stereophonic representation of the sound source and the acoustic environment.
- Either side of the R1 ST can also be used as a mono microphone.
- The natural, smooth and musical sound of vintage style ribbon microphone technology.

- Captures every transient without harshness or hardness.
- The warm and punchy sound of a transformer balanced output.
- Ultra-high SPL capability, 160 dB SPL (1% THD @ 1000 Hz).
- Each section has a figure-8 directional pattern with wide sweet spots in the front and in the back.
- 50 mm long, 2 microns aluminium ribbons.
- Detachable microphone cable and a cable splitting box for left and right output.
- Shock mount and two transport cases, one hard and one soft.
- Manufactured of the finest materials for a great performance and long-term reliability.

### USE OF THE R1 ST

The R1 ST can be used with most mixers or preamps, preferably with balanced inputs and with a maximum gain of 70-80 dB to handle quieter sound sources.

For stereo recordings, position the R1 ST so that the GAP logo and the model name points towards the sound source. This will give you all the benefits of the Blumlein stereo recording technique. You can find a lot of information about the Blumlein Pair on the [www](http://www).

The R1 ST is also well suited to use according to the Mid-Side recording technique (M-S). Again, read about it on the [www](http://www).





Each section of the the R1 ST can also be used as a mono microphone. The Figure-8 pattern of the ribbon sections gives you the ability to separate sound sources by placing the unwanted ones in the zero pick-up side directions. This will remove most of the direct sound from the sound

source. The R1 ST will still pick up that source from the reverberant field in the recording room though.

Due to the small width of the ribbon, the horizontal pick-up pattern is very wide. It is much wider compared to a large capsule condenser microphone.

The vertical pick-up pattern is narrow at the higher frequencies though due to the length of the ribbon. This is due to the fact that the wavelength at higher frequencies is much shorter than the length of the ribbon. If you want maximum top end response from the R1 ST, it is important that the R1 ST is mounted so that it is parallel to the sound source. If it is vertically angled against the sound source, then there will inevitably be a loss of top end. This can sometimes be a good thing so this effect can be used creatively. The narrow vertical pick-up pattern will lower the effect of high frequency sound reflections.

Since the sensitivity of ribbon microphones in general are low compared to condenser microphones, you will need a preamp with some extra gain available when you record quiet sound sources.

Be aware of the proximity effect (an increase in bass response) when the R1 ST is close to the sound source. This can be a good or a bad thing. You can adjust the bass response by changing the distance from the microphone to the sound source for an optimum result in different situations. You can also use a high-pass filter in your preamp or mixer.

#### PRECAUTIONS

-The active part in the R1 ST consists of a very thin and ultra-light corrugated aluminium ribbon clamped under light tension and mounted between the poles of a strong magnet. When the sound waves hits the ribbon and moves it, a small current is generated in the ribbon since it is suspended in a magnetic field.

The good part of this design is that it results in one of the warmest and most natural sound available from any type of microphone. The bad part of it is the low output and that ribbon microphones are the most sensitive and fragile ones. It is therefore very important that the R1 ST, as any other ribbon microphone, is treated with special care if it is not to be damaged.

In order to ensure a long life for your R1 ST, please always follow these guidelines:

1. Do never subject the R1 ST to hard knocks, such as dropping it or not packing it properly when you move or transport it since this can destroy the ribbon assembly.
2. Do never blow into the R1 ST and protect it from

any strong blast of air movement as this can tear and destroy the fragile ribbon.

3. Do never move around fast with the R1 ST in your hand, please remember that any excessive air movement can damage the ribbon.

4. Do always use a pop-filter when there is a risk of excessive air movements reaching the ribbon from the sound source. One example is close-up vocals. The pop-filter will also protect the R1 ST from mouth spray.

5. Do always protect the R1 ST from dirt and moisture.

6. Do never apply phantom power to the R1 ST since it can damage the ribbon. Be very careful that phantom power is switched off at least 1 minute before plugging the R1 ST into a mixer or preamp and see to it that no one turns the phantom power on by mistake.

7. When the R1 ST is not in use, always keep it in its soft case.

8. Do always store the R1 ST in a vertical position. If it is stored horizontally, the 50 mm long ribbons can sag by time which will gradually degrade the performance of the R1 ST.

#### WARRANTY

- Due to the extremely delicate nature of ribbon microphones which can so easily be damaged by improper handling and use, the ribbon assembly is not covered under warranty.

Please check your R1 ST carefully immediately when you receive it and make sure that there are no problems with the microphone. After that first initial inspection, the warranty (the length is decided by the distributor for your area) only apply to defects in materials and workmanship in parts other than the ribbon assembly.

If the ribbon assembly is damaged during use, contact your dealer or us for a quote for replacement of the ribbon assembly.

#### SPECIFICATIONS

Type: Large ribbon geometry, pure aluminium, 2 um thick, 50 x 5 mm size.

Polar pattern: Figure 8

Frequency response: 30 Hz – 18 kHz +/- 3 dB

Sensitivity: -52 dB (0 dB=1V/Pa) @ 1kHz.

Maximum SPL (<1% THD @ 1kHz): 160 dB.

Output impedance: 600 ohm, balanced.

Recommended load impedance: > 3,0 kOhm.

Dimensions: 70x330 mm.

Weight: 1,56 kg with shock mount.

Please note: Specifications can be changed at any time

I would like to thank you for choosing the R1 ST!  
I hope it will serve you well and that it will help you in making many great sounding recordings.

Yours,  
Bo Medin

**Vintage character for modern ideas!**