



Press release



1951-2011

Nagra Audio celebrates 60 years of innovation

The Nagra history began back in 1951 with the invention, by the Polish-born Swiss engineer Stefan Kudelski, of the first portable self-contained tape recorder, the Nagra I. A major step forward that revolutionised sound recording.

The Nagra I measures only 30 x 18 x 10 cm and is based on miniature tube technology. It is equipped with a handle to tension the spring of a Thorens gramophone mechanism: this is used to transport the ¼" tape used by this recorder. The progress is enormous, the quality of the recording is simply outstanding. On-the-shoulder, radio reporters suddenly have a new mobility and flexibility. They can finally work liberally in the field and bring back audio captured on the four corners of the globe.

A legend is built

The invention is rapidly improved. The NAGRA II, launched 2 years later, also fitted with a clockwork motor, has a modulometer for measuring the signal modulation level and is equipped with printed circuit boards. This famous modulometer, round in shape and with a distinct pointer, has become a symbol of the brand and is still used on virtually every piece of Nagra equipment.

In 1958, the first entirely transistorized recorder is launched, the Nagra III, fitted with an electric motor and servo-controlled speed stabilization system, has an unmatched ruggedness and reliability. The unit, that only weighs 5 kg, conquers the cinema industry. With the arrival of the first lightweight cameras, a different filming approach is possible and allows the new wave directors to produce film with a totally new look, more realistic and spontaneous.

Over the decades, Nagra continues to evolve, the inventions conserve the spirit of searching for perfection that their reputation was built upon. The group of users continues to grow. Beyond the realms of the media and recording engineers, the circle of Nagra users spreads to many horizons: extreme explorers, ethnologists, scientific research, aeronautics and even space exploration. The company creates specific models and accessories for the needs of individuals. Miniature versions are adapted for use by law enforcement agencies, such as the NAGRA SN in 1970 made famous by its appearance on the introduction of the television hit "Mission Impossible"

The Nagra brand gained a universal value, and is used as a generic name for a portable tape recorder. Its prestige is such that it gained numerous awards, amongst which three Oscars[®] and an Emmy[®].

First digital, goodbye to tape

Remaining as always at the forefront of technology, Nagra was not left behind by the arrival of digital technologies, to the contrary, took the opportunity to produce machines able to fit into a full computerized environment.

Their first digital recorder, the NAGRA-D was introduced in 1992, and still used ¼" tape albeit digital (video) tape, but in 1995, the models of the ARES series moved to PCMCIA flash memory with no moving parts. In 2001, its successor, the Nagra V, based on the same lower chassis used a standard computer hard disk.

The Nagra VI is the most recent of the "larger" recorders. It is a recorder with ultra modern technology, software driven, with 8 tracks, it also records to a hard disk and removable flash memory card and can be connected to all computer systems.



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Entry into the HiFi world

In 1997, Nagra Audio decided to broaden its activities once more, and branched into the high-end HiFi market, and begins to progressively develop a wide range of products, destined to the most discerning clients. These machines are developed with the same criteria of excellence as the recorders, and by the same engineering and production teams.

The success is immediate, and Nagra rapidly becomes a reference in the industry.

The Nagra Hi-Fi catalogue currently holds about 10 models: CD players, preamplifiers and amplifiers often bestowed with the highest possible rewards from the specialized press.

A successor that pushes the company in a new dimension

In the early '90s, while the audio division continues to flourish, the company strategy changes when Mr André Kudelski, son of Stefan and also an engineer, takes the reins.

The company develops their Pay-TV activity in an initial partnership with the French company Canal+ for whom the encryption software and conditional access was developed. It was the starting point of a huge development programme. In 1991, more than 1 million decoders used the Kudelski encryption system, and by 1995 this number had grown to over 7 million.

In the following years, the Kudelski Group continues to expand, to become a world leader in secure solutions for revenue protection of the television operators using the Kudelski system, and offering interactive operations on the cable and satellite broadcast network as well as on mobile phones. The group gains an important position in the physical access domain for people, vehicles and events.

The business turnover today reflects the transitions that the group has made under Mr André Kudelski. Exceeding the Billion dollar mark represents an increase of fifty times that made twenty years ago.

About Nagra and the Kudelski Group

Nagra Audio (www.nagraaudio.com) - the audio division of the Kudelski Group - develops, manufactures and markets a prestigious range of products in the high-end high-fidelity market and a complete range of analogue and digital recorders with a firmly established reputation for quality and reliability among professional sound recordists.

The Kudelski Group (www.nagra.com) is a world leader in digital security. Its technologies are used in a wide range of applications requiring access control and rights management, whether for securing transfer of information (digital television, broadband Internet, video-on-demand, etc.) or to control and manage access of people and vehicles to sites and events. The Kudelski Group is headquartered in Cheseaux-sur-Lausanne, Switzerland.



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Nagra audio products chronological account

- 1951 NAGRA First prototype.
- 1952 **NAGRA I** Clockwork motor tube electronics.
- 1953 **NAGRA II** With a modulometer.
- 1955 NAGRA II CI With the first printed circuit boards.
- 1957 **NAGRA III DC** Servo controlled electric motor. Germanium transistors.
- 1960 **Nagra SN** "Série Noire" (prototype).
- 1962 NAGRA III with NEOPILLOT synchronization.
- 1967 **Nagra Crevette** Military recorder for torpedoes.
- 1968 **NAGRA IV** First recorder to use silicon transistors.
- 1970 **NAGRA SNN** Body recorder (before radio microphones).
- 1971 Nagra 4.2 Improved version IV.
Nagra IV-S Stereophonic.
- 1972 Nagra IV-SJ Instrumentation.
- 1972 **Nagra SN-S** Slow speed half track SN.
- 1973 Nagra SN-G Slow speed half track SNN full frequency response.
- 1974 **NAGRA IS** Light-weight mono broadcast recorder.
- 1975 NAGRA IS (T) With two speed.
- 1976 **NAGRA-E** Economy version.
- 1977 Nagra SNST Stereo SN for security applications.
NAGRAFAX Facsimile weather chart printer.
- 1978 **NAGRA TI** Twin capstan Instrumentation recorder.
- 1979 **NAGRA TRVR** Transport rack-mountable voice recorder.
- 1981 **NAGRA TA** Twin capstan audio version studio machine.
- 1983 **Nagra VPR-5** Video portable recorder (Joint venture Ampex).
- 1984 **Nagra JBR** Junior body recorder.
Nagra IV-STC SMPTE/EBU version of the IV-S.
- 1985 NAGRA TATC SMPTE/EBU version of the TA.
- 1986 **Nagra PS-1** Playback system for the JBR recorder.
- 1989 **Nagra RTU** Rotary transport unit (Joint Venture with Honeywell).
- 1992 **NAGRA-D** 4 Channel 24bits digital recorder.
- 1995 **ARES-C** PCMCIA recorder.
- 1997 ARES-CPP Rack-mount version of the ARES-C
Nagra PL-P Phono/line tube pre-amplifier, first high-end product.
- 1998 **Nagra VPA** Vacuum tube power amplifier.
- 1999 **Nagra MPA** MOSFET solid state power amplifier.
Nagra SNST-R Hi-Fi version of the SNST (SNST-revival).
NAGRA D-II High-Bit rate version (24/96) of NAGRA-D.



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- 2000 **ARES-P Pocket version of ARES-C.**
ARES RCX 220 USB version of ARES-P.
- 2001 **Nagra PL-L High-end line pre-amplifier.**
- 2002 **NAGRA V** HD recorder based on removable hard disk.
- 2003 **NAGRA DAC D/A converter for the Hi-Fi enthusiast.**
- 2004 ARES-P11 Linear replacement for the ARES-P and RCX220.
ARES-BB On-the-shoulder version of the ARES-P11.
NAGRA V-PP 19" Rack version of the NAGRA V.
- 2005 ARES-BB+ FAT 32 and 24 bit version of ARES-BB.
ARES-P11+ FAT 32 and 24 bit version of ARES-P11.
Nagra PMA Pyramid Mono Amplifier.
Nagra PSA Pyramid Stereo Amplifier.
ARES-M Ultra miniature hand-held recorder.
- 2006 **Nagra CD-T / P / C Range of high-end CD players.**
- 2007 ARES-M11 2GB version of ARES-M.
Nagra CBR Covert Body Recorder.
Nagra VPS Phono stage tube pre-amplifier.
- 2008 **NAGRA VI** Six channel digital location recorder.
NAGRA LB Two-track broadcast recorder with communication.
ARES-ML Simplified version of the ARES-M11.
Nagra BPS solid state phono stage pre-amplifier.
- 2009 **Nagra MSA** Mosfet Stereo Amplifier.
- 2010 Nagra VI with 8 tracks.
Nagra 300i and Nagra 300p Stereo tube amplifiers.

In red, Hi-Fi products

More about Nagra products on www.nagraaudio.com