ROHDE&SCHWARZ

Test and Measurement
Division

Operating Manual

AUDIO ANALYZER

R&S UPL/UPL16/UPL66

DC to 110 kHz

1078.2008.06/16/66

Software version UPL 3.00

Volume 1
Operating manual consists of 2 volumes

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Dear Customer,

The Audio Analyzer R&S UPL is abbreviated as UPL.

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1 Preparation for Use

1.1 Putting into Operation

1.1.1 Setting up the Audio Analyzer

The UPL can be operated in the following positions:

- Horizontal position: fold out the front feet provided on the instrument bottom in order to obtain an better view on the LC display.
- Vertical position tilted on its rear panel. Fold out the feet provided on the rear panel and use a 90% offset power connector (included in the accessories supplied).

Note: *To ensure optimum performance of the audio analyzer observe the following:*

- Do not cover the rear lateral ventilation openings.
- Adhere to the permissible ambient temperature specified in the data sheet.
- Avoid moisture condensation. If it has already occurred, dry out the instrument before switching it on.

1.1.2 Rackmounting

Use the adapter (see Data Sheet for type and order number.).

Note: *To ensure optimum performance of the audio analyzer observe the following:*

- Be sure sufficient air is supplied within the rack.
- There must be adequate space between ventilation openings and rack housing.

1.1.3 Power Supply

The UPL can be set to operate at AC supply voltages of **100 V**, **120 V**, **220 V** and **230 V** with a tolerance of ± 10 % and a frequency of 47 Hz to 63 Hz. It can also be operated from AC supplies with other nominal voltages as shown in the table below.

Table 1-2 Operation of UPL from other AC supplies

Nominal AC supply voltage	Setting of voltage selector	Tolerance of instrument
110 V	100 V	+ 4 % – 18 %
	120 V	+ 20 % – 6 %
115 V	120 V	+ 15 % – 10 %
127 V	120 V	+ 4 % – 18 %
240 V	230 V	+ 6 % – 15 %

Before initial power-up, check that the correct supply voltage is set. If the setting is not correct, reset as follows:

- Remove power cable.
- Open cap of voltage selector using a slotted screwdriver.
- Remove both fuse holders and insert fuses of appropriate value (included in the accessories supplied):

  Rated voltages 100 to 120 V,
  2 fuses T 4.0 H (IEC 127-2/III)

  Rated voltages 220 to 240 V,
  2 fuses T 2.5 H (IEC 127-2/III)

- Insert fuse holder.

  Remove the cylinder labeled with the rated voltages and re-insert it such that the value visible in the cap window when fitted corresponds to the desired rated voltage. If there is no suitable imprint, select the value closest to the desired one.

- Close the cap.

1.1.4 Switching On

Note: *Make sure no disk is available in the disk drive when turning the UPL ON (press ON/OFF switch on the front panel).*

Switch-on of the UPL is followed by the system start-up, selftest of the controller and loading of the MS-DOS operating system as well as of the measurement and operating software from the hard disk. While the UPL switch-on logo is being displayed, the selftest of the measurement hardware is executed (see Section 4.2 Function Test). The last UPL setup which has been automatically stored is subsequently loaded from the CMOS-RAM, setting the UPL to the status valid before switch-off.

Note: *If no characters are displayed on the screen after switch-on, the contrast control may be maladjusted (UPL02 with monochrome display only). Press the "Contrast" key in the CONTROL field of the front panel keypad and set the contrast for the desired angle of view using the rotary knob.*

For operation of an external monitor, refer to Section 2.17, Connecting External Devices.

Note:

- The system selftest also includes checking the availability of an external keyboard (see 2.17 Connecting External Devices). If an external keyboard is connected, it can be used for operating the UPL.
- Connecting the external keyboard after having turned on the UPL may involve that the software does not recognize the keyboard i.e. it is without function.
- With the use of an external keyboard, the storage test of the system can be aborted - while the storage addresses are being counted up - using the ESC key.
- The system messages output during system start-up are not displayed, since the LC display is not yet ready at this time. To make these messages visible, which is usually not required, it is necessary to connect an external monitor.
- The message

  PRESS <DEL> IF YOU WANT TO RUN SETUP/EXTD-SET

  or any corresponding message is displayed during system start-up (on an external monitor, only). Pressing this key allows you to enter the SETUP program where system configuration, date and time can be defined. We advise against calling this program as changing its settings, though inadvertently, may cause the UPL to work incorrectly or not work at all.

Calling this program is required only after battery replacement. (Section 4.3 Troubleshooting, deals with battery replacement and setups and, in addition, how to correct a maladjusted SETUP.) If required, date or time should be changed using the DOS commands DATE and TIME.

1.1.5 Switching Off

- Wait until there are no accesses to the hard disk or disk drive anymore.
- Remove the disk from the drive.
- Press the ON/OFF key on the front panel. (All UPL setups are maintained.)

1.1.6 Connecting an External Keyboard

Note: *Connect the keyboard only with instrument switched off. Otherwise, correct function of the keyboard cannot be guaranteed.*

The keyboard connector is fitted to the rear of the instrument (KEYBOARD label). Any standard PC keyboard may be used.

In normal operation, the keyboard facilitates the entry of commentary texts, file names etc. If the controller mode of the UPL is selected, e. g., in order to store measurement results in documents, the keyboard assumes its usual PC function (cf. **2.18 UPL Used as Computer**).

Section 2.1.1 (Front View of the Instrument) includes an overview of the assignment of the key functions of the UPL front panel to short-key combinations of the external keyboard. This assignment table can be looked up at any time in the help function (press front panel key HELP or F1 on the ext. keyboard) under the key-word "UPL".

The automatic repetition rate with constant key stroke and the associated delay can be modified in the OPTIONS panel (Rep rate, Rep delay).

Either a keyboard with German or English key assignment can be selected:

- change to DOS (press SYSTEM key)
- call "BOOTSET" program and make appropriate selection
- enter UPL to return to measuring operation

1.1.7 Connecting a Mouse

Note:
Connect the mouse only with the instrument switched off. Otherwise, correct operation cannot be guaranteed.
The complete UPL may be mouse-controlled. Particularly, the entry of commentary texts, file names etc. is easier than via the front panel keys, only (selecting the keys of a "screen keypad"). Mouse control is described in Section 2.3.

The UPL requires the appropriate mouse driver in the path C:\MOUSE of the UPL named mouse.com., which must be available on a 3.5"-disk.

Proceed as follows:
(In the subsequent example, the mouse driver to be installed is called msmouse.com and is located in the root directory of the disk)

- Connect external keyboard. Connect mouse to the interface COM1 and switch on the instrument
- Press ESC while the UPL switch-on logo is displayed to change to the DOS level
- Insert the disk with the driver to be installed in the 3.5" drive.
- Execute the following DOS command: copy a:msmouse.com c:\mouse\mouse.com
- Enter UPL: the UPL operator surface is started.

1.2 Fitting Options

Installation of hardware options:

Hardware options may be installed only by a Rohde & Schwarz service center.

Installation of software options:

- Either manual entry of installation key (see **1.2.1**) or
- installation of supplementary software by means of a installation program supplied with automatic enabling of option (see 1.2.2 Installation of Supplementary Software).

Which of the two methods is used depends on the option concerned and is described in the installation instructions enclosed.

To order the following options, the serial number (SER. xxxxxx/xxx) at the rear of the unit has to be entered; the material number (1078.2008Kxx) is additionally required for newer units (SER. xxxxxx).

• Digital Audio Protocol	UPL-B21	1078.3856.02	(manual enabling)
• Jitter and Interface Test	UPL-B22	1078.3956.02	(manual enabling)
• Remote Control	UPL-B4	1078.3804.02	(manual enabling)
• Extended Analysis Functions	UPL-B6	1078.4500.02	(manual enabling)
• Universal Sequence Controller	UPL-B10	1078.3904.02	(manual enabling)
• Line Measurement to ITU-T O.33	UPL-B33	1078.4852.02	(manual enabling)
• Coded Audio Signal Generation	UPL-B23	1078.5188.02	(automatic installation)
• Mobile Phone Test Set	UPL-B8	1117.3505.02	(automatic installation)
• 3G Mobile Phone Tests	UPL-B9	1154.7500.02	(automatic installation)

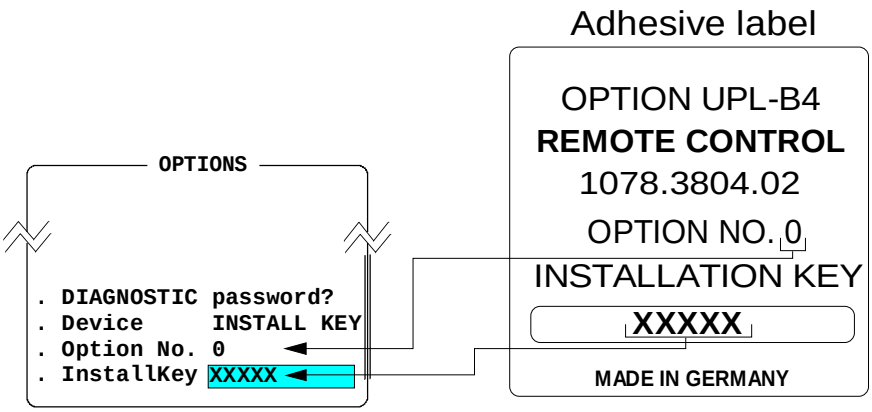
1.2.1 Enabling Software Options

If one of the options was uninstalled by mistake, it has to be installed again, which is explained in the following, the **Remote Control UPL-B4** being used as an example.

- Switch on unit.

- Select the OPTIONS panel by means of the OPTIONS key on the UPL front panel or by pressing the ALT+O keys on the external keyboard and scroll to the panel end by means of the Cursor or Page key.

- Enter the numbers printed on the adhesive label at the rear of the unit into the **Option No.** and **InstallKey** fields in the OPTIONS panel.



If the correct installation key has been entered, the following message is displayed:

Option installed!

If a wrong installation key has been entered, the following message is displayed:

Wrong Installation Key! Turn power off and restart UPL!

After the UPL has been switched off and on again, the installation key can be entered a second time.

If the installation key is entered again without having switched off/on the UPL beforehand, the following message is displayed:

To retype Installation Key, turn power off and restart UPL!

1.2.2 Installation of Supplementary Software

A software option for which supplementary software is required in addition to the installation key is installed via an installation program supplied. This program checks whether the option is enabled and queries the installation key, if necessary. If an already enabled option is installed (for the first time), this query will be omitted.

For first-time installation of option software, proceed as follows:

- Switch off unit (so that keyboard will be recognized correctly afterwards).
- Connect external keyboard.
- Switch on unit.
- Quit the UPL operating software either
  - by pressing the ESC key (or CANCEL key of the UPL keyboard) while the start-up logo is being displayed or
  - (while the UPL operating software is running) by pressing the SYSTEM and ENTER keys (corresponds to ”Normal Exit to DOS” in the selection box).

  Perform all subsequent entries via the external keyboard.
- Insert floppy #1 of option software.
- Enter "A:" and confirm entry using the Return key.
- Enter name of installation program according to installation instructions (e.g. PHONINST for UPL-B8, B23INST for UPL-B23) and confirm entry using the Return key.
- Enter the installation key supplied when prompted to do so (only for first-time installation).

  Note: *If the entry via the external keyboard is not possible, the Universal Sequence Controller had been selected after power-up of the UPL. In this case, the UPL has to be switched off and the installation has to be started again. The selection of "Universal Sequence Controller" has to be avoided.*
- Continue installation according to instructions displayed. Normally, the only action required is to insert and remove floppies.
- If the software consists of several floppies, make sure that the floppies are inserted in the correct order (start with floppy #1).

Note: *The software is supplied on the floppies in compressed form and is unpacked only during installation (the size of the unpacked software is therefore much larger than the capacity of the floppy). The program for unpacking the software may output messages like "Exploding...", "Unpack" etc. These messages are correct. They do not indicate an erroneous installation.*

1.2.3 Installation of Virtual Drive (RAMDRIVE)

If the UPL has sufficient RAM capacity (at least 16 Mbyte), part of the RAM can be used as a RAM drive. Like normal hard disk drives, this virtual drive can be accessed via a drive letter (normally D:). Data on the RAM drive can be processed much faster than data on the hard disk but is no longer available if the UPL has been switched off. Therefore, the user has to make sure that RAM drive data is saved (on floppy or hard disk) - unless it is to be used only temporarily - prior to switching off the unit.

The RAM drive can be easily activated by means of the UPL software (version 3.0 or higher). In the CONFIG.SYS (available in the UPL root directory) the corresponding line is marked with REM which means that the line cannot be executed. To activate the RAM drive, delete the keyword REM in the following line:

REM DEVICEhigh =c:\dos\RAMDRIVE.SYS 17000 /E

Then install the UPL software (PROGRAM floppy) 3.0 or higher again to ensure that this modification is implemented in all other relevant files.

If a RAM drive is to be installed in an ***UPL software version 1.xx or 2.xx***, the following has to be observed:

- The line mentioned above must be entered in *all* CONFIG.* files (in the root directory of the UPL); otherwise this entry will be lost upon reconfiguration (with UPLSET.BAT).
- These entries are lost when the software is updated to version 1.xx or 2.xx.

If ***less than 32 Mbyte RAM*** is installed in the UPL, the RAM drive capacity should be selected so that at least 4 Mbyte or better 8 Mbyte RAM is available for the UPL:

- With ***16 Mbyte RAM*** a smaller RAM drive of max. 8 Mbyte is to be generated. The numeric value 17000 (17 Mbyte) in the above line then has to be reduced to 8000.
- With ***8 Mbyte RAM*** a RAM drive should not be used. If the ARBITRARY generator function is not used to play CPR, ACC or WAV files, a small RAM drive of max. 4 Mbyte may be used.
- With ***4 Mbyte RAM*** *no* RAM drive can be installed.

Notes*:*

- *It is strongly recommended to install a RAM drive for the option UPL-B23. The RAM drive is installed if the installation is performed in the factory.*
- *To operate the option UPL-B23 (Coded Audio Signal Generation) with* ***8 or 4 Mbyte RAM,*** *it is recommended to start the UPL with the call parameter '-ramdriveC'. Thus, the UPL knows that it has to use a hard disk directory to buffer the files. Since there is only a subset of library files in this directory, download times are considerably reduced.*
- DOS automatically assigns a drive letter to the RAM drive. In the UPL, this is normally drive D:. If a different drive letter (e.g. X:) is used due to a special configuration of the UPL, this letter should be communicated to the UPL software (from version 3.0 or higher) via the call parameter '-ramdriveX' with X being the designation of the RAM drive.

1.3 Software Installation

The following floppy disks are supplied together with the UPL:

- MS-DOS system floppies, containing all programs associated with MS-DOS.
- UPL program floppies, including the complete UPL operating and measurement software.
- UPL Example Disk. It contains examples for remote control via IEC/IEEE-bus and for Universal Sequence Control UPL-B10. as well as setups to different measurement applications.

The UPL is supplied with the operating system and the UPL software including example files already installed on the built-in hard disk. The supplied floppy disks are needed only when the complete software or parts thereof have been deleted inadvertently by the user. The MS-DOS, UPL software and example files can also be installed separately.

Note: *The UPL software is supplied in packed format and unpacked only during installation (the software then considerably exceeds the capacity available on the disk). The unpacking program may output messages such as "Exploding...", "Unpacking" etc. These messages are correct and do not mean faulty installation.*

Installing the MS-DOS operating system:

- Connect the external keyboard.
- Switch on UPL, insert 1st disk.
- Press CTRL + ALT + DEL (or STRG+ ALT+ ENTF) keys.
- The installation program is started.

Continue the installation following the notes on the screen.

Installing the UPL operating and measurement software:

- Connect the external keyboard.
- Switch on UPL.
- Exit the UPL operating software by pressing ESC key while the switch-on logo is being displayed on the screen, or, with the UPL operating software loaded, by pressing the SYSTEM key and Enter (corresponds to "Normal Exit to DOS" in the selection box).
- Insert the UPL program disk.
- Key in A :, press Enter.
- Key in UPLINST, press Enter.

The UPL software is now copied onto the hard disk.
Continue the installation following the notes on the screen.

The UPL user interface is be displayed on the LCD screen.

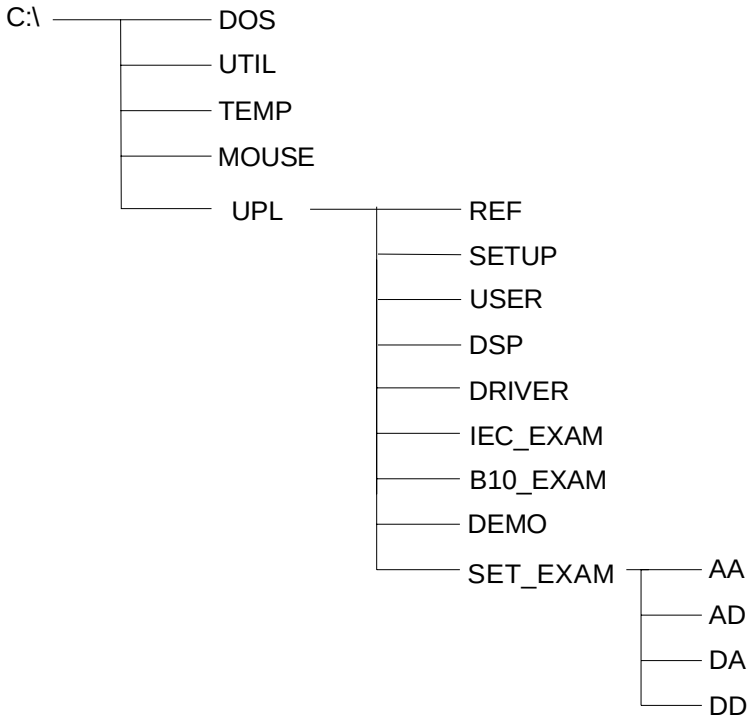
Note: *If an updated version of the UPL software is to be installed, proceed as described above.*

Installation of UPL example files:

- Connect the external keyboard.
- Switch on UPL.
- Exit the UPL operating software by pressing ESC key while the switch-on logo is being displayed on the screen, or, with the UPL operating software loaded, by pressing the SYSTEM key and Enter (corresponds to ”Normal Exit to DOS” in the selection box).
- Insert the UPL example disk.
- Key in A :, press Enter.
- Key in SETINST, press Enter.

The UPL example files are now copied onto the hard disk. Then the UPL operating software can be started as usual.

The files copied onto the hard disk during installation are stored in the following directory structure:



The READ.ME file in the C:\ directory refers to the contents of the individual directories and files.

After installation, the \DOS, \UTIL and \UPL paths are defined.

Note: *To ensure correct functioning of the UPL measurement and operating software, do not modify the directory structure stated above nor the paths.*

1.4 UPL Start Options

This chapter is primarily for advanced users since basic knowledge of the MSDOS operating system is required, thus allowing the user to additionally optimize the UPL for special applications.

1.4.1 Restarting the UPL Software

The software is automatically started when the UPL is switched on. A restart of the UPL software is normally not required but may be performed any time. There are different possibilities to do this:

1. *If an external keyboard* is not provided, the UPL has to be switched off and on again by means of the power switch (cold booting). Wait at least 10 s before switching the UPL on again to prevent the hard disk from being damaged.
2. *If an external keyboard* is provided, the UPL can be restarted by pressing the keys Ctrl + Alt + Del (warm booting). This is much faster than method 1.
3. The UPL software can be quit via the SYSTEM key (Ctlr F9 on external keyboard). The UPL is then at operating system level which is shown by the DOS prompt "C:path name>". The path name indicates the current directory. The UPL software can be restarted at this level by entering "upl" and then pressing the Enter key. This is even faster than the warm booting method described above.

1.4.2 Integration of Supplementary Programs

It may be desirable for certain applications to install supplementary programs on the UPL and to start them upon power-up prior to starting the UPL software. Such supplementary programs can be hardware drivers (e.g. mouse drivers, keyboard drivers for special external keyboards) but also batch files or programs for special applications.

Usually, such programs are entered in the AUTOEXEC.BAT file. This is, however, not a solution recommended for the UPL since the AUTOEXEC.BAT file is overwritten whenever the software is installed (e.g. during a software update) and when the configuration program BOOTSET is called up.

Instead, all additional applications should be called up in the batch file USERKEYB.BAT. This file – if not yet available – is generated in the UPL root directory (C:\UPL) together with a USERKEYB.DEF sample file during the installation of the UPL software (version 3.0 or higher) and then comprises examples of lines for potential applications. These lines cannot be executed since they are preceded by the keyword REM.

Like any other batch file, USERKEYB.BAT can be processed by a text editor (e.g. EDIT) and adapted to user requirements:

- A program line is activated by deleting the keyword REM at the beginning of the line.
- A program line is deactivated by inserting the keyword REM at the beginning of the line or by deleting the whole line.
- The whole batch file is deactivated by renaming (e.g. USERKEYB.SAV) or by deleting it.

USERKEYB.BAT must be located in the UPL root directory where it is called up while AUTOEXEC.BAT is being executed.

USERKEYB.BAT is exclusively checked by the user and is neither modified by the UPL software nor by installation programs.

Like AUTOEXEC.BAT, USERKEYB.BAT is executed only once when the internal controller is (re)started. Calling "upl" from the operating system level (see 1.4.1) does *not* execute the two batch files.

1.4.3 Command Line Parameters of the UPL Software

The (start) behaviour of the UPL can be individualized by means of command line parameters. Moreover, particular command line parameters, called 't-switches', allow the UPL to be configured for very special functions that are not documented in the manual.

If the UPL is called up using an invalid parameter, a list of valid parameters is displayed and the program is terminated.

Some of the command line parameters of the UPL are described in the following. Other parameters, especially those beginning with "-t" should be selected by the user only if the function is exactly known since the UPL's behaviour can, as a consequence, deviate more or less from the usual and described functionality.

The complete list with all command line parameters is displayed on the UPL when the UPL software is called using the parameter "-t?".

Display settings:

Command line parameter	Value	Description
-c		Coloured display on LCD *and* external monitor.
-m		Monochrome display on LCD *and* external monitor.
i		Monochrome display on LCD, only; external monitor is *not* addressed.

Used setup:

Command line parameter	Value	Description
-d		The UPL always starts with the default setting.
-sfilename.xxx		The UPL always starts with the setting of the given setup "filename.xxx". "filename.xxx" must be a "complete" setup.

Configuration of universal sequence controller (BASIC options):

Command line parameter	Value	Description
-bpx		Explicit indication of BASIC program memory capacity in kbyte. Permissible values for x: 8 to 64; the default setting is 32 or 64 kbyte depending on the configuration selected.
-bdx		Explicit indication of BASIC data memory capacity in kbyte. Permissible values for x: 4 to 0.64; the default setting is 32 or 64 kbyte depending on the configuration selected.
-bnfilename		BASIC program (macro) to be loaded and started automatically upon program start.
-r		Suppresses the waiting interval for user entries while the UPL is being started. Thus, the UPL can be started much more quickly. This parameter is also recommended when the UPL is remote-controlled.

Other:

Command line parameter	Value	Description
-ax		Analyzer options:
	x=1	When the analog channels are switched off, the outputs are switched to high impedance (high Z).
-ox		Parameter to ensure compatibility with previous software versions:
	x=1	Digital FS is *not* dealt with according to AES-17 standard: a sine signal with the amplitude 1 FS yields an RMS value of 0.7071 FS. A squarewave signal with the amplitude 1 FS yields an RMS value of 1.0 FS.
	x=2	During S/N measurements, the wanted signal is also measured using the selected filters.
	x=4	Waveform can be represented on a logarithmic scale.
	x=5	Modification of rollkey function in the operating panels: The rollkey cannot be used for navigating in the panel. Instead, it opens the selection window at the cursor position in the panel.
	x=14	Protocol data is no longer updated when switching over to PROTOCOL PANEL OFF (default behaviour prior to version 3.0).
	x=15	Use of previous jitter weighting filter (prior to version 3.0).
-ramdriveX		Definition of drive X as (pseudo) RAM drive.
	X=D	Default state; drive D: is used as RAM drive.
	X=C	A temporary directory on the hard disk is used as pseudo RAM drive. This is recommended if not enough RAM memory capacity is available to install a RAM drive and the UPL-B23 option is used.
	X=E or higher	The RAM drive used by the UPL-B23 option is drive E: (or higher); it is recommended if other drives or RAM drives are installed in the UPL.

Hidden command line parameters:

Command line parameter	Value	Description
-tsk		PCX pictures are printed using the softkeys.
-tjit		Jitter mode is selectable (clock or data jitter).
-tdcx	x=h	The optional Audio Monitor is reconfigured to operate as DC output. Voltage range -6 V to +6V.
	x=l	DC voltage range of reconfigured Audio Monitor: -2 V to +2 V.
-tsyncx		Behaviour in case of "lock error" (default: no reset, but restart of measurement).
	x=1	No reset but measurement is continued.
	x=2	No check for "lock error" in digital analyzer.
	x=3	Reset of AES receiver; measurement is restarted (default behaviour prior to version 3.0).
-tlog		Activates logging of IEC/IEEE-bus commands as BASIC commands. This allows to find out (with UPL-B10 installed) which IEC/IEEE-bus commands were sent from the host processor to the UPL.
-trest		Prevents the ongoing measurement to be restarted with generator frequency and level settings.
-tfilxz.yz		Rub & buzz measurement: modifies the waiting time for filter settling:
	xz	xz: divides the settling time of an optional lowpass filter by x.z.
	yz	yz: divides the settling time of the standard tracking highpass filter by y.z.
	Examples	99 reduces the settling time by a factor of 1/9.9 = 0.101. 10 leaves the settling time unchanged.

Command line parameter	Value	Description
		04 increases the settling time by a factor of 1/0.4 = 2.5.
-ttimo		Deactivates the timeout test for measurements.
-tthdnwin		THD+N measurement: window for FFT is settable.
-tpanel		Automatically generates a text file of the same name (TXT file) with the contents of all panels when an actual setup (SAC files) is stored.
-tterzx.y	x.y = 0.1 to 9.9	Third-octave analysis: sets the decay time constant (in seconds) for the Maxhold function. (Example: -tterz0.1 sets 0.1s).
-twavx		ARBITRARY generator function: selects the channel of WAV files to be played (default: stereo is played in mono).
	x = 0	Left mono channel.
	x = 1	Right mono channel.
	x = 2	Stereo (only possible in digital generator with 8-bit signals).
-tpolarx	x > 0	Rub & buzz measurement: determines the measurement time of the polarity measurement in µs (-tpolar200 sets a measurement time of 0.2 ms).
-tquot		Allows the vertical line (|) instead of the inverted comma (') in IEC/IEEE-bus commands.
-tappl		Causes the "Working Dir" of the application setups to remain unchanged even in the event of loading from the application level and protects it from being overwritten by the current working directory. This facilitates application setup adaptation with subsequent storage at the same location.
-tkeyb		Allows the connection of an external keyboard even after UPL power-up. Deactivates the virtual keyboard. An external keyboard *must* be connected to enter letters.
-tsinad		SINAD/THD+N measurement: the weighting filter also has an effect on the RMS measurement result.
-tanlg		Allows the FFT representation in the 110 kHz analyzer up to 140 kHz; typical level error above 120 kHz: approx. 3 dB.

1.4.4 Immediate Effect of Command line Parameters at Power-Up

If command line parameters are to be effective every time the UPL is started, it is desirable to enter them as fixed data. The method of writing them into the AUTOEXEC.BAT– as described in Section 1.4.2 Starting Supplementary Programs – is not a useful long-term solution.

The USERKEYB.BAT file is also suitable for this application. The DOS variable UPLCFG can be defined with the desired list of arguments which is then transferred to the UPL program. The correct syntax is as follows:

set UPLCFG=lists of arguments

The "list of arguments" contains all desired command line parameters separated by blanks.

Example:

set UPLCFG=–r –d

The UPL is always started in the default setting (-d) without waiting for any keystroke (-r).