



## Meinberg Radio Clocks

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## MSF600USB: MSF Radio Clock for the Universal Serial Bus (USB)

The MSF600USB is a MSF Radio Clock for USB in a compact plastic housing with an integrated MSF antenna, an (optional) external antenna can be connected to compensate degraded reception quality. This device is a perfect alternative for synchronizing computer systems where no PCI slot or serial port is available for time synchronization.

### Key Features

- USB 2.0 (Universal Serial Bus), 5 V
- Reception status indicated by LED
- Buffered hardware clock
- Powered by USB (no extra power supply required)
- Connector for external MSF antenna
- Plastic case
- Three-year warranty

## Description

The MSF600USB shows the reception quality via its status LED and uses a buffered real time clock to maintain the time while powered off. There is no power supply required, it is powered by the Universal Serial Bus.

The MSF600USB provides a professional solution to your time synchronization requirements in mobile applications like field data acquisition with a laptop/notebook and can be deployed whenever you need to synchronize a standalone PC, laptop or server when no PCI or serial port is available.

The **Windows** driver package includes a time synchronization service which runs in the background and adjusts the Windows system time continuously and invisibly. This package also includes a monitor program to enable the user to check the status of the device and time adjustment service. If the monitor program is run with administrator rights, it can also be used to modify configurable parameters.

The **Linux** and **FreeBSD** driver packages include a kernel driver which allows the product to be used as a reference time source for the NTP daemon included in most Unix-like operating systems. This also allows the computer to be used as an NTP time server to provide accurate time to NTP clients on the network. Some command line tools can be used to modify configurable parameters and monitor the status of the clock in use.

The Meinberg Single-Driver-Concept simplifies driver installation dramatically - there is only one driver who supports all Meinberg PCI and USB devices and if you use our API to access your Meinberg timing device from within your own applications, you can use the same source code for both PCI and USB devices.

## Characteristics

<b>Receiver Type</b>	Integrated MSF long wave radio receiver 60 kHz ( <a href="#">[1]MSF website</a> )
<b>Synchronization Time</b>	2-3 minutes after signal reception has been established
<b>Antenna Connector</b>	SMB subminiature coaxial connector
<b>Current Draw</b>	90mA
<b>Physical Dimensions</b>	73mm x 117mm x 24mm (L x W x H)
<b>Supported Temperature</b>	Operational: 0 - 50 °C (32 - 122 °F) Storage: -20 - 70 °C (-4 - 158 °F)
<b>Supported Humidity</b>	Max. 85 % (non-condensing) at 40 °C
<b>Contents of Shipment</b>	Radio Clock, 3 m USB cable
<b>Warranty</b>	Three-year warranty
<b>RoHS Status of Product</b>	This product is fully RoHS-compliant.
<b>WEEE Status of Product</b>	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

## Manual

The English manual is available as a PDF file: [2][Download \(PDF\)](https://www.meinbergglobal.com/download/docs/manuals/english/msf600usb.pdf)

## Links:

[1] <https://www.npl.co.uk/msf-signal>

[2] <https://www.meinbergglobal.com/download/docs/manuals/english/msf600usb.pdf>