

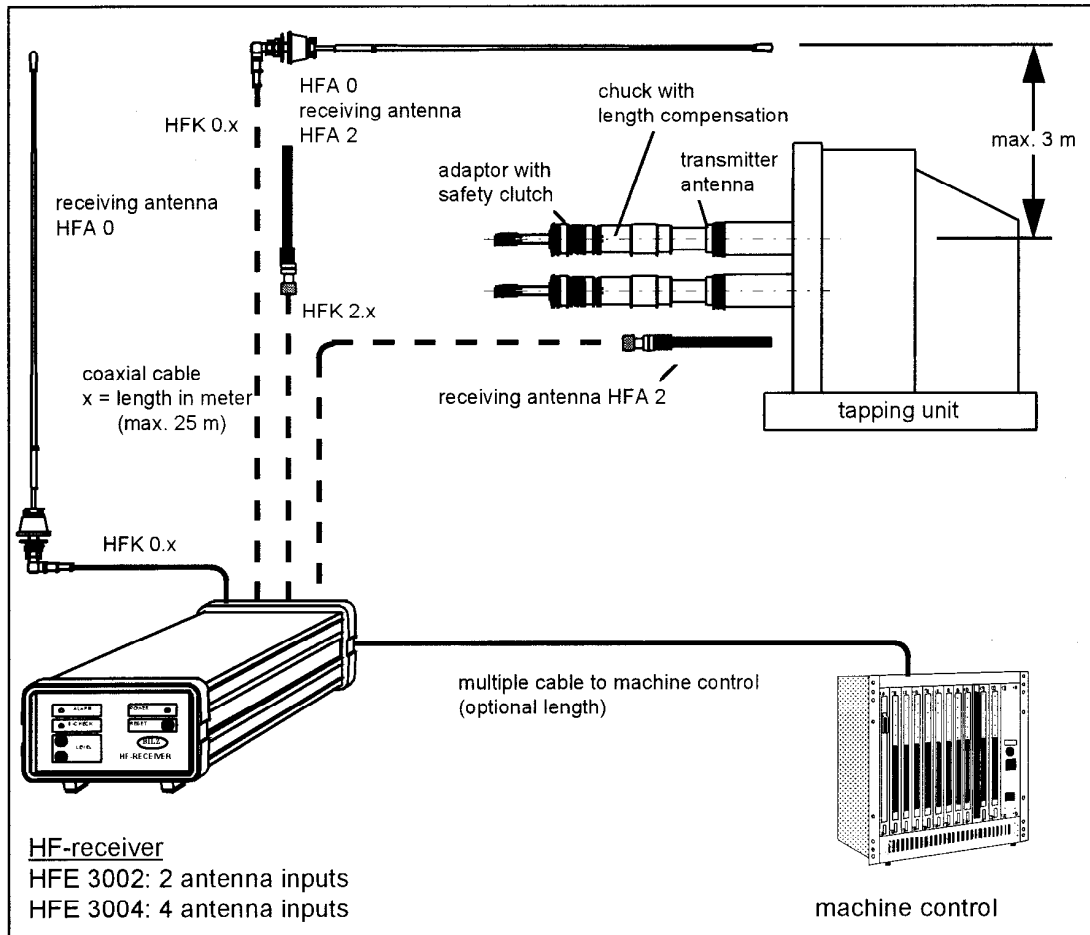


Otto Bilz Werkzeugfabrik GmbH & Co

HF Wireless Tapping Control Unit HF 3000 OPERATING INSTRUCTION

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1 Layout Diagram: HF Wireless Tapping Control Unit HF 3000



2 Introduction

HF Tapping Control Unit (HF = High Frequency)

When tapping on transfer lines, special purpose machines and machining centers, damage of the tap cannot always be prevented. Occasionally, the threads are not tapped to full depth or are missing at all. Such faults remain often undetected until assembling of the parts. This causes high remachining costs and means sometimes even the rejection of the component. In combination with the BILZ WFL, WFLK or WFLP Quick Change Tapping Chucks and Adaptors with safety clutch, the HF unit controls the thread depth, identifies possible tap breakage during tapping operation and prevents such malfunctions.

3 The HF transmitter „HFS 3100“

3.1 Operational Modes of HF Transmitter

Collision alarm	Battery monitoring alarm
<u>Alarm triggering:</u> Chuck is compressed in the clockwise direction or extended in the anticlockwise direction	<u>Alarm triggering:</u> Battery voltage drops below 3.0 V.
<u>Reaction:</u> HF signal in 1 sec. rhythm	<u>Reaction:</u> HF signal in .5 sec. rhythm.
<u>End of alarm:</u> Collision alarm is cancelled 5 sec. after chuck release. Transmitters of extended transmittal time are available on request	<u>End of alarm:</u> Battery monitoring alarm can be cancelled only by removing the empty battery.

As long as no alarm is being triggered the HF transmitter is in inoperative position and requires max. 20 µA of energy.

3.2 Battery replacement

As soon as a battery monitoring alarm is being triggered, the battery is to be **replaced immediately**.

- Remove from spindle the chuck having triggered battery monitoring alarm (for identification see 4.2.1), dry it up and unscrew plug screw from shank.
- Remove empty battery and replace it by a new one.
Attention: Insert battery with negative pole (-) towards open end of shank.
 For replacement purposes use **only** lithium-thionyl-chloride batteries, size ½AA (preferably Sonnenschein SL-750/S).
- Screw in again shank plug screw.

3.3 Technical data

General

Country	FRG	U.K.	USA	Sweden	
frequency range	70.00-72.00	49.82-49.98	72.00-72.99	30.27-30.34	MHz
channel spacing	80	16	30	30/40	kHz

transmitting range (distance chuck - antenna) abt.

3 m

HF-output

< 1 nW

permissible ambient temperature

0 - 80 °C

HFS 3100

Power source: lithium thionyl chloride battery

3.6 V

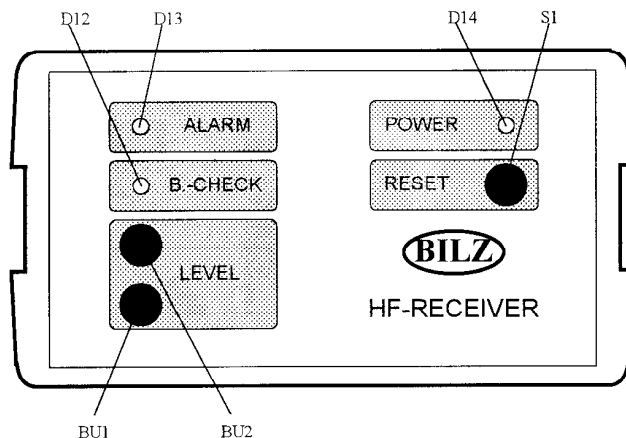
Battery capacity

850 mAh

4 The HF Receivers „HFE 3002“ and „HFE 3004“

4.1 Operating Elements of HF Receiver and their Functions

a) Front panel of the unit



Element:

S1

„RESET“ button

Function:

A signal emitted by a chuck will be memorized by the receiver. Pushing „RESET“ button will clear the receiver.

D12

Yellow „B.-CHECK“ indicator

Lights up **only as long as** a signal emitted by one of the chucks on this receiver's channel is being **received**.

D13

Red „ALARM“ indicator

Informs that a signal emitted by one or several chucks on this receiver's channel has been and/or is being received.

D14

Green mains indicator

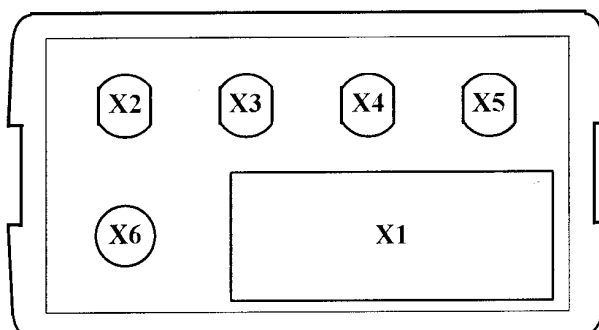
Lights up when power is switched on.

BU1 (-), BU2 (+)

Level output

The strength of the HF signal received (level) can be measured by voltmeter. The level depends on antenna's positioning (see 6.2).

b) Rear panel of the unit





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**Notes to the FCC authority
to operate the equipment**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.