

**CE1000P**

**BUSINESS ENVIRONMENT SPEAKERS**

---

# User's manual

GB

Version 1.0 June 2005



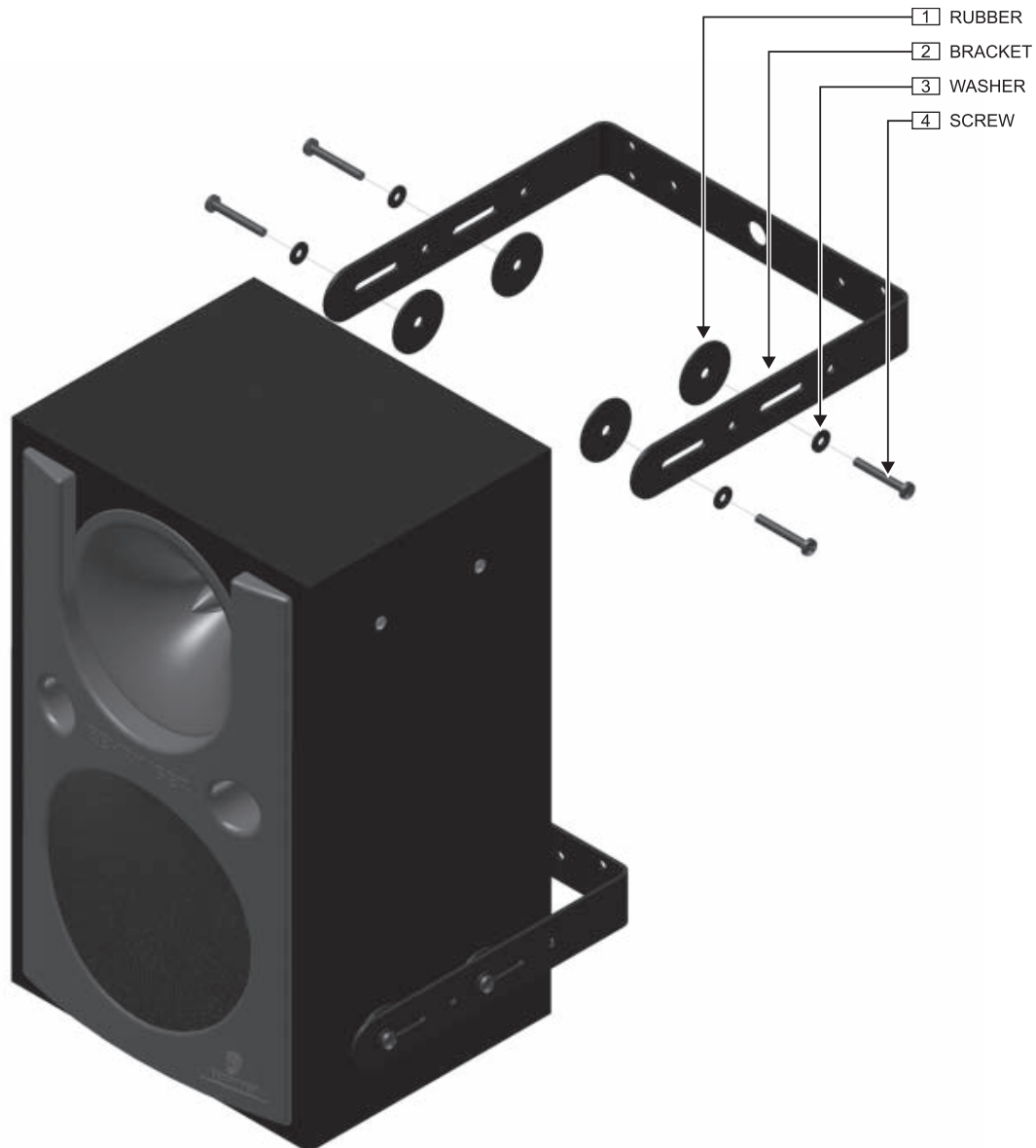
[www.behringer.com](http://www.behringer.com)



# BUSINESS ENVIRONMENT SPEAKERS CE1000P

## INSTRUCTIONS FOR QUALIFIED PERSONNEL ONLY

### FASTENING OF BRACKET ASSEMBLY



#### **WARNING :**

The operation of your speaker cabinet as part of a flown system, if installed incorrectly and improperly, can potentially expose persons to serious health risks and even death. In addition, please ensure that electrical, mechanical and acoustic considerations are discussed with qualified and certified (by local, state or national authorities) personnel prior to any installation or flying. Make sure that speaker cabinets are set up and "flown" by qualified and certified personnel only, using dedicated equipment and original parts and components delivered with the unit. If any parts or components are missing please contact your Dealer before attempting to set up the system.

Be sure to observe the local, state and other safety regulations applicable in your country. We (BEHRINGER Spezielle Studiotechnik GmbH including the BEHRINGER companies listed on the encloses "Service Information Sheet") assume no liability for any damage or personal injury resulting from improper use, installation or operation of the product! Regular checks must be conducted by qualified personnel to ensure that the system remains in a secure and stable condition. Make sure that, where the speaker is flown, the area underneath the speaker is free of human traffic. Do not fly the speaker in areas which can be entered or used by members of the public.

Speakers create a magnetic field, even if not in operation. Therefore, please keep all materials which can be affected by such fields (discs, computers, monitors etc.) at a safe distance. A safe distance is usually between 1 and 2 metres.

#### **Painting of Front :**

The paint used on our front is PU-500. When repainting the front, only use paint which is appropriate considering the surface and existing paint. When in doubt, please do not hesitate to contact your nearest dealer.

## IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Be sure to mount your speakers on a solid, stable and level base or stand. Vibrating floors do not provide reliable support for speaker enclosures or stacks.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Only use attachments/accessories specified by the manufacturer.
- 10) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/device combination to avoid injury from stumbling.



11) Refer all service to qualified service personnel. Service is required when the unit has been damaged in any way, liquid has been spilled or objects have fallen into the apparatus, the unit has been exposed to rain or moisture, does not operate normally, or has been dropped.

12) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

### **WARNING**

THIS EQUIPMENT IS CAPABLE  
OF DELIVERING SOUND  
PRESSURE LEVELS IN EXCESS  
OF 90 dB, WHICH  
MAY CAUSE PERMANENT  
HEARING DAMAGE.

# **BUSINESS ENVIRONMENT SPEAKERS**

## **300-Watt Business Environment Speakers with Repaintable Front**

- ▲ Multi-purpose, 2-way loudspeaker for commercial indoor installations such as restaurants, shops, exhibitions, worship houses etc.
- ▲ High power capability (300 W @ 8 Ohm) for ultimate sound pressure levels
- ▲ Powerful 8" woofer and high-resolution driver provide an ultra-linear frequency response
- ▲ Specially designed waveguide horn for high intelligibility and equally distributed sound at any sound level
- ▲ Black wood enclosure with interchangeable and repaintable front to match venue interior (default color dark silver)
- ▲ Ultra-flexible wall-mount brackets included
- ▲ High-quality components and exceptionally rugged construction ensure long life
- ▲ Conceived and designed by BEHRINGER Germany

CE1000P



## FOREWORD



Dear Customer,

welcome to the team of BEHRINGER users, and thank you very much for expressing your confidence in us by purchasing these loudspeakers.

Writing this foreword for you gives me great pleasure, because it represents the culmination of many months of hard work delivered by our engineering team to achieve a very ambitious goal: to present an outstanding pair of loudspeakers, whose excellent sound

makes them ideal for use in every commercial environment. The task of designing our new CE1000P certainly meant a great deal of responsibility, which we assumed by focusing on you, the discerning user and musician. Meeting your expectations also meant a lot of work and night shifts. But it was fun, too. Developing a product usually brings a lot of people together, and what a great feeling it is when all who participated in such a project can be proud of what they've achieved.

It is our philosophy to share our enjoyment with you, because you are the most important member of the BEHRINGER team. With your highly competent suggestions for new products you've made a significant contribution to shaping our company and making it successful. In return, we guarantee you uncompromising quality as well as excellent technical and audio properties at an extremely reasonable price. All of this will enable you to give free rein to your creativity without being hampered by budget constraints.

We are often asked how we manage to produce such high-quality devices at such unbelievably low prices. The answer is quite simple: it's you, our customers! Many satisfied customers mean large sales volumes enabling us to get better purchasing terms for components, etc. Isn't it only fair to pass this benefit on to you? Because we know that your success is our success too!

I would like to thank all of you who have made the CE1000P possible. You have all made your own personal contributions, from the developers to the many other employees at this company, and to you, the BEHRINGER user.

My friends, it's been worth the effort!

Thank you very much,


Uli Behringer

## TABLE OF CONTENTS

<b>1. INTRODUCTION</b> .....	<b>6</b>
1.1 Before you get started .....	6
1.1.1 Shipment .....	6
1.1.2 Online registration .....	6
<b>2. INSTALLATION</b> .....	<b>6</b>
2.1 Wiring .....	6
2.2 Length and diameter of loudspeaker cables .....	6
2.3 Power amp rating and impedance .....	6
2.4 Protecting your speakers .....	7
<b>3. TROUBLESHOOTING</b> .....	<b>7</b>
3.1 No signal when loudspeaker is connected .....	7
3.2 Signal distorted .....	7
3.3 Poor sound characteristics (treble signal too low/bass signal too low) .....	7
<b>4. SPECIFICATIONS</b> .....	<b>7</b>
<b>5. WARRANTY</b> .....	<b>8</b>



## ATTENTION!

 The CE1000P is capable of producing extreme volumes. Please bear in mind that high sound pressures do not only temporarily damage your sense of hearing, they can also cause permanent damage. Be sure to select an appropriate volume level.

## 1. INTRODUCTION

Congratulations! By purchasing the CE1000P, you have obtained a pair of first-class permanent-installation loudspeakers. The CE1000P offers a compact solution for installations in restaurants, businesses, trade shows and community centers. The speakers sport a two-way design and are rated at 300 Watts, and can easily adapt to any surroundings thanks to the removable and paintable front element. A powerful 8" woofer and a high-definition compression driver produce an ultra-linear frequency response, while a specially developed waveguide horn assures a consistent sound dispersion. The included accessories assure optimal and safe installation.

### 1.1 Before you get started

#### 1.1.1 Shipment

Your CE1000P was carefully packed at the assembly plant to assure secure transport. Should the condition of the cardboard box suggest that damage may have taken place, please inspect the unit immediately and look for physical indications of damage.

**⚠ Damaged units should NEVER be sent directly to us. Please inform the dealer from whom you acquired the unit immediately as well as the transportation company from which you took delivery of the unit. Otherwise, all claims for replacement/repair may be rendered invalid.**

**⚠ To assure optimal protection of your CE1000P during use or transport, we recommend utilizing a carrying case.**

**⚠ Please always use the original packaging to avoid damage due to storage or shipping.**

**⚠ Never let unsupervised children play with the CE1000P or with its packaging.**

**⚠ Please dispose of all packaging materials in an environmentally-friendly fashion.**

#### 1.1.2 Online registration

Please do remember to register your new BEHRINGER equipment right after your purchase by visiting [www.behringer.com](http://www.behringer.com) (alternatively [www.behringer.de](http://www.behringer.de)) and kindly read the terms and conditions of our warranty carefully.

Should your BEHRINGER product malfunction, our goal is to have it repaired as quickly as possible. To arrange for warranty service, please contact the retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, you may directly contact one of our subsidiaries. Corresponding contact information is included in the original equipment packaging (Global Contact Information/European Contact Information). Should your country not be listed, please contact the distributor nearest you. A list of distributors can be found in the support area of our website ([www.behringer.com](http://www.behringer.com)).

Registering your purchase and equipment with us helps us process your repair claims quicker and more efficiently.

Thank you for your cooperation!

## 2. INSTALLATION

### 2.1 Wiring

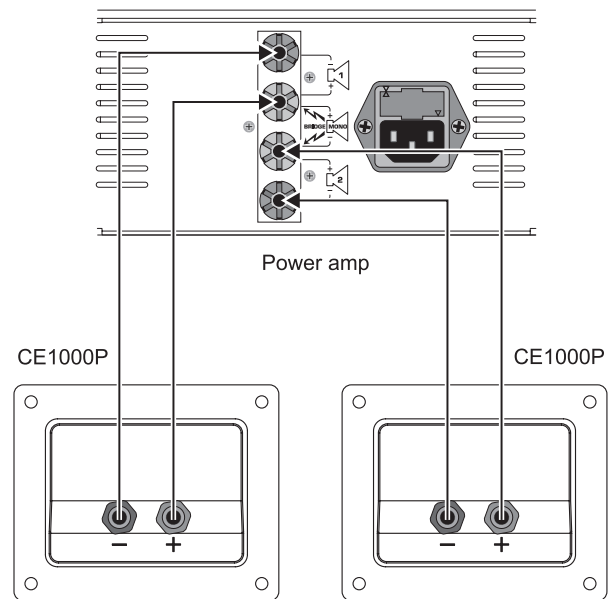


Fig. 2.1: Connecting an amplifier

**⚠ Always mute your amp before connecting the speakers.**

Please follow these steps to connect your CE1000P to a power amp:

- ▲ Mute your amp before connecting the speakers.
- ▲ Loosen the plus screw (red ring with a "+") and the minus screw (black ring with a "-").
- ▲ Insert the plus cord of the speaker cable connecting the amp to your CE1000P into the plus opening.
- ▲ Connect the minus cable into the minus opening.
- ▲ Tighten the screws.

Connect the second loudspeaker the same way.

**⚠ Make sure that all connections are done properly. Speaker cables are color-coded to help avoid confusion.**

**⚠ Always make sure that bare wire ends never touch the open end of another speaker cable, speaker connectors or metal parts of your amp.**

### 2.2 Length and diameter of loudspeaker cables

Loudspeaker cables whose diameter is too small can limit the power amp performance considerably. The longer the cable, the greater the problem. As a result, users often simply "turn up" the amp, which can lead to loudspeaker damage. For most applications, this will not be necessary. Cable diameter should be at least 2.5 - 4.0 mm (AWG 6).

### 2.3 Power amp rating and impedance

Selecting the right amp can turn out to be rather difficult. Therefore, stick to the following rule of thumb: the power rating of your amp should be roughly twice the speaker load capacity. A speaker rated at 300 Watts continuous performance can easily be powered by an amp rated at 600 Watts output power. An optimal addition to your speaker system would be the BEHRINGER EUROPOWER EP1500 power amp, for example.

Also, you should keep in mind the impedance of your amplifier in order to guarantee optimal power delivery. The CE1000P's impedance is 8 Ω. Use an amp whose power rating corresponds to an impedance of 8 Ω.

## 2.4 Protecting your speakers

- ▲ Always turn down the volume on your amp before switching it on or off.
- ▲ When powering your equipment up/down, the amp should always be the last one to be powered up and the first one to be powered down. This way, you avoid switch-on thumps that occur when you turn connected equipment on or off.
- ▲ Always make sure your audio signal level is optimally set. Avoid overdriving your amp.
- ▲ Do not push your loudspeakers beyond their physical limitations. Even though your CE1000P has sufficient power overhead, you can still damage it if you drive it too much or crank the volume all the way up for longer periods of time.
- ▲ Use a limiter to restrict the output signal level. Place the limiter between the mixing console and the power amp. For this purpose, our proven AUTOCOM PRO-XL MDX1600, COMPOSER PRO-XL MDX2600 and MULTICOM PRO-XL MDX4600 compressors offer an outstanding solution. All models can be used as a limiter: the audio signal doesn't overdrive any more, and unpleasant "peaks" are effectively avoided.

## 3. TROUBLESHOOTING

### 3.1 No signal when loudspeaker is connected

- ▲ Make sure that your mixing console is indeed carrying a signal (is the master fader raised? Are channels active?) and that the gain control on your amp is turned up.
- ▲ When using a crossover, make sure that the relevant channels are active.
- ▲ Check if the cable connection is interrupted/damaged somewhere in your setup.
- ▲ To test your configuration, connect another amp. If you now get a signal, the power amp is the culprit.
- ▲ To test your configuration, connect another speaker. If you now get a signal, the fault lies within the speaker.

### 3.2 Signal distorted

- ▲ Make sure that all signals on the mixing console have been set to optimal levels in order to avoid distortion.
- ▲ Make sure that the power amp channels are not overdriving. If so, turn the gain control down a little. However, it could also be the case that your power amp doesn't have enough power headroom, so that the required volume can not be generated without starting to distort.
- ▲ Make sure that the level of the signal getting into the speakers is not too high, causing distortion.
- ▲ Check your EQ settings. Excessively increasing the frequencies can result in distortion.
- ▲ If distortion is still occurring despite everything you have tried to eliminate it, try connecting a different power amp. If you no longer hear distortion, its cause was with the power amp.
- ▲ As a test, connect another speaker. If you no longer hear distortion, its cause was with the loudspeaker (perhaps a defective loudspeaker).

- ▲ Check if the cable connection is interrupted/defective somewhere along the path.

### 3.3 Poor sound characteristics (treble signal too low/bass signal too low)

- ▲ Check the EQ settings on your mixing console or on an external EQ, if applicable.
- ▲ Make sure that the tweeters on your loudspeakers are positioned at the same height as the ears of the people in the audience. If not, please modify the speaker position.
- ▲ Make sure your loudspeaker cables are properly wired. Incorrect wiring may result in phase cancellations, which in turn may create frequency incursions.
- ▲ Check if large objects are placed in front of the loudspeakers. They too can negatively influence sound dispersion.
- ▲ Check the sound quality of the input signal by listening to it on a set of headphones.
- ▲ Also see the instructions in the chapters 3.1 and 3.2.

## 4. SPECIFICATIONS

### CONNECTORS

Type Spring connectors

### SYSTEM SPECIFICATIONS

Power rating (peak program) 300 watts  
Impedance 8 Ω  
Frequency response 50 Hz to 20 kHz  
Sound pressure level 91 dB (1 W/1 m)

### COMPONENTS

Tweeter 25 mm titanium  
Woofer 8"

### DIMENSIONS/WEIGHT

Dimensions (H x W x D) 17 1/2" x 10 2/3" x 8 2/3"  
(445 mm x 270 mm x 220 mm)  
Weight 22 1/4 lbs. (10.1kg)

BEHRINGER is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or illustrated.

## 5. WARRANTY

### § 1 OTHER WARRANTY RIGHTS AND NATIONAL LAW

1. This warranty does not exclude or limit the buyer's statutory rights provided by national law, in particular, any such rights against the seller that arise from a legally effective purchase contract.

2. The warranty regulations mentioned herein are applicable unless they constitute an infringement of national warranty law.

### § 2 ONLINE REGISTRATION

Please do remember to register your new BEHRINGER equipment right after your purchase by visiting [www.behringer.com](http://www.behringer.com) (alternatively [www.behringer.de](http://www.behringer.de)) and kindly read the terms and conditions of our warranty carefully.

Registering your purchase and equipment with us helps us process your repair claims quicker and more efficiently.

Thank you for your cooperation!

### § 3 WARRANTY

1. BEHRINGER (BEHRINGER International GmbH including all BEHRINGER subsidiaries listed on the enclosed page, except BEHRINGER Japan) warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year\* from the original date of purchase, in accordance with the warranty regulations described below. If the product shows any defects within the specified warranty period that are not excluded from this warranty as described under § 5, BEHRINGER shall, at its discretion, either replace or repair the product using suitable new or reconditioned parts. In the case that other parts are used which constitute an improvement, BEHRINGER may, at its discretion, charge the customer for the additional cost of these parts.

2. If the warranty claim proves to be justified, the product will be returned to the user freight prepaid.

3. Warranty claims other than those indicated above are expressly excluded.

### § 4 RETURN AUTHORIZATION NUMBER

1. To obtain warranty service, the buyer (or his authorized dealer) must call BEHRINGER (see enclosed list) during normal business hours **BEFORE** returning the product. All inquiries must be accompanied by a description of the problem. BEHRINGER will then issue a return authorization number.

2. Subsequently, the product must be returned in its original shipping carton, together with the return authorization number to the address indicated by BEHRINGER.

3. Shipments without freight prepaid will not be accepted.

### § 5 WARRANTY REGULATIONS

1. Warranty services will be furnished only if the product is accompanied by a copy of the original retail dealer's invoice. Any product deemed eligible for repair or replacement under the terms of this warranty will be repaired or replaced.

2. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national

or local level, in any country which is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship. The warranty does not cover any such modification/adaptation, irrespective of whether it was carried out properly or not. Under the terms of this warranty, BEHRINGER shall not be held responsible for any cost resulting from such a modification/adaptation.

3. Free inspections and maintenance/repair work are expressly excluded from this warranty, in particular, if caused by improper handling of the product by the user. This also applies to defects caused by normal wear and tear, in particular, of faders, crossfaders, potentiometers, keys/buttons, tubes, guitar strings, illuminants and similar parts.

4. Damages/defects caused by the following conditions are not covered by this warranty:

- ▲ improper handling, neglect or failure to operate the unit in compliance with the instructions given in BEHRINGER user or service manuals.
- ▲ connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used.
- ▲ damages/defects caused by force majeure or any other condition that is beyond the control of BEHRINGER.

5. Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the warranty.

6. If an inspection of the product by BEHRINGER shows that the defect in question is not covered by the warranty, the inspection costs are payable by the customer.

7. Products which do not meet the terms of this warranty will be repaired exclusively at the buyer's expense. BEHRINGER will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 6 weeks after notification, BEHRINGER will return the unit C.O.D. with a separate invoice for freight and packing. Such costs will also be invoiced separately when the buyer has sent in a written repair order.

### § 6 WARRANTY TRANSFERABILITY

This warranty is extended exclusively to the original buyer (customer of retail dealer) and is not transferable to anyone who may subsequently purchase this product. No other person (retail dealer, etc.) shall be entitled to give any warranty promise on behalf of BEHRINGER.

### § 7 CLAIM FOR DAMAGES

Failure of BEHRINGER to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of BEHRINGER exceed the invoiced value of the product.

\* Customers in the European Union please contact BEHRINGER Germany Support for further details.

Technical specifications and appearance subject to change without notice. The information contained herein is correct at the time of printing. The names of companies, institutions or publications pictured or mentioned and their respective logos are registered trademarks of their respective owners. Their use neither constitutes a claim of the trademarks by BEHRINGER® nor affiliation of the trademark owners with BEHRINGER®. BEHRINGER® accepts no liability for any loss which may be suffered by any person who relies either wholly or in part upon any description, photograph or statement contained herein. Colours and specification may vary slightly from product. Products are sold through our authorised dealers only. Distributors and dealers are not agents of BEHRINGER® and have absolutely no authority to bind BEHRINGER® by any express or implied undertaking or representation. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording of any kind, for any purpose, without the express written permission of BEHRINGER Spezielle Studiotechnik GmbH. BEHRINGER® is a registered trademark.

ALL RIGHTS RESERVED. © 2005 BEHRINGER Spezielle Studiotechnik GmbH,  
Hanns-Martin-Schleyer-Str. 36-38, 47877 Willich-Münchheide II, Germany.  
Tel. +49 2154 9206 0, Fax +49 2154 9206 4903