





presents DORMA Hüppe products

COMFORTDRIVE

Fully Automatic Operator for Movable Walls / Operable Partitions

Original Operating Instruction Manual



EG Konformitätserklärung EC Declaration of Conformity CE Déclaration de conformité

DORMA Hüppe Raumtrennsysteme GmbH + Co. KG Industriestraße 5, 26655 Westerstede-Ocholt, Germany

als verantwortlicher Hersteller der / as the responsible manufacturer for the / en tant que fabricant responsable de la

Vollautomatischen Trennwandsysteme

MOVEO Comfortdrive Variflex Comfortdrive Varitrans Comfortdrive HSW Comfortdrive

erklärt hiermit die Übereinstimmung der, nach oben genannter Bauart gefertigten, Anlagen mit den einschlägigen Bestimmungen folgender Richtlinien des Europäischen Parlaments und des Rates /

hereby confirms that products/systems corresponding to the above type of construction comply with all the relevant requirements of the following directives of the European Parliament and of the Council / déclare par la présente la concordance des installations, fabriquées suivant le mode de construction mentionné ci-dessus, avec les dispositions pertinentes de sécurité des Directives du Parlement Européen et du Conseil:

X	2014/35/EU	Niederspannungsrichtlinie / Low Voltage Directive / Directive basse tension
X	2014/30/EU	Elektromagnetische Verträglichkeit / Electromagnetic compatibility / Compatibilité électromagnétique
X	2006/42/EG	Maschinenrichtlinie / Machinery directive / Directive machine

Die technischen Unterlagen sind erhältlich beim Manager Productcompliance unter: / the technical documentation can be obtained from the Manager Product Compliance at / les documents techniques peuvent être obtenus du Manager Product Compliance sous: product.compliance@dorma.com

Es wurden die produktrelevanten Abschnitte der folgenden Normen und Bestimmungen angewandt / In view of the relevant paragraphs for the product, this declaration is based on the following applied standards and rules / En tenant compte des paragraphs relatives aux produits, cette déclaration est basée sur les suivantes normes et dispositions appliquées:

Harmonisierte europäische Norm,	X	EN 13849-1	\times	EN 61000 - 3 - 2
nationale Regel /	×	EN ISO 14121-1	\times	EN 61000 - 3 - 3
Harmonized European standards,	X	EN 12635	\times	EN 61000 - 6 - 1
national rule /	X	EN 60335 - 1	\times	EN 61000 - 6 - 3
Norme européenne harmonisée,	X	EN ISO 12100 - 1	\times	ASR A1.7
disposition nationale:				

CE

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FULLY AUTOMATIC OPERATOR FOR MOVABLE WALLS / OPERABLE PARTITIONS







Premium display: Touch display

Standard display: Key pad

ABOUT THIS MANUAL

The operation and upkeep of DORMA Hüppe ComfortDrive systems may only be undertaken by properly instructed personnel capable of implementing the procedures described herein. The user must check after opening and closing the movable wall/operable partition (hereinafter referred to as simply "partition"), whether the predetermined end position of the elements has been reached in each case. This instruction manual should be retained throughout the service life of the DORMA Hüppe ComfortDrive system. Users are required to comply with the instructions contained herein.

SAFETY INSTRUCTIONS

- It is essential that these instructions be followed in order to ensure the safety of personnel. This instruction manual must be kept in a safe place.
- Before using the ComfortDrive partition system it is essential that the operating manual be read through so as to better ensure safe usage.
- If a defective power supply cable is discovered, the entire power supply unit involved must be replaced with an original spare.
- The power supply system, the elements and the track system must remain unchanged. Unauthorized technical modifications to the system may give rise to damage to property and injury to personnel.
- Unauthorized intervention in system components will result in the warranty becoming null and void.
- When operating the partition, ensure that there are no people or objects within the travel path.

 The residual risk of consequential injury cannot be precluded.
- Keep hands away from all travelling or moving objects.
- The ComfortDrive operating system with its corresponding partition elements must be used exclusively for interior partition purposes.
- This partition is not intended for use by people (including children) with restricted physical, sensorial or mental capabilities or who lack the experience and/or the knowledge required of a versed user, unless they are supervised by someone responsible for their safety or unless they have received from that person instructions as to how the partition should be used. Children must be supervised at all times in order to ensure that they do not play with this partition.

SYMBOLS EMPLOYED



Danger/hazard symbol.

Compliance with these instructions is compulsory for the avoidance of injury!



Particularly important: instruction. Compliance is essential for the correct functioning of the partition!

COMFORTDRIVE FUNCTIONAL PRINCIPLE

The system comprises partition elements which travel under fully automatic control in overhead (ceiling-mounted) tracks. The partition is designed so that the force exerted by the drive motors constantly remains within the non-hazardous range. The closing forces between the elements are thus non-hazardous to personnel. If partition travel is impeded (by an obstacle or person in the travel path, dirt in the guide track, etc), the hindered partition element stops for approximately 4 seconds. It then travels 10cm in reverse, and after approx. 5 seconds the element repeats the forward travel attempt. If it is once again impeded within a distance of 50cm over the same section, the partition is brought to a complete standstill. After the obstruction has been removed, the partition can be restarted in either direction by pressing OPEN or CLOSE.

OPERATIONAL CONTROL

The partition is operated using the push button panel, at least one EMERGENCY STOP push button and possibly also a key switch. Each partition may have up to two push button panels, 1 to 2 key switches and essentially any number of EMERGENCY STOP push buttons connected within the network.

In the case of the push button panel, the commands OPEN, CLOSE and STOP are initiated by pressing the appropriate button as designated. POS1 and POS2 provide you with further partition positioning functions and are programmed in accordance with your requirements.

For further information, please talk to your contact at DORMA Hüppe Raumtrennsysteme GmbH + Co. KG.

In the event of a fault occurring in the automatic mode (e.g. a power failure), the partition can be locked, unlocked and moved by hand.





PREMIUM DISPLAY: TOUCH DISPLAY

Operation with the touchpad



Command input on the touchpad for locking the operating panel



Press the relevant push button on the panel in order to implement the functions OPEN, CLOSE, STOP or (if implemented) POS1 and POS2. The green LED of the activated function flashes until the function cycle has been completed.

 If the partition does not respond, first check whether the EMERGENCY STOP push button has been pressed or whether a door element installed in the partition has not been closed. In these cases, the control system will wait until operating conditions allow.

Functions POS1 and POS2 are configured in accordance with customer requirements and, if implemented, are described in a separate document.

Safety device



In an emergency, the partition can be immediately stopped by pressing the EMERGENCY STOP push button.

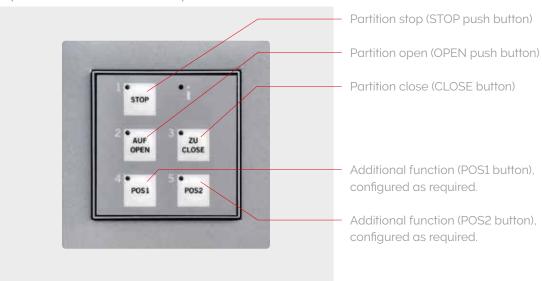
Once the EMERGENCY STOP push button has been unlocked, the partition immediately returns to functioning in the fully automatic mode.



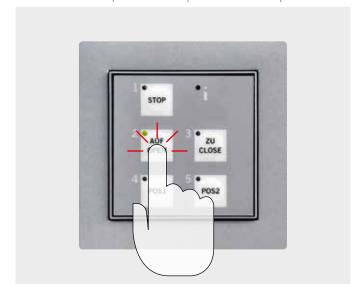
Operation of the partition in the event of a fault For manual operation, the key switch must be set to OFF (operating panel locked), the emergency switch pressed, or the supply voltage switched off!

STANDARD DISPLAY: KEY PAD

Operation with the touchpad



Command input at the push button panel



Press the relevant push button on the panel in order to implement the functions OPEN, CLOSE, STOP or (if implemented) POS1 and POS2. The green LED of the activated function flashes until the function cycle has been completed.

 If the partition does not respond, first check whether the EMERGENCY STOP push button has been pressed or whether a door element installed in the partition has not been closed. In these cases, the control system will wait until operating conditions allow.

Functions POS1 and POS2 are configured in accordance with customer requirements and, if implemented, are described in a separate document.

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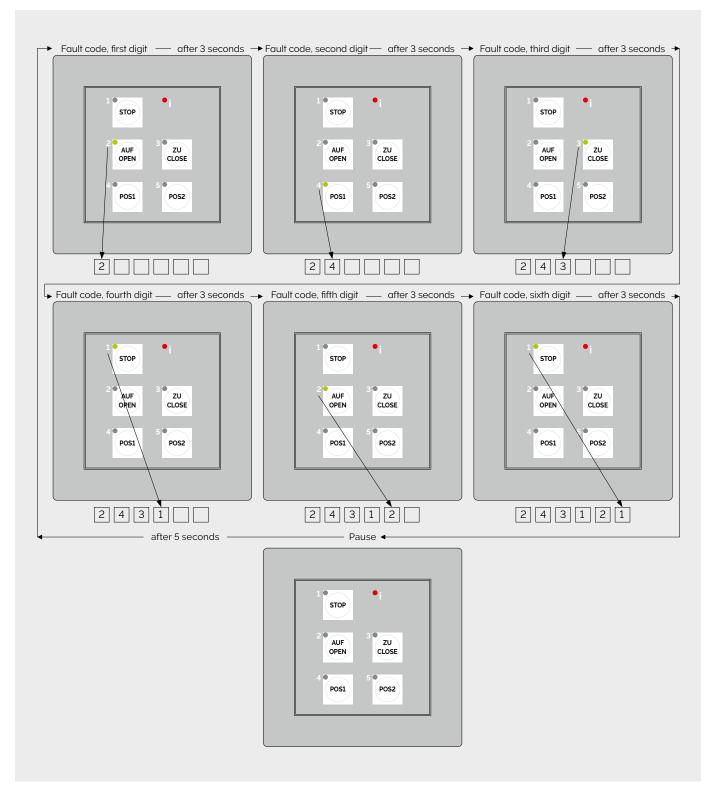


FAULT DISPLAY IN THE EVENT OF A MALFUNCTION

If a fault occurs, the partition switches to fault mode and stops. The red LED on the push button panel then glows continuously. Alternating flashing green LEDs indicate the fault code (aka error code). The first course of action should be to press the STOP push button in order to cancel the fault. If the red LED lights up again, you will need to ascertain the fault code.

ASCERTAINING THE FAULT CODE

The green LEDs light up sequentially at intervals of 3 seconds. Next to each green LED is a number, and the sequence with which the LEDs come on indicates a six-digit fault code. The fault code is repeated constantly at 5-second intervals. The following illustration shows how the fault code 243121 is indicated. Fault code 243121 means "Obstruction – Element 5."



TROUBLESHOOTING USING THE FAULT CODE

With some fault codes, you can find out the cause yourself. Below you will see a table of certain fault codes with the associated troubleshooting remedies. If the fault code indicated on the push button panel is not listed, or the remedy indicated does not have the desired effect, please call our Customer Services. They will be able to carry out a detailed fault analysis on the basis of the fault code and initiate the necessary remedial activities.

The fault code consists of a six-digit numerical sequence which is repeatedly displayed after a 5-second pause. The fault code is divided into two groups of three digits:



Fault code	Cause	Remedy			
111	EMERGENCY STOP push button activated	Release the EMERGENCY STOP push button			
131 143, 144, 145 151, 152, 153, 154, 155 211, 212, 213	Hardware defect	Operate the STOP push button to cancel the fault. If this does not have the desired effect, shut down the ComfortDrive partition control unit for 15 seconds. This work should only be done by an electrician or inhouse technician.			
243	Element obstructed	Use the component code to determine the element number (see below) and remove the obstruction from the travel path of that element.			
244	Element positioning error	Open the partition by hand (see "Operating the partition in fault mode") and then press the OPEN push button in order to initialize the partition.			
311, 433	An operable pass door is open	Close the operable pass door.			
434	Extension of telescopic element (TE, only available with MOVEO and VERIFLEX) impeded by an obstruction	Remove the obstruction.			
455	Stationary glass door (FTE) locked or bolted	Unlock and unbolt the stationary glass door (FTE).			

Control unit 111 (exception: this component code means a control unit fault)

Elements	112=01	113=02	114=03	115=04	121=05	122=06	123=07	124=08
Elements	125=09	131=10	132=11	133=12	134=13	135=14	141=15	142=16
Elements	143=17	144=18	145=19	151=20	152=21	153=22	154=23	155=24
Elements	211=25	212=26	213=27	214=28	215=29	221=30	222=all ele	ements

Component code YYY = Element number NN



OPERATING THE PARTITION IN FAULT MODE



If operating the partition by hand, make sure that the EMERGENCY STOP push button has been pressed!

A. PARTITIONS WITH SINGLE-PANE GLASS ELEMENTS (VARITRANS OR HSW)

Opening the closed partition by hand



- If the door is firmly hinged, open the lock electrically (if available) with the supplied security key and then open the door manually as shown.
- $\boldsymbol{\cdot}$ Move the elements at slow speed to the stacking area.



In the case of partitions with element locking devices, unlock manually as described below!

Manual unlocking of the partition



 Using the crank provided, undo the element locking bolt by winding out to its full length of travel (approx. 20 turns).
 The crank entry hole is located next to the overhead track to the left or right of the last element.



Use crank carefully in order not to damage the locking mechanism!

· The elements can then be pushed to the stacking area.

Closing an open partition by hand



- Pull the elements at low speed from the stacking area to their end positions.
- Carefully press each element against the preceding element.
- In the case of partitions with a wall flap, swing the flap closed, insert the crank from the side into the wall flap hole and turn in the direction indicated by the arrow until the wall flap is locked.
- In the case of an electrically operated single-action door (if provided), the door merely has to be closed by hand.
 The door lock automatically engages and the partition is locked.



In the case of partitions with element locking, the partition needs to be manually locked! See below.

Manually locking the partition



 Using the crank provided, rotate the element locking bolt by winding in to its full length of travel (approx. 20 turns).
 The crank entry hole is located next to the overhead track to the left or right of the last element.



Use crank carefully in order not to damage the locking mechanism!

• Pull the last element to determine whether the partition has been safely locked in position.



B. MOVABLE WALL WITH SOUND-INSULATING ELEMENTS (VARIFLEX)

Open closed partition by hand

If the power supply fails, the ComfortDrive Variflex can be opened with the supplied hand crank. For this purpose, the sealing strips of the elements (VE) and the passage doors (DT) and the extension unit of the telescopic element (TE) must be released with the crank. Then the elements (VE, DT and TE) have to be pushed from the end position to the parking zone at low speed and pressed on the previous element with light pressure.

Emergency operating points at DT and VE (opening)



Opening the partition

The partition can only be operated with the ball-handled crank provided. Unlock the telescopic element 4. Insert the crank in the side socket of the element and fully open in the direction of the arrow 1. The telescopic section and the sealing strips retract.



Arrange the telescopic element (4) in its stacked (parking) position. Now unlock element (3). For this, insert the crank in the socket on the end face of the element and turn counterclockwise. This will cause the sealing strips to retract.

Closing the partition

The partition system is closed by reversing the order of operation as indicated above, starting with element (1).

Note:

The partition should only be operated by properly familiarized personnel.



Detach the telescopic element 4 from the following element 3. Move element 4 along until the roller is centrally located in the track junction (approx. 60 mm). Then slide element 4 along the branch track to the stacking (parking) position.



Detach element ③ from the following element ② using the crank. Arrange element ③ in the stacking (parking) position. Arrange all the other elements in the same way as element ③.

Operating instructions

- 1. Lock pass doors prior to sliding the elements.
- Once the partition has been assembled (closed), open and close the pass doors once to ensure that the bottom door leaf seal is operating properly.
- 3. Only slide the elements at walking speed, avoiding tilting so as to prevent any damage to the ceiling or floor.
- 4. In order to achieve optimum sound insulation, ensure that the elements are properly flush with one another.

CLEANING INSTRUCTIONS:

Do not use abrasive or scouring agents (scrubbing powder, steel wool), polishing agents, waxes, furniture cleaning agents, bleach or similar when carrying out regular cleaning. Do not use any cleaning agents that are heavily acidic or contain strong acidic salts, e.g. descaling products based on formic acid and amino sulfuric acid, drain cleaners, nitric acid, silver polishing agents, oven cleaners.

Surface finishes

Laminate



Cleaning instructions

Light, fresh soiling:

Paper towels; soft, clean cloths (wet or dry); sponge or similar – if wet cleaning, dry with absorbent paper towels.

Normal soiling:

Warm, clean water, clean, soft cloths or towels, soft sponge or soft brush (e.g. nylon brush). Usual cleaning agents without scouring components. Do not use soft soap or curd soap.

Coat with cleaning solution, allow to take effect in accordance with the degree of soiling, and then rinse with pure water or glass cleaner, repeating if required. Completely remove cleaning solution in order to avoid streaking. Dry surfaces clean with absorbent, clean cloth or preferablypaper towels, changing the cloth or towels regularly.

Wooden veneer





Light and normal soiling:

Paper towels, soft, clean cloth (dry).

If cleaning with a wet or damp cloth, immediately wipe dry with an absorbent cloth.

Textile





Light and normal soiling:

Use a soft brush or vacuum cleaner.

Sheet metal





Light, fresh soiling:

Paper towels; soft, clean cloths (wet or dry); sponge or similar – if wet cleaning, dry with absorbent paper towels.

Normal soiling:

Warm, clean water, clean, soft cloths or towels, soft sponge or soft brush (e.g. nylon brush). Usual cleaning agents without scouring components. Do not use soft soap or curd soap.

Coat with cleaning solution, allow to take effect in accordance with the degree of soiling, and then rinse with pure water or glass cleaner, repeating if required. Completely remove cleaning solution in order to avoid streaking.

Dry surfaces clean with absorbent, clean cloth or preferably paper towels, changing the cloth or towels regularly.

Acoustic panels Perforated or slotted surfaces



Light and normal soiling:

It is essential to avoid penetration of moisture in the perforations or slots as this will cause the panel to swell. Do not, therefore, use wet or even moist cleaning media.

Heavy soiling:

For heavy soiling, only use a slightly damp cloth and wipe dry afterwards. Never use brightening or silicone-containing care or cleaning agents. A dry dust cloth is recommended for the care of acoustic panel surfaces.

The use of microfiber cloths is not recommended, as their abrasiveness can cause surface damage.

Do not use scouring agents or detergents with bleaching additives.



CARE AND MAINTENANCE OF MAGNETIC SURFACES

Before first using a magnetic surface, it is recommendable to clean it in order to remove any residues. A standard commercial spirit (ethyl alcohol) may be used for this purpose. Under no circumstances should re-fatting cleaning agents (dishwashing detergents, special soap solutions) be used. Any thin film of fat or grease remaining on the surface will make wiping dry extremely difficult.

Surface finishes

Magnetic sheets, bright finish (marker board)







Code: HP 8208 (gray)

Cleaning instructions

The bright surfaces are only intended for board marker usage. Inscriptions with suitable board markers can be readily wiped away. The quality of the markers used has a significant influence on the cleaning result.

Board marker basics:

Writing and other inscriptions made with board markers can be readily wiped away dry. Complete residue-free wipeability cannot, however, be guaranteed. Depending on the quality of the markers used or the type of surface involved, minor residues may remain visible (shadow images) which, depending on usage, may require thorough cleaning from time to time. For this, we recommend the use of ethyl alcohol or the thinner V100 from the company EDDING. Experience shows that the quality, age, length of usage and storage of the markers can all have a significant influence on their quality. Only if the board markers are stored horizontally is the mixing ratio (blend of three components) required for dry wipeability ensured. It is essential, therefore, that you comply with the storage instructions of the manufacturers. If you should nevertheless encounter difficulties with regard to the dry wipeability of the markings made, we recommend that you initially perform a thorough clean and then test out various board markers.

Magnetic boards, matt (projection surface)



Code: HP 8217 (white)



Code: HP 8219 (gray)

The matt surfaces are specifically designed as projection surfaces for data projectors, overhead projectors and similar, offering the advantage of significantly reduced light reflection. Needless to say, the surface needs to be cleaned with suitable agents (although a damp sponge is frequently sufficient).

Magnet boards, coarse matt (green/black)



Code: HP 8205 (black)



Code: HP 8211 (green)

This surface is designed for marking with chalk. If required, it can be effectively cleaned with water and a sponge as is usual with school blackboards.

This information is based on current knowledge and experience as disclosed by the board manufacturers. It does not exempt the user from carrying out suitable tests and trials to determine suitability. The information and data supplied by us do not imply and cannot be inferred as legally binding assurance of properties or suitability for any specific purpose.

DORMA HÜPPE COMFORTDRIVE CARE AND UPKEEP

Make sure the floor track and sealing bars are regularly cleaned. To clean the elements, use only a soft, damp cloth with a mild liquid soap. Avoid droplet formation.

MAINTENANCE AND REPAIRS

To ensure that the DORMA Hüppe ComfortDrive continues to operate as it should, the system should be serviced at least once a year. We will be glad to offer you a maintenance contract for this annual service. This will ensure the extensive avoidance of major malfunctions. And in the event of repairs, you can be sure that only original spare parts from the manufacturer will be used.

DISPOSAL

The DORMA Hüppe ComfortDrive system comprises various high-quality materials which can be recycled at the end of the partition's life. We recommend that you commission a specialist company experienced in this field in order to ensure the correct disassembly and recycling of all system components.

TROUBLESHOOTING

If the partition does not operate as expected, first look at the fault display on the push button panel as per the description starting on page 6. If the partition stops without any obvious reason, try to reinstate the required function by again pressing the appropriate push button.

If the partition still does not move, first check whether all the required operating conditions are fulfilled, such as EMERGENCY STOP push button disengaged, power supply available, etc.

In the event of the line supply failing, the partition will stop immediately. If the partition needs to be moved while power is still unavailable, this can be done manually as per the description starting on page 8. Once the power supply is reinstated, the partition will automatically switch to the STOP mode, allowing it to be operated using the push button controls as per the description starting on page 4.

To bridge power supply failures, DORMA Hüppe Raumtrennsysteme can also provide an uninterruptible power supply unit with which the system can continue to be operated as usual.

If all attempts to operate the partition in its automatic mode remain unsuccessful, please contact our Customer Services (for address, phone number and other contact details, please see the last page).



TECHNICAL SPECIFICATIONS

Operator height	240 mm			
Max. track length with one control unit	50 m			
Max. number of elements	30			
Element width	600 – 1500 mm			
Max. element height	9000 mm			
Max. element weight	500 kg			
Radius (directional change)	150 mm			
Hold-open time, personnel opening	adjustable			
Travel speed	Dyn. up to max. 250 mm/s (weight-dependent)			
Force limitation point	150 N			
Power consumption in stand-by mode	45 VA			
Max. power input (20 elements)	1 kVA			
Average consumption (during operation of the element)	300 VA			
Line fuse rating	max. 16 A			
Power supply data	230 VAC			
Power supply unit in operator	36 VDC			
Class of protection				
Air-borne sound emission	< 70 dB(A)			



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