

Technical Manual

CompTrol CNT-FEA

Translation of the original manual
Read carefully before use.
Keep for later reference.

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Date 05-01-2023



Support app from S-Klima – easy troubleshooting via smartphone

- Extensive error code analysis – even offline
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- QR code scanner for reading out unit data
- Request a call back from Customer Support

The app is free to download from the Apple App Store, Google Play, and the Microsoft Store.



Dear Customer,

Many thanks for choosing to buy a Stulz product. Stulz has been a purveyor of sophisticated technical solutions for comfort and precision climate control applications since 1947.

In Germany, Stulz is the exclusive sales partner of energy-efficient comfort air conditioning systems from Mitsubishi Heavy Industries.

Kind regards,
Stulz GmbH

Current updates to technical documentation

You can find the latest documents and brochures at:

<http://www.s-klima.de/download>.



Figure 1: QR code for S-Klima website

Mitsubishi Heavy Industries Support app

Download free of charge and use on-the-go: the app makes things easy!



Figure 2: QR code for the Support app

Manufacturer's address

Stulz GmbH
S-Klima Division
Holsteiner Chaussee 283
D-22457 Hamburg
Germany

Table of contents

1	Information on this document	4
1.1	Target group.....	4
1.2	Presentation conventions.....	4
1.3	Abbreviations	4
1.4	Liability claims for defects	5
1.5	Disclaimer	5
1.6	Copyright.....	5
2	Safety	6
2.1	Proper use	6
2.2	Safety instructions.....	6
2.3	Required personnel qualifications.....	6
2.3.1	Specialist electrician	6
2.3.2	Cooling technology mechatronics engineer	7
2.4	Other applicable documents	7
2.5	Transport and storage.....	7
2.6	Spare parts	7
3	Product package	7
4	Product description	8
5	Installation	9
5.1	Installation location	9
5.2	Installing the CompTrol CNT-FEA.....	9
5.3	Installation versions	9
6	Wiring diagram	10
7	Technical data	10
8	Disposal	10
9	Accessories	10
10	CE Declaration of Conformity	11

1 Information on this document

This Technical Manual contains detailed information on the installation and technical data of the CompTrol CNT-FEA.

Make sure this Technical Manual is always available at the place of use.




Make sure that persons responsible for operating and working on the product have fully read and understood this manual. Please call the Service Center if you have any questions.

1.1 Target group

This document is intended for qualified electricians and cooling technology mechatronics engineers. Only perform the work described in this document if you have the required qualifications (see “2.3 Required personnel qualifications” on page 6).

1.2 Presentation conventions

Safety and warning notes are indicated by signal words. The signal words indicate hazard levels with risks of injury of varying degrees of severity. The signal word IMPORTANT indicates a risk of property damage.

Signal word	Meaning	Consequences of failure to observe
 DANGER	Immediate threat of danger	Death or serious injury due to a high-risk hazard
 WARNING	Immediate threat of danger	Death or serious injury due to a medium-risk hazard
 CAUTION	Immediate threat of danger	Minor injury due to a low-risk hazard
IMPORTANT	Immediate threat of danger	Damage to property or the environment
Note	Special tips on getting the best out of the product	

1.3 Abbreviations

Abbreviations	Name	Explanation
A	Ampere	SI unit for electrical current
AC	Alternating current	–
CNT	Status signal	Connection to indoor unit
DC	Direct current	–
BMS	Building management system	The BMS is software that monitors and controls the building.
NC	Normally closed	Relay contact
NO	Normally open	Relay contact
V	Volt	SI unit for electrical voltage
VDE	Verband der Elektrotechnik, Elektronik und Informationstechnik (German Association for Electrical, Electronic & Information Technologies)	–

1.4 Liability claims for defects

Following the installation and operating instructions in this Technical Manual is a prerequisite for trouble-free operation of the CompTrol CNT-FEA and for the satisfaction of potential claims for defects.

Read the Technical Manual before working with the CompTrol CNT-FEA.

1.5 Disclaimer

Following the installation and operating instructions in this Technical Manual is a prerequisite for safe operation of the product and for attaining the specified product characteristics and performance features. Stulz shall not be liable for any damage to persons or property or any financial loss resulting from non-compliance with the Technical Manual. In such cases, all liability for material defects is excluded.

1.6 Copyright

All brand and product names are trademarks or registered trademarks of the respective copyright owners. CompTrol is a registered trademark of Stulz GmbH.

All rights reserved, including in respect of this translation. No part of this document may be reproduced in any form (e.g. printing, photocopying, microfilm, data transfer or other method) or duplicated or processed by electronic means, without the written consent of Stulz GmbH.

Technical data subject to change without notice.

2 Safety

The plant operator must ensure that the safety and warning notes in this documentation are observed and adhered to. The plant operator must furthermore ensure that any persons working on the system have read and understood the documentation in its entirety.

Non-compliance with the safety and warning notes may put staff, the environment, and the system at risk, and waives any claims for compensation.

Safe and reliable operation of the system is only ensured if it is used as intended. Never exceed the limit values set out in the technical data.

In the event of uncertainties or if you require additional information, please call the S-Klima Service Center.

2.1 Proper use

The CompTrol CNT-FEA is a switching module.

The CompTrol CNT-FEA performs the following tasks:

- Switching indoor units On/Off remotely.

The CompTrol CNT-FEA is connected via cable to an indoor unit. Only use the CompTrol CNT-FEA with compatible products. Any other use besides or beyond this shall be regarded as improper use. Stulz cannot be held liable for damage resulting from such use. The plant operator is the sole bearer of the risk. Only use the CompTrol CNT-FEA in accordance with the instructions in the Stulz technical documentation.

2.2 Safety instructions

DANGER

Danger of death from electric shock.

Always have the CompTrol CNT-FEA installed, connected, and started up by specialist electricians.

- Before starting installation work, switch off the electrical supply to the connection point for the public mains supply and the switch gear cabinet.
 - Switch off the electrical supply to all components that will be connected to the CompTrol CNT-FEA.
 - Check that the electrical supply is off.
-

2.3 Required personnel qualifications

2.3.1 Specialist electrician

All electrical work must be performed exclusively by authorized specialist electricians.

A specialist electrician is a person who, through their specialist training and experience, has the skills required for

- switching on, shutting down, enabling, grounding, and marking electrical circuitry and equipment,
- skilled maintenance and use of protective devices in accordance with the relevant safety standards,
- administering first aid to injured persons.

2.3.2 Cooling technology mechatronics engineer

Mechatronics engineers have the necessary training, knowledge and experience to handle the

- installation, start-up, servicing, and maintenance of stationary chilling systems, air conditioning systems, and heat pumps with fluorinated greenhouse gases,
- switching on, shutting down, enabling, grounding, and marking electrical circuitry and equipment,
- skilled maintenance and use of protective devices in accordance with the relevant safety standards,
- administering first aid to injured persons.

2.4 Other applicable documents

Besides this technical documentation, please also observe the following documents:

- KX series Technical Manual.
- FDS series Technical Manual.
- S series Technical Manual.
- SX series Technical Manual.

2.5 Transport and storage

Check the delivery immediately on receipt for completeness and transport damage. Notify your specialist retailer of any transport damage immediately. In the interests of safe and reliable operation, do not install the unit if damage has been sustained during transport.

- Store the CompTrol CNT-FEA in a dry place.
- Store the unit in its packaging.

Dispose of the packaging responsibly. To avoid the risk of asphyxiation, keep plastic packaging out of reach of children and dispose of it after opening.

2.6 Spare parts

We recommend the use of original spare parts. Original spare parts and spare parts/accessories approved by Stulz GmbH are a guarantee of safety.

3 Product package

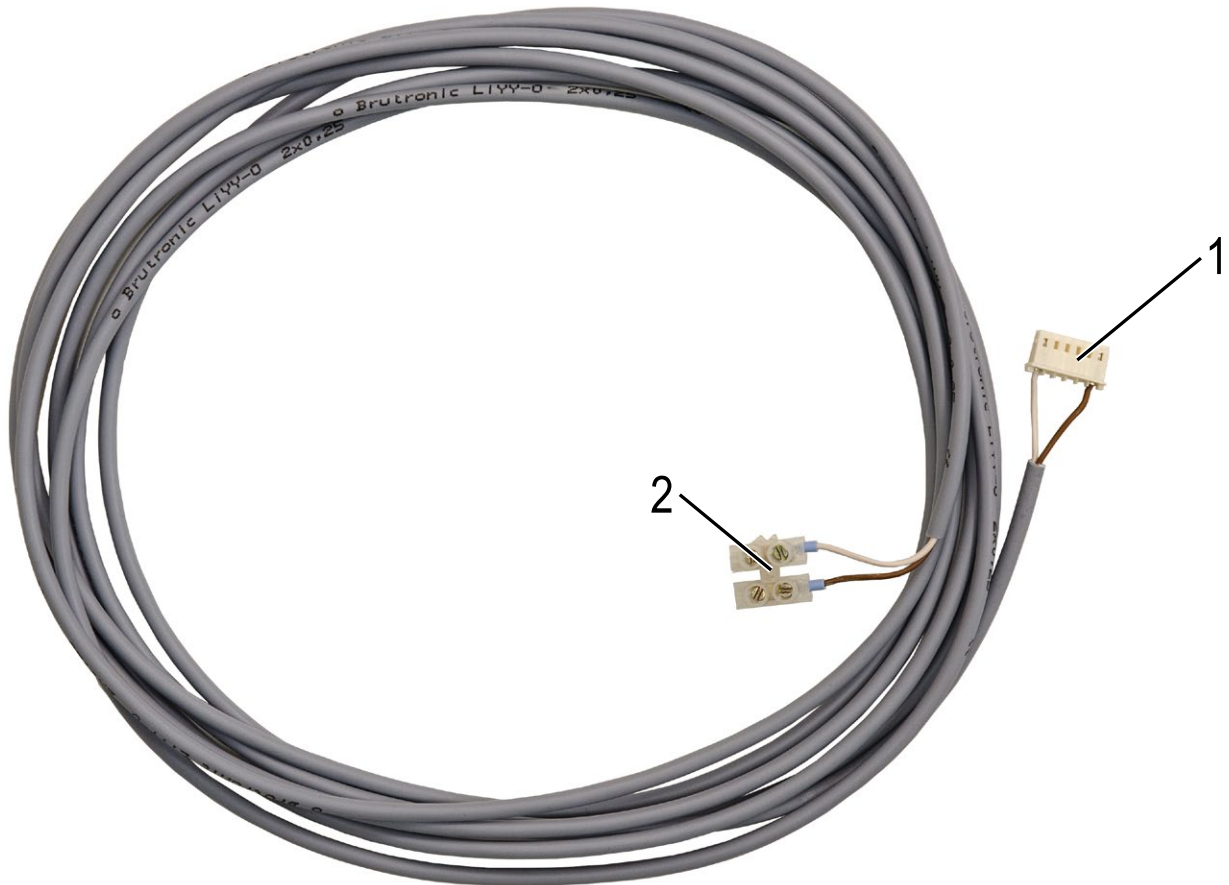
- CompTrol CNT-FEA.
- CompTrol CNT-FEA quick-start reference guide.

The CompTrol CNT-FEA Technical Manual is available to download from the S-Klima website: <http://www.s-klima.de/download>.



Figure 3: QR code for S-Klima website

4 Product description



No.	Description	Cable color
1	Signal wire to indoor unit* (CNT)	Brown, White
2	Signal input (luster terminal)	Brown, White

* Additional PCB SC-BIKN2-E is absolutely essential for SRK, SRF, and SRR indoor units from the FDS/SX/S series. Pay attention to the note in section "5.3 Installation versions" on page 9.

The CompTrol CNT-FEA is a switching module:

- For switching indoor units On/Off remotely.
- Suitable for connection to KX, FDS, SX, and S indoor units and a control system belonging to the plant operator (e.g. BMS).

The switching module features all the necessary connectors for connection to the PCB of the units in question.

The total line length of the switching module is approx. 4 m.

5 Installation

5.1 Installation location

Install the CompTrol CNT-FEA directly on the air conditioning unit:

- in the terminal box of the indoor unit or in an external distribution cabinet.

5.2 Installing the CompTrol CNT-FEA

Note

- Do not extend the cable.

⚠ DANGER

Danger of death from electric shock.

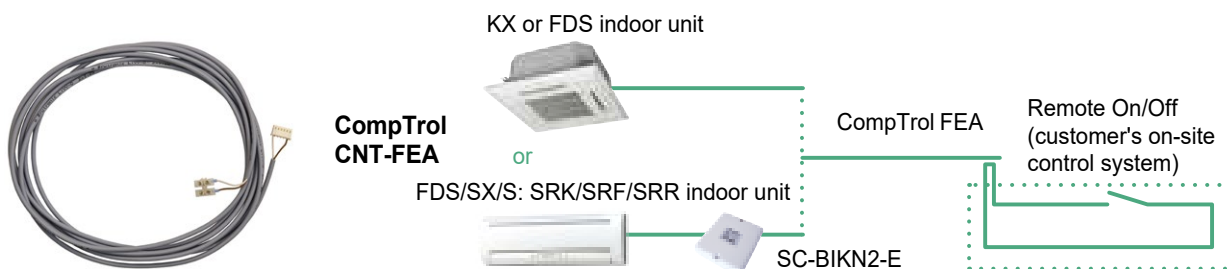
Always have the CompTrol CNT-FEA installed, connected, and started up by specialist electricians.

- Before starting installation work, switch off the electrical supply to the connection point for the public mains supply and the switch gear cabinet.
- Switch off the electrical supply to all components that will be connected to the CompTrol CNT-FEA.
- Check that the electrical supply is off.

Procedure

1. Switch off the power supply to the overall system.
2. Check that the entire system is disconnected from the electrical supply.
3. Secure so it cannot be switched back on.
4. Connect the Signal 3 as shown in the wiring diagram. Ensure the correct installation location (see section “5.1 Installation location” on page 9).

5.3 Installation versions



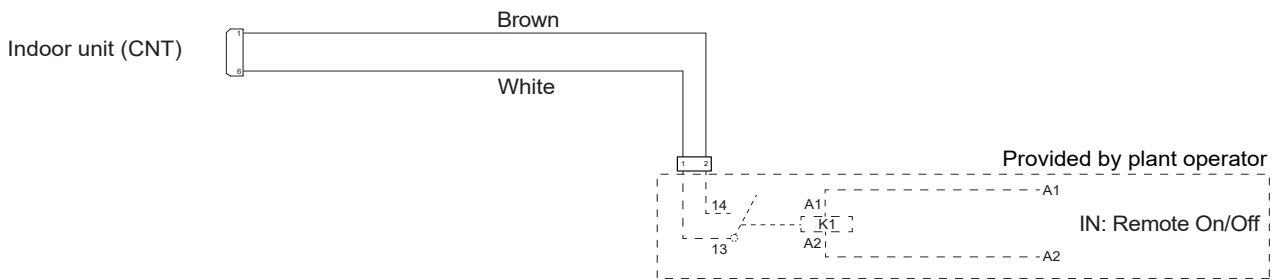
Note

The additional PCB SC-BIKN2-E is required for switching the following FDS, SX, and S series indoor units On/Off remotely:

- SRK wall units.
- SRR duct units.
- SRF chest units.

The SC-BIKN2-E is not included with delivery and is an optional extra.

6 Wiring diagram



7 Technical data

Order code	CTFEA-A
Electrical supply	12 V DC via air conditioning unit
Nominal current	Max. 80 mA
Protection class	III, if $U_{in} < 50$ V
Protection rating	IP20
Protective ground	Not permitted
Length	4 m
Relay input:	
– Type	Relay coil
– Input voltage U_{in}	230 V AC
– Type of cable	To DIN VDE 0100-520
– Core number	2
– Conductor connection	Luster terminal
– Conductor size	0.75 mm ² – 2.5 mm ² (to DIN VDE 0100-520)
– Line length	Max. line length to DIN VDE 0100-520
Installation location	In the air conditioning unit: terminal box; external distribution cabinet
Ambient conditions:	
– Temperature	-15°C to +40°C
– Air humidity	Max. 85%, non-condensing


8 Disposal



Dispose of electronic equipment at local collection points for waste electronic equipment, in accordance with the Waste Electrical and Electronic Equipment (WEEE) Directive.

9 Accessories

The table below contains accessories for the product.

Name	Description	Stulz order number	Image
Adapter board SC-BIKN2-E	Additional PCB for forwarding a status or alarm signal and for Remote On/Off	SC-BIKN2-E	

10 CE Declaration of Conformity

Konformitätserklärung

Declaration of Conformity



Der Unterzeichnete
The undersigned

STULZ GmbH
Klimatechnik
Holsteiner Chaussee 283
D - 22457 Hamburg
GERMANY

bestätigt hiermit, dass das nachfolgend bezeichnete Gerät in der von uns in Verkehr gebrachten Ausführung die Anforderungen der EG-Richtlinien und der harmonisierten Normen bzw. der nationalen Normen und der technischen Spezifikationen erfüllt.

hereby confirms that the units listed below, in the version marketed by us, fulfil the requirements of the EC Directives and harmonized EC Standards, national Standards and technical specifications listed below.

Bei einer nicht mit uns abgestimmten Änderung des Gerätes verliert diese Erklärung ihre Gültigkeit.
In the case of a modification of the equipment not co-ordinated with us this declaration loses its validity.

Erweiterungsmodul
extension module

CompTrol Interface FEA
M 75568

Harmonisierte Normen
EN 61000-6-1:2007

Harmonized Standards
EN 61000-6-1:2007

Nationale Normen
VDE 0207-4:1986-06

National Standards
VDE 0207-4:1986-06

Die CE-Kennzeichnung wurde angebracht: 2014.
The CE marking was applied in the year 2014.

Die technischen Unterlagen sind hinterlegt bei:
The technical documents are available at:

STULZ GmbH
Abt. Klima- und Befeuchtungssysteme
Holsteiner Chaussee 283
D - 22457 Hamburg
GERMANY

Hamburg, 10.10.2014

Ort Datum
Place Date

Ralf Hochmuth
Leitung Produktmanagement a) b)
Head of Product Management

- a) Bevollmächtigter zur Ausstellung dieser Erklärung im Namen des Herstellers
Authorized representative for issuing this declaration on behalf of the manufacturer
- b) Bevollmächtigter zur Zusammenstellung der technischen Unterlagen
Authorized representative for compiling the technical documents

Find out more
at
www.s-klima.de



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