PANEL TYPE CARBON DIOXIDE CONTROL DEVICE

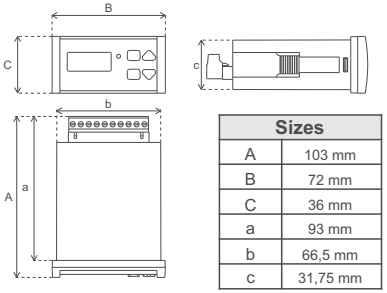
KR-719
USER MANUAL

WHAT IS IT?
The panel-type carbon dioxide control device allows you to control your carbon dioxide devices within your desired range by accurately measuring the carbon dioxide level.

HOW DOES IT WORK?
It operates on 220 V AC power. Depending on your carbon dioxide device, you can control your devices directly with our control device or with the help of a contactor.

GENERAL FEATURES
Accurate and Precise Measurement, 1 Relay Output, User-Friendly Design, Long Service Life, Cleanable Filter, Panel-Mounted Installation, Adjustable Relay Sensitivity

APPLICATIONS
HVAC Applications, Poultry Farm Automation and Chicken Farms, Cold Storage, Incubators, Food Storage, Climate Control Cabinets, Clean Rooms and Laboratories.



Sizes	
A	103 mm
B	72 mm
C	36 mm
a	93 mm
b	66,5 mm
c	31,75 mm

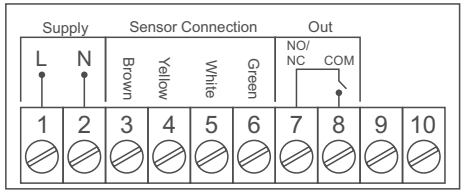
TECHNICAL DATA

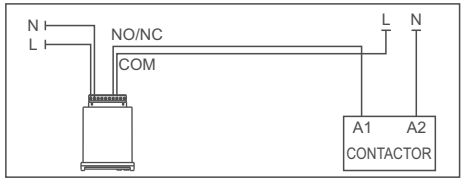
Product Name. . . . . .Panel Type Carbon Dioxide Control Device
Input. . . . . .220 V AC
Output . . . . . Relay (5A)
Measurement Range . . . . . .0-100 % vol
Sensitivity . . . . . ± 0.2 % vol
Accuracy . . . . . ± 0.5 % vol
Operating Temperature . . . . . -10...+55 °C
Storage Temperature . . . . . -20...+60 °C

If the device is to be used outside its operating temperature range, the manufacturer must be informed. The manufacturer's approval must be obtained.

RULES TO BE CONSIDERED FOR SAFETY
1- Be sure to read the user manual before using the device and its accessories.
2- Damage resulting from opening, breaking, or misusing the plastic parts of the device and its accessories is not covered by the warranty.
3- Keep the device and its accessories away from external influences such as liquids, high dust, high heat, etc., and protect them.
4- Do not expose the device cables to any squeezing or pressure.
5- Disconnect the power supply when the device is not in use for an extended period.
6- Your devices and equipment should be used in accordance with the instructions in the user manual. In case of damage or malfunction resulting from external use (contact with liquids, dropping, etc.), be sure to contact the service department for assistance.
7- Malfunctions caused by electrical connection errors and electrical voltage or current errors are not covered by the warranty.

INSTALLATION
1- Remove the product from its packaging.
2- Make the cable connections appropriately.





3- Place the product in the appropriate location on the panel.
4- After power is supplied to the product, the word "OPEN" will appear on the screen for 30 seconds. The measurement process will then begin. To obtain accurate measurement values, it is recommended that the product remain in the environment for at least 5 minutes.
5- It is recommended to use shielded cable as the communication cable to prevent communication signals from being affected by external factors.
6- Since the communication cable will create resistance, check the measurement values again after installing the cable.

PROGRAMS

"SEt" Set Settings Menu	Default	Range / Option
"SEt" Set Value	50 % vol	0-100 % vol

"HIS" Hysteresis Settings Menu	Default	Range / Option
"HIS" Hysteresis Value	1.0 % vol	0.1-5.0 % vol

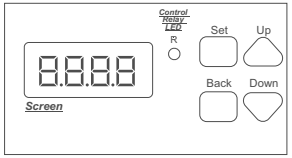
"rLY" Relay Settings Menu	Default	Range / Option
"rLY" Relay Position	NO	NO / NC / on / oFF / rZn

"NO" Normally Open
"NC" Normally Closed
"on" Manual Control On
"oFF" Manual Control Closed
"rZn" Temporal Setting (Press the Set button to enter the temporal setting menu.)

"rZn" Temporal Setting Menu	Default	Range / Option
"Zon" Temporal Setting On Duration	0 minute	0-60 minute
"ZoF" Temporal Setting Off Duration	0 minute	0-60 minute

"tSr" Sensor Response Time Setting Menu	Default	Range / Option
"tSr" Sensor Response Time Level	3	1-5

MAIN SCREEN



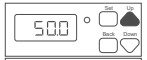
Set - Enter / Confirmation Button
Back - Back Button
Up - Up Arrow Button
Down - Down Arrow Button

STARTUP SCREEN

When power is supplied, all screen LEDs illuminate for 15 seconds. The carbon dioxide sensor is allowed to warm up. The screen displays **OPEN** for 15 seconds. It then transitions to the normal operating screen, and the carbon dioxide data appears on the screen.

SET, HYSTERESIS VALUE, AND RELAY POSITIONS

While in the main menu, holding down the "Up" button displays **SET**,

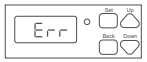


holding down the "Down" button displays the **HYSTERESIS** values,

and holding down the "Back" button displays the **RELAY** positions.

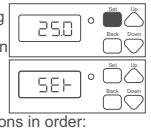
ERROR DISPLAY

If communication with the sensors is lost, the word **Err** appears on the screen and the relay does not activate.



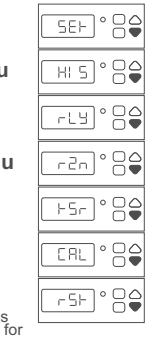
PROGRAMMING MENU

While in the main menu, pressing and holding the Set button for 5 seconds enters programming mode. The direction buttons can be used to navigate through the program options in sequence. Press the Set button to make a selection. Press the Back button to return to the main menu.



The menu contains the following program options in order:

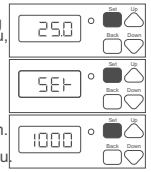
SEt **Set Settings Menu**
↓
HIS **Hysteresis Settings Menu**
↓
rLY **Relay Settings Menu**
↓ ↳ rZn **Time Settings Menu**
tSr **Sensor Response Time Settings Menu**
↓
CAL **Calibration Menu**
↓
rSt **Factory Reset Setting**
The only option in the Reset menu is "-rSt". If the OK button is held down for 10 seconds in this menu, all parameters return to the factory default settings.



When the menu you want to enter is displayed on the screen, press and hold the Set button for 3 seconds to enter that menu. Use the arrow keys to navigate between menu options. Press the Set button to make a selection. Press the Back button to return to the main menu.

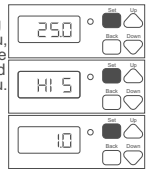
1- SETTINGS MENU "SEt"

Press and hold the Set button for 5 seconds while in the main menu to enter programming mode. When you enter the programming menu, the first program option you see is the "SEt" settings menu. Press and hold the Set button for 3 seconds to enter this menu. Use the up and down arrow keys to change the value. Pressing briefly increases or decreases the value by 10 ppm, while pressing and holding increases or decreases the value by 100 ppm. Press the Set button to make a selection. Press the Back button to return to the main menu.



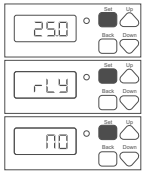
2- HYSTERESIS SETTING MENU "HIS"

While in the main menu, press and hold the Set button for 5 seconds to enter programming mode. When you enter the programming menu, the second program option that appears is the "HIS" hysteresis setting menu. Press and hold the Set button for 3 seconds to enter this menu. The value is changed using the up and down arrow keys. Pressing briefly increases or decreases by 0.1% vol, while pressing and holding increases or decreases by 1.0% vol. Press the Set button to make a selection. The Back button returns to the main menu.



3- RELAY SETTING MENU "rLY"

While in the main menu, press and hold the Set button for 5 seconds to enter programming mode. The third program option that appears when entering the programming menu is the "rLY" relay setting menu. Press and hold the Set button for 3 seconds to enter this menu. Use the up and down arrow keys to navigate between menu options. Press the Set button to make a selection. Press the Back button to return to the main menu.

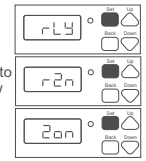


Selection range: NO // NC // on // oFF // rZn

• "rZn" is the time setting menu. Press the Set button to enter the time setting menu.
• "NO" (Normally Open) opens the contact below the set value and closes the contact above the set value.
• "NC" (Normally Close) closes the contact below the set value and opens the contact above the set value.

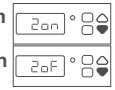
3.1- TIME SETTING MENU "rZn"

After navigating to the "rZn" option using the arrow keys in the "rLY" relay setting menu, press and hold the set button for 3 seconds to enter this menu. Use the up and down arrow keys to navigate between menu options. Press the Set button to make a selection. Press the back button to return to the main menu.



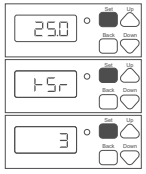
The menu contains the following program options in order:

Zon **Temporal Setting On Duration**
↓
ZoF **Temporal Setting Off Duration**



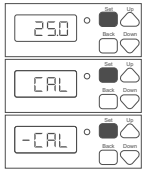
4- SENSOR RESPONSE TIME SETTING MENU "tSr"

While in the main menu, press and hold the Set button for 5 seconds to enter programming mode. The fifth program option that appears when entering the programming menu is the "tSr" sensor response time setting menu. Press and hold the Set button for 3 seconds to enter this menu. Use the up and down arrow keys to change the value. Press the Back button to return to the main menu.
Default Value: 3

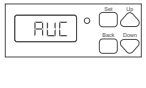


5- CALIBRATION MENU "CAL"

While in the main menu, press and hold the Set button for 5 seconds to enter programming mode. The sixth program option that appears when entering the programming menu is the "CAL" calibration menu. Press and hold the Set button for 10 seconds to start calibration. After 5 seconds of calibration, the device returns to the main menu. A countdown begins on the main screen. The calibration time is 180 seconds. Once calibration is complete, the system continues normally.
The relay does not activate during the calibration phase.



Automatic Calibration
The device has automatic calibration. Automatic calibration starts when the sensor drops below 360 ppm. When automatic calibration starts, the AUC text flashes three times on the screen, and then the sensor calibrates itself to 400 ppm.



www.emskontrol.com

USER MANUAL

DECLARATION OF CONFORMITY

Headquarters and place of production, Mersinli Mah. 1201/2 Sk. Temsil Plaza No:2/F Konak / İZMİR - TÜRKİYE, EMS KONTROL ELEKTRONİK VE MAKİNE SAN. TİC. A.Ş. declares that the product marked with CE, whose name and specifications are given below, covers the specified directives and provisions.

Brand: Ems Kontrol
Product Name:KR-719
Product Type: Panel Type Carbon Dioxide Control Device

Compatible Directives:

Electromagnetic Compatibility Directive
2014/30/EU (EMC EN 61000-6-3: 2007 + A1: 2011, EN 61000-6-1: 2007)

Low Voltage Directive
2014/35/EU (LVD EN 60730-2-9:2010, EN 60730-1:2011)

Additional information: This product can be used in combination with other devices and compliance with the directives covers only the product. Ems Kontrol is not responsible for the compliance of the entire system with these directives.

This declaration is not valid if the product is modified without our approval.

CE RED

EMS KONTROL ELEKTRONİK VE MAKİNE SAN. TİC. A.Ş.
Mersinli Mahallesi 1201/2 Sk. Temsil Plaza No:2/F Konak / İ Z M İ R
EGE V.D. 334 104 4628
Mersis No: 0334104452800001

WARRANTY TERMS

1- The warranty period of the device and accessories starts from the invoice date and is guaranteed for 2 years against manufacturing defects.

2- Device and accessories are delivered to the customer in working condition in our company. On-site commissioning is subject to service fee.

3- The repair of the device and accessories under warranty is carried out in our company as a result of sending them with the transportation company contracted by our company. In on-site services, transportation and accommodation expenses of the service personnel shall be borne by the customer. The cost of the working time spent on the road is added to the service fee and the collection is made in advance.

4- Maintenance of device and accessories is done in our company. Shipping and transportation costs of the device and accessories to and from our company for maintenance shall be borne by the customer

5- In case of malfunction of the device and accessories whose warranty period continues, whether the malfunction is caused by the fault of the customer or the manufacturer is tested in our company and reported with the report to be issued by our company.

6- In case of detection of manufacturer-induced faults of the device and accessories whose warranty period continues, the customer may request a replacement or may request that the repair costs of the device and accessories be fully covered by the manufacturer, provided that it does not exceed the product price.

7- In the event that the faults of the device and accessories whose warranty period continues are determined to be caused by the customer, all costs shall be borne by the customer.

8- If the customer does not indicate that he/she is aware of the defects in the device and accessories from the date the warranty period starts or in cases where he/she is expected to be aware, he/she cannot benefit from Article 6.

9- Failures arising from the use of device and accessories contrary to the points in the user manual are not covered by the warranty.

10- Device and accessories are not covered by the warranty if they are dropped, broken or scratched by the customer.

11- Damages caused by the use of device and accessories of other brands and models without the approval of the manufacturer are not covered by the warranty.

12- Errors caused by rusting, oxidation and liquid contact due to working in dusty / acidic / humid environments are not covered by the warranty.

13- Damages that may occur during transportation of device and accessories are not covered by the warranty. If the customer wishes, he/she can have transportation insurance.

14- Damages caused by mains voltage / faulty electrical installation are not covered by the warranty.

15- Device and accessories are not covered by the warranty in case of malfunctions caused by force majeure such as fire, flood, earthquake, etc.

16- All parts of the device and accessories, including all parts, are covered by our company's warranty.

17-If the device and accessories malfunction within the warranty period, the time spent in repair shall be added to the warranty period. The repair period of the goods shall not exceed 20 working days. This period starts from the date of notification of the malfunction of the goods to the service station, in the absence of a service station, to the seller, dealer, dealer, agent, representative, importer or manufacturer - manufacturer of the goods. It is possible for the consumer to notify the malfunction by telephone, fax, e-mail, registered letter with return receipt or similar means. However, in case of dispute, the burden of proof belongs to the consumer. If the malfunction of the goods is not resolved within 20 business days, the manufacturer-manufacturer or importer; until the repair of the goods is completed, another product with similar characteristics must be allocated to the use of the consumer.

18- Despite the consumer's right to repair the goods;
-Provided that it is within the warranty period from the date of delivery to the consumer, it fails at least four times within a year or six times within the warranty period determined by the manufacturer-manufacturer and / or importer, as well as the fact that these failures make the inability to benefit from the goods continuous,
-Exceeding the maximum time required for repair,
-If it is determined that it is not possible to repair the malfunction with the report to be issued by the service station of the company's service station, if the service station is not available, respectively by one of its dealer, dealer, agency, representative, importer or manufacturer-manufacturer, it may request a refund or a price reduction at the rate of defect.

19-Customer may file complaints and objections to consumer courts or consumer arbitration committees.

20-The warranty certificate must be kept by the customer during the warranty period. In case of loss of the document, a second document will not be issued. In case of loss, repair and replacement of device and accessories will be made for a fee.

This device is a Waste Electrical and Electronic Device according to the directives applied in Europe 2002/96/EC. (WEEE) Before scrapping or throwing away this device, you must prevent its potential negative consequences for the environment and human health. Otherwise it would be inappropriate waste. This symbol on the product is intended to warn that the product should not be treated as household waste and should be delivered to electrical and electronic waste collection points. Disposal of the product must be done in accordance with local environmental regulations. You can obtain detailed information from authorized units on how to destroy, reuse and recycle the product.

Manufacturer's

Title: EMS KONTROL ELEKTRONİK VE MAKİNE SAN. VE TİC. A.Ş.

Address: Mersinli Mah. 1201/2 Sokak Temsil Plaza No:2/F Konak / İzmir-TÜRKİYE
Telephone: 0 (232) 431 2121
E-Mail: info@emskontrol.com

Company Stamp:

STAMP

EMS KONTROL ELEKTRONİK VE MAKİNE SAN. TİC. A.Ş.
Mersinli Mahallesi 1201/2 Sk. Temsil Plaza No:2/F Konak / İ Z M İ R
EGE V.D. 334 104 4628
Mersis No: 0334104452800001

Product's

Type: Panel Type Carbon Dioxide Control Device
Brand: Ems Kontrol
Model: KR-719
Warranty Duration: 2 Years
Maximum Repair Time: 20 Days
Serial Number:

Vendor Company
Title: . .....
Address: .....
Telephone:..... Fax:.....
E-Mail:.....
Invoice Date and Number:.....
Delivery Date and Place:.....
Signature of Authorised Person:.....
Company Stamp:.....

STAMP

Product's
Type: Panel Type Carbon Dioxide Control Device
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Model: KR-719

Ems Kontrol reserves the right to make changes and improvements to the product specifications and user manual.

*For all changes, please visit emskontrol.com.

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