

DESCO EMIT

50654/50630 PULSED IONIZING BAR



INSTALLATION AND OPERATING INSTRUCTIONS

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50654/50630 Pulsed Ionizing Bar Installation, Operation, and Adjustment Instructions

The 50654/50630 combines the effectiveness of pulsed DC ionization with the ease of adjustability, communication capability and the flexibility of a micro-controller based design to produce a versatile ionization system. The 50654/50630 uses pulses of positive and negative ions to produce extended ionization coverage with or without forced air- flow.

Optional communication port, network software, and remote control (ZVI-IR) for adjustments are available.

Installation

Remove the Pulsed Ionizing Bar from the carton and inspect for shipping damage. Included with the unit should be:

1. 50654/50630
2. Earth/grounding wire
3. 24V, 350mA power supply
4. Emitter point cleaner
5. Hanging Kit (optional)

Setup and Operation

The unit is powered by the 24V DC supply and begins working when plugged in. **Note:** the earth/grounding wire must be connected to the terminal on the unit and to earth/ground for the PIB3000 to work properly. The RS485 input/output ports for the optional software package are located on the back side towards the right end of the unit. The control buttons along with the LED display are located on the front side towards the right end of the unit. The control buttons are numbered left to right as shown in Figure 1. Button #1 (τ) corresponds to “Go Back”, button #2 (θ) corresponds to “Decrease”, button #3 (π) corresponds to “Increase” and button #4 (υ) corresponds to “Go Forward”.

When the 50654/50630 is first powered on, the unit will display its default address “000”.

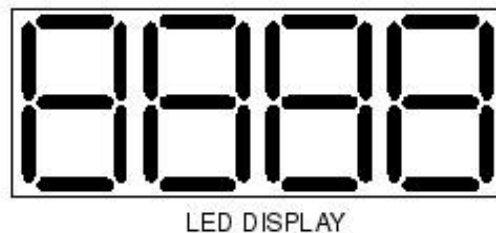
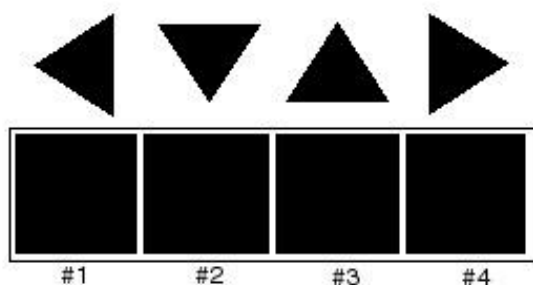


Figure 1

Setup Mode

P r o g Press τ and υ buttons simultaneously to go into the ionizer setup mode.
 τ θ π υ
 ■ ■ ■ ■ When the buttons are released, the unit should beep once and “**Prog**” should appear momentarily on the LED display. The display will then show the period setting.

1. 6 P Press θ or π buttons to adjust the period from “**0.1P**” (shortest, 0.1 seconds), to
 τ θ π υ
 ■ ■ ■ ■ “**10P**” (longest, 10 seconds), for acceptable balance swing and satisfactory decay time. Press the υ button to go to the next menu. The next menu is for the duty cycle adjustment.

5 0 Place the charge plate monitor under the middle of the ionizing bar. The number shown represents the duty cycle. The duty cycle is the percentage of time that the positive supply is on. For example, for a period of 10 seconds, selecting a 40% duty cycle corresponds to the positive supply being on for 4 seconds and negative being on for 6 seconds. Press and hold the θ button, (smaller duty cycle, more negative), or the π button, (larger duty cycle, more positive), to adjust the balance for an even swing. For finer adjustment, use single clicks of the buttons to change in one percent increments. Press the υ button to save and exit. Press the τ button to go to the previous menu.

S A V E To save and exit at any time during the setup mode press τ and υ buttons simultaneously. The 50654/50630 will save all settings and return to normal operation. The 50654/50630 will display “**SAVE**” and the status of the buttons “**On b**” for “on buttons” (meaning that the buttons are enabled), then the unit address.

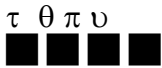
O n b (**Note:** the control buttons can be disabled, “**OFF b**”, by the ZVI-IR remote control only.)
 τ θ π υ
 ■ ■ ■ ■

To change the unit network three digit address and enable/disable the remote control, use the following procedure.

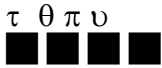
1 2 3 Press τ and υ buttons simultaneously to go into the ionizer setup mode.
 τ θ π υ



0. 8 P The unit will display “**Prog**” momentarily and go to the “period setting” menu. Press the τ button to go back to the “address” menu.



1 2 4 A The last digit of the address will be flashing. Press θ or π buttons to change the last digit 0 to 9. Press the τ button to go to the second digit of the address.



1 5 4 A The second digit of the address will be flashing. Press θ or π buttons to change the second digit 0 to 9. Press the τ button to change first digit of the address.



2 5 4 A The first digit of the address will be flashing. Press θ or π buttons to change the first digit 0 to 2. Press the τ button to go to the enable/disable remote menu. (**Note:** address “000” is reserved as a network broadcast command. Do not use.)



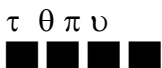
O F F r After pressing the τ button to go to the enable/disable remote menu, the display will show “**OFF r**” for “off remote”, (default setting). This means that the unit will not respond to the remote control. To enable the remote, press θ or π buttons and the display will read “**On r**” for “on remote”.



Alarm Conditions

The 50654/50630 is able to detect low and high input voltages. It will sound a continuous tone audible alarm during all alarm conditions.

H I P If the unit detects that the input voltage is too low, it will display “**LO P**” for low power and sound the audible alarm. If the unit detects that the input voltage is too high, it will display “**HI P**” for high power and sound the audible alarm.



Cleaning Procedure

To clean the 50654/50630, first turn off and unplug the unit. The emitter points are easily cleaned using Semtronics part number S204-200 emitter point cleaner. To clean any dirt off of the bar itself, using clean compressed air is recommended or wiping with any suitable material.

Specifications

- **Balance**
User adjustable
- **Dimensions**
1.5H”X1.5W”X (1, 2, 4, OR 6 FT) L
- **Weight**
1, 1.5, 2.5, OR 3.5 LBS Respectively
- **Emitter Points**
Machined tungsten
- **High Voltage Power Supply**
5kV
- **Input Power**
24V DC, 350mA
- **Ion Emission**
Pulsed DC open loop control
- **Ozone**
Less than 0.05ppm

NOTE: Unauthorized servicing or modifications to your ionizer will void the product warranty and may create dangerous conditions. Servicing should be performed only at the factory, or by a Semtronics approved technician.

TECHNICAL SUPPORT:

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NOTE: Unauthorized servicing or modifications to your monitor will void the product warranty and may create dangerous conditions. Servicing should be performed only at the factory, or by a Desco Emit approved technician.

LIMITED WARRANTY

Desco Emit expressly warrants that for a period of one (1) year from the date of purchase, Desco Emit 50654/50630 will be free of defects in material (parts) and workmanship (labor). Within the warranty period, a unit will be tested, repaired, or replaced at our option, free of charge. Call Customer Service at 909-627-8178 (Chino, CA) or 01892 665313 (Crowborough, U.K.) for Return Material Authorization (RMA) and proper shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of date of purchase. Any unit under warranty should be shipped prepaid to the Desco Emit factory. Warranty replacements will take approximately two weeks.

If your unit is out of warranty, Desco Emit will quote repair charges necessary to bring your unit up to factory standards. Call Customer Service at 909-627-8178 for proper shipping instructions and address. Ship your unit freight prepaid.

WARRANTY EXCLUSIONS

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

LIMIT OF LIABILITY

In no event will Desco Emit or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.