



# **Helio LP** Manual

We appreciate for your purchasing of Helio LP.  
Please remind Caution before use the device for accurate use.  
Quality Assurance is included in this user manual.

Manufactured by Good Doctors Co., Ltd.

VER.100

Good Doctors Co., Ltd. 2-706, IT Castle, 550-1, Gasan-dong, Geumcheon-gu, 153-768, Seoul, KOREA  
Tel: +82-2-2082-6325 Fax: +82-2-2082-6326 Website: [www.gooddrs.com](http://www.gooddrs.com) E-mail: [info@gooddrs.com](mailto:info@gooddrs.com), [sales@gooddrs.com](mailto:sales@gooddrs.com)

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## 2. Instruction of Helio LP


Thank you for choosing our Helio LP.

This instruction provides all the necessary information that you might require for operation, daily maintenance, and safety. In order to obtain full function and maintain best condition of this device, please read this manual carefully prior to use. Always keep this manual ready at hand for your reference.

**Helio LP is medical device. Please do not use for the other purpose.**

### 1 Feature

① Long time use (more than 20 hours at Max brightness) 

② Pre-sterilized light probe 

③ Attachable with any medical instrument 

④ Lithium-polymer battery 

⑤ 5 level adjustable brightness 

⑥ Portable device 

### 2 Intended use

Provide a direct light without shadow when operating and diagnosing.

### 3. Safety information

#### 1 Safety information

- Note the following items to use the product safely.
- This equipment has been tested and found to comply with the limits for medical devices in IEC60601-1-2:1994. These limits are designed to provide reasonable protection against harmful interference in a typical medical installation.

**5840**



**Type B applied part  
On medical equipment.  
To identify a type B applied part complying with  
IEC60601-1  
Note - B = Body**

#### Description of warning and caution



**Warning**

Warning indicates a potential hazardous situation which, if not avoided, could result in death or serious injury.



**Caution**

Caution indicates a potential hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.



**Warning**

- This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :
  - Reorient or relocate the receiving device.
  - Increase the separation between the equipment.
  - Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
  - Consult the manufacturer or field service technician for help.

## 2 Installation and recharging

- Please read the following information for the safe and proper use of this unit.



- Disconnect the power plug before connecting and disconnecting the power cord to the Control unit.
  - Failure to do so may result in an electric shock.
- Keep away from sources of ignition.
  - This may cause fire or explosion
- Never expose the Control unit to any liquid.
  - This may cause electrical leaks, electric shock or fire.
- Keep the Control unit on a flat and stable table or inside of product box. Do not drop the Control unit.
  - Internal defect resulting from dropping may cause overheating or fire.
- Never place the electrical cord close to the gas burner or sources of heat. If the cord catches on fire, replace with the new one.
  - Short-circuit may cause fire or electric shock.



- Do not use or leave the unit in areas of high temperature with intense direct sunlight, fire or a stove.
  - Defect of internal circuit may cause overheat or fire.
- Securely connect the dust-free power plug to the outlet. Use this device in well-ventilated areas.
  - Overheating may cause fire.
- Do not touch the terminal areas of both control unit bottom inlet and AC adapter with finger. Do not insert anything conductive, such as a metal wire of safety-pin.
  - It may cause electric shock or fire.
- Do not use any adapter other than supplied.
  - It may cause fire due to overheating.

### 3 For use

- Please read the following information for the safe and proper use of this unit.



#### Warning

- Never handle the power plug with wet hands.
  - This may result in an electric shock.
- In case of fluid leak or deformation of the Control unit, immediately discontinue use and have it repaired.
  - This may cause fire.
- Do not directly look at the light nor direct the light to the eyes of others.
  - It is not familiar for eye.
- Never use this product on a person having a pacemaker.
  - This may cause malfunction on the pacemaker.

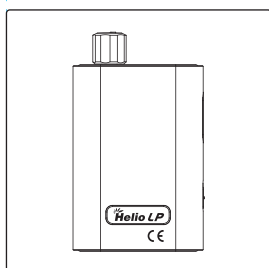


#### Caution

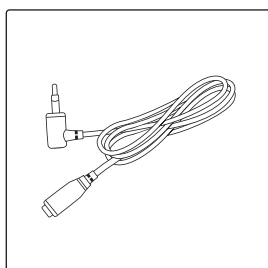
- Disconnect the power cord by grasping the power plug.
  - This may cause injuries or burns. Insulation degradation may cause electric shock or fire.
- If the battery fluid leaks stick to the skin or cloth, immediately wash it off with generous amount of water.
  - It may damage the skin.
- If the Control unit is not used for an extended period of time, recharge battery before using it.
  - Insulation degradation may cause bad effect for battery life time.
- Disconnect the power plug unless it charges.
- Never use this product for any purposes other than the specifically outlined this manual.

## 4. Contents

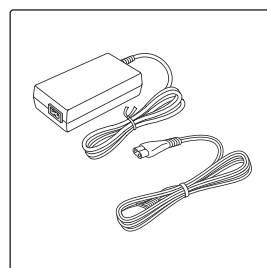
Please check below contents without omission when you remove package of this product.



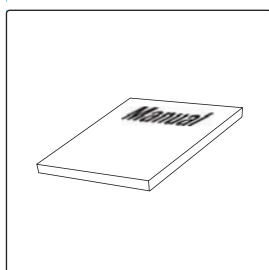
Control unit



Connection cable

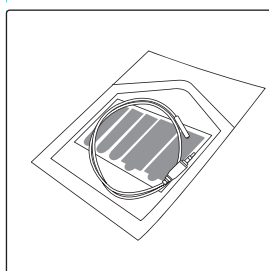


AC adapter

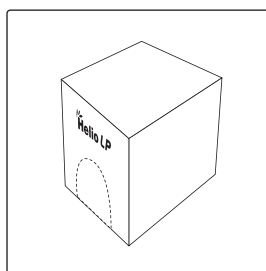


Manual

### Option



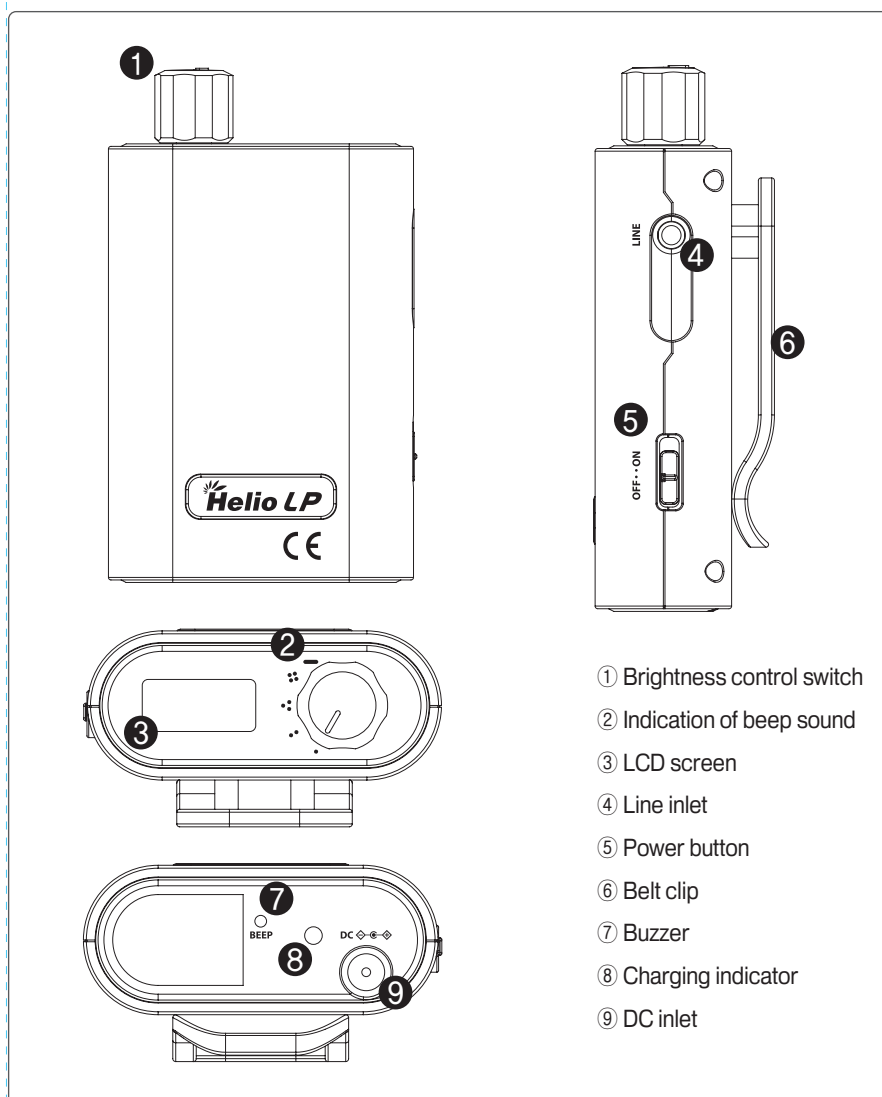
Light probe



Light probe box  
(Light probe 50 pcs)

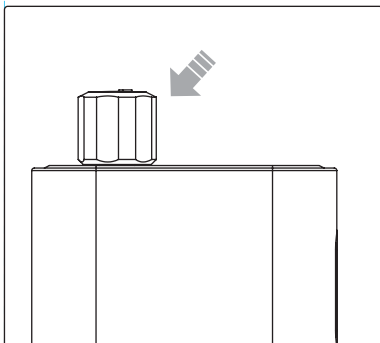
## 5. Part name and function

### 1 Name of part



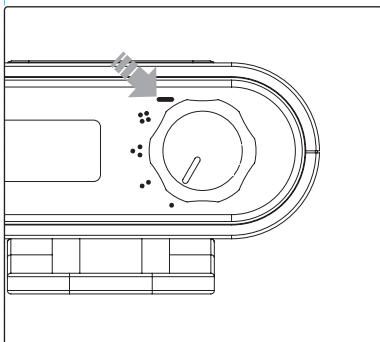


## 2 Brightness control switch / Indication of beep sound / LCD screen



### 1 Brightness control switch

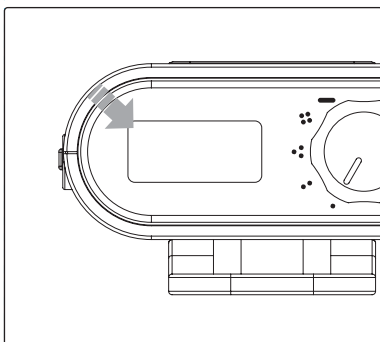
User can adjust brightness by rotating this switch.



### 2 Indication of beep sound

This shows beep sounds

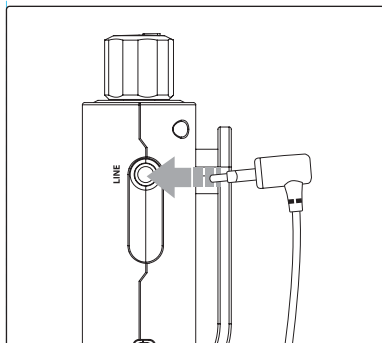
- . : beep
- .. : beep beep
- ... : beep beep beep
- .... : beep beep beep beep
- : bee~



### 3 LCD screen

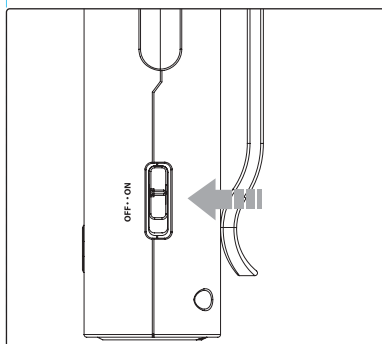
It shows device's condition for example brightness, battery condition, charging, and etc.

### 3 Line inlet / Power button / Belt clip



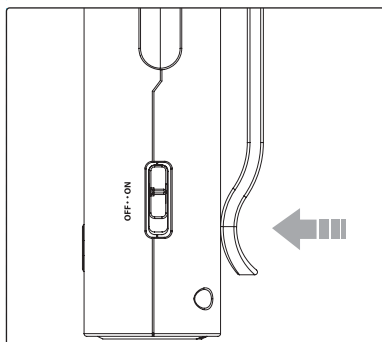
#### 4 Line inlet

Insert the connection cable into the inlet.



#### 5 Power button

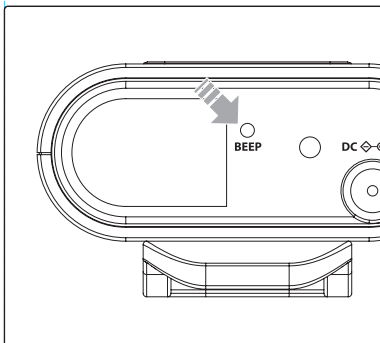
Its function is turn on and off the device.



#### 6 Belt clip

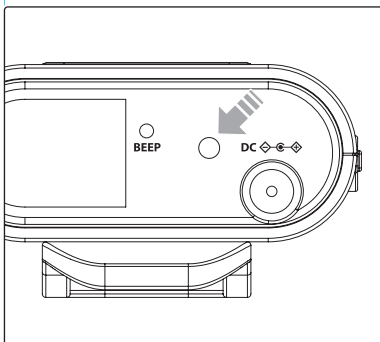
User can hang product on their belt or etc.

#### 4 Buzzer / Charging indicator / DC inlet



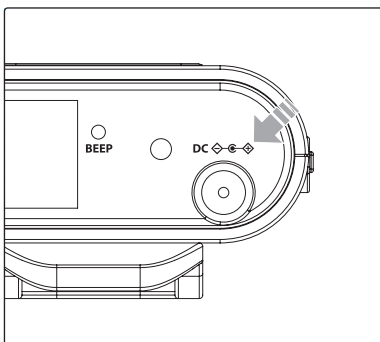
##### 7 Buzzer

Produces beeping sound.



##### 8 Charging indicator

During charging, the red indicator is turned on and turns green when it is finished.

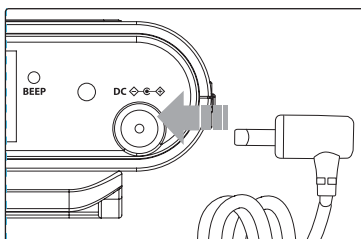


##### 9 DC inlet

It is used when charging.

## 6. Helio LP charging

### 1 Charging



Follow the warnings and cautions on charging.

- (1) Securely insert the connector of the AC adapter into the DC inlet on the bottom of the Control unit.
- (2) Plug the AC adapter in the AC outlet.  
(It can be used on AC 100V - 240V)
- (3) Charging indicator is turned on, and started the charging.

### LCD screen on charging



\* When charging is done, the Charging indicator is turned to green.

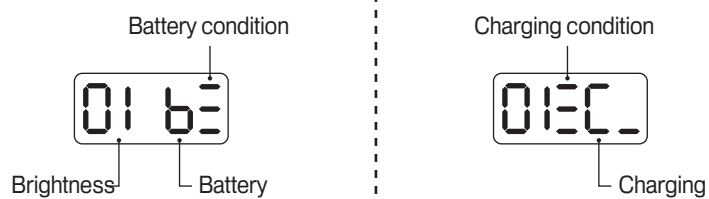
\* If Power button is off, anything is not shown on LCD screen.



**Caution**

Use only AC adapter supplied.

### Contents of LCD screen

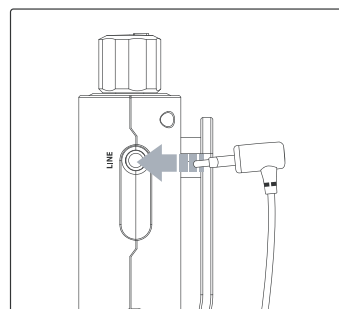


## 7. Helio LP use

### 1 Direction for use

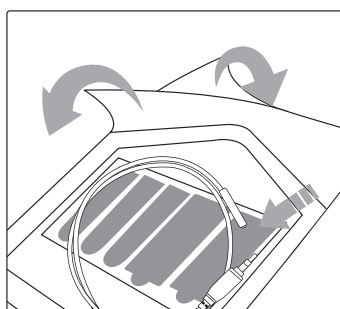
#### 1. Insert Connection cable

- (1) Insert Connection cable to the line inlet on Control unit.

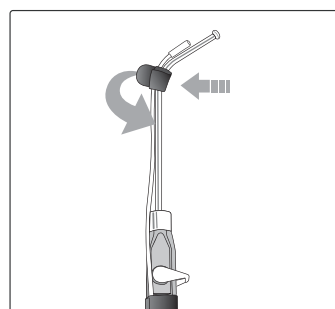


#### 2. Attach light probe on instrument

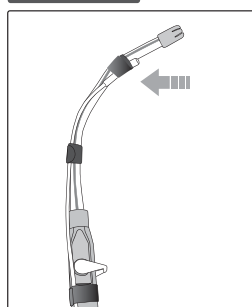
- (1) Unseal Light probe package.



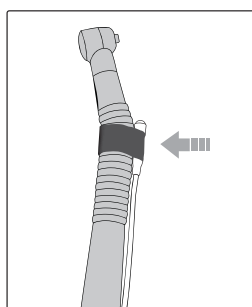
- (2) Attach Light probe on instrument by included band.



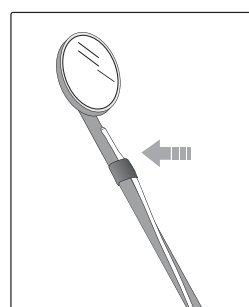
### Example



Saliva ejector



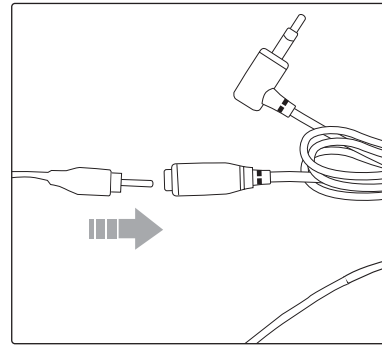
Scaler



Mirror

### 3. Connect Light probe

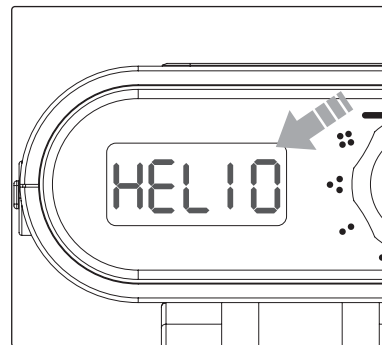
(1) Connect Light probe to Connection cable.



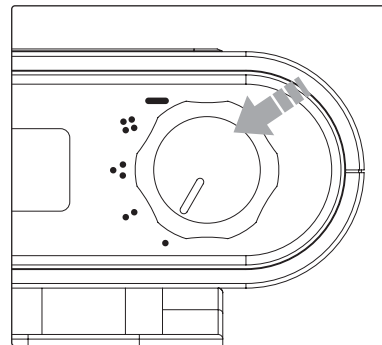
### 4. Activate Control unit

(1) Turn on Power button.

-“HELIO” is shown on the LCD screen for a second.



(2) Select brightness level.



\* When battery is almost discharged, device alarms for recharging. At this time battery condition bar on LCD screen blinks.

## 8. Maintenance

[Follow the warnings and cautions on maintenance and check.]

### Cleaning

- Clean the surface with a soft cloth moistened with mild detergent diluted with water.



**Caution**

Do not use solvent that contains oil or ethanol more than 30%.

### Maintenance and replacement of battery

- The power of battery in general is slowly consumed even when it is not being used. Therefore, it is recommended to be recharged immediately before using. If the running time extremely declines with the full-charged battery, it is time to replace battery. Contact local dealer or Good Doctors Co., Ltd.



**Warning**

Use only the battery supplied.  
- Any other battery may cause fluid leak or explosion.

Do not use Light probe twice. (It is single use only)  
- Light probe is not autoclaveable.  
- Re-using may cause cross infection.  
- Using used Light probe may cause critical damage to device.



Never disassemble or overhaul the product.  
- Unusual performance may cause injuries, electric shock, or fire.



**Caution**

- If the product malfunctions, reset please.
- User must be in charge of operation, maintenance, and check.

\* Reset: Turn off -> Turn on the Power button.

## 9. Trouble shooting

Trouble	Cause and Solution
Control unit is not working	<ul style="list-style-type: none"><li>• If Power button is on "OFF", it is not working. Move Power button to "ON".</li></ul>
When brightness is poor	<ul style="list-style-type: none"><li>• When brightness is poor, replace the Light probe with a new one or recharge.</li></ul>
Display does not turn on	<ul style="list-style-type: none"><li>• If battery is completely discharged, recharge the battery or turn off and turn on the device.</li></ul>
Unrechargeable	<ul style="list-style-type: none"><li>• If the power cord is not correctly connected to the control unit, the battery can not be recharged.</li><li>• Clean the DC inlet on control unit or the charging terminal, if any dirty one is found.</li></ul>

\* If Helio LP does not operate normally after check up all above list, please contact to local dealer or Good Doctors Co., Ltd.



## 10. Specification

### Control unit

Product	• Light source
Model	• Helio LP
Measurement	• Approx. H 100mm X L 60mm X T 33mm
Weight	• Approx. 120g
Battery	• Lithium-polymer battery

### Connection cable

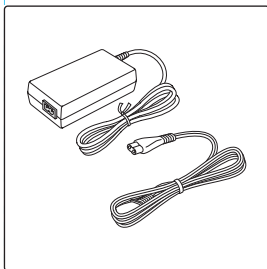
Length	• Approx. 150cm
Weight	• Approx. 15g

### AC adapter

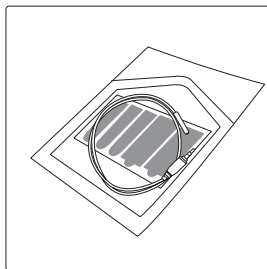
Input power	• AC 100V ~ 240V
Output power	• DC 5V

\* Above figures are measured by Good Doctors Co., Ltd.

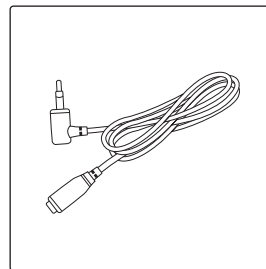
## 11. Accessories



AC adapter



Light probe

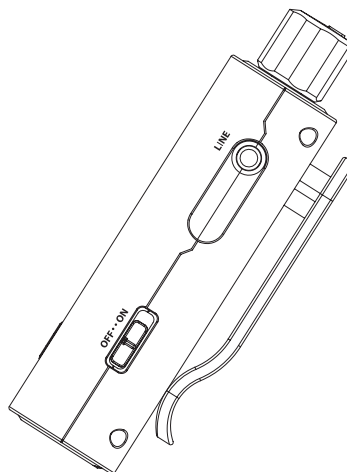


Connection cable

\* If you want to buy additional accessories, contact local dealer or Good Doctors Co., Ltd.

### Warranty

\* This product is shipped after strict inspection. If the product has any problem under normal usage within one year from the date of purchase, repair will be free of charge. However, the repair of consumables (Light probe, etc) that are not covered by the warranty, will be charged. For more information, refer to the Quality Assurance in this manual.



## 12. Quality Assurance



### Quality Assurance

We guarantee the quality of the product as follows

1. Name of product :

2. Name of model :

3. Customer information

- Name of dental clinic :

- Name :

4. Distributor

- Seller :

- Address :

- Telephone :

5. Assurance period

- Date of purchase : from , 200

Product is for 1 year except accessories.

6. S/N :

<Assurance details>

1. If there is any defect of manufacturer or product has any fault itself with in the assurance period, it will be replaced with the same product.

2. Below cases are not effective for the free remuneration.

- Malfunction and damage according to user's carelessness.
- Malfunction and damage according to natural disaster such as fire, earthquake, flood, and etc.
- Malfunction and damage according to user's intention or accident.
- Malfunction and damage according to using incompatible product.

3. If there is no assurance card.

3. The manufacturer does not accept any liability resulting misuse and warranty claims cannot be accepted.

4. The compensation method which compensates it based on consumer law.



Good Doctors Co., Ltd.  
Address : Good Doctors Co., Ltd. 2-706, IT Castle, 550-1, Gasan-dong, Geumcheon-gu, 153-768, Seoul, Korea  
Tel: 82-2-2082-6325 Fax: 82-2-2082-6326 Website: www.gooddrs.com E-mail: info@gooddrs.com, sales@gooddrs.com