

Instruction Manual

omegon



Omegon® Coin operated Telescope Bonview 20x100

English Version 7.2017 Rev A #53306

53306 Omegon® Coin operated telescope Bonview 20x100

Thank you very much for your purchase of and using the Omegon® Coin operated telescope Bonview 20x100 Series High Power Stationary Telescope manufactured by our company. Please take time to read through this manual beforehand for the correct using of your telescope. And you may need to keep this manual at hand in case of further reference.

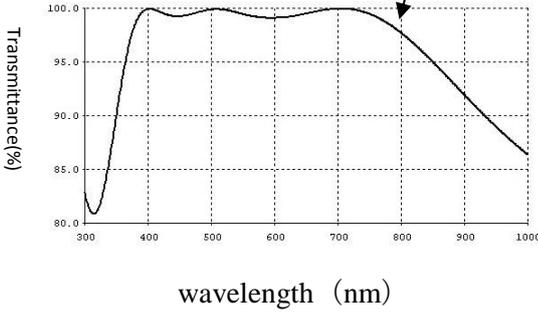
INTRODUCTION

The Omegon® Coin operated telescope Bonview 20x100 Series High Power Stationary Telescopes are coin operated models. The telescopes are designed specially for outdoor installation and long distance viewing. As a result, they can be operated even in adverse weather conditions. Major adopted standards during the process of design and manufacture include *GB/T17117 Prism Binoculars*, *GB1185 Surface Imperfections of Optical Elements*, *GJB1240 General Specification for Telescope*, *GJB150 Laboratory Environmental Test Methods for Military Material*, *MIL-STD-810 Environmental Engineering Considerations and Laboratory Tests*, etc. An optical shutter system is built into the coin operated model of the series. The coin operated system is connected to this shutter system, in which the shutter will be released and hence the user can observe through the telescope for a limited period when an acceptable coin is deposited into the coin chute. What's more, the coin operated system is characterized by its low power consumption, electronic intelligence and long life. The coin chute of the system can be customized to detect and accept different coins and the shutter cannot be released if an unacceptable coin is dropped into the chute. The unacceptable coin will then be ejected automatically. The circuit of the system will automatically go into hibernation when it is idle for some time and the user needs to drop a first coin (which will be ejected) to awaken the circuit when a beep sound will be heard. Then the shutter system can be operated again by depositing coin(s) and shutter duration will be accumulated in accordance with the number of accepted coins.

I. PRODUCT SPECIFICATONS

1. Major Index Specifications

No.	Items	Specifications
1	Magnification	20X
2	Field of View	3,5°
3	Exit Pupil	Φ5mm
4	Eye Relief	21.5mm
5	Entrance Pupil	100mm
6	Twilight Factor	50
7	Relative Brightness	16
8	Resolution	≤2.4"

9	Visibility Fixation	-0.5±0.25
10	Eye Distance	63mm
11	Prism Type	Composite Prism
12	Prism Material	K9
13	Lens Number (binocular)	10 sets/ 14pieces
14	Lens Materail	K9、ZF2、ZF6、ZK10
15	Light Transmittance of One Lens	<p style="text-align: right;">curve of transmittance</p>  <p style="text-align: center;">wavelength (nm)</p>
16	Main Structure Material	ADC12、ZL102、LY12-CZ、HT200
17	Azimuth Rotation	300° (non-coin operated model: 360°)
18	Range of Vertical Motion	-45°~+65°(can stay anywhere within the range)
19	Height from Eyepiece Center to Mounting Surface	1465mm
20	Dimensions	1540 mm×603 mm×300 mm
21	Weight	42kg

2. Environmental Adaptivity Performance

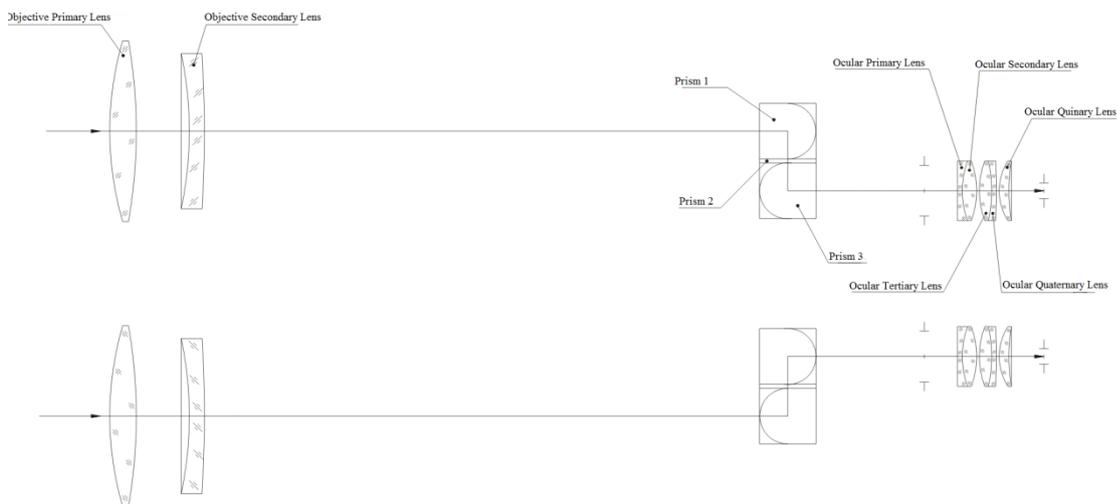
No.	Items	Performance
1	Waterproof	Meet the Standard of Q/KYD01-2010
2	Temperature Adaptivity	-20°C ~+70°C
3	Internal Moisture Preventing Disposal	Filled with Nitrogen Gas

3. Electrical Device Specifications (only for coin operated model)

No.	Items	Specifications
1	Power Source	DC8.2V、1800mAH Lithium Battery
2	Coin Chute Protection Level	IP56 (Battery Excluded)

3	Shutter's Service Life (number of cycles)	$> 10^5$
4	Shutter Duration	10~3600s/coin, 10s/change
5	Coin Diameter Requirement	18mm~29mm
6	Coin Thickness Requirement	1.2mm~3.0mm
7	Number of Different Samples Coins Memorizable	≤ 45
8	Power Save Mode	Automatically Enter Hibernation in 1min's idle
9	Operating Temperature	-20°C ~ +50°C

4. Optical Configuration:



II. ASSEMBLY

1. The configuration of the Omegon® Coin operated telescope Bonview 20x100 Series Telescopes are shown in Figure 1.

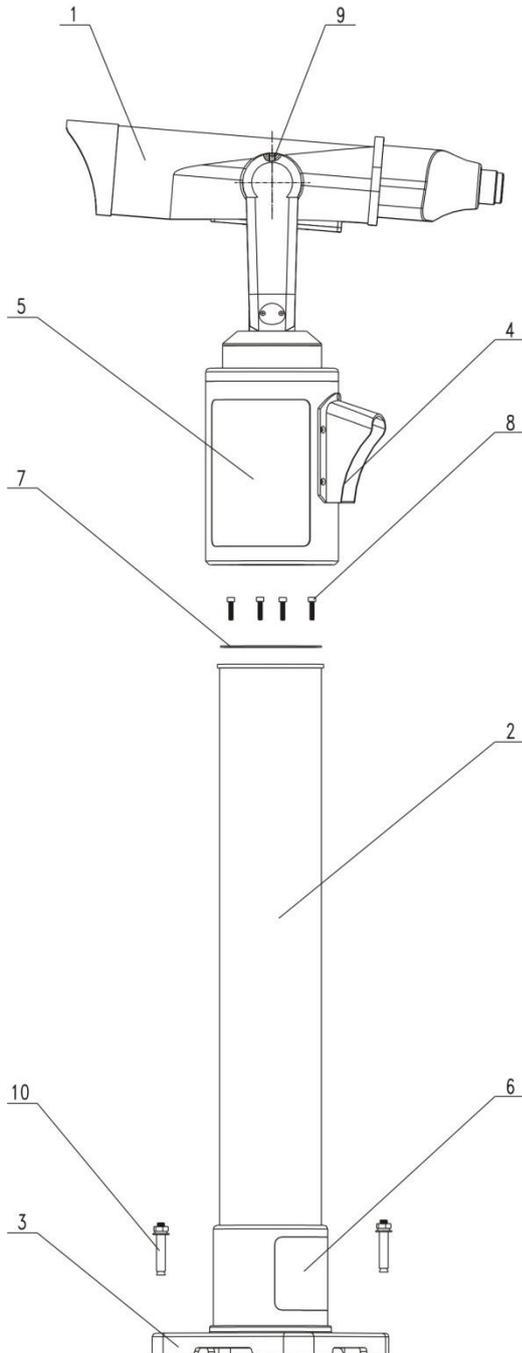


Figure 1

Please note that this is just a rough sketch. The 4 pcs screw #8 are inserted trough open #5 to connect the two main parts of the telescope

1.Telescope 2.Pier 3.Base 4.Coin Chute 5.Power Source Lock 6.Base Lock

7. Ring (no longer necessary or included in newest model) 8.Allen Screw 9. Lock Nut 10.Set Screw

2. Setting-up Steps

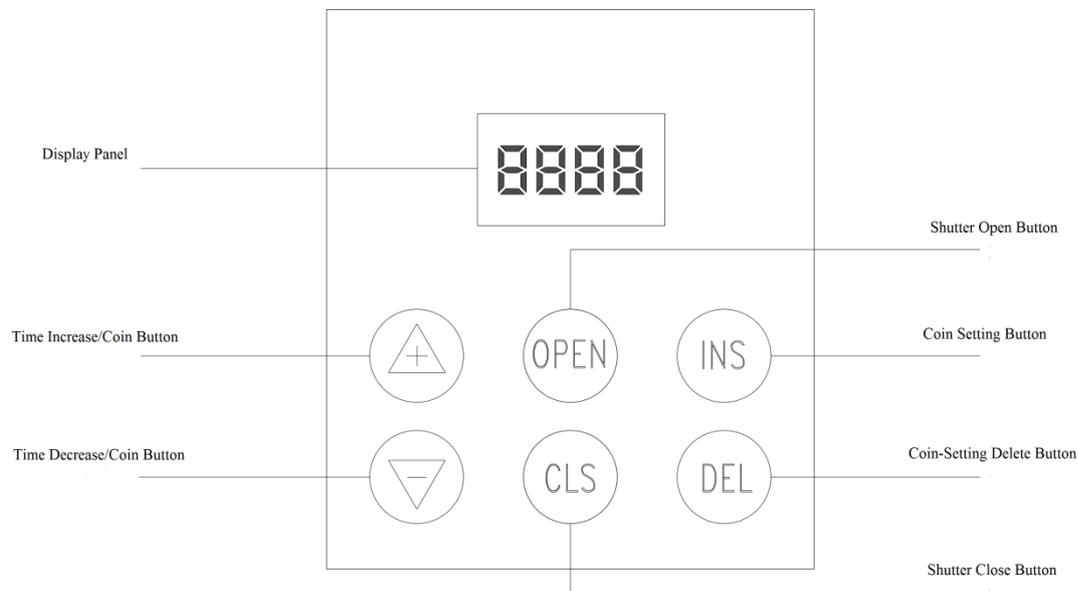
1) Take components no.1, 2, 7 and 8 out of the carton. Put no.7 into the concave top of no.2 and then put no.1 on top of no.2. Unlock no.5 with the provided key (only for coin operated model) and rotate no.1 until the screw holes in no.1 align with those in no.2. Twist no.8 into the screw holes and tighten them with the provided M6 hex wrench until no.1 and no.2 are securely locked together.

2) When the telescope needs to be put on a particular place for a long time, it can be mounted into the surface of that location. In this case, take no.10 out of the carton and set them through the holes in no.3 and into the drilled holes beneath. Tighten the screws with the provided carriage wrench until the base is securely fixed to the floor.

III. Operating instructions

Take the rechargeable lithium battery out of the carton. Unlock component no.5 and fit the power source plug into the battery-pack. Then the self-check of the device begins and a beep can be heard when the self-check has been finished. Subsequently the display panel on the electrical box turns off and the device enters the stand-by state. Once the coin chute has been successfully set, the user can adjust the optical tube up and down or side-to-side and enjoy the observation through the telescope after dropping an acceptable coin into the chute.

2) Coin Chute Settings (as shown in Figure-2):



a. **Coin Setting:** power on and press “INS” button, coin chute sounds a beep → “0” flashes on the display → coin chute sounds a second beep → countdown from 30 to 0 sec on the display → deposit a sample coin → coin chute beeps (coin setting successfully completed) → device in stand-by state. To eliminate the error that comes from the differences among different batches of the same kind of coin, up to 45 sample coins from different batches can be deposited into the coin chute during the 30~0 sec countdown period, which enables the coin chute to recognize coins from varied batches.

b. Coin-Setting Delete: press “DEL” button, coin chute sounds a beep → “0” flashes on the display → coin chute sounds a second beep → coin chute sounds a long beep → “E003” on the display → device in stand-by state.

c. Shutter Duration Setting: press “△” button (duration increases) → duration time shown on the display (10s for each increase, 3600s at most) → number flashes on the display → device in stand-by state; press “▽” button (duration decreases) → duration time shown on the display (10s for each decrease, 10s at the minimum) → number flashes on the display → device in stand-by state.

d. Shutter System Testing: press “OPEN” button → shutter opens → press “CLS” button → shutter closes. This announces that the system is in a normal state, otherwise it is not.

e. Interpreting Other Displays: after being awakened, the number on the display indicates the number of accepted coins; when the telescope is operating, remaining time of the shutter duration countdown is shown on the display; when there is no remaining time, the number of accepted coins will be shown again on the display; “E000” on the display indicates low battery.

3) Coins from the users will fall inside component no.2. Unlock no.6 with the provided key and the coins inside can be taken out.

4) When “E000” appears on the display, remove the power source plug from the battery-connected output socket. Take out the battery and put it in the provided charger. When the battery is fully charged, the indicator light on the charger will turn from red to green.

IV. TELESCOPE STORAGE & MAINTENANCE

The Omegon® Coin operated telescope Bonview 20x100 Series High Power Stationary Telescopes contain precision optical instruments and their service lives are directly affected by the maintenance. Proper storage and regular maintenance will ensure the telescopes perform at their best.

1. The telescopes should be stored in a warehouse where it is ventilated, dry and clean. Do not wipe any part of the telescope with your fingers, unclean cloth or any paper. Surface of metal components should be kept clean. Peeled-off or uncoated part of the surface should be covered with a layer of antirust oil to prevent rust. Grease should never be applied to the glass surface. Acid, alkali, salt, storage battery and other chemical-contained goods should not be stored together with the telescopes in the same warehouse. Stove or any other heating apparatuses should be kept at least 1.5 meters away from the telescopes in the warehouse. The telescope should never be heated over any heating apparatus.

2. The telescope should be handled gently and collision should be avoided. The telescope should be securely packed into the carton in the course of transportation. The telescope should be firmly mounted into the surface of a solid foundation.

3. If dust or other dirt has built up on the optics, remove it with optics cleansing fluid. Do not blow on the optics for fear that moisture may build up on the optics. Do not wipe the telescope with unclean cloth or stiff brush, otherwise the coating or mirrors may be damaged. Do not touch the optics with fingers. If any finger mark is left on the mirrors, use a solution of 50% anhydrous alcohol mixed with 50% ether and absorbent cotton balls (or gauze) to remove it. Apply the solution to the absorbent cotton balls (or gauze) and then apply the cotton balls (or gauze) to the optics. Low pressure strokes should go from the center of the lens (or mirror) clockwise or counterclockwise to the rim (go in only one direction; do not rub back and forth). Frequently change cotton balls (or gauze) until the lens (or

mirror) is clean. The optics should be cleaned aperiodically. Do not apply organic solvents to the optics lest antireflection coatings on the lenses will be damaged.

4. The optical tube may be difficult to set at a desired angle after a long service time. This is due to the unfastening of the two screws in the centers of component no. 9. Tighten them with the provided M6 hex wrench until the optical tube can be easily set to any possible position again.

5. If the telescope has a breakdown, please contact our professional staff for further testing or trouble-shooting, or send it back to the factory for repair. Do not dismantle the telescope by yourself for fear of causing unnecessary damage to the instrument.

V. ITEMS IN THE CARTON

1	Telescope	1
2	Allen Screw	4
3	No longer necessary or included	0
4	Set Screw with Nut and Washer	4
5	Hex Wrench	2
6	Carriage Wrench	1
7	Charger*	1
8	Lithium Battery*	2
9	Key*	2
10	Lens Wipe	1
11	Desiccant	1
12	Instruction Manual	1
13	Certificate	1

note: items with asterisk (*) only provided in coin operated models

Declaration: Our company persists in following the strategy of sustainable development and pursuing the goal of technological improvement. Therefore products are subject to change or upgrading without notice or any obligation on the part of the manufacturer.