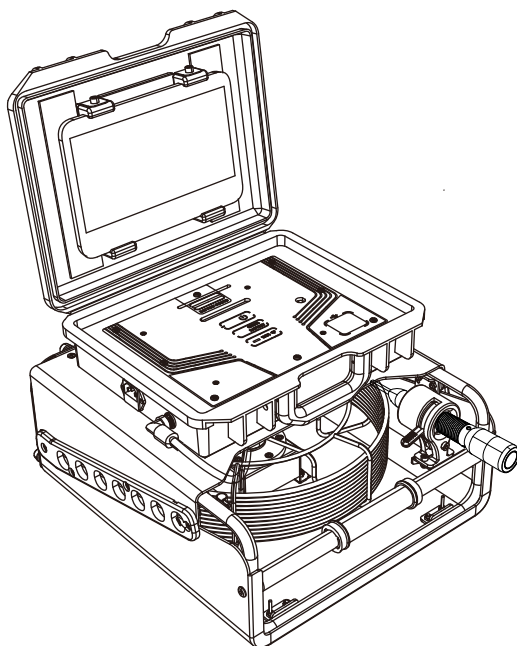




# SPARTAN TOOL

FOR TOUGH CUSTOMER

SINCE 1943



## PRODUCT MANUAL TRAVELER LITE

► Read this manual carefully before operating this system



# WARNING

1. Never use this device in an environment with explosive materials such as GAS, OIL, ETC.
2. Avoid using the device in extremely cold, hot or humid environment; otherwise it may damage the device. Do not drop or press hard on the device.
3. Avoid using the parts / components from other manufacturers to this system, which may damage the equipment due to the incompatibility.
4. Warranty invalidation if the device is disassembled by users or if there are any physical damages.
5. The system's PUSH CABLE made of fiberglass is very rigid. It CAN NOT be bent sharply or pushed too hard; otherwise it will be broken.

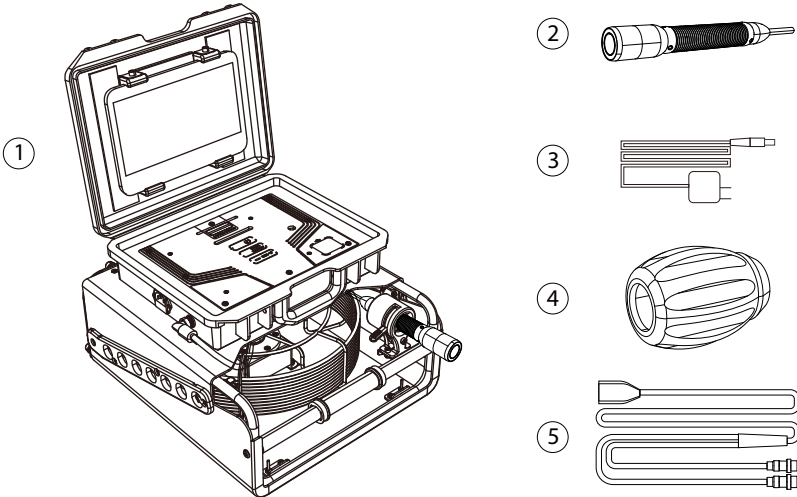


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# Product Matching List



- (1) Traveler Lite unit
- (2) 23 mm camera head with/without self-leveling
- (3) AC power cord
- (4) Centering guide
- (5) Testing cord for diagnosis



## Specifications

Item	Descriptive
Battery (In the case)	YBG 18650-2S3P, 7500mAh, 7.4V, 55.5Wh
Battery Life	up to 8 hours
Length of Cable	40M(130FT)
Camera Light Source	Built-in White LED lights (9PCS)
Camera Angle-of-View	Camera swing angle: 120°
Camera Image	Effective Pixel Array: 976 (H) x 504(V)
System Operating Temperature	-20°C to 55°C

### Application

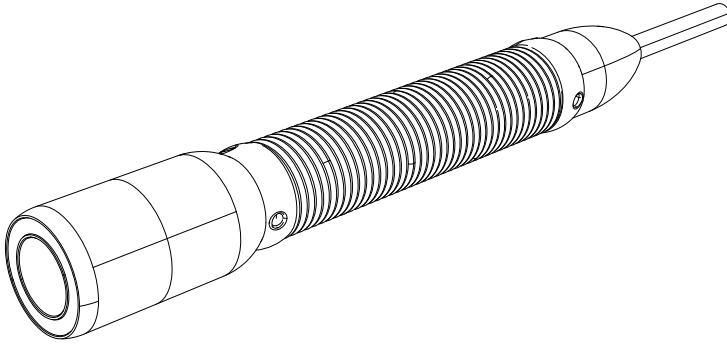
1. PIPE INSPECTION
2. WASTE WATER SYSTEM INSPECTION
3. CABLE DUCTING SYSTEM INSPECTION
4. VENTILATION SYSTEM INSPECTION

#### WARNING:

Draining the battery completely will reduce the battery capacity.



## 23mm Camera Head (with/without self-leveling)



### Working environment:

- 1) Temperature:  $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$

### Technical specifications:

- (1) Power input: DC 9~13V, 13W (max)
- (2) Camera module:
  - 1) Image sensor: 1/3 inch CMOS
  - 2) Effective pixel array: 960(H)x480(V)
  - 3) White Balance: Automatic
  - 4) Gain Control: Automatic
  - 5) Signal-to-noise ratio:  $> 52\text{dB(AGC OFF)}$
  - 6) Video output: 1.0Vp-p/75R
  - 7) Input voltage: DC3.3-5V
  - 8) Current consumption: 110mA
  - 10) Frame rate: 30FPS/25FPS

### (3) Light Source:

- 1) LED quantity: 9PCS
- 2) Luminous flux: 200LM
- 3) LED current: 0~200mA
- 4) Lamp cup angle:  $120^{\circ}$

### External interface

CAM: Pins 1 to 4 are connected to VIDEO, GND, +12V, LED

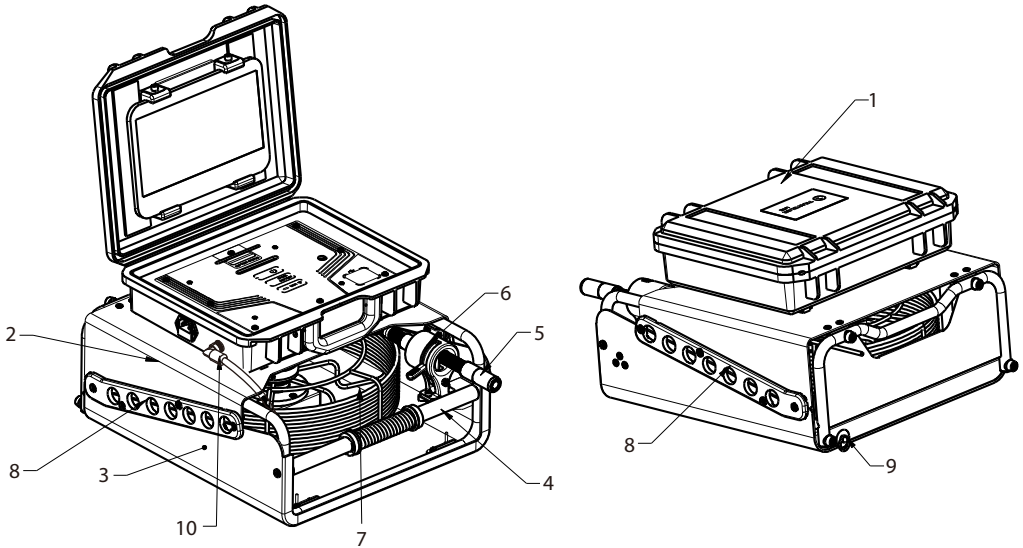
### WARNING:

Continuously using the camera head with the maximum LED intensity may reduce LED life.



# Parts & Accessories

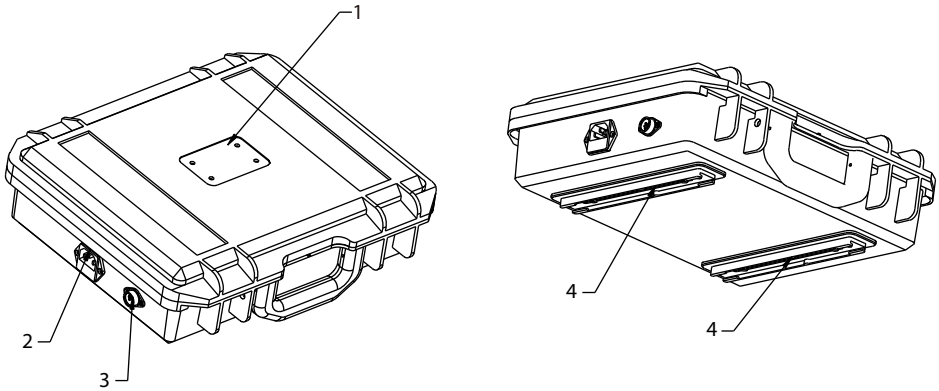
## Traveler Lite



Item	Part Number	Description	Qty.
1	64070014	Control box, TL	1
2	64070024	Metal cover, upper body, TL	1
3	64070025	Metal cover, lower body, TL	1
4	64070012	Handle, TL	1
5	64070005 / 64070006	Camera head, 23mm, TL / Camera head, 23mm w/ SL, TL	1
6	64070007	Camera holder, TL	1
7	64070010	Cable reel w/ cable and slipping, TL	1
8	64070023	Cover bars, TL	1
9	64070021	Rubber plug, TL	1
10	64070027	Cable, control box to reel, TL	1

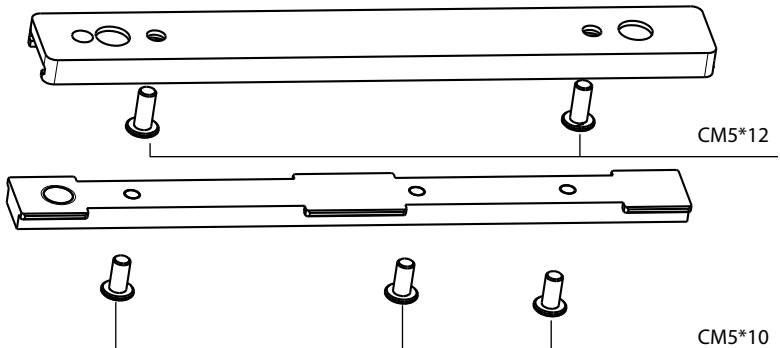


## Control Box(64070014)



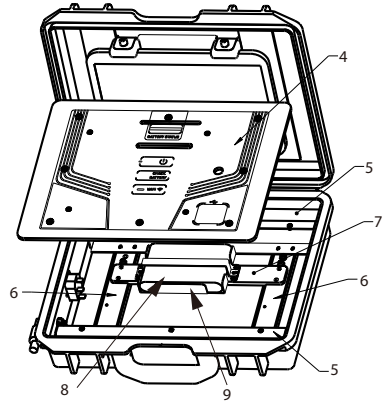
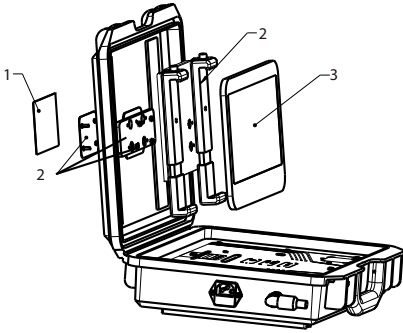
Item	Part Number	Description	Qty.
1	64070030	Decal, control box, TL	1
2	64070020	AC receptacle, TL	1
3	64070029	Aviation connector, control box, TL	1
4	64070034	Rail assembly, control box, TL	2

## Rail assembly, control box(64070034)





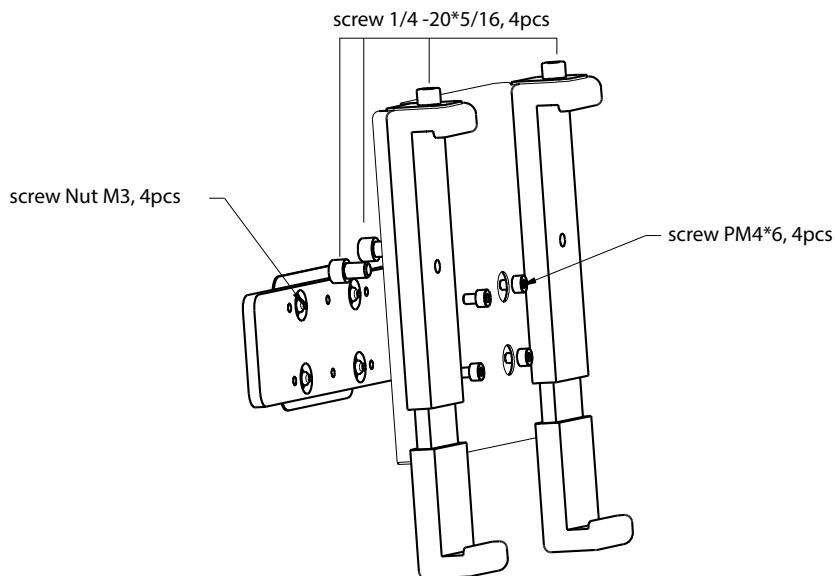
## Control Box(inside)



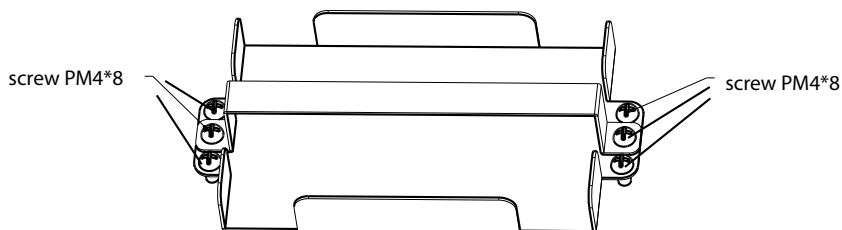
Item	Part Number	Description	Qty.
1	64070030	Decal, control box, TL	1
2	64070033	Tablet holder, TL	1
3	64070032	Spartan iPad with tough case	1
4	64070015	Control panel assembly w/ PCBA, TL	1
5	64070016	Control panel stand, TL	2
6	64070018	Vertical bar, control box, TL	2
7	64070019	horizontal bar, control box, TL	1
8	64050035	Battery, Traveler, 6-cell	1
9	64070017	Battery holder, TL	1



## Tablet holder, TL(64070033)

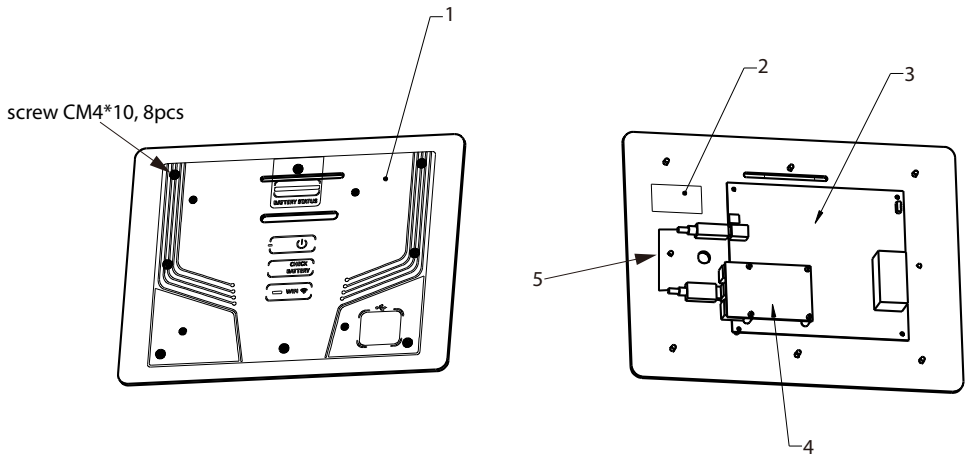


## Battery holder, TL(64070017)



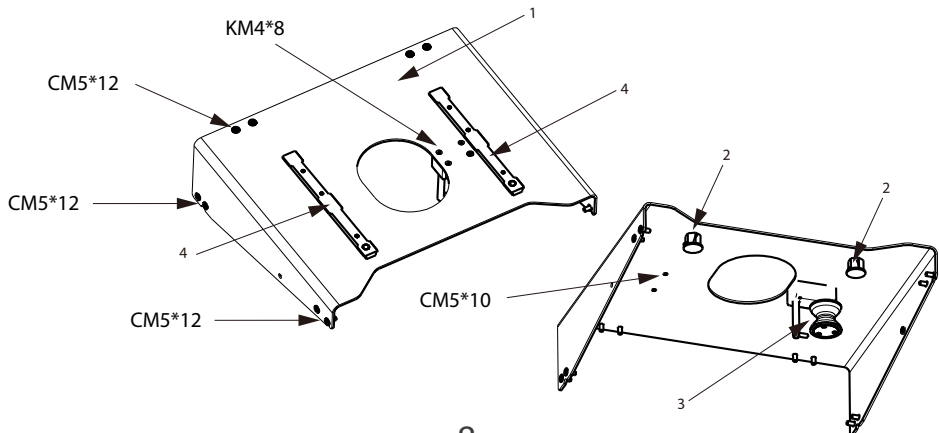


## Control Panel Assembly with PCBA(64070015)



Item	Part Number	Description	Qty.
1	64070003	Control panel assembly, TL	1
2	64070004	Wi-Fi Antenna, TL	1
3	64070001	Interface board, TL	1
4	64070002	Video processing card, TL	1
5	64060036	Cable, USB A to USB B, 100MM	1

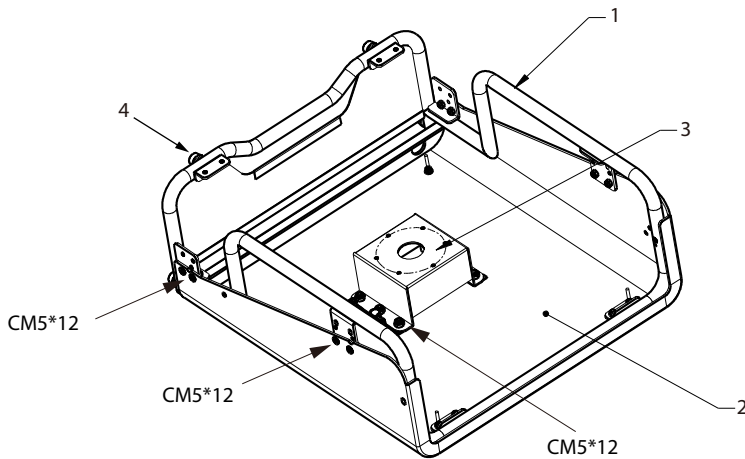
## Upper Body Cover Assembly(64070024)





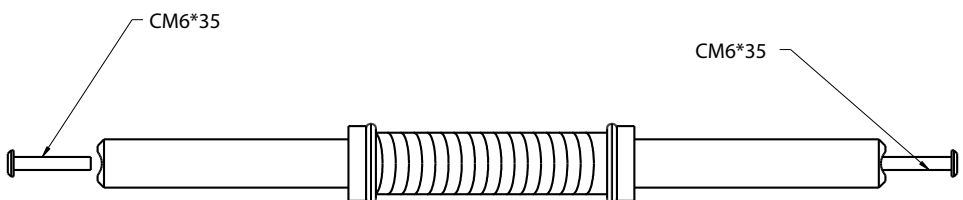
Item	Part Number	Description	Qty.
1	64070024	Metal cover, upper body, TL	1
2	64070031	Locking knob, control box, TL	2
3	64070011	Cable guide, TL	1
4	64070034	Rail assembly, control box, TL	2

## Lower Body Cover Assembly(64070025)



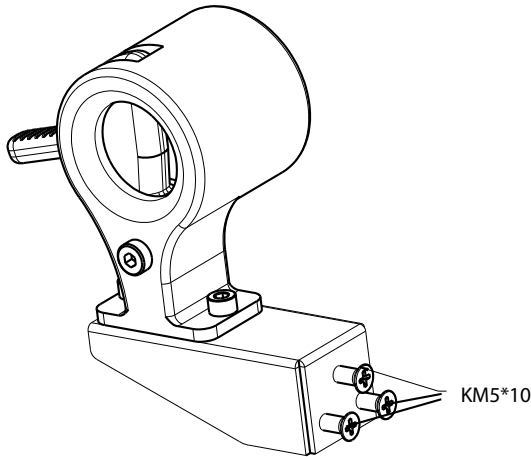
Item	Part Number	Description	Qty.
1	64070026	Tubular frame, TL	1
2	64070025	Metal cover, lower body, TL	1
3	64070013	Cable reel stand, TL	1
4	64070022	Foot, TL	4

## Handle TL(64070012)

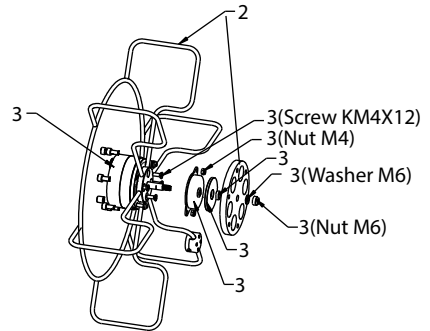
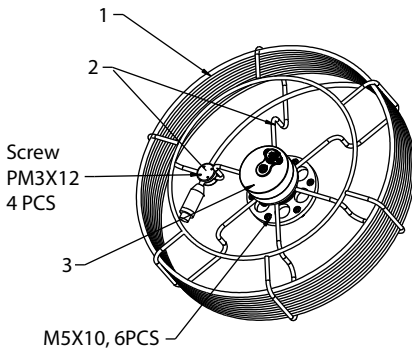




## Camera Holder TL(64070007)



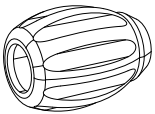
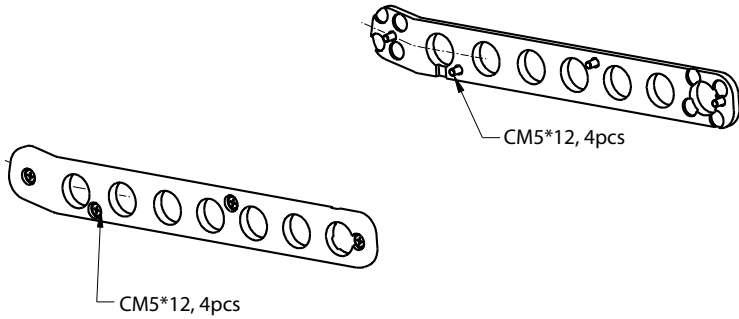
## Cable reel w/cable and splirring, TL(64070010)



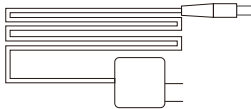
Item	Part Number	Description	Qty.
1	64070008	Pushrod, 6mm*130FT, TL	1
2	64070037	Cable reel assembly, TL	1
3	64070009	Slipping & encoder, TL	1



## Cover bars TL(64070023)



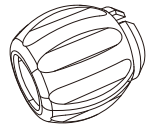
1



2



3



4

Item	Part Number	Description	Qty.
1	64070035	Centering guide, TL	1
2	64020010	AC power cord, 118" - Red	1
3	64070028	Test cord, TL	1
4	64070036	Centering guide, non SL, TL	1