SPECIFICATIONS

Performance			
Angle Measurement	Accuracy		1"
	Measure Method(HZ/V)		Absolute, continuous, 4 path detective
	Diameter of Encoder Disk		79mm
	Minimum Reading		1"/0.1"
	Compensator Type		Dual axis, liquid photoelectric
	Compensator Accuracy		1"
	Compensator Range		±6'
Distance Measurement	Laser Output*1		Class 3R
	Measuring Range	Prism*2	3500m
	gg	Reflectorless*3	1000m
	Accuracy	Prism	±(1mm+1xppm•D)
		Reflectorless	D<500m: ±(2mm+2xppm•D)
		Reflectoriess	
	Magazinia a Timor	. .	D>500m: ±(5mm+2xppm•D)
	Measuring Time _	Prism	Fine: 0.3S, Tracking 0.1S
	N4: : 5 1:	Reflectorless	0.3-3\$
	Minimum Reading		1mm/0.1mm
Robotic Specification			
Motorization	Motor Type		DC Servo Motor
	Rotate speed		60º/s
	Rotation Time F1/F2		2.9s
Prism Search	Range		3-300m
	Scope*4		Horizontal: 360º; Vertical: ±18º
	Search Time		Typically 3.5s per 90º
Auto Prism Recognition	Range*5		3-1200m
	Time		3-5s
	Search Window		Customized
General Specification			
Telescope	Image		Erect
	Tube Length		154mm
	Effective Aperture		45mm (EDM: 50mm)
	Magnification		30x
	Resolving Power		3"
	Field of View		1º30'
	Minimum Focus		1.2m
	Reticle Illumination		5 brightness levels
OS, Interface and Data			Android 11
	Operation System		
	Display		5inch, TFT color LCD with LED backlight,
			touch screen, dual face
	Keyboard		13 keys with backlight, 4 keys for function
	Processor		MT6833, 8 Core, 2.2GHz
	Data Storage	Internal Memory	4GB RAM, 64GM ROM
		Plug-in Memory Device	Type-C for USB OTG, TF card
Communication	Interface		RS-232, Bluetooth 5.1
	WLAN		2.4G/5G/WIFI
	SIM Slot		Micro Sim, 5G
	Long-range Remote Control		Powered by Zigbee, 450m
Levels	Plate Level		30"/2mm
	Circular Level		8'
Laser Plummet	Type		Red laser dot, 635nm
Laser Plummet	Accuracy		±1.5mm at 1.5m
Laser Plummet	Accuracy		
	•	2)	4 hours
Laser Plummet Power Supply	Operating Time (20°C	C)	4 hours
Power Supply	Operating Time (20°C Battery		Li-ion rechargeable battery, 5400mAh
	Operating Time (20°C Battery Working Temperature	e	Li-ion rechargeable battery, 5400mAh -20°C to +50°C
Power Supply	Operating Time (20°C Battery Working Temperature Storage Temperature	e	Li-ion rechargeable battery, 5400mAh -20°C to +50°C -40°C to +70°C
Power Supply Working Environment	Operating Time (20°C Battery Working Temperature Storage Temperature Protection /Humidity	e	Li-ion rechargeable battery, 5400mAh -20°C to +50°C -40°C to +70°C IP54 / 95% non-condensing
Power Supply	Operating Time (20°C Battery Working Temperature Storage Temperature Protection /Humidity Size	e	Li-ion rechargeable battery, 5400mAh -20°C to +50°C -40°C to +70°C IP54 / 95% non-condensing 217mm*198mm*378mm (without antenna)
Power Supply Working Environment	Operating Time (20°C Battery Working Temperature Storage Temperature Protection /Humidity	e	Li-ion rechargeable battery, 5400mAh -20°C to +50°C -40°C to +70°C IP54 / 95% non-condensing

^{*1:} A built-in rangefinder product equipped with a Class 3R laser has a harmful distance of 1000m (3300ft). Beyond this distance, the laser intensity will be reduced to Class 1.

^{*4/5:} For 64mm round prism.



GUANGDONG KOLIDA INSTRUMENT CO., LTD.

Add: 7/F, South Geo-information Industrial Park, No.39 Si Cheng Road, Tian He IBD, Guangzhou 510663, China

Email: export@kolidainstrument.com http://www.kolidainstrument.com







KTS-591

Robotic Total Station





- High accuracy 1" for angle, 1+1ppm for distance
- Long range prism (3500m) and reflectorless (1000m) measurements
- Reliable prism search to 300m
- Auto prism recognition to 1200m
- LocknTrack function
- Hyper Drive, direct motor powered by worm and gear
- Flexible data transfer by USB OTG, TF card and Bluetooth
- Fully robotic control with H6 Plus Controller, up to 450m
- Practical Survey Star onboard



^{*2:}Standard clear, no haze, overcast situations. Range and accuracy are dependant on atmospheric conditions.

^{*3:} With Kodak Gray Card White Side (90% reflective)





Direct Motor by Worm & Gear. Stable and reliable for motorization. Positioning accuracy <1"



When Prism Search is activated, KTS-591 enables you to search, recognize and aim a prism in 300m with both versatility and agility.



KTS-591 featuring a powerful algorithm that automatically aim and recognize the prism within the sight of view for 1200m. It can handle every task with ease.

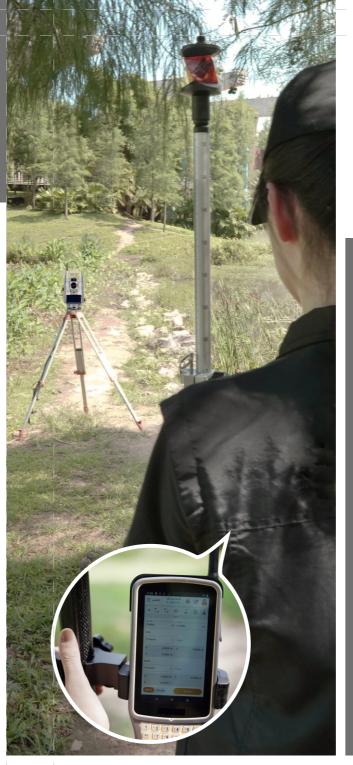


With **LocknTRack**, it easier to lock onto the prism and follow its movements constantly, which is able to eliminate the need for standing around and waiting when collecting data or staking out.





- 1 Zigbee antenna for 450m fully robotic remote control
- 2 Seamless data transfer with Bluetooth 4.1
- 3 Easy access to network dual nano-sim card and WLAN available
- 4 5 inches capacitive touch screen
- 5 Android 11 operating system, 64GB ROM
- 6 Fully keypad for quicker entry
- 7 Waterproof and dustproof IP65 design
- 8 Market-leading 15 hours battery working life and 240 hours stand-by



KTS-591 The Ultimate One-Man System

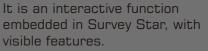
Benefit from Zigbee technology, KTS-591 can be used to connect with your H6 Plus Controller in maximum 450m. Long-range data link offers a flexible and agile remote control for one-man survey system.

Practical Onboard Software - Survey Star



Survey Star helps you collect the data and stake out efficiently by graphical and iconic guidance.

Map-Driven Workflow



Not necessary to extract the coordinate from **CAD** files any more. The only thing you need to do is import the CAD files directly to stake out the points.

Flexible Collector Software - Survey Star Pilot



Survey Star Pilot is a powerful and practical field software design for KTS-591, it enables you to change the settings, collect data and stake out points easily on your controller.

Ultra Flexible!

Efficient for 3rd Party Developer

Combined with Survey Star Pilot, KTS-591offers a flexible workflow. Also it provides the software suite which can be developed by your own requests. Faster and easier to locate points from points to fields by using KTS-591 robotic total station.

Ultra Fast!

Flexibility Makes It Easy to Start

You just need to carry a prism pole with H6 Plus Controller, then you can visit all the points by only one person. Not necessary to communicate with operator at the instrument, just following the guidance on your controller.