



TA100S-Original Instruction Manual

Trail Camera Series

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Revision History

Version	Change Description	Prepared/ Modified by	Reviewed by	Date
V1.0	Initial draft	Li Yang	will.yeh	2026.05.26
V1.1	8M, 12M resolution updated to 8M(3840x2160), 12M(4608x2592)	Li Yang	will.yeh	2026.07.16
V1.2	1) Added 0.5H and 4H parameter specifications to "Remote Control" in Basic Specifications 2) Changed "MQTT" to N/A in Basic Specifications 3) Removed duplicate "Trigger Time" description in Basic Specifications 4) Corrected Image Size-12M pixel value in Software Function List	Li Yang	will.yeh	2026.07.31

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1. Document Overview

1. Purpose

This document is used for product introduction and description of Shenzhen Sifar Electronic Technology Co., Ltd.

2. Scope

Limited to use by R&D and marketing personnel of Shenzhen Sifar Electronic Technology Co., Ltd.

3. Definitions and Abbreviations

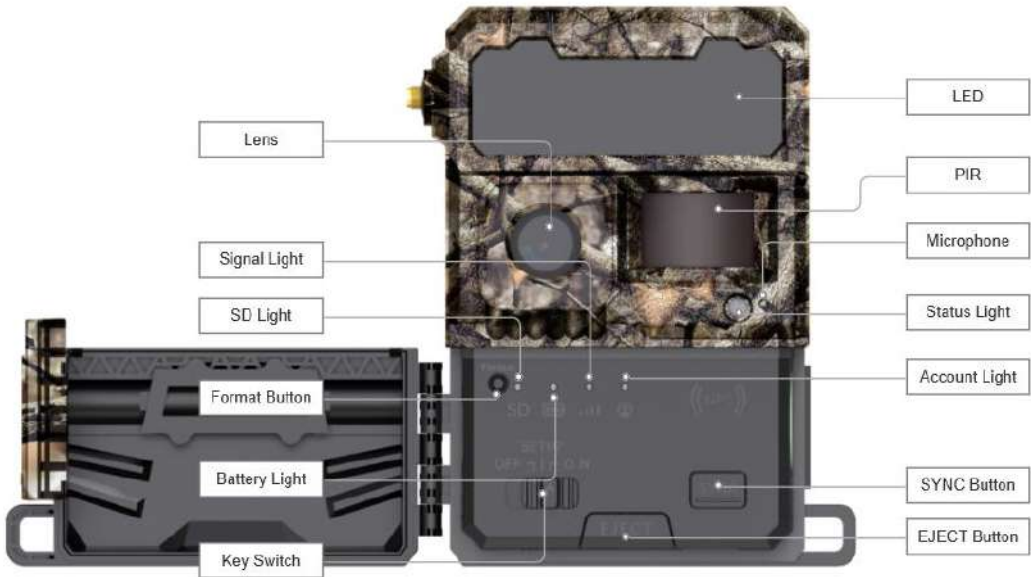
Term	Full English Name	Full Chinese Name
SY	Shenzhen Sifar Electronic Technology Co.,Ltd	Shenzhen Sifar Electronic Technology Co., Ltd
R&D	Research & Development Center	Research & Development Center
PM	Product Department	Product Department
OIM	Original Instruction Manual	Original Instruction Manual
N/A	Not applicable	Not applicable

2. Product Display

1. Product Information

Basic Information		
No	Item	Specification
1	Product Designation	Trail Camera
2	Model	TA100S
3	Trade Mark	\

1. Product Form



3. Package Specifications

No	Item	Specification
1	Camera	1pcs; Trail Camera
2	Fittings	1pcs; 1.8m, Nylon Strap 
3		1pcs; 4G antenna
4		1pcs; SIM Card
5		1pcs; Type-C USB Cable
6		1pcs; QR Code Labeling
7		1pcs; Instructions
8		1pcs; Quickly User Guide

1. Product Specifications

1. Basic Specifications

Image Sensor		
No	Item	Specification
1	Sensor	3 Megapixels CMOS
2	Aspect Ratio	16:9
Lens		
No	Item	Specification
1	DFOV	60°
2	F No.	F/2.0
3	IR-Cut	Auto IR-Cut-Remove (at night)
Wireless Mode		
No	Item	Specification
1	4G Module	LTE Cat1 EU Version: 4G/3G/2G LTE FDD: B1/B3/B7/B8/B20/B28 WCDMA: B1/B8 GSM/EDGE: B3/B8
		US Version: 4G/3G LTE FDD: B2/B4/B5/B12/B13 WCDMA: B2/B4/B5
2	WiFi	N/A
3	GPS	Support
4	NFC	N/A
5	Bluetooth	N/A
Screen		
No	Item	Specification
1	LCD	N/A
2	Resolution	N/A
Motion Detection		
No	Item	Specification
1	Motion Triggered	Infrared
2	Trigger Time	≤ 500ms
3	On-demand Photo/Video	Support
Operating Modes		
1	Camera Mode	Photo/Video/Photo+Video
2	Time Lapse	OFF/ON // 00:00:05~23:59:59 (HH:MM:SS)
3	PIR Delay	OFF/ON // 00:00:05~23:59:59 (HH:MM:SS)
4	Smart Detection Zones	Support

	(AI-Smart Detection Zones)	5x5 grid of 25 visual detection zones, supports custom selection of target zones
5	Smart Detection Species (AI-Species Recognition)	Support Accurately identifies 30+ common species, supports custom selection of target species for upload and transmission
6	False Motion Detection (AI-False Motion Detection)	Support PIR false triggers caused by non-moving objects/invalid zones/non-target species will not be uploaded, supports custom toggle
7	Select Detection Zones	N/A
8	Smart Detection Species	N/A
Day and Night Detection		
No	Item	Specification
1	Day Mode	Color
2	Night Mode	Black-and-White
Photo		
No	Item	Specification
1	Stored Photo Size	24M(6528x3672); 12M(4608x2592); 8M(3840x2160)
2	Send Photo Size	Thumbnail(640x360)
3	HD Photo Appointment	3M(2304x1280)
4	Multi-shot	1P/2P/3P/4P/5P
5	Multi Shot Interval	1s
6	File Format	JPG
Video		
No	Item	Specification
1	Encoding	H.265
2	Audio	Support
3	Stored Video Size	FHD-1080P(1920x1080); HD-720P(1280x720)
4	Send Video Size	Thumbnail(640x360)
5	HD Video Appointment	1080P(1920x1080);720P(1280x720)
6	Video Length	10s
7	File Format	MP4
8	Live stream Video Size	720P(1280x720)
FW Update		
No	Item	Specification
1	SD Card Update	Support; Using SD card software package for update
2	USB Update	Support; Using USB Cable and SD card software package for update
3	OTA Update	Support
Memory		
No	Item	Specification
1	Local Storage	SD Card; 8GB~32GB // exFAT file system is not supported. SD cards larger than 32GB must be formatted via the camera's SD Format function before use. Supports up to 128GB SD card
2	Cloud Storage	Support

iOS/Android APP		
No	Item	Specification
1	Name	"Trailcam Ace"
2	iOS/Android System	Support
Ambient		
No	Item	Specification
1	PIR	Type: Anti-interference Digital PIR
		Range: Maximum support of 20m
		Angle: 60°
2	Day&Night Sensor	Support
3	Temperature	Support
4	Microphone	Support
5	Trumpet	N/A
Interface		
No	Item	Specification
1	SD Card	Standard SD Card Slot
2	SIM Card	Standard SIM Card Slot
3	USB Port	Type-C
4	DC Port	4.4mm*1.6mm
Transmission Mode		
No	Item	Specification
1	Remote Control	Real Time/(Delay 0.5/1/2/3/4/6/12/24H)
2	Live Stream	Support
3	MSDC	Support
4	HTTP(s)	Support
5	TCP	Support
6	MQTT	N/A
Power Supply		
No	Item	Specification
1	Battery Supply	12pcs; AA batteries; (Alkaline/Ni-MH/Lithium)
2	DC Supply	12V-2A Adapter
Operating Keys		
No	Item	Specification
1	Key Switch	1pcs; Disabled Key, ON/Setup/OFF
2	Button Switch	4pcs; SYNC/Reset/SD Format/EJECT
LED		
No	Item	Specification
1	IR LED	54pcs; 940nm
		Flash Range: Up to 80 feet
2	Camera Status Light	1pcs; Green Colored LED
3	SD Card Status Light	1pcs, Green/Red Bi-Colored LED
4	Battery Status Light	1pcs, Green/Red Bi-Colored LED
5	SIM Card Status Light	N/A

6	Signal Status Light	1pcs, Green/Red Bi-Colored LED
7	Server Status Light	N/A
8	Account Status Light	1pcs, Green/Red Bi-Colored LED
Weight & Dimensions		
No	Item	Specification
1	Weight	472g(with antenna, without batteries)
2	Dimensions	141mmx114mmx91mm(without Antenna)
Environment		
No	Item	Specification
1	Waterproof spec	IP66
2	Operating Temperature	-20°C ~ 55°C
3	Storage temperature	-25°C ~ 60°C
4	Operation Humidity	5% - 90%
5	Storage Humidity	40% - 60%
Certification		
No	Item	Specification
1	Certification	CE, IP66, ROHS, FCC

2. Product Advantages

1. Advantage Highlights

Name	Port	Description
AI-Powered:		
AI-Super Resolution	APP Side	Free thumbnail/thumbnail video super-resolution processing technology, uses AI algorithms to enlarge and analyze images, fill in missing pixels, and reshape low-definition images into high-definition quality; HD images can be obtained without purchasing an HD plan (users can operate on the APP side)
AI-Night Vision Color	APP Side	Free thumbnail night vision color processing technology, uses AI algorithms to adjust image lighting and present color real-world images (users can operate on the APP side, supports images but not videos)
AI-Smart Detection Zones	Device Side	Divides the camera view into multiple visual zones proportionally. Users can customize target visual zones of interest. When PIR triggers image capture, AI algorithms confirm the zone where the moving object is located. If the object enters the target zone, the image is saved to SD card and uploaded; if not in the target zone, the image is only saved to SD card without uploading (users can configure on the APP side)
AI-Species Recognition	Device Side	AI models can accurately identify 30+ common species. Users can customize target species of interest. When PIR triggers image capture, if AI recognition result matches the target species, the image is saved to SD card and uploaded; if not a target species, the image is only saved to SD card without uploading (users can configure on the APP side)
AI-False Motion Detection	Device Side	AI models identify moving objects (such as people/vehicles/animals), and combined with the configured "Detection Zones" and "Target Species" settings, comprehensively determine whether the PIR-triggered capture is a false trigger. Non-false triggers are saved to SD card and uploaded; false triggers are only saved to SD card without uploading (users can configure on the APP side)
Ultimate Performance:		
Low False Triggers	Device Side	Anti-interference PIR technology + AI detection technology, PIR false trigger probability reduced by 20% in laboratory conditions
Low Power Consumption	Device Side	New low-power hardware architecture + self-developed efficient business process, power consumption for capture and transmission reduced by approximately 30%. In laboratory conditions, a full charge can capture and transmit 4,000~6,000 photos
Strong Signal	Device Side	Refined PCB circuit layout and design + new external antenna design, signal gain strength increased by 15% compared to the previous model
Wide Coverage	Device Side	Supports mainstream carriers, achieving full network coverage
Excellent Specifications:		
HD Images/Videos	Device	Supports up to 24MP photos and FHD 1080P videos

	Side	
Premium Materials	Device Side	The entire device uses safe and eco-friendly materials with anti-oxidation, acid/alkali corrosion resistance, UV resistance, and high flame retardancy
Sturdy and Durable	Device Side	Meets IP66 dust and waterproof rating, adaptable to harsh outdoor environments from -20 to 55 degrees Celsius
Reasonable Benefits:		
Free Trial	APP Side	When no plan is purchased, the camera can enjoy 100 PCS free plan per month
Long-term Cloud Storage	APP Side	Purchase a plan to enjoy 1 year of free cloud storage
Plan Discount	APP Side	When a plan is active, purchasing the same type of plan again entitles you to a discount

3. Quick Operation Guide

1. Usage Guide

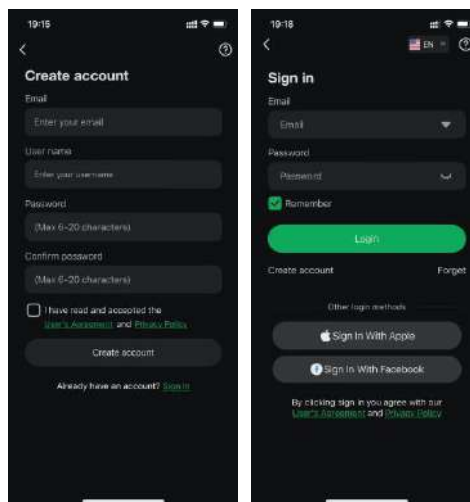
Step1: Download and Install Trailcam Ace APP

1. For iOS phones, go to the App Store; for Android phones, go to Google Play, search for "Trailcam Ace" and download the APP. Alternatively, scan the QR code below with your phone to download and install the APP.



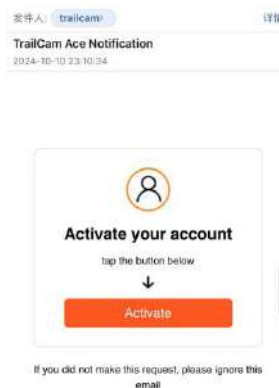
Step2: Register a New Account Using Trailcam Ace APP

- 1) Open the APP and select "Create Account", enter your personal email for registration, check "User's Agreement" and "Privacy Policy", then click "Create Account" to submit the registration request.
- 2) Open the APP "Sign in" section, select Other login methods, and directly use "Apple", "Google", or "Facebook" third-party accounts to authorize registration and login;



Step3: Activate the Newly Registered Account

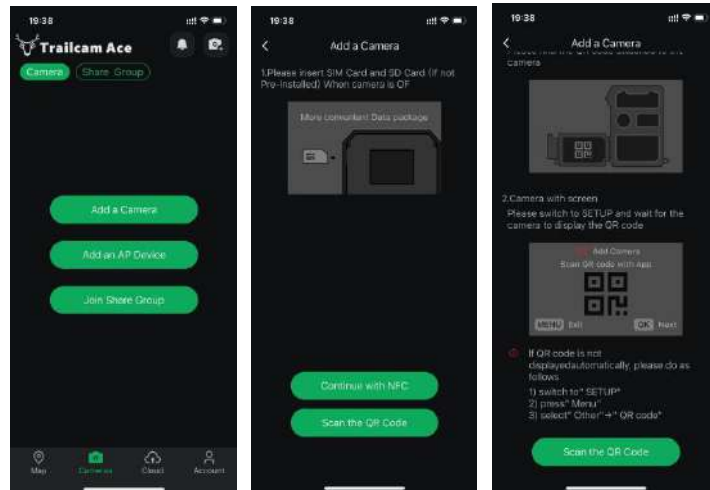
1. Log in to your personal email (the email used for registration), find the registration activation email sent by trailcam, and follow the email content and instructions to click "Activate" to activate your account



**Note: If you cannot find the registration activation email in your inbox, please also check your spam folder for the activation email*

Step4: Log In and Add Camera

1. Log in to the APP with your registered and activated email account. After successful login:
 - 1) In the APP -> Cameras section, click "Add Camera" or the "" button to enter the scan-to-add camera page. Scan the QR code on the camera body with the APP, and follow the APP guide page to complete camera addition and binding. After binding, it will automatically return to the Cameras section, where you can view the added camera card

**Step5: Check Camera and Test**

1. Install and check the SIM card, SD card, 12 AA batteries, and antenna. Switch the camera to the "SETUP" position. After the camera powers on, check the indicator light status. If all indicators are green, press the "SYNC" button on the camera to execute a photo capture and transmission test. After successful transmission, pull down to refresh in the APP -> Cameras section. The camera card information will update to the actual camera status, and you can view the test photos sent by the camera in the APP -> Cloud section.

**Note: New camera binding automatically grants a 100 PCS free plan, so no plan purchase is required to start using. When the plan is about to expire, you can purchase a new plan through the plan status display bar in the camera card*

Step6: Install Camera and Operate/Configure via APP

1. After all the above steps are completed successfully, switch the camera to the "ON" position, close and securely install the camera housing, and it will begin normal operation. You can view captured images and remotely operate and configure camera parameters through the APP

2. Installation Recommendations

1. It is recommended to face the camera (lens direction) toward north or south.

1. Sunlight may cause false triggers when the camera is placed facing east or west. Never point the camera directly at the sun. The optimal camera orientation is north.

1. It is recommended to install the camera on a sturdy tree or pole to ensure it does not shake.

1. Avoid mounting the camera on small trees that easily sway in the wind, to prevent capturing invalid images due to wind.
2. Try to avoid having tall, dense grass or small branches in the camera's field of view, to prevent capturing invalid images due to wind.

3. It is recommended to mount the camera on a tree trunk or pole at approximately waist height.

1. The optimal mounting height is 3~5 feet above the ground.

2. It is recommended to tilt the camera slightly downward when mounting. Consider adding shims or using an adjustable mount.

1. The optimal downward tilt angle is 7~15 degrees.

2. It is recommended that the camera mounting position should not be too close or too far from the target monitoring area, to facilitate capturing clearer and brighter images

1. The optimal camera placement distance from the target is approximately 18~40 feet.

2. When the camera is installed too high on a tree with excessive downward tilt, the "window" of the camera's field of view will be greatly reduced.

1. This method is recommended only for monitoring bait stations or hunting trap devices. However, the camera's height and angle are critical to the field of view. Please adjust the camera mounting position, height, and tilt angle appropriately based on the actual scenario.

2. When planning to monitor trails or road areas, for optimal field of view, it is recommended to place the camera at an upward or downward angle beside the trail rather than perpendicular to it.

1. The optimal mounting method is to aim the camera at a 45-degree angle toward the trail or road, which allows capturing more or more complete animal images.

2. Device Operation and Indicator Description

1. Button Operations

Key	Function	Status	Operate	Definition
Switch	ON/SETUP/OFF	—	Switch to OFF position	Camera enters OFF state
			Switch to Setup position	Camera enters Setup state
			Switch to ON position	Camera enters ON state
Button	SYNC	OFF	Short Press	<No Action>
			Long Press	In OFF state, long press SYNC button and switch to Setup position, the camera will execute SD card firmware update process
		Setup	Short Press	In Setup state, short press SYNC button to execute a single image/video capture and transmission judgment based on Camera Mode settings: 1. If the camera is in the registration process (or registration failed), short pressing SYNC will only save the captured image to SD card without transmission 2. If registration is successful, short pressing SYNC will capture and then execute transmission and judgment 3. If the camera is currently capturing or transmitting (or no SD card), short pressing SYNC will have no response 4. If the camera is recording video, short pressing SYNC can prematurely terminate the video recording
			Long Press	In Setup state, long pressing SYNC button has the same effect as short press single capture
		ON	—	<No Action>
	SD Format	OFF	—	<No Action>
		Setup	Short Press	<No Action>
			Long Press-5s	In Setup state, long press Format-5s, the camera will execute SD card formatting
		ON	—	<No Action>
	Reset	OFF	—	<No Action>
		Setup	Short Press	<No Action>
			Long Press-5s	In Setup state, long press Reset-5s, the camera executes Reset operation
		ON	—	<No Action>
Button	EJECT	/	Press	Eject battery compartment
Comb o Button s	SYNC+Reset	Setup	Hold SYNC button + Short press Reset button	In Setup state, long press SYNC button and click Reset button, the camera generates CAM_INFO.TXT file and addCam.bmp QR code image to SD card
			Hold SYNC button + Long press Reset button	In Setup state, long press SYNC button + long press Reset button-5s, execute SD card 4G module software update

	SYNC+Format		Hold SYNC button + Short press SD Format button	In Setup state, long press SYNC button and click SD Format button, the camera toggles Debug Mode on/off
			Hold SYNC button + Short press SD Format button	In Setup state, if Debug Mode is enabled, clicking Reset button again enables Qlog function // Qlog has no defined disable operation. When Debug Mode is disabled, if Qlog is enabled, Qlog must be synchronously disabled
			Hold SYNC button + Long press SD Format button-5s	In Setup state, long press SYNC button + long press SD Format button-5s, execute SD card MCU software update

1. Indicator Display

Operation Features			
Item	Function	Operate	Specification
Indicator	Device Status Indicator (Green-Single Color)	Steady On	When entering Setup state, the status indicator remains steady on
		Blinking (1s/time)	PIR Test: In Setup state, when the device is not capturing or recording (parameter sync etc. does not affect), blinks when PIR is triggered
		Off	In Setup state, if the device is in manual photo or video recording process, the indicator remains off until the capture or recording is completed
		5s Countdown Blinking	When the device enters ON state, a 5s countdown blinking is executed
	SD Card Indicator (Green/Red-Dual Color)	Green Steady On	SD card present and status normal
		Green Slow Blink (1s/time)	SD card present, status normal, and Debug Mode enabled (Qlog not enabled)
		Green Fast Blink (0.5s/time)	Firmware update in progress (including SD card or OTA camera software, module software, or MCU software)
		Yellow Steady On	SD card present but status abnormal (including card full)
		Yellow Slow Blink (1s/time)	SD card present and Qlog enabled
		Red Steady On	No SD card
		Red Fast Blink (0.5s/time)	Camera firmware update failed (including insufficient battery, update file not meeting requirements, etc.). After 5s or upon any button operation, it returns to the current SD card detection status and display
		Off	During SD Format execution, after completion and SD card remount, the SD card indicator displays according to the detection status
	Battery Indicator (Green/Red-Dual Color)	Green Steady On	Battery level above 80% (or DC power connected)
		Yellow Steady On	Battery level between 20%~80%
		Red Steady On	Battery level below 20%
		Red Fast Blink (0.5s/time)	Low battery shutdown, powers off after 5s
	Signal Indicator (Green/Red-Dual Color)	Green Slow Blink (1s/time)	Camera enters Setup state, executing registration process + parameter sync process
		Green Steady On	SIM card present, excellent signal strength
		Yellow Steady On	SIM card present, good signal strength
		Red Steady On	SIM card present, poor signal strength or registration failed
		Red Slow Blink (1s/time)	No SIM card or non-Mega-SIM
		Red Fast Blink (0.5s/time)	DSP and module communication abnormal (tty USB mount failed)
	Account Binding Indicator (Green/Red-Dual Color)	Green Slow Blink (1s/time)	Camera actively executing server communication connection (including image transmission and parameter sync)
		Green Steady On	Camera is bound to account and server communication connection successful (including transmission success)

		Red Slow Blink (1s/time)	1) Camera is bound to account but server communication connection failed (including transmission failure) 2) In Setup mode, when camera detects available thumbnail plan count is 0
		Red Steady On	Camera not bound to account
	Indicator Combination	All indicators - Green steady on then off	Device is executing Reset operation

2. Software Function List

Type	Function	Option	Notes
Settings	Smart Detection Zones	1~25, Default: 5x5 grid of 25 zones	
	Smart Detection Species	All Activity/Species Selection	
	False Motion Detection	OFF/ON	
	Camera Mode	Photo/Video/Photo+Video	
	Image Size	24M(6528x3672)/12M(4608x2592)/8M(3840x2160)	
	Flash Power	High/Low	
	Multi Shot	1P/2P/3P/4P/5P	
	Video Size	FHD -1080P/ HD - 720P	
	Video Length	10s	
	PIR Sensitivity	OFF/Level 1/Level 2/Level 3/Level 4/Level 5/Level 6/ Level 7/Level 8/Level 9	
	PIR Delay	OFF/ON	Range: 00:00:05-23:59:59(HH:MM:SS)
	Time Lapse	OFF/ON	Range: 00:00:05-23:59:59(HH:MM:SS)
	Working Timer1	OFF/ON	Interval setting range: 00:00~23:59(HH:MM-HH:MM)
	Working Timer2	OFF/ON	Interval setting range: 00:00~23:59(HH:MM-HH:MM)
	Max Num/Day	No Limit/01~99	
	Remote Control	Real Time/Delay 0.5H(1/2/3/4/6/12/24H)	
	GPS Alarm	OFF/ON	
	Battery Type	Alkaline/Ni-MH/Lithium	
	Stamp	OFF/ON	
	SD Cycle	OFF/ON	
	Date Style	MM-DD-YYYY / DD-MM-YYYY	
	Date/Time	Time Zone Value Setting	Initial default: +00:00(HH:MM), value synced with cloud server, supports manual modification via APP parameter settings, supports automatic daylight saving/standard time switching and recovery
	SD Format	No/Yes	
	Factory Reset	No/Yes	
	Firmware Update	Supports SD card (button operation) and OTA remote operation	
	Module Update	Button Function	
	MCU Update	Button Function	
	Device Info	Button Function	

	Debug Mode	OFF/ON	<Generally not mentioned to end users>
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