

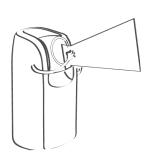


HD Video Camera

TLC 200 f1.2 User Manual

WELCOME RINNO FAMILY!

Welcome to Brinno!!!



Share your awesome Time Lapse videos with other Brinno fans on our facebook page !!!



facebook.com/BrinnoInc

Register @nline

www.brinno.com/support/register.html







Optional Accessories



Weather Resistant Housing (ATH110)



(ABR100)



Bike Cam Holder (ABH100)



Shutter Line (ATS110)



Camera Wall Mount (AWM100)



Motion Sensor (ATM100)



Pan Lapse (ART100)



Pouch (ATP100)

Thank you for purchasing a Brinno TimeLapse Camera!

The Brinno TimeLapse Camera (TLC200 f1.2) uses unique Time Lapse and Power Saving technologies to capture images for days, weeks, or even months. The Brinno TimeLapse Camera TLC200 f1.2 captures photos and stores them as videos making them easy to view. Turn it on, set the time interval, frame your subject, let it run and you have a time lapse video! No fancy equipment, no intervalometer, no complicated gear setups, no time-controlling, no video-making headaches.

If you have any questions or problems setting up your Brinno TimeLapse Camera please contact the sales staff where you purchased our product or email us at Brinno Incorporated directly *customerservice@brinno.com*Please Visit our website *www.brinno.com*

Time Lapse Camera TLC200 f1.2 Features



Large Aperture

Better low light recording and sharper images.



Wide Angle View

140°Field of View. A wider area to be recorded creating panoramic images



Time Lapse Video

TLC200 f1.2 provides you a 1280x720 resolution video, yes, it's HD video.



Power Saving

Unique Power Control, means 4 AA batteries can capture 270.000 frames.



LCD Viewfinder

The 1.44" LCD screen, allows you to easily frame your subject.

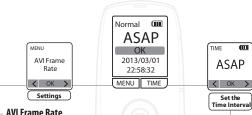


Rotatable Lens

Provides greater flexibility in targeting your subject!

TLC200 f1.2 Output file format

- [Video Mode] Format AVI. Resolution 1280x 720, 640x 480
 Note: The maximum size of each single AVI file ranges between 8,192 to 20,480 frames, depending on the time interval setting.
- Still Image Mode] Format JPEG. Resolution 1280x 720, 640x 480



1 FPS / 5 FPS / 10 FPS / 15 FPS / 20 FPS / 30 FPS

ASAP / 1 Sec / 2 Sec / 3 Sec / 5 Sec / 10 Sec / 20 Sec 30 Sec / 1 Min / 5 Min / 10 Min / 1 Hr / Custom

Image Quality

Rest / Retter / Good

Custom Exposure

Time Stamp Off / On

Low Light Recording Off / On

- Scene

Daylight / Night

Timer

You can set start and stop time.

Set Date & Time

Output Resolution

720P / 480

LED Display Off / On

Band Filter

None / 50 Hz / 60 Hz

Firmware Version

Media Statistic

Reset

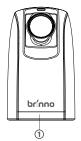






brinno.com/support for latest information.

Package Contents







1 TimeLapseCam (TLC200 f1.2) 2 4 AA Batteries

3 SD card* * SD Card may or may not be included, please check the contents list on the package.

Camera Components

Front (4) br'nno (5)



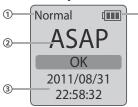
- 1 SD Card Cover
- 2 Connector for Extension Accessories

(For ATS110, ATM100)

- 3 Connector for Micro USB cable 7 LCD Screen (For extension power supplier, DC 5V) 8 MENU (◀) Button
- 4 Metal Ring (for ATM100, ATL045)
- 5 Battery Door
- 6 Strap Eyelet
- 9 TIME (▶) Button
- 10 OK/ START Button
- 11 Power Switch
- 12 LED Indicator
- 13 Tripod Screw Hole

Display Icons

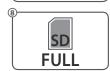
Set Up screen



Preview screen









At Set Up screen

1 Capture mode

Normal: Time Lapse mode Shutter: Shutter Line mode

Motion: Motion Activated mode

2 Time interval

Select the pre-set time interval or customize yourself.

- 3 System date and time
- 4 Battery level

Icon	Description	
(green)	Battery fully charged.	
(green)	Battery partially discharged.	
(yellow)	Low battery. Replace as soon as possible.	
(red)	Out of battery. Replace battery immediately.	

At Preview screen

- 5 Scene mode
- 6 Preview image capture window

Status icon

- 7 Battery Empty
 - Please replace battery immediately.
- 8 SD Card Full
 - Please download files to clear SD card space.
- 9 SD Card Error Please replace SD card.
- 10 No Card Please Insert SD card.

Initial Step-1 Install Batteries and SD Card







- 1 Open battery door.
- 2 Insert 4 AA batteries.
- 3 Close battery door.

▲Be sure the battery cover is locked into place.

Initial Step-2 Install SD Card 2 3

- 1 Open SD card cover.
- 2 Insert SD card until it clicks into place.
- 3 Close SD card cover.

Initial Step-3 Turning the Camera on







- 1 Rotate the **Power** switch to **ON** position.
- 2 Process screen
 - ▲ It may display other information on screen, please refer to page 3.
- 3 Set Up screen

Now, you can set Date and Time and Time Interval before you use your TimeLapse Camera!

Initial Step-4 Set Date and Time











- 1 Press MENU button.
- 2 Press TIME (▶) to select Set Date & Time (MENU 7/13), and press OK.
- 3 At the highlight field, press **MENU** () to decrease value, press **TIME** (+) to increase value, press **OK** to confirm and go to the next field. When finished press **OK** to exit set up.

Initial Step-5 Set Time Interval



- 1 Press **TIME** button to enter time interval set up.
- 2 Press MENU (◀) and TIME (▶) to select a pre-set time interval or customize it by yourself. When complete, press the OK Button to confirm and return to the Set up screen.
- 3 Back to the Set up screen Now, you are ready to go to Preview screen and start recording your Time Lapse Videos.

About Power Saving



7 At Set Up Screen

After 10 seconds without activity on the set up screen, the camera will go to Preview screen automatically. You can press the **MENU** or **TIME** button to go back to the set up screen.

2 At Preview Screen

After 30 seconds without activity on the set up or preview screen, the LCD screen will turn off automatically to save power. You can press the **OK** button to wake up the camera.

dilli

Start Recording







- 1 After selecting the time interval, press OK to proceed to the **Preview Screen**.
- 2 On the Preview screen, hold the OK button for 2 seconds to start recording. Preview Screen will show REC at the bottom bar.
- 3 During the recording period, the LCD panel will turn off to save power.

Stop Recording







- 1 While recording, hold the **OK** button until the LCD light turns on and shows the text "**Processing**", it means the camera is processing the file. When completed the processing it will display the text "Ready"This indicates the recording session is complete.
- 2 Remove the SD card from the camera, and insert it into your computer or laptop to enjoy your amazing Time Lapse Videos!

LED Indicator



Green LED light: indicates Image capture in process When the Green LED flashes, the Time Lapse Camera (TLC200 f1.2) is capturing photos.

Red LED light: Low battery level, Low recording space on your SD card

Advanced

Menu Setting

AVI Playback Frame Rate

You can change the videos FPS (frames per second) playback with this setting.







10 FPS (Frames Per Second) means: 10 frames are played in 1 second.

- 1 Select AVI Frame Rate.
- What frame rate should I use? Generally, 10 FPS is suitable for Time Lapse video.
 - 1 FPS: If the video plays at 1 frame per second, the video will not look smooth, and the video length will be longer.
 - **30 FPS**: If the video plays at 30 frames per second, the video will look smooth, and the video length will be shorter.

Image Quality

Set the image quality for your camera.







- Select Image Quality
- 2 There are three options you can select: Best, Better, Good

Custom Exposure

Increase or decrease the exposure.









- 1 Select Custom Exposure
- 2 press MENU (←) and TIME (→) to increase (+) or decrease (−) the exposure and press **OK** to exit.

Time Stamp

You can choose if you want to show the time stamp at bottom of your video.









- 1 Select Time Stamp.
- 2 Select OFF or ON.

Low Light Recording

You can choose to enable your camera to keep recording video in a low light environment (< 5 Lux).





- 1 Select Low Light Recording.
- 2 ON: Allows your camera to record video in a low light environment. OFF: Your camera will go to **sleep** in a low light environment.

Scene

Select the scene to fit your Photographic needs.



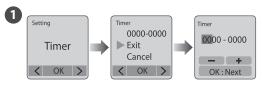


- 1 Select Scene.
- 2 There are two options you can select: Daylight, Night.

Option		Description
SCN D	Daylight	For any Daytime photography.
SCN N	Night	Special setting for <i>Nighttime</i> photography shooting. Low ISO setting, long exposure time.

Timer

The Timer will allow you to pre-set a recording period. (eg. 8 am – 5 pm)



1 Set the start recording time (A area), then set the stop recording time (B area). The time is set in 15 minutes increments. Press MENU to lower the number, press **TIME** to increase the number and press **OK** to next column. Or you may select *Cancel* to disable Timer setting. e.a.

0600 - 1600 morning to afternoon **1600 - 2330** afternoon to night 2345 - 0500 overnight



2 After setting up the time, go back to the set up screen then press the **OK** button to move to the preview screen. Hold the **OK** button for 2 seconds to start recording. The LCD panel will show REC then turn off to save power. The camera will automatically activate at the start recording time you selected.



Set Date and Time

Set the correct date and time for your camera.





- 1 Select Set Date & Time.
- 2 At the highlight field, press **MENU** (—) to decrease the value, press **TIME** (+) to increase the value, press OK to confirm and go to the next field. When finished, press OK to exit set up.

Output Resolution

You can change video resolution with this setting.

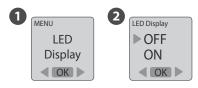




- 1 Select Output Resolution.
- 2 There are two options you can select: 720P, 480.

LED Display

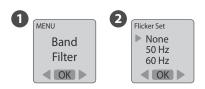
You can choose if the LED indicator will flash while capturing each frame, or not flash at all.



- 1 Select **LED Display**.
- 2 OFF: During capture period the LED indicator will not flash. ON: When the camera is capturing a frame, the LED indicator will flash once.

Band Filter

Select the correct fluorescent lighting frequency to match your indoor lighting frequency.



- 1 Select Band Filter.
- 2 None: For outdoor environment.

50 Hz: Europe 60 Hz: USA

Firmware Version

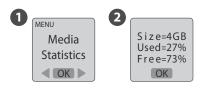
Display the current firmware version of camera.



- 1 Select Firmware Version.
- 2 Display the firmware version for 30 seconds, or press the OK button to exit.

Media Statistics

In this mode, the LCD will display the SD card capacity, so you will know how much free space remains on the SD card.



- 1 Select Media Statistics.
- 2 Display the SD card storage status.

Reset

You can reset your camera back to the default setting.



- 1 Select Reset.
- 2 Select YES and press the OK button to reset your camera.

Default Settings:

Setting
10 FPS
Better
On
On
Daylight
1280x720
On
None
2 Seconds

What Size SD card should I use

SD card size	Stored photos
4 GB SD Card	30,000
8 GB SD Card	60,000
16 GB SD Card	120,000
32 GB SD Card	240,000



⚠ Based on a selected image quality setting of "Good"

What Settings Should I Use

Subject	Description	Time Interval	Time Lapse Frame Rate
Daily Life	Recording kids, pets all parts of daily life	1~ 30 seconds	10~30
Party	Recording family parties, public events, and happy times all around 1~10 seconds		10~30
Traveling	Recording your trips, short and long 2 sec~ 1 min		10~30
Plant	Recording Flowers growing, or gardening 1~30 min over a period of time		15~30
Construction	Recording a building being built or any construction project	30 min~ 1 hr	15~30
Biking	Biking Recording a bike ride or trip 1 sec		10~30
Face time lapse	You're the leading character in your time lapse videos	Shutter line	5

Length of Battery Usage

Time Interval	Capture Frames	Battery Life	
ASAP	270000	2.2 Days	
1 Second	245000	2.8 Days	
5 Seconds	228000	13 Days	
10 Seconds	197800	23 Days	
20 Seconds	137400	32 Days	
30 Seconds	105200	36 Days	
1 Minute	61800	43 Days	
5 Minutes	14300	50 Days	
10 Minutes	9180	64 Days	
30 Minutes	3700		
1 Hour	1800	70 Days	
4 Hours	460	78 Days	
24 Hours	78		

Specifications

Camera Model TI C200 f1.2 LCD Screen 1.44" TFT LCD Lens Rotating Angle 120° Waterproof Optional, (In use with Weather Resistant Housing (ATH 110)) Capture Mode Time Lapse Auto generate Time Lapse video Stop Motion Optional, (In use with Shutter Line (ATS 110)) Motion Activated Optional, (In use with Motion Sensor (ATM 100)) **Optics Lens** Aperture F1.2 Lens type Aspherical Lens Field of View 140° Focal Length 18 mm (35 mm equivalent) Focus Distance 30 cm (Minimum) Recording Time Lapse Video Format: AVI Resolution: 1280 x 720, 640 x 480 Still Image Format: JPEG (only for using Shutter Line) Resolution: 1280 x 720, 640 x 480 Memory Storage SD Card (Supported up to 32 GB) Time Interval ASAP 1~4 photos per second Custom From 1 second to 24 hours Power Power source Battery: 4 AA Batteries DC IN: 5V (Micro USB connector) Battery Life 2.2 Days, at ASAP time interval, captures 270,000 frames 78 Days, at 24 hours time interval, captures 78 frames Dimension Size (DxWxH) 64 x 46 x 106 mm Weight 120 g (without batteries) Color Green/Black Package Contents TimeLapse Camera (TLC200 f1.2)...1 4GB SD card*.....





