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TimeLapse

HD Video Camera

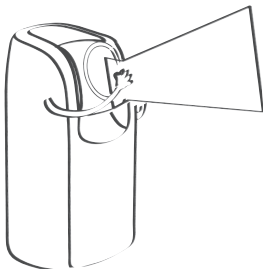
TLC 200

User Manual

www.brinno.com

WELCOME TO THE **BRINNO** FAMILY!

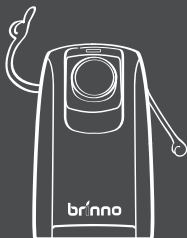
***Welcome to
Brinno!!!***



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www.brinno.com/support/register.html



contact us: customerservice@brinno.com
more information: www.brinno.com

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Optional Accessories



Weather Resistant Housing
(ATH110)



Brinno Reader
(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!

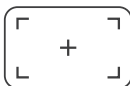
The Brinno TimeLapse Camera (TLC 200) uses unique Time Lapse and Power Saving technologies to capture images for days, weeks, or even months. You can use it to record your Daily Life, Projects, anything that moves, you can record. The Brinno TimeLapse Camera TLC 200 captures photos and stores them as 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.

Time Lapse Camera TLC 200 Features



Time Lapse Video

TLC 200 provides you a 1280x720 resolution video, yes, it's HD video.



LCD Viewfinder

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



Rotatable Lens

The Rotatable lens allows you to adjust the field of view easily!



Power Saving

TLC 200 comes with unique Power control technology, 4 AA batteries can capture 270,000 frames.



Simple Solution

Just turn it on and shoot, the TLC 200 will deliver a time lapse video!



Extension Lens*

Unique design allows you to attach optional lenses.

*Optional accessories.

TLC 200 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 (**only when using Shutter Line**):

Format: JPEG.

Resolution: 1280x 720, 640x 480

MENU
 AVI Frame Rate
 < OK >
Settings

Normal [Battery Icon]
ASAP
 OK
 2013/03/01
 22:58:32
 MENU TIME

TIME [Battery Icon]
ASAP
 < OK >
Set the Time Interval

AVI Frame Rate
 1 FPS / 5 FPS / 10 FPS / 15 FPS / 20 FPS / 30 FPS

Image Quality
 Best / Better / 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

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

T.Lapse [Battery Icon]
ASAP
 OK
 2013/03/01
 22:58:32
 MENU TIME

MENU **MENU** **TIME** **TIME**

OK START
 off on

If the screen goes to sleep, press OK to wake up.

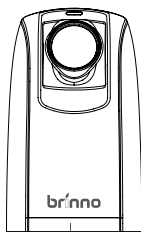
[Sleeping Eyes] **OK START** [Waking Eyes]

T.Lapse [Battery Icon]
ASAP
 OK
 2013/03/01
 22:58:32
 MENU TIME

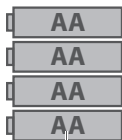
!

Subject to change without notice, please refer to brinno.com/support for latest information.

Package Contents



①



②



③

1 TimeLapseCam (TLC200)

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



Back



1 SD Card Cover

2 Connector for Extension Accessories

(For ATS110, ATM100)

3 Connector for Micro USB cable
(For extension power supplier, DC 5V)

4 Metal Ring

(for ATM100, ATL045)

5 Battery Door

6 Strap Eyelet

7 LCD Screen

8 MENU (◀) Button

9 TIME (▶) Button

10 OK/ START Button

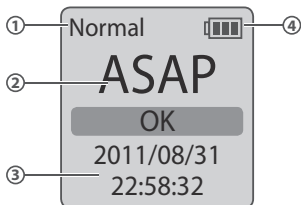
11 Power Switch

12 LED Indicator

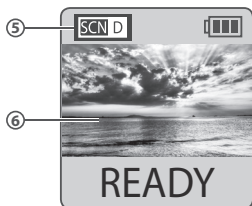
13 Tripod Screw Hole

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.

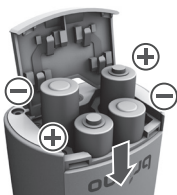
Initial Step-1

Install Batteries and SD Card

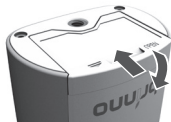
1



2



3



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

1



2



3



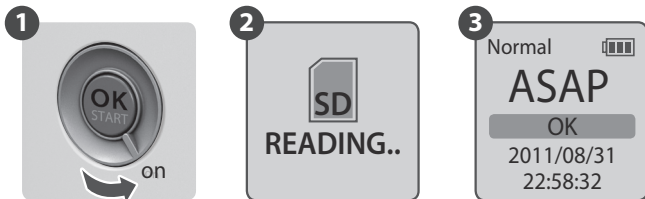
1 Open SD card cover.

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

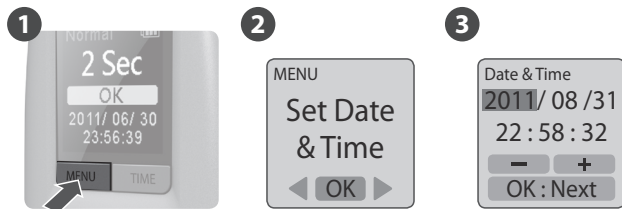
▲ It may display other information on screen, please refer to page 3.

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

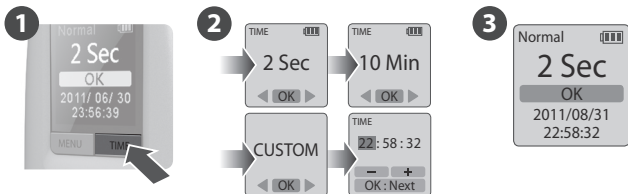


1 Press **MENU** button.

2 Press **TIME** (▶) to select **Set Date & Time (MENU 7/13)**, and press **OK**.

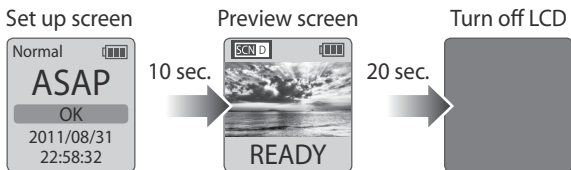
3 At the highlight field, press **MENU** (—) to decrease value, press **TIME** (+) to increase value, press **OK** to confirm and go to the next field. When finished press **OK** to exit set up.

Initial Step-5 Set Time Interval



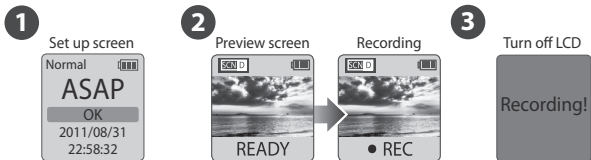
- 1 Press **TIME** button to enter time interval set up.
- 2 Press MENU (◀) and TIME (▶) to select a pre-set time interval or customize it by yourself. When complete, press the OK Button to confirm and return to the Set up screen.
- 3 Back to the Set up screen
Now, you are ready to go to Preview screen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

! About Power Saving



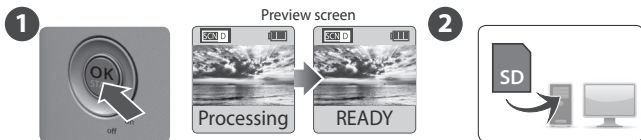
- 1 **At Set Up Screen**
After **10** seconds without activity on the set up screen, the camera will go to Preview screen automatically. You can press the **MENU** or **TIME** button to go back to the set up screen.
- 2 **At Preview Screen**
After **30** seconds without activity on the set up or preview screen, the LCD screen will turn off automatically to save power. You can press the **OK** button to wake up the camera.

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



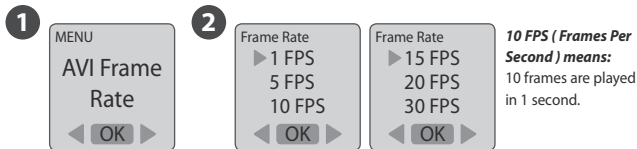
Green LED light: indicates Image capture in process

When the Green LED flashes, the Time Lapse Camera (TLC 200) is capturing photos.

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

AVI Playback Frame Rate

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



1 Select **AVI Frame Rate**.

2 What frame rate should I use?

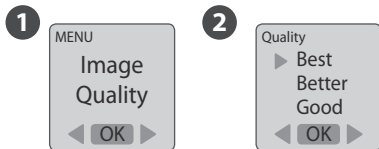
Generally, 10 FPS is suitable for Time Lapse video.

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.

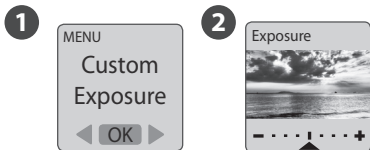


1 Select **Image Quality**

2 There are three options you can select: **Best, Better, Good**

Custom Exposure

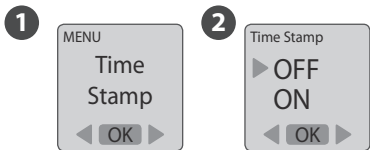
Increase or decrease the exposure.



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

Time Stamp

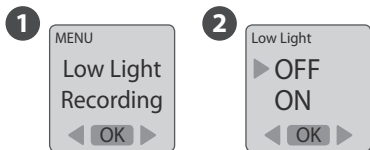
You can choose if you want to show the time stamp at bottom of your video.



- 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).

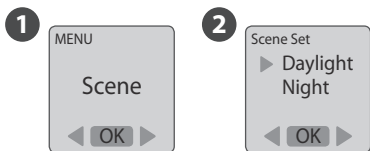


1 Select **Low Light Recording**.

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.



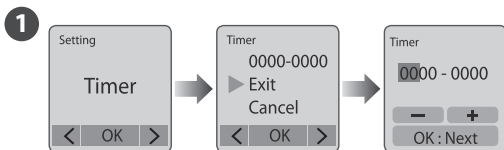
1 Select **Scene**.

2 There are two options you can select: **Daylight, Night**.

Option		Description
	Daylight	For any Daytime photography.
	Night	Special setting for Nighttime 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.g.

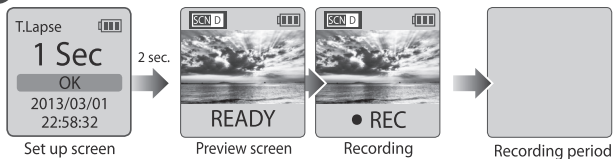
0600 - 1600 morning to afternoon

1600 - 2330 afternoon to night

2345 - 0500 overnight

0000 - 0000
A **B**

2



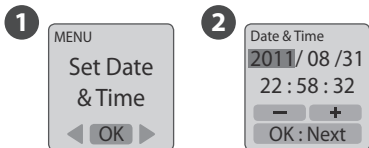
- 2 After setting up the time, go back to the set up screen then press the **OK** button to move to the preview screen. Hold the **OK** button for 2 seconds to start recording. The LCD panel will show REC then turn off to save power. The camera will automatically activate at the start recording time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



ONCE YOU ACTIVATE TIMER, YOUR TIME LAPSE CAMERA WILL ONLY WORK AT THE TIMER SETTING PERIOD.

Set Date and Time

Set the correct date and time for your camera.

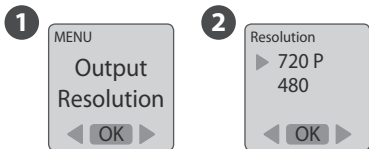


1 Select **Set Date & Time**.

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.

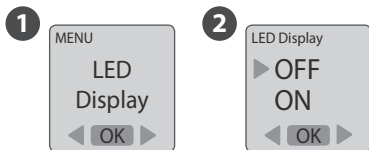


1 Select **Output Resolution**.

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.



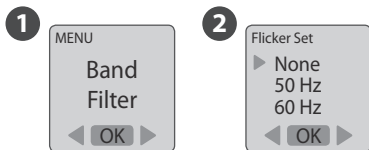
1 Select **LED Display**.

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**.

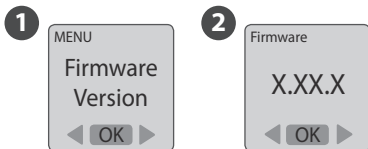
2 **None**: For outdoor environment.

50 Hz: Europe

60 Hz: USA

Firmware Version

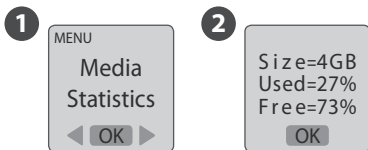
Display the current firmware version of camera.



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

Media Statistics

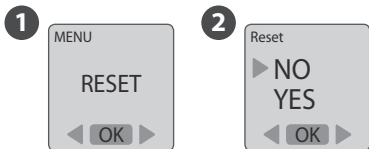
In this mode, the LCD will display the SD card capacity, so you will know how much free space remains on the SD card.



- 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:

Function	Setting
AVI Frame Rate	10 FPS
Image Quality	Better
Time Stamp	On
Low Light Recording	On
Scene	Daylight
Output Resolution	1280x720
LED Display	On
Band Filter	None
Time Interval	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 over a period of time	1~30 min	15~30
Construction	Recording a building being built or any construction project	30 min~ 1 hr	15~30
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	78 Days
1 Hour	1800	
4 Hours	460	
24 Hours	78	

Specifications

Camera

Model TLC200

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

Field of View 59°

Focal Length 36 mm (35 mm equivalent)

Focus Distance 75 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)

Package Contents

TimeLapse Camera (TLC200)	1	4GB SD card*	1
AA Battery	4	User Manual	1

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

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