TILTA WLC-T05-CH Nucleus Nano II Control Handle

TILTA WLC-T05-CH Nucleus Nano II Control Handle Instruction Manual

Contents

TILTA WLC-T05-CH Nucleus Nano II Control Handle

DISCLAIMER

Thank you for purchasing a TILTA product.

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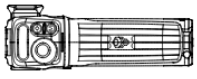
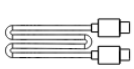
PACKING LIST



Nucleus Nano II Control Handle x1



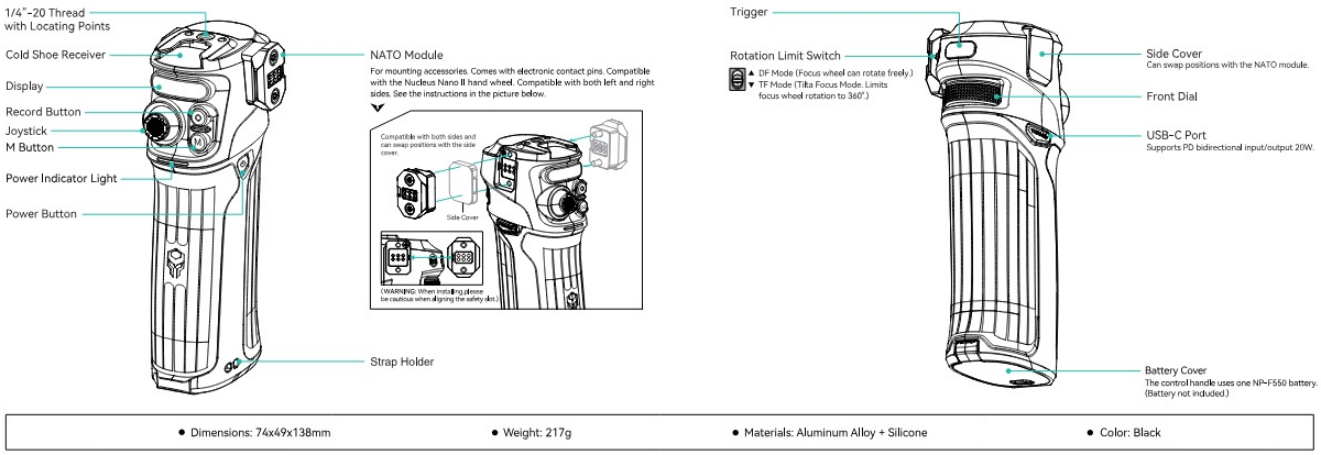
PD Power Cable x1

Multi-Functional Allen Key x1

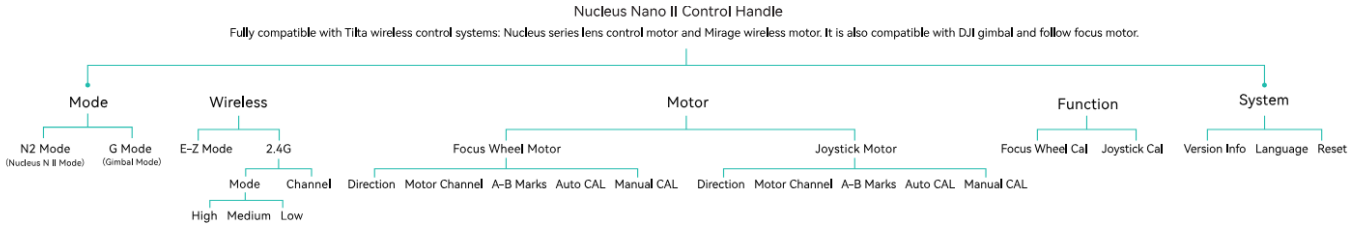
User Guide x1

INTRODUCING

INTRODUCING NUCLEUS NANO II CONTROL HANDLE] (Battery Not Included)

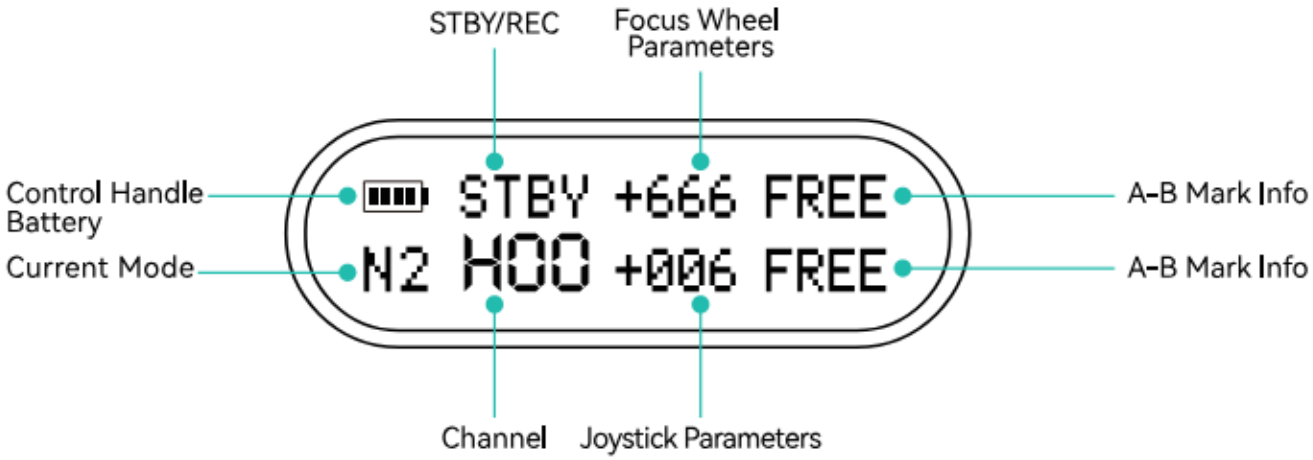


FUNCTION NAVIGATION DIAGRAM

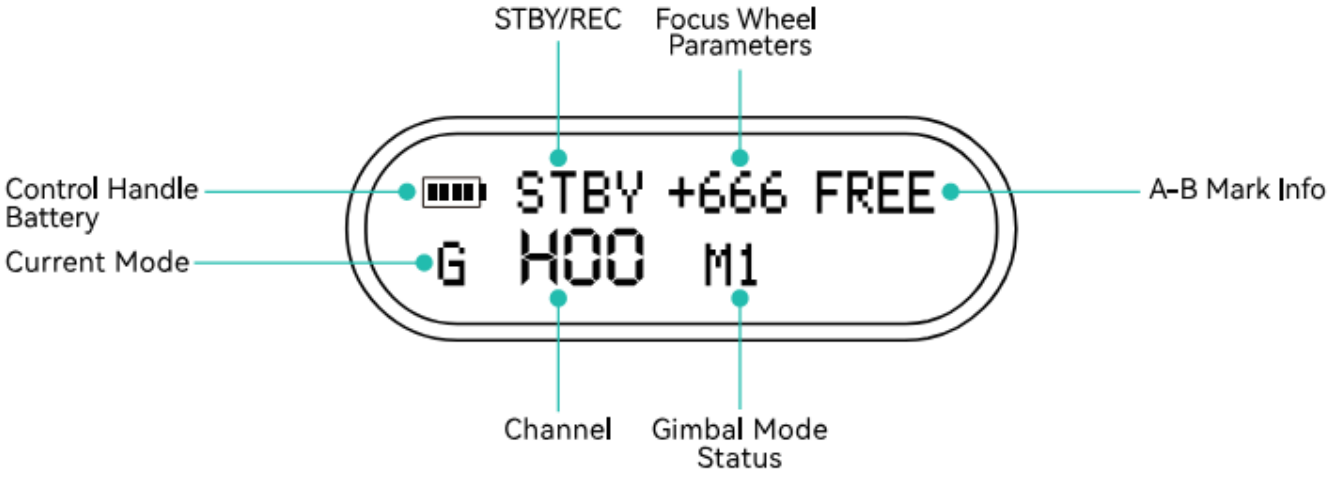


INTRODUCING THE INTERFACE

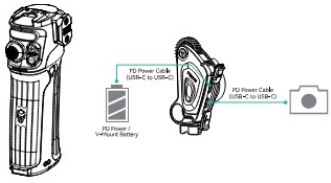
- **N2 MODE (NUCLEUS NANO 2 MODE)**



- **G MODE (STABILIZER MODE)**



CONTROL HANDLE FUNCTIONS



(I) Pairing the control handle with Nucleus N II motor to control the motor

(II) Pairing one control handle with DJI gimbal to control the gimbal

PAIRING

Enter pairing via [SHORTCUT] or [E-Z MODE]

01 [SHORTCUT] PAIRING

a. Connect the motor to power and turn on the control handle. Double click the [Function Button] on the motor while holding the [Record Button] and [M Button] to enter E-Z Mode.

b. When the display shows a motor has been found (as shown above), single click the [M Button] on the control handle to connect. When the display returns to the main menu, single click the [Function Button] and select motor (01-FOCUS-Purple Light / 02-IRIS-Green Light), under N2 and TF modes, use the joystick or focus wheel to test if pairing is successful.

02 PAIRING VIA [WIRELESS]-[E-Z MODE]

a. Connect the motor to power and turn on the control handle. Triple click the [Power Button] to enter the menu. Use the Joystick to scroll up and down and select [Wireless]. Single click [M Button] on the handle to enter.

b. Select [E-Z Mode]. Single click the [M Button] and double click the [Function Button] on the motor to start searching.

c. When the display shows a motor has been found (as shown above), single click the [M Button] on the control handle to enter pairing mode. When the display returns to the main menu, single click [Function Button] and select motor (01-FOCUS-Purple Light / 02-IRIS-Green Light), under N2 and TF modes, use the joystick or focus wheel to test if thepairing is successful.

N2 MODE (NUCLEUS N II MODE)

When in N2 and TF mode, 1 control handle can control 2 Nucleus series lens control motors or Mirage motors.

[FUNCTION]

Power Button
Triple Click: Enter the menu
Long Press: Power on/off

M Button
Confirm Menu Selection, Change Gimbal Mode

Record Button
Single Click: Start or stop recording.
Long Press: Power on or off / Go back to the previous menu.

Rotation Limit Switch
Switch to • DF/ • TF mode
(When in N2 mode, switch to TF mode on the control handle.)

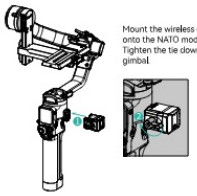
Joystick (Adjust Rotation Limit Switch as needed)
When in the menu, use the joystick to scroll up and down.
DF mode: Joystick cannot control the motor.
TF mode: When in the main interface, Joystick controls No.2 IRIS motor (Green Light) [default setting]

Front Dial (Adjust Rotation Limit Switch as needed)
DF mode: Focus wheel mimics the gimbal's dial function.
TF mode: Focus wheel controls No.1 FOCUS motor (Purple Light) [default setting]

WARNING:
When pairing the handle with the motor, the motor is set to connect with a preset motor. No.1-4 motor can also be selected by going through [Motor Channel] on the control handle.
(01-FOCUS-Purple Light / 02-IRIS-Green Light / 03-ZOOM-Blue Light / 04-OTHERS-Yellow Light) (See [Basic Operations] below).

ASSEMBLY+PAIRING

01 ASSEMBLING WIRELESS CONTROL RECEIVER MODULE (TGA-WCR)



Mount the wireless control receiver module onto the NATO module ① on the gimbal. Tighten the tie down screw ②. Power on the gimbal.

02 [SHORTCUT] PAIRING

a. Power on the control handle. Hold the [Record Button] and [M Button] on the control handle to start searching. At the same time, double click the [Pairing Button] on the wireless control receiver module.

b. Once the control handle has found the gimbal (as shown above), single click the [M Button] on the control handle to pair them. Pairing is complete when the screen returns to the main interface.

03 PAIRING VIA [WIRELESS]-[E-Z MODE]

a. Power on the control handle. Triple click the [Power Button] to enter the menu. Use the joystick to scroll up and down to locate [WIRELESS]. Single click the [M Button].

b. Select [E-Z Mode]. Single click the [M Button] on the control handle, meanwhile, double click the [Pairing Button] on the wireless control receiver module.

c. Once the control handle has found the gimbal (as shown above), single click the [M Button] on the control handle to pair them. Pairing is complete when the screen returns to the main interface.

G MODE (STABILIZER MODE)

In G and TF modes, a control handle can control a Nucleus series lens control motor or a Mirage motor. In DF mode, a control handle can control a gimbal's roll/pan/tilt axes and a DJI lens control motor.

[FUNCTION]

Power Button
Triple Click: Enter the menu
Long Press: Power on/off

Record Button
Half Press: Auto focus.
Long Press: Take a picture.
Single Click: Start or stop recording./Return to the previous menu page.

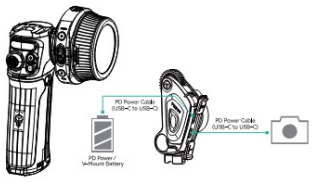
Trigger
Single Click: Start ActiveTrack.
Double Click: Re-center the gimbal.
Triple Click: Portrait mode.
Triple Click Following a Long Press: Calibrate gimbal.

M Button
Single Click: Switch modes / Confirm menu selection.
Double Click: Vertical mode.
Triple Click: 3D Roll 360.
Long Press: Sport mode.
Long Press and Double Click Trigger: Enter Sport mode.
(No need to hold.) Repeat to exit Sport mode.

Joystick (Adjust Rotation Limit Switch as needed)
When in the menu interface, use the Joystick to scroll up and down.
When in DF/TF mode, it cannot control a motor, but can control the gimbal's pan and tilt axes.

Front Dial (Adjust Rotation Limit Switch as needed)
In DF mode: Functions as the front dial of the DJI gimbal.
In TF mode: Controls No.1 motor (FOCUS). (Purple Light) [default setting]

CONTROL HANDLE + HAND WHEEL CONFIGURATION FUNCTIONS

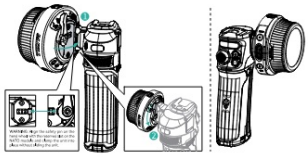


(I) Pairing the control handle and hand wheel with Nucleus N II motor to control the motor

ASSEMBLY+PAIRING

01 INSTALLING NUCLEUS N II HAND WHEEL

Mount the hand wheel onto the NATO module on the control handle ①. Tighten the tie down ②.



02 AFTER ASSEMBLY AND PAIRING,THE SYSTEM CAN CONTROL 4 MOTORS

(The hand wheel and control handle can each control 2 motors.)

a.

From the Main UI, swipe up to open the menu. Select [CONNECT]–[2.4G] mode. Select [ON] then [CHANNELS] to enter auto/manual channel mode.

b.

Use AUTO/MANUAL channel mode to search for available channels.

WARNING: Tap on the icon in the top left corner to switch search modes. AUTO channel mode can automatically select a channel based on signal strength. MANUAL channel mode allows for specific channel selection.

Manual Channel Mode / Auto Channel Mode

N2 MODE (NUCLEUS N II MODE)

When in N2 and TF modes, 1 control handle + 1 hand wheel can control 4 Nucleus series lens control motors or Mirage motors.

FUNCTION

Power Button
Triple Click: Enter the menu
Long Press: Power on/off

M Button
Confirm Menu Selection, Change Gimbal Mode

Record Button
Single Click: Start or stop recording.
Long Press: Power on or off / Go back to the previous menu page.

Rotation Limit Switch
Switch to ▲DF/▼TF mode.
(When in N2 mode, switch to TF mode on the control handle.)

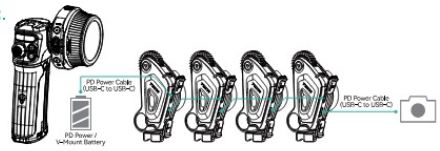
Joystick (Adjust Rotation Limit Switch as needed)
When in the menu, use the joystick to scroll up and down.
DF mode: Joystick cannot control the motor.
TF mode: Joystick controls No.4 motor (OTHERS) (Yellow Light) [default setting]

Front Dial (Adjust Rotation Limit Switch as needed)
DF mode: Mimics the gimbal's dial function.
TF mode: Front dial controls No.2 motor (IRIS) (Green Light) [default setting]

Hand Wheel
Controls No.1 motor (FOCUS) (Purple Light) [default setting]

Control Rocker (On Hand Wheel)
Controls No. 3 motor (ZOOM) (Blue Light) [default setting]

c.



d.

Use the PD power cable to daisy chain four motors. Connect the motors with power, and double click the [Function Button] on all four motors. The motors enter pairing mode when the LED indicators flash. When the hand wheel has found four motors, tap [CONFIRM]. Pairing is complete when the LED indicators (purple/green/blue/yellow) remain solid.
(WARNING: To use the PD power for synchronized power supply, when connecting multiple motors in series, use Port 2 input and Port 1 output; for the last motor, use Port 1 input to Port 2 output, connect the PD power cable to the camera for camera control.)

03 HAND WHEEL AND CONTROL HANDLE PAIRING WITH FOUR MOTORS

(The hand wheel and control handle can each control two motors.)

a. Pair the control handle with two motors via a shortcut or E-Z mode

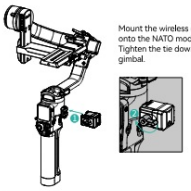
WARNING:
When pairing the control handle with the motor, the control handle is already paired with a corresponding motor by default. You can also select the corresponding motor numbers 1–4 through [MOTOR] on the control handle.
(01–FOCUS–Purple Light / 02–IRIS–Green Light / 03–ZOOM–Blue Light / 04–OTHERS–Yellow Light) (See [BASIC OPERATIONS] below.)

b. Pair the hand wheel with two motors via AUTO/MANUAL channel mode

(II) Pairing the control handle and hand wheel with DJI gimbal to control the gimbal

ASSEMBLY+PAIRING

01 ASSEMBLING WIRELESS CONTROL RECEIVER MODULE (TGA-WCR)



Mount the wireless control receiver module onto the NATO module ① on the gimbal. Tighten the tie down screw ②. Power on the gimbal.

02 [SHORTCUT] PAIRING

a. Power on the control handle. Hold the [Record Button] and [M Button] on the control handle to start searching. At the same time, double click the [Pairing Button] on the wireless control receiver module.

b. Once the control handle has found the gimbal (as shown above), single click the [M Button] on the control handle to pair them. Pairing is complete when the screen returns to the main interface.

03 PAIRING VIA [WIRELESS]-[E-Z MODE]

[FUNCTION]

Power Button
Triple Click: Enter the menu
Long Press: Power on/off

Record Button
Half Press: Auto focus.
Long Press: Take a picture.
Single Click: Start or stop recording./Return to the previous menu page.

Trigger
Single Click: Start ActiveTrack.
Double Click: Re-center the gimbal.
Triple Click: Portrait mode.
Triple Click Following a Long Press: Calibrate gimbal.

M Button
Single Click: Switch modes / Confirm menu selection.
Double Click: Vertical mode.
Triple Click: 3D Roll 360. Long Press: Sport mode.
Long Press and Double Click Trigger: Enter Sport mode.
(No need to hold.) Repeat to exit Sport mode.

Joystick (Adjust Rotation Limit Switch as needed)
When in the menu, use the Joystick to scroll up and down.
When in DF/TF mode, it cannot control the motor, but will control the gimbal's tilt and pan axes.

Front Dial (Adjust Rotation Limit Switch as needed)
DF mode: Mimics the gimbal's dial function.
TF mode: Controls No.2 motor (IRIS) (Green Light) [default setting]

Hand Wheel
Controls No.1 motor (FOCUS) (Purple Light) [default setting]

Control Rocker (On Hand Wheel)
Controls No.3 motor (ZOOM) (Blue Light) [default setting]

a. Power on the control handle. Triple click the [Power Button] to enter the menu. Use the joystick to scroll up and down to locate [WIRELESS]. Single click the [M Button].

b. Select [E-Z Mode]. Single click the [M Button] on the control handle, meanwhile, double click the [Pairing Button] on the wireless control receiver module.

c. Once the control handle has found the gimbal (as shown above), single click the [M Button] on the control handle to pair them. Pairing is complete when the screen returns to the main interface.

BASIC OPERATIONS

WIRELESS

E-Z MODE 2.4G|

[1] E-Z MODE
[2] 2.4G

Triple click the [Power Button] to enter menu. Use the Joystick to scroll up and down to select [WIRELESS]. Single click the [M Button] on the control handle to enter [MODE] or [CHANNEL] settings.

In the [MODE] setting, select frequency [HIGH/MEDIUM/LOW], single click the [M Button] on the control handle to confirm.

When selecting up [CHANNEL], select the specific channel (15 available channels), and single click the [M Button] on the control handle to confirm.

MODE

When selecting [MODE]-[G MODE] or [N2 MODE], single click the [M Button] on the control handle to confirm.

MOTOR – FRONT DIAL MOTOR

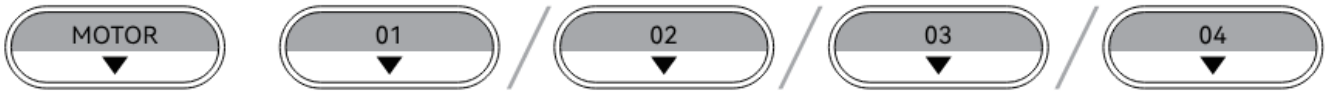
DIRECTION (MOTOR GEAR'S DIRECTION)I

PAIRING FRONT DIAL MOTOR WITH THE NO. 1 MOTOR (PURPLE LIGHT) (DEFAULT)

- **DIRECTION (MOTOR GEAR'S DIRECTION)**

1. Select [MOTOR] – [FRONT DIAL MOTOR] – [DIRECTION], and single click the [M Button] on the control handle.
2. Select [CW] or [CCW], and turn the front dial on the control handle to the corresponding position, then single-click the [M Button] on the control handle to confirm.

MOTOR



- Select [MOTOR] – [FRONT DIAL MOTOR] – [CHANNEL], and single click the [M Button] on the control handle to enter motor number selection. After selection, single click the (M Button) on the control handle to confirm. WANg CHANNEl oing the control hael with the murphy con/ hanse is elegantly Po-2 With me Lug by default. You can also gloat No. 1-4 motors

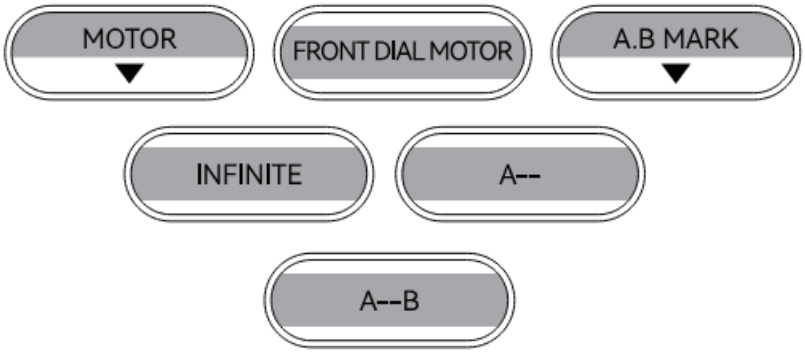
AUTO CAL

Select [MOTOR] – [FRONT DIAL MOTOR] – [AUTO CAL), and single click the [M Button] on the control handle. Wait for 3 seconds, the motor will start automatically calibrating.(hard stop detection).

MANUAL CAL

- Select [MOTOR] – [FRONT DIAL MOTOR] –
- [MANUAL CAL], and single click the [M Button] on the control handle.
- Turn the tron is to reach the go cri the [M Button] on the control handle to confirm [START].
- Teste rod poil tone ach theme click the [M Button] on the control handle to confirm (END].

A-B MARKS



- Select [MOTOR] – [FRONT DIAL MOTOR] – [A.B MARK), and single click the [M Button] on the control handle.
- **[A Mark]:** Start from (INFINITE), turn the front dial to the desired A position, and single-click the [M Button] on the control handle to confirm [A-] mark.
- **(B Mark]:** Start from [A-), turn the front dial to the desired B position, and single-click the IM Button) on the control handle to complete [A-B] marks.

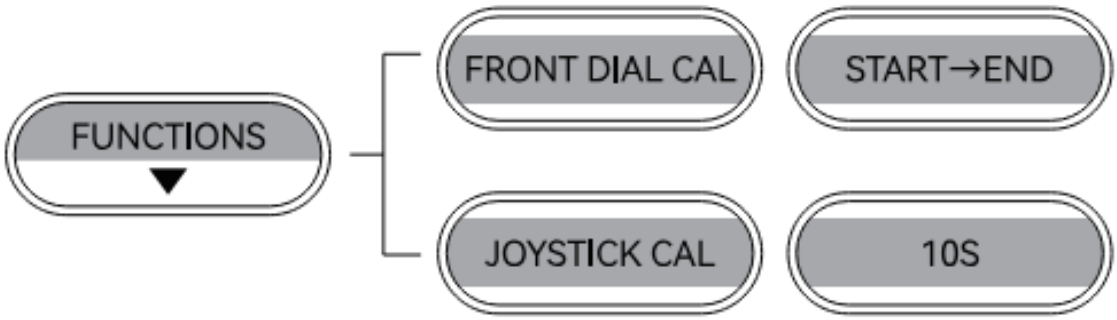
INFINITE (REMOVE A-B MARKS METHOD 1

- Select [MOTOR] – (FRONT DIAL MOTOR] – [A.B MARK) – [A-B], and single click the (M Button) on the control handle to remove A-B Marks.

METHOD 2

- Restarting the control handle will also remove A Marks

FUNCTIONS



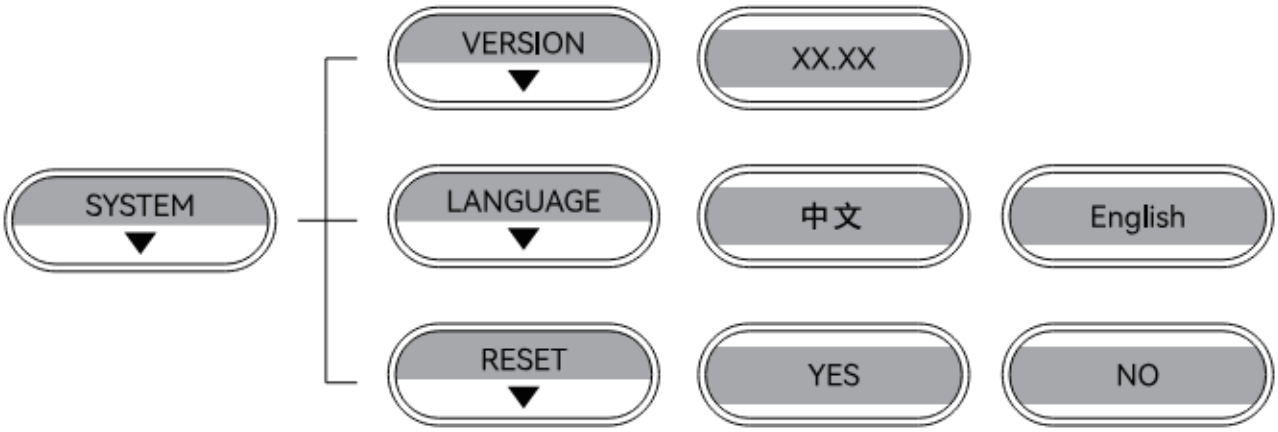
FRONT DIAL CALIBRATION

- Tum the Rotation Limit Switch to TF mode  . and enter [FUNCTIONS) – [FRONT DIAL CALIBRATION) – (START→END). Turn the front dial from left to right, then single-click the [M Button on the control handle to confirm.

JOYSTICK CALIBRATION

- Select [FUNCTIONS]-[JOYSTICK CALIBRATION], and single dick the [M Button] on the control handle. Push the joystick up, down, left, and right to the farthest of each position within 10 seconds.

SYSTEM



1. **VERSION** Select [SYSTEM] – [VERSION), and single dick the (M Button] on the control handle to look up the current version.
2. **LANGUAGE** Select [SYSTEM] – [LANGUAGE] – [X] or (English), and single dick the [M Button] on the control handle to confirm.
3. **RESET** Select (SYSTEM) – [RESET) – [YES) or [NO), and single click the (M Button) on the control handle to confirm.

FIRMWARE UPDATE

YOU CAN USE ANY OF THE FOLLOWING METHODS TO UPDATE THE FIRMWARE.

METHOD 1. DOWNLOAD FIRMWARE TO UPDATE THE CONTROL HANDLE.

1. Download and update the onware from TILT's official website. I you have any installation questions, please reach out to Tita's official customer service
2. When the control handle is powered off, first press and hold the (M Button) on the control handle (without letting go), and then press and hold the (Power Button] to access the update page.
3. Use a data cable to connect the USB-C port of the control handle to a computer, and move the downloaded firmware update to the control handle to complete the update.

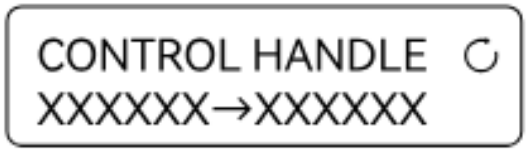
METHOD 2. USE NUCLEUS N II HAND WHEEL TO UPDATE THE CONTROL HANDLE.

1. When the control handle is powered off, first press and hold the (M Button) on the control handle (without letting go) and then press and hold the (Power Button] to access the update page.
2. Enter the hand wheel menu at the same time, select [System] – [Firmware Update], select [Control Handle], and click [CONFIRM] to start the update. When the update progress reaches 100%, the update will be completed.

- When the hand wheel is connected to the Internet, enter [System] – (FIRMWARE UPDATE] and the [SERVER] window will pop up. Please select the corresponding server according to your location, and then update.

- Check if the device needs updating: name that means the acumen it on the etche atom of the device. as pictured below.

1. If there is a version number with "→" at the bottom of the device name, that means the current version requires a firmware update, as pictured below.



2. If there is no version number with "→" below the device name, that means the current version does not require

firmware updates, as pictured below.

- Before updating the handle firmware, please ensure that the hand wheel has been connected to the Internet in advance to update the latest firmware.
- Before updating, please make sure that the battery life of the hand wheel/ control handle is no less than 50%, and make sure that no other nearby handles are updating firmware.
- Do not plug or unplug the data cable or turn off the hand wheel/control handle during the update process. If the update fails, perform the update operation again.
- When updating wirelessly, multiple control handles cannot be updated at the same time. Only one control handle can be updated to avoid signal interference.
- If the update percentage stays between 5% and 6%, or the update speed is too slow, please restart the update operation.

FCC STATEMENT

IC CAUTION:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure conditions without restriction.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

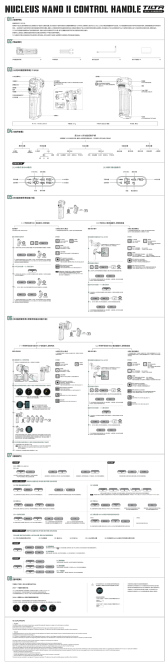
These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure conditions without restriction.

Documents / Resources

	TILTA WLC-T05-CH Nucleus Nano II Control Handle [pdf] Instruction Manual WLC-T05-CH, WLC-T05-CH Nucleus Nano II Control Handle, Nucleus Nano II Control Handle, Nano II Control Handle, Control Handle, Handle

References

- User Manual