

# HYDRA ALIEN PRO

CAR MOUNTING SYSTEM

• HDA-T18 •

— Alien Pro 减震臂 —

## ISED Statement

### English:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

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

The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

### French:

Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada.

L'exploitation est soumise aux deux conditions suivantes :

- (1) Cet appareil ne doit pas provoquer d'interférences.
- (2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

l'appareil numérique du ciem conforme canadien peut - 3 (b) / nmb - 3 (b).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 2.5 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

## FCC Statement

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 receiver.
- Connect the equipment into 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

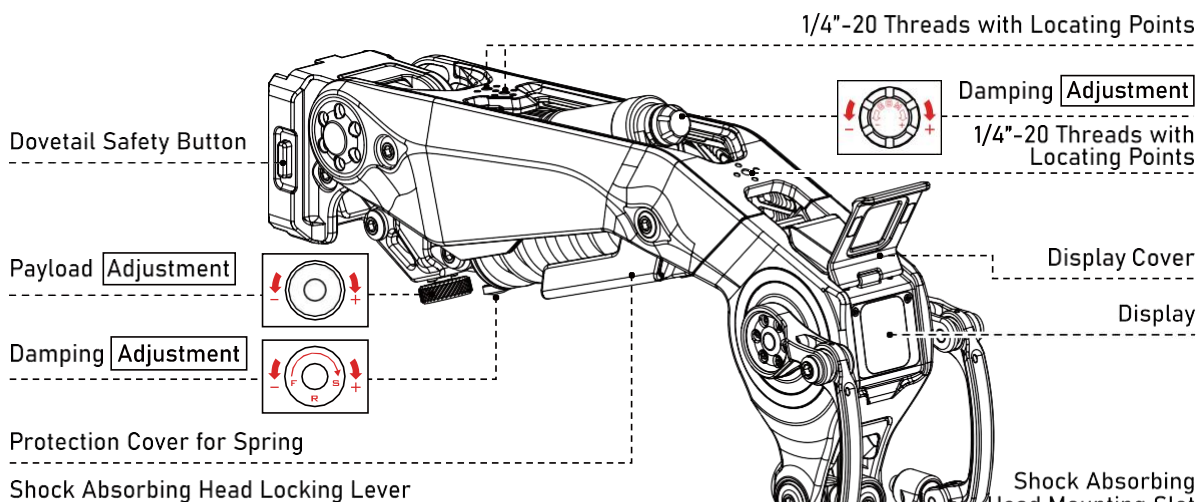
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

# INTRODUCING ALIEN PRO SHOCR ABSORBING ARM & SHOCK ABSORBING HEAD

## ALIEN PRO SHOCK ABSORBING ARM



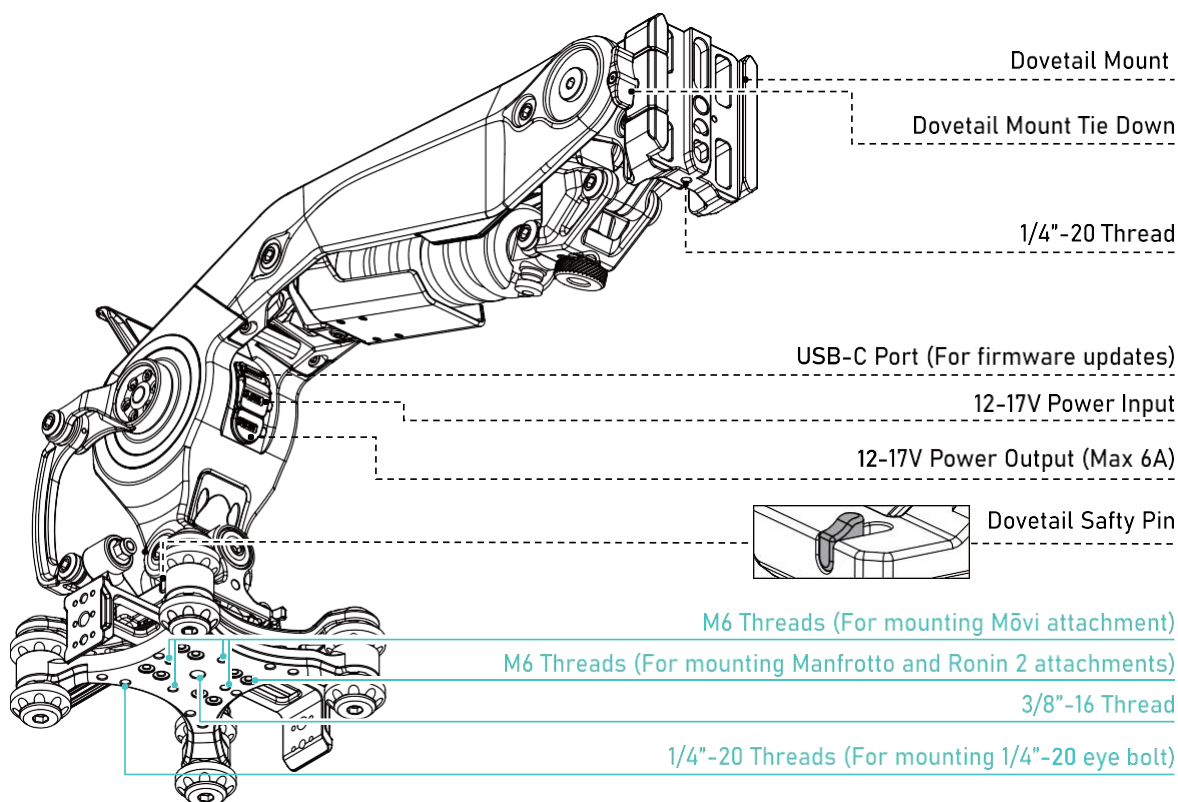
## SHOCK ABSORBING HEAD

Shock Absorber

1/4"-20 Threads with Locating Points

Quick Release Plate

3/8"-16 Thread with Locating Points



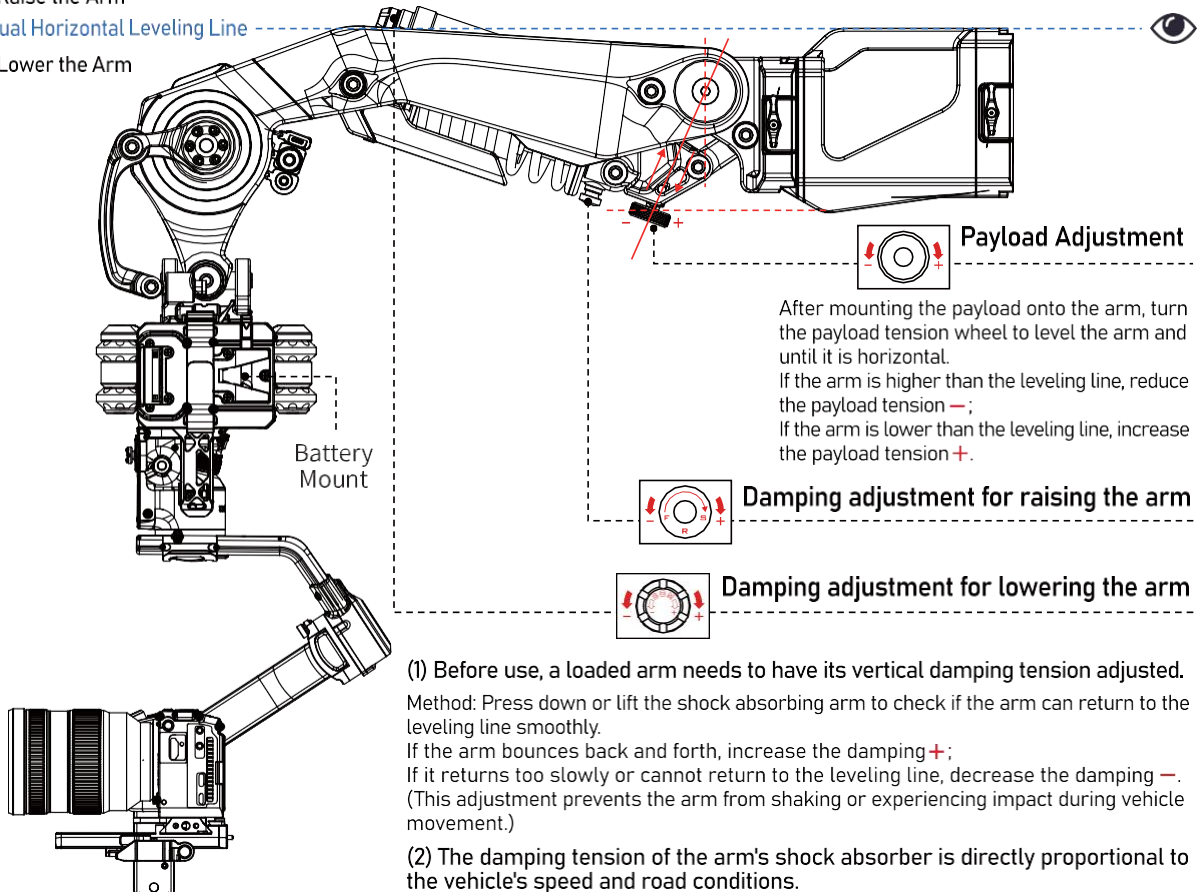
# SHOCK ABSORBING ARM - BALANCING INSTRUCTIONS

- (1) Mount the devices (camera, gimbal, wireless video system, power supply, etc.) onto the shock absorbing arm to determine the final payload. Adjust the payload tension before use.
- (2) Adjust the balance (increasing/decreasing the arm position, adjusting damping, payload tension) according to the final shock absorbing arm payload, road condition, and driving speed. Adjust the damping on the right, left, front, and back sides of the shock absorbing head. (See details on the UI interface.)
- (3) Fine tune the parameters accordingly based on the image.

↑ Raise the Arm

Visual Horizontal Leveling Line

↓ Lower the Arm



## Payload Adjustment

After mounting the payload onto the arm, turn the payload tension wheel to level the arm and until it is horizontal.

If the arm is higher than the leveling line, reduce the payload tension **-**;

If the arm is lower than the leveling line, increase the payload tension **+**.

## Damping adjustment for raising the arm

## Damping adjustment for lowering the arm

(1) Before use, a loaded arm needs to have its vertical damping tension adjusted.

Method: Press down or lift the shock absorbing arm to check if the arm can return to the leveling line smoothly.

If the arm bounces back and forth, increase the damping **+**;

If it returns too slowly or cannot return to the leveling line, decrease the damping **-**.  
(This adjustment prevents the arm from shaking or experiencing impact during vehicle movement.)

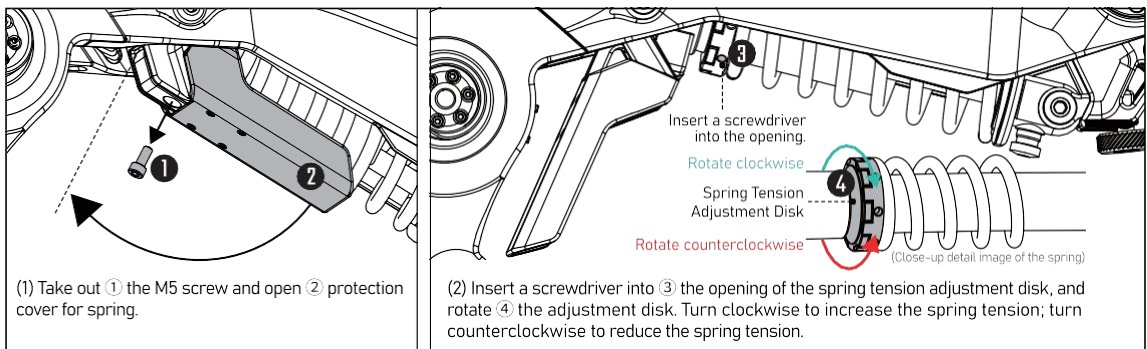
(2) The damping tension of the arm's shock absorber is directly proportional to the vehicle's speed and road conditions.

If the vehicle speed is high and the road is bumpy, increase the damping **+**;

If the vehicle speed is low and the road is smooth, decrease the damping **-**.

## Spring Tension Adjustment (to be used only in special circumstances)

If, under the final load condition, adjusting the arm's load tension to the maximum still cannot bring the arm back to the visual horizontal leveling line, you can adjust the spring tension to align the arm with the visual horizontal leveling line.



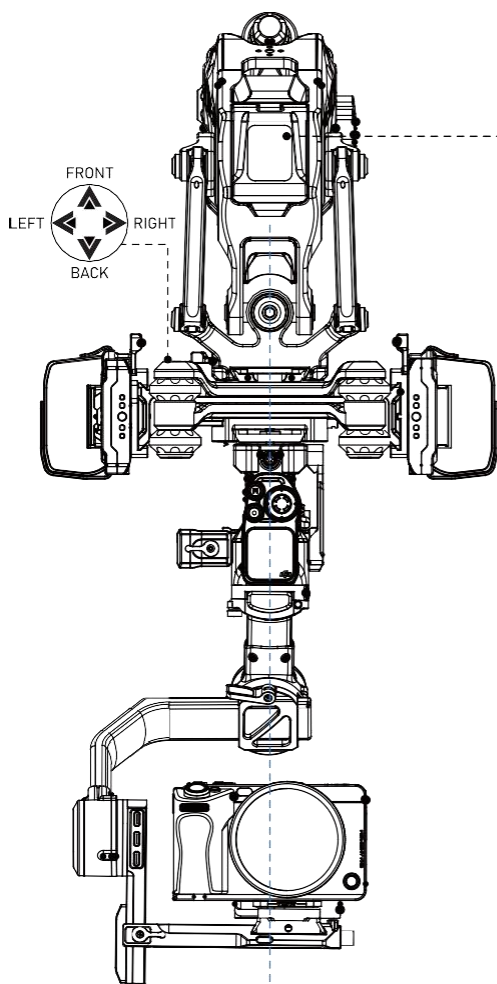
(1) Take out ① the M5 screw and open ② protection cover for spring.

(2) Insert a screwdriver into ③ the opening of the spring tension adjustment disk, and rotate ④ the adjustment disk. Turn clockwise to increase the spring tension; turn counterclockwise to reduce the spring tension.

# SHOCK ABSORBING ARM & SHOCK HEAD LOADING/ DAMPING ADJUSTMENT GUIDE

Open the display cover, adjust the damping for forward, backward, and lateral movement of the shock head after loading.

## MAIN INTERFACE OF THE SHOCK ABSORBING ARM SCREEN

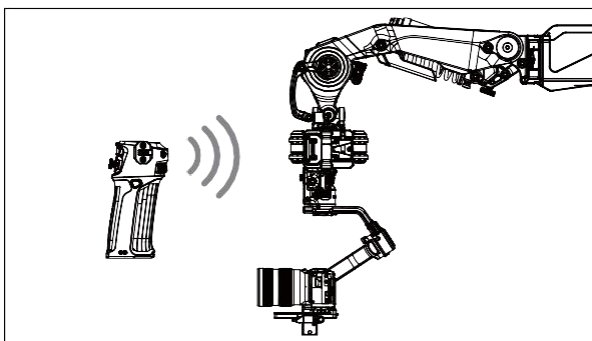


Visual Vertical Leveling Line



### 1 Wireless Connection Status (Wireless connection and the signal strength.)

Pair with Tilta Nucleus Nano II control handle to control the shock absorbing head's damping and payload adjustment. (See details on wireless control page.)



### 2 Damping Tension Adjustment (0-100, intervals of 5)

(1) Before use, a loaded arm needs to have its forward, backward, and lateral damping tensions adjusted.

Method: Swing the shock absorbing head to check if it can return to the vertical leveling line position smoothly.

If it bounces bouncing back and forth, increase the damping +;

If it returns too slowly or cannot return to the leveling line, decrease the damping -.

(This adjustment prevents the arm from shaking or experiencing impact during vehicle movement.)

(2) The damping tension of the head's forward, backward, and lateral movements is directly proportional to the vehicle's speed and road conditions.

If the vehicle speed is high and the road is bumpy, increase the damping +;

If the vehicle speed is low and the road is smooth, decrease the damping -.

### 3 Load Adjustment (LIGHT/MEDIUM/HEAVY, ◀ ▶ Left-Right Toggle Mode)

Select the appropriate mode based on the payload.

Light load - For mounting mirrorless cameras with DJI RS series gimbals, weighing between 4-7 kg, the damping reference value is (35-80).

Medium load - For mounting professional mirrorless and DSLR cameras with gimbals like Movi Pro and Ronin M, weighing between 7-10 kg, the damping reference value is (35-65).

Heavy load - For mounting professional cinema cameras with the DJI Ronin 2 gimbal, weighing between 10-13 kg, the damping reference value is (45-75).

### 4 Battery Voltage

When the battery voltage is too low and the display turns red, the wirelessly connected Nucleus Nano II control handle will vibrate and beep to alert you.

### 5 Vertical Status Display

### 6 Horizontal Status Display





Device Information Page

Firmware Upgrade

Swipe Up



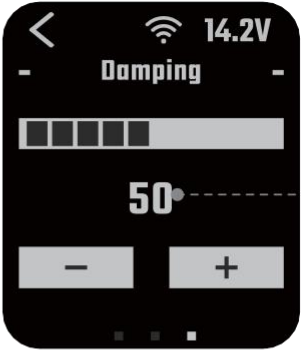
System Settings

Swipe Left



Swipe Down

Swipe Right



Damping Interface

**Damping Tension Adjustment**  
(0-100, intervals of 1)  
Make finer adjustments to the damping parameters based on the situation.



Selected Status Display

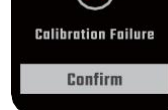
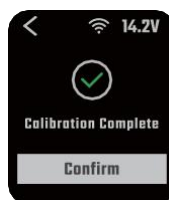
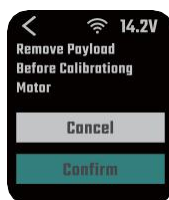


Wireless Connection Status

**Shock Absorbing Arm ID**  
(01-15)  
NOTE: Each shock absorbing arm can only be paired with one control handle, using a single ID to avoid signal interference. (See details on the wireless control page.)

## SYSTEM SETTINGS

### [CALIBRATE DEVICE]



Select [Calibrate Device], calibrate the motor without a mounted payload following the prompts. Select [Confirm] to complete the calibration.

### [LANGUAGE SETTING]



### [FACTORY RESET]



## FIRMWARE UPGRADE

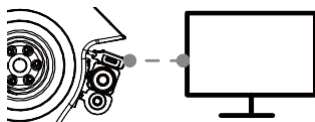
### [Upgrade When Powered Off]

- (1) Download the firmware from the Tilta official website. Please contact our customer service with any installation questions. ([www.tilta.com](http://www.tilta.com))
- (2) When powered off, connect the arm's USB-C port to a computer using a data cable.
- (3) When the computer recognizes the arm as a USB drive, the system will prompt you to format the USB drive first, then move the downloaded firmware upgrade to the arm's drive, and wait for the update process to complete.



### [Upgrade During Operation]


- (1) Open [Version Info Interface], select [Firmware Upgrade]. The arm will restart after selecting [Confirm].
- (2) Download the firmware from the Tilta official website. Please contact our customer service with any installation questions. ([www.tilta.com](http://www.tilta.com))
- (3) Connect the arm's USB-C port to a computer using a data cable.
- (4) When the computer recognizes the arm as a USB drive, the system will prompt you to format the USB drive first, then move the downloaded firmware to the arm's drive, and wait for the update process to complete.



# SHOCK ABSORBING ARM - WIRELESS CONTROL INSTRUCTIONS

Pair with Tilta Nucleus N II control handle (not included) wirelessly to control the shock absorbing head's payload and damping adjustments.

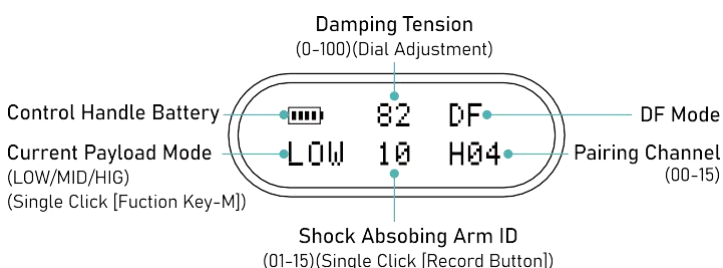
## CONTROL HANDLE - [DAMP MODE]

- 1  Long press [Power Button] to turn on the handle.  
Triple click to enter the menu.



Use the [JOYSTICK] to scroll and select [MODE SETTING].  
Single click [MENU] to enter.  
Use the [JOYSTICK] to scroll and select [DAMP MODE].  
Single click [MENU] to confirm.

## CONTROL HANDLE - [DAMP MODE INTERFACE]



## CONTROL HANDLE - [DAMP MODE FUNCTIONS & PARAMETER ADJUSTMENT]



### POWER BUTTON

Long press: Power on/off.  
Triple click: Enter menu.



### FRONT DIAL

Adjust the shock absorbing head's damping tension after pairing. (0-100)



### MENU BUTTON

Single click: Confirm menu selection. /  
After pairing, use the button to switch the shock absorbing head's payload mode. (LOW - light load, MEDIUM - medium load, HIGH - heavy load.)



### JOYSTICK

When in menu interface, use the joystick to scroll up and down. /  
Under [Wireless-2.4G-Channel], scroll up and down to select channel.



### RECORD BUTTON

Single click: Return to the previous menu. /  
Switch shock absorbing arm ID (01-15).

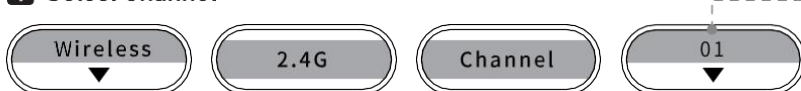


### ROTATION LIMIT SWITCH

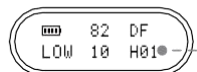
Switch between ▲ DF (no limit on the front dial rotation) and ▼ TF modes (no functions).  
(NOTE: To control the shock absorbing arm adjust the parameters, first switch to DF mode.)

## PAIR CONTROL HANDLE AND SHOCK ABSORBING ARM IN [DAMP MODE]

### 1 Select Channel



Select [Wireless]-[2.4G]-[Channel]-Select a channel (00-15. For example, 01.)  
(There are 16 available channels. Any of them can be selected to avoid signal interference.)



After selection, the interface will display the selected channel (for example, H01).

TIPS: Use the [JOYSTICK] to scroll up and down to select menu, and to select channel (00-15); To confirm, use [M BUTTON]; To return to the previous menu, use [RECORD].



## PAIR CONTROL HANDLE AND SHOCK ABSORBING ARM IN [DAMP MODE]

### 2 Select the Shock Absorbing Arm's ID



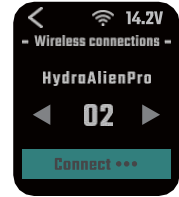
[Shock Absorbing Arm]

- 1 Open [Wireless Connections] on the shock absorbing arm, and select arm ID. (For example, 02)



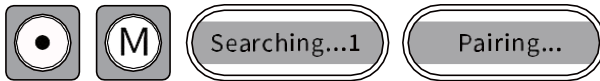
[Nucleus Nano II Control Handle]

- 2 Single click [Record], and select arm ID. (For example, 02)



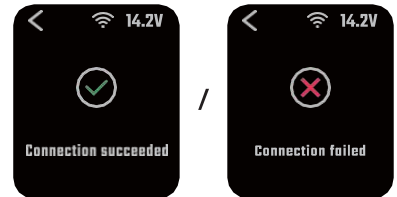
[Shock Absorbing Arm]

- 3 Select [Connect] to enter pairing mode. The control handle will start pairing.



[Nucleus Nano II Control Handle]

- 4 Press [Record] and [Menu] at the same time to enter pairing mode. When the arm is found, it appears as [Searching...1]. Single click [Menu] to confirm [Pairing...].



[Shock Absorbing Arm]

- 5 Pairing result will display after pairing. If failed, then proceed to repair.

#### NOTE:

- (1) After successful pairing, the shock absorbing arm's ID number and the control handle must match to enable control.
- (2) The control handle can be paired with multiple arms. After successful pairing, you can control the paired shock absorbing arms by switching ID numbers.