



Altronix HubWay8DS Passive UTP Transceiver Hub Installation Guide

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More than just power.™

Video/Data/Power

HubWayDS Series

Passive UTP Transceiver Hub with Integral Camera Power

Models Include: HubWay8DS

- UL Listed eight (8) Channel Passive UTP Transceiver Hub with Integral Camera Power
HubWay82DS
- UL Listed eight (8) Channel Passive UTP Transceiver Hub with Integral Camera Power
 - Includes eight (8) UL Listed Accessory HubWayAv Video Balun/Combiners
HubWay83DS
- UL Listed eight (8) Channel Passive UTP Transceiver Hub with Integral Camera Power
 - Includes eight (8) UL Listed Accessory HubWayDv Video Balun/Combiners
Installation Guide

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HubWay8DS Passive UTP Transceiver Hub

Rev. 070908

Installing Company: _____ Service Rep. Name: _____
Address: _____ Phone #: _____

Overview

Altronix HubWay8DS Passive UTP Transceiver Hub w/Integral Camera Power transmits UTP video, RS422/RS485 data, and power over a single CAT-5 or higher structured cable. The unit provides 8 camera channels in a space-saving 1U EIA 19" rack mount chassis which may be rack, wall or shelf mounted. Video transmission range is up to 750 ft. max. per channel. Units are compatible with AC and/or DC fixed or PTZ cameras when utilizing Altronix HubWayAv, HubWayAv2, HubWayDv or HubWayDvi Video Balun/Combiners. In addition, the unit features individually selectable 24VAC or 28VAC, PTC-protected outputs with surge suppression. An optional HubSat4D Passive UTP Transceiver Hub with Integral Camera Power unit can be used as an accessory module to transmit video from up to 4 cameras over a single CAT-5 or higher structured cable back to the HubWay8DS. In addition, the HubSpot unit provides power to these cameras locally to eliminate the possibility of voltage drop associated with long cable runs.

HubWay8DS Specifications

Agency Listings:

- UL Listed for Commercial CCTV Equipment (UL 2044).

Input:

- 115VAC, 60Hz, 1.5A or 230VAC, 50/60Hz, 1A.

Video:

- Eight (8) channels of video over twisted pair up to 750 ft.
- Eight (8) 75 Ohm video outputs.

Data:

- RS422/RS485 data inputs.

Power:

- Individually selectable 24VAC or 28VAC power outputs with an OFF position.
- The unit provides up to 1A max. per channel not to exceed a total of 5A (150VA) maximum current.
- PTCs are rated @ 1A per channel.
- Surge suppression.

Visual Indicators:

- AC input power indicator.
- Eight (8) power LED indicators.

Features:

- Illuminated master power disconnect circuit breaker with manual reset.
- IEC 320 – 3-wire grounded line cord (detachable).
- The unit can be rack, wall or shelf mounted.
- 1U rack mount chassis for use in standard EIA 19" rack.

Accessories:

• Video Balun/Combiners:

| | |
|--------------|------------------------------|
| – HubWayAv: | for use with 24VAC camera |
| – HubWayAv2: | for use with 24VAC camera |
| – HubWayDv: | for use with 12VDC camera |
| – HubWayDvi: | for use with non-isolated 12 |

- Optional HubSat4D allows transmission of up to four (4) video signals over a single CAT-5 or higher structured cable.

Additional Models:

HubWay82DS

- HubWay8DS with eight (8) UL Listed Accessory HubWayAv Video Balun/Combiners for 24VAC Cameras.

HubWay83DS

- HubWay8DS with eight (8) UL Listed Accessory HubWayDv Video Balun/Combiners for 12VDC Cameras.

WARNING: To reduce the risk of fire or electric shock do not expose the unit to rain or moisture.

This installation should be made by qualified service personnel and should conform to all local codes.

Installation Instructions:

1. Set the input voltage selector switch located on the left side of the HubWay8DS unit for 115VAC or 230VAC operation (Fig. 1h, pg. 4).
2. Attach mounting brackets to the HubWay unit for rack or wall mount installation (Figs. 6-7, pg. 8). Affix rubber pads to HubWay for shelf installation (Fig. 8, pg. 8).
3. Secure the unit in a rack, mount the unit to a wall or place the unit on a shelf as desired (the unit should be spaced at least 3" from any video monitors).
4. Set the illuminated master power disconnect circuit breaker to the (OFF) position (Fig. 5, pg. 7).
5. Plug the grounded AC line cord (included) into the IEC 320 connector of the HubWay8DS unit (Fig. 1e, pg. 4). Insert the plug end of the line cord into a grounded AC receptacle.

6. Set voltage output selector switch of each camera channel for 24VAC or 28VAC (Fig. 1a, pg. 4).
7. Connect the BNC video outputs for HubWay8DS Channels 1-8 to the corresponding video inputs on the headend equipment (DVR) (Fig. 1d, pg. 4).
8. Connect the RS422/RS485 output of the head end equipment (DVR) to the data input terminal block of the HubWay8DS unit (polarity must be observed) (Fig. 1c, pg. 4).
9. Connect Video Balun/Combiner at camera 1 to the HubWay8DS unit utilizing CAT-5 or higher structured cable. Plug the RJ45 connector at one end of the structured cable into the RJ45 jack marked [Channel 1] of the HubWay8DS (Fig. 1g, pg. 4). Plug the RJ45 connector at the opposite end of the structured cable into the RJ45 jack of the Video Balun/Combiner located at camera 1.
 - For 24VAC cameras use the Altronix model HubWayAv/HubWayAv2 Video Balun/Combiner (Figs. 2a, 2b, 2e, pg. 5).
 - For 12VDC cameras use the Altronix model HubWayDv Video Balun/Combiner (Figs. 2c, 2d, pg. 5).
 - For non-isolated 12VDC cameras use Altronix model HubWayDvi Video Balun/Combiner (Figs. 2c, 2d, pg. 5).Repeat steps 6-9 for each additional camera (Channels 2-8).

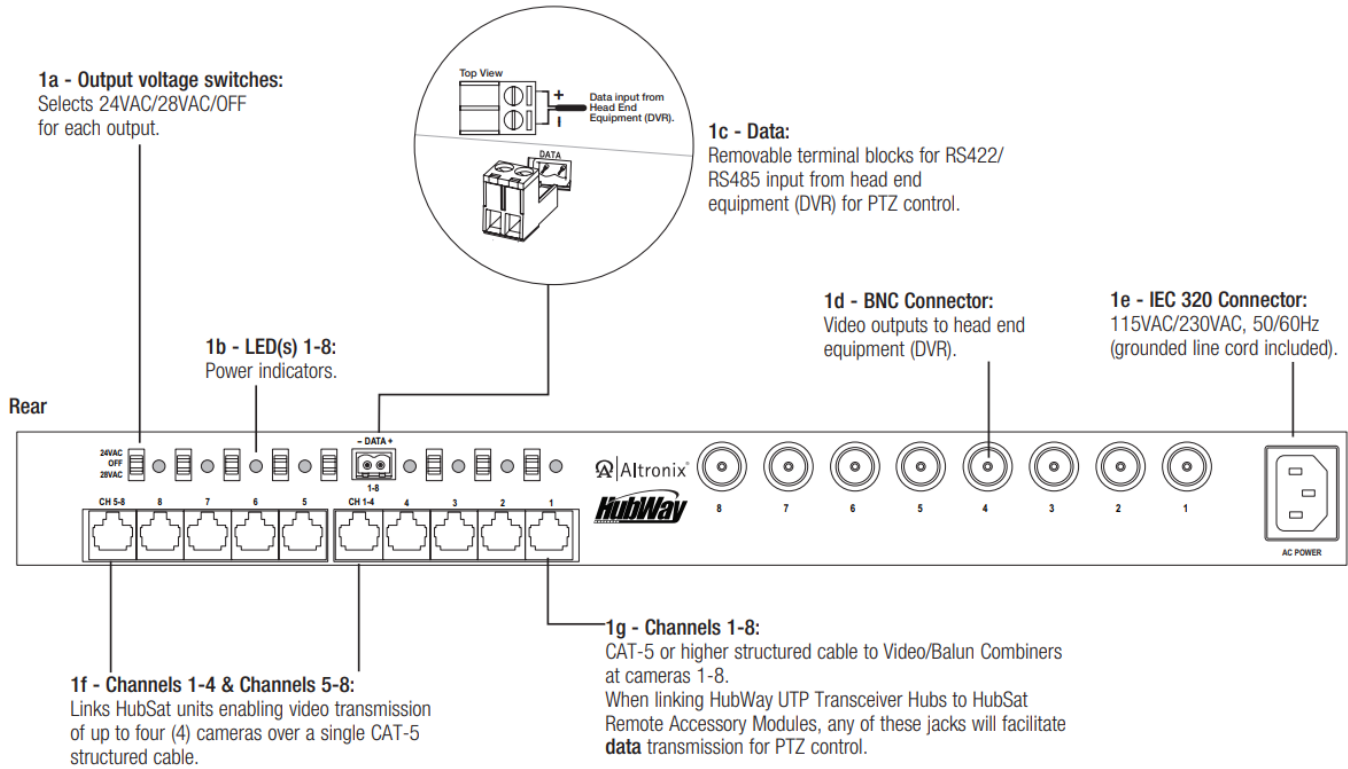
Note: When a particular camera exceeds the maximum distance for power transmission, a local external power source is required. Optionally, an Altronix HubSat Passive UTP Transceiver Hub with Integral Camera Power unit may be utilized (Fig. 4a, pg. 6). The combined total cable distance must not exceed 750 ft. for video transmission between the HubWay8DS and each camera routed through the HubSat4D unit.

10. Set the illuminated master power disconnect circuit breaker to the RESET (ON) position (Fig. 5, pg. 7) and measure the output voltage at the power output of each Video Balun/Combiner (Figs. 2b, 2d, pg. 5) before powering each camera to ensure proper operation and avoid possible damage.
 - HubWayAv/HubWayAv2 – Terminals marked [AC POWER] (Figs. 2a, 2b, 2e, pg. 5).
 - HubWayDv/HubWayDvi – Terminals marked [– 12VDC +] (Figs. 2c, 2d, pg. 5).
11. Set the illuminated master power disconnect circuit breaker to the (OFF) position to make the final connections (Fig. 5, pg. 7).
12. Connect the power outputs of the HubWayAv, HubWayAv2, HubWayDv, or HubWayDvi Video Balun/Combiners to the power inputs of the cameras (Figs. 2a-2e, pg. 5). Polarity must be observed.
13. Connect the terminals marked [+ DATA –] of the HubWayAv, HubWayAv2, HubWayDv or HubWayDvi Video Balun/Combiners to the data terminals of the cameras for PTZ control (Figs. 2a-2e, pg. 5). Polarity must be observed. When using fixed cameras disregard this step.
14. Connect the BNC connectors of the HubWayAv, HubWayDv, or HubWayDvi Video Balun/Combiners to the BNC video outputs of the cameras (Figs. 2a-2e, pg. 5).
15. Upon completion of wiring set illuminated master power disconnect circuit breaker to the RESET (ON) position (Fig. 5, pg. 7).
16. The power LEDs (Red) located on the front of the HubWay8DS will illuminate when AC power is present (Fig. 1c, pg. 4).

Note: If any of these LEDs are not illuminated either a voltage output selector switch is in the OFF position or the PTC is tripped for that channel. To reset the PTC: 1. Set the voltage output selector switch for that corresponding channel to the OFF position. The switch must remain in the OFF position for approximately 2 minutes in order for the PTC to reset. 2. Eliminate the trouble condition (short circuit or overload). 3. Set the voltage output selector switch for 24VAC or 28VAC (Fig. 1a, pg. 4).

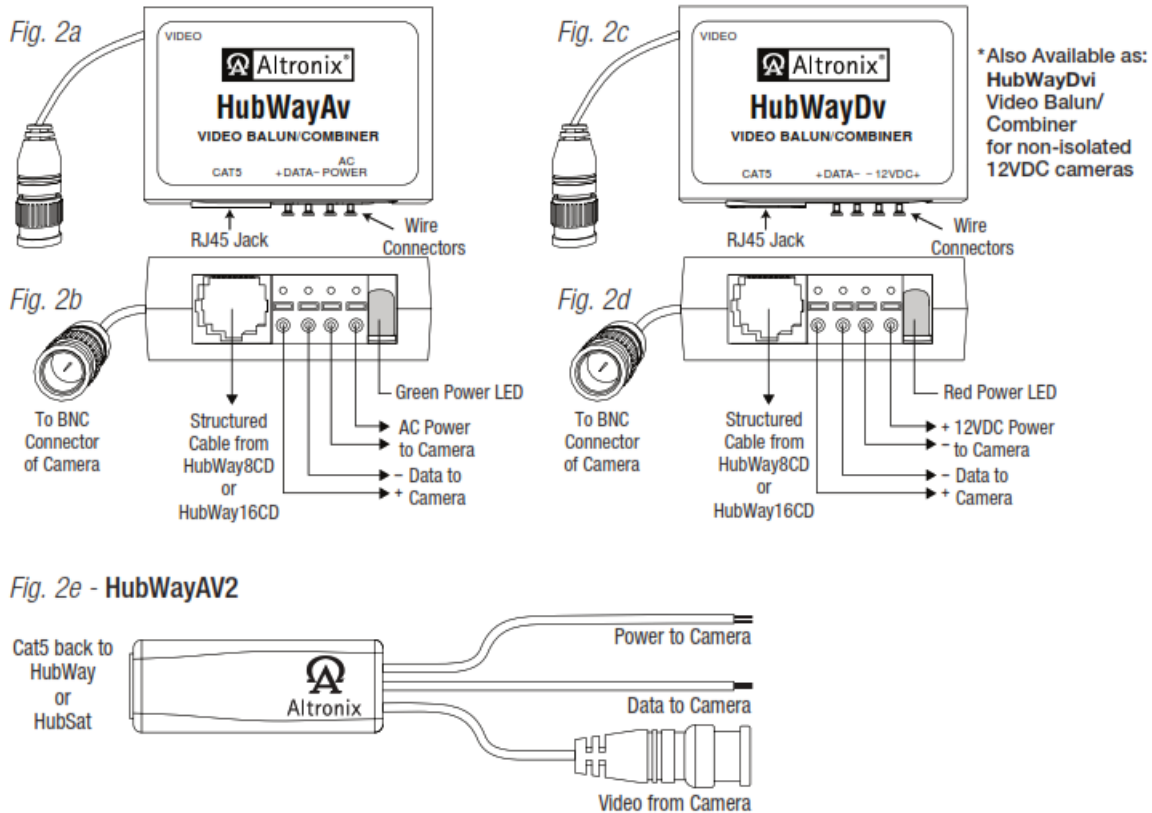
17. AC LEDs (Green) of the HubWayAv or DC LEDs (Red) of the HubWayDv/HubWayDvi Video Balun/Combiners will illuminate indicating power is present at the cameras (Fig. 2b, 2d, pg. 5).

Fig. 1



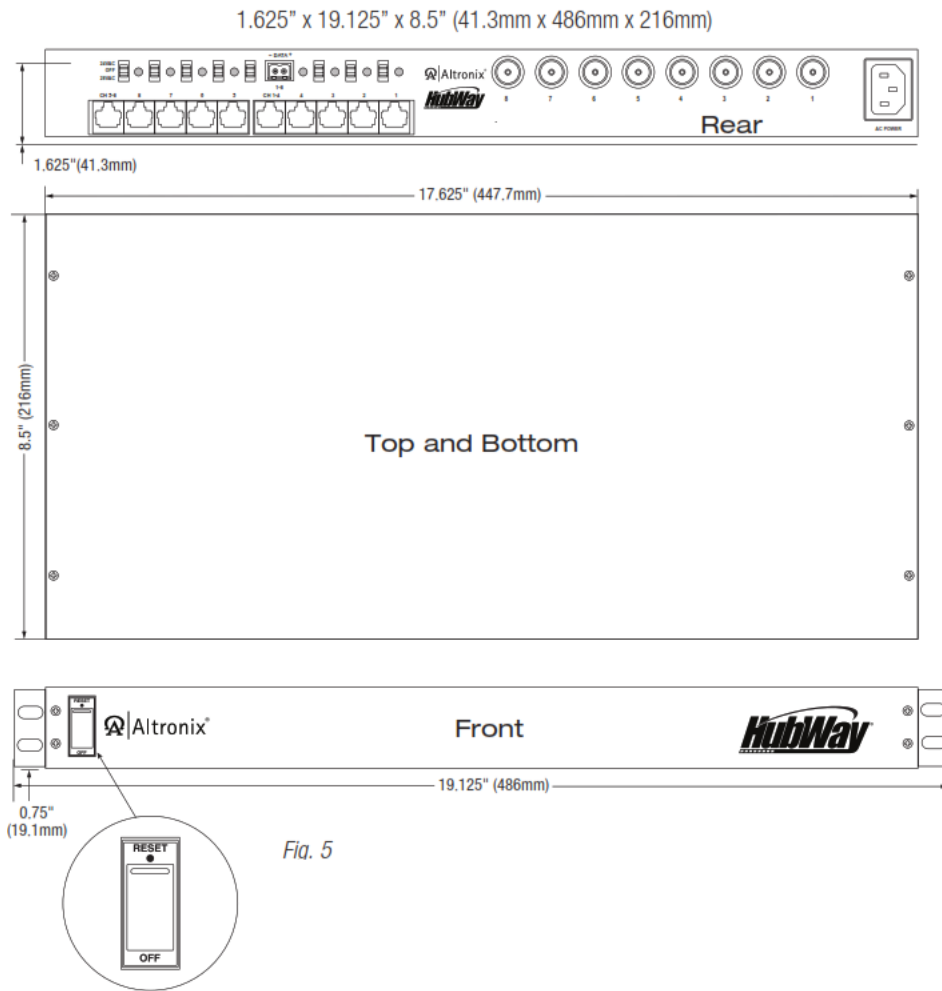
subway, HubWayAv2, HubWayDv, and HubWayDvi Video Balun/Combiners:

Fig. 2



subway/HubWayAv2 passes AC voltage from pins 4, 5, 7, 8 to terminals marked [AC Power] (Fig. 3, pg. 5). subway/HubWayDvi converts AC voltage to DC voltage from pins 4, 5, 7, 8 to terminals marked [- 12VDC +] (Fig. 3, pg. 5).

Fig. 3 – CAT-5 Structured Cable Wiring Color Codes and PIN Configurations



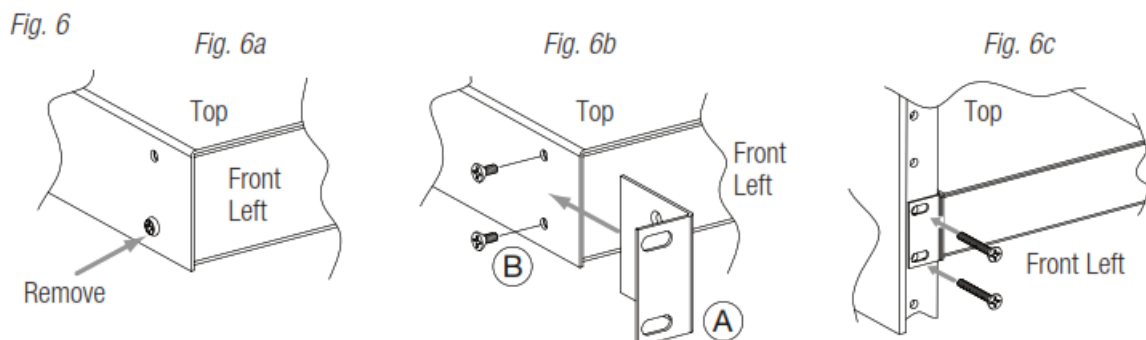
Illuminated master power disconnect circuit breaker:

- OFF position Circuit breaker tripped – Switch not illuminated.
- RESET (ON) position – Switch illuminated.

Mounting Options

Rack Mount Installation

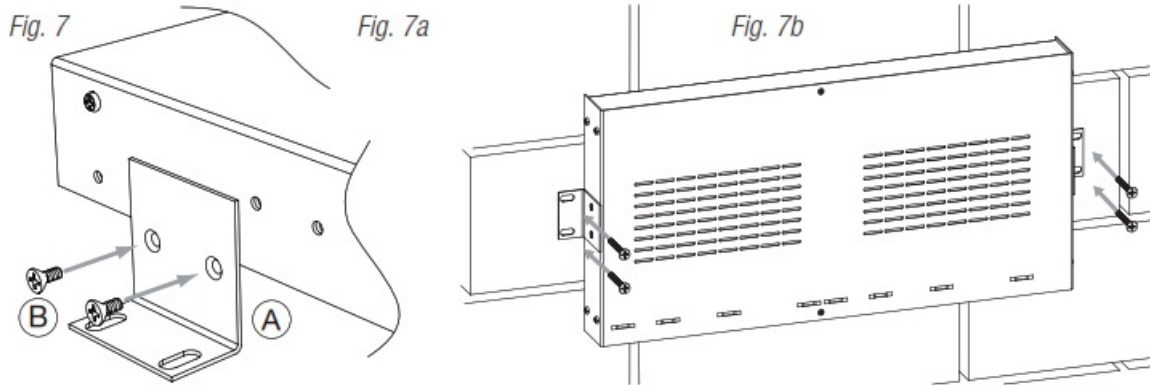
1. Remove factory-installed screws from both sides of the rack chassis (Fig. 6a).
2. Install mounting brackets (A) on the left and right side of the rack chassis using the two (2) flat head screws (B) (included) (Fig. 6b).
3. Place the unit into desired EIA 19" rack position and secure it with mounting screws (not included) (Fig. 6c).



Wall Mount Installation

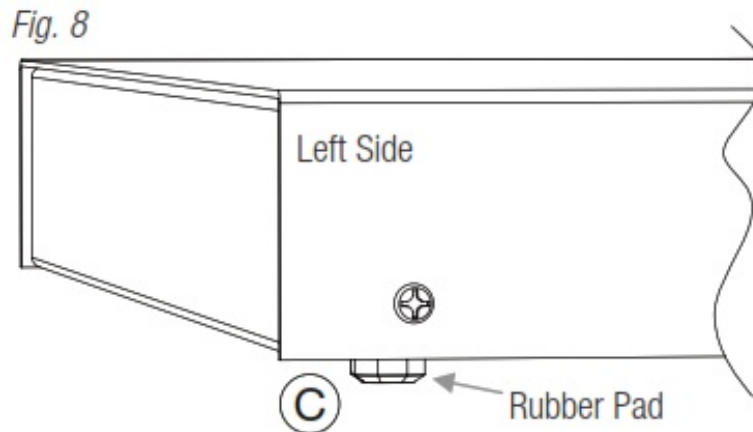
1. Install mounting brackets (A) on the left and right side of the rack chassis using two (2) flat head screws (B) (included) (Fig. 7a).
2. Place the unit at the desired location and secure it with mounting screws (not included) (Fig. 7b).

Caution: It is necessary to make sure mounting screws are securely fastened to a beam when installing.



Shelf Installation

1. Position and affix rubber pads (C) (included) at each corner on the bottom of the unit (Fig. 8).
2. Place the unit in the desired location.



Mounting Hardware (Included):



A Two (2) mounting brackets



B Six (6) flat head screws for mounting brackets.



C Four (4) rubber pads.






Altronix is not responsible for any typographical errors.

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Lifetime Warranty
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Documents / Resources

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| <div> Video • Data • Power</div> <div>HubWayDS Series Passive UTP Transceiver Hub with Integral Camera Power</div> <div>Models Include: HubWay8DS 8-Port 10/100/1000Mbps (10G) Transceiver Hub with Integral Camera Power HubWay82DS 8-Port 10/100/1000Mbps (10G) Transceiver Hub with Integral Camera Power</div> <div>HubWay8DS 8-Port 10/100/1000Mbps (10G) Transceiver Hub with Integral Camera Power HubWay82DS 8-Port 10/100/1000Mbps (10G) Transceiver Hub with Integral Camera Power</div> <div>Installation Guide    </div> | <p>Altronix HubWay8DS Passive UTP Transceiver Hub [pdf] Installation Guide</p> <p>HubWay8DS, Passive UTP Transceiver Hub, UTP Transceiver Hub, Transceiver Hub, Passive Hub, Hub</p> |
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References

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