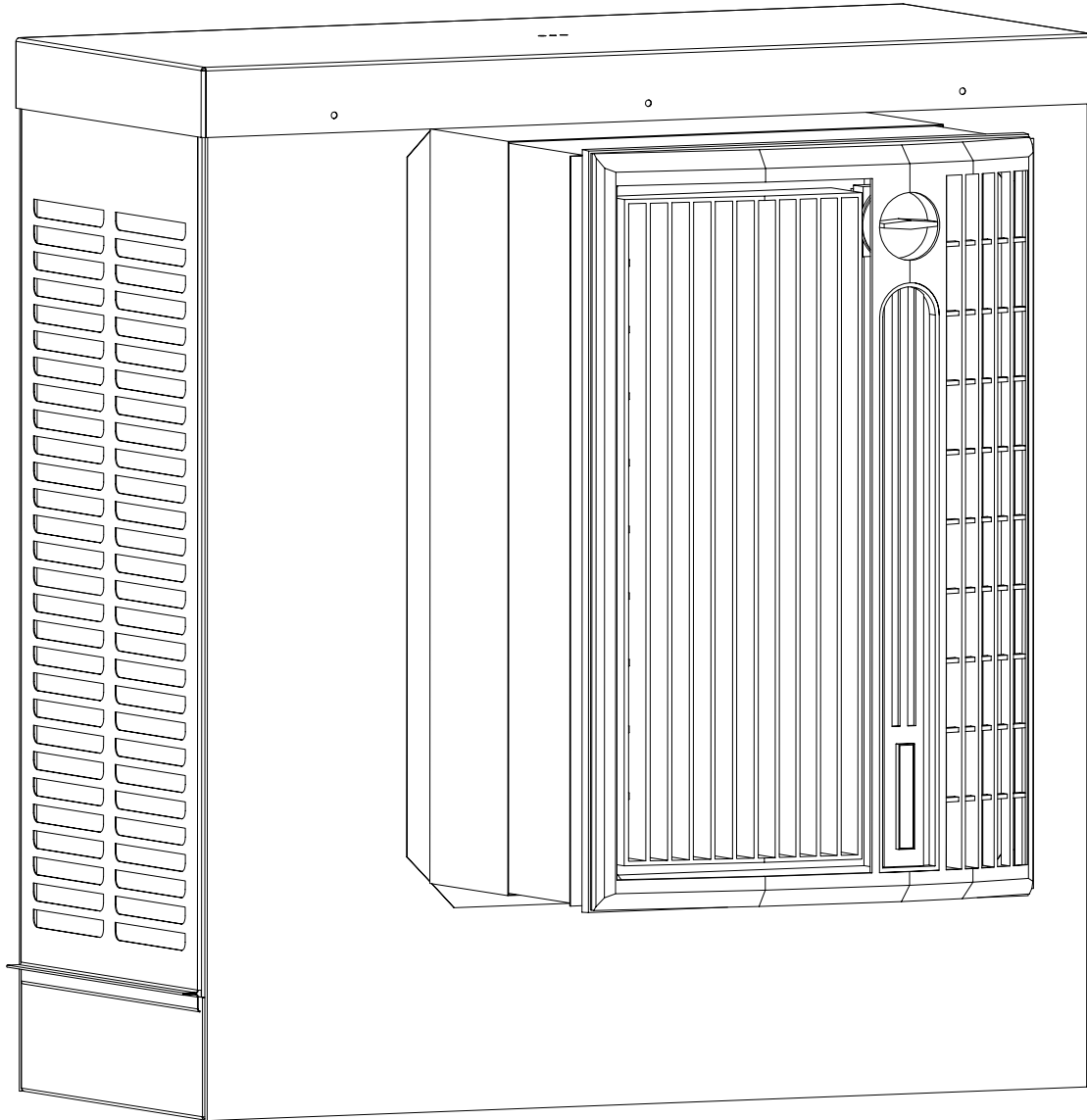




OWNER'S MANUAL

UltraCool Space Saver EVAPORATIVE AIR COOLER

MODEL: N30G



READ AND SAVE THIS INSTRUCTION MANUAL

Date purchased: _____
Purchased from: _____

P/N 71213
REV. 3/05

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Evaporative Cooling

Evaporative cooling uses the principle of evaporation to lower the air temperature. Hot, dry air is passed through wetted filters and is converted to refreshingly cooled air. Essick Coolers make the best use of the evaporative process by controlling the flow of water, spreading the water evenly over the filters, and keeping a steady stream of cooled air entering your home. It is exhausted out open windows or doors, carrying heat, smoke and odors along with it. Essick evaporative coolers are 80% less costly to operate than refrigerated air conditioners.

CAUTIONS: To prevent personal injury and/or damage to your cooler, PLEASE follow these guidelines.

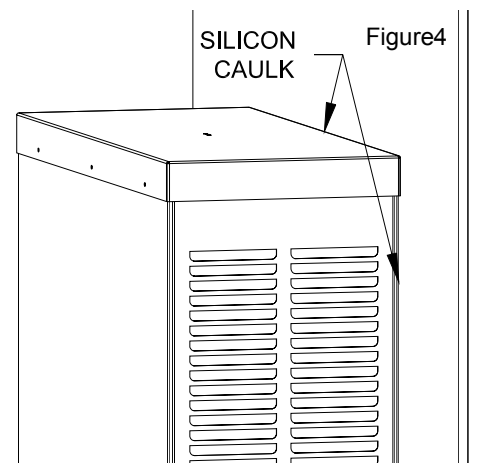
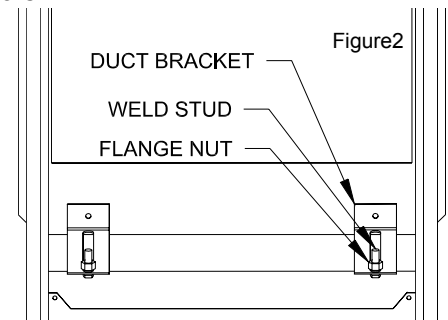
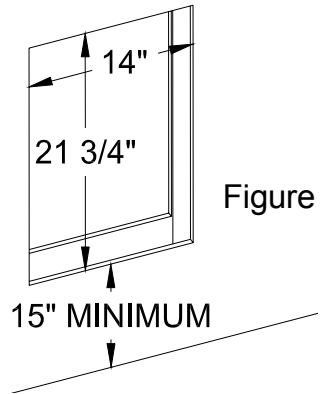
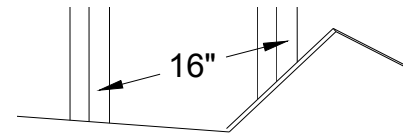
1. This cooler is designed for installation through a wall. If you do not have experience in housing construction, electrical wiring and plumbing, seek professional assistance.
2. Make sure that unit is installed on a sound structure that will support the full operating weight of the cooler.
3. **DO NOT** connect power to cooler before installation is complete.
4. **To reduce the risk of fire or electrical shock, DO NOT use this fan with any Solid-state speed control device.**
5. Always unplug the cooler before attempting service of any kind.

THINGS TO CONSIDER BEFORE ATTEMPTING INSTALLATION

1. This installation requires at least two people to accomplish safely.
2. These instructions are for walls with studs placed 16" on center. For studs with centers larger than 16", additional framing may be needed.
3. Ensure that your space has adequate exhaust. In order for this cooler to cool properly, you will need at least 4 square feet of exhaust space i.e. windows or doors that may be opened during cooler operation.
4. The duct of this cooler will collapse to fit the thickness of your wall. It will only collapse to a depth of 5 1/2" and only extend to a depth of 9 1/2". If your wall is narrower than this, you will need to trim around the inside opening. If your wall is thicker than this, you will need to fabricate a duct to bridge the gap. Sheet metal is recommended. Check local codes for other approved materials.

INSTALLATION

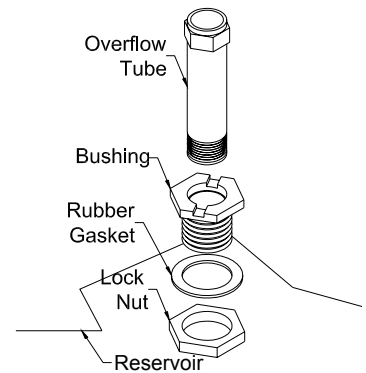
1. Locate the area where you wish to install the cooler. Ensure that there is no electrical wiring or plumbing running through the wall where the cooler will be installed. Ensure that the area on the inside and the outside of the wall is suitable for the cooler.
2. This cooler is designed so the duct will fit between two wall studs. On the outside of the wall where the cooler is to be mounted, locate the two studs between which you wish to mount your cooler. Mark an opening approximately 14" wide by 21 3/4" tall between the two wall studs. Ensure the area inside the garage is suitable for the cooler. Also, mark your opening high enough that the bottom of the cooler is at least 8" off the ground for water inlet and drain. (Figure 1)
3. Cut the opening. If the inside of the mounting wall is finished, the mounting hole will need to be cut through the inside of the wall also.
4. Remove the front of the duct. (Figure 2)
 - a. Remove the grill (one phillips head screws in each corner).
 - b. Remove the switch bracket (two phillips head screws).
 - c. Remove the flange nut from each of the four weld studs (back side of front duct section).
 - d. Extend the duct fully, lift up on the four duct brackets and remove the front duct section.
5. Place the cooler flush against the wall with the duct back section in the hole. **CAUTION: Until the duct front section is reinstalled, the cooler is not secured to the wall.**
6. Reinstall the duct front section. **To avoid cooler damage, ensure the cooler is held securely in the wall opening.** Lift the duct brackets over the weld studs and replace the flange nuts.
7. Collapse the duct until the duct front section is flush to the wall and tighten the flange nuts. **NOTE: the duct only collapses to 5 1/2" deep. If your wall is narrower than this, you will need to trim around the inside opening to fill the gap.** (Figure 3)
8. Replace the switch bracket and grill.
9. To seal the cooler to the wall, run a bead of silicon caulk around the edges of the cabinet. (Figure 4)



INSTALL OVERFLOW AND DRAIN

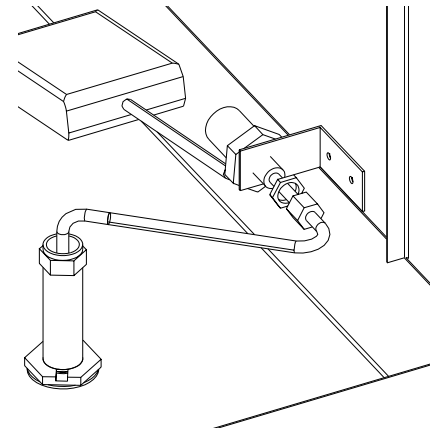
NOTE: There are two overflow assemblies supplied with this unit. Install one in each of the openings in the bottom pan. One overflow assembly is to route water tubing to the float.

1. Slide the Rubber Washer over the Drain Bushing and push through the hole in the bottom of the cooler from the topside.
2. Secure the Drain Bushing from beneath the pan with the Lock Nut. Make sure the Rubber Washer does not twist while tightening, which could cause it to leak. **DO NOT OVERTIGHTEN.**
3. Thread the Overflow Tube into the Drain Bushing and **HAND TIGHTEN.**
4. If leakage occurs after Reservoir is full, retighten the Overflow Pipe until leaking stops. A small amount of silicone caulk may be used if necessary.



FLOAT VALVE INSTALLATION

1. Place the threaded portion of the Float Valve through the hole provided in the Float Bracket (inside unit) as shown.
2. Slip the Fiber Washer over the threaded portion of the float and secure with the Ring Nut. Be sure the Float does not turn while you are tightening the nut.



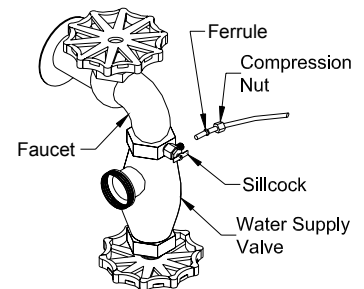
WATER LINE CONNECTION

1. Find the closest outside water faucet, and install a Water Connection Kit (not included with cooler) as shown. If an exterior faucet is not available, locate the closest cold water pipe and install a saddle valve assembly.
2. Route tubing into cooler through one of the overflow assemblies as shown. Place Compression Nut and Ferrule over end of tubing. Insert the tubing into float valve and tighten Compression Nut to secure.

NOTE: Over tightening a compression fitting will cause that fitting to leak. It is best to secure the connections, turn on the water, and then snug the fitting until leaking stops.

ADJUSTING WATER LEVEL AND FLOAT VALVE

1. To adjust water level, bend the float valve rod.
2. Check all water connections for leaks.
3. Make sure the Float Valve cuts off completely when the desired water level has been reached ($\frac{1}{2}$ " to $\frac{3}{4}$ " below top of Overflow Tube). If the float does not stop the water completely, the water level will rise and run out the Overflow Tube.
4. Double-check the Overflow Tube for leaks.



START UP

1. Plug in the electrical cord to a standard grounded receptacle.
 2. Turn the cooler to the Pump Only position. The pump should run and not the fan. Check to see that the pads are wetting evenly. The Pads may take up to 20 minutes to wet fully.
 3. Turn the cooler to the High Cool position. The pump should remain running and the fan should run on high speed.
 4. Turn the cooler to the Low Cool position. The pump should remain running and the fan should run on low speed.
 5. Turn the cooler to the High Vent position. The fan should deliver the same airflow as in High Cool.
 6. Turn the cooler to the Low Vent position. The fan should deliver the same airflow as in Low Cool.
- Note: on cool nights (or days) or when the humidity level is high, the fan positions may be used for ventilation purposes.

MAINTENANCE

1. Once a month during cooling season, inspect your cooler for leaks, blocked water lines and excessive residue build-up on the pads.
2. At the end of the season, drain the reservoir. Remove the drainpipe and let water and dirt pass through the drain fitting.
3. Lime build-up can occur in the water reservoir and on louvers. Clean this off at least once per season. If any rust or bare metal spots occur on the cabinet or louver, the metal should be sanded, primed and painted with good quality paint.
4. If freezing weather occurs in your area, it is best to shut off the water supply at the source and drain the supply line to the cooler.

DO NOT GET WATER ON MOTOR OR PUMP MOTOR

NOTE: Depending on the mineral content of the water or the amount of air borne dust in your area, pad life may vary. When it comes time to replace your pads, it is best to replace filter pads at the end of the season. Old filter pads soak up lime and salts, which can rust the louvers and the cabinet during the winter months.

PAD MAINTENANCE

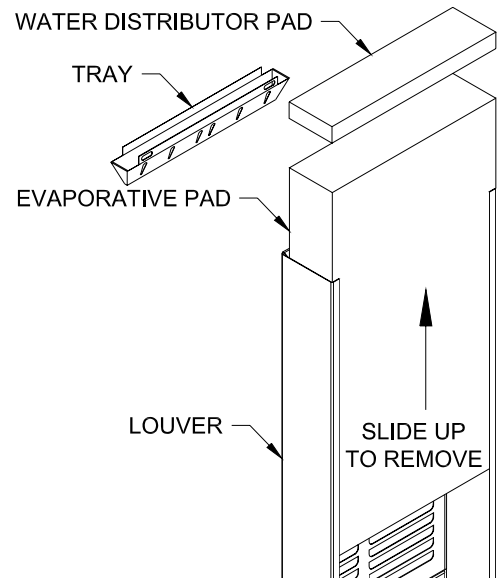
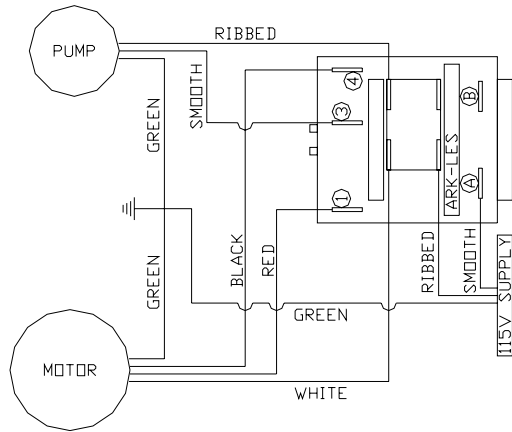
It is recommended that the pads be changed after the third season or after 9 to 12 months of total operation. However, the pads need to be cleaned regularly.

1. Remove louvers from cooler.
2. Rinse the pads with a gentle stream of water.
3. Clean any mineral deposits from the trays.
4. If excessive mineral deposits are collecting on the pads, remove pads from louvers and soak in a solution of 4 parts water to one part vinegar. Rinse pads thoroughly before replacing in the louvers.

TO REPLACE PADS

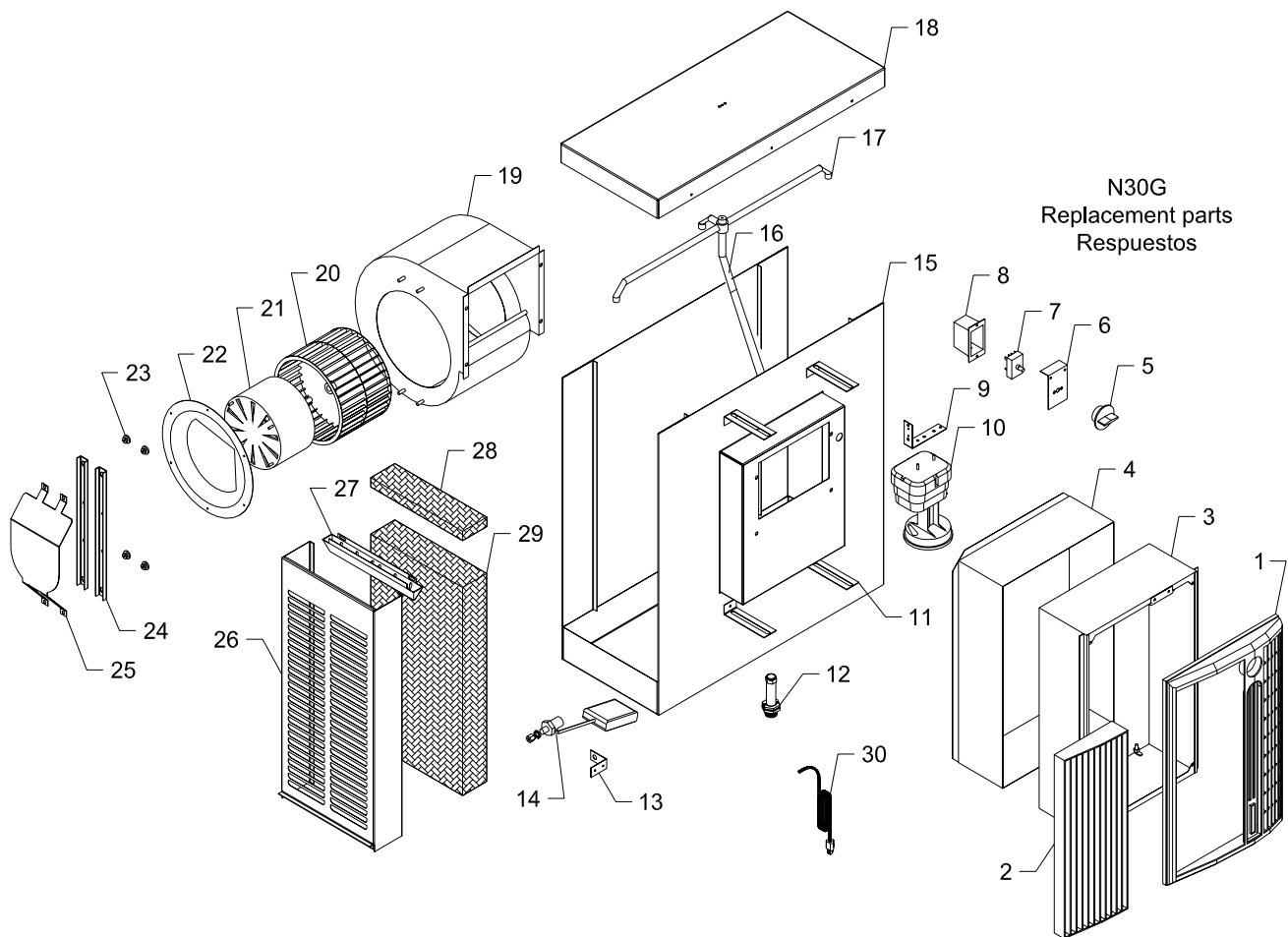
1. Remove louvers from cooler.
2. Remove tray from louver (2 phillips head screws).
3. Remove old pads (slide up and out of louver) and discard.
4. Slide new pads into place.
5. Replace tray.

WIRING DIAGRAM



TROUBLE SHOOTING

Problem	Cause	Remedy
Motor cycles on and off	<ul style="list-style-type: none"> • Extension cord (if one used) too long • Circuit breaker not large enough 	<ul style="list-style-type: none"> • Choose a shorter or heavier gauge cord • Consult a licensed electrician
Fails to start	<ul style="list-style-type: none"> • No electrical power • Circuit breaker tripped or fuse blown 	<ul style="list-style-type: none"> • Check all electrical connections and cords • Reset circuit breaker or replace fuse
Water draining from overflow	<ul style="list-style-type: none"> • Float improperly adjusted 	<ul style="list-style-type: none"> • Adjust float
Blower vibrates excessively or rattles	<ul style="list-style-type: none"> • Blower wheel out of balance or out of alignment • Debris in blower housing 	<ul style="list-style-type: none"> • Replace the blower wheel • Clear debris
Not cooling	<ul style="list-style-type: none"> • Blocked water lines • Windows opened too little or too much • Pump clogged or failed • Pads plugged with dirt and water deposits 	<ul style="list-style-type: none"> • Check incoming water line, float and water distributor for blockages and clear. • Adjust window openings • Clean pump or replace • Replace pads



Item	Description	Qty	Part No.	Item	Description	Qty	Part No.
1	Grille Frame	1	70658	17	Water Distributor	1	71212
2	Sub-Vent Assembly	1	70741	18	Top	1	71204
3	Duct Front	1	71219	19	Blower Housing	1	70367
4	Duct Back	1	71207	20	Blower Wheel	1	70424
5	Knob	1	70664	21	Motor	1	70423
6	Switch Bracket	1	70798	22	Inlet Ring	1	70425
7	Switch	1	524299	23	Motor Mount Bushing	4	589040
8	Electrical box	1	524342	24	Motor Mount	2	70431
9	Pump Bracket	1	504281	25	Louver	1	71205
10	Pump	1	70569	26	Water Tray	2	71211
11	Duct Bracket	4	71206	27	Water Distributor Pad	2	71199
12	Water Overflow Kit	2	506667	28	Evaporative Pad	2	71198
13	Float Bracket	1	70373	29	Baffle	1	71223
14	Float Valve	1	502389	30	Cord	1	70414
15	Cabinet	1	71209		Louver Assembly *	2	71210
16	Water Tube	1	70276		Blower Assembly *	1	70366

* Louver Assembly includes items 25, 26, 27 and 28.

* Blower Assembly includes items 19, 20, 21, 22, 23 and 24.

LIMITED WARRANTY

This warranty is extended to the original purchaser only. It does not cover damages incurred during shipping or through accident, neglect, or abuse by the owner. Essick Air Products does not authorize any person or representative to assume any other or different liability in connection with this cooler.

TERMS AND CONDITIONS OF WARRANTY

The **CABINET** is guaranteed against leakage due to rusting out for **EIGHT YEARS**. The **EVAPORATIVE MEDIA** is guaranteed for **TWO YEARS**. The **PUMP** is warranted for **TWO YEARS**. **All** other original parts provided by Essick Air Products are warranted against defects in material or factory workmanship for One Year.

EXCLUSIONS FROM THE WARRANTY

Essick Air Products is not responsible for incidental or consequential damage resulting from any malfunction.

Essick Air Products is not responsible for any damage occurring from the use of water softeners, chemicals, descale material, or if a higher horsepower motor than what Essick Air Products recommends is used in the unit.

Essick Air Products is not responsible for the cost of service calls to diagnose cause of trouble, or labor charge to repair and/or replace parts.

HOW TO OBTAIN SERVICE UNDER THIS WARRANTY

Contact the Dealer where you purchased the evaporative cooler. If for any reason you are not satisfied with the response for the Dealer, contact Customer Service Department: Essick Air Products Inc. 5800 Murray Street, Little Rock, Arkansas 72209. 1-800-643-8341.

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