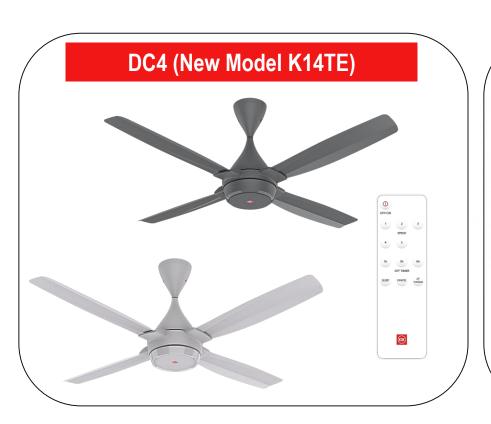


# FY2023 KDK Ceiling Fan New Model & Installation Seminar





## **Table Of Content**

- 1. New Model Introduction.
- 2. Ceiling Fan Good Installation Practice.
- Before Installation
- During Installation
- Video Installation
- 3. Ceiling Fan Check Point (After Installation)



# DC 4 Series



# **KDK DC Ceiling Fan**

# 56 inch DC Motor

# Concept

## **DC Motor**

- ◆ Less energy up to 55% compare to AC motor
  - Quiet operation
- More compact and lighter motor

## Safe to Use

3

4

- Prevent body falling: Safety Wire, Cut-off Safety Switch
  - ◆ Prevent blade falling: Blade Safety Plate

## **Elegant Design and Extendable**

- Clean and spatial fit design
  - Extendable pipe to suit all ceiling height for commercial and residential

## **Easy Maintenance**

 New structure do not require ceiling fan to be uninstalled for PCB service

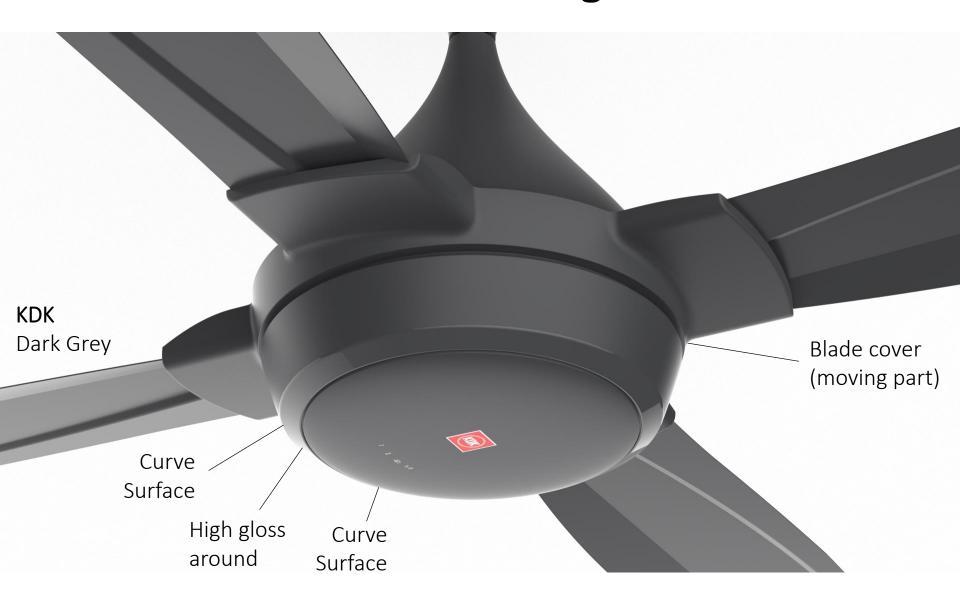
| New Model Name     |                     |      | K14TE                       |  |  |  |
|--------------------|---------------------|------|-----------------------------|--|--|--|
| Fan                | Blade               |      | 140cm, 4 blade, Metal       |  |  |  |
|                    | Color               |      | Dark Grey, White            |  |  |  |
|                    | LED Light Indicator |      | Timer (Red), Yuragi (Green) |  |  |  |
|                    | Structure           |      | Hook, Pipe Type             |  |  |  |
|                    | Height              |      | 294mm                       |  |  |  |
|                    | Motor               |      | DC Motor                    |  |  |  |
|                    | Davier Canavirontia | Low  | 3W                          |  |  |  |
|                    | Power Consumption   | High | 29W                         |  |  |  |
|                    | Speed Power (RPM)   | Low  | 80                          |  |  |  |
|                    |                     | High | 200                         |  |  |  |
|                    | Air Velocity        |      | 165 m/min                   |  |  |  |
| Performance / Spec | Air Delivery        |      | 220 m³/min                  |  |  |  |
|                    | Method              |      | Remote Control              |  |  |  |
|                    | OFF Timer           |      | 1,3,6 Off Timer             |  |  |  |
|                    | Sleep Mode          |      | Yes                         |  |  |  |
|                    | 1/f Yuragi          |      | Yes                         |  |  |  |
|                    | No. of Speed        |      | 5                           |  |  |  |
|                    | MEPS Rating         |      | 5 Star                      |  |  |  |
| Net Weight         |                     |      | 5.1 kg                      |  |  |  |

# **Design Concept**

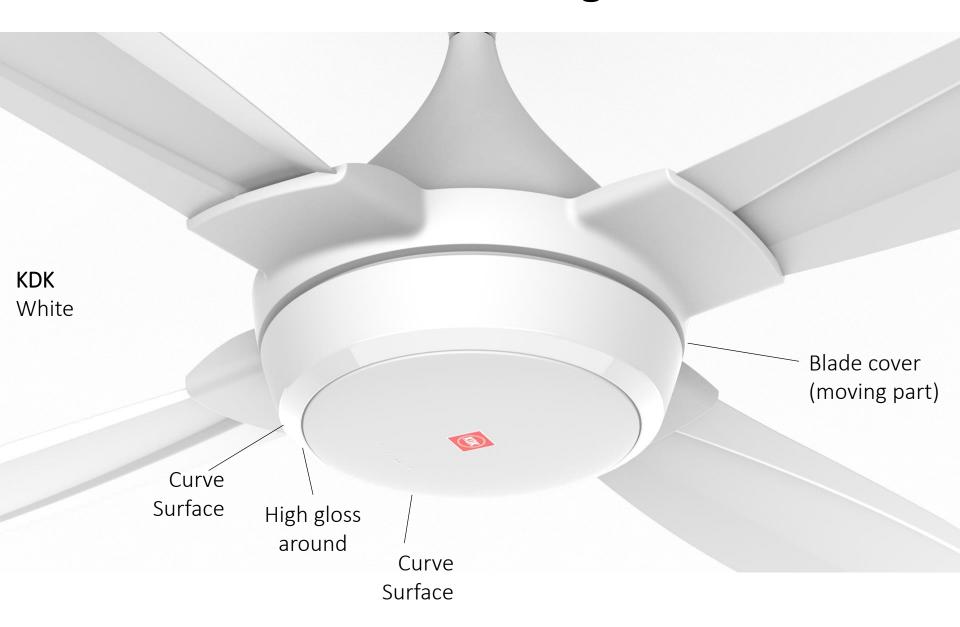


Clean & timeless giving modern touch to the product Feel performance, technic, durability & edgy design

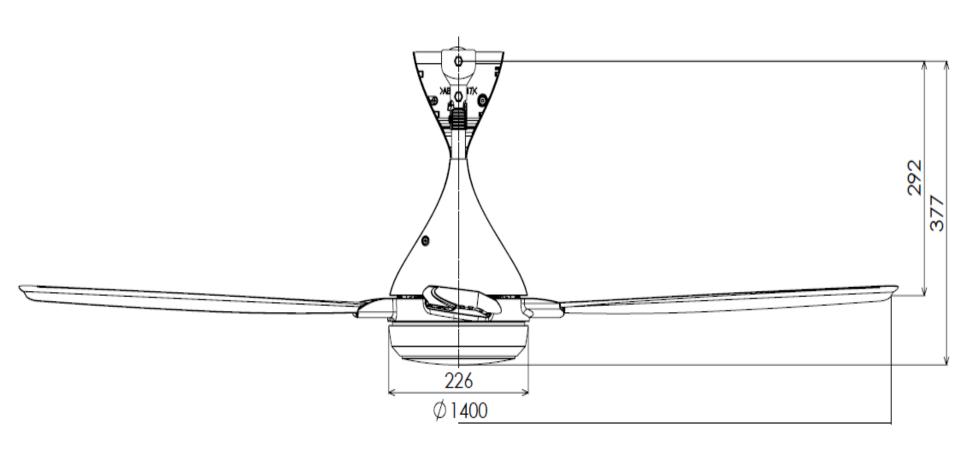
# **Product Image**



# **Product Image**



# **Installation Space**

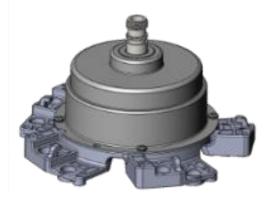


## **Product Features**

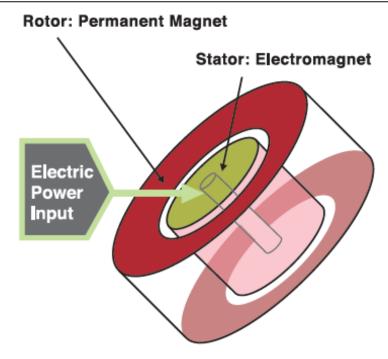
- Strong and smooth air breeze in silent operation.
- **DC Motor** Direct Current motor for energy saving.
- **Remote control** Function with 1-5 speed control. 1,3,6 hours off timer and 3-6 hours sleep mode
- Safety Features Enhanced with Cut-off safety Device,
   Blade Safety Hanger and Safety Wire.
- **LED Light Indicators** 4 LED light indicators for Off Timer and 1/f Yuragi functions
- Natural Breeze 1/f Yuragi is irregularity and a phenomenon that widely exists in nature. It has a natural rhythm that makes a person feel relax just like a nature breeze

# **DC Motor**

DC (Direct Current) motor, the AC (Alternative Current) power source is converted to DC, which energizes the stator coils electronically. The motor's rotor will then be rotated by the mechanism of magnets attraction and repulsion where this process requires less electrical energy.





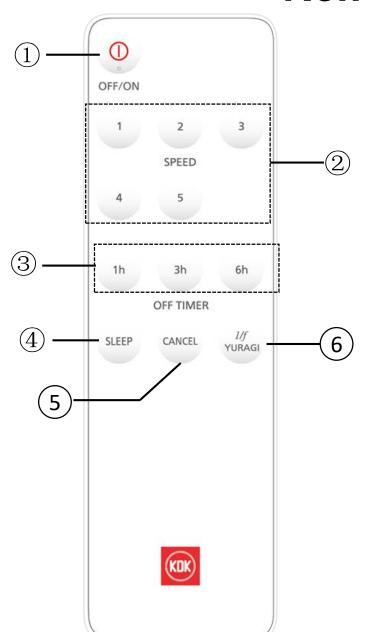


Electric power supply to magnetise **STATOR** only

## <u>Advantages</u>

- ✓ Use less energy up to 55% compare to AC motor
- ✓ Motor quite operation
- ✓ More compact design & lighter motor

## **Remote Control**



## ① On/Off Button

Press On/Off Button to activate or deactivate the ceiling fan

## 2 Speed Button

To select speed selection from Speed 1 to Speed 5

- **③ Off Timer Button**
- 1-6 hours Off Timer Setting
- **4** Sleep Mode Button

To stop Ceiling Fan according to time setting

**(5) Timer Cancel Button** 

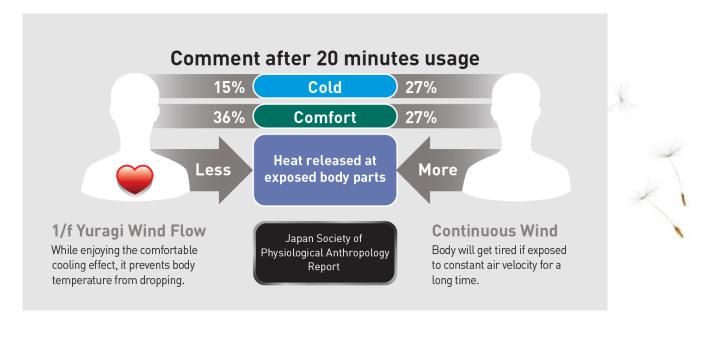
Press to cancel SLEEP Mode or OFF Timer

**®Yuragi Button** 

One touch button for natural breeze

# 1/f Yuragi Function

1/f Yuragi function is a fluctuating pattern that mimic natural and gentle breeze. It adds smooth accent to air capacity and deliver comfortable wind more naturally.



## **Advantages**

- ✓ Maintains comfortable external body temperature
- ✓ Natural wind gives user peaceful and comfortable feeling

## **SLEEP Mode**

When SLEEP Mode is enabled, fan speed and timer will gradually reduce until the fan is turned off.

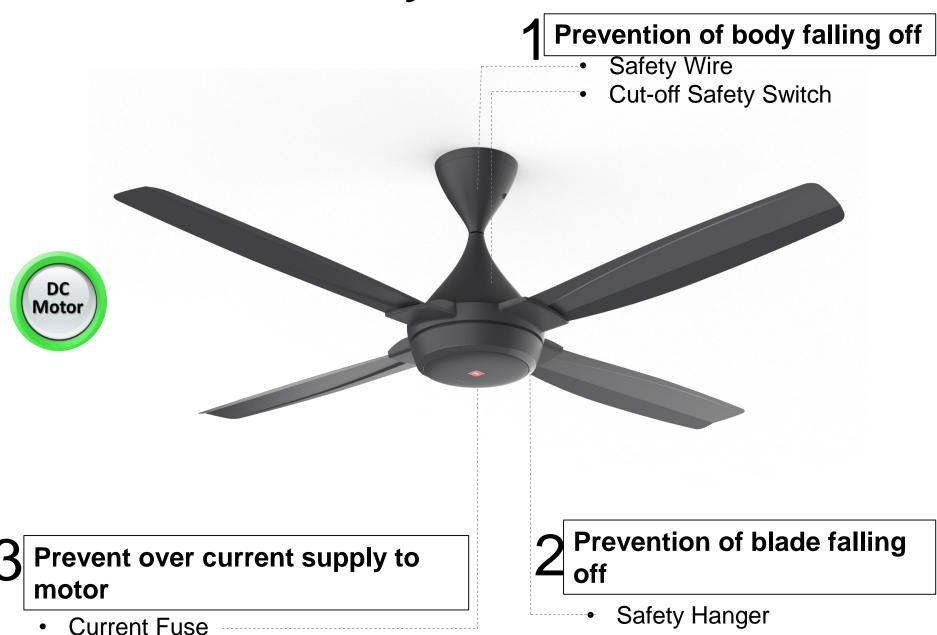
| Timer / Pemasa / 计时器              | 6h | 5h            | 4h | 3h            | 2h            | 1h            | 0h            |
|-----------------------------------|----|---------------|----|---------------|---------------|---------------|---------------|
| Speed 5 /<br>Kelajuan 5 /<br>速度 5 | 5  | $\rightarrow$ | 3  | $\rightarrow$ | 1             | $\rightarrow$ |               |
|                                   |    |               |    | 5             | $\rightarrow$ | 3             |               |
| Speed 4 /<br>Kelajuan 4 /<br>速度 4 | 4  | $\rightarrow$ | 2  | $\rightarrow$ | 1             | $\rightarrow$ |               |
|                                   |    |               |    | 4             | $\rightarrow$ | 2             | OFF /         |
| Speed 3 /<br>Kelajuan 3 /<br>速度 3 | 3  | $\rightarrow$ | 1  | $\rightarrow$ | <b>→</b>      | $\rightarrow$ | TUTUP /<br>关闭 |
|                                   |    |               |    | 3             | $\rightarrow$ | 1             |               |
| Speed 2 /<br>Kelajuan 2 /<br>速度 2 | 2  | $\rightarrow$ | 1  | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ |               |
|                                   |    |               |    | 2             | $\rightarrow$ | 1             |               |

- ➤ SLEEP MODE can only use with OFF TIMER enabled.
- ➤ SLEEP MODE function is disabled either at Speed 1 or 1-hour setting.
- ➤ SLEEP MODE function is deactivated, if TIMER SETTING is changed.

## **Advantages**

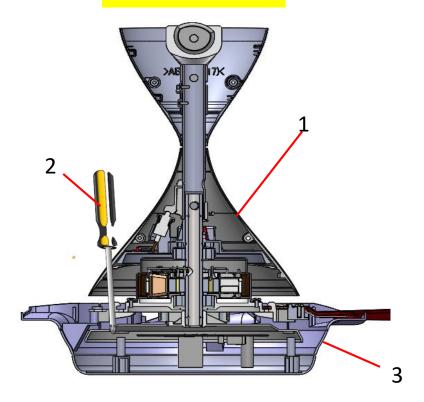
- ✓ Create optimal sleeping environment
- ✓ Energy Saving

# **Safety Features**



# **Easy PCB Service Replacement**

# **DC4 Models**



- 1. Dismantle Lower Canopy
- 2. Unscrew Deco Cover from Top
- 3. Take out PCB

# **Safety Features**

- ! Safety Wire must be fixed correctly and connected at all times.
- Do not use modified parts other than original supplied parts.
  - Do not install at a location directly hit by wind.

## **Cut-off Safety Switch**

## **Problem**

If there is any damage at either the shaft or bolt due to improper installation, abnormal wobbling from the fan will occur when it operates. The damage will cause the shaft or the bolt to break if the fan continues to operate.

#### **Preventive Measures**

When there is excessive wobbling, the cut-off safety switch will be triggered and power supply will be cut off. The cut-off safety switch works by detaching the lever from the switch and the fan will stop.

## **Safety Hanger**

## **Problem**

The fan blade may detach from the fan motor should there be improper installation coupled with the fan blade wearing off, deformed blade shape or stronger wind blowing to the fan.

#### **Preventive Measures**

The faulty blade will be visibly hanging with the aid of safety plate/hook when the fan is operating.

## **Safety Wire**

## **Problem**

Due to improper installation or should malfunction occur, the fan motor may detach from the pipe rod due to factors such as wearing off shaft or bolt etc.

## **Preventive Measures**

Safety wire helps to secure fan motor to the ceiling hook to prevent it from falling when the fan motor detaches from the pipe rod.



# Baby Fan Series (Hook Type)



# **Product Concept**



# Concept

1 Easy Installation



♦ Hook Structure

Easy to use

◆ Remote Control with Speed Selection & Timer Function



**Stylish & Compact Design** 

Suitable for Small bedroom and Study room

Safe to Use

- Comply to Safety Policy
  - Thermal Safety Switch
  - Cut-off Safety Switch
  - Safety Wire
  - Blade Safety Plate for drop prevention

S

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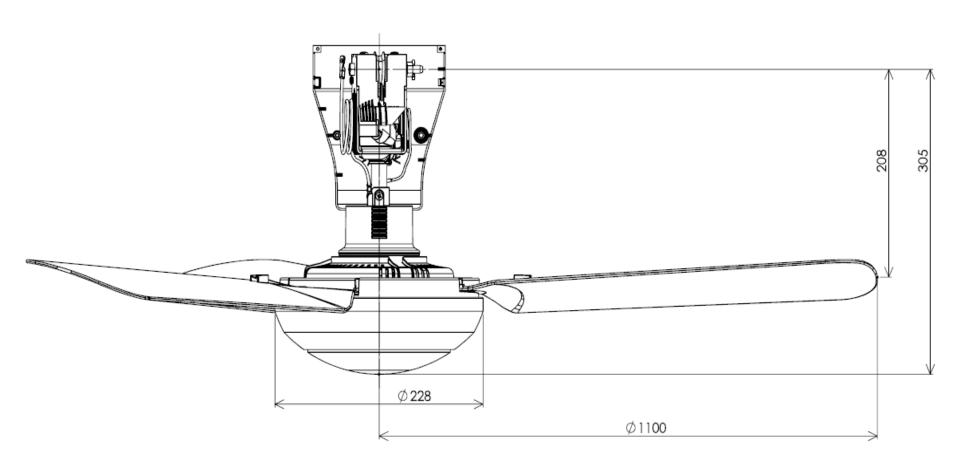
4

|                    |                      |        | K11ZF               |  |
|--------------------|----------------------|--------|---------------------|--|
| Fan                | Blade                |        | 110cm, 3 blade, PPG |  |
|                    | Color                |        | White, Grey         |  |
|                    | Structure            |        | Hook                |  |
|                    | Height               |        | 208mm               |  |
|                    | Motor                |        | AC Motor            |  |
|                    | Davies Canaumantian  | Low    | 20W                 |  |
|                    | Power Consumption    | High   | 58W                 |  |
|                    | Conned Davies (DDMA) | Low    | 133                 |  |
|                    | Speed Power (RPM)    | High   | 239                 |  |
|                    | Air Velocity         |        | 200 m/min           |  |
| Performance / Spec | Air Delivery         |        | 170 m³/min          |  |
|                    | Noise Level          |        | 49.5 dB             |  |
|                    | Method               |        | Remote Control      |  |
|                    | OFF Timer            |        | 1,3,6 Off Timer     |  |
|                    | Sleep Mode           |        | Yes                 |  |
|                    | No. of Speed         |        | 3                   |  |
|                    | MEPS Rating          |        | 5 star              |  |
|                    | Motor HP             |        | 0.077               |  |
| Net Weight         |                      | 5.2 kg |                     |  |

# **Product Image**



# **Installation Space**

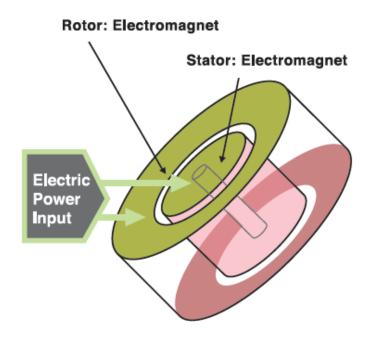


# **AC Motor**

AC (Alternative Current) motor connects directly to a power source where it creates the moment of force required to rotate the motor's rotor.



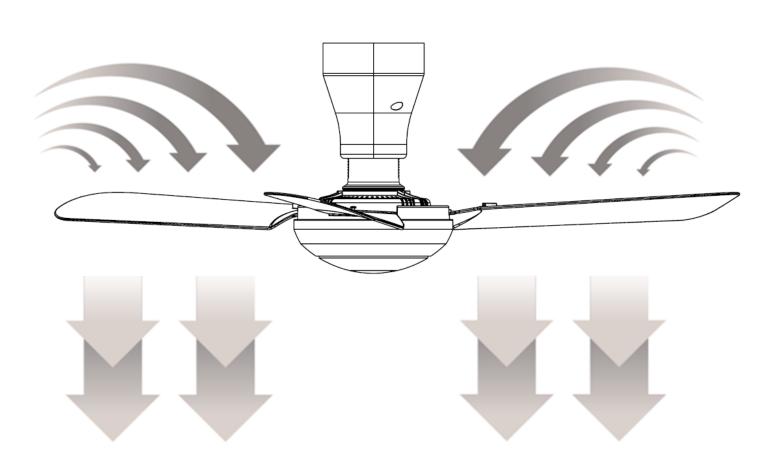




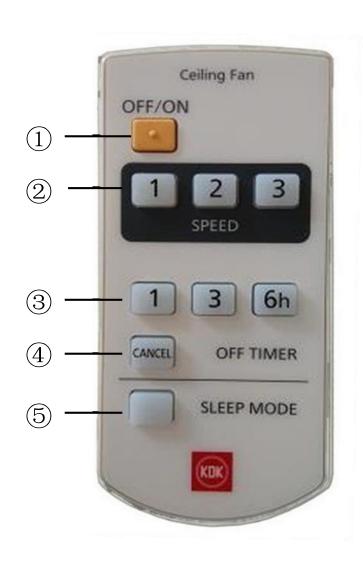
Electric power supply to magnetise both STATOR & ROTOR

# **PPG Plastic Blade**

PPG Plastic Blade made from durable PP reinforced with Fiberglass material. Provides a smooth and strong air flow while maintaining operating noise in low level.



# **Remote Control**



- ① On/Off ButtonTo switch ON or OFF Ceiling Fan
- ② Speed Button
  To select Speed 1,2,3
- ③ **OFF Timer**To select OFF Timer 1,3,6 Hour
- 4 Timer Cancel Press to cancel SLEEP Mode or OFF Timer
- Sleep Mode
  To stop Ceiling Fan according to time setting

# **SLEEP Mode**

When SLEEP Mode is enabled, fan speed and timer will gradually reduce until the fan is turned off.

| Timer    | 6H | 5H       | 4H | 3H       | 2H       | 1H       | ОН  |
|----------|----|----------|----|----------|----------|----------|-----|
| Chood 2  | 3  | <b>†</b> | 2  | <b>†</b> | 1        | <b>†</b> |     |
| Speed 3  |    |          |    | 3        | <b>→</b> | 2        | OFF |
| Conned 2 | 2  | <b>→</b> | 1  | <b>→</b> | <b>→</b> |          | OFF |
| Speed 2  |    |          |    | 2        | <b>→</b> | 1        |     |

- ➤ SLEEP MODE can only use with OFF TIMER enabled.
- ➤ SLEEP MODE function is disabled either at Speed 1 or 1-hour setting.
- >SLEEP MODE function is deactivated, if TIMER SETTING is changed.

## **Advantages**

- ✓ Create optimal sleeping environment
- ✓ Energy Saving

# **Safety Features**

- ! Safety Wire must be fixed correctly and connected at all times.
- $\, \odot \,$  Do not use modified parts other than original supplied parts.
  - O Do not install at a location directly hit by wind.

## **Cut-off Safety Switch**

## **Problem**

If there is any damage at either the shaft or bolt due to improper installation, abnormal wobbling from the fan will occur when it operates. The damage will cause the shaft or the bolt to break if the fan continues to operate.

## **Preventive Measures**

When there is excessive wobbling, the cut-off safety switch will be triggered and power supply will be cut off. The cut-off safety switch works by detaching the lever from the switch and the fan will stop.

## **Thermal Fuse**

## **Problem**

If there is any sudden surge in current or abnormality in motor, there might be heat built-up.

## **Preventive Measures**

Before motor over-heated, Thermal fuse will be cut-off and motor stops

## **Safety Wire**

## **Problem**

Due to improper installation or should malfunction occur, the fan motor may detach from the pipe rod due to factors such as wearing off shaft or bolt etc.

## **Preventive Measures**

Safety wire helps to secure fan motor to the ceiling hook to prevent it from falling when the fan motor detaches from the pipe rod.

## **Safety Plate**

## **Problem**

The fan blade may detach from the fan motor should there be improper installation coupled with the fan blade wearing off, deformed blade shape or stronger wind blowing to the fan.

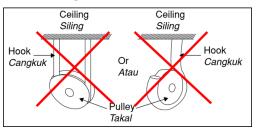
#### **Preventive Measures**

The faulty blade will be visibly hanging with the aid of safety plate/hook when the fan is operating.

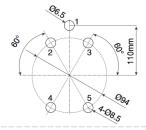
If any of issue happens, Stop using immediately and contact qualified installer or authorized Panasonic service dealer for assistance.

# **Easy Installation Method**





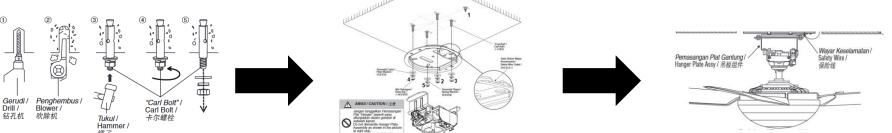






Remove the ceiling hook

Drill 5 holes on the concrete ceiling

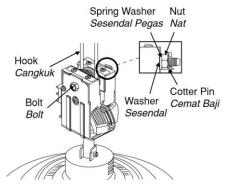


**Install Carl Bolt** 

Fix the Hanger Plate Assembly to the concrete ceiling







Fix ceiling fan into ceiling hook

# Perfect fit for narrow spaces



Simple clean design that can simply immerse to any environment



# Commercial Wall Fan



# PRODUCT FEATURES

## **STRONGER AIRFLOW**

- ✓ **Aluminum blade** designed for stronger airflow
- ✓ **Increase blade size to 50cm** from current 45cm
- ✓ Target air velocity: 300m/min.
- ✓ 27% higher air velocity compared to current 45cm



## **NEW GUARD DESIGN TO DELIVER COOLNESS FURTHER**



- ✓ **Straightening guard** designed to focus more airflow to reach further distance
- ✓ Reach up to 0.8m/s at a distance of 10m

## **MODERNIZED DESIGN APPEARANCE**

- ✓ Utilizing new resin injection guard to achieve New Advance Design
- ✓ Plastic guard that prevents rusty issue

5

3

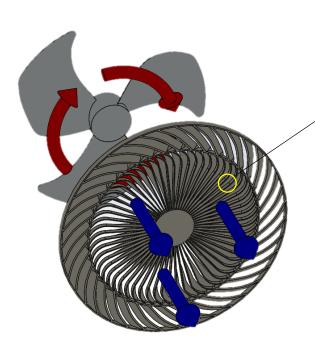
|                    |                   |      | KU50Y, KU50Y-DG    |
|--------------------|-------------------|------|--------------------|
|                    | Blade             |      | 50cm, Aluminium    |
|                    | Color             |      | White, Dark Grey   |
| Fan                | Structure         |      | Wall Type          |
|                    | Height            |      | 208mm              |
|                    | Motor Type        |      | 14 Pole Condenser  |
|                    | Power Consumption | Low  | 60W                |
| Performance / Spec |                   | High | 70W                |
|                    | Speed Power (RPM) | Low  | 940                |
|                    |                   | High | 1280               |
|                    | Air Velocity      |      | 300 m/min          |
|                    | Air Delivery      |      | 110 m³/min         |
|                    | Noise Level       |      | 59 dB              |
|                    | Speed Control     |      | Pull String Switch |
|                    | No. of Speed      |      | 3                  |
|                    | MEPS Rating       |      | 5 star             |
|                    | Motor HP          |      | 0.094              |
| Net Weight         |                   |      | 6.0 kg             |

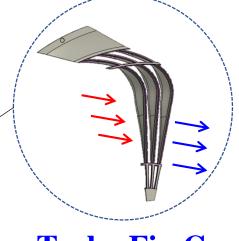
# **Product Image**



# **NEW FRONT GUARD**

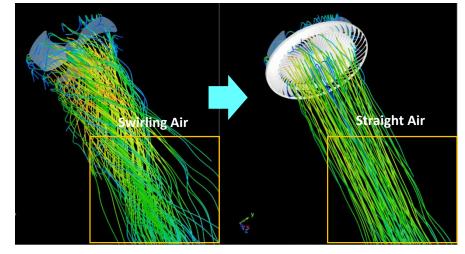






## **Turbo Fin Guard**

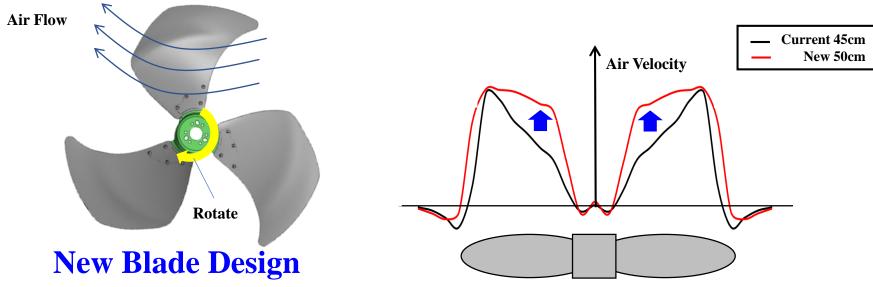
Front *Turbo Fin Guard* is shaped like stator blade to minimize pressure loss and generate maximum airflow.



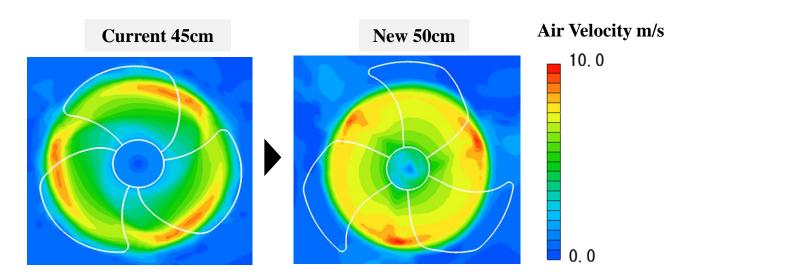


Turbo Fin Guard will convert the swirling air to straight air; which focuses airflow to reach a further distance.

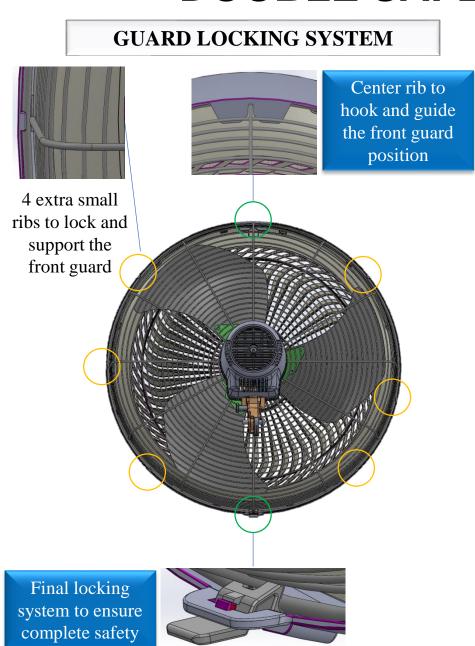
# **NEW METAL BLADE**



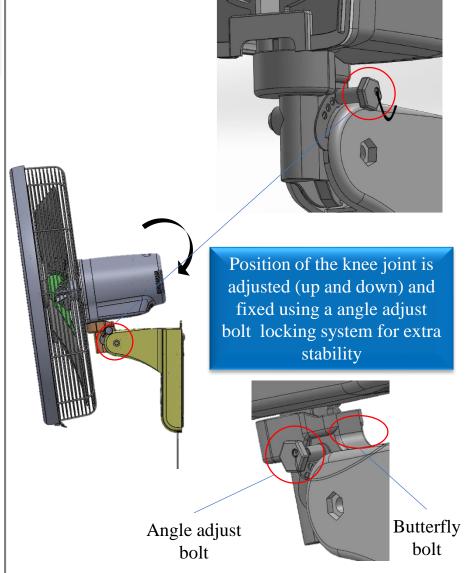
New Blade are designed to spins at maximum speed to generate higher air velocity



# **DOUBLE SAFETY FEATURES**



# KNEE-JOINT POSITION FIX STRUCTURE





Before Installation

#### Read and understand the instruction.

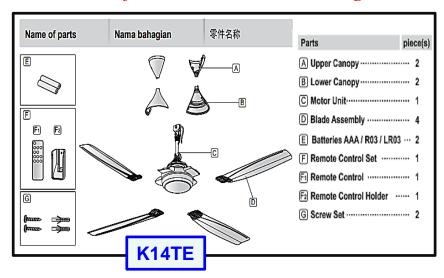
Different model have different step in installation method.

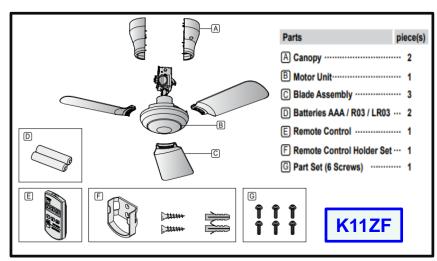




#### **Inspect the contents Parts in the box.**

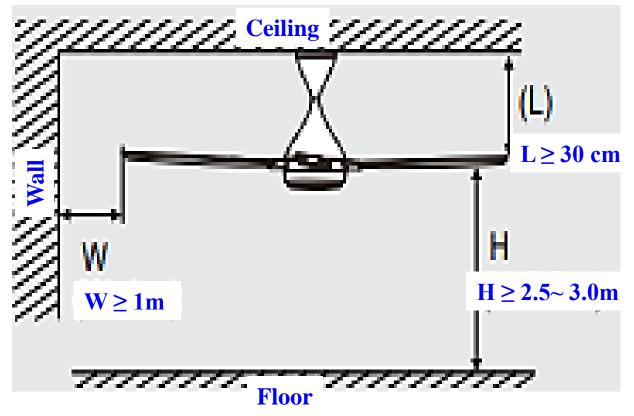
Confirm contents in the box same as listed in Instruction Manual before install the Ceiling Fan.

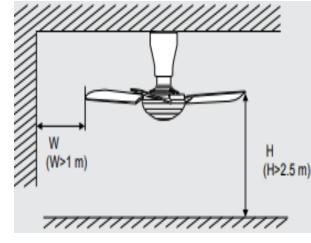




#### **Installation Condition: Room Size**

- $\square$  Height from Blade Tip to Ceiling (L)  $\geq$  30 cm.
- $\square$  Height from floor to Blade Tip (H): >2.5~ 3.0m
- $\square$  Blade distance between wall side (W)  $\geq 1m$





#### **Stream Of Wind Movement**

#### **Condition 1:**

Room size too small. The stream of wind movement not steady and air turbulence is created. This condition can cause the fan to wobble & noise may also be created.

#### **Recommendation:**

To install small size ceiling fan (120cm / 48").

#### **Condition 2:**

The ceiling fan installation height < 30cm (too close to the ceiling). The stream of wind is inferior and efficiency drops and noise may be created.

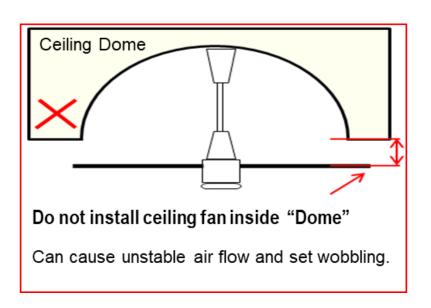
#### **Recommendation:**

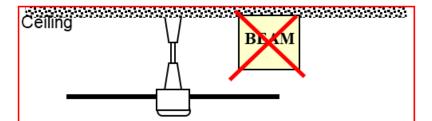
To increase the ceiling fan pipe > 30cm (minimum), use extended pipe.

#### <u>Installation Condition: This installation area could lead</u>

to poor performance of ceiling fan

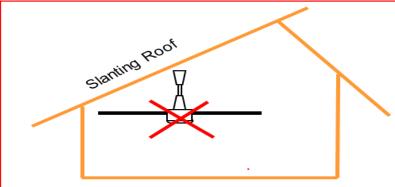
- ☐ Beam within blade swipe distance
- ☐ Slanting roof
- ☐ Inside Dome





Do not install ceiling fan at the position where the blade is near or under the beam.

- 1.Can cause unstable air flow and set wobbling.
- 2. If there external wind blow can cause blade hit to beam and drop



Do not install ceiling fan at Slanting Roof

- 1.Can cause unstable air flow and set wobbling.
- 2. If there external wind blow can cause blade hit to roof and drop



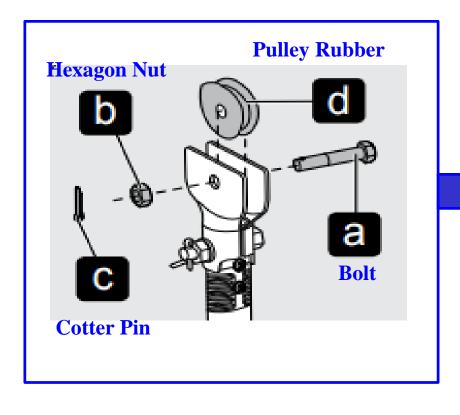
- During Installation
- Video Installation

#### Fixing Motor Unit to Ceiling Hook.

✓ Ceiling hook can sustain >10 times the Ceiling Fan weight.

Bolt and Nut are tightened and Cotter Pin is inserted and bent

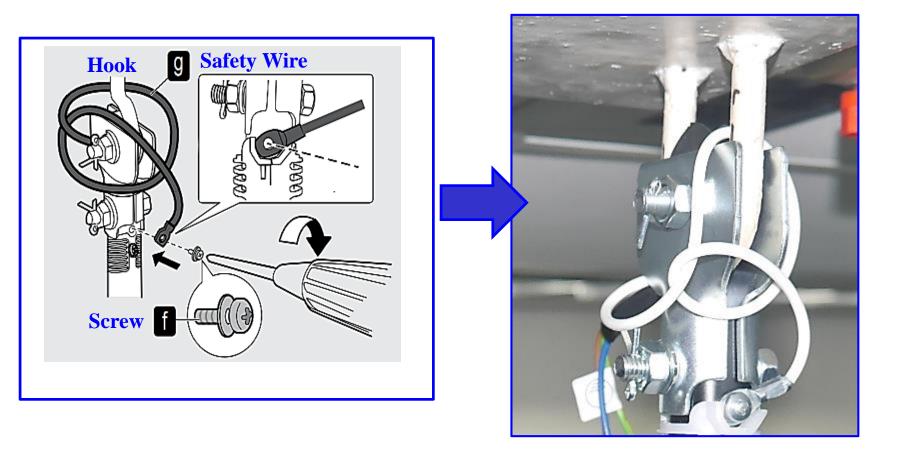
X Can cause injury if Ceiling Fan dropped.





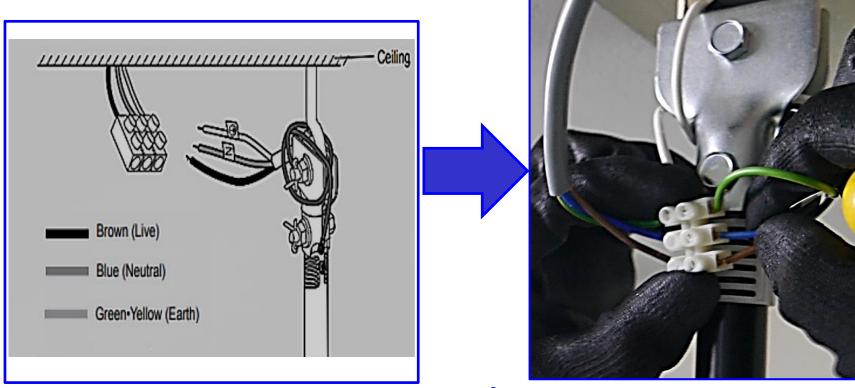
✓ Safety Wire must be looped to ceiling hook and fixed by screw to the pipe.

X Can cause injury if Ceiling Fan dropped.



✓ Wiring connected properly to the power supply & done by qualified personnel.

**X** Can cause fire, electrical shock, and injury if wrong connection or loose.



✓ Slightly pull the supply wire to ensure wire fully insert and tighten

#### **Install the Blades**

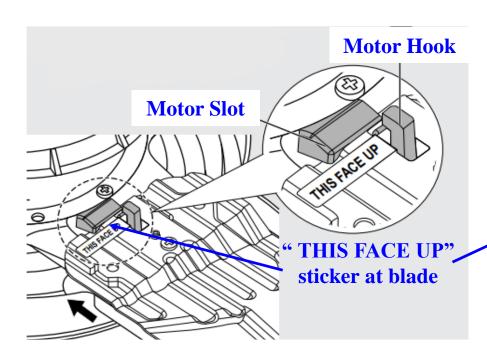
- ✓ Assemble blade to the hook.
- ✓ Blade must insert into slot at Motor.
- "THIS FACE UP" sticker at blade facing up.
- ✓ Tighten blades by 2 pcs screw.

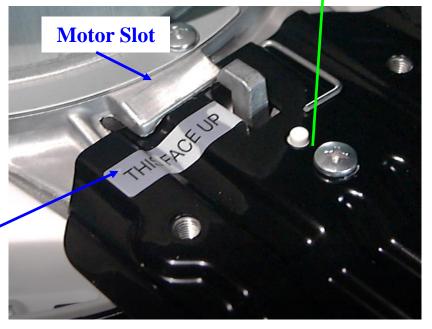
Ref: (250-300 N•cm)

X Can cause injury if Ceiling Fan blade dropped.

### New blade safety hook with screw

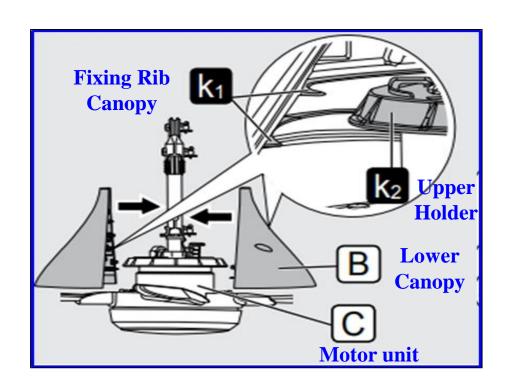


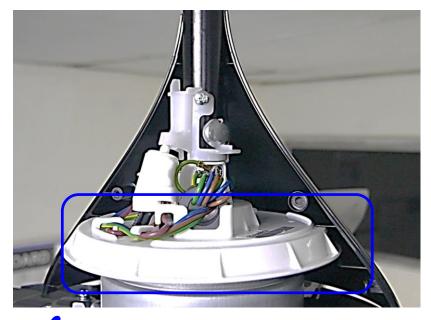




#### **Fixing Lower Canopy**

- ✓ Fixed Rib into the Upper Holder at & clip it until "click" sound.
- ✓ Tighten by 2 pcs screw.
  - \*\* X Can cause Ceiling Fan noisy.

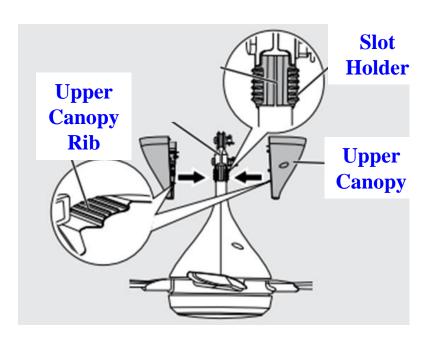


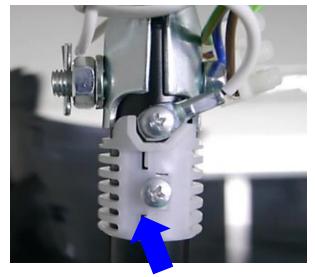


✓ Fixing Rib place between Upper Holder Lower Canopy

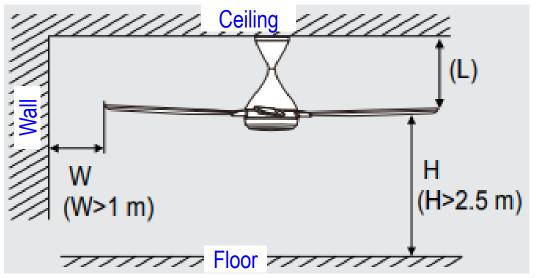
#### **Fixing Upper Canopy**

- ✓ Fixed Rib into the Slot Holder.
- ✓ Ensure ≥ 5mm gap between Upper Canopy and ceiling
  \*\* X Can cause Ceiling Fan noisy.
- Clip it until "click" sound, then tighten by 2 pcs screw.





\* Gap can adjust by fix upper canopy rib into different slot holder.



Distance from the ceiling to the tip of the Blade (L) must be within ±1 mm tolerance



#### Step 1

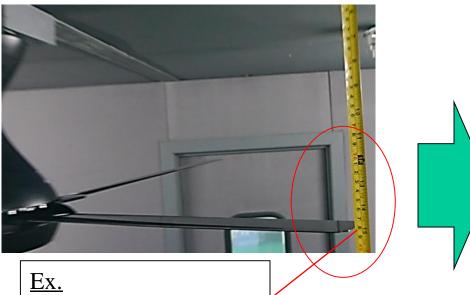
- ☐ Measure the blade height from ceiling to blade tips(L) using Measuring Tape.
- ☐ Measure all the blades and record the blade with different height.

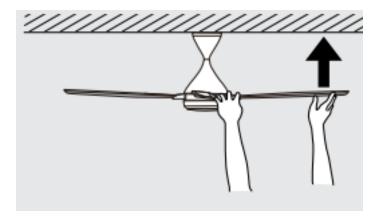
Step 2

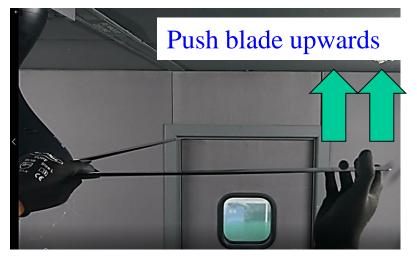
Condition 1:

If blade height (L) in lower position

☐ Adjust blade height by gently pushing blade frame upwards







Caution: Do not over push blade

Blade tip height:

Blade 1= 29.0cm **✓** 

Blade 2= 29.0cm ✓

Blade 3= 31.5cm **X** 

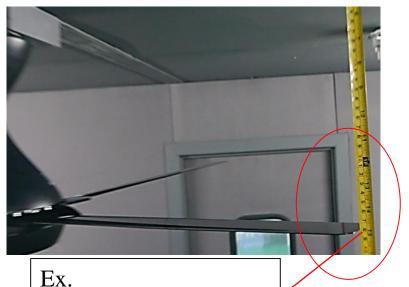
Blade 4= 29.0cm ✓

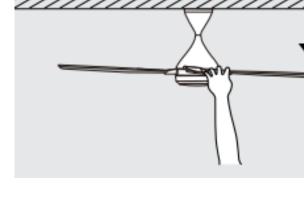
Step 2

Condition 2:

If blade height (L) in Upper position

☐ Adjust blade height by pressing blade frame downwards





Ex.

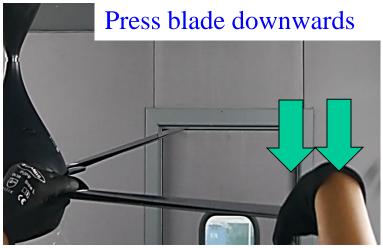
Blade tip height:

Blade 1= 29.0cm **√** 

Blade 2=29.0cm

Blade 3= 27.0cm **X** 

Blade 4= 29.0cm ✓



Caution: Do not over press blade



#### Step 3

- □ Re-measure all the blades height from ceiling to blade tips.
- ☐ The different of blades height shall not more then ~1mm



#### Step 4

- □ Operate the fan to confirm wobbling condition .
- □ Confirm wobbling condition in all speed

Repeat step 1 to step 4 if wobbling level is unsatisfactory



- During Installation
- Video Installation

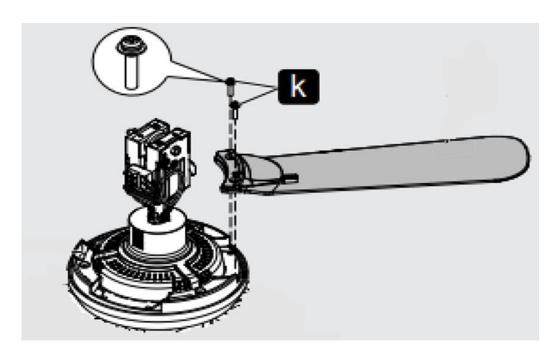
#### **Install the Blades.**

✓ Blade must assemble towards the slot at motor unit.

✓ Then tighten blades by 2 pcs screw.

Ref: (250-300 N•cm)

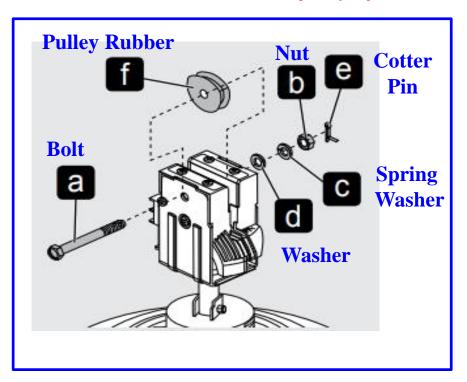
X Can cause injury if Ceiling fan blade dropped.



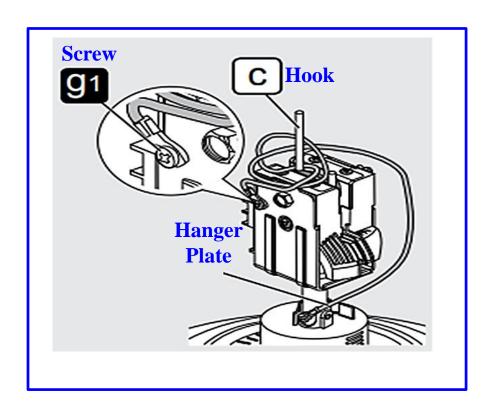
✓ Make sure the blade weight for all 3 pcs was same

#### Fixing Motor Unit to Ceiling Hook.

- Ceiling hook can sustain > 10 times Ceiling Fan weight.
- ✓ Bolt and Nut are firmly tightened and Cotter Pin is inserted and bent.
  - X Can cause injury if Ceiling Fan dropped.



- **✓** Safety Wire must be looped to ceiling hook and securely fixed by screw to the pipe.
  - X Can cause injury if Ceiling Fan dropped.



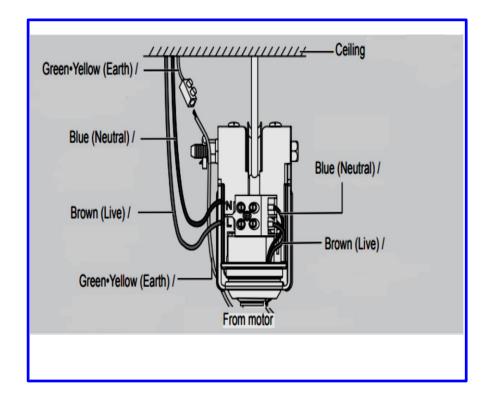


**✓** Ensure wiring connected properly to the power supply & done by qualified personnel.

X Can cause fire, electrical shock, and injury if wrong connection or loose.

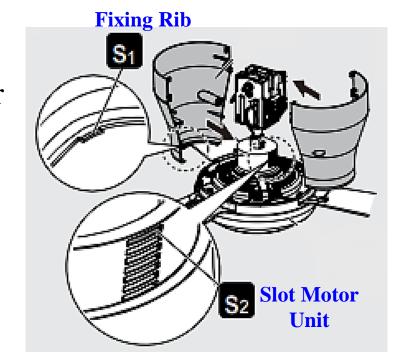
✓ Slightly pull the supply wire to ensure wire fully insert and

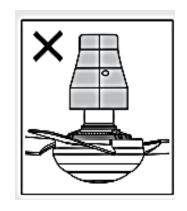
tighten



#### **Fixing Canopy**

- ✓ Insert Fixing Rib into the Slot of Motor Unit.
- Ensure  $\geq$  5mm gap between Upper Canopy and ceiling.
  - \*\* X Can cause Ceiling Fan noisy.
- Clip it until "click" sound, then tighten by 2 pcs screw.

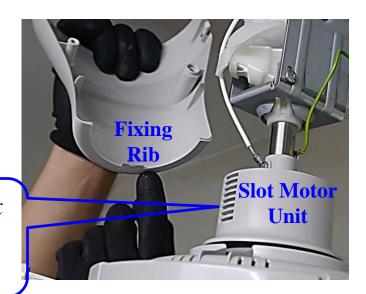




Don't assemble Canopy in opposite direction.

\*\* X Can cause noise

\* Gap can adjust by fix upper canopy rib into different slot holder





### 3 Ceiling Fan Check Point

After Installation

#### **3** Ceiling Fan Check Point (After Installation)

| Check Point Items  | K14TE | K11ZF |
|--|-------|-------|
| Bolt and Nut are tightened & Cotter pin is inserted and bent                         |       |       |
| Wiring is connected properly to the power supply.                                    |       |       |
| Safety wire looped into the Ceiling Hook and fixed to the pipe with screw            |       | _     |
| Safety wire looped into the Ceiling Hook and fixed to the Hanger Plate with screw    | _     |       |
| Blade must be fixed correctly into motor hook/slot.                                  |       |       |
| Blade screw must be tightened using screw driver ( Ref: 250-300 N•cm)                |       |       |
| Canopy is correctly fixed and securely screwed.  ( at least ≥ 5mm gap from ceiling ) |       |       |
| After installation, make sure that the Ceiling Fan does not wobble extremely         |       |       |

#### •Abnormality

- If problems occurred / cannot being solve, stop using the fan. Then refer to service, sales or authorize center.

#### Ceiling Fan Troubleshooting & Action

| Part           | Cause                 |   | Action  |
|----------------|-----------------------|---|---|
| Bolt &<br>Nut  | Wobbling              | <ol> <li>Bolt &amp; nut not fully tighten.</li> <li>Use modified bolt and nut</li> </ol>  | <ol> <li>Fully tighten the bolt &amp; nut according to manual</li> <li>Replace with original bolt and nut</li> </ol>                    |
|                | Safety<br>Check Point | Wear-out of bolt and nut  | Disconnect set and report to service center person to change new set .  |
| Pipe           | Wobbling              | <ol> <li>Ceiling Hook condition</li> <li>* slanting, too big, loosen &amp; etc.</li> <li>Modified pipe</li> </ol>               | <ol> <li>Repair/ Tighten Hook/ change hook condition</li> <li>Replace original PMMA pipe</li> </ol>                                     |
|                | Safety<br>Check Point | Deformation hole in pipe  * bigger hole diameter in pipe  | Disconnect set and report to service center person to change new set .  |
| Safety<br>Wire | Safety<br>Check Point | <ol> <li>Safety wire not looping at hook,<br/>not Screw (No safety wire installed).</li> <li>Wear-out of safety wire</li> </ol> | <ol> <li>Fix safety wire according to manual.</li> <li>Disconnect set and report to service center person to change new set.</li> </ol> |

### Ceiling Fan Troubleshooting & Action

| Part   | Cause                    |  | Action   |  |
|--------|--------------------------|--|--|--|
| Blade  | Wobbling                 | <ol> <li>Weight different</li> <li>Pitching out (For Metal blade)</li> <li>Poor installation (screw slanting, hook bend, screw tightening, miss screw, upside down, bend, not fully screw, etc.)</li> </ol>  | <ol> <li>Change new blade (all same weight)</li> <li>Do pitching</li> <li>Re install according to manual change new blade, do pitching blades</li> </ol> |  |
|        | Noise                    | Blade safety hook loosen and touched   | Re install blade and ensure blade was pull to lock the blade.  |  |
|        | Safety<br>Check<br>Point | Blade hole cracking/ Blade deforming   | Disconnect set and report to service center person to change new set of blades.  |  |
| Canopy | Noisy                    | <ol> <li>Canopy touching to the ceiling</li> <li>Touching motor (lower canopy)</li> <li>Wiring arrangement inside canopy</li> <li>Installation condition         <ul> <li>canopy step not in-correct position,</li> <li>slanting, wrong position, not screw,</li> <li>not fully fix</li> </ul> </li> </ol> | 3. Re arrange the wiring condition inside canopy   |  |
|        | Wobbling                 | Touching to ceiling  | Lower the canopy at least 5mm gap from ceiling   |  |

#### Ceiling Fan Maintenance

1. Check the fan condition **annually**. Check points: Loosened screws, Safety Wire condition, motor shaft damage,etc. If problems occurred, stop using the fan. Then refer to service, sales or maintenance shop.

2. Keep the fan clean by wiping away dirt with a clean soft cloth, ordinary soap and water. Do not use solvents such as gasoline or petrol.

Please do not bend the blade while cleaning.

- 3. Do not paint the blades. If damage, order new set of blades from the service or sales shop.
- 4. If the product is broken or damaged, please dismantle the product or replace with the new product. This is to prevent the Ceiling Fan from dropping.



For reference



For reference

