# HAND DRYER HANDBOOK

Model: JT-SB216JSH-W-E

JT-SB216JSH-H-E

JT-SB216JSH-S-E

JT-SB216KSN-W-E



Repair work must be performed by the manufacturer, its service agent or a similarly qualified person in order to avoid hazards.

# MITSUBISHI ELECTRIC CORPORATION

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# 1. Safety precautions

- Be sure to read the following precautions thoroughly before the maintenance, and then inspect and repair the product in a safe manner.
- The types and levels of danger that may arise if the product is handled incorrectly are described with the warning symbols shown below.



Incorrect handling of the product may result in serious injury or death.

#### Electric shock

If you must inspect the circuitry while the power is on, do not touch the live parts.

(Failure to heed this warning may result in electric shock.)

Caution against

### Modification is prohibited

Do not modify the unit.

(Failure to heed this warning may result in electric shock, fire and/or injury.)



### Proper electric work

- Use the electric wires designated for electric work, and conduct electric work in accordance with the "Electric Installation Engineering Standard", the "Indoor Wiring Regulations" and the installation instructions.
- Be sure to check whether the terminals and fixed wiring are securely connected.

(Improper connection or wiring installation may result in electric shock and/or fire.)

Be sure to follow this instruction.

### Scratches and deterioration

Be sure to replace scratched and/or deteriorated wiring and lead wires.

(Failure to heed this warning may result in electric shock and/or fire.)



### 

Be sure to turn off the earth leakage breaker and the power switch of the product's main unit prior to starting repair work. (The charge voltage in the circuitry remains for another 50 seconds or so, even after the power is turned off and the LED is unlit; therefore, wait for at least 50 seconds before disassembling the product.)

(Failure to heed this warning may result in electric shock.)

Be sure to follow

### Use proper parts and tools

For repair, be sure to use the parts listed in the service parts list of the applicable model and use the proper tools.

(Failure to heed this warning may result in electric shock, fire and/or injury.)

# sure to follow

### ♦ Check insulation

Upon completing repair work, always measure the insulation resistance. Verify that it is at least 10  $M\Omega$ (with a 500 V DC insulation resistance tester), and then turn on the power.

(Inadequate insulation may result in electric shock.)

Be sure to follow



Incorrect handling of the product may result in serious injury or damage to properties including buildings and equipment.

### ♦ Wear gloves

Always wear a pair of gloves during inspection or repair work.

(Failure to heed this caution may result in injury.)

this instruction.

# Request for repair

- Before repairs, take the product off the wall.
- Inspect the earth condition, and repair it if it is incomplete. Make sure that an earth leakage breaker or an overload protection device is installed, if it is not installed, recommend the dealer to install one.
- Check whether the air filter, side cover, and the drain tank are installed securely in place.
- Do not leave a towel or other object in the hand-drying area.
- Never place any object on the main body nor cover it.
- Make sure that the product is not being used in any of the following locations:
  - Outdoors
  - Locations where the temperature could be lower than 0°C
  - · Locations where there is a lot of dust
  - Locations where the temperature could be higher than 40°C
  - Locations where there is a lot of condensation
  - · Locations where salt damage could occur
  - Vehicles (including ships and airplanes)
  - · Locations where corrosive, neutral, or reductive gases are present.
  - · Near food or tableware.
  - Kitchens
  - Locations where the appliance may come into direct contact with water. (Where there is a risk of water splashing.)
  - Locations where the appliance is in direct sunlight or strong light (It may cause sensor malfunction)
  - Rooms that have a sterilization basin, swimming pools, bathrooms.
- Make sure that the product operates properly upon completion of repair. Clean the product and the surrounding area, and then notify the customer of the completion of repair.

# 2. Features

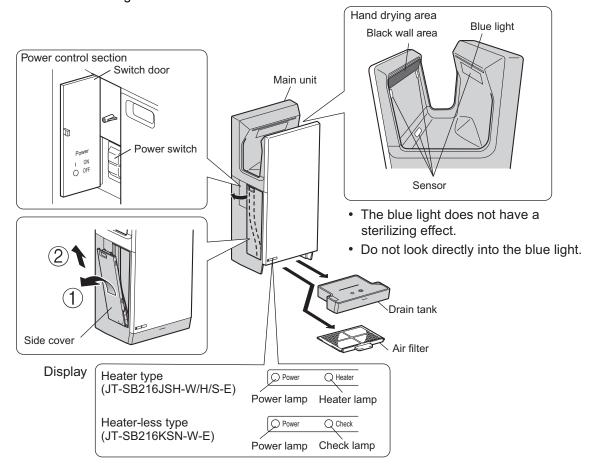
- · Wide hand drying area: easy-to-use for people with big hands
- · Child sensor: easy-to-use for children
- The wave nozzle has reduced operating sound by 1 dB.
- · Cleanable drain ditch
- · Joints of hand drying area has been reduced by half.
- Exteriors can be cleaned by wiping with alcohol.
- The square design matches various lavatories.

# 3. Improved points

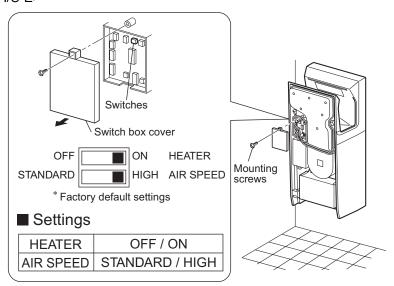
|                             | Old model  | New model   | Old model          | New model             |
|-----------------------------|--|---|--------------------|-----------------------|
|                             | JT-SB216ESH-W-CE   | JT-SB216JSH-W-E   | JT-SB216GSN-W-CE   |                       |
| Item                        | JT-SB216ESH-DG-CE  | JT-SB216JSH-H-E   | JT-SB216GSN-DG-CE  | JT-SB216KSN-W-E       |
|                             | JT-SB216ESH-W-E  | JT-SB216JSH-S-E   | JT-SB216GSN-W-E    | (Without a heater)    |
|                             | (With a thermal storage heater)  | (With a simple heater)                                  | (Without a heater) | ,                     |
| Appearance                  |  |   |                    |                       |
| Drying time (sec.)          | Orying time (sec.) 10 to 12  |   | 10 to 12           | 13 to 15              |
| Nozzle                      | Hyper slit nozzle  | Wave nozzle   | Hyper slit nozzle  | Wave nozzle           |
| Noise (dB)                  | 59   | 61  | 59                 | 58                    |
| Draining device             | Drain hose   | Cleanable drain ditch                                   | Drain hose         | Cleanable drain ditch |
| Rated power consumption (W) | 1010 to 1200 (During heat accumulation by the heater) 650 (Heater OFF) | 1240<br>(Heater ON)<br>720<br>(Heater OFF)              | 630                | 550                   |
| Rated current (A)           | 4.6 to 5.0 (During heat accumulation by the heater) 4.0 (Heater OFF)   | 5.7 to 6.2<br>(Heater ON)<br>3.9 to 4.2<br>(Heater OFF) | 3.5                | 3.0 to 3.2            |
| Weight (kg)                 | 14   | 11  | 12                 | 11                    |
| Stand<br>(Optional parts)   | JP-S15FS-H-E   | JP-S21FS2-H-E   | JP-S26FS-H-E       | JP-S21FS2-H-E         |

# 4. Names and functions of components

\*Shaded areas in the figure indicate antibacterial material.



### <JT-SB216JSH-W/H/S-E>



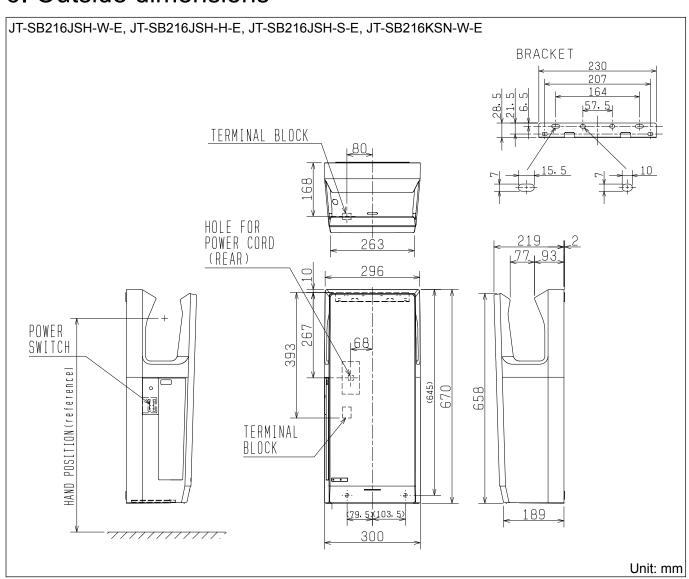
Note: JT-SB216KSN-W-E is not equipped with those switches.

# 5. Specifications

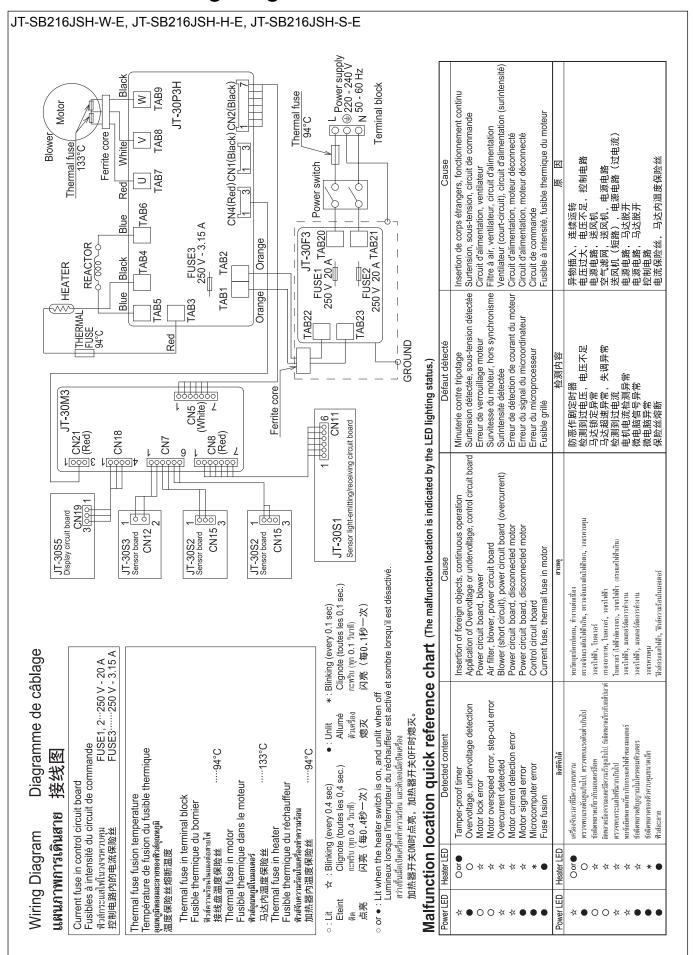
| Model                              | Rated<br>voltage<br>(V) | Rated frequency (Hz) | Heater | Motor<br>speed | Rated current (A) | Power consumption (W) | Air<br>speed<br>(m/s) | Noise<br>(dB) | Weight (kg) | Drain tank capacity (ℓ) |
|------------------------------------|-------------------------|----------------------|--------|----------------|-------------------|-----------------------|-----------------------|---------------|-------------|-------------------------|
| IT SD216 ISH W E                   |                         |                      | ON     | High           | 5.7-6.2           | 1240                  | 106                   | 61            |             |                         |
| JT-SB216JSH-W-E                    |                         |                      |        | Standard       | 4.9-5.3           | 1070                  | 98                    | 58            |             |                         |
| JT-SB216JSH-H-E<br>JT-SB216JSH-S-E | 216JSH-S-E Single phase | 50-60                | OFF    | High           | 3.9-4.2           | 720                   | 106                   | 61            | 11          | 0.8                     |
|                                    |                         |                      |        | Standard       | 3.0-3.2           | 550                   | 98                    | 58            |             |                         |
| JT-SB216KSN-W-E                    |                         |                      | _      | _              | 3.0-3.2           | 550                   | 98                    | 58            |             |                         |

- Air speed is calculated from the static pressure measured by the pitot tube (at the nozzle).
- Noise is the A range value measured in an anechoic room.
   (Average as three points, 2 m from the front and both sides.)
- The heater is turned off automatically when ambient temperature is 30°C or more. (Applicable models: JT-SB216JSH-W/H/S-E)

# 6. Outside dimensions



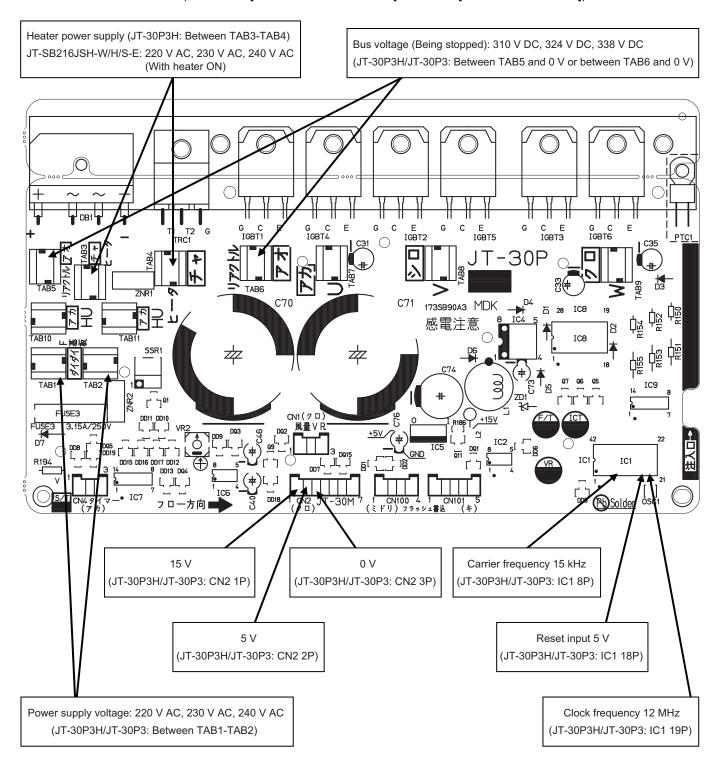
# 7. Electrical wiring diagrams



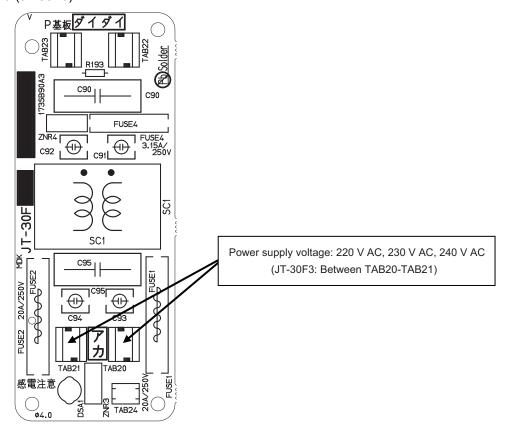
#### JT-SB216KSN-W-E Ventilateur (court-circuit), circuit d'alimentation (surintensité) Black CN4(Red)CN1(Black)CN2(Black) TAB9 Terminal block JT-30P3 Insertion de corps étrangers, fonctionnement continu Thermal fuse ≥ Motor Circuit de commande Fusible à intensité, fusible thermique du moteur Surtension, sous-tension, circuit de commande 94°C 异物插入,连续运转 电压过大,电压不足,控制电路 电源电路,送风机 空气滤网,送风机,电源电路 经间机(短路),电源电路 说风机(短路),电源电路(过电流) 电源电路,马达脱开 电源电路,马达脱开 电源电路 Filtre à air, ventilateur, circuit d'alimentation TAB8 Blower/ Ferrite core > Circuit d'alimentation, moteur déconnecté Circuit d'alimentation, moteur déconnecté White Thermal fuse 133°C Cause Power switch Circuit d'alimentation, ventilateur U TAB7 Red 9 TAB6 Blue 3 FUSE3 250 V - 3.15 A JT-30F3 FUSE1 TAB20 250 V 20 A 3 FUSE2 250 V 20 A TAB21 Orange REACTOR TAB4 TAB1 TAB2 Orange Blue Survitesse du moteur, hors synchronisme Surtension détectée, sous-tension détectée Erreur de détection de courant du moteur l Erreur du signal du microordinateur Erreur du microprocesseur TAB3 TAB5 TAB23 TAB22 防恶作剧定时器 检测到过电压,电压不足 马达锁定异常 马达超速异常,失调异常 检测到过电流 检测到过电流 微电配流检测异常 微电脑后与异常 被电脑异常 GROUND Erreur de verrouillage moteur Défaut détecté Minuterie contre tripotage Malfunction location quick reference chart (The malfunction location is indicated by the LED lighting status.) Surintensité détectée Ferrite core JT-30M2) CN5 (White) Fusible grillé Z 9 000000 CN11 Sensor light-emitting/receiving circuit board CN18 CN8 (Red) CN21 (Red) CN7 N 9 ( SE 7 Insertion of foreign objects, continuous operation Application of Overvoltage or undervoltage, control circuit board 30001 Air filter, blower, power circuit board Blower (short circuit), power circuit board (overcurrent) CN19 3 000 1 JT-30S5 Display circuit board ตรวจจับแรงดันไฟฟ้าเกิน, ตรวจจับแรงดันไฟฟ้าตก, วงจรควบคุม JT-30S1 CN15 CN15 JT-30S3 Sensor board CN12 JT-30S2 Sensor board JT-30S2 Sensor board Power circuit board, disconnected motor Power circuit board, disconnected motor โบลเวอร์ (ไฟฟ้าลัตวงจร), วงจรไฟฟ้า (กระแสไฟฟ้าเกิน) Control circuit board Current fuse, thermal fuse in motor สาเหตุ ฟิวต์กระแสไฟฟ้า, ฟิวต์ความร้อนในมอเดอร์ Power circuit board, blower ทบวัตถุแปลกปลอม, ทำงานต่อเนื่อง กรองอากาศ, โบลเวอร์, วงจรไฟฟ้า วงจรไฟฟ้า, มอเตอร์ตัดการทำงาน วงจรไฟฟ้า, มอเตอร์ตัดการทำงาน วงจรไฟฟ้า, โบลเวอร์ วงจรควบคุม Diagramme de câblage FUSE1, 2...250 V - 20 A FUSE3......250 V - 3.15 A ผิดพลาดเนื่องจากมอเตอร์มีความเร็วสูงเกินไป, ข้อผิดพลาดเกี่ยวกับสเต็ปเอาต์ Motor overspeed error, step-out error Tamper-proof timer Overvoltage, undervoltage detection ตรวจพบแรงดันสูงเกินไป, ตรวจพบแรงตันต่ำเกินไป ทบข้อมิดพลาดเกี่ยวกับกระแสไฟฟ้าของมอเตอร์ Motor current detection error Detected content Microcomputer signal error ข้อผิดพลาดสัญญาณไมโครคอมพิวเตอร Fusibles à intensité du circuit de commande ....133°C 接线图 .94°C Température de fusion du fusible thermique ข้อผิดพลาดของตัวควบคุมขนาดเล็ก ลงที่จับได้ Overcurrent detected บัอพิดพลาดเกี่ยวกับมอเตอร์ล็อค เครื่องจับเวลาที่มีความทนทาน Microcomputer error ตรวจพบกระแสไฟทีมากเกินไป Clignote (toutes les 0,4 sec.) Clignote (toutes les 0,1 sec.) Current fuse in control circuit board Motor lock error Fusible thermique dans le moteur Blinking (every 0.4 sec) 闪亮 (每0.1秒一次) Blinking (every 0.1 sec) 闪亮 (每0.4秒一次) Thermal fuse fusion temperature Thermal fuse in terminal block Fuse fusion Fusible thermique du bornier กะพริบ (ทุก 0.4 วินาที) กะพริบ (ทุก 0.1 วินาที) ฟิวส์ละลาย แผนภาพการเดินสาย อุณหภู่มิหลอมละลายของฟิวส์อุณหภูมิ ฟิวส์กระแสไฟในวงจรควบคุม 控制电路内的电流保险丝 Wiring Diagram Fhermal fuse in motor ฟิวส์ความร้อนในแผงต่อสายไฟ 温度保险丝熔断温度 接线盘温度保险丝 马达内温度保险丝 Check LED ฟิวส์อุณหภูมิในมอเตอร์ 0 ∜ ₩ ₩ 0 Check L ·· o:Lit Eteint Power LED Allumé ตัวเครื่อง Power LED 小师 99

# 8. Circuit board diagrams

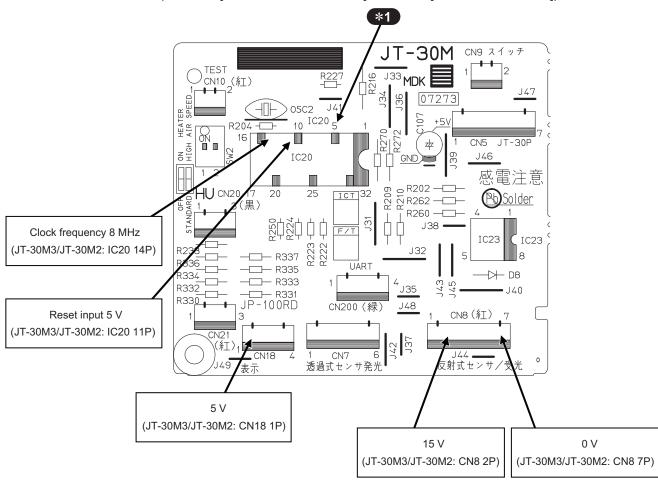
- Circuit board diagrams and check points
  - 1 Power circuit board (JT-30P3H [JT-SB216JSH-W/H/S-E] /JT-30P3 [JT-SB216KSN-W-E])



### 2 Filter circuit board (JT-30F3)



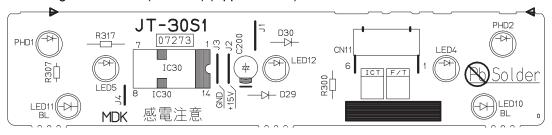
### 3 Control circuit board (JT-30M3 [JT-SB216JSH-W/H/S-E] /JT-30M2 [JT-SB216KSN-W-E])



### \*1 Circuit thermostat characteristics (JT-30M3/JT-30M2: IC20 5P)

| Temperature | Resistance | IC20 5P Voltage |
|-------------|------------|-----------------|
| 20°C        | 59.3 kΩ    | 3.44 V          |
| 30°C        | 37.6 kΩ    | 2.91 V          |
| 40°C        | 24.5 kΩ    | 2.38 V          |

4 Light receiving circuit board (JT-30S1) (Upper sensor)



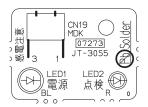
⑤ Sensor circuit board (middle) (JT-30S2) (Middle sensor)



6 Sensor circuit board (lower) (JT-30S3) (Lower sensor)



7 Display circuit board (JT-30S5)



# 9. Fundamentals of operation

- Descriptions of circuit operation
- (1) Notes for turning the power switch "ON / OFF"
  - ① When the power switch is turned "ON", the power lamp (LED1), the heater lamp (LED2) (JT-SB216JSH-W/H/S only, with the heater switch ON), and blue illumination lamps (LED10, 11) turn on after 1.5 seconds(\*1), and the hand dryer becomes ready for operation.
    - Before the power lamp turns on, the hand dryer will not operate even if hands are inserted in the hand drying area. In the meantime, the microcomputer (IC20) of the main unit performs the initial settings, including the setting of the hand detection sensor sensitivity.
    - In order to set the sensitivity of the hand detection sensor correctly, do not insert hands in the hand drying area until the power lamp is turned on.
    - Even if the hand dryer has started immediately (within 15 seconds or less) after turning the power switch "ON", it is normal though the motor input may become slightly lower due to the initial setting.
    - \*1: If the power switch is turned ON again 30 to 120 seconds after turning the power switch OFF, it may take 3 seconds before the operation is enabled.
  - ② When the power switch is turned "OFF", the power lamp and blue illumination lamps turn off and operation stops.
    - The circuitry takes about 50 seconds to discharge the voltage retained in it. Wait until the discharging time elapses before plugging in or out the connectors, replacing the circuit boards, or doing other maintenance.
    - Even when any error is occurred, the error display will go off if the power switch has been turned off. Only when a microcomputer error is occurred, the error display persists till the voltage retained in the circuitry has been discharged (till the microcomputer has been reset).

### (2) Hand detection and operation

- 1 The hand detection sensors are infrared sensors containing the light emitting sensor (infrared LED) and light receiving sensor (photo-diode), etc. and consist of the upper sensor, the middle sensors, and the lower sensor.
- 2 Reflection type upper sensor:

This sensor detects the change in the reflected amount of infrared light when hands are inserted.

Transmission type middle and lower sensors:

These sensors detect that the infrared light is shielded when hands are inserted.

- ③ When the lower or middle sensors detect hands, the blower motor turns on and the hand dryer starts to operate.
- ④ Once operation has started, it continues as long as any of the upper, middle, or lower sensors detects hands.
- ⑤ If 1.5 to 3 seconds elapse without detecting hands by any of the sensors, the blower motor turns off and operation stops.
- 6 The hand dryer continuously operates for up to 30 seconds.
  - Once 30 seconds have elapsed, the hand dryer stops operating even if hands are detected.
  - Since this is a function to assume the presence of a foreign object, the operation will resume if hands are pulled out and reinserted.

### (3) Control of the heater (Applicable models: JT-SB216JSH-W/H/S-E)

- 1 The heater turns ON simultaneously with the blower motor turns ON. (The heater lamp turns on.)
- 2 The heater does not turn ON in the following occasions:
  - · When the heater switch is turned "OFF"
  - When the circuit thermostat detection temperature on the control circuit board (JT-30M3) is 32°C or higher

# (4) Turning ON/OFF of the blue illumination lamps (Applicable models: JT-SB216JSH-W/H/S-E)

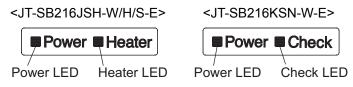
- ① While the power is ON and the motor is stopping, switching the air speed switch six times within 5 seconds turns off the blue illumination lamps. (The switching can be started from either side of HIGH or STANDARD.)
- 2 Also when turning the illumination lamps on from off, perform the switching in the same way as described in 1.

# 10. Troubleshooting

### Work precautions

- When servicing, be sure to recreate the malfunction two or three times before starting repairs.
- When servicing, always take care to keep proper footing.
- Before starting the service, always unplug the power cord from the outlet, or turn off the earth leakage breaker when no power cord plug is provided. Sufficient care must be taken to avoid electric shock or injury.
- Make sure to connect the power supply wires correctly.
- When removing the circuit board, always hold it at both ends and remove carefully so as not to apply force to the surface mounted parts.
- When removing the circuit board, be careful of the metal edges on the board.
- When removing or inserting the connectors for the circuit board, hold the entire housing section. Never pull on the lead wires.
- When circuit board failure is considered to be a cause, check closely for any broken section on the copper foil patterns, burning or discoloration of parts.
- After replacing a circuit board, make sure to restore the same settings as before the replacement.

### Description of the error mode display



○: ON
 ☆: Slow blinking (ON for 0.4 seconds/ OFF for 0.4 seconds)
 ●: OFF
 \*: Fast blinking (ON for 0.1 second/ OFF for 0.1 second)

### Troubles with error display

| Error Mo             | de Display          | Checkpoint  | Check Method and Remedy  |  |
|----------------------|---------------------|---|--|--|
| Power  (Fuse is blow | Heater/Check  • vn) | Power supply voltage  | Check that the power switch is turned ON and that approx. 220 to 240 V AC is supplied at both ends of the power cord connections on the terminal block.  If 220 to 240 V AC is not supplied, check the following points.  Check if the earth leakage breaker is turned ON.  Check if the power cord is connected securely to the terminal block. |  |
|                      |                     | Power supply<br>voltage on the<br>power circuit<br>board (JT-30P3H/<br>JT-30P3) | Check that approx. 220 to 240 V AC is supplied between TAB1 and TAB2 (orange) on the power circuit board (JT-30P3H/JT-30P3).   |  |
|                      |                     | •If 220 to 240 V AC is not supplied, check the following points.                |  |  |
|                      |                     | Power supply<br>voltage on the<br>filter circuit board<br>(JT-30F3)             | Check that approx. 220 to 240 V AC is supplied to the following points in the order of ① and ②.  ① Between TAB20 and TAB21 (red) If approx. 220 to 240 V AC is not supplied, replace the power switch (assembly).  ② Between TAB22 and TAB23 (orange) If approx. 220 to 240 V AC is not supplied, replace the filter circuit board (JT-30F3).    |  |
| •٧                   |                     | ●When 220 to 240  | VAC <u>is supplied,</u> check the following points.  |  |
|                      |                     | Connector dis-<br>connection for<br>the display circuit<br>board (JT-30S5)      | Check if the connector CN19 on the display circuit board (JT-30S5) or CN18 on the control circuit board (JT-30M3/JT-30M2) is disconnected.   |  |

| Error Mode Display |                             | Checkpoint   | Check Method and Remedy   |
|--------------------|-----------------------------|--|---|
| Power              | Heater/Check                | Connector disconnection between the circuit boards                   | Check if the connector CN2 on the power circuit board (JT-30P3H/ JT-30P3) or CN5 on the control circuit board (JT-30M3/JT-30M2) is disconnected.  |
| (Fuse is blown)    |                             | Malfunction of<br>the control circuit<br>board (JT-30M3/<br>JT-30M2) | If no error is found after checking the above, replace the control circuit board (JT-30M3/JT-30M2).   |
|                    |                             | Malfunction of<br>the power circuit<br>board (JT-30P3H/<br>JT-30P3)  | If the hand dryer does not operate even after replacing the control circuit board (JT-30M3/JT-30M2), replace the power circuit board (JT-30P3H/JT-30P3).  |
| Power              | Heater/Check                | Leftover object  | Check for any objects left over and shielding the sensor in the hand drying area.   |
| (Tamper-proc       | of timer)                   | Dirty sensor window  | Dirt may shield the sensors. Wipe the dirt off the sensor window.   |
| (tampor prov       | , ue.,                      | Connector dis-<br>connection for the<br>sensors                      | Check if the following connectors are disconnected.  ① Sensor circuit board (lower) (JT-30S3) connector CN12  ② Sensor circuit board (middle) (JT-30S2) (2 locations) connectors CN15  ③ Light receiving circuit board (JT-30S1) connector CN11  ④ Control circuit board (JT-30M3/JT-30M2) connectors CN7 and CN8 |
|                    |                             | Malfunction of<br>the control circuit<br>board (JT-30M3/<br>JT-30M2) | If no error is found after checking the above, replace the control circuit board (JT-30M3/JT-30M2).   |
| 1,                 | Heater/Check  or undervolt- | Abnormal power supply voltage  | Check if correct power supply voltage is applied.  • The error will occur if the power supply voltage is approx. 359 V AC or over, or approx. 127 V AC or under.  *Note: If 359 V AC or over is applied, a current fuse on the power circuit board (JT-30P3H/JT-30P3) may blow.                                   |
| age detectio       | n)                          | Malfunction of<br>the power circuit<br>board (JT-30P3H/<br>JT-30P3)  | If no error is found after checking the above, replace the power circuit board (JT-30P3H/JT-30P3).  |
| Power              | Heater/Check                | Motor malfunction  | Check if the motor is locked or turns smoothly by hand.   |
| (Motor start e     | ☆<br>error)                 | Malfunction of<br>the power circuit<br>board (JT-30P3H/<br>JT-30P3)  | If no error is found after checking the above, replace the power circuit board (JT-30P3H/JT-30P3).  |
| (Motor over-r      | revolution)                 | Blower (assem-<br>bly) malfunction                                   | If the error display persists after replacing the power circuit board (JT-30P3H/JT-30P3), replace the blower (assembly).  |
| Power              | Heater/Check                | Motor overload   | Check for causes of motor overload. (Too much higher power supply voltage, any object disturbing the motor revolution, etc.)  |
| (Motor overc       | •                           | Connector dis-<br>connection for the<br>motor                        | Check if the motor lead wire connectors (black, white, and red) are disconnected.   |
| error)             |                             | Blown thermal fuse of the motor                                      | Measure the resistance between Red - White and Red - Black of the motor lead wires. If it is $\infty\Omega$ , replace the blower (assembly).  |
|                    |                             | Malfunction of<br>the power circuit<br>board (JT-30P3H/<br>JT-30P3)  | If no error is found after checking the above, or if the error display persists after replacing the blower (assembly), replace the power circuit board (JT-30P3H/JT-30P3).  |

| Error Mode Display   |                            | Checkpoint   | Check Method and Remedy  |
|----------------------|----------------------------|--|--|
| Power Heater/Check   |                            | Connector disconnection  | Check if the connector CN5 on the control circuit board (JT-30M3/ JT-30M2) or CN2 on the power circuit board (JT-30P3H/JT-30P3) is disconnected. |
| (Motor signal error) |                            | Malfunction of<br>the power circuit<br>board (JT-30P3H/<br>JT-30P3)  | If no error is found after checking the above, replace the power circuit board (JT-30P3H/JT-30P3).   |
| Power  (Microcomp    | Heater/Check * uter error) | Malfunction of<br>the control circuit<br>board (JT-30M3/<br>JT-30M2) | Replace the control circuit board (JT-30M3/JT-30M2).   |

### Troubles without error display

| Symptom  | Cause  | Check Method and Remedy   |
|--|--|---|
| Warm air does not blow.<br>(JT-SB216JSH-W/H/S-E)                           | Heater switch  | Check if the heater switch is turned ON. (Heater lamp lights with the heater switch ON.)  |
|  | Connector dis-<br>connection for the<br>heater                       | Check if the connectors TAB3 and TAB4 on the power circuit board (JT-30P3H) are disconnected.   |
|  | Blown thermal fuse of the heater                                     | Measure the resistance between the connectors TAB3 and TAB4 on the power circuit board (JT-30P3H). At a heater temperature of 0°C or over: 100 $\Omega$ or under If the fuse is blown, the resistance will be $\propto \Omega$ . In this case, replace the heater (PTC) and the power circuit board (JT-30P3H). |
|  | Malfunction of<br>the power circuit<br>board (JT-30P3H)              | Check if approx. 220 to 240 V AC is output at both ends of the connectors TAB3 and TAB4 on the power circuit board (JT-30P3H). If it is not output, replace the power circuit board (JT-30P3H).  *Note: Approx. 220 to 240 V AC is output during operation, and it is not output during standby.                |
|  | Heater malfunc-<br>tion  | If no error is found after checking the above, replace the heater (PTC).  |
| The hand dryer operates by itself. The hand dryer does not stop operation. | Connector dis-<br>connection for the<br>sensors                      | Check if the following connectors are disconnected.  ① Sensor circuit board (lower) (JT-30S3) connector CN12 ② Sensor circuit board (middle) (JT-30S2) (2 locations) connectors CN15 ③ Light receiving circuit board (JT-30S1) connector CN11 ④ Control circuit board (JT-30M3/JT-30M2) connectors CN7 and CN8  |
|  | Malfunction of<br>the sensor cir-<br>cuit boards (JT-<br>30S1/2/3)   | Visually check the sensor circuit boards for a defect such as a crack, corrosion, or a cold solder joint.  If the error persists after replacing the control circuit board (JT-30M3/JT-30M2) in the next procedure, replace the defective sensor circuit boards (JT-30S1/2/3).                                  |
|  | Malfunction of<br>the control circuit<br>board (JT-30M3/<br>JT-30M2) | If no error is found after checking the above, replace the control circuit board (JT-30M3/JT-30M2).   |
| Air speed switch does not change the air volume.                           | Connector discon-<br>nection   | Check if the connector CN21 on the control circuit board (JT-30M3) or CN4 on the power circuit board (JT-30P3H) is disconnected.  |
| (JT-SB216JSH-W/H/S-E)  | Malfunction of<br>the power circuit<br>board (JT-30P3H)              | If no error is found after checking the above, replace the power circuit board (JT-30P3H).  |

| Symptom                               | Cause   | Check Method and Remedy  |
|---------------------------------------|---|--|
| The hand dryer makes abnormal noises. | Sucking of foreign matter   | Check for any foreign matter sticking to the blower (assembly) vanes.  |
| Air blow is weak.                     | Clogged filter  | Check the filter for clogging with dust, etc.  |
|                                       | Incorrect wiring  | Check if the motor lead wires of the blower (assembly) (red to TAB7, white to TAB8, black to TAB9) are connected to incorrect TABs on the power circuit board (JT-30P3H/JT-30P3). (If they are connected incorrectly, the motor turns in the reverse direction.) |
|                                       | Malfunction of<br>the power circuit<br>board (JT-30P3H/<br>JT-30P3) | If no error is found after checking the above, replace the power circuit board (JT-30P3H/JT-30P3).   |

# 11. How to call

| Symptom  | Remedy  |
|--|---|
| Air blow is too weak to dry hands quickly.   | Check if the filter is clogged.     Isn't the air speed switch set at the STANDARD position?     (Applicable models: JT-SB216JSH-W/H/S-E)   |
| Water leaks from the product.  | Check if the drain tank is filled up. (Empty the drain tank.)  *Note: Since the main unit may get flooded with water if the product operates with the drain tank is full, drain water will flow over when it is filled up beyond its capacity.      Is the drain tank installed properly? |
| Air does not blow immediately after turning on the power switch and inserting hands. | Initial setting takes 1.5 seconds after turning on the power switch.  Operation is disabled in the meantime.  |
| Warm air does not blow.<br>(JT-SB216JSH-W/H/S-E)                                     | Is the heater switch turned ON?   |
| The product has an abnormal odor.  | <ol> <li>Check if the drain tank is filled up. (Empty the drain tank.)</li> <li>Check the inside of the drain tank for any foreign matter. (Remove it.)</li> <li>Is the inside of the side cover cleaned up?</li> </ol>   |

# 12. Service inspection list

| Location                        | Inspection Item  | Check Result |
|---------------------------------|--|--------------|
| Floatrio wiring                 | Are lead wire connectors connected securely?   |              |
| Electric wiring                 | Is the wiring correct?   |              |
| Operation                       | Does it operate properly? Isn't there any abnormal noise, vibration, etc?  |              |
| Heater<br>(JT-SB216JSH-W/H/S-E) | Is warm air blown?   |              |
| Lamps                           | Do the lamps, the power lamp (LED1), the heater lamp (LED2) (JT-SB216JSH-W/H/S only, with the heater switch ON), and blue illumination lamps (LED10, 11), turn on? |              |
| Wall installation               | Isn't there clearance between the product and the back wall?   |              |

# 13. Overhauling procedures

- Work precautions
- Before replacing parts, follow the instructions described in the troubleshooting.
- When servicing, always take care to keep proper footing.
- Before starting the service, always unplug the power cord from the outlet, or turn off the earth leakage breaker when no power cord plug is provided. Sufficient care must be taken to avoid electric shock or injury.
- Make sure to connect the power supply wires correctly.
- After completing repairs, check that the unit operates properly.
- \* Always wear gloves when servicing.

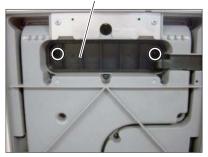
### (1) Turn off the power supply.

- 1 Stop the operation.
- 2 Turn off the earth leakage breaker on the distribution board.

### (2) Light receiving circuit board (JT-30S1)

① Unscrew the clamping screws, and remove the maintenance cover. (Two special screws 4 x 16, indicated by O)

Maintenance cover



Assembly precaution

Insert the maintenance cover into the groove of the base. (Indicated by  $\bigcirc$ )



2 Remove the sensor fix plate (upper).

### Assembly precautions

- Run the lead wires through the groove of the maintenance cover.
   (Indicated by O)
- Take care not to pinch the lead wires.

Sensor fix plate (upper)



Maintenance cover

3 Remove the light receiving circuit board (JT-30S1).



Light receiving circuit board (JT-30S1)

### (3) Control circuit board (JT-30M3/JT-30M2)

- 1 Draw out the drain tank.
- ② Unscrew the clamping screws, and remove the front panel. (Two special screws 4×16, indicated by O)



③ Unscrew the clamping screw, and remove the cover (micon). (One special screw 4×16, indicated by ○)



cover (micon)

- 4 Disconnect the lead wires from the control circuit board (JT-30M3/JT-30M2).
- ⑤ Unscrew the clamping screw, and remove the control circuit board (JT-30M3/JT-30M2).

(One special screw 4×12, indicated by O)

Assembly precaution

Take care not to pinch the lead wires.



Control circuit board (JT-30M3/JT-30M2)

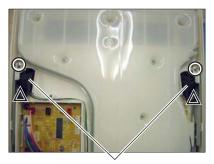
### (4) Sensor circuit board (middle) (JT-30S2)

- ① Remove the front panel.  $\rightarrow$  See (3) ① to ②.
- ② Unscrew the clamping screws. (Two PTT screws 4×16, indicated by O)
- ③ Unscrew the clamping screws, and remove the sensor fix pieces (middle).

(Two special screws  $4\times12$ , indicated by  $\triangle$ )

Assembly precaution

Take care not to pinch the lead wires.



Sensor fix piece (middle)

4 Remove the sensor circuit boards (middle) (JT-30S2). (Two locations)

Assembly precautions

- Insert the sensor circuit board (middle) between the claws of the sensor fix piece (middle).
- Take care not to pinch the lead wires.
- After installing the circuit board, make sure that the LED is upright.

Sensor fix piece (middle)



Sensor circuit board (middle) (JT-30S2)

### (5) Power circuit board (JT-30P3H/JT-30P3)

- ① Remove the front panel.  $\rightarrow$  See (3) ① to ②.
- ② Unscrew the clamping screws, and remove the board cover (power). (Two PTT screws 4×16, indicated by ○)



Board cover (power)

③ Disconnect the lead wires from the power circuit board (JT-30P3H/JT-30P3), and remove the power circuit board.

### Assembly precautions

- Take care not to pinch the lead wires.
- Connect the lead wires as printed on the power circuit board.



Power circuit board (JT-30P3H/JT-30P3)

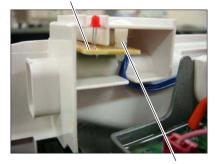
# (6) Display circuit board (JT-30S5)

- ① Remove the board cover (power).  $\rightarrow$  See (5) ① to ②.
- 2 Remove the display circuit board (JT-30S5) from the spacer.

Assembly precaution

After installing the circuit board, make sure that all LEDs are upright.

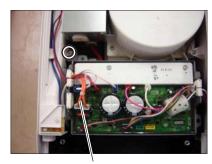
### Display circuit board (JT-30S5)



Spacer

## (7) Filter circuit board (JT-30F3)

- ① Disconnect the lead wires for the filter circuit board (orange) (TAB1 and TAB2) from the power circuit board (JT-30P3H/JT-30P3).
  - $\rightarrow$  See (5) 1 to 3.
- ② Unscrew the side panel (left) clamping screw. (One PTT screw 4×16, indicated by O)



Filter circuit board lead wires (orange)

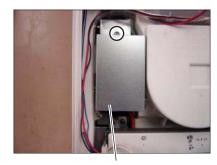
- ③ Disconnect the lead wires for the display circuit board (blue) (CN18) from the control circuit board (JT-30M3/JT-30M2).
  - $\rightarrow$  See (3) 3 to 4.



Display circuit board lead wires (blue)

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4 Unscrew the clamping screw, and remove the terminal block cover. (One PTT screw 4×16, indicated by O)



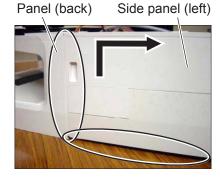
Terminal block cover

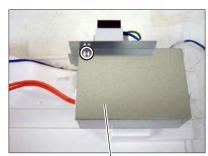
(5) Remove the side panel (left) in the direction of the arrow.

### Assembly precautions

- Fit the side panel (left) into the groove of the panel (back) and the base. (Indicated by  $\bigcirc$ )
- Carry out wiring after screwing the side panel (left).

⑥ Unscrew the clamping screw, and remove the board cover (filter). (One PTT screw 4×6, indicated by ○)

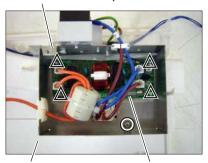




Board cover (filter)

- ⑦ Unscrew the clamping screw, and remove the terminal block fix plate from the side panel (left). (One PTT screw 4×16, indicated by ○)
- 8 Disconnect the lead wires from the filter circuit board (JT-30F3).

Terminal block fix plate



Side panel (left)

Filter circuit board (JT-30F3)

### (8) Switch (assembly) (with a thermal fuse)

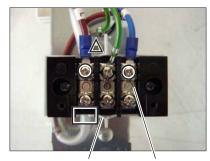
- Remove the terminal block fix plate from the side panel (left).
   → See (7) ① to ⑦.
- ② Remove the power switch lead wires (brown and blue) from the terminal block. (Indicated by O)
- ③ Unscrew the clamping screw, and remove the terminal block. (One PTT screw 4×6, indicated by  $\triangle$ )

### Assembly precautions

- Take care not to pinch the lead wires.
- Hook the claw of the terminal block fix holder to the terminal block fix plate. (Indicated by  $\square$ )
- ④ Unscrew the clamping screw, and remove the switch fix piece and the switch (assembly). (One PPT screw 3×8, indicated by ○)

Assembly precaution

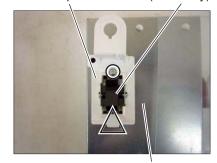
Hook the claw of the switch fix piece to the terminal block fix plate. (Indicated by  $\triangle$ )



Terminal block fix holder

Terminal block

Switch fix piece Switch (assembly)



Terminal block fix plate

### For JT-SB216JSH-W/H/S-E

### (9) Heater (PTC)

- ① Remove the side panel (left).  $\rightarrow$  See (7) ① to ⑤.
- ② Unscrew the side panel (right) clamping screw. (One PTT screw 4×16, indicated by O)



③ Remove the side panel (right) in the direction of the arrow.

Assembly precaution

Fit the side panel (right) into the groove of the panel (back) and the base. (Indicated by  $\bigcirc$ )

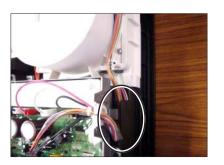


Side panel (right)

Panel (back)

### Assembly precaution

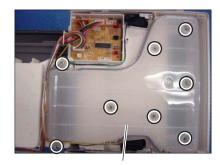
Run the lead wires through the groove of the base. (Indicated by O)



④ Unscrew the clamping screws, and remove the exhaust duct. (Eight PTT screws 4×16, indicated by ○)

### Assembly precautions

- Replace the packing used in the disassembled section with a new one.
- Take care not to twist the packing when installing it.

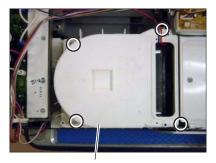


Exhaust duct

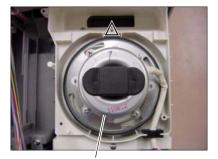
⑤ Unscrew the clamping screws, and remove the blower cover. (Four PTT screws 4×16, indicated by ○)

#### Precaution

- Since the blower (assembly) may drop off the blower case, remove the lead wires first, and then slowly remove the blower cover.
   Assembly precautions
- Replace the packing used in the disassembled section with a new one.
- Take care not to twist the packing when installing it.
- When replacing the heater, attach the included fixing piece to the position, indicated by △, with a screw (one PTT screw 4×16) to prevent the blower from dropping off.



Blower cover

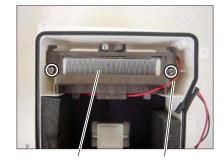


Blower (assembly)

⑥ Unscrew the clamping screws, and remove the heater (PTC).(Two PTT screws 4×16, indicated by ○)

### Assembly precaution

When installing the heater, set the heater as the lead wire comes out from the right side.



Heater (PTC)

Lead wire

#### Assembly precautions

- Run the lead wires through the groove of the blower cover.
   (Indicated by O)
- Take care not to pinch the lead wires.



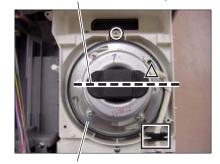
### (10) Blower (assembly)

1 Remove the blower cover.  $\rightarrow$  See (9) 1 to 5.

#### Precaution

- Since the blower (assembly) may drop off the blower case, remove the lead wires first, and then slowly remove the blower cover.
   Assembly precautions
- When replacing the blower (assembly), attach the included fixing piece to the position, indicated by ○, with a screw (one PTT screw 4×16).
- Set the blower (assembly) as the lead wire outlet comes to the position indicated by  $\triangle$ .
- The part of the lead wires covered by the white code tube must pass through the code bush. (Indicated by  $\Box$ )
- 2 Remove the blower (assembly).
- 3 Remove the ferrite core from the blower lead wires.

### Set the blower horizontally.



Blower (assembly)

Ferrite core



### (11) Sensor circuit board (lower) (JT-30S3)

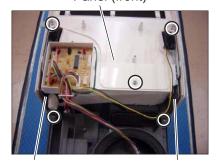
- ① Remove the blower (assembly).  $\rightarrow$  See (10) ① to ②.
- ② Unscrew the clamping screws, and remove the blower case. (Three PTT screws 4×16, indicated by O)

③ Unscrew the panel (front) and panel holder clamping screws, and remove the panel holders (left and right). (Five PTT screws 4×16, indicated by ○)



Blower case

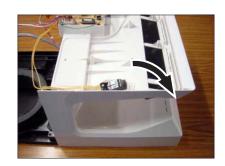
Panel (front)



Panel holder (left)

Panel holder (right)

4 Tilt the panel (front) in the direction of the arrow, and remove it.



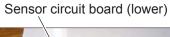
5 Remove the sensor fix holder (lower).

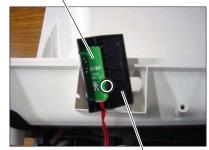
Assembly precaution
Take care not to pinch the lead wires.



Sensor fix holder (lower)

⑥ Unhook the claw of the sensor fix holder (lower) (one location, indicated by ○), and remove the sensor circuit board (lower) (JT-30S3).





Sensor fix holder (lower) (JT-30S3)

# \* When reassembling

- Reassemble the unit in the reverse order of disassembly.
- After reassembly, always make a test run to be sure that the unit operates properly.

# 14. Parts catalog

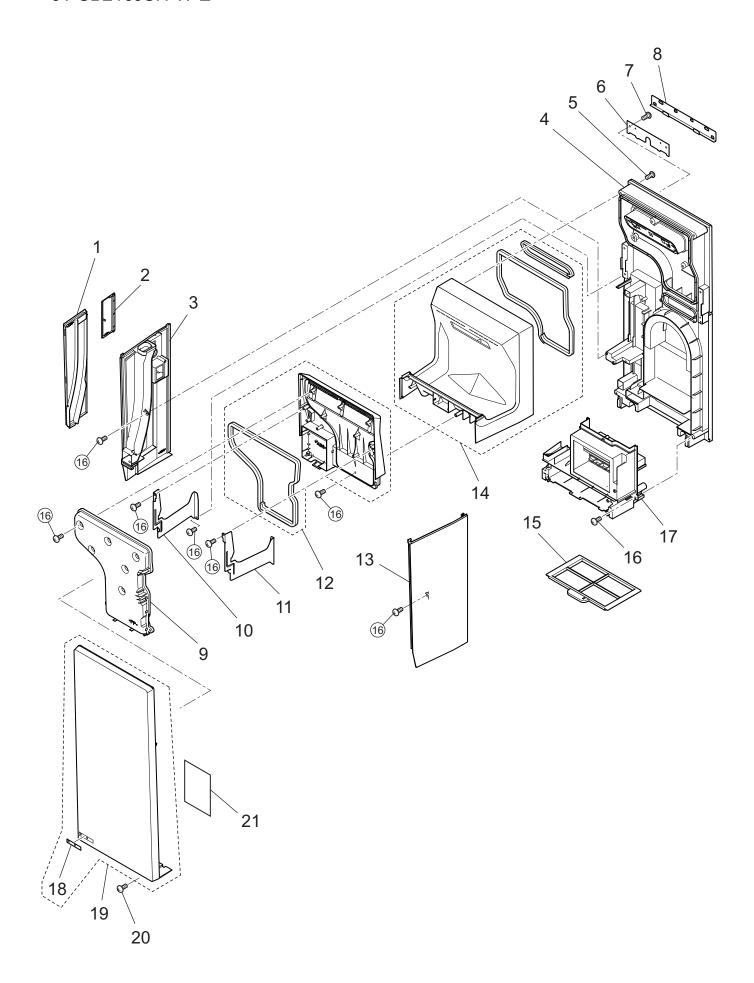
# Please note the following when using the parts catalog.

- 1. When ordering parts, always indicate the part number, part name, and the number of parts required.
- 2. Parts are not always available, and it may take time for you to receive them.
- 3. There may be specification improvements.
- 4. Parts marked  $\triangle$  are critical for safety. To maintain safety and performance, always replace these parts with the parts prescribed.
- 5. The numbers that are circled in the exploded view are the same as the reference number for the part being indicated.

## Description of screw abbreviations

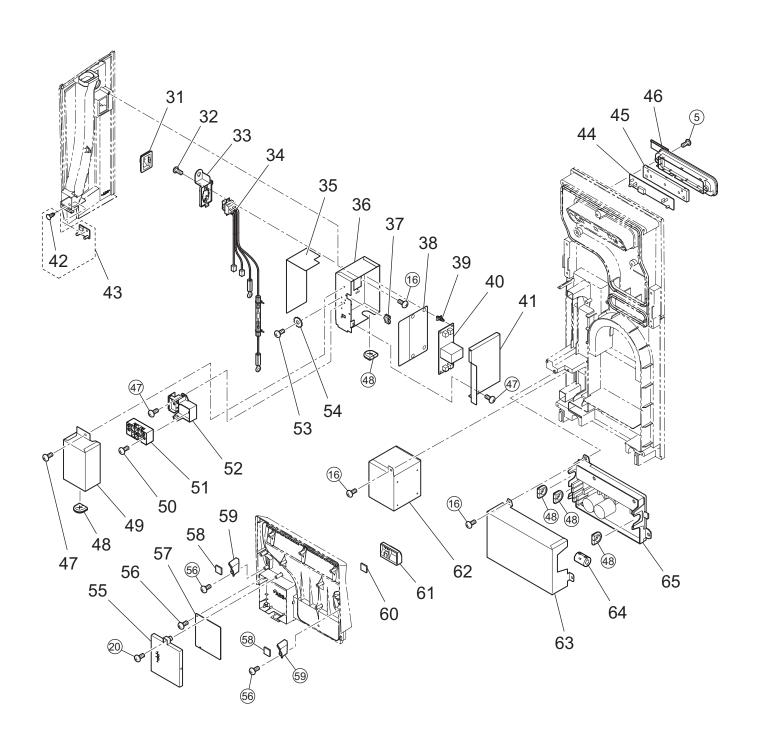


| Abbreviation        | Description  |
|---------------------|--|
| PC screw            | Cross recess flat head machine screw                                   |
| PRC screw           | Cross recess oval head machine screw                                   |
| PP screw            | Cross recess pan head machine screw                                    |
| SW · PP screw       | Cross recess pan head screw with spring washer                         |
| PPT screw           | Cross recess tapping screw   |
| PCT screw           | Cross recess flat head tapping screw                                   |
| PTT screw           | Cross recess truss head tapping screw                                  |
| PT screw            | Cross recess truss head machine screw                                  |
| SET screw           | Slotted head stop screw  |
| SQ · SET screw      | Square head stop screw   |
| P · SET screw       | Pan head stop screw  |
| PMT screw           | Primer truss head screw  |
| HS · SET screw      | Hexagon head stop screw  |
| P · R · W screw     | Cross recess round wood screw  |
| P · C · W screw     | Cross recess flat head wood screw                                      |
| P · R · C · W screw | Cross recess round and flat wood screw                                 |
| R · W screw         | Slotted round wood screw   |
| PW · PP screw       | Cross recess pan head screw with small washer                          |
| SW-PW · PP screw    | Cross recess pan head machine screw with spring washer and flat washer |
| -                   |  |



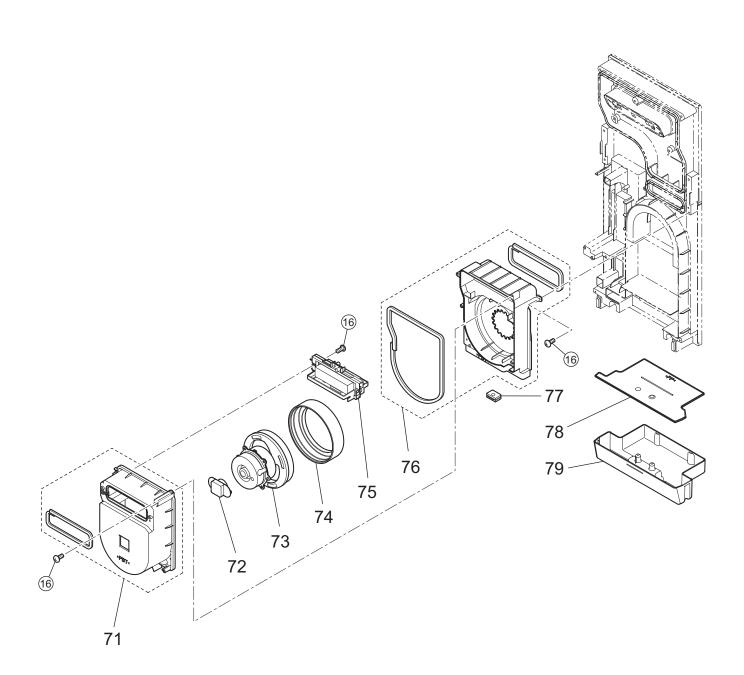
Model JT-SB216JSH-W-E

| No. | Parts No.       | Name of part                | Q'ty<br>pcs/unit | Critical Remarks<br>for safety | Price |
|-----|-----------------|-----------------------------|------------------|--------------------------------|-------|
| 1.  | M45 684 817     | Side cover                  | 1                | White                          |       |
| 2.  | Y45 622 807     | Switch door                 | 1                | White                          |       |
| 3.  | Y45 622 806     | Side panel (left)           | 1                | White                          |       |
| 4.  | Y45 622 805     | Base                        | 1                |                                |       |
| 5.  | D41 233 018     | Special screw 4×16          | 13               |                                |       |
| 6.  | M45 $684$ $805$ | Hook (upper)                | 1                |                                |       |
| 7.  | M45 632 047     | Special screw 4×16          | 2                |                                |       |
| 8.  | M45 684 802     | Fix plate                   | 1                |                                |       |
| 9.  | Y45 622 802     | Exhaust duct                | 1                |                                |       |
| 10. | M45 684 824     | Panel holder (left)         | 1                |                                |       |
| 11. | M45 684 825     | Panel holder (right)        | 1                |                                |       |
| 12. | M45 684 803     | Panel (front)               | 1                | White                          |       |
| 13. | M45 684 832     | Side panel (right)          | 1                | White                          |       |
| 14. | Y45 622 801     | Panel (back)                | 1                | White                          |       |
| 15. | M45 665 806     | Filter                      | 1                | $\triangle$                    |       |
| 16. | H00 163 007     | PTT screw $4 \times 16$     | 31               |                                |       |
| 17. | M45 684 804     | Cover                       | 1                |                                |       |
| 18. | Y45 623 809     | Decoration plate            | 1                |                                |       |
| 19. | Y45 623 800     | Front panel                 | 1                | White                          |       |
| 20. | M45 632 045     | Special screw $4 \times 16$ | 3                |                                |       |
| 21. | Y45 623 358     | Wiring diagram              | 1                |                                |       |



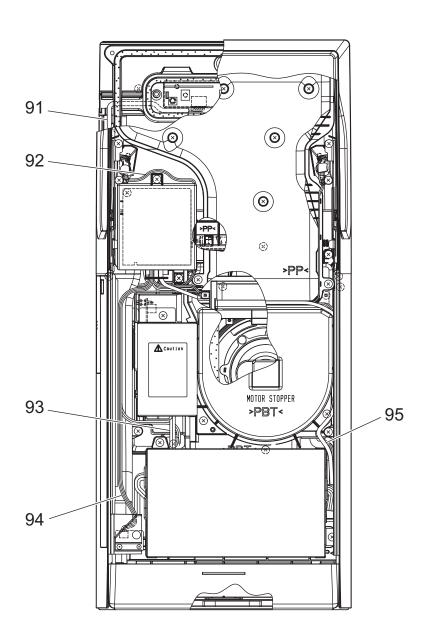
Model JT-SB216JSH-W-E

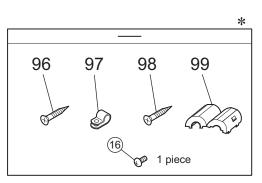
| No. | Parts No.   | Name of part              | Q'ty     |             | Remarks     | Price |
|-----|-------------|---------------------------|----------|-------------|-------------|-------|
|     |             |                           | pcs/unit | for safet   | СУ          |       |
| 31. | M45 679 228 | Switch cover              | 1        |             |             |       |
| 32. | H00 003 005 | PPT screw 3×8             | 1        |             |             |       |
| 33. | M45 684 820 | Switch fix piece          | 1        |             |             |       |
| 34. | Y45 622 220 | Switch (assy)             | 1        | <b>1</b>    | With a fuse |       |
| 35. | M45 684 823 | Insulation sheet          | 1        | 1           |             |       |
| 36. | Y45 622 804 | Terminal block fix plate  | 1        |             |             |       |
| 37. | M45 640 226 | Cord bush                 | 1        |             |             |       |
| 38. | M45 684 821 | Insulation sheet          | 1        | <b>1</b>    |             |       |
| 39. | M35 717 095 | Spacer                    | 4        |             |             |       |
| 40. | Y45 622 173 | Circuit board             | 1        | <b>1</b>    | JT-30F3     |       |
| 41. | M45 684 822 | Board cover (filter)      | 1        |             |             |       |
| 42. | M45 606 095 | Spacer                    | 1        |             |             |       |
| 43. | M45 684 176 | Circuit board             | 1        | <b>A</b>    | JT-30S5     |       |
| 44. | M45 684 172 | Circuit board             | 1        | <b>1</b>    | JT-30S1     |       |
| 45. | M45 684 831 | Sensor fix plate (upper)  | 1        |             |             |       |
| 46. | M45 684 828 | Maintenance cover         | 1        |             |             |       |
| 47. | Н00 312 007 | PTT screw $4 \times 6$    | 3        |             |             |       |
| 48. | M45 649 226 | Cord bush                 | 5        |             |             |       |
| 49. | M45 684 826 | Terminal block cover      | 1        |             |             |       |
| 50. | H00 141 005 | PPT screw $4 \times 20$   | 2        |             |             |       |
| 51. | K81 432 236 | Terminal block            | 1        | <b>1</b>    | 3P ML-20    |       |
| 52. | Y45 622 808 | Terminal block fix holder |          |             |             |       |
| 53. | H00 011 008 | PT screw $4\times8$ (BS)  | 2        |             |             |       |
| 54. | H00 013 076 | Lock washer (4)           | 2        |             |             |       |
| 55. | M45 684 834 | Cover (micon)             | 1        |             |             |       |
| 56. | M34 869 018 | Special screw 4×12        | 3        |             |             |       |
| 57. | Y45 623 172 | Circuit board             | 1        | <b>1</b>    | JT-30M3     |       |
| 58. | M45 684 173 | Circuit board (middle)    | 2        | <b>1</b>    | JT-30S2     |       |
| 59. |             | Sensor fix piece (middle) | 2        |             |             |       |
| 60. | M45 684 174 | Circuit board (lower)     | 1        | <b>1</b>    | JT-30S3     |       |
| 61. | M45 684 830 | Sensor fix holder (lower) | 1        |             |             |       |
| 62. | Y45 622 803 | Reactor (assy)            | 1        | <b>1</b>    |             |       |
| 63. |             | Board cover (power)       | 1        |             |             |       |
| 64. |             | Ferrite core              | 1        |             |             |       |
| 65. | Y45 623 171 | Circuit board             | 1        | $\triangle$ | JT-30P3H    |       |



Model JT-SB216JSH-W-E

| No. | Parts No.       | Name of part    | Q'ty<br>pcs/unit |             | 1 Remarks<br>ty | Price |
|-----|-----------------|-----------------|------------------|-------------|-----------------|-------|
| 71. | M45 684 811     | Blower cover    | 1                |             |                 |       |
| 72. | M45 673 227     | Blower stopper  | 1                |             |                 |       |
| 73. | Y45 622 400     | Blower (assy)   | 1                | <b>1</b>    |                 |       |
| 74. | M45 $664$ $227$ | Floating rubber | 1                |             |                 |       |
| 75. | Y45 623 801     | Heater (PTC)    | 1                | $\triangle$ | With a fuse     |       |
| 76. | M45 684 833     | Blower case     | 1                |             |                 |       |
| 77. | M45 $684$ $225$ | Cord bush       | 1                |             |                 |       |
| 78. | M45 684 814     | Tank cover      | 1                |             |                 |       |
| 79. | M45 684 813     | Drain tank      | 1                |             |                 |       |

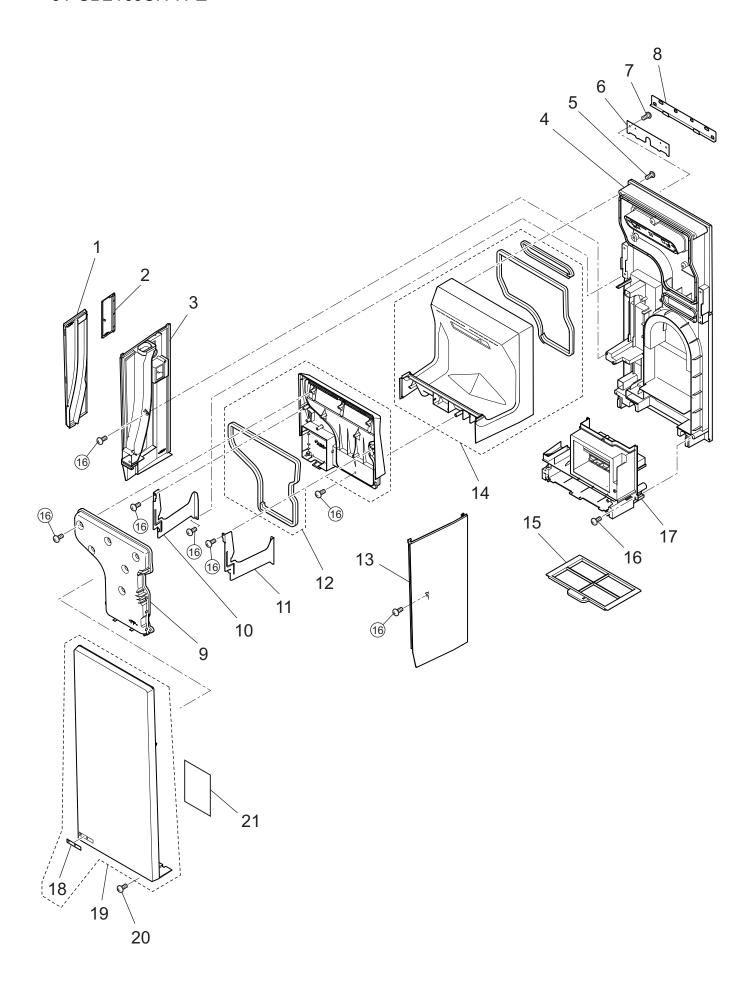




 $\begin{tabular}{ll} * shows accessory parts. \end{tabular}$ 

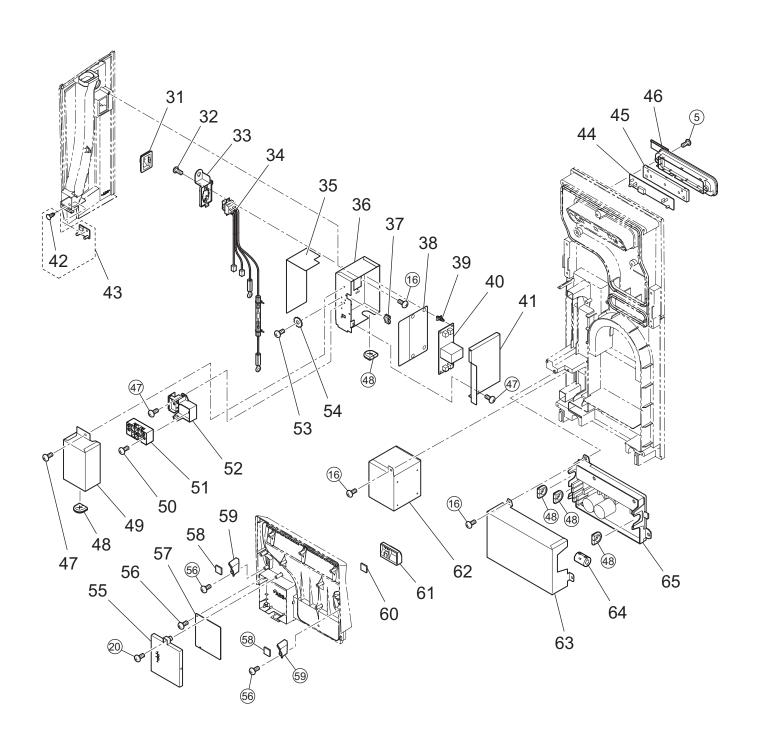
Model JT-SB216JSH-W-E

| No. | Parts No.   | Name of part                |   | Critical<br>for safet |                     | Price |
|-----|-------------|-----------------------------|---|-----------------------|---------------------|-------|
| 91. | M45 684 221 | Lead wire                   | 1 | $\triangle$           | CN8-CN11            |       |
| 92. | M45 684 220 | Lead wire                   | 1 | <b>1</b>              | CN7-CN12, 15        |       |
| 93. | Y45 622 219 | Lead wire                   | 1 | <b>1</b>              | With a ferrite core |       |
| 94. | M45 684 223 | Lead wire                   | 1 | <b>1</b>              | CN18-CN19           |       |
| 95. | Y45 623 219 | Lead wire                   | 1 | <b>1</b>              | CN2-CN5             |       |
| 96. | M45 636 018 | Special screw 5×30          | 6 |                       |                     |       |
| 97. | D40 134 227 | Cord clip                   | 1 |                       |                     |       |
| 98. | M45 693 017 | Special screw $4 \times 12$ | 1 |                       |                     |       |
| 99. | Y45 622 179 | Ferrite core                | 1 |                       |                     |       |



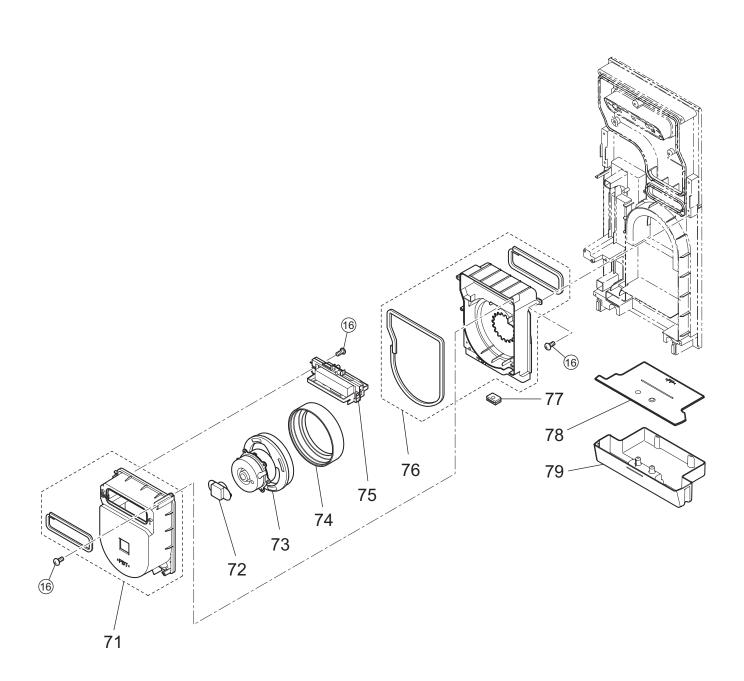
Model JT-SB216JSH-H-E

| No. | Parts No.   | Name of part            | Q'ty<br>pcs/unit | Critical Remarks<br>for safety | Price |
|-----|-------------|-------------------------|------------------|--------------------------------|-------|
| 1.  | M45 684 841 | Side cover              | 1                | Gray                           |       |
| 2.  | Y45 623 807 | Switch door             | 1                | Gray                           |       |
| 3.  | Y45 623 806 | Side panel (left)       | 1                | Gray                           |       |
| 4.  | Y45 622 805 | Base                    | 1                |                                |       |
| 5.  | D41 233 018 | Special screw 4×16      | 13               |                                |       |
| 6.  | M45 684 805 | Hook (upper)            | 1                |                                |       |
| 7.  | M45 632 047 | Special screw 4×16      | 2                |                                |       |
| 8.  | M45 684 802 | Fix plate               | 1                |                                |       |
| 9.  | Y45 622 802 | Exhaust duct            | 1                |                                |       |
| 10. | M45 684 824 | Panel holder (left)     | 1                |                                |       |
| 11. | M45 684 825 | Panel holder (right)    | 1                |                                |       |
| 12. | M45 684 838 | Panel (front)           | 1                | Gray                           |       |
| 13. | M45 684 843 | Side panel (right)      | 1                | Gray                           |       |
| 14. | Y45 623 803 | Panel (back)            | 1                | Gray                           |       |
| 15. | M45 665 806 | Filter                  | 1                | $\Delta$                       |       |
| 16. | H00 163 007 | PTT screw $4 \times 16$ | 31               |                                |       |
| 17. | M45 684 804 | Cover                   | 1                |                                |       |
| 18. | Y45 623 809 | Decoration plate        | 1                |                                |       |
| 19. | Y45 623 802 | Front panel             | 1                | Gray                           |       |
| 20. | M45 632 045 | Special screw 4×16      | 3                |                                |       |
| 21. | Y45 623 358 | Wiring diagram          | 1                |                                |       |



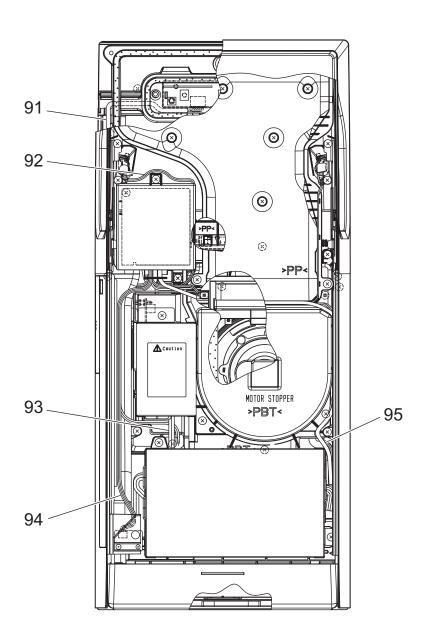
Model JT-SB216JSH-H-E

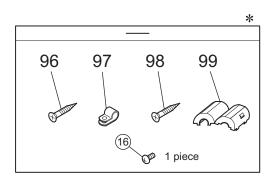
| No.        | Parts No.   | Name of part                      | Q'ty     |             | 1 Remarks   | Price |
|------------|-------------|-----------------------------------|----------|-------------|-------------|-------|
|            |             |                                   | pcs/unit | for safe    | ty          |       |
| 0.1        | WAE 670 999 | Conit 1                           | 1        |             |             |       |
| 31.<br>32. |             | Switch cover PPT screw 3×8        | 1        |             |             |       |
|            |             |                                   | 1        |             |             |       |
| 33.        | Y45 622 220 | Switch fix piece<br>Switch (assy) | 1        | <b>1</b>    | With a fuse |       |
| 34.<br>35. | M45 684 823 | Insulation sheet                  | 1<br>1   | <u> </u>    | with a fuse |       |
| 36.        |             | Terminal block fix plate          | 1        | <b>7.63</b> |             |       |
| 37.        | M45 640 226 | Cord bush                         | 1        |             |             |       |
| 38.        | M45 684 821 | Insulation sheet                  | 1        | <b>1</b>    |             |       |
| 39.        | M35 717 095 | Spacer                            | 4        |             |             |       |
| 40.        | Y45 622 173 | Circuit board                     | 1        | <b>1</b>    | JT-30F3     |       |
| 41.        |             | Board cover (filter)              | 1        |             | J1 0010     |       |
| 42.        | M45 606 095 | Spacer                            | 1        |             |             |       |
| 43.        | M45 684 176 | Circuit board                     | 1        | <u> </u>    | JT-30S5     |       |
| 44.        |             | Circuit board                     | 1        | $\triangle$ | JT-30S1     |       |
| 45.        | M45 684 831 | Sensor fix plate (upper)          | 1        |             | Ü           |       |
| 46.        | M45 684 828 | Maintenance cover                 | 1        |             |             |       |
| 47.        | H00 312 007 | PTT screw $4 \times 6$            | 3        |             |             |       |
| 48.        | M45 649 226 | Cord bush                         | 5        |             |             |       |
| 49.        | M45 684 826 | Terminal block cover              | 1        |             |             |       |
| 50.        | H00 141 005 | PPT screw $4 \times 20$           | 2        |             |             |       |
| 51.        | K81 432 236 | Terminal block                    | 1        | $\triangle$ | 3P ML-20    |       |
| 52.        | Y45 622 808 | Terminal block fix holder         | 1        |             |             |       |
| 53.        | H00 011 008 | PT screw $4 \times 8$ (BS)        | 2        |             |             |       |
| 54.        | H00 013 076 | Lock washer (4)                   | 2        |             |             |       |
| 55.        | M45 684 834 | Cover (micon)                     | 1        |             |             |       |
| 56.        | M34 869 018 | Special screw $4 \times 12$       | 3        |             |             |       |
| 57.        | Y45 623 172 | Circuit board                     | 1        | $\triangle$ | JT-30M3     |       |
| 58.        | M45 684 173 | Circuit board (middle)            | 2        | $\Lambda$   | JT-30S2     |       |
| 59.        |             | Sensor fix piece (middle)         | 2        |             |             |       |
| 60.        | M45 684 174 | Circuit board (lower)             | 1        | $\Delta$    | JT-30S3     |       |
| 61.        | M45 684 830 | Sensor fix holder (lower)         | 1        |             |             |       |
| 62.        |             | Reactor (assy)                    | 1        | <b>1</b>    |             |       |
| 63.        |             | Board cover (power)               | 1        |             |             |       |
| 64.        | Y45 622 180 | Ferrite core                      | 1        | Δ.          |             |       |
| 65.        | Y45 623 171 | Circuit board                     | 1        | <b>1</b>    | JT-30P3H    |       |



Model JT-SB216JSH-H-E

| No. | Parts No.       | Name of part    | Q'ty<br>pcs/unit |             | l Remarks<br>ty | Price |
|-----|-----------------|-----------------|------------------|-------------|-----------------|-------|
| 71. | M45 684 811     | Blower cover    | 1                |             |                 |       |
| 72. | M45 673 227     | Blower stopper  | 1                |             |                 |       |
| 73. | Y45 622 400     | Blower (assy)   | 1                | $\triangle$ |                 |       |
| 74. | M45 $664$ $227$ | Floating rubber | 1                |             |                 |       |
| 75. | Y45 623 801     | Heater (PTC)    | 1                | $\triangle$ | With a fuse     |       |
| 76. | M45 684 833     | Blower case     | 1                |             |                 |       |
| 77. | M45 $684$ $225$ | Cord bush       | 1                |             |                 |       |
| 78. | M45 684 814     | Tank cover      | 1                |             |                 |       |
| 79. | M45 684 839     | Drain tank      | 1                |             |                 |       |

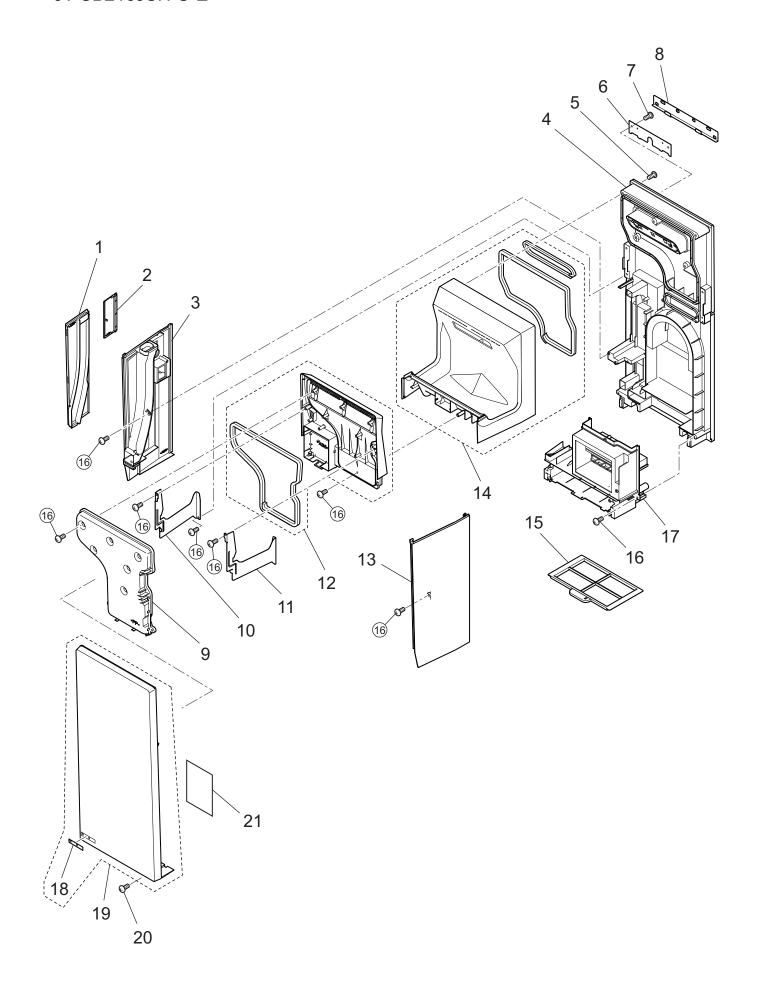




 $\begin{tabular}{ll} * shows accessory parts. \end{tabular}$ 

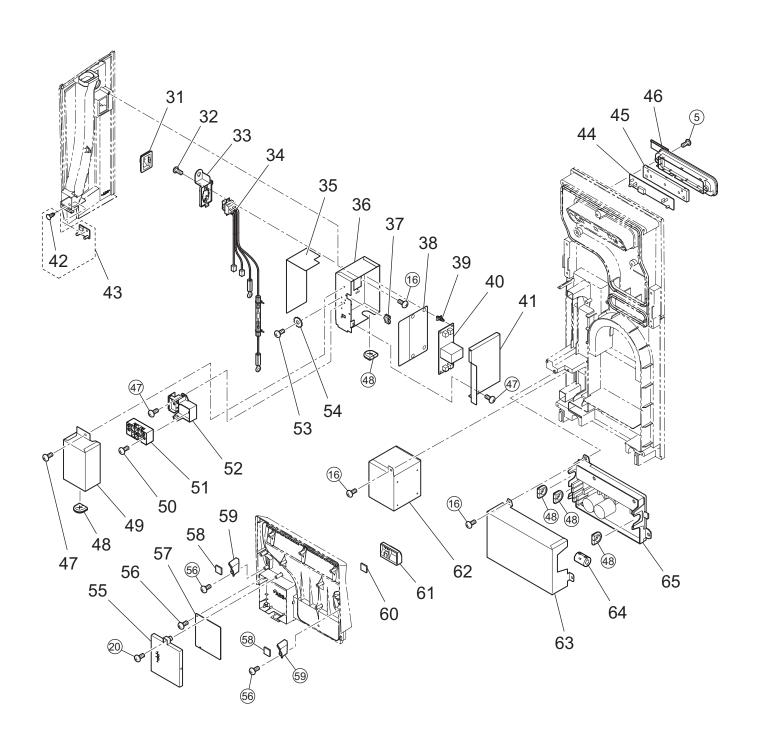
## Model JT-SB216JSH-H-E

| No. | Parts No.       | Name of part                | Q'ty<br>pcs/unit | Critical<br>for safet |                     | Price |
|-----|-----------------|-----------------------------|------------------|-----------------------|---------------------|-------|
| 91. | M45 684 221     | Lead wire                   | 1                | $\triangle$           | CN8-CN11            |       |
| 92. | M45 684 220     | Lead wire                   | 1                | <b>1</b>              | CN7-CN12, 15        |       |
| 93. | Y45 622 219     | Lead wire                   | 1                | <b>1</b>              | With a ferrite core |       |
| 94. | M45 $684$ $223$ | Lead wire                   | 1                | <b>1</b>              | CN18-CN19           |       |
| 95. | Y45 623 219     | Lead wire                   | 1                | <b>1</b>              | CN2-CN5             |       |
| 96. | M45 636 018     | Special screw 5×30          | 6                |                       |                     |       |
| 97. | D40 134 227     | Cord clip                   | 1                |                       |                     |       |
| 98. | M45 693 017     | Special screw $4 \times 12$ | 1                |                       |                     |       |
| 99. | Y45 622 179     | Ferrite core                | 1                |                       |                     |       |



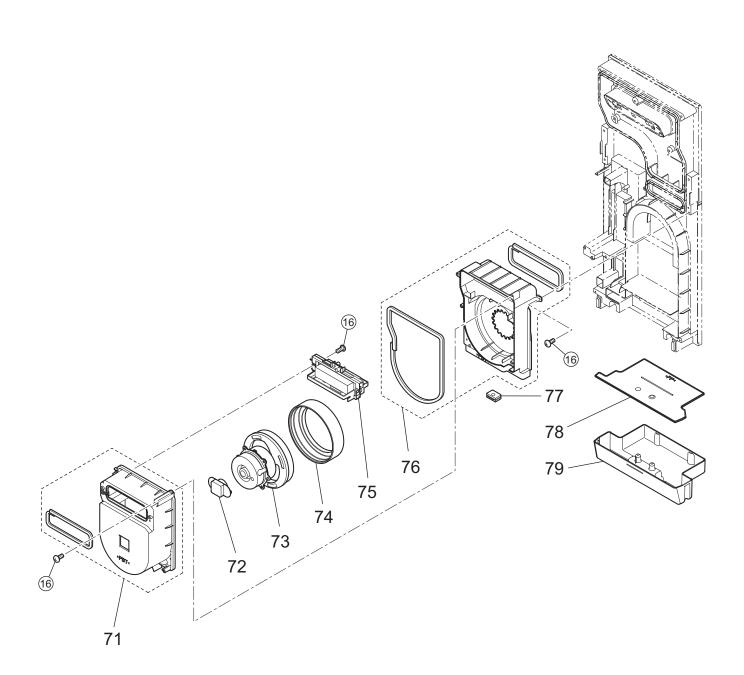
Model JT-SB216JSH-S-E

| No. | Parts No.   | Name of part            | Q'ty<br>pcs/unit | Critical<br>for safety |          | Price |
|-----|-------------|-------------------------|------------------|------------------------|----------|-------|
| 1.  | M45 684 841 | Side cover              | 1                |                        | Gray     |       |
| 2.  | Y45 623 807 | Switch door             | 1                |                        | Gray     |       |
| 3.  | Y45 623 806 | Side panel (left)       | 1                |                        | Gray     |       |
| 4.  | Y45 622 805 | Base                    | 1                |                        |          |       |
| 5.  | D41 233 018 | Special screw 4×16      | 13               |                        |          |       |
| 6.  | M45 684 805 | Hook (upper)            | 1                |                        |          |       |
| 7.  | M45 632 047 | Special screw 4×16      | 2                |                        |          |       |
| 8.  | M45 684 802 | Fix plate               | 1                |                        |          |       |
| 9.  | Y45 622 802 | Exhaust duct            | 1                |                        |          |       |
| 10. | M45 684 824 | Panel holder (left)     | 1                |                        |          |       |
| 11. | M45 684 825 | Panel holder (right)    | 1                |                        |          |       |
| 12. | M45 684 838 | Panel (front)           | 1                |                        | Gray     |       |
| 13. | M45 684 843 | Side panel (right)      | 1                |                        | Gray     |       |
| 14. | Y45 623 803 | Panel (back)            | 1                |                        | Gray     |       |
| 15. | M45 665 806 | Filter                  | 1                | $\triangle$            |          |       |
| 16. | H00 163 007 | PTT screw $4 \times 16$ | 31               |                        |          |       |
| 17. | M45 684 804 | Cover                   | 1                |                        |          |       |
| 18. | Y45 623 809 | Decoration plate        | 1                |                        |          |       |
| 19. | Y45 623 804 | Front panel             | 1                |                        | Metallic |       |
| 20. | M45 632 045 | Special screw 4×16      | 3                |                        |          |       |
| 21. | Y45 623 358 | Wiring diagram          | 1                |                        |          |       |



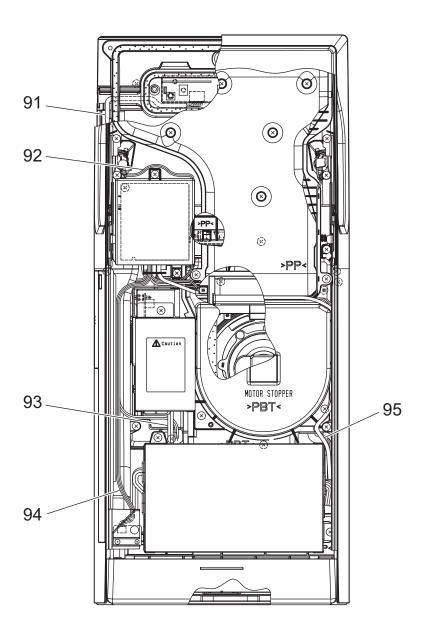
Model JT-SB216JSH-S-E

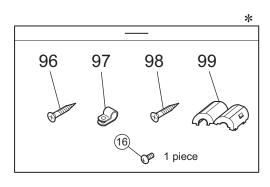
| No.        | Parts No.   | Name of part                      | Q'ty     |             | 1 Remarks   | Price |
|------------|-------------|-----------------------------------|----------|-------------|-------------|-------|
|            |             |                                   | pcs/unit | for safe    | ty          |       |
| 0.1        | WAE 670 999 | Conit 1                           | 1        |             |             |       |
| 31.<br>32. |             | Switch cover PPT screw 3×8        | 1        |             |             |       |
|            |             |                                   | 1        |             |             |       |
| 33.        | Y45 622 220 | Switch fix piece<br>Switch (assy) | 1        | <b>1</b>    | With a fuse |       |
| 34.<br>35. | M45 684 823 | Insulation sheet                  | 1<br>1   | <u> </u>    | with a fuse |       |
| 36.        |             | Terminal block fix plate          | 1        | <b>7.63</b> |             |       |
| 37.        | M45 640 226 | Cord bush                         | 1        |             |             |       |
| 38.        | M45 684 821 | Insulation sheet                  | 1        | <b>1</b>    |             |       |
| 39.        | M35 717 095 | Spacer                            | 4        |             |             |       |
| 40.        | Y45 622 173 | Circuit board                     | 1        | <b>1</b>    | JT-30F3     |       |
| 41.        |             | Board cover (filter)              | 1        |             | J1 0010     |       |
| 42.        | M45 606 095 | Spacer                            | 1        |             |             |       |
| 43.        | M45 684 176 | Circuit board                     | 1        | <u> </u>    | JT-30S5     |       |
| 44.        |             | Circuit board                     | 1        | $\triangle$ | JT-30S1     |       |
| 45.        | M45 684 831 | Sensor fix plate (upper)          | 1        |             | Ü           |       |
| 46.        | M45 684 828 | Maintenance cover                 | 1        |             |             |       |
| 47.        | H00 312 007 | PTT screw $4 \times 6$            | 3        |             |             |       |
| 48.        | M45 649 226 | Cord bush                         | 5        |             |             |       |
| 49.        | M45 684 826 | Terminal block cover              | 1        |             |             |       |
| 50.        | H00 141 005 | PPT screw $4 \times 20$           | 2        |             |             |       |
| 51.        | K81 432 236 | Terminal block                    | 1        | $\triangle$ | 3P ML-20    |       |
| 52.        | Y45 622 808 | Terminal block fix holder         | 1        |             |             |       |
| 53.        | H00 011 008 | PT screw $4 \times 8$ (BS)        | 2        |             |             |       |
| 54.        | H00 013 076 | Lock washer (4)                   | 2        |             |             |       |
| 55.        | M45 684 834 | Cover (micon)                     | 1        |             |             |       |
| 56.        | M34 869 018 | Special screw $4 \times 12$       | 3        |             |             |       |
| 57.        | Y45 623 172 | Circuit board                     | 1        | $\triangle$ | JT-30M3     |       |
| 58.        | M45 684 173 | Circuit board (middle)            | 2        | $\Lambda$   | JT-30S2     |       |
| 59.        |             | Sensor fix piece (middle)         | 2        |             |             |       |
| 60.        | M45 684 174 | Circuit board (lower)             | 1        | $\Delta$    | JT-30S3     |       |
| 61.        | M45 684 830 | Sensor fix holder (lower)         | 1        |             |             |       |
| 62.        |             | Reactor (assy)                    | 1        | <b>1</b>    |             |       |
| 63.        |             | Board cover (power)               | 1        |             |             |       |
| 64.        | Y45 622 180 | Ferrite core                      | 1        | Δ.          |             |       |
| 65.        | Y45 623 171 | Circuit board                     | 1        | <b>1</b>    | JT-30P3H    |       |



Model JT-SB216JSH-S-E

| No. | Parts No.       | Name of part    | Q'ty<br>pcs/unit |             | l Remarks<br>ty | Price |
|-----|-----------------|-----------------|------------------|-------------|-----------------|-------|
| 71. | M45 684 811     | Blower cover    | 1                |             |                 |       |
| 72. | M45 673 227     | Blower stopper  | 1                |             |                 |       |
| 73. | Y45 622 400     | Blower (assy)   | 1                | $\triangle$ |                 |       |
| 74. | M45 664 227     | Floating rubber | 1                |             |                 |       |
| 75. | Y45 623 801     | Heater (PTC)    | 1                | $\triangle$ | With a fuse     |       |
| 76. | M45 684 833     | Blower case     | 1                |             |                 |       |
| 77. | M45 $684$ $225$ | Cord bush       | 1                |             |                 |       |
| 78. | M45 684 814     | Tank cover      | 1                |             |                 |       |
| 79. | M45 684 839     | Drain tank      | 1                |             |                 |       |

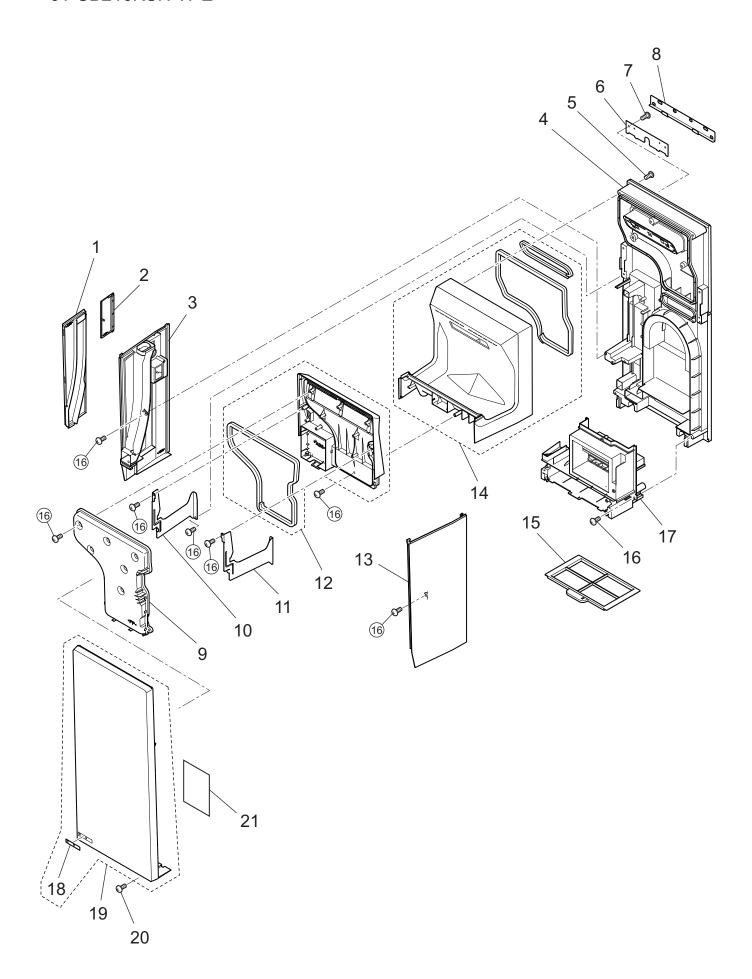




 $\begin{tabular}{ll} * shows accessory parts. \end{tabular}$ 

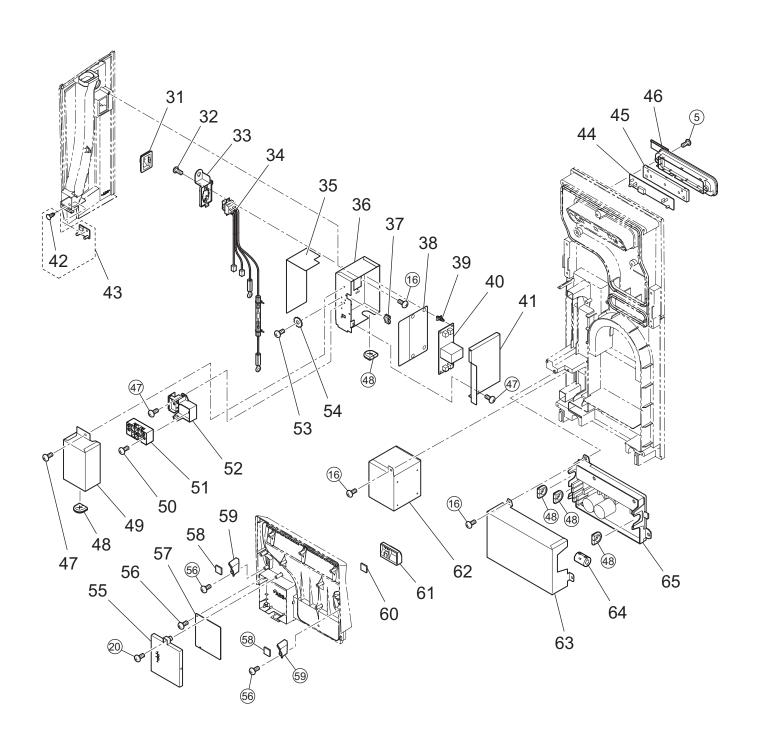
Model JT-SB216JSH-S-E

| No. | Parts No.   | Name of part       | Q'ty<br>pcs/unit | Critical<br>for safet |                     | Price |
|-----|-------------|--------------------|------------------|-----------------------|---------------------|-------|
| 91. | M45 684 221 | Lead wire          | 1                | $\triangle$           | CN8-CN11            |       |
| 92. | M45 684 220 | Lead wire          | 1                | <b>1</b>              | CN7-CN12, 15        |       |
| 93. | Y45 622 219 | Lead wire          | 1                | <b>1</b>              | With a ferrite core |       |
| 94. | M45 684 223 | Lead wire          | 1                | <b>1</b>              | CN18-CN19           |       |
| 95. | Y45 623 219 | Lead wire          | 1                | <b>1</b>              | CN2-CN5             |       |
| 96. | M45 636 018 | Special screw 5×30 | 6                |                       |                     |       |
| 97. | D40 134 227 | Cord clip          | 1                |                       |                     |       |
| 98. | M45 693 017 | Special screw 4×12 | 1                |                       |                     |       |
| 99. | Y45 622 179 | Ferrite core       | 1                |                       |                     |       |



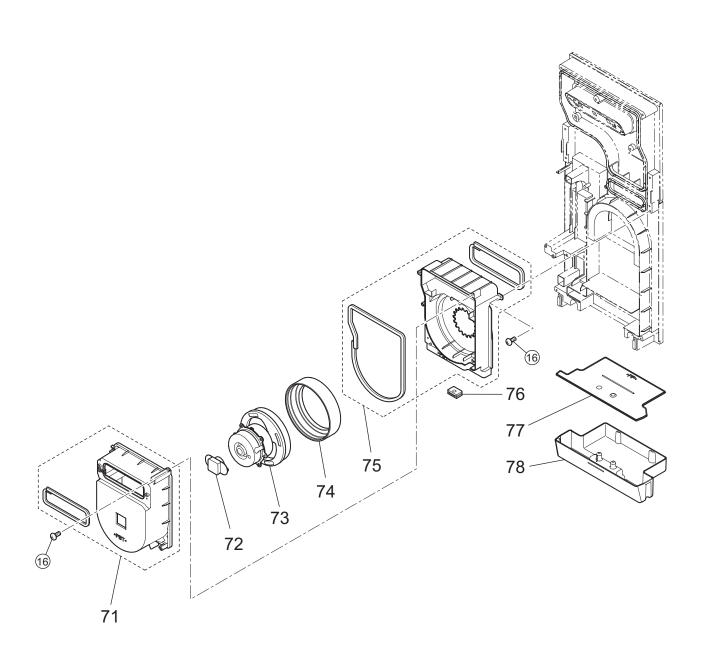
Model JT-SB216KSN-W-E

| No. | Parts No.   | Name of part                | Q'ty<br>pcs/unit | Critical Remarks<br>for safety | Price |
|-----|-------------|-----------------------------|------------------|--------------------------------|-------|
| 1.  | M45 684 817 | Side cover                  | 1                | White                          |       |
| 2.  | Y45 622 807 | Switch door                 | 1                | White                          |       |
| 3.  | Y45 622 806 | Side panel (left)           | 1                | White                          |       |
| 4.  | Y45 622 805 | Base                        | 1                |                                |       |
| 5.  | D41 233 018 | Special screw 4×16          | 13               |                                |       |
| 6.  | M45 684 805 | Hook (upper)                | 1                |                                |       |
| 7.  | M45 632 047 | Special screw 4×16          | 2                |                                |       |
| 8.  | M45 684 802 | Fix plate                   | 1                |                                |       |
| 9.  | Y45 622 802 | Exhaust duct                | 1                |                                |       |
| 10. | M45 684 824 | Panel holder (left)         | 1                |                                |       |
| 11. | M45 684 825 | Panel holder (right)        | 1                |                                |       |
| 12. | M45 684 803 | Panel (front)               | 1                | White                          |       |
| 13. | M45 684 832 | Side panel (right)          | 1                | White                          |       |
| 14. | Y45 622 801 | Panel (back)                | 1                | White                          |       |
| 15. | M45 665 806 | Filter                      | 1                | $\Delta$                       |       |
| 16. | H00 163 007 | PTT screw $4 \times 16$     | 29               |                                |       |
| 17. | M45 684 804 | Cover                       | 1                |                                |       |
| 18. | Y45 622 809 | Decoration plate            | 1                |                                |       |
| 19. | Y45 622 800 | Front panel                 | 1                | White                          |       |
| 20. | M45 632 045 | Special screw $4 \times 16$ | 3                |                                |       |
| 21. | Y45 622 358 | Wiring diagram              | 1                |                                |       |



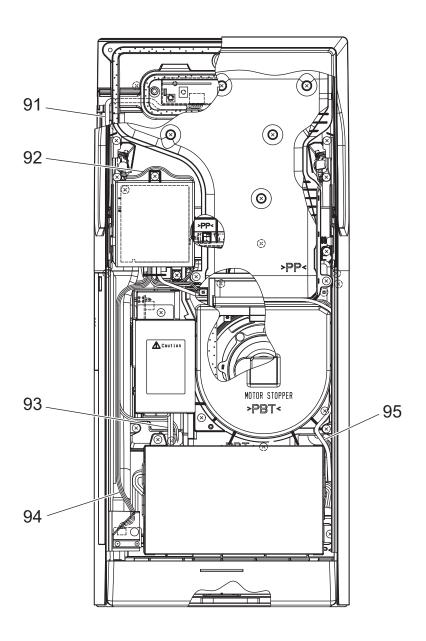
Model JT-SB216KSN-W-E

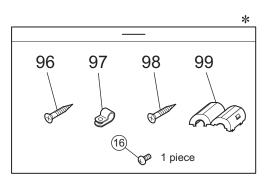
| No. | Parts No.   | Name of part                | Q'ty     | Critical    |             | Price |
|-----|-------------|-----------------------------|----------|-------------|-------------|-------|
|     |             |                             | pcs/unit | for safet   | У           |       |
| 31. | M45 679 228 | Switch cover                | 1        |             |             |       |
| 32. | H00 003 005 | PPT screw 3×8               | 1        |             |             |       |
| 33. | M45 684 820 | Switch fix piece            | 1        |             |             |       |
| 34. | Y45 622 220 | Switch (assy)               | 1        | <b>1</b>    | With a fuse |       |
| 35. | M45 684 823 | Insulation sheet            | 1        | 1           |             |       |
| 36. | Y45 622 804 | Terminal block fix plate    | 1        |             |             |       |
| 37. | M45 640 226 | Cord bush                   | 1        |             |             |       |
| 38. | M45 684 821 | Insulation sheet            | 1        | <b>1</b>    |             |       |
| 39. | M35 717 095 | Spacer                      | 4        |             |             |       |
| 40. | Y45 622 173 | Circuit board               | 1        | <b>1</b>    | JT-30F3     |       |
| 41. | M45 684 822 | Board cover (filter)        | 1        |             |             |       |
| 42. | M45 606 095 | Spacer                      | 1        |             |             |       |
| 43. | M45 684 176 | Circuit board               | 1        | <b>A</b>    | JT-30S5     |       |
| 44. | M45 684 172 | Circuit board               | 1        | <b>1</b>    | JT-30S1     |       |
| 45. | M45 684 831 | Sensor fix plate (upper)    | 1        |             |             |       |
| 46. | M45 684 828 | Maintenance cover           | 1        |             |             |       |
| 47. | H00 312 007 | PTT screw $4 \times 6$      | 3        |             |             |       |
| 48. | M45 649 226 | Cord bush                   | 5        |             |             |       |
| 49. | M45 684 826 | Terminal block cover        | 1        |             |             |       |
| 50. | H00 141 005 | PPT screw $4 \times 20$     | 2        |             |             |       |
| 51. | K81 432 236 | Terminal block              | 1        | <b>1</b>    | 3P ML-20    |       |
| 52. | Y45 622 808 | Terminal block fix holder   | 1        |             |             |       |
| 53. | H00 011 008 | PT screw $4\times8$ (BS)    | 2        |             |             |       |
| 54. | H00 013 076 | Lock washer (4)             | 2        |             |             |       |
| 55. | M45 684 834 | Cover (micon)               | 1        |             |             |       |
| 56. | M34 869 018 | Special screw $4 \times 12$ | 3        |             |             |       |
| 57. | Y45 622 172 | Circuit board               | 1        | <b>1</b>    | JT-30M2     |       |
| 58. | M45 684 173 | Circuit board (middle)      | 2        | <b>1</b>    | JT-30S2     |       |
| 59. |             | Sensor fix piece (middle)   | 2        |             |             |       |
| 60. | M45 684 174 | Circuit board (lower)       | 1        | <b>1</b>    | JT-30S3     |       |
| 61. | M45 684 830 | Sensor fix holder (lower)   | 1        |             |             |       |
| 62. | Y45 622 803 | Reactor (assy)              | 1        | <b>1</b>    |             |       |
| 63. |             | Board cover (power)         | 1        |             |             |       |
| 64. | Y45 622 180 | Ferrite core                | 1        |             |             |       |
| 65. | Y45 622 171 | Circuit board               | 1        | $\triangle$ | JT-30P3     |       |



## Model JT-SB216KSN-W-E

| No. | Parts No.       | Name of part    | Q'ty<br>pcs/unit | Critical Remarks<br>for safety | Price |
|-----|-----------------|-----------------|------------------|--------------------------------|-------|
| 71. | M45 684 811     | Blower cover    | 1                |                                |       |
| 72. | M45 673 227     | Blower stopper  | 1                |                                |       |
| 73. | Y45 622 400     | Blower (assy)   | 1                | $\triangle$                    |       |
| 74. | M45 664 227     | Floating rubber | 1                |                                |       |
| 75. | M45 684 833     | Blower case     | 1                |                                |       |
| 76. | M45 $684$ $225$ | Cord bush       | 1                |                                |       |
| 77. | M45 684 814     | Tank cover      | 1                |                                |       |
| 78. | M45 684 813     | Drain tank      | 1                |                                |       |





 $\begin{tabular}{ll} * shows accessory parts. \end{tabular}$ 

## Model JT-SB216KSN-W-E

| No. | Parts No.   | Name of part       | · . • | Critical<br>for safet |                     | Price |
|-----|-------------|--------------------|-------|-----------------------|---------------------|-------|
| 91. | M45 684 221 | Lead wire          | 1     | $\triangle$           | CN8-CN11            |       |
| 92. | M45 684 220 | Lead wire          | 1     | $\triangle$           | CN7-CN12, 15        |       |
| 93. | Y45 622 219 | Lead wire          | 1     | <b>1</b>              | With a ferrite core |       |
| 94. | M45 684 223 | Lead wire          | 1     | <b>1</b>              | CN18-CN19           |       |
| 95. | M45 684 219 | Lead wire          | 1     | <b>1</b>              | CN2-CN5             |       |
| 96. | M45 636 018 | Special screw 5×30 | 6     |                       |                     |       |
| 97. | D40 134 227 | Cord clip          | 1     |                       |                     |       |
| 98. | M45 693 017 | Special screw 4×12 | 1     |                       |                     |       |
| 99. | Y45 622 179 | Ferrite core       | 1     |                       |                     |       |