



MAINTENANCE MANUAL

Air Mover (USA Standards)

For professional use only

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Number	Applicable Model	Remark
1	X-200AT * /P-200AT *, X-230AT * /P-230AT *, X-400AT * /P-400AT *, X-430AT * /P-430AT * X-600*AT */P-600*AT *, X-630AT * /P-630AT *	With Daisy Chain and Timer
2	X-200A * /P-200A *, X-230A * /P-230A*, X-400A * /P-400A *, X-430A * /P-430A * X-600*A */P-600*A *, X-630A * /P-630A *	With Daisy Chain, without Timer
3	X-200T* /P-200T*, X-230T * /P-230T*, X-400T * /P-400T *, X-430T * /P-430T * X-600*T */P-600*T *, X-630*T * /P-630*T * X-800T * /P-800T *, X-830T * /P-830T *	With Timer, without Daisy Chain
4	X-200* /P-200*, X-230 * /P-230*, X-400 * /P-400 *, X-430 * /P-430 * X-*600 * /P-*600 *, X-630 * /P-630 * X-800 * /P-800 *, X-830 * /P-830 *	Without Timer and Daisy Chain
Model Options: “*” means S、H、C、F（or WFK）or without other parts “S” means sealed motor , “A” means daisy chain , “T” means timer , “H” means handle , “C” means carpet clamp , “F” “WFK” means Filter Kit Model letters S, A, T, H, C, F order。		

MAINTENANCE MANUAL OF AIR MOVER (I)

(With Daisy Chain and Timer)

Applicable model	X-200AT * /P-200AT * , X-230AT * /P-230AT * , X-400AT * /P-400AT * , X-430AT * /P-430AT * X-600*AT */P-600*AT * , X-630AT * /P-630AT *
Model Instruction: “*” means S、H、C、F (or WFK) or without other parts “S” means sealed motor , “A” means daisy chain , “T” means timer , “H” means handle , “C” means carpet clamp , “F” “WFK” means Filter Kit Model letters S, A, T, H, C, F order.	

1. Main Parts Description



Fig. 1



Fig. 2-A

X-600*AT */P-600*AT *
X-630AT * /P-630AT *



Fig. 2-B

X-400AT */P-400AT *
X-430AT * /P-430AT *

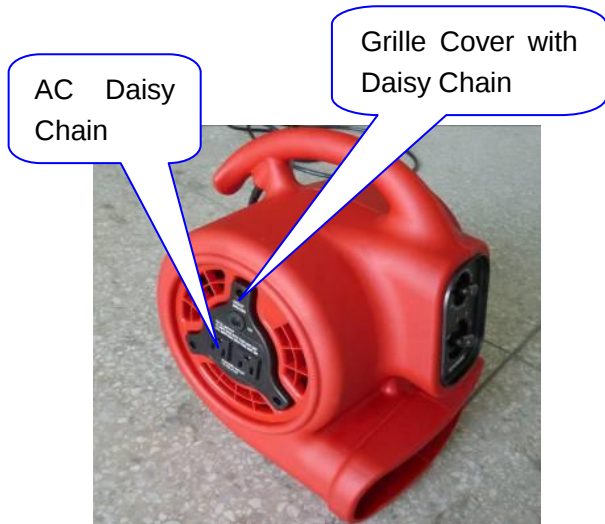


Fig. 2-C
X-200AT */P-200AT *

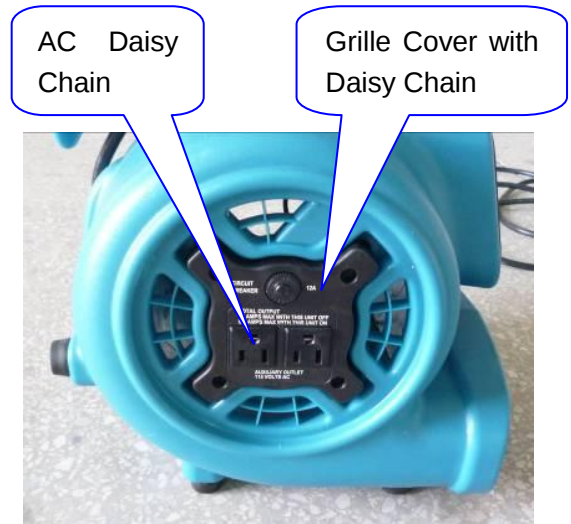


Fig. 2-D
X-230AT */P-230AT *

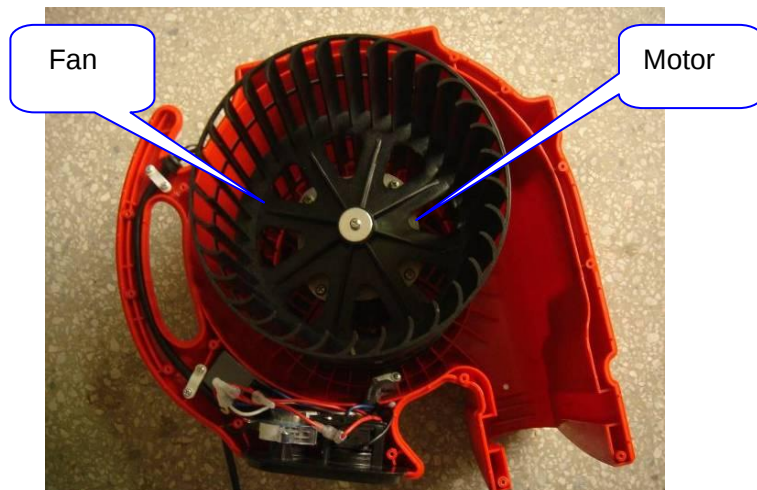


Fig. 3-A
X-400AT */P-400AT *, X-430AT */P-430AT *
X-600*AT */P-600*AT *, X-630AT */P-630AT *

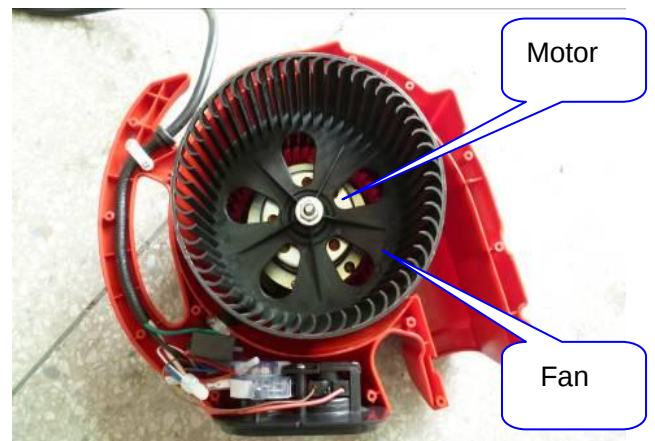


Fig. 3-B
X-200AT */P-200AT *
X-230AT */P-230AT *

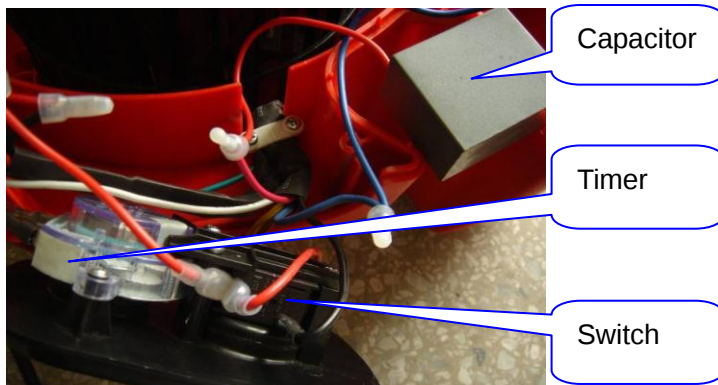


Fig. 4-A
X-400AT */P-400AT * , X-430AT */P-430AT *
X-600*AT */P-600*AT * , X-630AT */P-630AT *

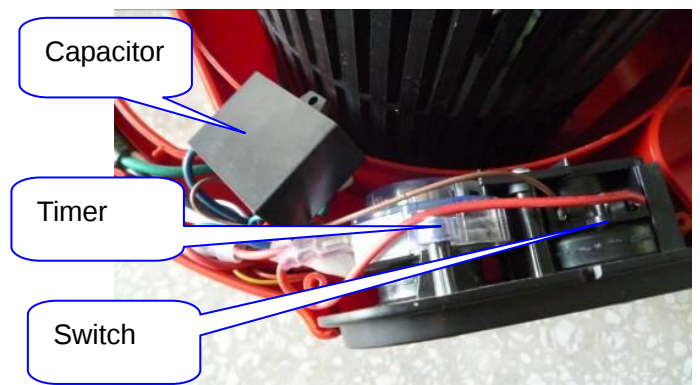


Fig. 4-A
X-200AT */P-200AT *
X-230AT */P-230AT *

2. Wire Diagram

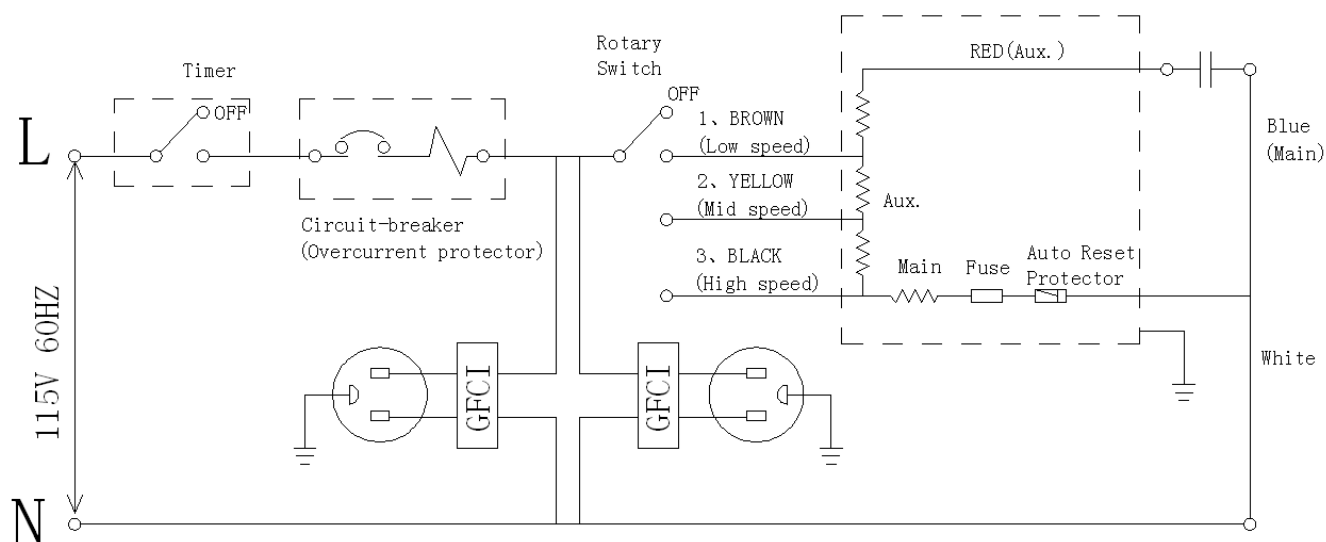


Fig. 5-A (X-600*AT */P-600*AT *, X-630AT */P-630AT *)

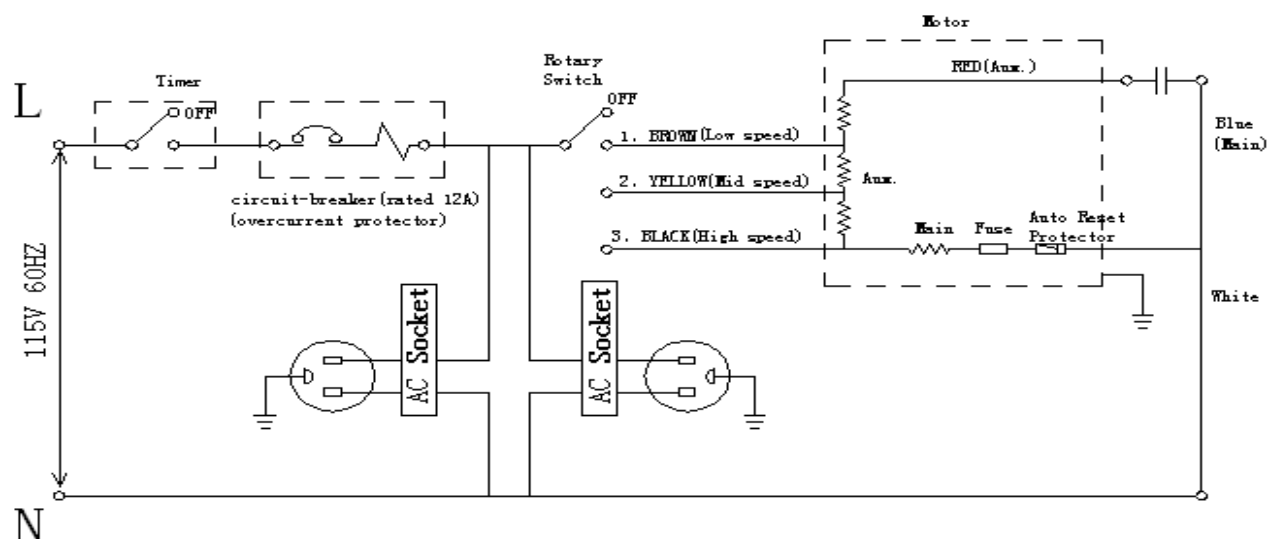


Fig. 5-B (X-400AT */P-400AT *, X-430AT */P-430AT *)

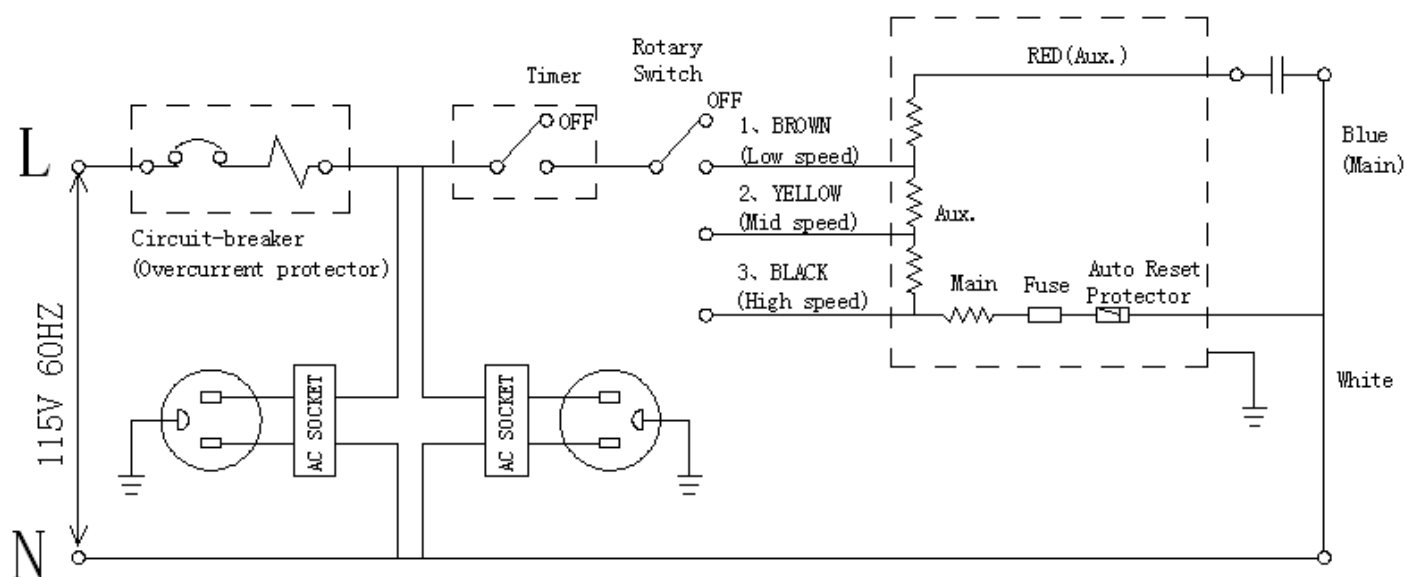


Fig. 5-C (X-200AT */P-200AT *, X-230AT */P-230AT *)

3. Steps of Disassembling:

3.1 Unplug Air Mover. (Fig. 6-1)

Turn on the switch to speed 3 to release the electricity of capacitor for 2 minutes, until the voltage reduces to a safe voltage. (Fig. 6-2) (Note: if there is something wrong with voltage, the electricity of capacitor cannot release normally. Do not touch live parts directly without insulation tools).



Fig. 6-1



Fig. 6-2

3.2 Use a flat-head screwdriver to pry out the four screw plugs near the handle. (Fig. 7)

3.3 Remove the screws from the housing. (Fig. 8)

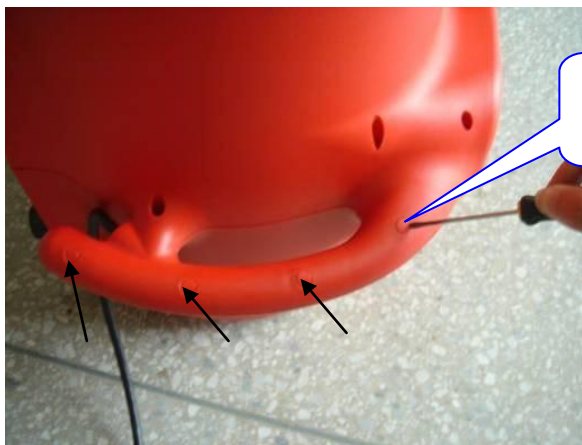


Fig. 7



Fig. 8

3.4 Remove kick stand. (Fig. 9)

3.5 Remove right housing. (Fig. 10)



Fig. 9



Fig. 10

4. Steps of Speed Switch Replacement

4.1 Open the right housing as in 3.1-3.5. Remove the five terminals from the Switch. (Fig. 11-A)
Or press the switch clip, remove the four terminals from the Switch. (Fig. 11-B)

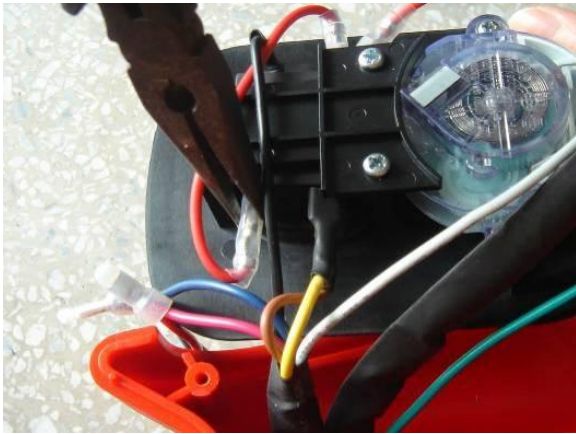


Fig. 11-A
X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT */P-600*AT *, X-630AT * /P-630AT *

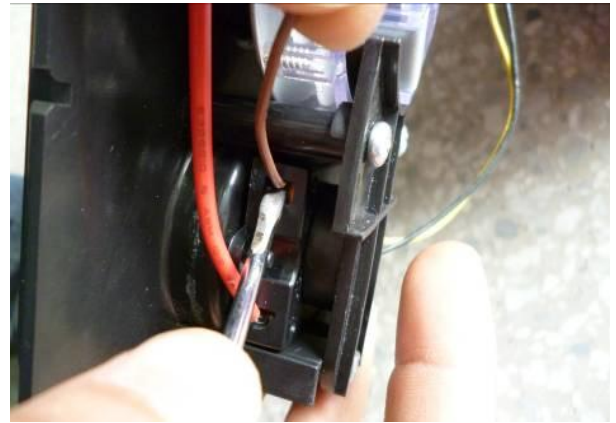


Fig. 11-B
X-200AT * /P-200AT *
X-230AT * /P-230AT *

4.2 Remove Switch Hold Clip screws. (Fig. 12)

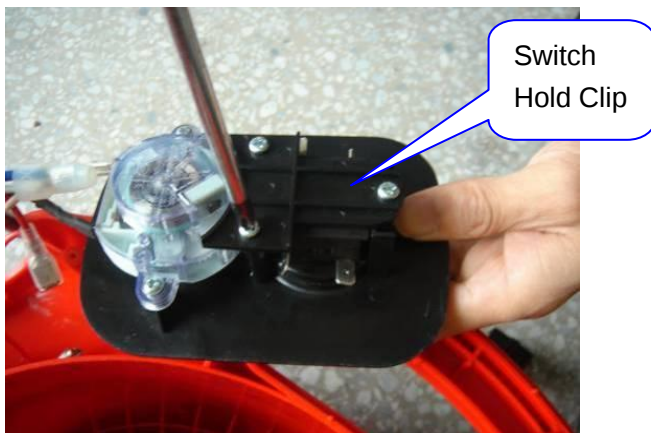


Fig. 12-A
X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT */P-600*AT *, X-630AT * /P-630AT *



Fig. 12-B
X-200AT * /P-200AT *
X-230AT * /P-230AT *

4.3 Remove Speed Switch. (Fig. 13)



Fig. 13-A
X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT */P-600*AT *, X-630AT * /P-630AT *



Fig. 13-B
X-200AT * /P-200AT *
X-230AT * /P-230AT *

4.4 Replace a new Speed Switch in reverse order 4.1—4.3 and connect wires. (Fig. 21- 22)

5. Steps of Daisy Chain Replacement

5.1 Remove the screws from the Grille Cover. (Fig. 14)



Fig. 14-A
X-600*AT */P-600*AT *
X-630AT * /P-630AT *



Fig. 14-B
X-400AT */P-400AT *
X-430AT * /P-430AT *



Fig. 14-C
X-200AT * /P-200AT *



Fig. 14-D
X-230AT * /P-230AT *

5.2 Unplug terminals connected to the Over Current Protector. (Fig. 15)



Fig. 15-A
X-600*AT */P-600*AT *
X-630AT * /P-630AT *



Fig. 15-B
X-400AT */P-400AT *
X-430AT * /P-430AT *

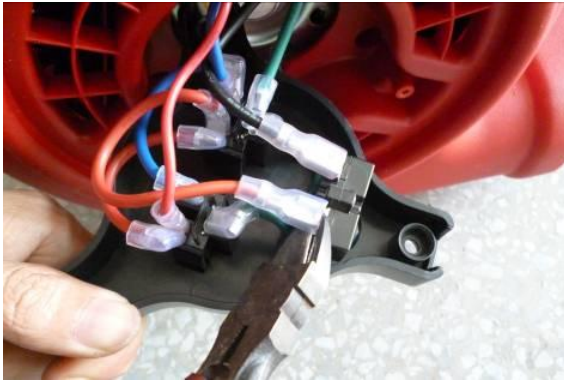


Fig. 15-C
X-200AT * /P-200AT *



Fig. 15-D
X-230AT * /P-230AT *

5.3 Remove the fixed nut; remove Over Current Protector. (Fig. 16)



Fig. 16-A
X-600*AT * /P-600*AT *
X-630AT * /P-630AT *



Fig. 16-B
X-400AT * /P-400AT *
X-430AT * /P-430AT *



Fig. 16-C
X-200AT * /P-200AT *



Fig. 16-D
X-230AT * /P-230AT *

5.4-A **600 models**; Remove two screws from the socket; loosen the three screws to remove wires from GFCI. (Fig. 17-A)

5.4-B **400 models**; Remove the terminals connected to the socket, remove the socket. (Fig. 17-B)



Fig. 17-A
X-600*AT */P-600*AT *
X-630AT * /P-630AT *

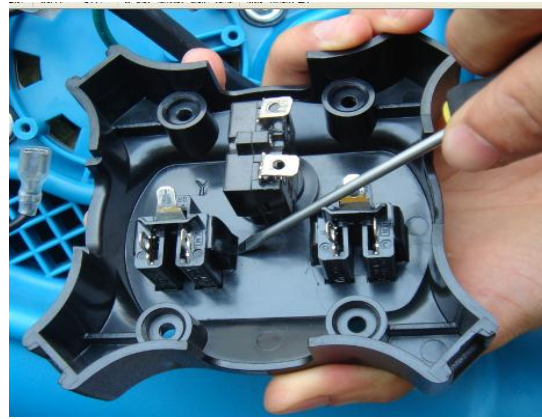


Fig. 17-B
X-400AT */P-400AT *
X-430AT * /P-430AT *

5.3-C **200 models**; Remove the terminals connected to the socket, remove the socket. (Fig. 17-C, Fig. 17-D)

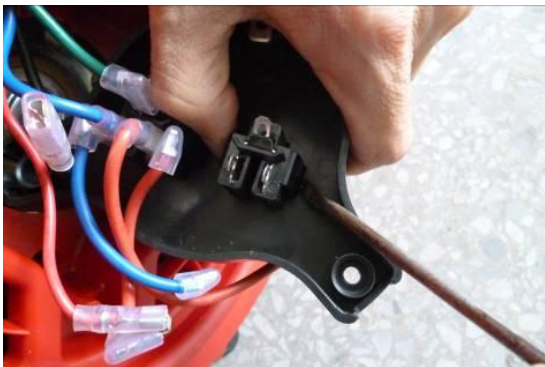


Fig. 17-C
X-200AT * /P-200AT *



Fig. 17-D
X-230AT * /P-230AT *

6. Steps of Assembling:

6.1 Connect wires of connection socket and of Over Current Protector. (Fig. 18)

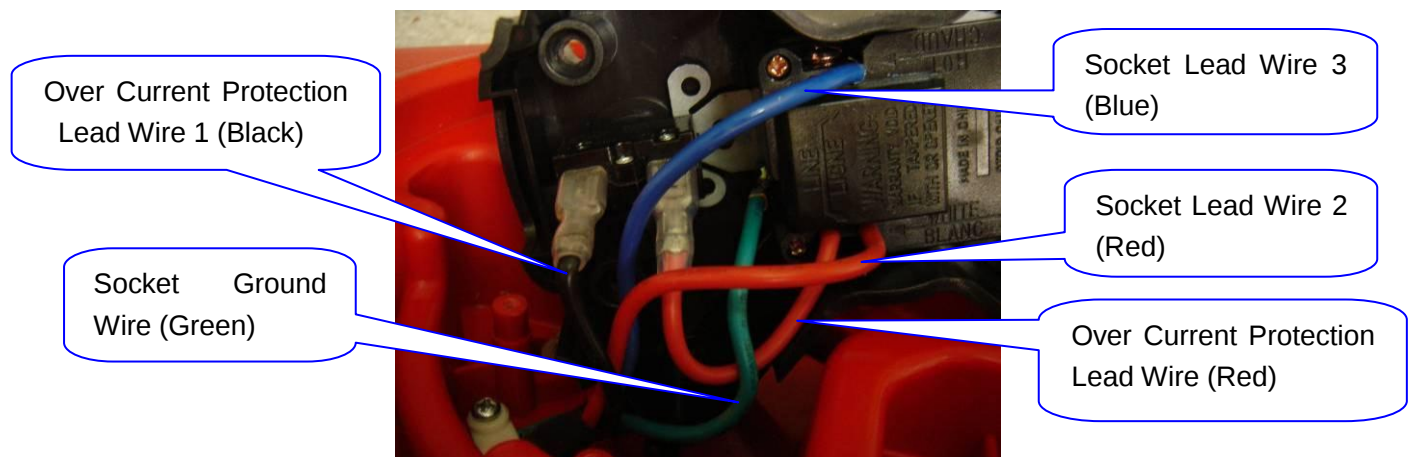


Fig. 18-A
X-600*AT */P-600*AT *
X-630AT * /P-630AT *

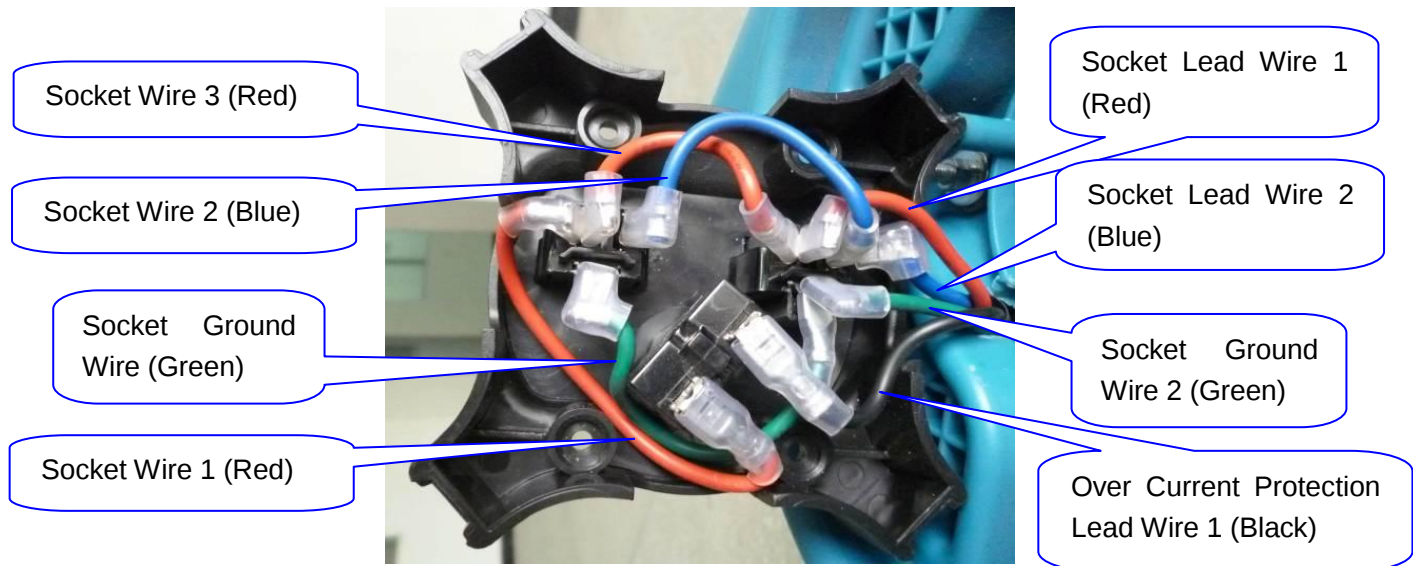


Fig. 18-B
X-400AT */P-400AT *
X-430AT */P-430AT *

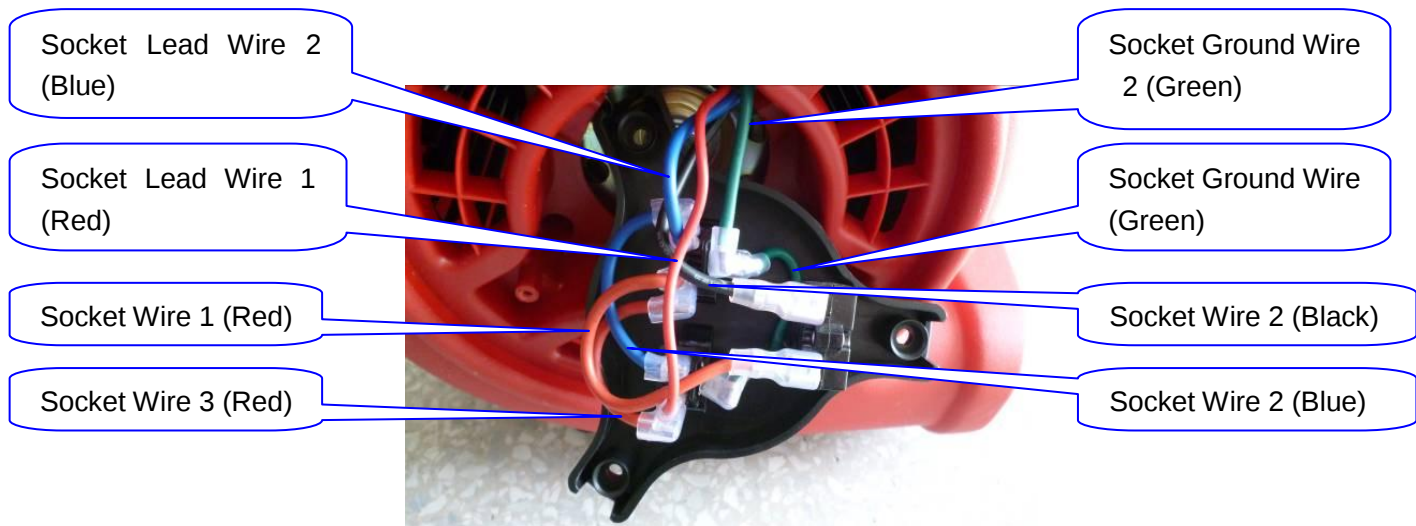


Fig. 18-C
X-200AT */P-200AT *



Fig. 18-D
X-230AT */P-230AT *

6.2 Install motor, using a socket wrench to tighten the nuts that secure the motor. (Fig. 19-A, Fig. 19-B)
Or use a screwdriver to tighten the screws that secure the motor. (Fig. 19-C)



Fig. 19-A
X-600*AT */P-600*AT *,
X-630AT */P-630AT *



Fig. 19-B
X-400AT */P-400AT *
X-430AT */P-430AT *



Fig. 19-C
X-200AT */P-200AT *
X-230AT */P-230AT *

6.3 Install fan. (Fig. 20)



Fig. 20-A
X-400AT */P-400AT *, X-430AT */P-430AT *
X-600*AT */P-600*AT *, X-630AT */P-630AT *



Fig. 20-B
X-200AT */P-200AT *
X-230AT */P-230AT *

6.4 Connect the Speed Connection Wire. (Fig. 21)

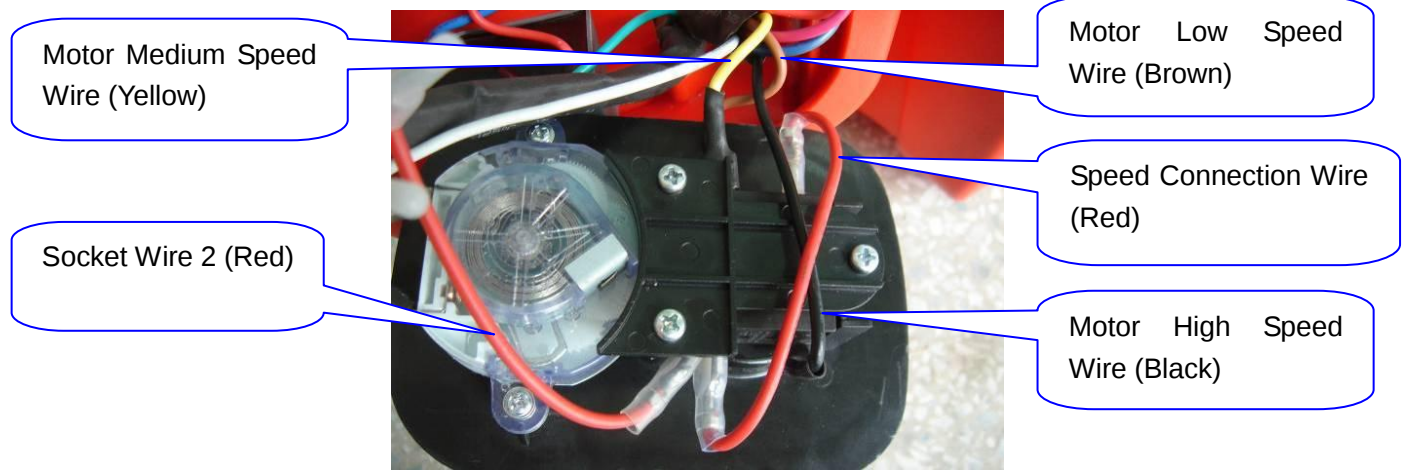


Fig. 21-A

X-400AT * /P-400AT *, X-430AT * /P-430AT *,
X-600*AT * /P-600*AT *, X-630AT * /P-630AT *

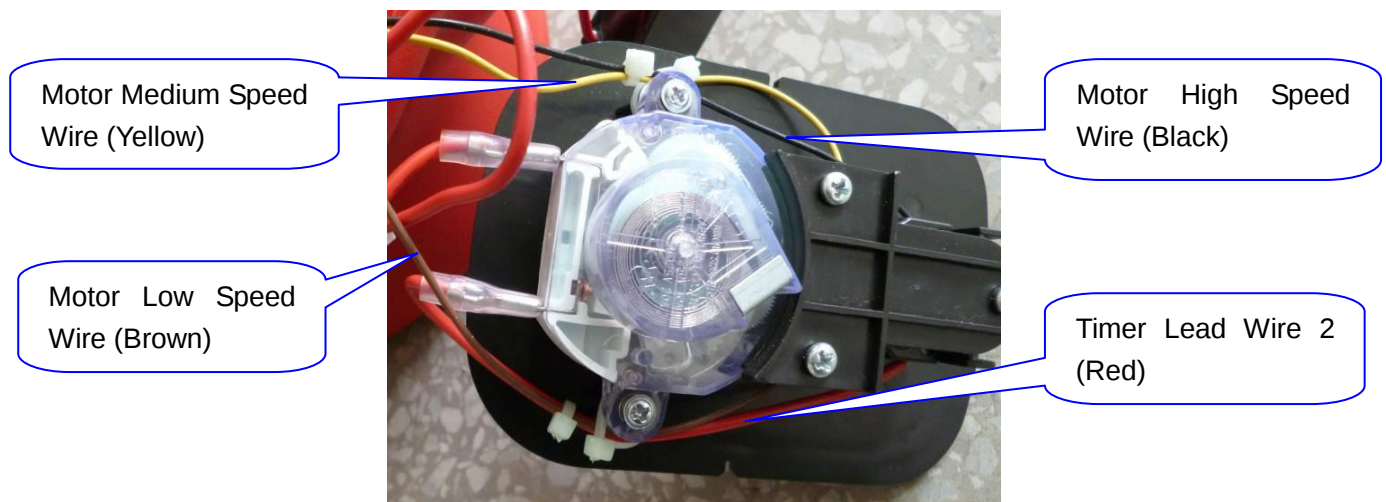


Fig. 21-B

X-200AT * /P-200AT *, X-230AT * /P-230AT *

6.5 Connect timer, motor and capacitor wires (blue capacitor wire to blue motor wire, red capacitor wire to red motor wire) (Fig. 22)

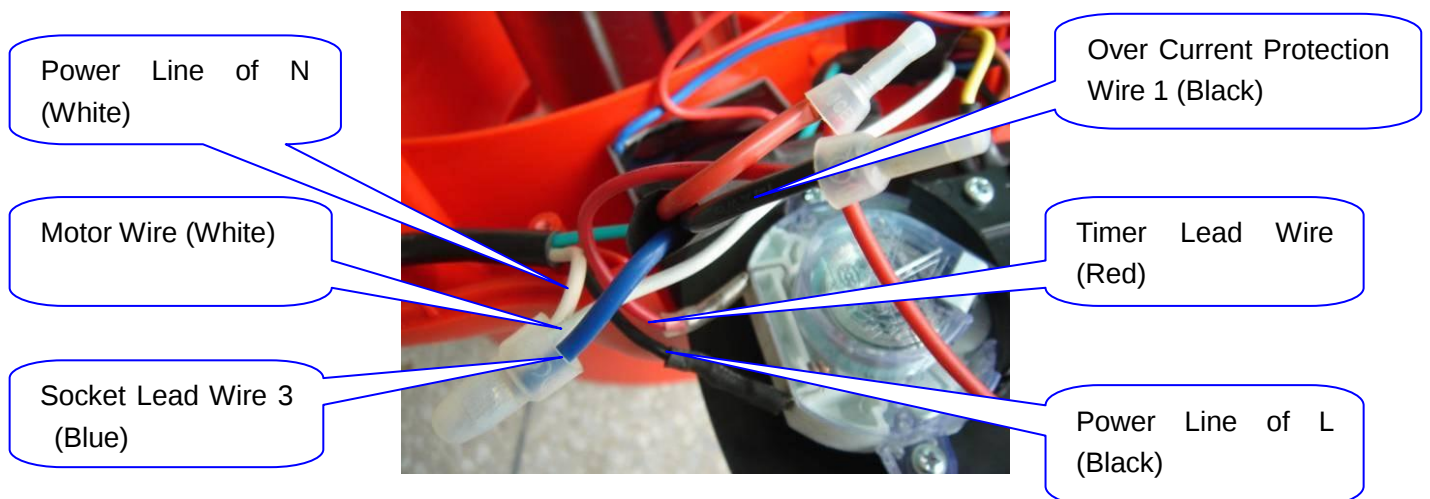


Fig. 22-A

X-400AT * /P-400AT *, X-430AT * /P-430AT *,
X-600*AT * /P-600*AT *, X-630AT * /P-630AT *

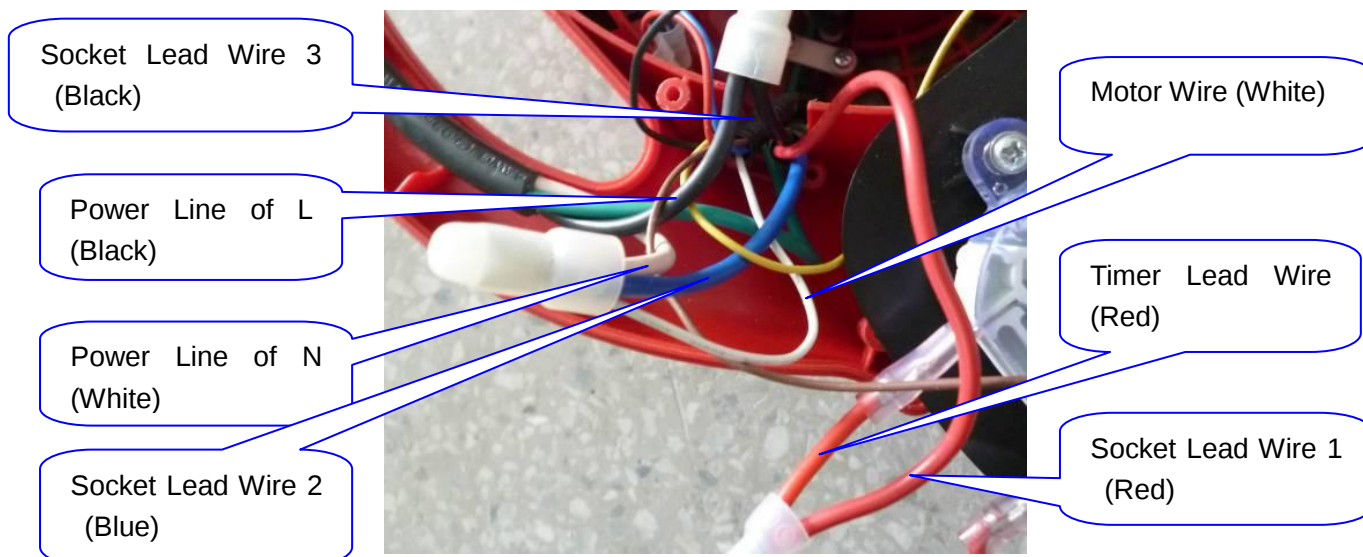


Fig. 22-B
X-200AT * /P-200AT *, X-230AT * /P-230AT *

6.6 Install Right Housing and screws. (Fig. 23)

6.7 Install Kick Stand. (Fig. 24)



Fig. 23



Fig. 24

7. Methods for Malfunction

Malfunction 1 - The machine does not turn on.

(1) Check that the power supply is working, that there is good connection, and that the speed switch is set to speed 1, 2, or 3 while the timer knob is pointing to ON or is greater than 0 (pointing to 0 is not energized). If machine still does not turn on, proceed to method (2).

(2) Follow 3.1-3.5 to open the Air Mover. Check for loose terminal connections. (Fig. 21 and Fig. 22) Tighten if necessary. If machine still does not turn on, proceed to method (3).

(3) Follow 4.1 to disassemble. Remove three wires connected to Speed Switch. Use the Multimeter (diode position, Fig. 25) to check conduction of Speed Switch at each speed level:

Adjust to speed 1, use the Multimeter to check the switch (Fig. 26);

Adjust to speed 2, use the Multimeter to check the switch (Fig. 27);

Adjust to speed 3, use the Multimeter to check the switch (Fig. 28);

If there is a speed that does not function properly, follow steps 4.1-4.3 to replace Speed Switch



Fig. 25



Fig. 26-A
X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT */P-600*AT *, X-630AT * /P-630AT *



Fig. 26-B
X-200AT * /P-200AT *
X-230AT * /P-230AT *



Fig. 27-A
X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT */P-600*AT *, X-630AT * /P-630AT *



Fig. 27-B
X-200AT * /P-200AT *
X-230AT * /P-230AT *

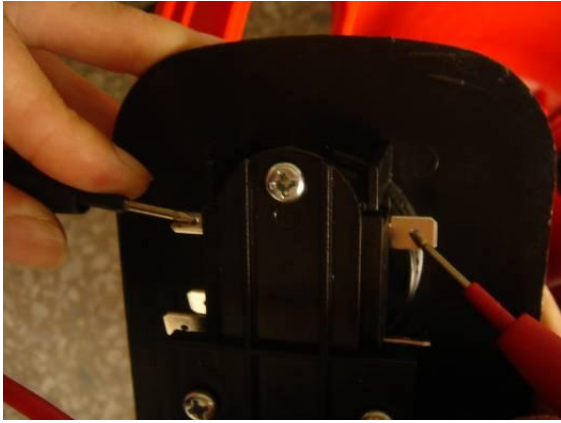


Fig. 28-A

X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT * /P-600*AT *, X-630AT * /P-630AT *



Fig. 28-B

X-200AT * /P-200AT *
X-230AT * /P-230AT *

Verification method: turn on the Speed Switch to speeds 1, 2 and 3 to check that the machine and the timer work normally; plug to another blower (if available) to check as well.

Malfunction 2 – Machine is noisy or vibration occurs

(1) Disassemble Grille Cover. Check that the nuts that secure the motor are not loose. If loose, use a socket wrench to tighten the nuts. (Fig. 29-A, Fig. 29-B) Or use a screwdriver to tighten the screws. (Fig. 29-C)



Fig. 29-A

X-600*AT * /P-600*AT *,
X-630AT * /P-630AT *



Fig. 29-B

X-400AT * /P-400AT *
X-430AT * /P-430AT *



Fig. 29-C

X-200AT * /P-200AT *
X-230AT * /P-230AT *

(2) Disassemble screws on Grille Cover (fan side, Fig. 30) check that the screws that secure the fan are not loose. If loose, tighten the screws. (Fig. 31-A) Or use a "T" socket wrench to tighten the nuts. (Fig. 31-B)



Fig. 30



Fig. 31-A

X-400AT * /P-400AT *, X-430AT * /P-430AT *
X-600*AT */P-600*AT *, X-630AT * /P-630AT *



Fig. 31-B

X-200AT * /P-200AT *
X-230AT * /P-230AT *

(3) Check that the fan is not damaged. If damaged, replace the fan.

Verification method: Compare to another normal blower that there is no significant difference in the noise and vibration.

MAINTENANCE MANUAL OF AIR MOVER (II)

(With Daisy Chain, without Timer)

Applicable model	X-200A * /P-200A *, X-230A * /P-230A * X-400A * /P-400A *, X-430A * /P-430A * X-600*A */P-600*A *, X-630A * /P-630A *
Model Instruction: “*” means S、H、C、F (or WFK) or without other parts “S” means sealed motor , “A” means daisy chain , “T” means timer , “H” means handle , “C” means carpet clamp , “F” “WFK” means Filter Kit Model letters S, A, T, H, C, F order.	

1. Main Parts Description



Fig. 1



Fig. 2-A

X-600*A */P-600*A *
X-630A * /P-630A *



Fig. 2-B

X-400A */P-400A *
X-430A * /P-430A *

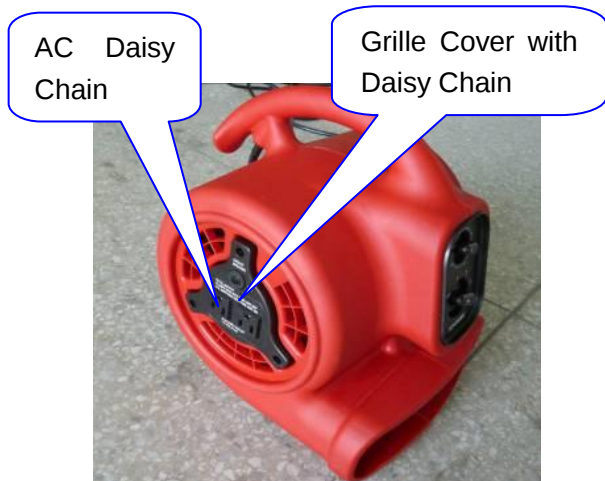


Fig. 2-C
X-200A */P-200A *

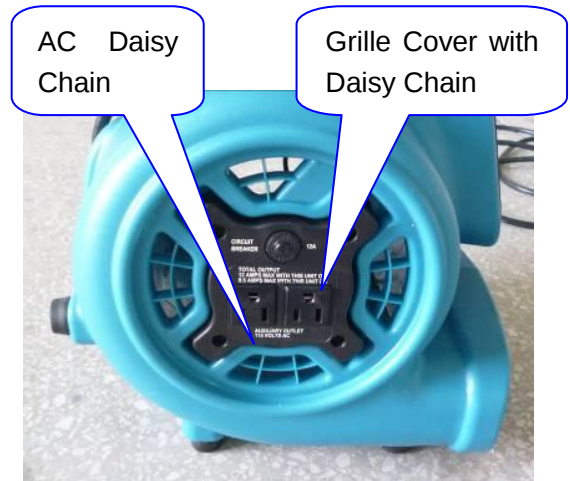


Fig. 2-D
X-230A */P-230A *

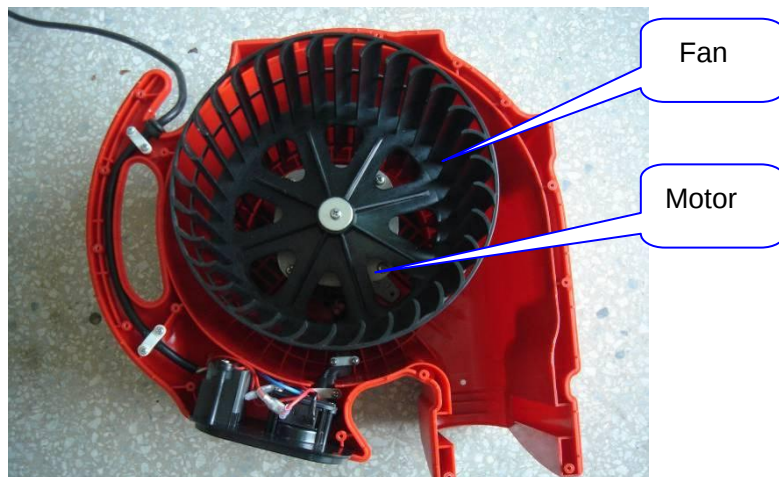


Fig. 3-A
X-400A */P-400A *, X-430A */P-430A *
X-600*A */P-600*A *, X-630A */P-630A *

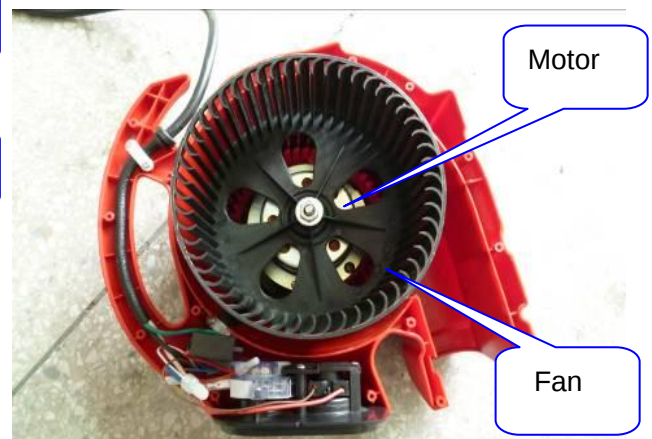


Fig. 3-B
X-200A */P-200A *
X-230A */P-230A *

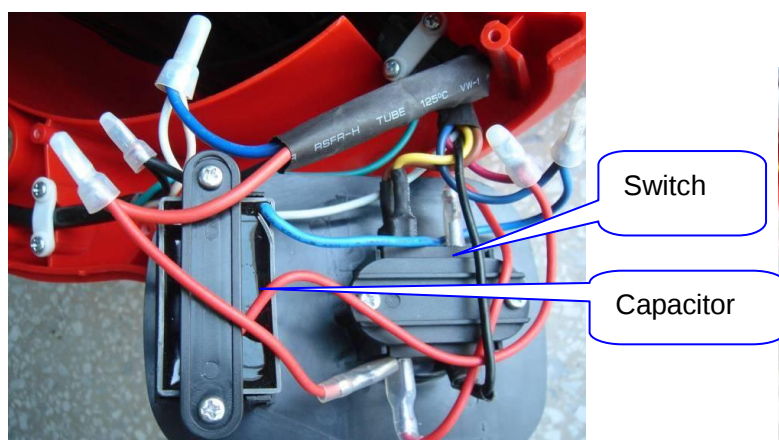


Fig. 4-A
X-400A */P-400A *, X-430A */P-430A *
X-600*A */P-600*A *, X-630A */P-630A *

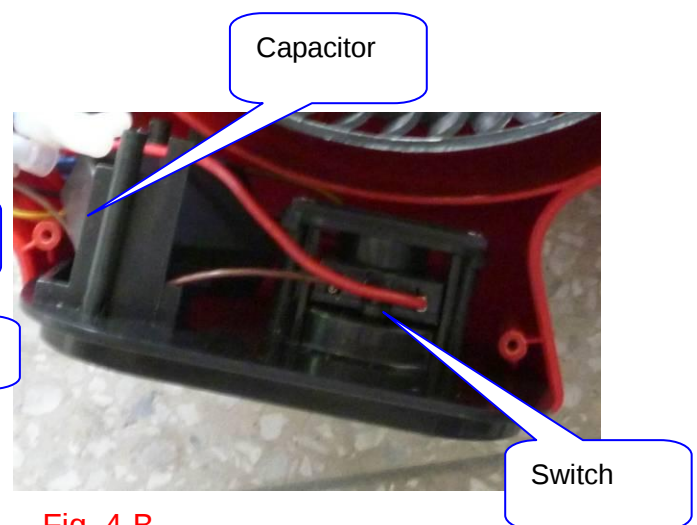


Fig. 4-B
X-200A */P-200A *
X-230A */P-230A *

2. Wire Diagram

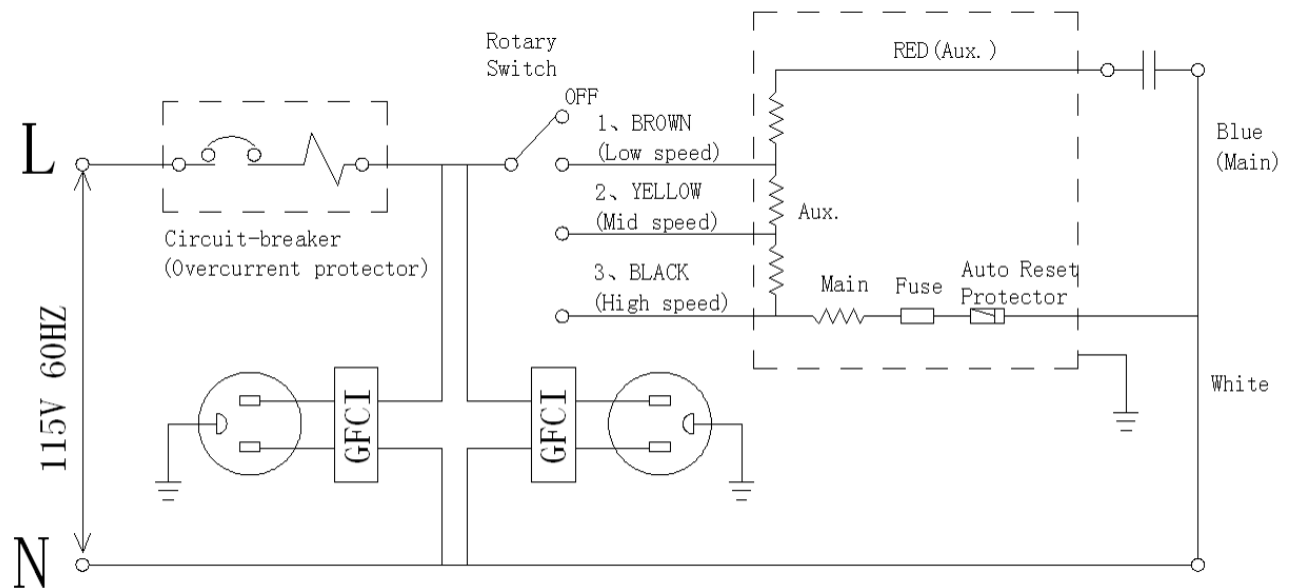


Fig. 5-1 (X-600*A */P-600*A *, X-630A */P-630A *)

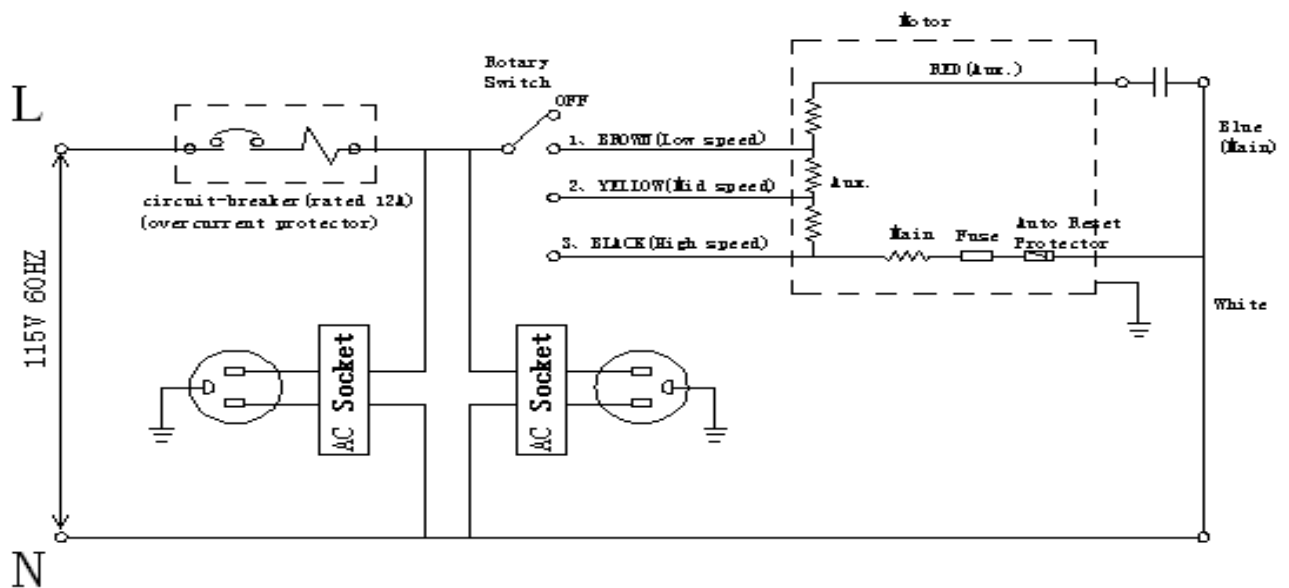


Fig. 5-2 (X-200A * /P-200A *, X-230A * /P-230A */X-400A */P-400A *, X-430A */P-430A *)

3. Steps of Disassembling:

3.1 Unplug Air Mover (Fig. 6-1)

Turn on the switch to speed 3 to release the electricity of capacitor for 2 minutes, until the voltage reduces to a safe voltage. (Fig. 6-2) (Note: if there is something wrong with voltage, the electricity of capacitor cannot release normally. Do not touch live part directly without insulation tools).



Fig. 6-1



Fig. 6-2

3.2 Use a flat-head screwdriver to pry out the four screw plugs near the handle. (Fig. 7)

3.3 Remove the screws from the housing. (Fig. 8)

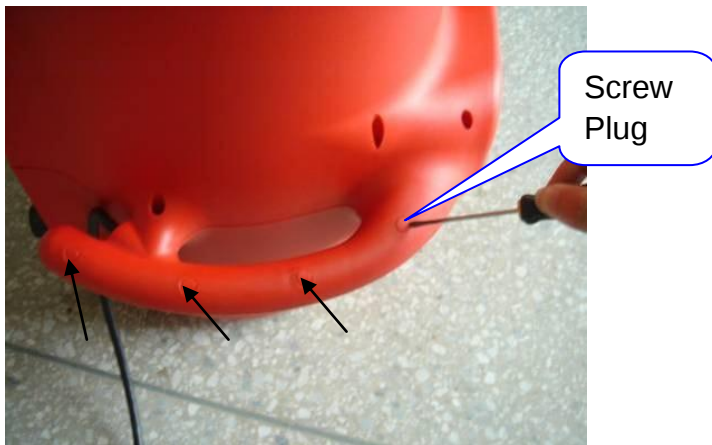


Fig. 7



Fig. 8

3.4 Remove kick stand. (Fig. 9)

3.5 Remove right housing. (Fig. 10)



Fig. 9



Fig. 10

4. Steps of Speed Switch Replacement

4.1 Open the right housing as in 3.1-3.5. Remove the five terminals from the Switch. (Fig. 11-A)

Or press the switch clip, remove the four terminals from the Switch. (Fig. 11-B)

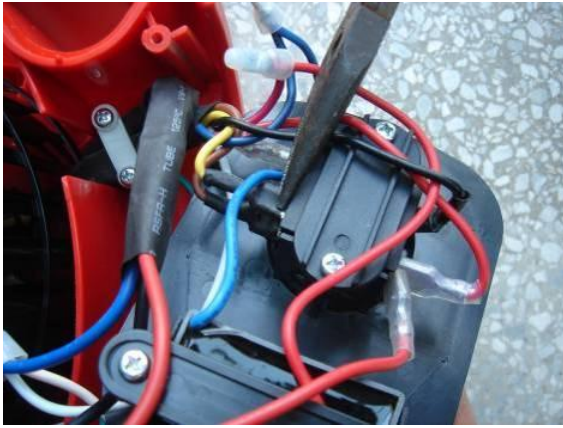


Fig. 11-A

X-400A * /P-400A *, X-430A * /P-430A *
X-600*A */P-600*A *, X-630A * /P-630A *

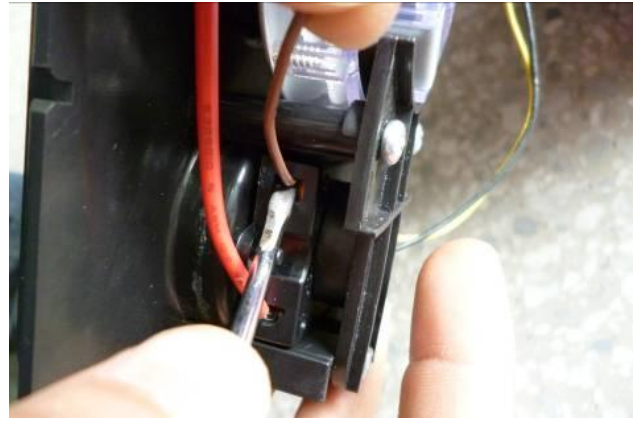


Fig. 11-B

X-200A */P-200A *
X-230A */P-230A *

4.2 Remove Switch Hold Clip screws. (Fig. 12)



Fig. 12-A

X-400A * /P-400A *, X-430A * /P-430A *
X-600*A */P-600*A *, X-630A * /P-630A *

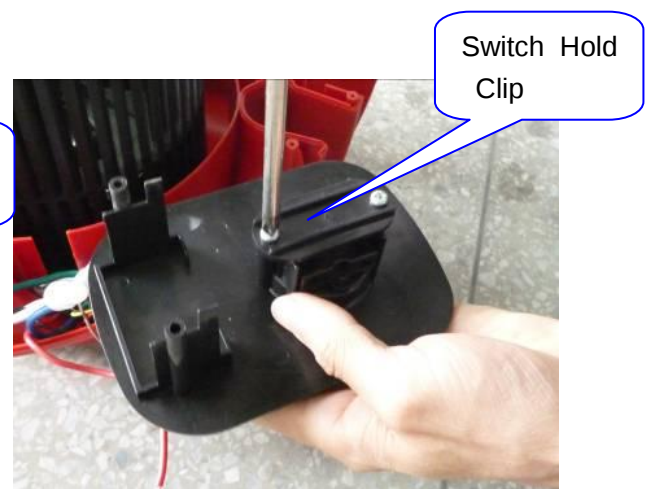


Fig. 12-B

X-200A */P-200A *
X-230A */P-230A *

4.3 Remove Speed Switch. (Fig. 13)

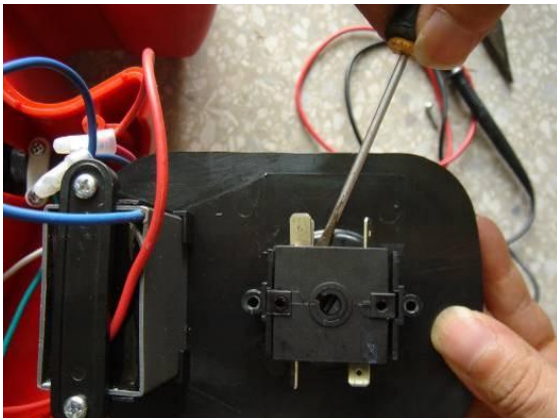


Fig. 13-A

X-400A * /P-400A *, X-430A * /P-430A *
X-600*A */P-600*A *, X-630A * /P-630A *



Fig. 13-B

X-200A */P-200A *
X-230A */P-230A *

4.4 Replace a new Speed Switch in reverse order 4.1—4.3 and connect wires. (Fig. 21)

5. Steps of Daisy Chain Replacement

5.1 Remove the screws from the Grille Cover. (Fig. 14)



Fig. 14-A
X-600*A */P-600*A *
X-630A */P-630A *



Fig. 14-B
X-400A */P-400A *
X-430A */P-430A *



Fig. 14-C
X-200A */P-200A *



Fig. 14-D
X-230A */P-230A *

5.2 Unplug the terminals connected to the Over Current Protector. (Fig. 15)



Fig. 15-A
X-600*A */P-600*A *
X-630A */P-630A *



Fig. 15-B
X-400A */P-400A *
X-430A */P-430A *

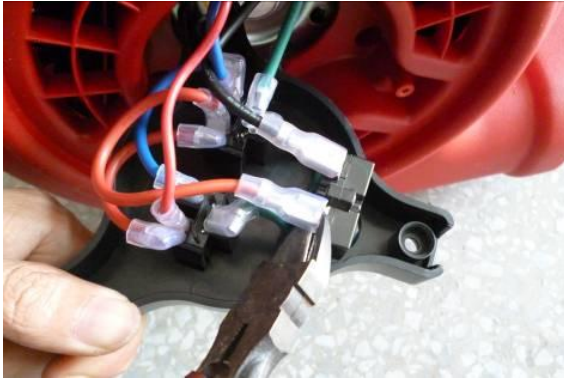


Fig. 15-C
X-200A * /P-200A *



Fig. 15-D
X-230A * /P-230A *

5.3 Remove the fixed nut; remove the Over Current Protector. (Fig. 16-A, Fig. 16-B)



Fig. 16-A
X-600A * /P-600A *
X-630A * /P-630A *



Fig. 16-B
X-400A * /P-400A *
X-430A * /P-430A *



Fig. 16-C
X-200A * /P-200A *



Fig. 16-D
X-230A * /P-230A *

5.4-A **600 models**; Remove two screws from the socket; loosen the three screws to remove wires from GFCI. (Fig. 17-A)

5.3-B **400 models**; Remove the terminals connected to the socket, remove the socket. (Fig. 17-B)



Fig. 17-A
X-600*A */P-600*A *
X-630A */P-630A *

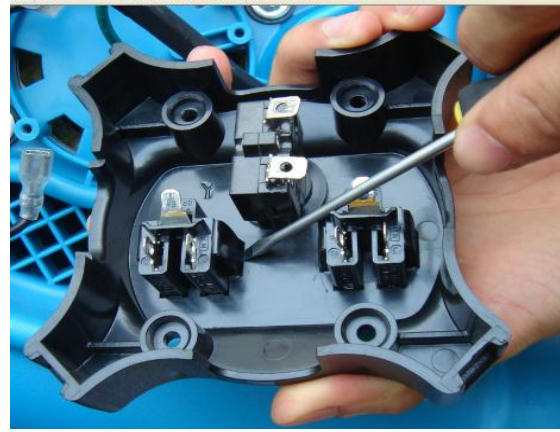


Fig. 17-B
X-400A */P-400A *
X-430A */P-430A *

5.3-C **200 models**; Remove the terminals connected to the socket, remove the socket. (Fig. 17-C, Fig. 17-D)

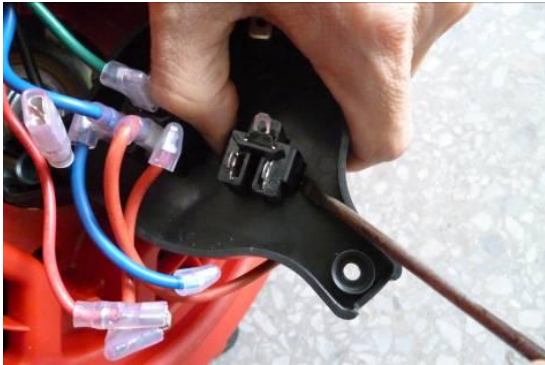


Fig. 17-C
X-200A * /P-200A *



Fig. 17-D
X-230A * /P-230A *

6. Steps of Assembling:

6.1 Connect wires of connection socket of Over Current Protector. (Fig. 18)

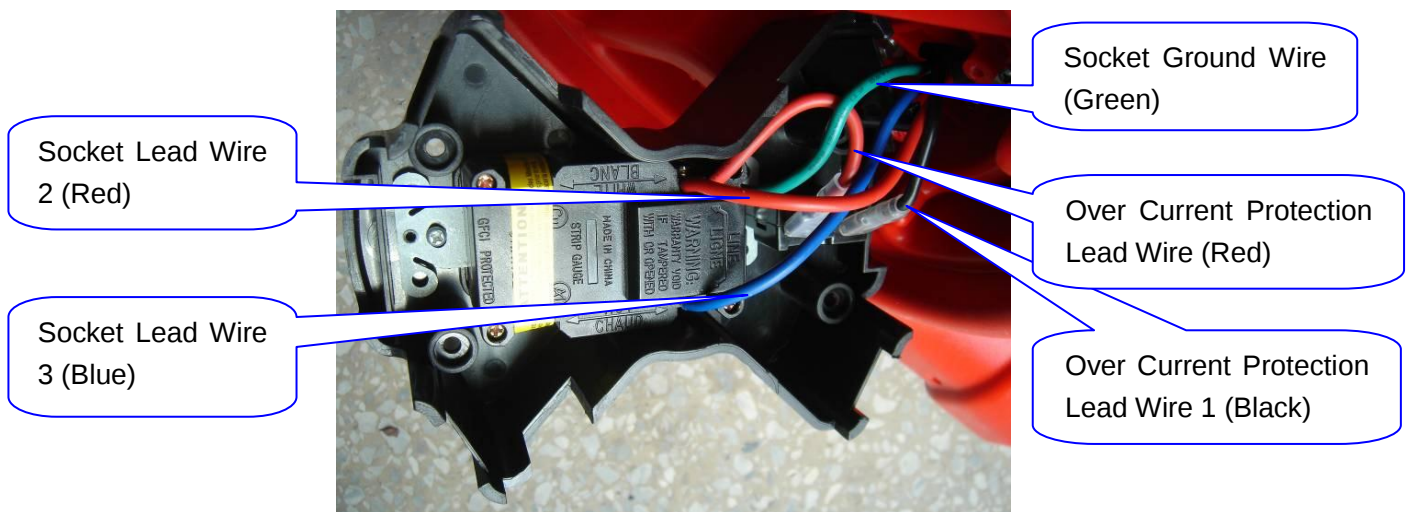


Fig. 18-A
X-600*A */P-600*A *
X-630A */P-630A *

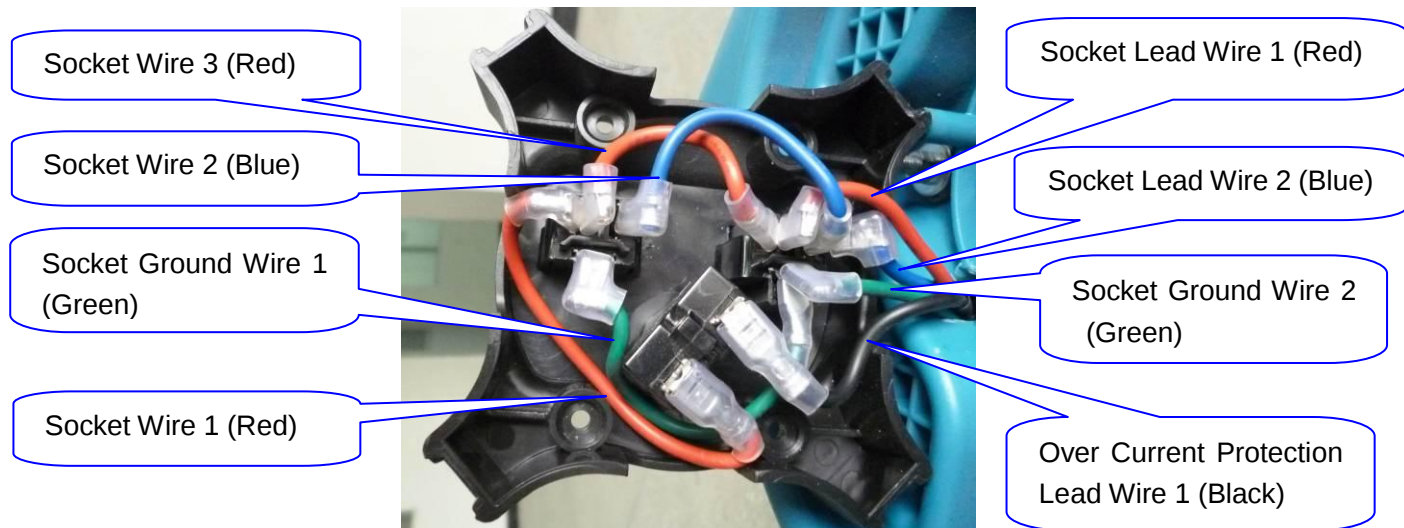


Fig. 18-B
X-400A */P-400A *
X-430A */P-430A *

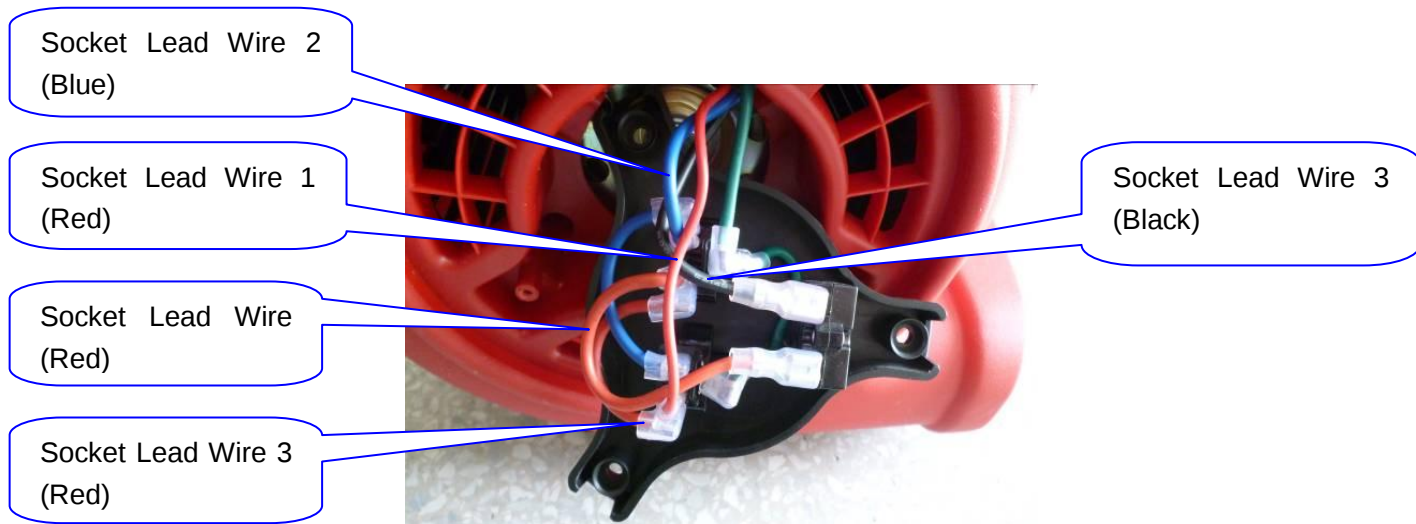


Fig. 18-C
X-200A * /P-200A *

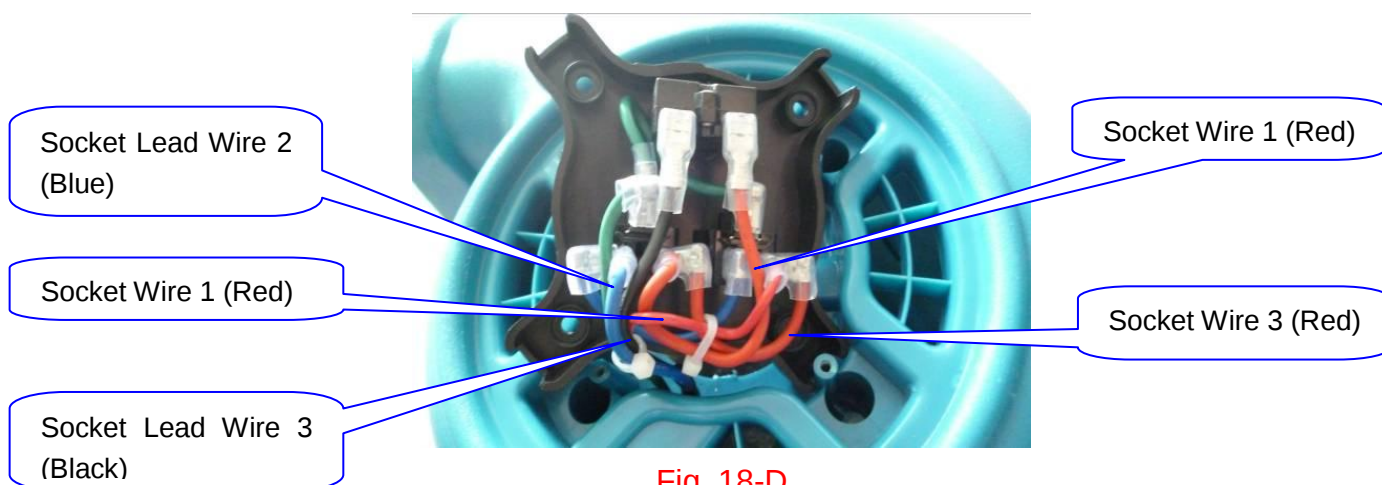


Fig. 18-D
X-230A * /P-230A *

6.2 Install motor, using a socket wrench to tighten the nuts that secure the motor. (Fig. 19-A)
 Or use a screwdriver to tighten the screws that secure the motor. (Fig. 19-B)



Fig. 19-A
 X-400A * /P-400A *, X-430A * /P-430A *,
 X-600*A */P-600*A *, X-630A * /P-630A *



Fig. 19-B
 X-200A * /P-200A *,
 X-230A * /P-230A *

6.3 Install fan. (Fig. 20)



Fig. 20-A
 X-400A * /P-400A *, X-430A * /P-430A *,
 X-600*A */P-600*A *, X-630A * /P-630A *



Fig. 20-B
 X-200A * /P-200A *,
 X-230A * /P-230A *

6.4 Connect the wires (red capacitor wire to red motor wire, blue capacitor wire to blue motor wire) (Fig. 21)

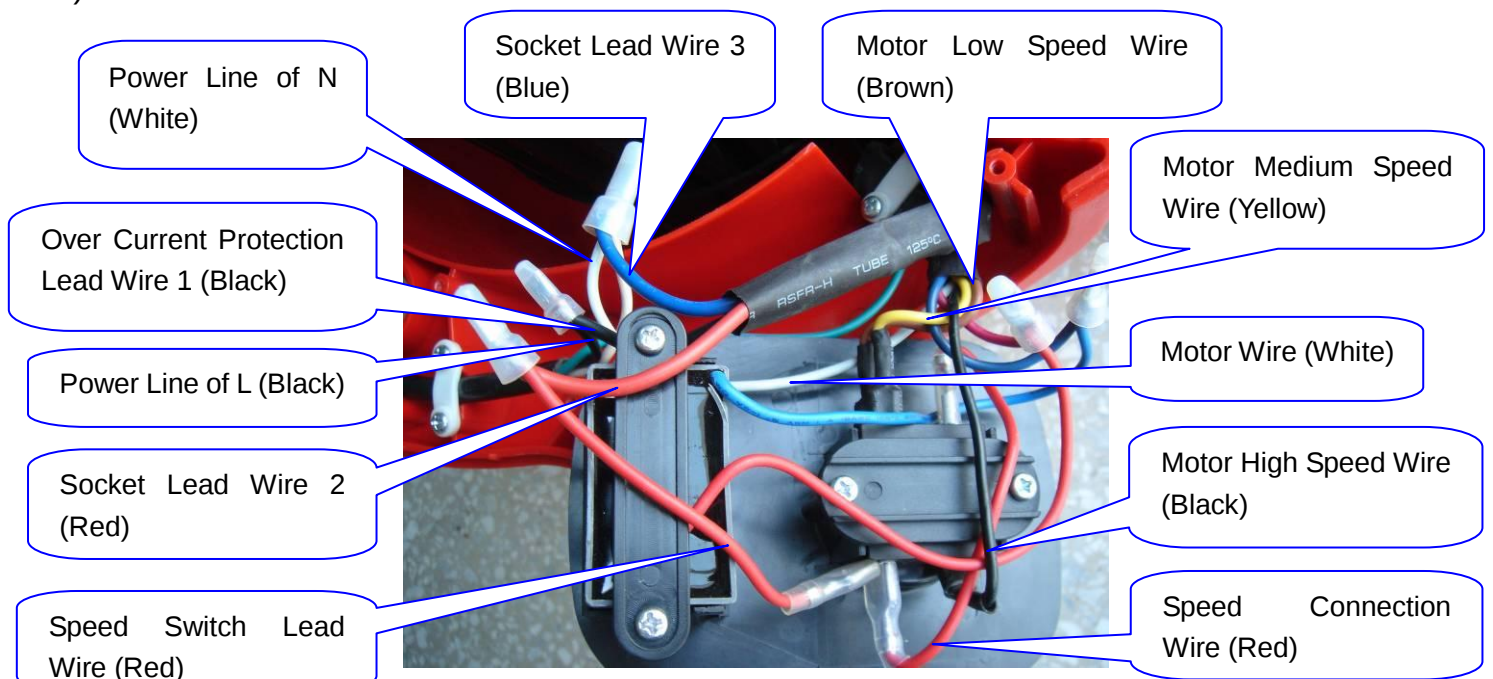


Fig. 21-A

X-400A * /P-400A *, X-430A * /P-430A *,
X-600A * /P-600A *, X-630A * /P-630A *

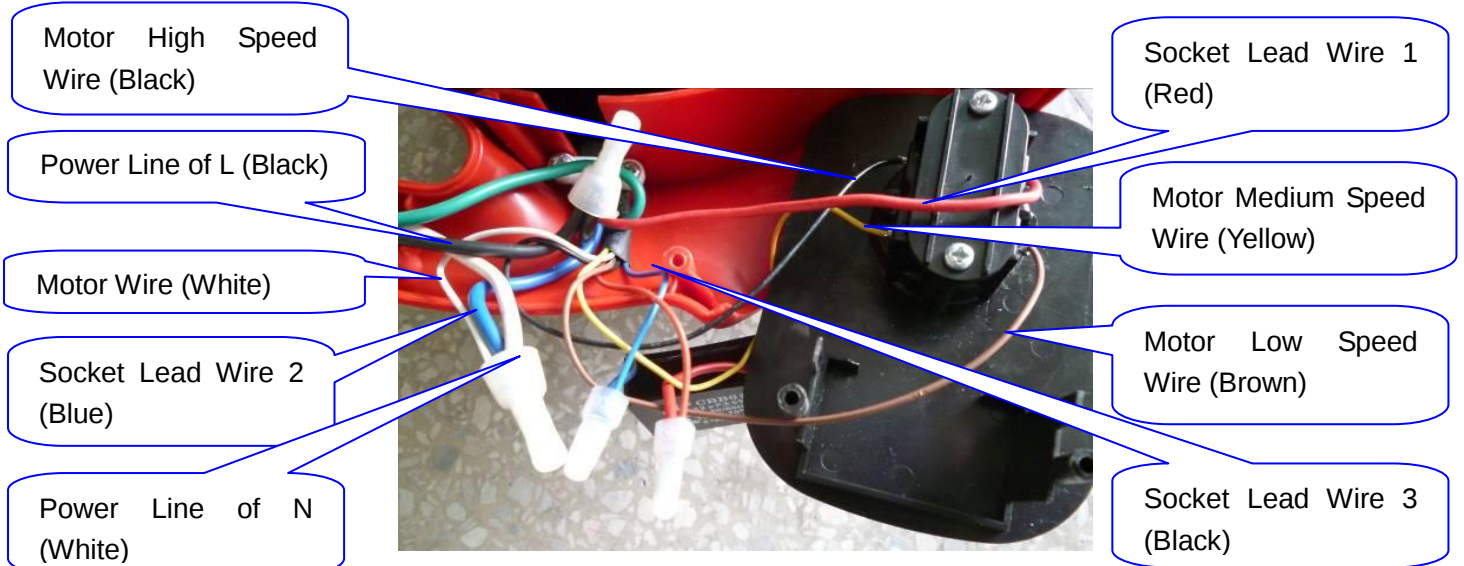


Fig. 21-B

X-200A * /P-200A *, X-230A * /P-230A *

6.5 Install right housing and screws. (Fig. 22)

6.6 Install Kickstand. (Fig. 23)



Fig. 22



Fig. 23

7. Methods for Malfunction

Malfunction 1 - The machine does not turn on.

(1) Check that the power supply is working, that there is good connection, and that the speed switch is set to speed 1, 2, or 3 while the timer knob is pointing to ON or is greater than 0 (pointing to 0 is not energized). If machine still does not turn on, proceed to method (2).

(2) Follow 3.1-3.5 to open the Air Mover. Check for loose terminal connections. (Fig. 21) Tighten if necessary. If machine still does not turn on move on, proceed to method (3).

(3) Follow 4.1 to disassemble. Remove three wires connected to Speed Switch. Use the Multimeter (diode position, Fig. 24) to check conduction of Speed Switch at each speed level:

Adjust to speed 1, use the Multimeter to check the switch (Fig. 25);

Adjust to speed 2, use the Multimeter to check the switch (Fig. 26);

Adjust to speed 3, use the Multimeter to check the switch (Fig. 27);

If there is a speed that does not function properly, follow steps 4.1-4.3 to replace Speed Switch



Fig. 24

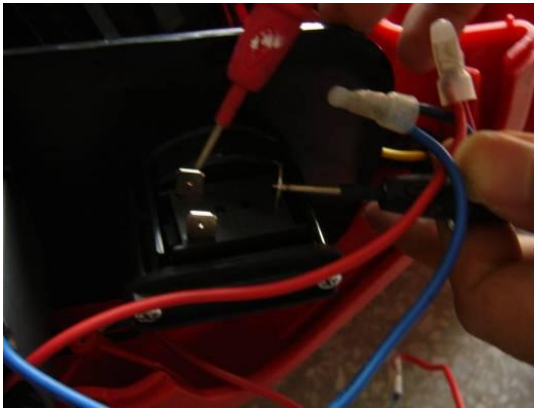


Fig. 25-A
X-400A * /P-400A *, X-430A * /P-430A *,
X-600*A */P-600*A *, X-630A * /P-630A *



Fig. 25-B
X-200A * /P-200A *,
X-230A * /P-230A *

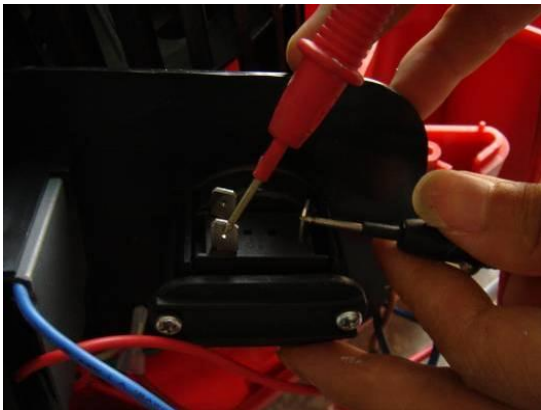


Fig. 26-A
X-400A * /P-400A *, X-430A * /P-430A *,
X-600*A */P-600*A *, X-630A * /P-630A *

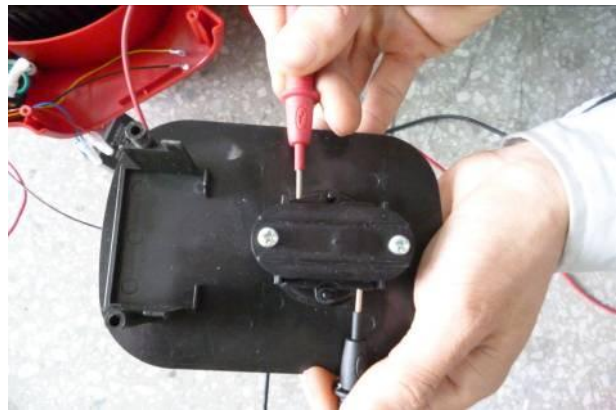


Fig. 26-B
X-200A * /P-200A *,
X-230A * /P-230A *

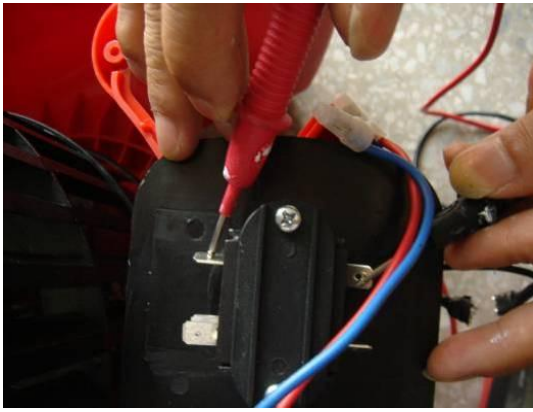


Fig. 27-A

X-400A * /P-400A *, X-430A * /P-430A *,
X-600*A */P-600*A *, X-630A * /P-630A *

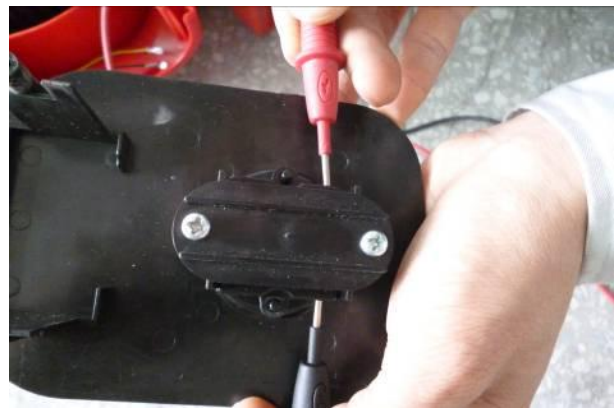


Fig. 27-B

X-200A * /P-200A *,
X-230A * /P-230A *

Verification method: turn on the Speed Switch to speeds 1, 2 and 3 to check that the machine and the timer work normally; Use another blower to plug in socket to check as well.

Malfunction 2 – Machine is noisy or vibration occurs

(1) Disassemble Grille Cover. Check that the screws that secure the motor are not loose. If loose, use a socket wrench to tighten the nuts. (Fig. 28-A) Or use a screwdriver to tighten the screws. (Fig. 29-B)



Fig. 28-A

X-400A * /P-400A *, X-430A * /P-430A *,
X-600*A */P-600*A *, X-630A * /P-630A *



Fig. 28-B

X-200A * /P-200A *,
X-230A * /P-230A *

(2) Disassemble screws on Grille Cover (fan side, Fig. 29) check that the screws that secure the fan are not loose. If loose, tighten the screws. (Fig. 30-A) Or use a "T" socket wrench to tighten the nuts. (Fig. 30-B)



Fig. 29



Fig. 30-A

X-400A * /P-400A *, X-430A * /P-430A *,
X-600*A */P-600*A *, X-630A * /P-630A *



Fig. 30-B

X-200A * /P-200A *,
X-230A * /P-230A *

(3) Check that the fan is not damaged. If damaged, replace the fan.

Verification method: Compare another normal blower that there is no significant difference in the noise and vibration.

MAINTENANCE MANUAL OF AIR MOVER (III)

(With Timer, without Daisy Chain)

Applicable model	X-200T * /P-200T * , X-230T * /P-230T * X-400T * /P-400T * , X-430T * /P-430T * X-600*T */P-600*T *,X-630*T */P-630*T * X-800T * /P-800T * , X-830T * /P-830T *
Model Instruction: “*” means S、H、C、F (or WFK) or without other parts “S” means sealed motor , “A” means daisy chain , “T” means timer , “H” means handle , “C” means carpet clamp , “F” “WFK” means Filter Kit Model letters S, A, T, H, C, F order.	

1. Main Parts Description

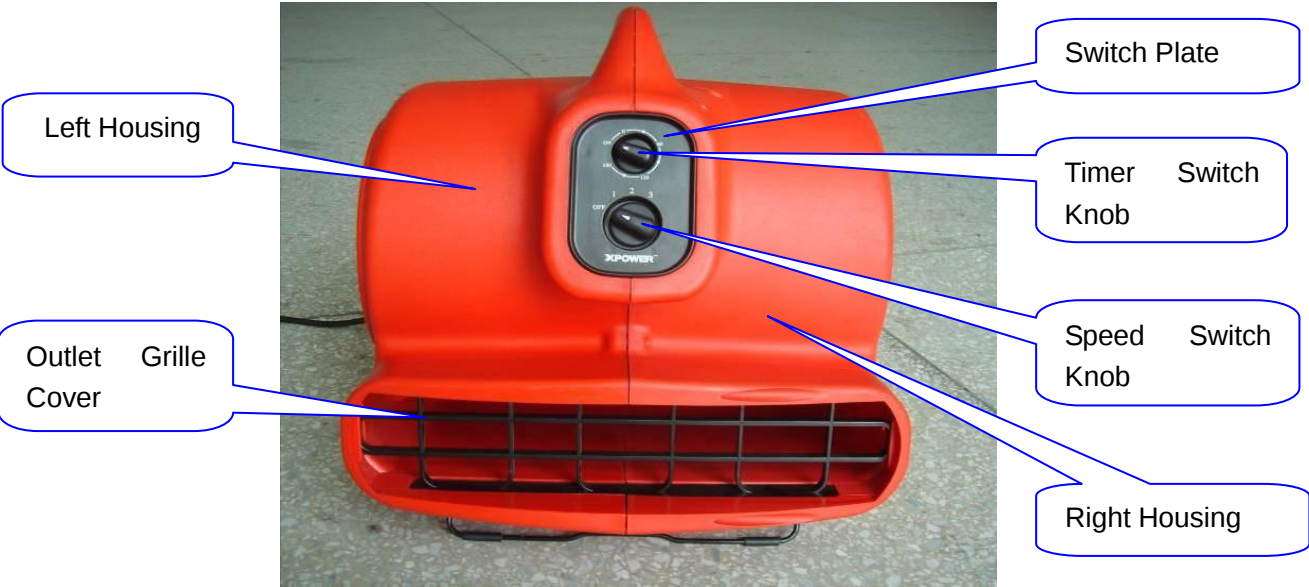


Fig. 1

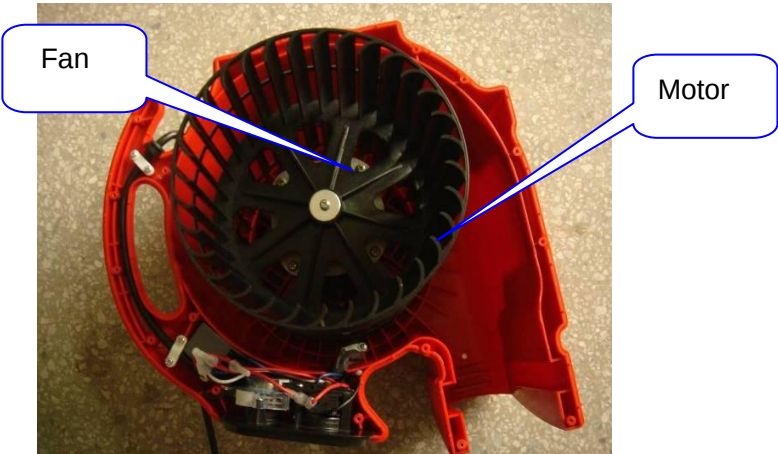


Fig. 2-A

X-400T * /P-400T * , X-430T * /P-430T * ,
X-600*T */P-600*T * , X-630*T */P-630*T *
X-800T * /P-800T * , X-830T * /P-830T *

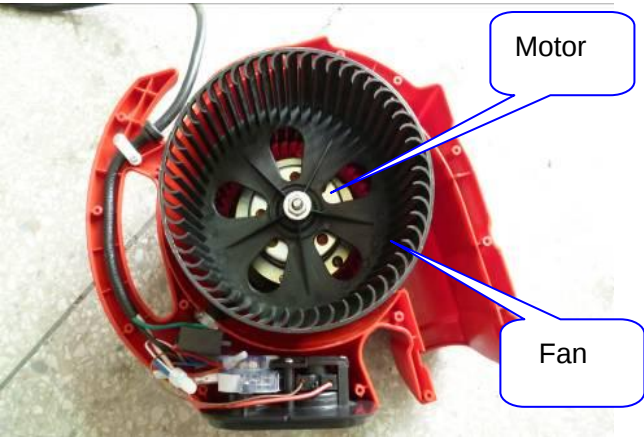


Fig. 2-B

X-200T * /P-200T * , X-230T * /P-230T *

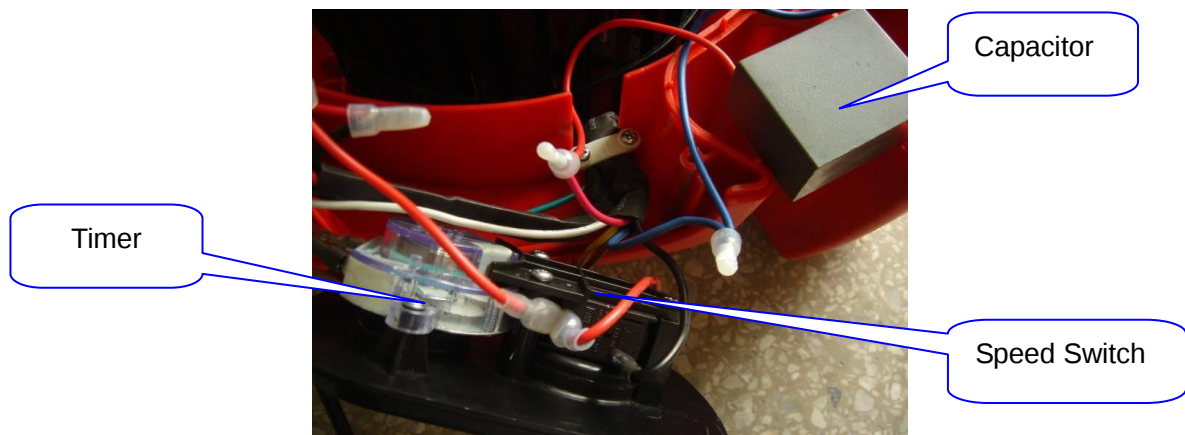


Fig. 3-A

X-400T * /P-400T *, X-430T * /P-430T *,
 X-600*T */P-600*T *, X-630*T */P-630*T *
 X-800T * /P-800T *, X-830T * /P-830T *

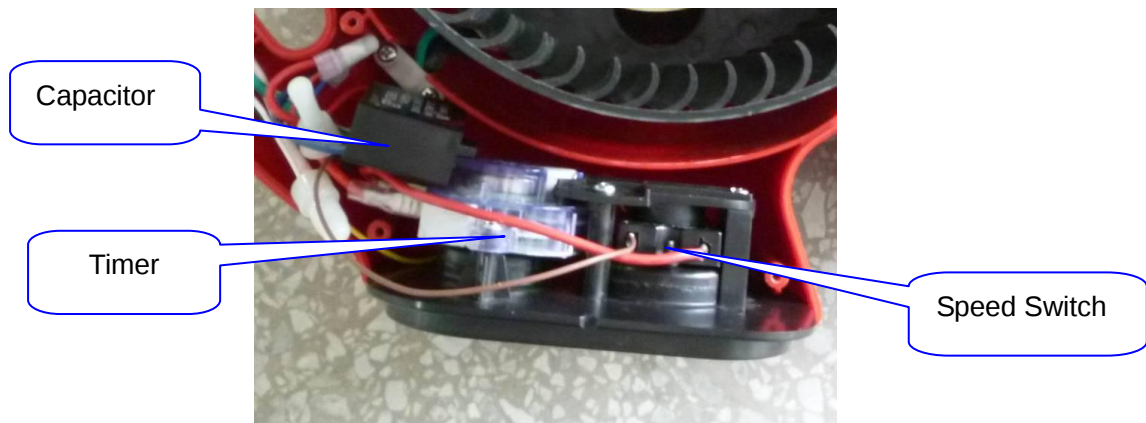


Fig. 3-B

X-200T * /P-200T *, X-230T * /P-230T *

2. Wire Diagram

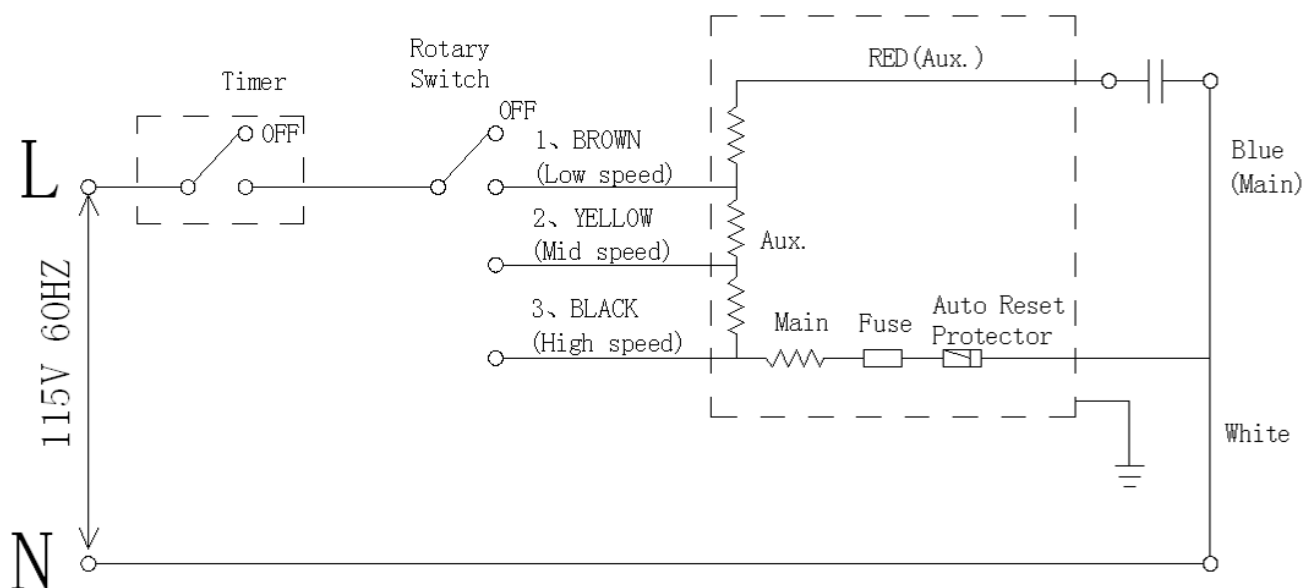


Fig. 4

3. Steps of Disassembling:

3.1 Unplug Air Mover (Fig. 5-1)

Turn on the switch to speed 3 to release the electricity of capacitor for 2 minutes, until the voltage reduces to safe voltage. (Fig. 5-2) (Note: if there is something wrong with voltage, the electricity of capacitor cannot release normally. Do not touch the live part directly without insulation tools).



Fig. 5-1



Fig. 5-2

3.2 Use a flat-head screwdriver to pry out the four screw plugs near the handle. (Fig. 6)

3.3 Remove the screws on the housing. (Fig. 7)

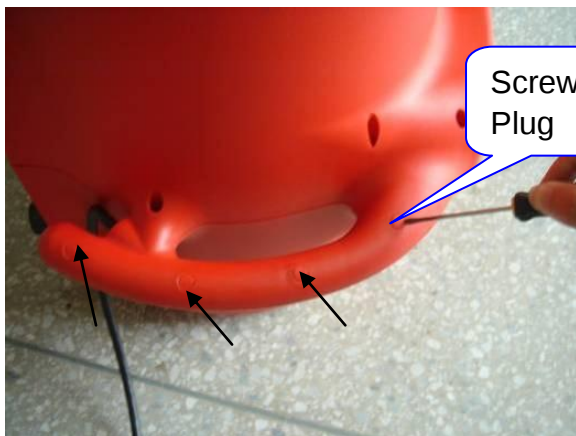


Fig. 6



Fig. 7

3.4 Remove kick stand. (Fig. 8)

3.5 Remove right housing. (Fig. 9)



Fig. 8



Fig. 9

4. Steps of Speed Switch Replacement

4.1 Open the right housing as in 3.1-3.5; remove the five terminals from the Speed Switch. (Fig. 10)
Or press the switch clip, remove the four terminals from the Switch. (Fig. 11-B)

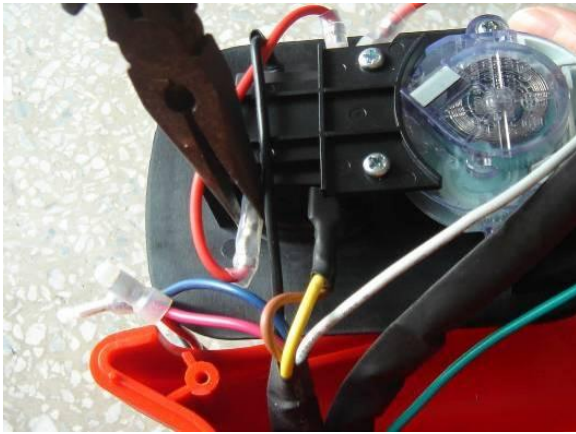


Fig. 10-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 10-B

X-200T * /P-200T *, X-230T * /P-230T *

4.2 Remove Switch Hold Clip screws. (Fig. 11)

4.3 Remove the Speed Switch. (Fig. 12)



Fig. 11-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 11-B

X-200T * /P-200T *, X-230T * /P-230T *



Fig. 12-A



Fig. 12-B

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *

X-200T * /P-200T *, X-230T * /P-230T *

4.4 Replace a new switch in reverse order 4.1—4.3 and connect wires (Fig. 15- 16)

5. Steps of Assembling:

5.1 Use a socket wrench to tighten the nuts that secure the motor. (Fig. 13)

Or use a screwdriver to tighten the screws that secure the motor. (Fig. 13-B)



Fig. 13-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 13-B

X-200T * /P-200T *, X-230T * /P-230T *

5.2 Install fan. (Fig. 14)



Fig. 14-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 14-B

X-200T * /P-200T *, X-230T * /P-230T *

5.3 Connect the Speed Connection wires. (Fig. 15)

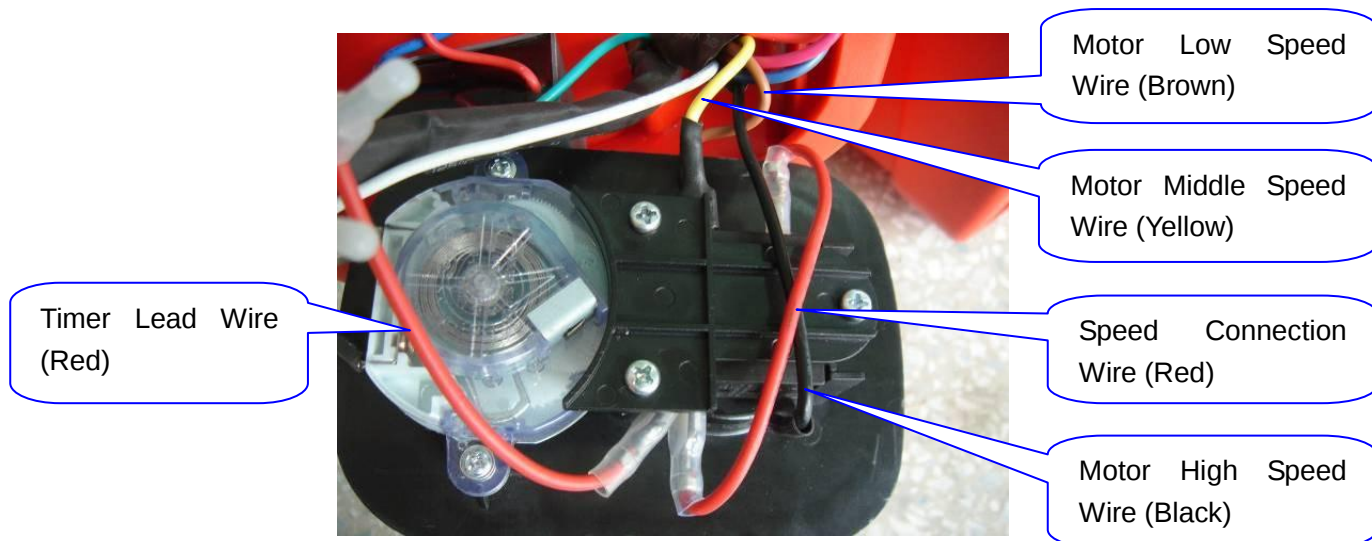


Fig. 15-A
 X-400T * /P-400T *, X-430T * /P-430T *,
 X-600*T * /P-600*T *, X-630*T * /P-630*T *
 X-800T * /P-800T *, X-830T * /P-830T *



Fig. 15-B
 X-200T * /P-200T *, X-230T * /P-230T *

5.4 Connect the wire (red capacitor wire to red motor wire, blue capacitor wire to blue motor wire) (Fig. 16)

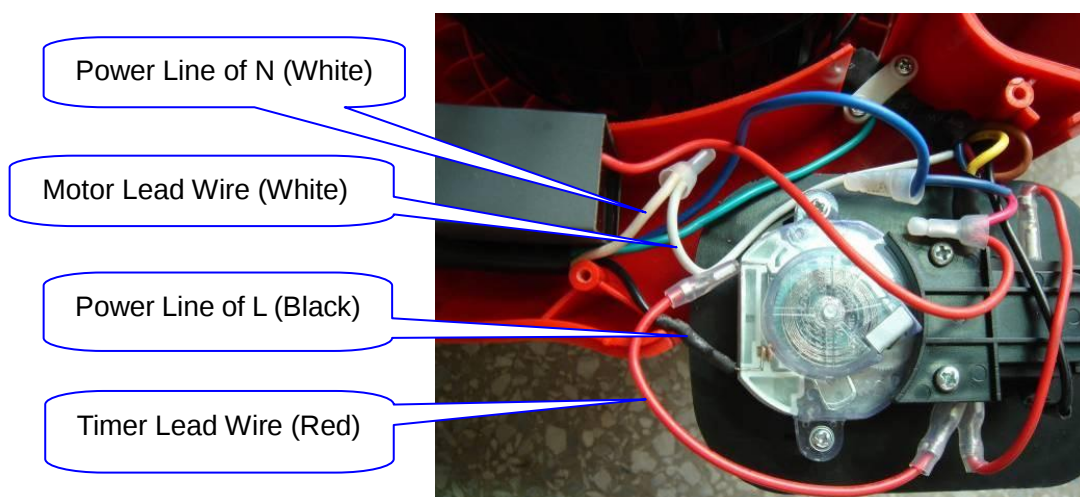


Fig. 16-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *

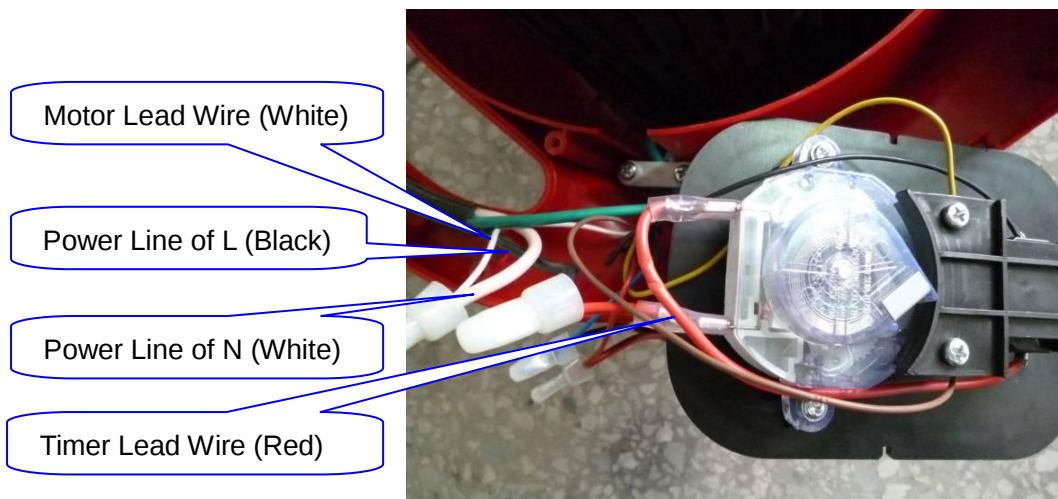


Fig. 16-B

X-200T * /P-200T *, X-230T * /P-230T *

5.5 Install right housing and screws. (Fig. 17)

5.6 Install Kickstand. (Fig. 18)



Fig. 17



Fig. 18

6. Methods for Malfunction

Malfunction 1 - The machine does not turn on.

(1) Check that the power supply is working, that there is good connection, and that the speed switch is set to speed 1, 2, or 3 while the timer knob is pointing to ON or is greater than 0 (pointing to 0 is not energized). If machine still does not turn on, proceed to method (2).

(2) Follow 3.1-3.5 to open the Air Mover. Check for loose terminal connections. Tighten if necessary. If machine still does not turn on, proceed to method (3).

(3) Follow 4.1 to disassemble. Remove three wires connected to Speed Switch. Use the Multimeter (diode position, Fig. 19) to check conduction of Speed Switch at each speed level:

Adjust to speed 1, use the Multimeter to check the switch (Fig. 20);

Adjust to speed 2, use the Multimeter to check the switch (Fig. 21);

Adjust to speed 3, use the Multimeter to check the switch (Fig. 22);

If there is a speed that does not function properly, follow steps 4.2-4.4 to replace Speed Switch.



Fig. 19



Fig. 20-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 20-B

X-200T * /P-200T *, X-230T * /P-230T *



Fig. 21-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 21-B

X-200T * /P-200T *, X-230T * /P-230T *

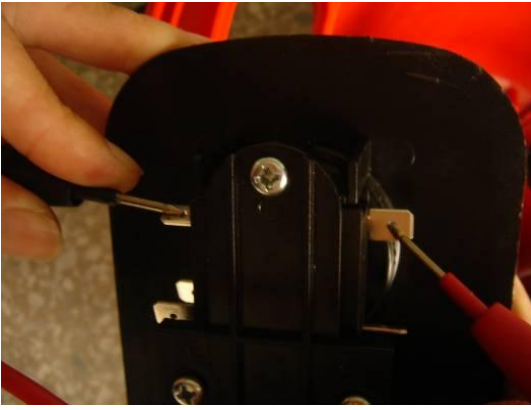


Fig. 22-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *

Fig. 22-B

X-200T * /P-200T *, X-230T * /P-230T *

Verification method: turn on the Speed Switch to speeds 1, 2 and 3 to check that the machine and the timer work normally.

Malfunction 2 – Machine is noisy or vibration occurs

(1) Disassemble Grille Cover. Check that the screws that secure the motor are not loose. If loose, use a socket wrench to tighten the nuts. (Fig. 23)



Fig. 23-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *

Fig. 23-B

X-200T * /P-200T *, X-230T * /P-230T *

(2) Disassemble screws on Grille Cover (fan side, Fig. 24) check that the screws that secure the fan are not loose. If loose, tighten the screws. (Fig. 25-A) Or use a “T” socket wrench to tighten the nuts. (Fig. 25-B)



Fig. 24



Fig. 25-A

X-400T * /P-400T *, X-430T * /P-430T *,
X-600*T */P-600*T *, X-630*T */P-630*T *
X-800T * /P-800T *, X-830T * /P-830T *



Fig. 25-B

X-200T * /P-200T *, X-230T * /P-230T *

(3) Check the fan for damaged, if damaged, replace the fan.

Verification method: Compare to other normal blower, there is no significant difference with the noise and vibration.

MAINTENANCE MANUAL OF AIR MOVER (IV)

(Without Timer and Daisy Chain)

Applicable model	X-200 * /P-200 *, X-230 * /P-230 * X-400 * /P-400 *, X-430 * /P-430 * X-*600 * /P-*600 *, X-630 * /P-630 * X-800 * /P-800 * , X-830 * /P-830 *
Model Instruction: “*” means S、H、C、F (or WFK) or without other parts “S” means sealed motor , “A” means daisy chain , “T” means timer , “H” means handle , “C” means carpet clamp , “F” “WFK” means Filter Kit Model letters S, A, T, H, C, F order.	

1. Main Parts Description



Fig. 1

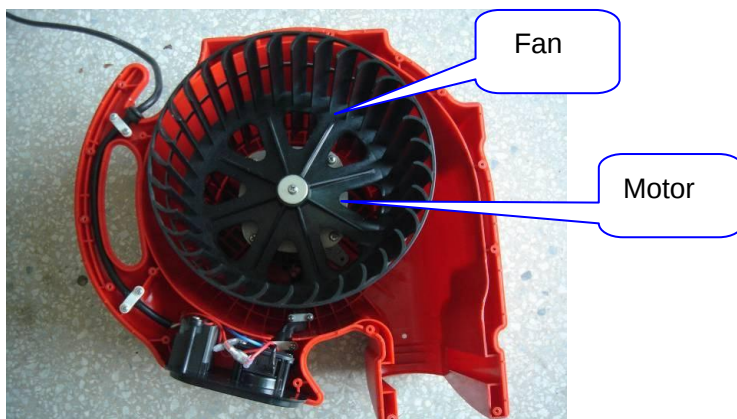


Fig. 2-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *

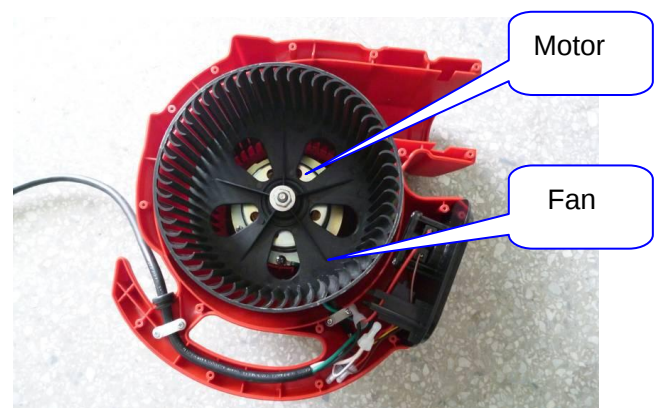
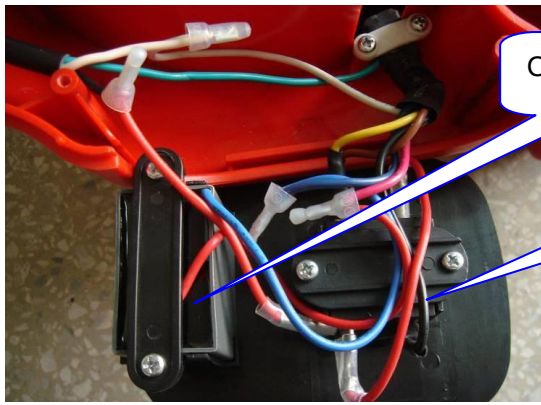


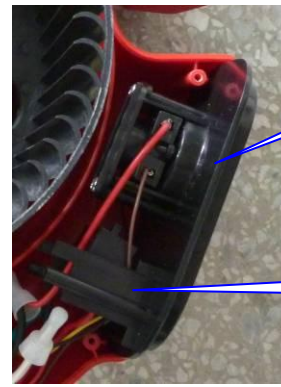
Fig. 2-B

X-200 * /P-200 *, X-230 * /P-230 *



Capacitor

Switch



Switch

Capacitor

Fig. 3-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *

Fig. 3-B

X-200 * /P-200 *, X-230 * /P-230 *

2. Wire Diagram

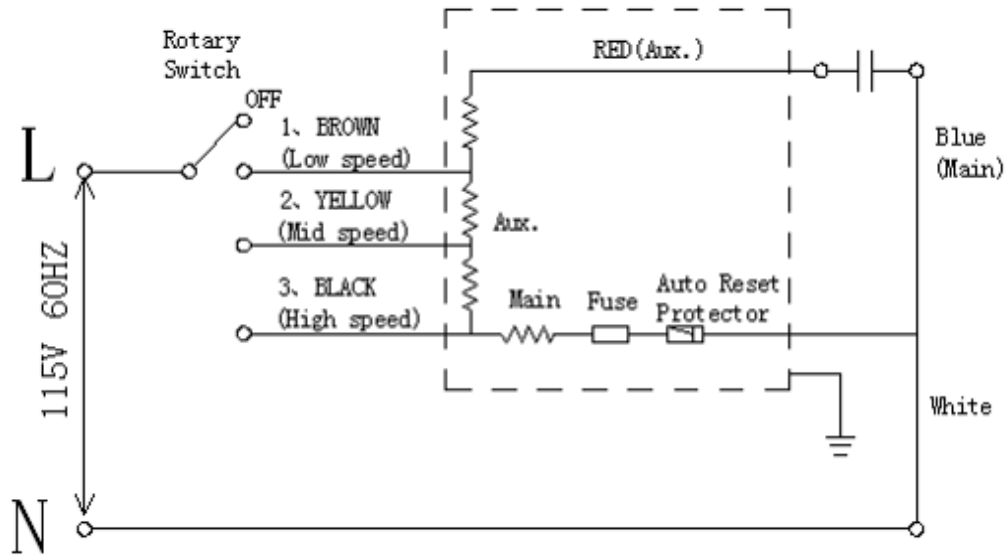


Fig. 4

3. Steps of Disassembling:

3.1 Unplug Air Mover (Fig. 5-1)

Turn on the switch to speed 3 to release the electricity of capacitor for 2 minutes, until the voltage reduces to safe voltage. (Fig. 5-2) (Note: if there is something wrong with voltage, the electricity of capacitor cannot release normally. Do not touch the live part directly without insulation tools).



Speed Switch Knob

Fig. 5-1

Fig. 5-2

3.2 Use a flat-head screwdriver to pry out the four screw plug near the handle. (Fig. 6)

3.3 Remove the screws on the housing. (Fig. 7)

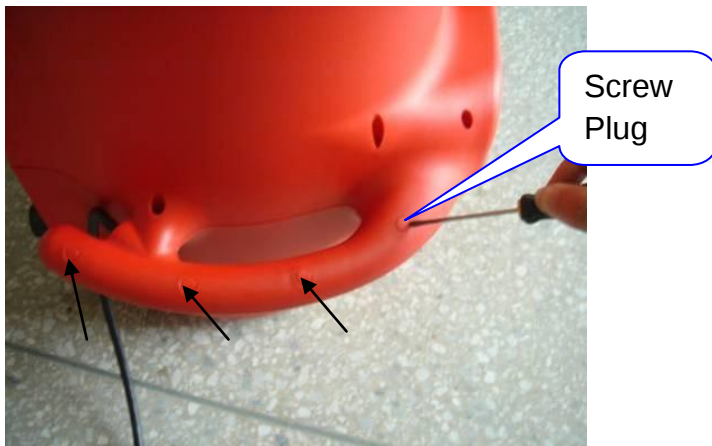


Fig. 6



Fig. 7

3.4 Remove kick stand. (Fig. 8)



Fig. 8

3.5 Remove right housing. (Fig. 9)



Fig. 9-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 9-B

X-200 * /P-200 *, X-230 * /P-230 *

4. Steps Speed Switch Replacement

4.1 Open the right housing following 3.1-3.5; remove the five terminals from the Speed Switch. (Fig. 10)
Or press the switch clip, remove the four terminals from the Switch. (Fig. 11-B)

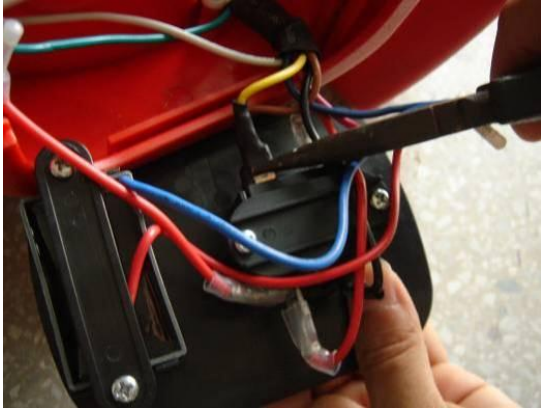


Fig. 10-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 10-B

X-200 * /P-200 *, X-230 * /P-230 *

4.2 Remove Switch Hold Clip screws. (Fig. 11)

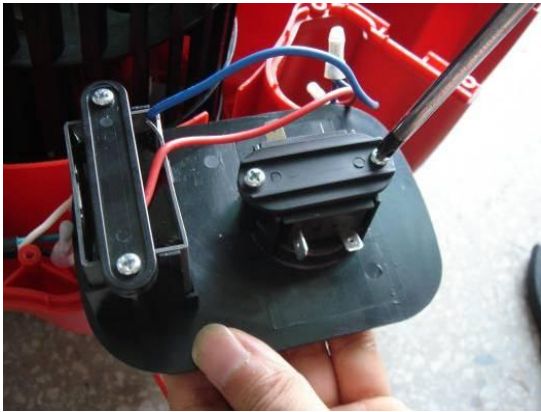


Fig. 11-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *

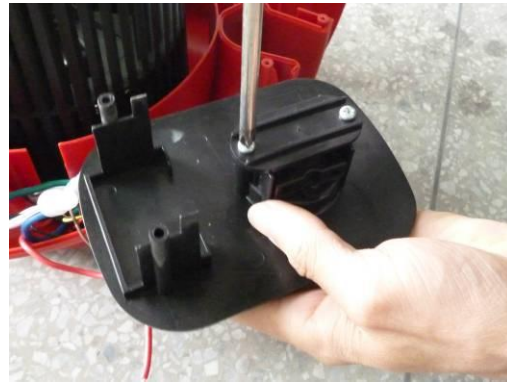


Fig. 11-B

X-200 * /P-200 *, X-230 * /P-230 *

4.3 Remove Speed Switch. (Fig. 12)

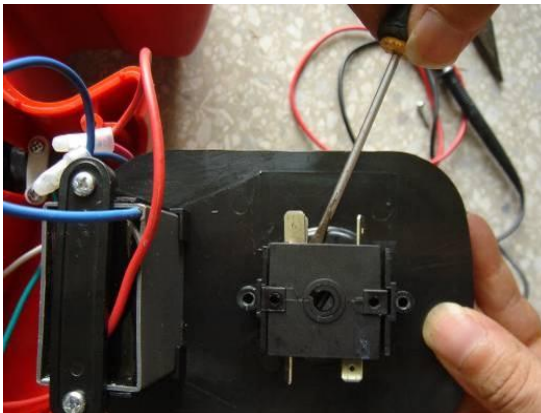


Fig. 12-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 12-B

X-200 * /P-200 *, X-230 * /P-230 *

4.4 Replace a new Speed Switch in reverse order of 4.1—4.3 and connect wires. (Fig. 15)

5. Steps of Assembling:

5.1 Install motor, use a socket wrench to tighten the nuts that secure the motor. (Fig. 13)
Or use a screwdriver to tighten the screws that secure the motor. (Fig. 13-B)



Fig. 13-A
X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 13-B
X-200 * /P-200 *, X-230 * /P-230 *

5.2 Install fan. (Fig. 14)



Fig. 13-A
X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 13-B
X-200 * /P-200 *, X-230 * /P-230 *

5.3 Connect the wire (red capacitor wire to red motor wire, blue capacitor wire to blue motor wire) (Fig. 15)

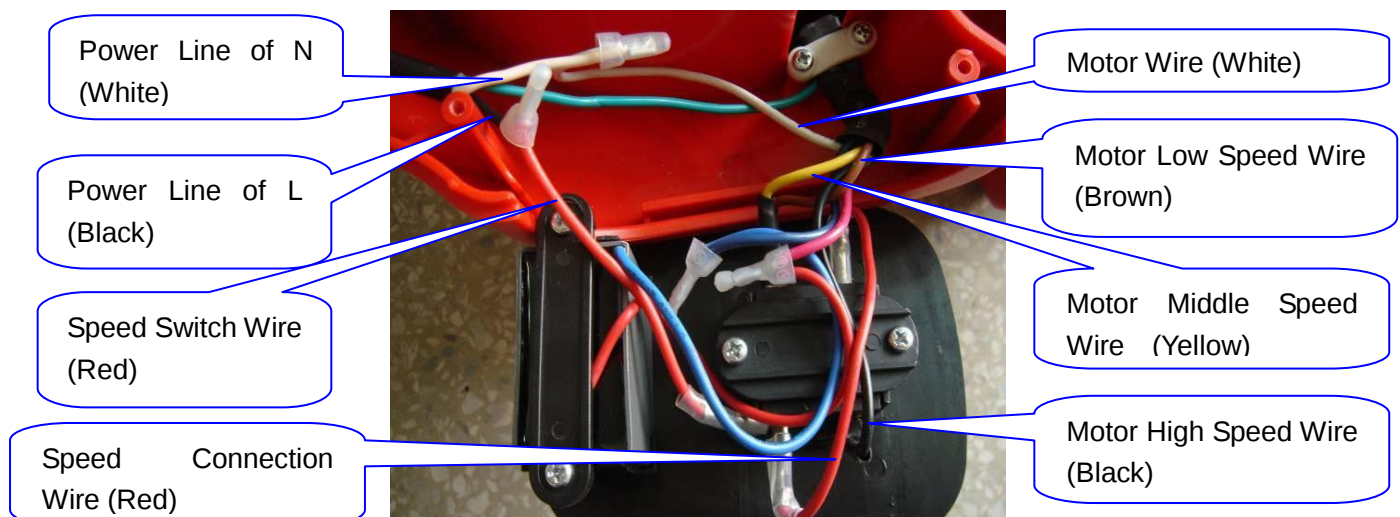


Fig. 15

5.4 Install right housing and screws. (Fig. 16)

5.5 Install Kickstand. (Fig. 17)



Fig. 16



Fig. 17

6. Methods for Malfunction

Malfunction 1 - The machine does not turn on.

(1) Check that the power supply is working, that there is good connection, and that the speed switch is set to speed 1, 2, or 3 while the timer knob is pointing to ON or is greater than 0 (pointing to 0 is not energized). If machine still does not turn on, proceed to method (2).

(2) Follow 3.1-3.5 to open the Air Mover. Check for loose terminal connections. Tighten if necessary. If machine still does not turn on, proceed to method (3).

(3) Follow 4.1 to disassemble. Remove three wires connected to Speed Switch. Use the Multimeter (diode position, Fig. 18) to check conduction of Speed Switch at each speed level:

Adjust to speed 1, use the Multimeter to check the switch (Fig. 19);

Adjust to speed 2, use the Multimeter to check the switch (Fig. 20);

Adjust to speed 3, use the Multimeter to check the switch (Fig. 21);

If there is a speed that does not function properly, follow steps 4.2-4.4 to replace Speed Switch.



Fig. 18

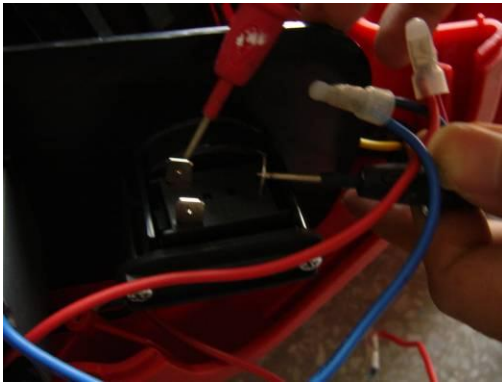


Fig. 19-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 19-B

X-200 * /P-200 *, X-230 * /P-230 *

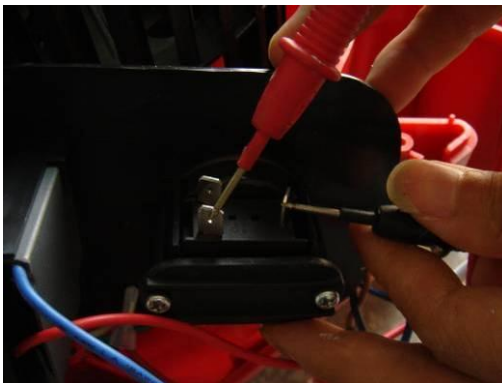


Fig. 20-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *

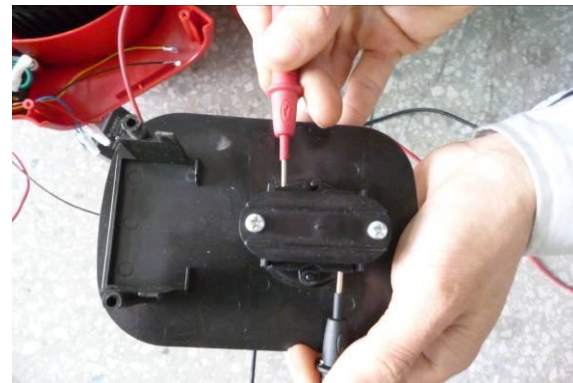


Fig. 20-B

X-200 * /P-200 *, X-230 * /P-230 *

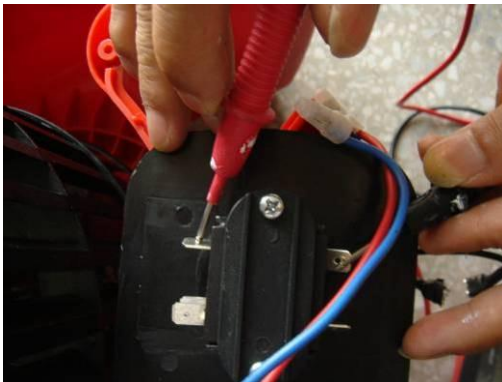


Fig. 21-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 21-B

X-200 * /P-200 *, X-230 * /P-230 *

Verification Method: turn on the switch to speed 1, 2 and 3, whether the machine and the timer work normally.

Malfunction 2 – Machine is noisy or vibration occurs

(1) Disassemble Grille Cover. Check that the screws that secure the motor are not loose. If loose, use

a socket wrench to tighten the nuts. (Fig. 22-A) Or use a screwdriver to tighten the screws. (Fig. 22-B)



Fig. 22-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 22-B

X-200 * /P-200 *, X-230 * /P-230 *

(2) Disassemble screws on Grille Cover (fan side, Fig. 23) check that the screws that secure the fan are not loose. If loose, tighten the screws. (Fig. 24) Or use a “T” socket wrench to tighten the nuts. (Fig. 30-B)



Fig. 23



Fig. 24-A

X-400 * /P-400 *, X-430 * /P-430 *,
X-600 * /P-600 *, X-630 * /P-630 *
X-800 * /P-800 *, X-830 * /P-830 *



Fig. 24-B

X-200 * /P-200 *, X-230 * /P-230 *

(3) Check the fan for damaged, if damaged, replace the fan.

Verification method: Compare to other normal blower, there is no significant difference with the noise and vibration.