

# INSTRUCTION MANUAL

POLYTOR POWER PACK

P201/P211/P221

READ FOLLOWING INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING TO USE.  
ALSO READ THE INSTRUCTION MANUAL OF THE HANDPIECE AS WELL.  
KEEP THIS MANUAL ALWAYS IN THE VICINITY OF USE FOR YOUR REFERENCE.  
BEFORE USING THE UNIT, CHECK IF THERE ARE ANY DAMAGES ON THE UNIT DUE TO TRANSPORT CONDITIONS. IF ANY DAMAGES ARE FOUND, CONTACT OUR MINIMO DEALER.

## SAFETY

## PRECAUTIONS



**WARNING** (INDICATES THAT INCORRECT OPERATION PRESENTS SIGNIFICANT DANGER OF ACCIDENT RESULTING IN DEATH OR SERIOUS INJURY TO THE USER.)

- WEAR AN APPROPRIATE EYE PROTECTION AND A DUST PROTECTING MASK WHEN USING THE HANDPIECE.
- DO NOT PLACE THE POWER PACK ON A STAND WHICH IS TILTED OR TOTTERY.
- TURN OFF THE MAIN SWITCH IMMEDIATELY AND UNPLUG THE A.C.CABLE WHEN ONE OR MORE OF THE FOLLOWINGS ARE RECOGNIZED; SMOKING, NASTY SMELL AND STRANGE NOISE FROM THE POWER PACK.
- NEVER TOUCH THE PLUG AND THE UNIT WITH WET HANDS.
- DO NOT DISASSEMBLE AND REMODEL THE UNIT. ANY ACCIDENT OR MALFUNCTION CAUSED BY DISASSEMBLING AND/OR REMODELING WILL NOT BE COVERED BY OUR RESPONSIBILITY.
- NEVER USE THE POWER PACK WITH THE INPUT VOLTAGE OTHER THAN THE ONE INDICATED ON BACK OF THE UNIT.
- DO NOT COVER AND/OR SEAL THE VENTILATOR.
- REPLACE THE POWER CABLE WITH NEW ONE WHEN DAMAGED. IT MAY CAUSE A SHORT CIRCUIT, ELECTRIC SHOCK OR FIRE IF THE DAMAGED CABLE IS CONTINUED TO BE USED.



**CAUTION** (INDICATES THAT INCORRECT OPERATION PRESENTS POSSIBILITY OF INJURY TO THE USER OR DAMAGE TO THE UNIT.)

- DO NOT USE THE THE POWER PACK IN EXCESSIVELY HUMID PLACE.THE CONDENSAION OF VAPOR ON OR INSIDE OF THE UNIT CAUSES A MALFUNCTION, A SHORT CIRCUIT, FIRE AND A ELECTRIC SHOCK.
- DO NOT USE THE POWER PACK WHERE CORRESIVE GASES AND CHEMICALS POSSIBLY EXIST.
- THE AMBIENT TEMPARATURE SHOULD BE IN THE RANGE OF 0 ° ~ 40 ° C.
- KEEP THE UNIT AWAY FROM CHILDREN.
- AVOID ANY HEAVY SHOCK TO THE POWER PACK. DO NOT DROP IT!
- KEEP ANY LIQUIDS (OIL,WATER,ETC.) OFF THE UNIT. IF ANY LIQUID HAPPENS TO GET INTO THE UNIT, STOP THE OPERATION AND CONTACT YOUR NEAREST DEALER FOR REPAIR.
- DO NOT PUT ANY HEAVY GOODS ON THE CABLE.
- AVOID EXPOSURE TO DIRECT RAY OF THE SUN, HOT BLAST, OR HEATER AIR.
- WHEN UNPLUGGING,ALWAYS HOLD THE PLUG (NOT THE CABLE) AND PULL.
- ALWAYS UNPLUG THE A.C CABLE WHEN REPLACING THE FUSE,CLEANNING UP THE UNIT,OR DOING ANY OTHER MAINTENANCE FOR THE UNIT.
- DO NOT USE BENZINE, ALCOHL, PAINT THINNER OR OTHER VOLATILE SOLVENT TO CLEAN THE UNIT.
- ALWAYS UNPLUG THE A.C. CABLE WHEN LEAVING YOUR WORKSHOP.

THE WORD "REMOTE SWITCH" IN THE TEXT STANDS FOR THE REMOTE SWITCH ON THE HANDPIECE. (PLEASE REFER TO THE MANUAL OF THE HANDPIECE.)

## 1. ACCESSORIES

- 1). AC CABLE.....(CA10 FOR P201;CA11 FOR P211; CA12 FOR P221) X 1PC.
- 2). FOOT SWITCH.....(FS201) X 1PC.
- 3). RUBBER CRADLE.....(RM11) X 1PC.
- 4). FUSE.....(FUSE-2A FOR P201 AND P211; FUSE-1A FOR P221) X 2PCS.

## 2. FEATURES

DESIGNED TO BE COMPACT AND LIGHT WEIGHT.ALSO COMPATIBLE WITH OUR 7 SERIES HANDPIECES.

TWO KINDS OF OUTPUT SOCKET FOR BOTH POLYTOR HANDPIECE AND DC MOTOR HANDPIECE.

COMPATIBLE WITH THE REMOTE SWITCH ON THE HANDPIECE TO BE ABLE TO SWITCH ON AND OFF WITHOUT REACHING OUT TO THE POWER PACK; USEFUL ESPECIALLY WHEN EMPLOYING THE EXTENSION CORD FOR THE HANDPIECE.

OVERLOAD WARNING ALARM WILL BEEP BEFORE THE SAFETY SYSTEM SHUT DOWN THE OUTPUT CURRENT.

WHENEVER THE HANDPIECE IS STARTED AND STOPPED, THE SHORT BEEP WILL SOUND TO LET YOU KNOW THE SWITCHING IS OPERATED.

THE GROUNDING TERMINAL AT THE OUTPUT SOCKET CAN REDUCE THE NOISE SIGNALS FROM THE HANDPIECE.

## 3. NAMES OF PARTS AND FUNCTIONS

### MAIN SWITCH

ON AND OFF THE POWER SUPPLY ( | : ON : OFF )

### POWER SUPPLY LAMP

GREEN LIGHT WILL BE ON WHEN THE MAIN SWITCH IS ON, INDICATING THE INPUT POWER SUPPLY.

### SPEED CONTROL KNOB

TO CONTROL THE ROTATION SPEED OF THE HANDPIECE.

### ROTATION SWITCH

TO SWITCH THE DIRECTION OF THE ROTATION OF THE DC MOTOR. C.W. FOR CLOCKWISE AND C.C.W. FOR COUNTER-CLOCKWISE.

### ON/OFF SWITCH

TO CONTROL "ON/OFF" ON THE FRONT PANEL OF THE POWER PACK. ONE PUSH TO BE "ON" AND ANOTHER PUSH TO BE "OFF".

### OUTPUT LAMP

GREEN LIGHT INDICATES OUTPUT POWER SUPPLY TO THE HANDPIECE IS ON .

### ULTRASONIC SOCKET

A SOCKET FOR CONNECTING THE POLYTOR HANDPIECE.

### D.C. MOTOR SOCKET

A SOCKET FOR CONNECTING THE D.C.MOTOR HANDPIECE.

### OVER LOAD ALARM LAMP

RED LIGHT WILL BE ON AND THE OUTPUT CURRENT BE SHUT DOWN WHEN THE SAFETY SYSTEM ACTUATES.

THE SAFETY SYSTEM WILL ACTUATE IF THE OUTPUT CURRENT RISES TO 1A OR THE SURFACE TEMPERATURE OF THE POWER TRANSISTOR IN THE UNIT RISES TO 100 .

### AC SOCKET

USE THE RIGHT CABLE FOR THE RIGHT POWER PACK.

### FUSE HOLDER

WHEN REPLACING THE FUSE, USE A SCREWDRIVER TO UNSCREW THE HOLDER.

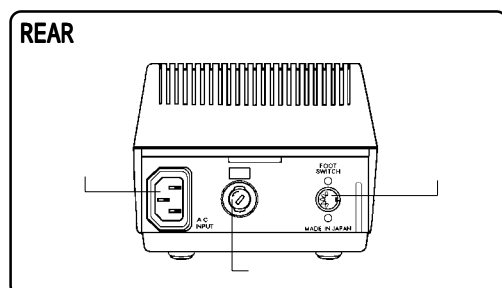
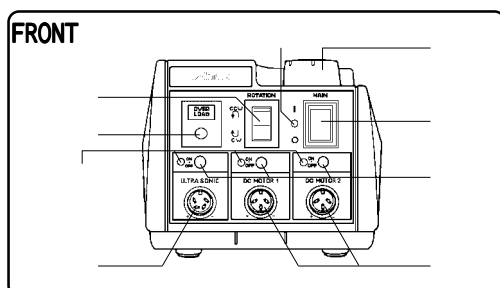
### FOOT SWITCH SOCKET

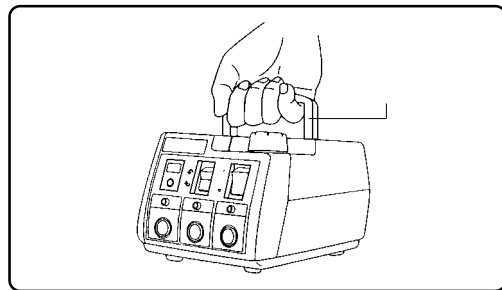
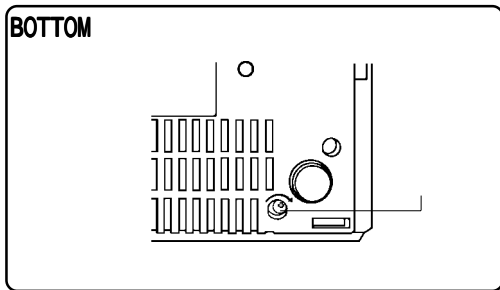
ONCE THE FOOT SWITCH IS CONNECTED TO THE POWER PACK, THE ON/OFF SWITCH ON THE FRONT PANEL WILL NO LONGER OPERATABLE.

### BUZZER TRIMMING

TO ADJUST THE VOLUME OF THE BEEP SOUND.

### CARRYING HANDLE





#### 4. OPERATIONS

##### \*WITHOUT USING THE FOOT SWITCH

PLUG IN THE A.C. CABLE

CONNECT THE HANDPIECE TO THE D.C. MOTOR SOCKET.

TURN THE SPEED CONTROL KNOB ALL THE WAY TO THE LEFT (COUNTER-CLOCKWISE) THIS IS THE MINIMUM ROTATION SPEED.

TURN THE MAIN SWITCH ON. (POWER LAMP WILL BE GREEN)

TO START THE MOTOR, PUSH THE REMOTE SWITCH OF THE HANDPIECE OR ON/OFF SWITCH ON THE FRONT PANEL.

TURN THE SPEED CONTROL KNOB TO ADJUST THE MOTOR SPEED TO THE APPROPRIATE POSITION FOR YOUR WORK.

TO STOP THE MOTOR, PUSH THE REMOTE SWITCH OR ON/OFF SWITCH OF THE POWER PACK AGAIN.

\*WHEN THE SAFETY SYSTEM ACTUATES (THE MOTOR STOPS AND THE OVER LOAD LAMP TURNS RED), PUSH THE REMOTE SWITCH OR ON/OFF SWITCH AGAIN TO RESET.

##### \*USING THE FOOT SWITCH

CONNECT THE FOOT SWITCH TO THE FOOT SWITCH SOCKET ON THE BACK OF THE POWER PACK.

PLUG IN THE A.C. CABLE.

CONNECT THE HANDPIECE TO THE D.C. MOTOR SOCKET.

TURN THE SPEED CONTROL KNOB ALL THE WAY TO THE LEFT (COUNTER-CLOCKWISE) THIS IS THE MINIMUM ROTATION SPEED.

TURN THE MAIN SWITCH ON. (POWER LAMP WILL BE GREEN)

HOLD THE HANDPIECE FOR SURE AND DEPRESS THE PEDAL OF THE FOOT SWITCH TO START THE MOTOR.

TURN THE SPEED CONTROL KNOB TO ADJUST THE MOTOR SPEED TO THE APPROPRIATE POSITION FOR YOUR WORK.

FOR VC301 (VARIABLE SPEED CONTROL TYPE), DEPRESS THE PEDAL ALL THE WAY AND WITH KEEPING THE POSITION, ADJUST THE SPEED WITH SPEED CONTROL KNOB TO THE APPROPRIATE SPEED FOR YOUR WORK. THEN, CONTROL THE SPEED WITH THE PEDAL. TO STOP THE MOTOR, RELEASE THE PRESSURE TO THE PEDAL. FOR FS211 WITH "A-MODE", DEPRESS THE PEDAL AGAIN TO STOP THE MOTOR.

\*WHEN THE SAFETY SYSTEM ACTUATES (THE MOTOR STOPS AND THE OVER LOAD LAMP TURNS RED), ONCE, TURN IT OFF AS , THEN DEPRESS THE PEDAL AGAIN TO START THE MOTOR.

#### 5. OPTION ACCESSARIES

##### < FOOT SWITCH >

FS201 ..... ON-OFF TYPE FOOT SWITCH

REMAINS ON AS LONG AS PRESSED.

TO TURN OFF, RELEASE THE PRESSURE.

FS211 ..... TWO INTERCHANGEABLE OPERATION MODES

A-MODE..... REMAINS ON ONCE PRESSED AND PRESS AGAIN TO TURN OFF

B-MODE..... SAME FUNCTION AS FS201

VC301 ..... VARIABLE SPEED CONTROL TYPE

THE MOTOR SPEED DEPENDS ON HOW FAR THE PEDAL IS DEPRESSED.

##### < EXTENSION CORD >

CB211..... TO CONNECT THE POWER PACK TO THE CURLED CORD OF THE HANDPIECE.

(3m LONG) ONLY ONE EXTENSION CORD CAN BE CONNECTED.

## 6. TROUBLE SHOOTING

### \* IF THE MAIN SWITCH DOES NOT TURN ON

CHECK WHETHER THE A.C. CABLE IS CERTAINLY PLUGGED IN OR NOT.

CHECK WHETHER THE FUSE IS BURNT OUT OR NOT.

### \* IF THE HANDPIECE DOES NOT OPERATE.

CHECK WHETHER THE CURLED CORD IS CERTAINLY CONNECTED TO D.C.MOTOR SOCKET OR NOT.

CHECK WHETHER THE COLLET RELEASE RING OF THE HANDPIECE IS IN "SET" POSITION.

CHECK WHETHER THE FOOT SWITCH IS CONNECTED OR NOT. WHEN THE FOOT SWITCH IS CONNECTED, THE REMOTE SWITCH AND ON/OFF SWITCH WILL NOT OPERATE.

### \* IF THE OVERLOAD ALARM CANNOT BE RESET.

#### [P201/P211/P221 SPECIFICATIONS]

INPUT VOLTAGE ..... P201 AC100V  $\pm$  5% 50/60 Hz

P211 AC115V  $\pm$  5% 50/60 Hz

P221 AC230V  $\pm$  5% 50/60 Hz

POWER CONSUMPTION ..... RATING 44 W (MAX.135 W)

OUTPUT VOLTAGE ..... DC 3 ~ 30V / AC MAX 80V(25  $\pm$  5KHz)

SAFETY SYSTEM ..... • WHEN THE OUTPUT CURRENT FLOWS MORE THAN 1 A CONTINUOUSLY, THE OUTPUT CURRENT WILL BE SHUT DOWN WITHIN 6 SECONDS.

• WHEN THE SURFACE TEMPERATURE OF THE POWER TRANSISTOR IN THE POWER PACK RISES OVER 100 °C, THE SYSTEM WILL SHUT DOWN THE OUTPUT CURRENT.

OPERATING TEMPERATURE

AND HUMIDITY RANGE .... 0 ° ~ 40 °C AND 20 ~ 80% (NO CONDENSATION)

DIMENSIONS ..... 144 ( W )  $\times$  218 ( D )  $\times$  116 ( H )

WEIGHT ..... APPROX. 2.6 Kg

# MINITOR CO., LTD. JAPAN

Head Office : 16-3 Ryogoku 1-chome, Sumida-ku, Tokyo 130-0026 JAPAN  
Osaka Br. : 4-4 Itachibori 2-chome, Nishi-ku, Osaka 550-0012  
Nagoya Br. : 4 Kanayamacho 1-chome, Atsuta-ku, Nagoya 456-0002

Phone 03-3633-7181 Fax 03-3633-7186  
Phone 06-6531-5300 Fax 06-6531-5417  
Phone 052-671-3077 Fax 052-671-3177