

# OM-E0107E 002

CE The EU directive 93/42/EEC was applied in the design and production of this medical device.

Thank you for purchasing the TASKAL Wizard.

This product is a cordless handpiece used mainly for polishing teeth (professional mechanical tooth cleaning [PMTC]). Read this Operation Manual carefully before use for operation instructions, care and maintenance. Keep this Operation Manual for future reference.

### **A SAFETY CAUTIONS**

Read these safety cautions thoroughly before use and operate the product properly.

These indicators are to allow you to use the product safely and prevent danger and harm to you and others. These are classified by degree of danger, damage and seriousness. All indicators concern safety, be sure to follow them.

#### Indicators of Hazardous Conditions

Classification	Degree of Danger or Damage and Seriousness	
	Explains an instruction where death or serious injury may occur.	
	Explains an instruction where bodily injury or damage to device may occur.	
	Explains an instruction where possibility for minor to medium bodily injury or damage to device may exist.	
	Explains an instruction that should be observed for safety reasons.	

### 

- This product is designed specifically for use with rechargeable batteries. Do not use manganese or alkaline batteries. Using and charging these by error may cause a fluid leak or explosion.
- Always replace both batteries with the same type at the same time. Using batteries of different-types or an exhausted battery with a fully charged one may cause a fluid leak or explosion.

#### 

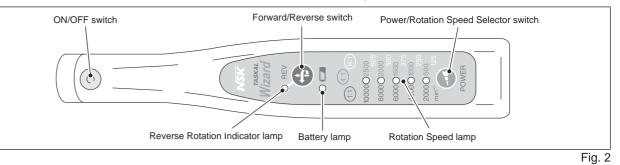
- Do not handle the power cord with a wet hand. Failure to do so may result in an electric shock.
- Do not spill water or a chemical solution onto or into the motor handpiece or battery charger. Failure to do so may result in fire or electric shock due to a short-circuit or breakage due to rust formation.
- Do not disassemble or alter the motor handpiece.
- Do not drop the motor handpiece or battery charger. Place the battery charger on a flat and stable place. · Should the battery fluid leak and get into your eyes, immediately wash eyes thoroughly with clean water and see your doctor. Failure to do so may result in less of sight.
- Should the battery fluid leak and adhere to skin or clothing, immediately wash the exposed skin thoroughly with clean water and completely wash away the fluid. Failure to do so may result in a skin trouble.
- If you should notice a battery fluid leak within the motor handpiece, deformation of the motor-handpiece casing or partial discoloring, immediately stop use and contact your dealer.
- If you will not use the product for a long period of time, remove the batteries to avoid fluid leak.

#### 

- Exercise sufficient care in using the product by giving patient safety first priority
- The product is to be used for only dental treatment by qualified personnel.
- Use commercially available batteries recommended by NSK. Read carefully the instruction manual by the battery manufacturer before use.
- Do not use a bent, damaged, deformed or non-ISO-conforming bur. Using such a bur may result in personal injury due to its sudden breaking or flying off during rotation.
- Do not use or leave the product in a high-temperature environment such as under strong direct sunlight, in a car under a blazing sun, by a fire, or near a stove.
- Check the product before use by rotating it, paying attention to looseness, vibration, noise and temperature (heat generation). If any abnormal condition is found even slightly at that time, immediately stop use and contact your dealer.
- Always clean the shank of the bur to be installed. Allowing dirt to enter the chuck could cause loss of concentricity and deterioration of chucking force.
- Before changing the head or bur, turn off the power of the motor handpiece. Changing with the power on may cause unintended rotation by accidental touch of the ON/OFF switch.
- When inserting the motor handpiece into the battery charger, position the handpiece correctly. Pushing it into the charger forcibly in the incorrect orientation may cause damage.
- Be careful not to fall conductive parts such as wires and safety pins into the charging terminal area of the battery charger.
- Sterilization is required, after you purchase and each patient.
- Before inserting the motor handpiece into the battery charger, wipe it clean. If the charging terminal area becomes dirty, rust formation may prevent charging, or result in short-circuit.
- Do not lubricate the motor handpiece.
- Do not heat sterilize the motor handpiece. Do not autoclave.

#### Operation Panel Details

This section describes the names and functions of each switch and lamp on the motor handpiece operation panel. For more detailed operations of the motor handpiece, refer to the "Operating Motor Handpiece" in 4. (2).



#### ON/OFF switch

Pressing this switch, when the power is on, rotates the motor handpiece, and re-pressing the switch stops the handpiece. (Normal rotation operation) Pressing and holding the switch for approx. one second or longer rotates the motor handpiece and releasing the switch stops the handpiece. (Temporary rotation operation)

#### Forward/Reverse switch

Pressing this switch, when the power is on, rotates the motor handpiece in the reverse direction. Re-pressing the switch returns the rotation to forward. Pressing the switch, while the motor handpiece is in motion, stops rotation temporarily and resumes rotation in the opposite direction.

#### Power/Rotation Speed Selector switch

Pressing and holding this switch for 1 second or longer, when the power is off, turns on the power, and re-pressing and holding the switch for 2 seconds or longer turns off the power. In addition, by pressing the switch, when the power is on, the rotation speed can be selected.

#### Reverse Rotation Indicator lamp

This lamp lights while the motor handpiece rotates in the reverse direction. Pressing the Forward/Reverse switch while the motor handpiece is motion makes the lamp flash until the reverse rotation stops.

#### Battery lamp

This lamp lights when the battery charger is connected, and flashes when the battery voltage lowers. It also flashes when an error occurs. (Refer to "10. OPERATION PANEL DISPLAY" )

#### Rotation Speed lamp

The lamp for the preset rotation-speed set value is lit. It flashes slowly while the motor handpiece rotates. Only one lamp normally lights or flashes, but two lamps may light at a time when the rotation speed is in the 9-level setting. This means that the speed is set between the two indicated levels (Fig. 3). By leaving the handpiece under a non-operational condition for one minute or longer when rotation stop causes the lamp at the current set value rotation speed to slowly flash.

# 4. OPERATION PROCEDURES

#### (1) Charging Batteries

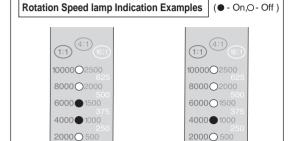
- ① Insert the power cord jack into the inlet at the back of the battery charger. (Fig. 4)
- 2 Insert the power cord plug into the outlet of the correct voltage.
- ③ Turn on the power switch. At this time, check that the power lamp lights. (Fig. 5)

# 

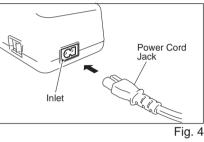
If the power lamp or the charge lamp flashes, turn on the power switch once again. If they still flash, contact your dealer.

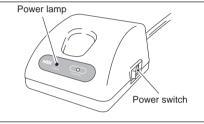
- ④ Remove the contra angle head from the motor handpiece and mount the motor cap onto it. (Refer to "7. MOTOR CAP") Insert the motor handpiece into the battery charger with the operation panel facing frontward. If the motor handpiece power is on, it will be turned off automatically when inserted into the battery charger. Charging starts with the charge lamp turned on. The battery lamp of the motor handpiece lights. (Fig. 6)
- (5) Charge at full capacity is completed, when the charge lamp goes out. (The battery lamp remains to light.) If the motor handpiece is inserted into the battery charger with the power on, the motor handpiece will start automatically when removed from the charger.



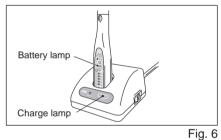


9-level setting (speed ratio : 1:1) 5-level setting (speed ratio : 1:1) Rotation speed : 5,000 min<sup>-1</sup>(rpm) Rotation speed : 4,000 min<sup>-1</sup>(rpm)









• Connect to AC 120 V or AC 230 V power supply only. Voltage variation within ±10% is permissible. Other voltage than these may result in damage.

Never use the battery charger for other than the motor handpiece of this product. The charging normally takes approx. 90 minutes, but it depends on battery use conditions, battery freshness, ambient temperature, etc. Older batteries are especially prone to significantly shorter charging and operating times. • Batteries may slightly heat during charging, but this is not a failure. If the handpiece is inserted or removed into/from the charger at short intervals, (approx. 5 minutes) charging cannot be properly completed and by touching the battery part you may feel hot. We recommend that you charge batteries at as long a cycle as possible. The motor handpiece will not start automatically removed from the battery charger after 3 hours charging with the power on. • The power of the motor handpiece should not be turned on immediately after it has been removed from the charger, wait approx. 2 seconds or longer with the power off.

Fig. 3

#### NOTICE

- The motor handpiece is designed with the commercially available AAA nickel metal hydride batteries (rechargeable). Ni-Cad batteries can also be used, but the charging time and operating time become significantly shorter since the charging current differs.
- The motor handpiece consumes electricity very slightly even when the power is off. In addition, fully-charged rechargeable batteries, in general, discharge gradually over time even though it is not used. It is recommended to recharge the batteries just before use.
- When the motor handpiece automatically stops by detecting a low battery voltage, leaving it for a while and turning on the power again may not detect the low voltage immediately. This is not a failure, but due to battery characteristics. Since the voltage drop does not coincide with the remaining battery capacity, consider it only as a yardstick.
- Recharge rechargeable batteries after they deplete as much as possible. Repeating short-time use and subsequent recharging may shorten their operating time due to a "memory effect." Batteries may recover after repeating complete discharge and full charge a few fimes.
- If you do not use the product for a long period of time, remove the batteries from the motor handpiece.

# **1. FEATURES**

- · Compact body.
- Operable continuously for approx. one hour at rated load. (Dependent upon use conditions.)
- · No inconvenience in resetting, since operation panel set values are memorized.
- Setting of nine-level rotation speeds allowed, and 5-level switching is also available.
- Normal rotation operations of the motor handpiece include pressing the switch turns on the handpiece and re-pressing the switch turns it off. In addition, temporary rotation operations are also available : pressing and holding the switch turns on the handpiece and releasing the switch turns it off.
- The motor handpiece softly starts. Since it makes a temporary stop and starts in the reverse rotation, there are no vibration and shocks during this changeover.
- Energy savings. The power of the motor handpiece automatically turns off when there are no operations for 10 minutes. (Auto power-off function)
- The battery lamp indicates low battery voltage.
- The feedback circuit, which keeps rotation at a constant speed even when the load on the motor handpiece changes, is built in.
- The contra angle heads provided for this product are all autoclavable at 135ûC (excluding the motor handpiece).

<

# 2. SPECIFICATIONS

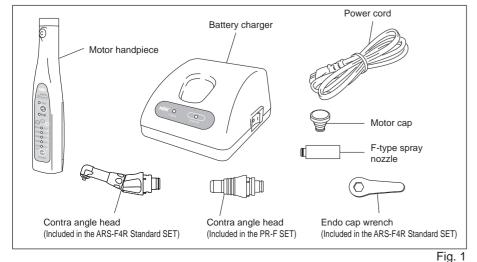
<Battery Charger>

, , ,			
Model	NE140		
In mut valta na	120 V specification : 120 VAC ±10% 50/60 Hz		
Input voltage	230 V specification : 230 VAC ±15% 50/60 Hz		
Input Power	5 VA		
Output	4 VDC		
Charging Time Approx. 90 min			

Motor Handpiece>		
Model	TW10M	
nput Voltage	2.4 VDC ±20%	

Input Power 0.3 VA

# 3. PACKAGING CONTENTS

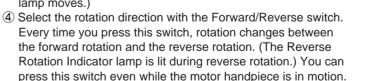


# <sup>′</sup>!∖ NOTICE -

- Battery could be fully charged even if charge lamp do not light, depending on the remaining amount of the battery charge.
- When the handpiece is inserted onto the charger after it is not used for long with the battery inserted, the handpiece sometimes could not be charged. Try to put in and take out from the charger repeatedly, and the handpiece will start to be charged.

## (2) Operating Motor Handpiece

- ① Mount the contra angle head to the motor handpiece. (Refer to "Changing Contra Angle Head" in 4. (3).)
- 2 Press and hold the Power/Rotation Speed Selector switch for 1 second or longer to turn on the power.
- ③ Press the Power/Rotation Speed Selector switch several times until the desired rotation speed corresponding to the ring color of the contra angle head used (Fig. 8) can be selected. (Every time you press the switch, the lighting for the Rotation Speed lamp moves.)



- (5) Pressing the ON/OFF switch rotates the motor handpiece and re-pressing it stops the handpiece. (Normal rotation operation) Pressing and holding this switch for approx. 1 second or longer rotates the motor handpiece while continuing to press it, and releasing the switch stops the handpiece. (Temporary rotation operation)
- 000000 Rotation Speed lamp Reverse Rotation Battery lamp Indicator lamp Fig. 7 Contra Angle lead Ring Color Gear Ratio Head Speeds (min-1(rpm))

Forward/Reverse

ON/OFF switch

Power/Rotation Speed

elector switch

- 1:1 2.000 3.000 4.000 5.000 6.000 7.000 8.000 Blue 1,000 1,250 1,500 1,750 2,000 Green 4:1 750 500 White 16:1 125 190 250 310 375 \*Consider the speeds above as standards Fig. 8
- 6 Turn off the power by pressing and holding the Power/Rotation Speed Selector switch for 2 seconds or longer.

# 

If the Battery lamp flashes at no load during rotation, this means that the battery is at a low voltage. Recharge the batteries. If the lamp flashes at a load that exceeds the limit, reduce the load.

## \* Changing Number of Rotation-Speed Settings

The number of settings can be changed from 9 to 5. Turn off the power. Pressing and holding the Forward/Reverse switch press the Power/Rotation Speed Selector switch for 1 second or longer. This changes the settings from 9 to 5. This condition is stored in the internal memory, you do not have to set it every time you turn on the power. To return to 9 settings, turn off the power, press and hold the Forward/Reverse switch and press the Power/Rotation Speed Selector switch for 1 second or longer. (Erroneous pressing the ON/OFF switch and the Power/Rotation Speed Selector switch simultaneously lights up all the lamps on the operation panel. This is not a failure. Wait until these go out after a few seconds.)

## **\*** Emergency Stop Function

TASKAL Wizard is not equipped with an emergency stop function to prevent overloading. The motor handpiece does not break it immediately, but it may shorten battery life or damage the motor handpiece. Do not intentionally stall the motor handpiece for a prolonged time.

#### **\*** Auto Power Off Function

CAUTION

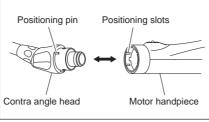
the motor handpiece.

When the power is on and the motor handpiece is not in operation for more than 10 minutes, the power automatically turns off. However, the power does not turn off while the motor handpiece is in motion. Under this condition, the power turns off when the batteries are drained to a certain low voltage level.

### (3) Changing Contra Angle Head

The contra angle head could be connected with the motor handpiece at 6 adjustable head positions. Align the positioning pins of the contra angle head with the positioning slots of the motor handpiece and insert the head until they click. When removing the contra angle head, pull it out axially. (Fig. 9)

Check that the contra angle head is securely assembled to



\*The contra angle head in the figure is ARS-F4R. Fig. 9

\* The contra angle head in the figure is ARS-F4R. Fig. 10

Contra angle head

F type spray

Pana-Spray (Option

# 5. CLEANING

#### (1) Lubricating Contra Angle Head

Lubricate the contra-angle head only.

Lubricate it before each autoclaving or once a day, using Pana-Spray lubricant (option). Screw the F type spray nozzle onto the Pana-Spray nozzle by approx. 10 turns. Insert the F type spray nozzle into the rear part of the contra angle head and lubricate the head for 2-3 seconds. (Fig. 10)



When the motor handpiece becomes dirty, wipe it off with a cotton cloth moistened with rubbing alcohol.

# CAUTION

- Do not lubricate the motor handpiece.
- Before mounting the lubricated contra angle head to the motor handpiece, wipe off extra oil. Stand on its end or lean it in the proper prevent for gravity draining. Mount it after excess oil has been completely drained.
- Hold the contra angle head securely to prevent it from flying off by the pressure of the spray.
- Hold the Pana-Spray (option) upright.
- . When cleaning the motor handpiece, do not use any solvent such as benzine and, thinner

## 6. STERILIZATION

Sterilize the contra angle head only. For the sterilization method, we recommend the autoclave sterilization method.

#### Autoclaving

- ① Brush the dirt off the surface of the contra angle head with, and wipe it off with a cotton cloth moistened with rubbing alcohol. Do not use metal brush.
- ② Lubricate the head with the Pana-Spray (option). (Refer to the "5. (1) Lubricating Contra Angle Head.")
- ③ Insert the head into an autoclave pouch and seal it.
- (4) Autoclavable up to a max. 135°C.
- ex.) Autoclave for 20 min. at 121°C, or 15 min. at 132°C.
- (5) Keep the handpiece in the autoclave pouch to keep it clean until you use it.

\* Sterilization at 121°C for more than 15 minutes is recommended by EN13060 or EN ISO17665-1.

# CAUTION

Do not heat sterilize the motor handpiece .

#### 7. Ultrasonic cleansing

To remove the paste that against into the Handpiece, perform Ultrasonic Cleaning day by day. (1) Loosen the Ring and take off the Drive Gear. (Fig.11)

2 Perform the Ultrasonic Cleaning for 5 minutes ONLY for the head.

CAUTION

- If paste adheres into the Drive Gear, perform ultrasonic cleaning.
- DO NOT use ethanol or cleaning fluid for the cleaning. It may cause discoloration or fret.

③ Dry the water from the head and assemble it reverse procedure to ①. Lubricate for approximately 4-5 seconds until the oil comes out of the handpiece head. (Refer to 5. Lubrication)

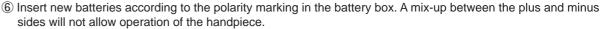
Motor car

Motor handpiece

Fig. 12

CAUTION

Repeat this lubrication until you see no paste from the handpiece.



⑦ Attach the battery cover.

- (8) Tighten the screw with a Phillips screwdriver. Do not overtighten it.
- Insert the rubber cover back into the screw hole of the battery cover in the originally inserted direction.

Changing of batteries is now completed. Charge them fully before use.



- Do not misplace the rubber cover and screw.
- The used nickel metal hydride batteries are recyclable, but their disposal may sometimes not be permitted by the country. Return them to your dealer.

## 12. OPERATION PANEL DISPLAY

When any abnormal condition occurs in the motor handpiece, the operation panel displays it to allow you to locate the troubles

<Normal Displav>

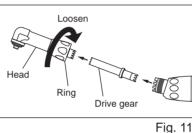
Lighting Display (●On, ○Off, ¥Flashing)	Reason	Remedy
Low Battery Voltage A	The battery voltage dropped below the discharge completion voltage. (Battery drain)	Recharge the batteries.
Low Battery Voltage B	The battery voltage dropped below the voltage near discharge completion. (Temporary voltage dropped due to battery drain or heavy loading)	Recharge the batteries, or remove the heavy load.
Power Save Mode	Non-operational condition continued for 1 minute or longer when the rotation of the motor handpiece stopped.	Press any switch.

Lighting Display (●On, ○Off, KFlashing)	Reason	Remedy	
Abnormal Battery Temperature	Abnormal temperature at the battery chamber. (Battery short circuit, over discharge, etc.)	If the lamps flash after the handpiece ha been left for a while, Contact your deale	
Abnormal Motor Voltage A	Abnormal motor voltage.	The circuit is damaged. Contact your dealer.	
Internal Memory Error A	Abnormal internal memory.	The internal memory is damaged. Contact your dealer.	

# 13. TROUBLESHOOTING

When trouble is found, please check the following again before consulting your dealer. If none of these is applicable or the trouble is not remedied even after action has been taken, a failure of this product is suspected. Contact your dealer.

Trouble	Probable Cause and Check	Solution	
	Batteries have fully discharged. (Has the handpiece been left with batteries inserted for a long time?)	Recharge the batteries.	
The motor handpiece power does not turn on.	Abnormal batteries. (Have the battery parts become hot?)	Cool the handpiece for a while and turn on the power.	
	No batteries are inserted.	Insert batteries.	
	The internal fuse has burnt.	Contact your dealer.	
When the power of the motor handpiece is turned on, the battery lamp lights.	Low batteries.	Recharge the batteries.	
The motor handpiece does not rotate. The operation panel does not light.	Power is not turned on.	Turn on the power.	
The force of the motor handpiece is weaker than normal.	The batteries have become weak. (Is the battery lamp flashing?)	Recharge the batteries.	
The maximum rotation speed of the motor handpiece is low.	The batteries have become weak. (Is the battery lamp flashing?)	Recharge the batteries.	
	The batteries of the motor handpiece have fully discharged. (Has the handpiece been left with batteries inserted for a long time?)	Insert and remove the motor handpiece into/from the battery charger several times.	
The battery charger does not	The power of the battery charger is turned on?	Turn on the power of the battery charger	
work.	Is the power cord plug inserted into the outlet?	Insert the power cord plug into the outlet	
(The charge lamp does not light.)	Is the power cord jack inserted into the inlet of the battery charger?	Insert the power cord jack into the inlet of the battery charger.	
	Is the motor handpiece inserted into the battery charger in the correct orientation?	Insert the motor handpiece into the battery charger in the correct orientation	
The battery charger does not work. (The charge lamp lights but goes out soon.)	Has the motor handpiece part near the batteries become hot?	If the motor handpiece part near the batteries has become hot, the batteries have been fully charge	
The battery does not charge.	The batteries of the motor handpiece have fully discharged. (Has the handpiece been left with batteries inserted for a long time?)	Insert and remove the motor handpiece into/from the battery charger several times. When the power lamp of the charger flashes, turn on the power switch aga	
(The charge lamps or the power lamp blink.)	Are such single-use batteries as alkaline or manganese cells used?	Replace with the specified battery (nickel-meinstress hydrogen battery 600-700 mAh 1.2V nominal	
	The charging terminal area of the battery charger has short-circuited.	Clean the charging terminal area of the batter charger. When the power lamp of the battery charger flashes, turn on the power switch aga	



Looser

Fig. 13

End Car

End Cap Wrend



When the contra angle head is removed from the motor handpiece for battery charging, lubrication, or sterilization, mount the motor cap onto the motor handpiece to prevent debris from entering. (Fig. 12)

## 9. END CAP WRENCH

The internally-worn gear, etc can be replaced by removing the end cap with the end cap wrench. (Fig. 13)

#### 10. SAFETY SYSTEM

The motor handpiece monitors temperature of the batteries. If the batteries could become abnormal hot, this system functions and the motor handpiece automatically stops. In such a case, wait until the motor handpiece cools. If this safety system functions repeatedly, either the batteries or motor handpiece is not in the normal operating condition. Contact your dealer.

## **11. CHANGING BATTERIES**

The motor handpiece uses rechargeable batteries. They can be recharged 300-500 times, depending on the use conditions of the motor handpiece. If the operating time becomes shorter or the rotation speed becomes slower, although the "memory effect" described in " 1 NOTICE" is not applicable, the life of the batteries is suspected. In such a case, ask your dealer to replace the batteries or replace them with new ones by yourself. (Refer to the " I Changing Batteries.") When replacing them by yourself, be sure to observe the following " CAUTIONS ON CHANGING BATTERIES." Please note that NSK shall not be liable for any malfunction or failure resulting from your not following the " A CAUTIONS ON CHANGING BATTERIES."

# CAUTIONS ON CHANGING BATTERIES

- Do not open any part other than the battery cover.
- Use batteries designated by NSK.
- Designated Batteries : AAA (marking may be different)

nickel metal hydride batteries, 600-700 mAh, nominal 1.2V

(Or Ni-Cad batteries, 200-300 mAh, nominal 1.2V. However, please take note that the operating time shortens because of their capacity.)

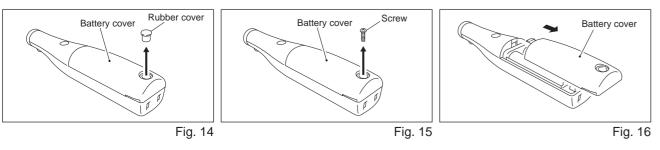
- Do not use non-charging type batteries such as alkaline batteries and manganese batteries. Charging with these batteries may cause fluid leaks, explosion or chlorine gas generation.
- . Should the battery fluid leak and get into your eyes, immediately wash thoroughly in clean water and see your doctor.
- Should the battery fluid leak and adhere to skin or clothing, immediately wash the exposed skin thoroughly with clean water and completely wash away the fluid. Failure to do so may result in a skin disorder.
- Always replace two batteries of the same type by the same manufacturer at the same time. Using batteries of different-types, an exhausted battery with a fully charged one, or a new battery with an old one may cause a fluid leak or explosion.
- . Do not work with wet hands. Failure to do so may result in rust formation on battery terminals or moisture intrusion inside, and could cause failure of the product.

#### Changing Batteries

Prepare the small screwdrivers (Phillips, flatblade).

- 1) Turn off the power of the motor handpiece.
- 2 Remove the rubber cover from the battery cover with a thin flatblade screwdriver. (Fig. 14)
- ③ Remove the screw fixing the battery cover with a Phillips screwdriver. (Fig. 15)
- ④ Remove the battery cover by sliding it toward the charging terminal. (Fig. 16)

(5) Remove old batteries.



# **14. CONTRA ANGLE HEAD REFERENCE TABLE**

Head	Model	Product No.	Specifications
	ARS-F4R	Y110017	Prophy head     For screw-in cups     4:1 Reduction     Included in the Standard SET
	ARK-F4R	Y110022	<ul><li>Prophy head</li><li>For snap-on cups</li><li>4:1 Reduction</li></ul>
	NAC-F4R	Y110020	<ul> <li>Prophy head • Latch type</li> <li>For CA bur (Ø2.35)</li> <li>4:1 Reduction</li> </ul>
	TEQ-F4R	Y110030	<ul> <li>Prophy head • 80° reciprocating action</li> <li>Push button chuck (ø2.35)</li> <li>4:1 Reduction</li> </ul>
	EVA-F	Y110016	<ul><li>For Eva tips</li><li>Vertical Reciprocating</li><li>1:1 Drive</li></ul>
	PR-F	H209	For Disposable Prophy Angles     4:1 Reduction     Included in the PR-F SET

\*Files and prophy cups are not included.

## 15. WARRANTY

Manufacturer warrants its products to the original purchaser against defects in material and workmanship under normal practices of installation, use and servicing. Batteries etc. are expendable components, and are not covered by this warranty. In case the product fails within 30 days from the date of installation, immediately report with the proof of your purchase to the dealer you purchased from.

#### NAKANISHI INC. www.nsk-inc.com 700 Shimohinata Kanuma-shi Tochigi 322-8666,

NSK Dental Spain SA

NSK France SAS www.nsk.fr 32 rue de Lisbonne 75008 Paris, France

www.nsk-spain.es C/ Módena, 43 El Soho-Európolis 28232 Las Rozas, Madrid,

www.nsk-europe.de

Elly-Beinhorn-Strasse 8

65760 Eschborn

NSK Oceania Pty Ltd NSK Middle East www.nsk-inc.com Unit 22, 198-222 Young St. Waterloo, Sydney NSW 2017, Australia

www.nsk-uk.com

Office 5, Gateway1000,

NSK United Kingdom Ltd

Arlington Business Park, Whittle Way,

enage, SG1 2FP, UK

www.nsk-inc.com Room 6EA-701, 7th Floor, East Wing No.6 Dubai Airport Free Zone PO Box 54316 Dubai, UAE

Specifications are subject to change without notice

www.nskdental.com 1800 Global Parkway Hoffman Estates

NSK Dental LLC

IL 60192-1578, USA

NSK Asia www.nsk-inc.com 1 Maritime Square

> Singapore 099253 2012.06.20 003 🕅

#09-33 HarbourFront Centre