

# Extension Adaptor ECN - 011

## OPERATION MANUAL

Thank you for purchasing the Extension Adaptor " ECN - 011". This Extension Adaptor is designed for connecting to the Espert 500 motor and using with Emax Evolution series attachments or the ROTUS series attachments. Read this and all the associated component Operation Manuals carefully before use. Always keep this Operation Manual in a place where a user can referred to for reference at any time.

### 1. CAUTIONS FOR HANDLING AND OPERATION

- Read these warnings and cautions carefully and only use in the manner intended.
- These warnings and cautions are intended to avoid potential hazards that could result in personal injury to the operator or damage to the device. These are classified as follows in accordance with the seriousness of the risk.

Class	Degree of Risk
<b>WARNING</b>	<b>A safety hazard could result in bodily injury or damage to the device if the safety instructions are not properly followed.</b>
<b>CAUTION</b>	<b>A hazard that could result in light or moderate bodily injury or damage to the device if the safety instructions are not followed.</b>

#### WARNING

- This Extension Adaptor is designed for hand tool use. The Extension Adaptor is installed during Espert 500 motors and the Emax Evolution attachments or the ROTUS attachments and used.
- Do not touch the cutting tool while it is running. It is very dangerous.
- Wear safety glasses, dust mask, and use a protective cover around the Extension Adaptor whenever the Extension Adaptor is rotating.
- Do not apply excessive force. This may cause tool slippage, tool damage, injury to the operator, loss of concentricity and precision.

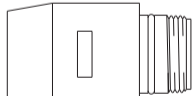


#### CAUTION

- Do not drop or hit this Extension Adaptor, as shock can damage to the internal components.
- When cleaning an Extension Adaptor, stop the motor and remove debris with a soft brush or a cloth. Do not blow air into the Extension Adaptor with compressed air as foreign particles or cutting debris may get into the ball bearing.
- Make sure that the transmission clutches engage firmly, when connecting to the motor and the attachment.
- Stop working immediately when abnormal rotation or unusual vibration are observed. Immediately, please check the content of section " 8. TROUBLESHOOTING ".
- No lubrication is required because grease impregnated ball bearings are used.
- After installation, repair, initial operation, or long periods of non operation, please carry out break-in as follow. Start rotating slowly and over a short period of 5 - 10minutes, increase speed gradually until allowable maximum speed.
- Do not disassemble, modify or attempt to repair this Extension Adaptor. Additional damage will occur to the internal components. Service must be performed by NSK NAKANISHI or an authorized service center.

### 2. BASIC PACKAGE

When opening the package, check if it includes all items listed in " Table.1 Packing Contents List ". In the event of any shortage, please contact either us (see the " 4. CONTACT US " section) or your dealer.

Table. 1 Packing Contents list

ECN - 011 • • 1pc. 	Wrench (20 x 24) • • 1pc. 	Operation Manual • • 1set. 
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### 3. WARRANTY

We provide a limited warranty for our products. We will repair or replace the products if the cause of failure is due to the following manufactures defects. Please contact us or your local distributor for the details.

- Defect in manufacturing.
- Any shortage in the package.
- Where it is found any damage has occurred when opening the package.  
(This shall not apply if the damage was caused by the negligence of a customer)


### 4. CONTACT US

For safe use / purchase of our products, we welcome your questions. If you have any questions about operation, maintenance and repair of the product, please contact us.

#### Contact Us

- For U.S. Market
  - Company Name : **NSK America Corp**  
Industrial Div.
  - Business Hours : 8:30am to 17:00pm (CST)  
(closed Saturday, Sunday and Public Holidays)
  - U.S. Toll Free No. : 800-585-4675
  - Telephone No. : 847-843-7664
  - Fax No. : 847-843-7622
  - Web Address : [www.nskamericacorp.com](http://www.nskamericacorp.com)

- For Europe Market
  - Company Name : **NSK Europe GmbH** EC REP  
Industrial Div.
  - Business Hours : 8:00am to 17:00pm  
(closed Saturday, Sunday and Public Holidays)
  - Telephone No. : +49 619677606 57
  - Fax No. : +49 619677606 29
  - Web Address : [www.germany.nsk-dental.com/](http://www.germany.nsk-dental.com/)

- For Other Markets
  - Company Name : **NAKANISHI INC.** 
  - Business Hours : 8:00am to 17:00pm  
(closed Saturday, Sunday and Public Holidays)
  - Telephone No. : +81 (0) 289-64-3520
  - Web Address : [webmaster-ie@nsk-nakanishi.co.jp](mailto:webmaster-ie@nsk-nakanishi.co.jp)

### 5. FEATURES

This Extension Adaptor is developed for using with the Emax Evolution series attachment and ROTUS series attachment to be connected to Espert 500 motor.

### 6. SPECIFICATIONS AND DIMENSIONS

#### 6 - 1 Specifications

Model	ECN - 011
Maximun Motor Rotation Speed	40,000min <sup>-1</sup> Continuous use rotating speed : Less than 30,000min <sup>-1</sup>
Appropriate Motor	Espert 500 Motor (ENK - 500C, ENK - 500T)
Weight	31g

#### 6 - 2 Outside View

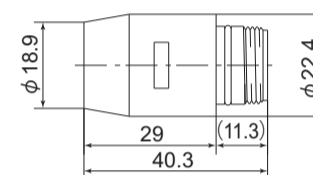


Fig. 1

### 7. CONNECTION OF THE EXTENSION ADAPTOR TO THE MOTOR

#### CAUTION

Make sure your hands and all interlocking parts of the Extension Adaptor and motor are clean before connecting the motor to the Extension Adaptor. This is critical in preventing contaminants from entering the motor or Extension Adaptor.

Align the thread on the front end of the motor and the rear of the Extension Adaptor, and turn the Extension Adaptor clockwise. If the drive shaft of the motor does not engage properly to the drive dog on the Extension Adaptor, it may only turn approximately two threads before stopping. DO NOT FORCE THEM TOGETHER. Turn the Extension Adaptor back a few threads, rotate the Extension Adaptor by hand to engage the drive shaft and the drive dog, and make the final turns.

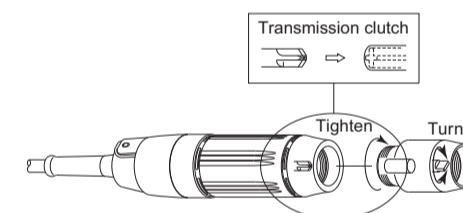


Fig. 2

### 8. TROUBLESHOOTING

If a problem or concern occur, please check the following items prior to consulting your dealer.

Trouble	Cause	Inspection / Corrective Action
Extension Adaptor does not run.	The Extension Adaptors ball bearings have been damaged.	Replace the ball bearings. (Return to NAKANISHI dealer service.)
Overheating during rotation.	Cutting debris has contaminated the ball bearings, and the ball bearings are damaged.	
Abnormal vibration or noise during rotation.	Cutting debris has contaminated the ball bearings. The Extension Adaptors ball bearings have been damaged.	

### 9. DISPOSAL OF THE EXTENSION ADAPTOR

When disposal of an Extension Adaptor is necessary, follow the instructions from your local government agency for proper disposal of industrial components.

※Specifications may be changed without notice.

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