

**Panasonic**



# Assembly Tools

Bringing Innovation to the Assembly Line



05/2019

# CONTENTS

ASSEMBLY TOOLS	
Product Lineup	2-3
Assembly Tools Benefits	4
Precision Clutch	5-9
Low Torque Clutch	10
AccuPulse HR Series	11-17
Mechanical Pulse	18-21
High Torque Mechanical Pulse	22-23
Mechanical Pulse Overview	24-25
Assembly Tools Accessories	26
Assembly Qualifier	27-31
Transducers / Joint Simulators	32
Battery / Charger Compatability Chart	33

## Assembly Tools

### AccuPulse® HR Series



**EYFLA7A/R**  
10.8V, 3-22Nm



**EYFLA8A/R**  
10.8V, 6-30Nm



**EYFLA8P/R**  
10.8V, 6-30Nm

### Mechanical Pulse



**EYFLA4A/R**  
10.8V, 3-22Nm



**EYFLA5A/R**  
10.8V, 6-30Nm



**EYFLA5B**  
10.8V, 6-30Nm

### High Torque Mechanical Pulse



**EYFNA1J**  
18V, 70-200Nm



**EYFPA1J**  
21.6V, 160-650Nm

### Programmable Clutch



**EYFGA1A**  
14.4V, 2-5.5Nm



**EYFGA2A**  
14.4V, 5-8Nm

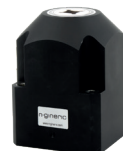


**EYFGA3A**  
14.4V, 5-10Nm

### Stationary Transducers



**EYFST22NM**  
3/8" Square Drive



**EYFST100NM**  
1/2" Square Drive



**EYFST750NM**  
3/4" Square Drive

# Product Lineup



**EYFLA9C/R**  
10.8V, 20-60Nm



**EYFLA9P/R**  
10.8V, 20-60Nm



**EYFMA2C/R**  
14.4V, 25-120Nm



**EYFMA2P/R**  
14.4V, 25-120Nm



**EYFLA5Q/R**  
10.8V, 6-30Nm



**EYFLA6J/R**  
10.8V, 16-53Nm



**EYFLA6B**  
10.8V, 16-53Nm



**EYFMA1J/R**  
14.4V, 25-100Nm



**EYFMA1B**  
14.4V, 25-100Nm



**EYFME1C**  
14.4V, 10-53Nm

## Assembly Qualifiers



**EYFR02**  
Single Tool Qualifier



**EYFR03**  
Multi-Tool Qualifier



**EYFR04**  
Multi-Station Qualifier

## Wireless Programmable Clutch



**EYFGA1AR**  
14.4V, 2-5.5Nm



**EYFGA2AR**  
14.4V, 5-8Nm



**EYFGA3AR**  
14.4V, 5-10Nm

## Low Torque Clutch



**EYFEA1N2S / EYFEA1N**  
0.3 - 4.0 Nm



**EY7410LA2S**  
0.3 - 3.0 Nm

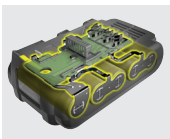
# Panasonic Cordless Assembly Tools

Bringing Innovation to the Assembly Line

## Benefits

### Electronic Sensing System

**GuardION**



#### 1. Over-discharge Prevention Sensor

Prevents over-discharge to avoid cell damage or recharge problems

#### 2. Battery Overheat Protection Sensor

Cuts off power to the motor before the battery temperature rises

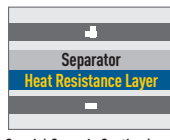


#### 3. Monitoring of Battery Cell Voltage

Each cell is monitored by a sensor to ensure optimal charge/discharge control

#### 4. Battery Sensor

Flashing lamp indicates overheating battery. Battery is automatically reactivated when temperature drops.



Special Ceramic Coating Layer

#### 5. Heat Resistance Layer Technology

In cases where separator is damaged and abnormal heat is created, HRL acts to contain this heat, just like a firewall

#### 6. Li-Ni Technology

Panasonic-developed Lithium Nickel Oxide chemistry offers the benefits of lower internal resistance, reduced electrical loss, lower temperatures in battery cells deliver longer battery life

### Safer Work Environment

#### Improved Ergonomics

Lightweight, mobile and compact without awkward hoses and fittings adding weight

#### Eliminate Trip Hazards

Removes dangerous air hoses providing a clear work area

#### Improved Air Quality

Eliminates airborne oily residue emitted from air tools

### Durable Long-life Components

#### Long-life Clutch

All steel clutch for increased durability in EYFG tools

#### Mechanical Pulse Unit

Long lasting, low maintenance impulse mechanism in EYFL/M/P tools

#### Brushless Motor

Energy-efficient, maintenance-free, nearly doubles the life of the tool

#### Hybrid Switch

Carries <.5 amp, about doubles the life of the switch

### Manufacturing Costs

#### Energy Savings

Cordless tools use 99% less energy than air tools

#### Improved Quality

Increases accuracy by eliminating air pressure fluctuations

#### Ease of Installation

Complete freedom in assembly area design

#### Less Maintenance

Eliminates the need for maintaining oilers

#### Less Tool Downtime

Recovers from power outages within seconds

# Precision Clutch Tools

Ergonomic, Accurate & Repeatable

## Standard Features

- High accuracy  $\pm 10\%$  at  $cmk \geq 1.67$  – VDI/VDE2647
- Fast-acting, all-steel clutch for increased durability
- Photo interrupter sensor increases clutch life and tool accuracy
- Brushless motor and hybrid switch can double tool life expectancy
- 60 setting stages setting for precise clutch adjustment
- Tamper-resistant clutch selection for increased output quality
- Programmable version for increased versatility\*\*
- Wireless programmable version for error proofing and data collection\*\*\*



Programmable Clutch Tools\*\*



Wireless Programmable Clutch Tools\*\*\*

## Programmable “Quick Set” Features

### Speed Control

Adjustable speed in 10 rpm increments to exactly match the application.

### Cross Thread Reduction

The tool first reverses 360 degrees, aligning the threads, greatly reducing the possibility of cross threads.

### Cross Thread / Rehit Detection

If the clutch is activated before the programmable minimum runtime, the tool stops the fastening process and signals a NOK fastening.

### Auto Downshift

After a programmable period of time, the rpm automatically downshifts to 300 rpm maximizing operator productivity.

### Variable Speed Control

Enables variable speed or single speed trigger operation.

### Enable / Disable Capable

Remotely enable/disable tools when needed with qualifier + radio tool combination.

### Out of Range / Anti-Theft

When enabled, the tool will not function if taken out of the wireless range of the qualifier

### Maintenance Interval Alarm

Defined in 10,000 increment cycles to notify the operator of upcoming scheduled maintenance.



### LED Light

Program LED to turn on with trigger switch or on/off switch to match operator preference.

### Buzzer

The buzzer can be programmed for OK, NOK or Disabled.

\*In  $\geq 3Nm$  Range.

# Precision Clutch Tools

## Ergonomic, Accurate & Repeatable

High Accuracy  
 $10\% \cdot Cmk \geq 1.67^*$   
 VDI/VDE 2647  
 \*In  $\geq 3Nm$  range



OK/NOK both visual and audible indicators.  
 (Buzzer ON/OFF can be selected)



↑ 2.0Ah  
 ↓ 4.2Ah

Optional battery packs:  
 Compact 2.0Ah battery and high capacity 4.2Ah battery

## Complete Clutch Tool Line-up Covers a Wide Range of Applications



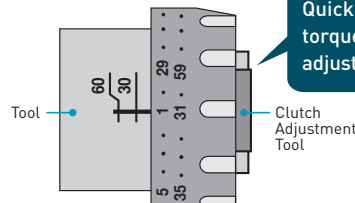
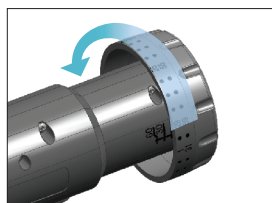
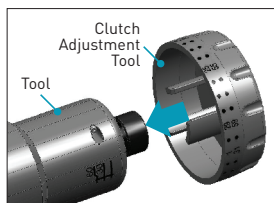
Programmable Clutch Tools



Wireless Programmable Clutch Tools

## 60 Stage Adjustable Clutch

### How to set clutch



Quickly set the torque by adjusting the scale.

- ① Insert clutch adjustment tool into nose of tool.
- ② Turn and set

Rotate clutch adjustment tool clockwise to increase torque and counter clockwise to decrease torque.

Clutch stage "1"

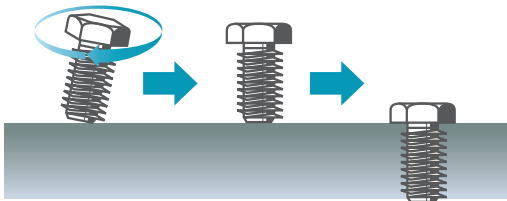
# Advanced Fastening Features



## Cross Thread Reduction

The tool first reverses 360°, aligning the threads, greatly reducing the possibility of cross threads.

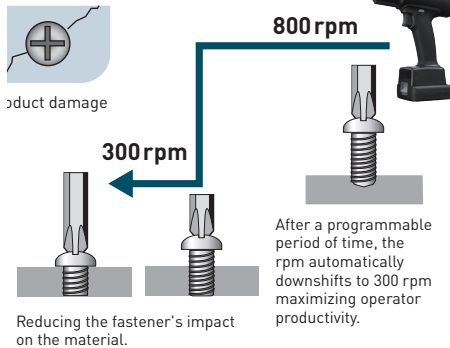
### Reverse Rotation!



360° reverse rotation before fastening    The screw's threads are aligned with the hole    Automatically shifting to normal rotation



## Auto Downshift Function



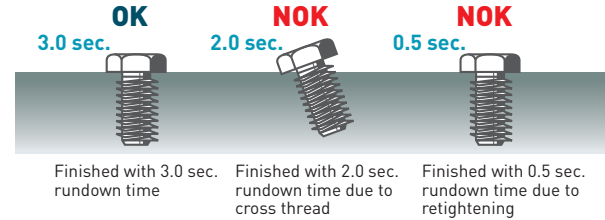
Reducing the fastener's impact on the material.



## Cross Thread / Rehit Detection

If clutch is activated before the programmable minimum runtime, tool stops the fastening process and signals a NOK fastening.

### • Example with 3.0 sec. time setting



## Maintenance Interval Alarm

The maintenance interval alarm can be set ON or OFF and is defined in 10,000 increment cycles.

When total fastenings are within 10,000 fastenings of the preset maintenance interval, the display blinks notifying operator. Once tool reaches the preset interval, tool is locked out from further use.



## Variable Speed Control Function

Enables variable speed or single speed trigger operation.

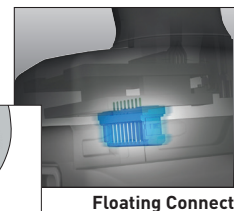
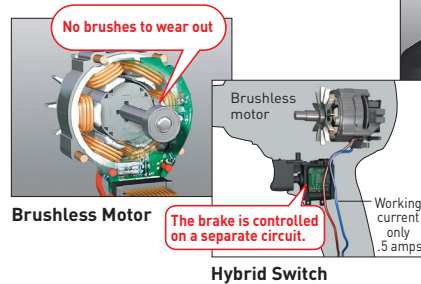
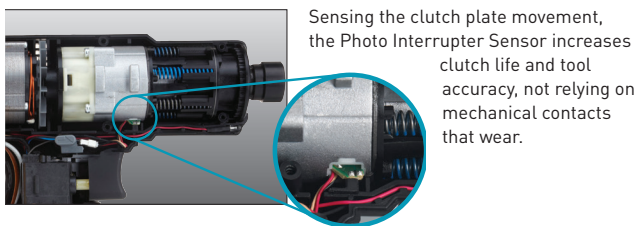


## Auto Battery Shut Down

Before the battery power becomes too low to maintain torque, it shuts down the tool and notifies the operator by blinking the LED indicator until a charged battery pack is attached. Standard on all Precision Clutch Tools.

# Durable Design

## Photo Interrupter Sensor Increases Clutch Life and Tool Accuracy



Floating Connect

# Additional Features



Rubber grip

**Compact and Lightweight**  
A well balanced compact and lightweight design



**LED Light**  
Program LED to turn on with the trigger switch or ON/OFF switch to match operator preference



**Remote Control**  
Tool settings can be adjusted only by remote control

**Lightweight 2.0Ah Battery (EYFB41B) or Extended Run Time 4.2Ah Battery (EYFB42B) Available**






**Color Plate for Differentiation**  
Each tool is color coded for easy identification






Tool Hanger

# Cordless Precision Clutch Tools

MODEL		EYFGA1A	EYFGA2A	EYFGA3A	
					
Voltage		14.4V	14.4V	14.4V	
Series		Programmable Clutch			
Accuracy		±10% • Cmk 1.67 [*Compliant with VDI/VDE 2647. Measured with the Max RPM setting][*In 3Nm range]			
Drive		A = 1/4" Hex Quick Change			
Clutch Torque	Nm	2-5.5 Nm	5-8 Nm	5-10 Nm	
	in. lbs.	17.7 - 48.6 in.lbs	44.2 - 70.8 in.lbs	44.2 - 88.5 in.lbs	
Clutch Setting Stage		1 - 60, Total 60 stages (Approx. 0.08 Nm per stage)			
No Load Speed		0-800 rpm	0-750 rpm	0-450 rpm	
Weight	EYFB41B (2.0 Ah)	1.25 kg	1.25 kg	1.3 kg	
	EYFB42B (4.2 Ah)	1.5 kg	1.5 kg	1.55 kg	
Size (LxHxW)	EYFB41B (2.0 Ah)	199 mm x 232 mm x 54 mm (Width of battery pack: 75 mm)			
	EYFB42B (4.2 Ah)	199 mm x 249 mm x 54 mm (Width of battery pack: 75 mm)			
Wireless Communication with Assembly Qualifier		—	—	—	
LED Work Light (On/Off Switch)		✓	✓	✓	
OK/NOK Light (Green: OK/ Red: NOK)		✓	✓	✓	
Rehit Prevention (fixed to 0.7sec)		✓	✓	✓	
Battery Indication Lamp: (3 stage)		✓	✓	✓	
Low Power Disable		✓	✓	✓	
Prevent/Detect Cross Threads & Rehits		✓	✓	✓	
Maintenance Interval Alarm		✓	✓	✓	
Variable Speed On / Off Switch		✓	✓	✓	
LED Light Setting (On / Off or On with pull of switch)		✓	✓	✓	
Work Capacity*	EYFB41B	Hard Joint 30°	1200 pcs/pack 1.1 sec./1pcs (M6: 5.5 N-m)	1050 pcs/pack 1.0 sec./1pcs (M6: 8 N-m)	1100 pcs/pack 1.0 sec./1pcs (M6: 10 N-m)
		Soft Joint 720°	540 pcs/pack 1.3 sec./1pcs (M6: 5.5 N-m)	410 pcs/pack 1.3 sec./1pcs (M6: 8 N-m)	310 pcs/pack 1.4 sec./1pcs (M6: 10 N-m)
	EYFB42B	Hard Joint 30°	2700 pcs/pack 1.1 sec./1pcs (M6: 5.5 N-m)	2350 pcs/pack 1.0 sec./1pcs (M6: 8 N-m)	2500 pcs/pack 1.0 sec./1pcs (M6: 10 N-m)
		Soft Joint 720°	1250 pcs/pack 1.3 sec./1pcs (M6: 5.5 N-m)	1000 pcs/pack 1.3 sec./1pcs (M6: 8 N-m)	730 pcs/pack 1.4 sec./1pcs (M6: 10 N-m)
Charging Time*		EYFB41B	Usable Charge: 35min. / Full Charge: 40min		
		EYFB42B	Usable Charge: 50min. / Full Charge: 60min		

Note: \*Approximately



EYFGA1AR	EYFGA2AR	EYFGA3AR
		
14.4V	14.4V	14.4V
Wireless Programmable Clutch		
±10%• Cmk 1.67 [*Compliant with VDE/VDI 2647. Measured with the Max RPM setting] (*In 3 Nm range)		
A = 1/4" Hex Quick Change		
2-5.5 Nm	5-8 Nm	5-10 Nm
17.7 - 48.6 in.lbs	44.2 - 70.8 in.lbs	44.2 - 88.5 in.lbs
1 - 60, Total 60 stages (Approx. 0.08 Nm per stage)		
0-800 rpm	0-750 rpm	0-450 rpm
1.25 kg	1.25 kg	1.3 kg
1.5 kg	1.5 kg	1.55 kg
199 mm x 232 mm x 54 mm (Width of battery pack: 75 mm)		
199 mm x 249 mm x 54 mm (Width of battery pack: 75 mm)		
OK Fasten=Green light NOK Fasten=Red light	OK Fasten=Green light NOK Fasten=Red light	OK Fasten=Green light NOK Fasten=Red light
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
1200 pcs/pack 1.1 sec./1pcs (M6: 5.5 N·m)	1050 pcs/pack 1.0 sec./1pcs (M6: 8 N·m)	1100 pcs/pack 1.0 sec./1pcs (M6: 10 N·m)
540 pcs/pack 1.3 sec./1pcs (M6: 5.5 N·m)	410 pcs/pack 1.3 sec./1pcs (M6: 8 N·m)	310 pcs/pack 1.4 sec./1pcs (M6: 10 N·m)
2700 pcs/pack 1.1 sec./1pcs (M6: 5.5 N·m)	2350 pcs/pack 1.0 sec./1pcs (M6: 8 N·m)	2500 pcs/pack 1.0 sec./1pcs (M6: 10 N·m)
1250 pcs/pack 1.3 sec./1pcs (M6: 5.5 N·m)	1000 pcs/pack 1.3 sec./1pcs (M6: 8 N·m)	730 pcs/pack 1.4 sec./1pcs (M6: 10 N·m)
Usable Charge: 35min. / Full Charge: 40min		
Usable Charge: 50min. / Full Charge: 60min		

# EYFEA1 / EY7410

## Cordless Low Torque Clutch Tool and Driver Kit

7.2V

<b>Voltage</b>		7.2V
<b>Drive</b>		1/4" Hex Quick Change
<b>Torque Range</b>	<b>Nm</b>	High: 2.0 Nm / Low: 6.0 Nm
	<b>ft. lbs.</b>	High: 1.47 ft. lbs / Low: 4.43 in. lbs
	<b>in. lbs.</b>	High: 17.7 in. lbs / Low: 53.1 in. lbs
<b>No Load Speed</b> (Torque Setting: RPM)		High: 0-900 rpm Low: 0-300 rpm
<b>Clutch Torque</b> (approx.)		High: 0.3 N·m-2.0 N·m (stage 1-10, 0.19 N·m per stage) Low: 0.3 N·m-4.0 N·m (stage 1-21, 0.19 N·m per stage)
<b>Weight</b> (incl. battery)		630 g
<b>Size</b> (L x W x H)		145 mm x 198 mm x 42 mm
<b>Max. Screws Driving</b>		High mode: M4 screw Low mode: M5 screw
<b>Features</b>		<ul style="list-style-type: none"> <li>• Auto Shut-Off Function</li> <li>• Auto Power-Stop Function</li> <li>• LED Light</li> <li>• Clutch &amp; H/L switch lock cover</li> <li>• Electronic brake</li> </ul>
<b>Working Capacity</b> (Fastening)		Screws in Sheet Metal (M2.5 x 6mm) High: Approx. 1900 pcs Screws in Sheet Metal (M4 x 10mm) High: Approx. 1850 pcs Screws in Sheet Metal (M5 x 8mm) Low: Approx. 1450 pcs
<b>Charging Time</b>		Usable: 35 minutes, Full: 60 minutes (Battery pack EY9L20, charger EY0L20)



**EYFEA1N:**

Battery pack and battery charger not included.

### TYPICAL APPLICATIONS

- Electricians
- Electronics assembly
- Rack/cabinet installers
- Production/assembly work
- Service engineers

Clutch lock cover

WEYFEA1N3137



## Cordless Screwdriver with Torque Control

3.6V

<b>Voltage</b>		3.6V
<b>Drive</b>		1/4" Hex Quick Change
<b>Torque Range</b>		High: 1.5 Nm Low: 4.4 Nm
<b>No Load Speed</b> (Torque Setting: RPM)		High: 0-600 rpm Low: 0-200 rpm
<b>Clutch Torque</b> (approx.)		0.3-2.9 N·m (0.1 N·m per stage, total 21 stage)
<b>Weight</b> (incl. battery)		0.5 kg
<b>Size</b> (L x W x H)		276 mm x 134 mm x 46 mm
<b>Charging Time</b>		Usable: 15 minutes, Full: 30 minutes (using EY0L11B charger)
<b>Features</b>		<ul style="list-style-type: none"> <li>• Cap for clutch lock out</li> <li>• LED work light</li> <li>• 30 min. charging system (Full charge)</li> </ul>
<b>Working Capacity</b> (Fastening)		Fastening: Wood Screws in Yellow Pine $\varnothing 3.1 \times 13$ mm 600 pcs Screws in Sheet Metal (pre-hole) M5 x 8 mm 1,000 pcs Drilling: Holes in SPC t=1 mm, $\varnothing 2$ 85 pcs
<b>Standard Accessory</b>		2 x 1.5VAh Li-ion Battery Pack (EY9L10B) Charger (EY0L11B) Clutch lock cover



**EY7410LA2S:**

Lightweight and accurate\*  $\pm 10\%$   
Li-ion Auto Shut-Off Screwdriver

\*Based on internal measurement



1.5Ah Li-ion  
Battery Pack  
EY9L10B



Charger  
EY0L11B



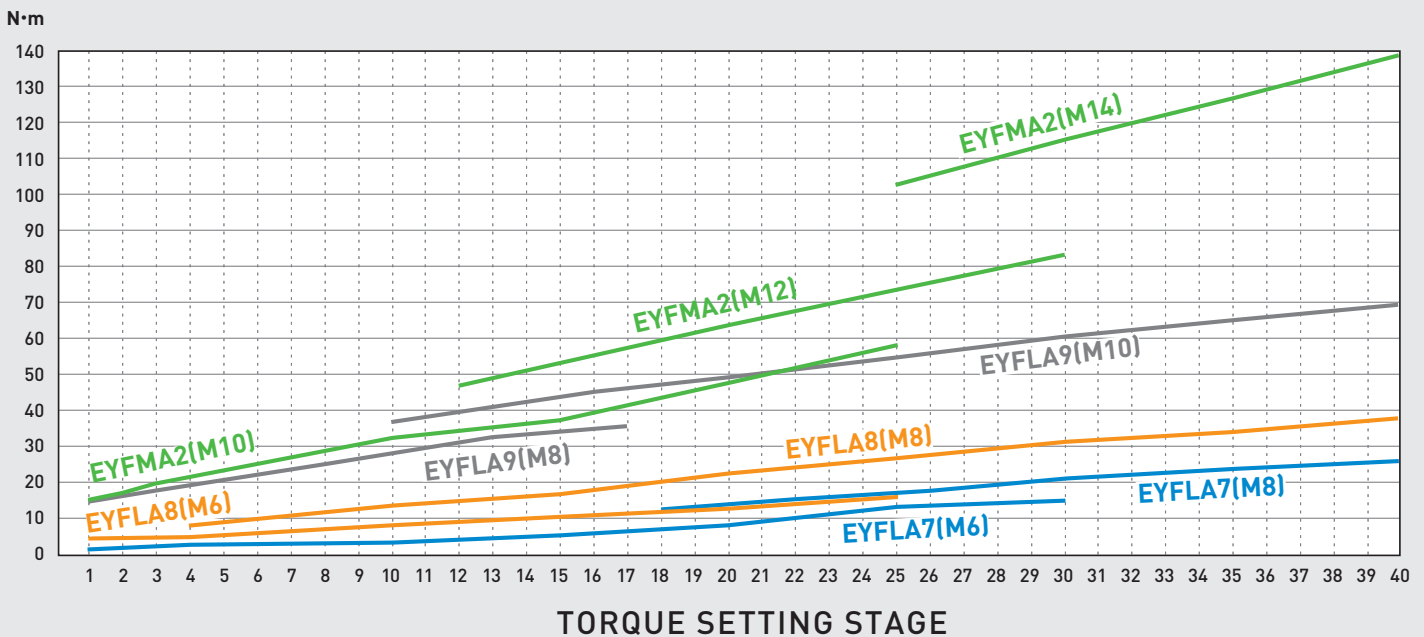
# Advanced Features

	MODEL																		
	Mechanical Pulse							High Torque Mechanical Pulse			AccuPulse								
	EYFLA4A	EYFLA5A/B/Q	EYFLA6B/J	EYFMA1J/B	EYFLA4AR	EYFLA5AR/QR	EYFLA6JR	EYFMA1JR	EYFME1C	EYNA1J	EYFPA1J	EYFLA7A	EYFLA8A/P/C	EYFLA9P/C	EYFMA2P/C	EYFLA7AR	EYFLA8AR/PR/CR	EYFLA9PR/CR	EYFMA2PR/CR
2-Way Radio Communication (only with EYFR03)																●	●	●	●
1-Way Radio Communication					●	●	●	●								●	●	●	●
Cross Thread Reduction								●	●	●	●	●	●	●	●	●	●	●	●
Cross Thread /Rehit Detection								●	●	●	●	●	●	●	●	●	●	●	●
Rehit Prevention	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Variable Speed Control Function	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	●	●	●
Maintenance Interval Alarm								●	●	●	●	●	●	●	●	●	●	●	●
Flush Detection Delay											●	●	●	●	●	●	●	●	●
Socket Extension Mode											●	●	●	●	●	●	●	●	●
Out-of-Range Disable Function					●	●	●	●							●	●	●	●	●

Some models limited to particular region.

Variable speed control function: Models with "○" don't have ON/OFF setting.

## Tightening Torque Chart (for Reference Use)



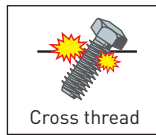
The values illustrated on this chart were measured under Panasonic measuring conditions and are provided for reference purposes. Actual tightening torque varies with ambient conditions (the particular bolt being tightened, hardware being used, method of holding the bolt in place, etc.).

# Advanced Programmable Features

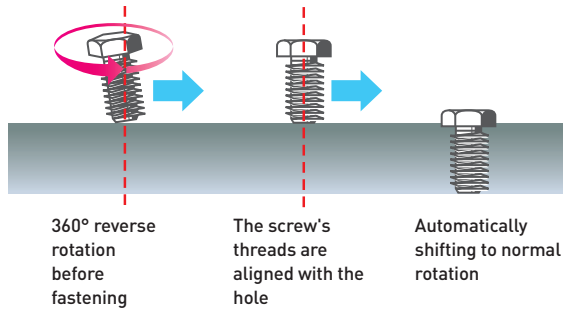


## Cross Thread Reduction

The tool first reverses 540 degrees, aligning the threads, greatly reducing the possibility of cross threads.

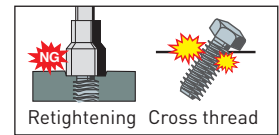


### Reverse Rotation!

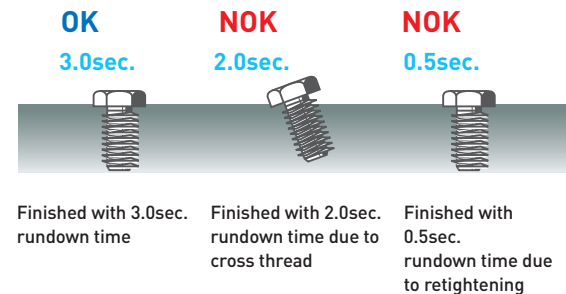


## Cross Thread / Rehit Detection

If the shut-off is activated before the programmable minimum runtime, tool alerts the operator to a NOK fastening.

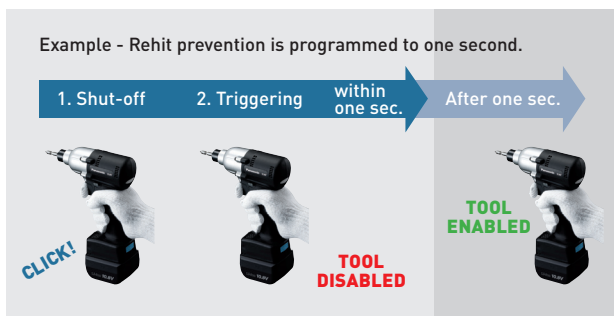


### • Example with 3.0sec. normal time setting



## Retightening Prevention Function

This function prevents the tool from operating within a selected time period after it automatically stops from the torque control function. The switch will not operate even if engaged during this time period.



## Maintenance Interval Alarm

When the total fastening times are within 10,000 of the preset maintenance interval, the display blinks notifying the operator. Once tool reaches the preset interval, tool is locked out from further use. This function can be set to ON or OFF and is defined in 10,000 increment cycles. (Number of settings: 0-990,000 pcs)



## Flush Detection Delay

This feature delays Flush Torque Detection mode and ignores loads for a selected time period.

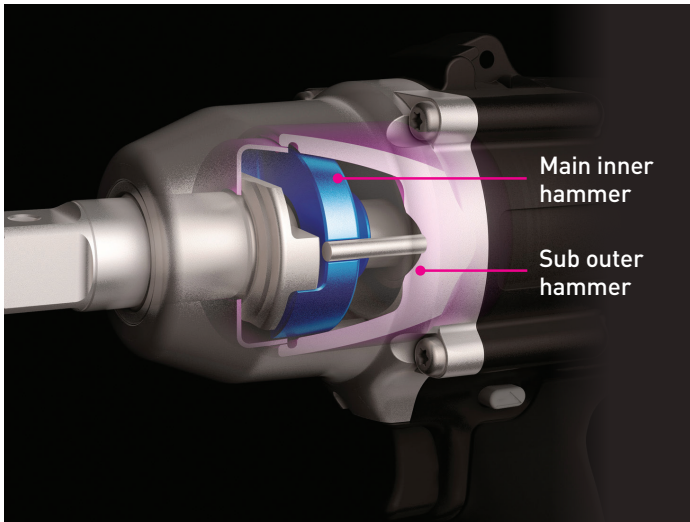


## Socket Extension Mode

This feature adjusts tool's RPM during pulsing to improve accuracy when using an extension.

# AccuPulse HR Technology

## High-Efficiency, Double Hammer Design\*



New high efficiency twin hammer design delivers high power while reducing tool size, noise, vibration for reduced operator fatigue



\*Double Hammer Design in EYFLA9/EYFMA2

## AccuPulse Advanced Technology

### 1 High Resolution Encoder

Senses motor rotation angle precisely and detects flush point accurately.

### 2 7-Stage Snug Point Detection Mode

L1-L7 Flush Point Detection enables accurate fastening on a variety of joints.

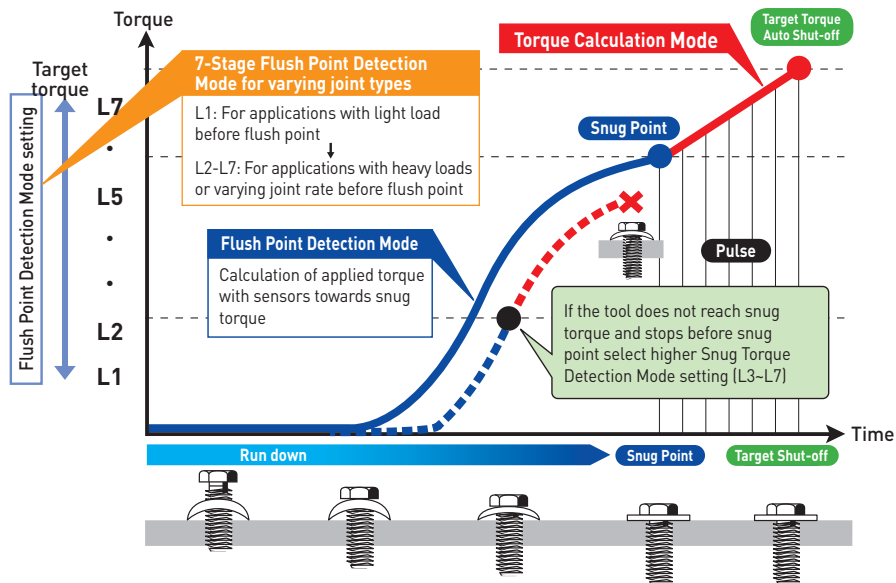
### 3 Consistent Pulse Control

The power of each pulse is kept consistent regardless of remaining battery capacity, minimizing variation in torque.



280 unique torque controlled algorithms - 40 stages in each mode L1 - L7.

# AccuPulse HR Technology

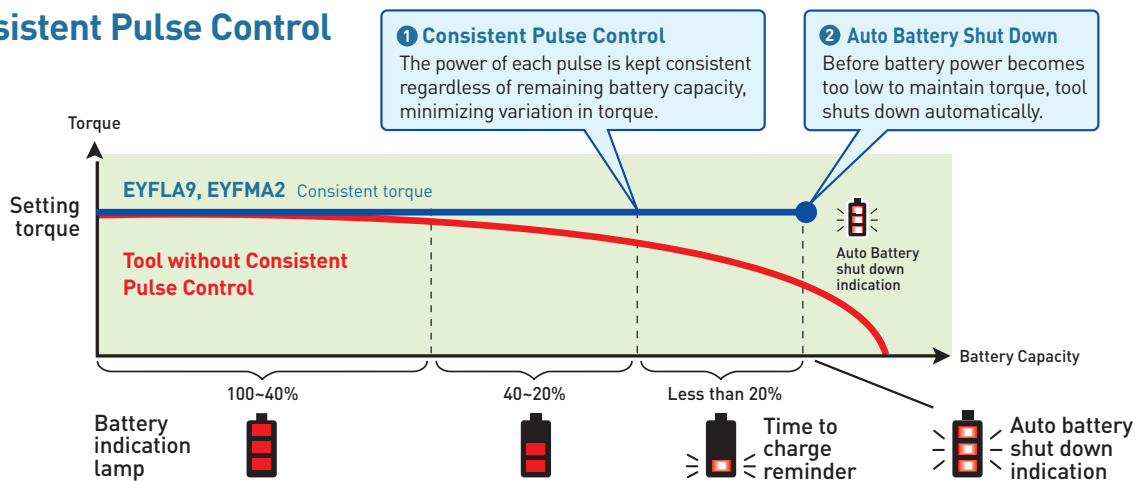


**Flush Point:** The point where the head of the fastener meets the material.

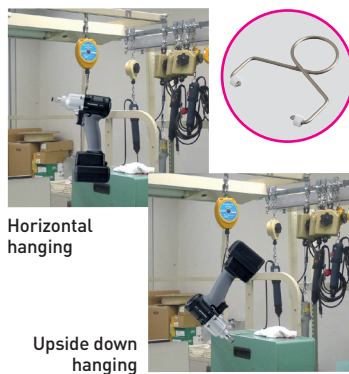
**Snug Point:** The point where materials are pulled together completely and torque calculation mode begins.

\*Example - L6 Flush detection mode setting

## Consistent Pulse Control



## More Features



**Horizontal hanging**

**Upside down hanging**

### Tool Hanger

Tool can be hung on the balancer both right side up or upside down.



### Tightening Confirmation Lamp

Green light indicates tightening is complete.



### Needle Bearings

Needle bearings on the output shaft reduce vibration and increase tool life.



### LED Light

For operation in dimly lit places.



### Remote Control





Tool setting can be set only by remote control.



### Color Plate for Differentiation

Each tool model is color coded for easy identification.

# AccuPulse® HR Series

MODELS		EYFLA7A	EYFLA8A / EYFLA8C / EYFLA8P	EYFLA9C / EYFLA9P	EYFMA2C / EYFMA2P
					
Voltage		10.8V	10.8V	10.8V	14.4V
Series		AccuPulse - HR Series			AccuPulse - HR Series
Drive		A = 1/4" Hex Quick Change	A = 1/4" Hex Quick Change C = 3/8" Sq. C-Ring w/ through Hole P = 3/8" Sq. Pin Detent	C = 1/2" Sq. C-Ring w/ through Hole P = 1/2" Sq. Pin Detent	C = 1/2" Sq. C-Ring w/ through Hole P = 1/2" Sq. Pin Detent
Torque Range	Nm	3-22Nm	6-30Nm	20-60Nm	25-120Nm
	ft. lbs.	2.2-16.2 ft. lbs.	4.4-22 ft. lbs.	14.75-44.25 ft. lbs.	18.44-92.2 ft. lbs.
	in. lbs.	26.55-194.72 in. lbs.	53.1-265.52 in. lbs.	177.01-531.04 in. lbs.	221.27-1,106.34 in. lbs.
Max Torque* [F mode, tightening 3 sec.]		35Nm M10 Bolt	80m M14 Bolt	120Nm M14 Bolt	185Nm M16 Bolt
Flush Detection Modes		L1 - L7	L1 - L7	L1 - L7	L1 - L7
No Load Speed (Torque Setting: RPM)		1: 0 - 950 2: 0 - 1250 3: 0 - 1450 4 - 8: 0 - 1550 9 - 40 & F: 0 - 2300	1: 0 - 1300 2: 0 - 1450 3: 0 - 1550 4 - 40 & F: 0 - 2300	1-40 & F: 0-2300	1-40 & F: 0-2300
PPM (Pulses Per Min)		1: 0 - 1900 2: 0 - 2500 3: 0 - 2800 4-8: 0 - 3000 9-30 & F: 0 - 4000	1: 0-2500 2: 0-2800 3: 0-3000 4-30 & F: 0-3600	1-40 & F: 0-2800	1-40 & F: 0-2900
Weight		1,15 kg (incl. 2.0 Ah [EYFB32B]) 1,35 kg (incl. 3.0 Ah [EYFB30B])	1,15 kg (incl. 2.0 Ah [EYFB32B]) 1,35 kg (incl. 3.0 Ah [EYFB30B])	1,30 kg (incl. 2.0 Ah [EYFB32B]) 1,45 kg (incl. 3.0 Ah [EYFB30B])	1,40 kg (incl. 2.0 Ah [EYFB41B]) 1,60 kg (incl. 4.2 Ah [EYFB42B])
Size (L x W x H)		153mmx59mmx231mm (EYFB32) 153mmx59mmx249mm (EYFB30)	153mmx59mmx231mm (EYFB32) 153mmx59mmx249mm (EYFB30)	153mmx59mmx231mm (EYFB32) 153mmx59mmx249mm (EYFB30)	153mmx59mmx231mm (EYFB32) 153mmx59mmx249mm (EYFB30)
Wireless Communication with Assembly Qualifier:		—	—	—	—
LED Work Light: (ON/OFF Switch)		✓	✓	✓	✓
OK/NOK Light: (Green: OK / Red: NOK)		✓	✓	✓	✓
Rehit Prevention: [Possible to set per 0.1 sec. between 0-3 sec.]		✓	✓	✓	✓
Battery Indication Lamp: (3 stage)		✓	✓	✓	✓
Low Power Disable		✓	✓	✓	✓
Prevent / Detect Cross Threads & Rehits		✓	✓	✓	✓
Maintenance Interval Alarm		✓	✓	✓	✓
Variable Speed On / Off Switch		✓	✓	✓	✓
Variable Speed On / Off Switch		✓	✓	✓	✓
Buzzer: On / Off		✓	✓	✓	✓
Flush Point Detection Delay [Possible to set between 0-3 sec.. 0.1 sec. per stage]		✓	✓	✓	✓
Socket Extension Mode (h1:150mm socket, h2: for 250mm socket)		✓	✓	✓	✓
Work Capacity / Fastening Speed*		<M6: 10 N-m, Stage: 22> (EYFB30B) 1200 pcs/pack 0.7 sec/1pcs (EYFB32B) 800 pcs/pack 0.7 sec/1pcs	<M8: 23 N-m, Stage: 22> (EYFB30B) 800pcs/pack 0.8sec/1pcs (EYFB32B) 540 pcs/pack 0.8 sec/1pcs	<M10: 43 N-m, Stage: 23> (EYFB30B) 400 pcs/pack, 0.8 sec/1pcs (EYFB32B) 260 pcs/pack, 0.8 sec/1pcs	<M12: 71 N-m, Stage: 22> (EYFB42B) 600 pcs/pack, 0.8 sec/1pcs (EYFB41B) 270 pcs/pack, 0.8 sec/1pcs
Charging Time*		(Battery pack EYFB30B, Charger EYOL82B) Usable charge: 35 min., Full charge: 45 min (Battery Pack EYFB32B, Charger EYOL82B) Usable Charge: 35 min., Full Charge: 40 min			(Battery Pack EYFB41, Charger EYOL82B) Usable Charge: 35min., Full Charge: 40min (Battery Pack EYFB42, Charger EYOL82B) Usable Charge: 50min., Full Charge: 60min

Note: \*Approximately



EYFLA7AR	EYFLA8AR / EYFLA8PR / EYFLA8CR	EYFLA9CR / EYFLA9PR	EYFMA2CR / EYFMA2PR
10.8V	10.8V	10.8V	14.4V
AccuPulse - HR Series with 2-Way Communication			
A = 1/4" Hex Quick Change	A = 1/4" Hex Quick Change C = 3/8" Sq. C-Ring w/ through Hole P = 3/8" Sq. Pin Detent	C = 1/2" Sq. C-Ring w/ through Hole P = 1/2" Sq. Pin Detent	C = 1/2" Sq. C-Ring w/ through Hole P = 1/2" Sq. Pin Detent
3-22Nm	6-30Nm	20-60Nm	25-120Nm
2.2-16.2 ft. lbs.	4.4-22 ft. lbs.	14.75-44.25 ft. lbs	18.44-92.2 ft. lbs
26.55-194.72 in. lbs	53.1-265.52 in. lbs.	177.01-531.04 in. lbs	221.27-1,106.34 in. lbs.
35Nm M10 Bolt	80m M14 Bolt	120Nm M14 Bolt	185Nm M14 Bolt
L1 - L7	L1 - L7	L1 - L7	L1 - L7
1: 0 - 950 2: 0 - 1250 3: 0 - 1450 4 - 8: 0 - 1550 9 - 40 & F: 0 - 2300	1: 0 - 1300 2: 0 - 1450 3: 0 - 1550 4 - 40 & F: 0 - 2300	1-40 & F: 0-2300	1-40 & F: 0-2300
1: 0 - 1900 2: 0 - 2500 3: 0 - 2800 4-8: 0 - 3000 9-30 & F: 0 - 4000	1: 0-2500 2: 0-2800 3: 0-3000 4-30 & F: 0-3600	1-40 & F: 0-2800	1-40 & F: 0-2900
1,15 kg (incl. 2.0Ah [EYFB32B]) 1,35 kg (incl. 3.0 Ah [EYFB30B])	1,15 kg (incl. 2.0Ah [EYFB32B]) 1,35 kg (incl. 3.0 Ah [EYFB30B])	1,30 kg (incl. 2.0Ah [EYFB32B]) 1,45 kg (incl. 3.0 Ah [EYFB30B])	1,40 kg (incl. 2.0 Ah [EYFB32B]) 1,60 kg (incl. 4.2 Ah [EYFB30B])
153 mm x 59 mm x 231 mm [EYFB32] 153mmx59mmx249mm [EYFB30]	153 mm x 59 mm x 231mm [EYFB32] 153 mm x 59 mm x 249mm [EYFB30]	153 mm x 59 mm x 231 mm [EYFB32] 153 mm x 59 mm x 249 mm [EYFB30]	153 mm x 59 mm x 231 mm [EYFB32] 153 mm x 59 mm x 249 mm [EYFB30]
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
<M6: 10 N-m, Stage: 22> [EYFB30B] 1200 pcs/pack 0.7 sec/1pcs [EYFB32B] 800 pcs/pack 0.7 sec/1pcs	<M8: 23 N-m, Stage: 22> [EYFB30B] 800pcs/pack 0.8sec/1pcs [EYFB32B] 540 pcs/pack 0.8 sec/1pcs	<M10: 43 N-m, Stage: 23> [EYFB30B] 400 pcs/pack, 0.8 sec/1pcs [EYFB32B] 260 pcs/pack, 0.8 sec/1pcs	<M12: 71 N-m, Stage: 22> [EYFB42B] 600 pcs/pack, 0.8 sec/1pcs [EYFB41B] 270 pcs/pack, 0.8 sec/1pcs
[Battery pack EYFB30B, Charger EY0L82B] Usable charge: 35 min., Full charge: 45 min [Battery Pack EYFB32B, Charger EY0L82B] Usable Charge: 35 min., Full Charge: 40 min			[Battery Pack EYFB41, Charger EY0L82B] Usable Charge: 35min., Full Charge: 40min [Battery Pack EYFB42, Charger EY0L82B] Usable Charge: 50min., Full Charge: 60min

# Mechanical Pulse Tools

Virtually No Torque Reaction Up To 650Nm



## Remote Control Quick-Set Features

### Program Setting

60 unique torque controlled algorithms – 30 stages in L1 mode and 30 stages in L2 mode + F mode (non shut-off mode)

### Flush Point Detection (L1/L2)

Determines when the CPU declares the flush point of the fastening process.

L1 – Applications with no pulses before the flush point or when fastening fragile materials like plastic.

L2 – Applications where tool pulses before achieving the flush point encountered in many prevailing torque and varying joint rate applications.

### Rehit Prevention

Disables tool for a period of time (up to 3 sec. in 1/10 sec. intervals) after a good fastening shutoff, preventing operator from double hitting the fastener.

### Out of Range / Anti-Theft

When enabled, the tool will not function if taken out of the wireless range of the qualifier. Available on models equipped with radio transmitters only.

### Enable / Disable Capable

Remotely enable/disable tools when needed with qualifier + radio tool combination.

## EYFNA1 and EYFPA1 Series Only

### Prevent and Detect Cross Threads and Rehits

The tool first reverses 360 degrees, aligning the threads, greatly reducing the possibility of cross threads.

### Maintenance Interval Alarm

Defined in 10,000 increment cycles to notify the operator of upcoming scheduled maintenance.

### Speed Control Setting

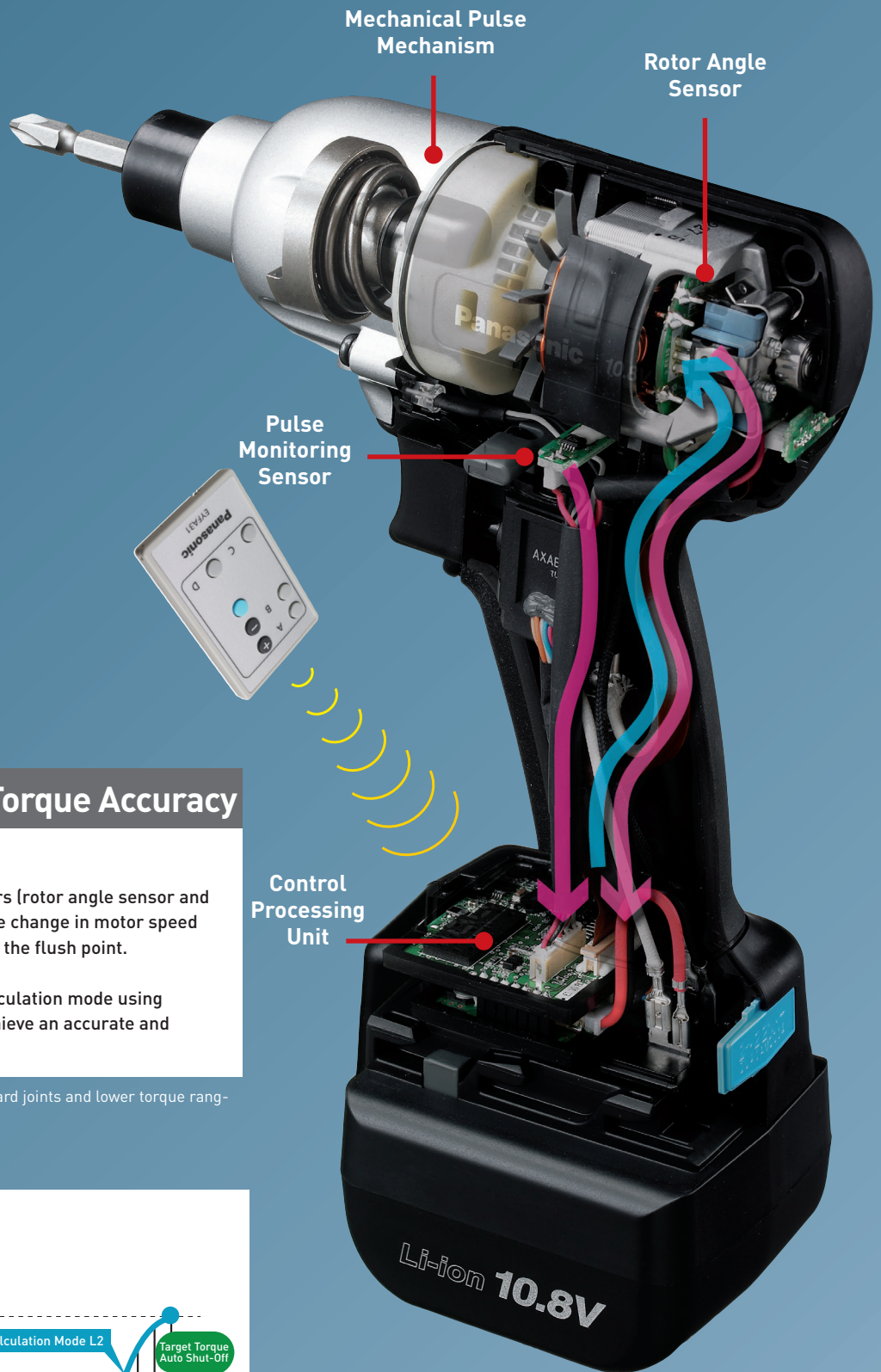
Enables variable speed or single speed trigger operation.

### LED Light

Program LED to turn on with trigger switch or on/off switch to match operator preference.

### Buzzer

The buzzer can be programmed for OK, NOK, or disabled.

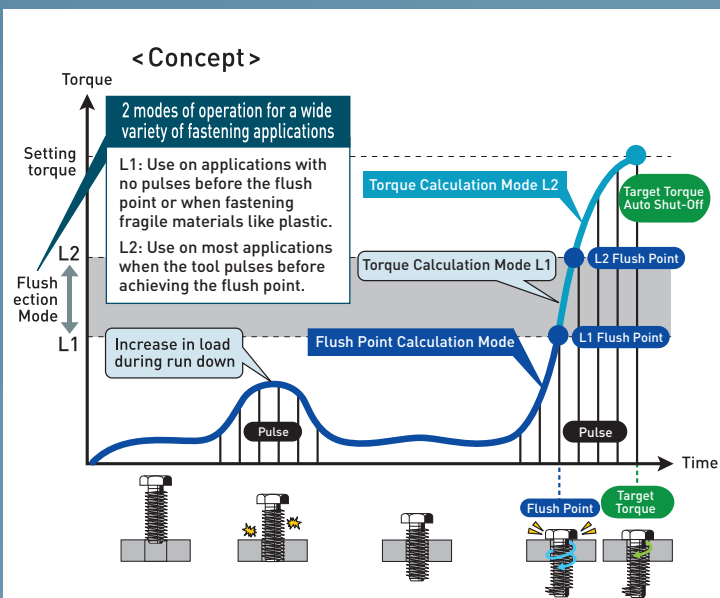


## Shut-off Tool Delivers Torque Accuracy

### Torque Control Mechanism

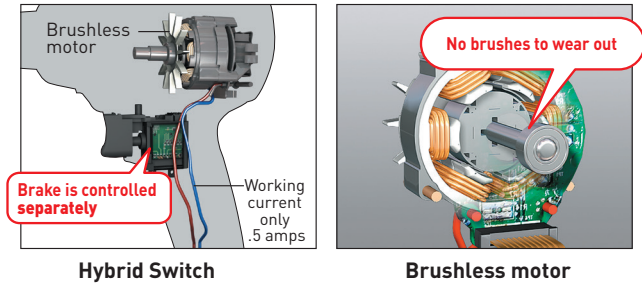
1. The onboard CPU monitors two sensors (rotor angle sensor and pulse monitoring sensor) detecting the change in motor speed and rpm between pulses, determining the flush point.
2. The CPU then switches to a torque calculation mode using a Panasonic patented algorithm to achieve an accurate and repeatable final torque.\*

\*Final results may have higher torque ranges with hard joints and lower torque ranges with soft joints

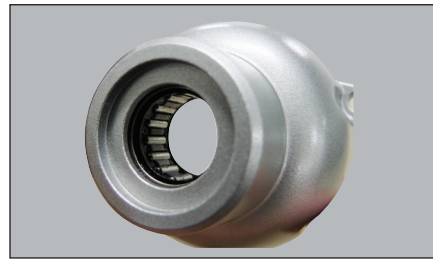


# Long-life Parts Provide Lower Running Costs

## Durable Hybrid Switch and Brushless Motor



## Needle Bearings



Needle bearings on output shaft reduce vibration and increase tool life.

## Choice of compact 2.0Ah or high capacity 3.0/4.2/5.0Ah batteries

### KOMPAKT

### HOHE KAPAZITÄT



10.8V 2.0Ah



10.8V 3.0Ah



14.4V 4.2Ah



14.4V 2.0Ah



18V 5.0Ah



21.6V 4.2Ah

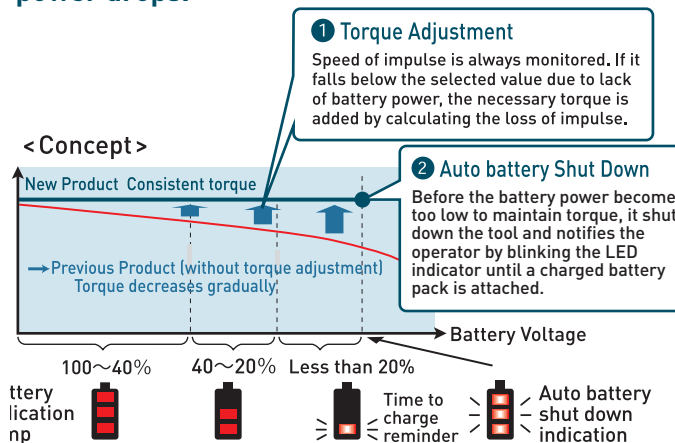
## Additional charging is acceptable

No Memory Effect

Panasonic Li-ion batteries won't deteriorate if charged during break or for a short period of time then put back into operation.



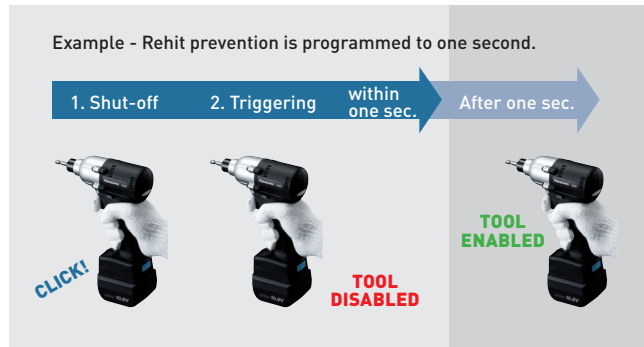
## Maintains selected torque level as the battery power drops.



# Retightening Prevention Function

## Maintain strict quality control

This function prevents the tool from operating within a selected time period after it automatically stops from the torque control function. The switch will not operate even if engaged during this time period.



# More Features



## Lightweight

A well-balanced, lightweight design means workers will experience less muscle fatigue during continuous use.



## Remote Control

Tool setting can be set only by remote control.



## LED Light

For operations in dimly lit places



## Color Plate for Differentiation

Each tool model is color coded for easy identification.

# Mechanical Pulse Tools



## Wireless Connectivity



# High Torque 18V & 21.6V Cordless Mechanical Pulse Tools

Virtually No Torque Reaction

- M16 Bolt up to 400Nm
- M24 Bolt up to 650Nm



## 21.6V EYFPA

Torque controlled range  
160~**650Nm**

Lightweight  
approx. **3.6 kg**

High capacity  
**4.2Ah**

## 18V EYFNA

Torque controlled range  
70~**200Nm**

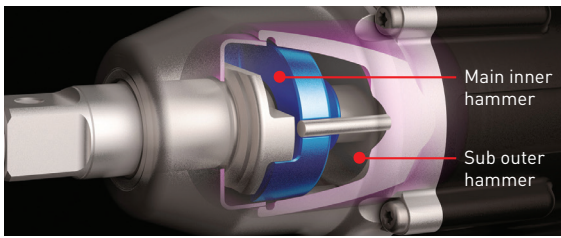
Lightweight  
approx. **3.0 kg**

High capacity  
**5.0Ah**

# Advanced Technologies Delivering a Compact, Lightweight Tool with High Torque

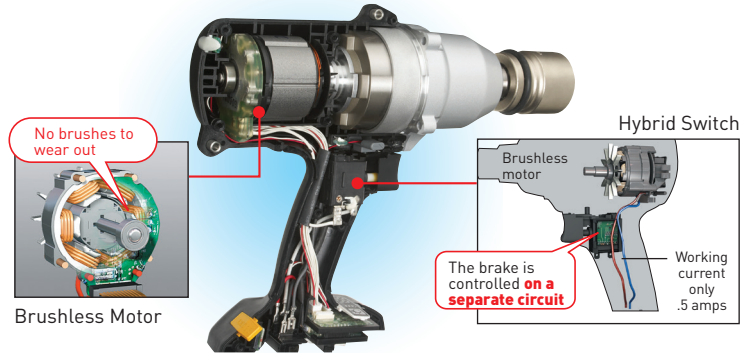
## High Efficiency Twin Hammer

New high efficiency twin hammer design delivers high power while reducing tool size, noise, vibration for reduced operator fatigue



## Compact, High-Powered Brushless Motor

Compact and high-power brushless motor accomplishes heavy load applications.

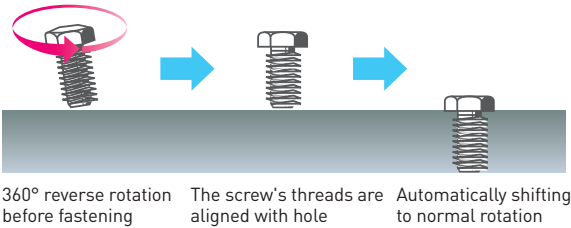


## Advanced Fastening Features

**360° Cross Thread Reduction**  
The tool first reverses 360 degrees, aligning the threads, greatly reducing the possibility of cross threads.

Cross thread

### Reverse Rotation!



\*Final results may have higher torque ranges with hard joints and lower torque ranges with soft joints.

**Rehit Cross Thread / Rehit Detection**  
If shut-off is activated before the programmable minimum runtime, the tool alerts the operator to a NOK fastening. (Time setting: 0.1-3.0sec, 0.1sec per stage)

Retightening Cross thread

•Example with 3.0sec. normal time setting

OK	NOK	NOK
3.0sec.	2.0sec.	0.5sec.
Finished with 3.0sec. rundown time	Finished with 2.0sec. rundown time due to cross thread	Finished with 0.5sec. rundown time due to retightening

**Maint Maintenance Interval Alarm**  
When the fastenings are within 10,000 fastenings of the preset maintenance interval, the display blinks notifying the operator. Once tool reaches the preset interval, the tool is locked out from further use. This function can be set ON or OFF and is defined in 10,000 increment cycles. (Number of setting: 0-990,000 pcs)

**Battery Auto Battery Shut Down**  
Before battery power becomes too low to maintain torque, tool automatically shuts down. Blinking LED notifies operator until a charged battery is attached.

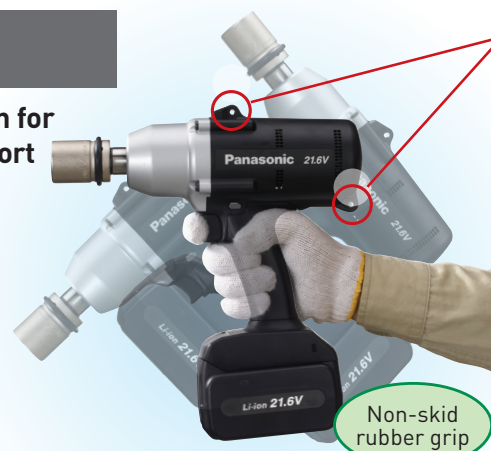
**Speed Control Function**  
Speed can be controlled from trigger. Speed control function ON and OFF can be selected by remote.

## Additional Features

Ergonomic, computer-aided design for optimal balance and operator comfort



**LED Light**  
Program LED to turn on with trigger switch or ON/OFF switch to match operator preference









### Tool Hanger (Optional)

Suspend tool vertically or horizontally from a balancer



**Tightening Confirmation Lamp**  
OK/NOK both visual and audible indicators. Buzzer ON/OFF can be selected.

# Mechanical Pulse Tools

MODELS		EYFLA4A	EYFLA4AR	EYFLA5A/EYFLA5B	EYFLA5AR	EYFLA6B/EYFLA6J	EYFLA6JR
							
Voltage		10.8V	10.8V	10.8V	10.8V	10.8V	10.8V
Shut-off method		Mechanical Pulse - SR Series					
Drive		A = 1/4" Hex Quick Change	A = 1/4" Hex Quick Change	A = 1/4" Hex Quick Change P = 3/8" Sq. Pin Detent	A = 1/4" Hex Quick Change P = 3/8" Sq. Pin Detent	J = 1/2" Sq. Through Hole P = 1/2" Sq. Pin Detent	J = 1/2" Sq. Through Hole P = 1/2" Sq. Pin Detent
Torque Range	Nm	3-22Nm	3-22Nm	6-30Nm	6-30Nm	16-53Nm	16-53Nm
	ft. lbs.	2.2-16.2 ft. lbs.	2.2-16.2 ft. lbs.	4.4-22 ft. lbs.	4.4-22 ft. lbs.	11.8-39 ft. lbs.	11.8-39 ft. lbs.
	in. lbs.	26.55-194.72 in. lbs.	26.55-194.72 in. lbs.	53.1-265.52 in. lbs.	53.1-265.52 in. lbs.	141.61-469.09 in. lbs.	141.61-469.09 in. lbs.
Max Torque (F mode, tightening 3 sec.)		Approx. 40Nm M10 Bolt	Approx. 40Nm M10 Bolt	Approx. 90Nm M14 Bolt	Approx. 90Nm M14 Bolt	Approx. 120Nm M14 Bolt	Approx. 120Nm M14 Bolt
Flush Detection Modes		L1-L2	L1-L2	L1-L2	L1-L2	L1-L2	L1-L2
No Load Speed (Torque Setting : RPM)		1: 0-950 2: 0-1300 3: 0-1450 4-8: 0-1550 9-30 & F: 0-2300	1: 0-950 2: 0-1300 3: 0-1450 4-8: 0-1550 9-30 & F: 0-2300	1: 0-1300 2: 0-1450 3: 0-1550 4-30 & F: 0-2300	1: 0-1300 2: 0-1450 3: 0-1550 4-30 & F: 0-2300	1-30 & F: 0-2300	1-30 & F: 0-2300
PPM (Pulses Per Min)		1: 0-1900 2: 0-2500 3: 0-2800 4-8: 0-3000 9-30 & F: 0-4000	1: 0-1900 2: 0-2500 3: 0-2800 4-8: 0-3000 9-30 & F: 0-4000	1: 0-2500 2: 0-2800 3: 0-3000 4-30 & F: 0-3600	1: 0-2500 2: 0-2800 3: 0-3000 4-30 & F: 0-3600	1-30 & F: 0-3000	1-30 & F: 0-3000
Weight		1,15 kg (incl. 2.0Ah EYFB32) 1,30 kg (incl. 3.0 Ah EYFB30)	1,15 kg (incl. 2.0Ah EYFB32) 1,30 kg (incl. 3.0 Ah EYFB30)	1,15 kg (incl. 2.0Ah EYFB32) 1,30 kg (incl. 3.0 Ah EYFB30)	1,15 kg (incl. 2.0Ah EYFB32) 1,30 kg (incl. 3.0 Ah EYFB30)	1,25 kg (incl. 2.0Ah EYFB32) 1,40 kg (incl. 3.0 Ah EYFB30)	1,25 kg (incl. 2.0Ah EYFB32) 1,40 kg (incl. 3.0 Ah EYFB30)
Size (L x W x H)		158 mm x 59 mm x 231mm (EYFB32B) 158 mm x 59 mm x 248mm (EYFB30B)	158 mm x 59 mm x 231mm (EYFB32B) 158 mm x 59 mm x 248mm (EYFB30B)	158 mm x 59 mm x 231mm (EYFB32B) 158 mm x 59 mm x 248mm (EYFB30B)	158 mm x 59 mm x 231mm (EYFB32B) 158 mm x 59 mm x 248mm (EYFB30B)	172 mm x 59 mm x 231mm (EYFB32B) 172 mm x 59 mm x 248mm (EYFB30B)	172 mm x 59 mm x 231mm (EYFB32B) 172 mm x 59 mm x 248mm (EYFB30B)
Wireless Communication with assembly qualifier:		—	OK Fasten=Green light, NOK Fasten=Red light	—	OK Fasten=Green light, NOK Fasten=Red light	—	OK Fasten=Green light, NOK Fasten=Red light
LED Work Light: (ON/OFF Switch)		✓	✓	✓	✓	✓	✓
OK/NOK Light: (Green: OK / Red: NOK)		✓	✓	✓	✓	✓	✓
Rehit Prevention: (Possible to set per 0.1 sec. between 0-3 sec.)		✓	✓	✓	✓	✓	✓
Battery Indication Lamp: (3 stage)		✓	✓	✓	✓	✓	✓
Low Power Disable		✓	✓	✓	✓	✓	✓
Prevent / Detect Cross Threads & Rehits		—	—	—	—	—	—
Maintenance Interval Alarm		—	—	—	—	—	—
Variable speed On/Off Switch		—	—	—	—	—	—
LED Light Setting: On/Off or On with pull of switch		—	—	—	—	—	—
Buzzer: On / Off		—	—	—	—	—	—
Snug torque detection delay (Possible to set between 0-3 sec. 0.1 sec. per stage)		—	—	—	—	—	—
Long socket mode (h1: for 150mm socket, h2: for 250mm socket)		—	—	—	—	—	—
Work Capacity/Fastening Speed		<M6: 10 N-m, Stage: 19> (EYFB30B) approx. 1200 pcs/pack, approx. 0.7 sec/1pcs (EYFB32B) approx. 800 pcs/pack, approx. 0.7 sec/1pcs		<M8: 23 N-m, Stage: 22> (EYFB30B) approx. 800 pcs/pack, approx. 0.8 sec/1pcs (EYFB32B) approx. 540 pcs/pack, approx. 0.8 sec/1pcs		<M10: 43 N-m, Stage: 23> (EYFB30B) approx. 500 pcs/pack, approx. 0.9 sec/1pcs (EYFB32B) approx. 330 pcs/pack, approx. 0.9 sec/1pcs	
Charging Time		[Battery pack EYFB30B, Charger EY0L82B] Usable charge: approx. 35 min., Full charge: approx. 45 min [Battery Pack EYFB32B, Charger EY0L82B] Usable Charge: approx. 35 min., Full Charge: approx. 40 min					



EYFMA1B/EYFMA1J	EYFMA1JR	EYFNA1J	EYFPA1J	EYFME1C
				
14.4V	14.4V	18V	21.6V	14.4V
Mechanical Pulse - SR Series				
P = 1/2" Sq. Pin Detent	P = 1/2" Sq. Pin Detent	C = 1/2" Square Drive with Ring Retainer and Through Hole J = 1/2" Square Drive with Through Hole P = 1/2" Square Drive Pin Detent	J = 3/4" Sq. Through Hole	C = 1/2" Square Drive with Ring Retainer and Through Hole
25-100Nm	25-100Nm	70-200Nm	160-650Nm	10-53Nm
18.4-73.8 ft. lbs.	18.4-73.8 ft. lbs.	51.6-147.5 ft. lbs.	118-479.4 ft. lbs.	7.3 - 39 ft. lbs
221.27-885.07 in. lbs.	221.27-885.07 in. lbs.	619.55-1770.15 in. lbs.	1416.12-5752.98 in. lbs.	88.5 - 469,09 ft. lbs
Approx. 185Nm M14 Bolt	Approx. 185Nm M14 Bolt	Approx. 470Nm M24 Bolt	Approx. 700Nm M24 Bolt	Approx. 80Nm M14 bolt
L1-L2	L1-L2	L1-L2	L1-L2	L1-L2
1-30 & F: 0-2300	1-30 & F: 0-2300	1-30 & F: 0-2300	1-30 & F: 0-2300	0 ~2300
1-30 & F: 0-3200	1-30 & F: 0-3200	1-30 & F: 0-2200	1-30 & F: 0-2200	0 ~3500
1.3 kg (incl. 2.0Ah EYFB41) 1.5 kg (incl. 4.2Ah EYFB42)	1.3 kg (incl. 2.0Ah EYFB41) 1.5 kg (incl. 4.2Ah EYFB42)	3.0 kg (incl. 5.0Ah (EYFB50B))	3.6 kg (incl. 4.2Ah (EYFB60B))	1.5 kg (incl. 2.0Ah EYFB41) 1.7 kg (incl. 4.2Ah EYFB42)
172 mm x 59 mm x 231 mm (EYFB32B) 172 mm x 59 mm x 248 mm (EYFB30B)	172 mm x 59 mm x 231 mm (EYFB32B) 172 mm x 59 mm x 248 mm (EYFB30B)	233 mm x 77 mm x 286 mm	233 mm x 77 mm x 286 mm	381 mm x 96 mm x 60 mm (EYFB41B) 399 mm x 96 mm x 60 mm (EYFB42B)
—	OK Fasten=Green light, NOK Fasten=Red light	—	—	—
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
—	—	✓	✓	✓
—	—	✓	✓	✓
—	—	✓	✓	✓
—	—	✓	✓	✓
—	—	—	—	—
—	—	—	—	—
<M12: 71 N-m, Stage: 22> (EYFB42B) approx. 780 pcs/pack, approx. 0.9 sec/1pcs (EYFB41B) approx. 350 pcs/pack, approx. 0.9 sec/1pcs		<M12: 100 N-m, Stage: 13> approx .500pcs/pack	<M16: 180 N-m, Stage: 6> approx .450pcs/pack	<M10: 53 N-m, Stage: 25> (EYFB42B) 250 pcs/pack, 2.2 sec/1pcs(EYFB41B) 120 pcs/pack, 2.2 sec/1pcs
[Battery pack EYFB42B, Charger EYOL82B] Usable Charge: approx. 50 min., Full Charge: approx. 60 min [Battery Pack EYFB41B, Charger EYOL82B] Usable Charge: approx. 35 min., Full Charge: approx. 40 min		Battery pack EYFB50B, Charger EYOL82B) Usable Charge: approx. 65 min. Full Charge: approx. 80 min	[Battery pack EYFB60B, Charger EYOL82B) Usable Charge: approx. 65 min. Full Charge: approx. 85 min	[Battery Pack EYFB41, Charger EYOL82B) Usable Charge: 35min., Full Charge: 40min[Battery Pack EYFB42, Charger EYOL82B) Usable Charge: 50min., Full Charge: 60min

# Assembly Tool Accessories

## Batteries & Chargers



**EY9L20B**  
7.2V 1.5Ah Li-ion  
Battery Pack



**EYFB32B**  
10.8V 2.0Ah Li-ion  
Battery Pack



**EYFB30B**  
10.8V 3.0Ah Li-ion  
Battery Pack



**EYFB41B**  
14.4V 2.0Ah Li-ion  
Battery Pack



**EYFB42B**  
14.4V 4.2Ah Li-ion  
Battery Pack



**EYFB50B**  
18V 5.0Ah Li-ion  
Battery Pack



**EYFB60B**  
21.6V 4.2Ah Li-ion  
Battery Pack



**EY0L20B**  
7.2V Charger



**EY0L82B**  
10.8V - 28.8V Charger

## Protector Covers



**EYFA02-H**  
Battery Protector  
for EYFB30B



**EYFA03-H**  
Battery Protector  
for EYFB32B



**EYFA04-H**  
Battery Protector for  
EYFB40B/EYFB42B



**EYFA06-H**  
Battery Protector  
for EYFB41B



**EYFA10-H**  
Battery Protector  
for EYFB50B



**EYFA08-H**  
Battery Protector  
for EYFB60B



**EYFA05**  
EYFG Tool Protectors  
-A (blue) -Y (yellow)  
-H (gray)



**EYFA01**  
EYFLA4/5/6, EYFMA1 Tool Protectors  
-A (blue) -Y (yellow)  
-H (gray) -G (green)



**EYFA09**  
EYFNA Tool Protectors  
-A (blue) -Y (yellow)  
-H (gray) -G (green)



**EYFA07**  
EYFP Tool Protectors  
-A (blue) -Y (yellow)  
-H (gray) -G (green)



**EYFA13**  
EYFLA7/8/9, EYFMA2 Tool Protectors  
-A (blue), -Y (yellow)  
-H (gray), -D (orange) -G (green)



**EYFA12**  
EYFME Tool Protectors  
-A (blue), -Y (yellow)  
-H (gray), -G (green)

## Accessories



**EYFA32B**  
Clutch Adjustment Tool  
for EYFG Series Tools



**EYFA40B**  
EYFG  
Tool Hanger



**EYFA41B**  
EYFN/EYFP  
Tool Hanger



**WEYFEA1N3137**  
Clutch Lock Out Cover  
for EYFEA1N



**EYFA31B**  
Remote Control for  
all EYFG/EYFL/  
EYFM/EYFN/EYFP Tools




# Panasonic Quality Control Monitoring

With highly efficient tools and qualifiers, Panasonic offers a reliable quality control system.



Transmitter is located in tool handle. Does not increase the size of the tool.

# Comparison of Assembly Qualifiers

MODEL	EYFR02B	EYFR03A	EYFR04A
			
Graphics Display	—	✓	✓
Multiple Stations	—	—	✓
Number of Tools Connectivity	1	16	16
Number of Tools Simultaneously	1	16	4
1-Way Radio Communication	✓	✓	✓
<b>NEW!</b> 2-Way Radio Communication	—	✓	—
Discrete Inputs/Outputs	1/2	8/12	8/12
USB Ports	—	1	1
Ethernet Ports	—	2	2
Serial Port	1	1	1
Remote Inputs/Outputs Connection	—	✓	✓
PLC Integration	✓	✓	✓
Ethernet IP/Open Protocol & ToolsNet	—	✓	✓
Data Collection	—	10,000 rundowns onboard or via Ethernet	5,000 rundowns per station onboard or via Ethernet
Batch Counting	*With PLC	✓	✓
Tool Sequencing	—	✓	✓
Bar Code Scan Capability	—	✓	✓
Remote Tool Disable	✓	✓	✓
Out of Range Disable / Anti-Theft	✓	✓	✓
Recommended Range	33' (10M)		
Rated Supply Voltage	AC 100-240V, 50/60 Hz		
I/O Voltage	5A @ 30VDC	2A @ 24VDC	
Dimensions (L x H x W)	254mmx119mmx73mm	247mmx235mmx95mm	
Operating Temperature Range	14-140°F ((-10)-60°C)		
Compatible Tools	EYFGA1AR, EYFGA2AR, EYFGA3AR, EYFLA4AR, EYFLA5AR, EYFLA5QR, EYFLA6JR, EYFMA1JR, EYFLA7AR, EYFLA8AR, EYFLA8CR, EYFLA8PR, EYFLA9CR, EYFLA9PR, EYFMA2CR, EYFMA2PR		

Communication range varies with operating environment. The presence of metal walls, people or other objects may result in decreased range.  
Software available for download for EYFR02B and EYFR03 models.

**EYFR03A**

**Multi-Tool Assembly Qualifier**

**Wireless Communication**



**16 to 1**  
Up to 16 tools can communicate over a secure connection simultaneously with qualifier to indicate OK/NOK fastenings.

**Programming Modes**

- Parameter – Run one tool at a time
- Groups – Run a group of tools simultaneously
- Jobs – Run tools or a group of tools in a sequence

- ✓ Open Protocol
- ✓ ToolsNet
- ✓ Ethernet/IP

**Process Control**

Utilizing I/O or fieldbus capabilities improves quality and productivity

2-Way Compatible Tools – AccuPulse HR 2Way Series Only  
1-Way Compatible Tools – AccuPulse HR 2Way Series and Mechanical Radio Version

**2-way Communication Settings**

- Create fastening strategies by automatically changing tool settings.
- Tools settings can be controlled both via remote or qualifier.
- Compatible with parameter, group and job modes.
- Tools OK/NOK blinks to notify user of active tools in sequence



- Features that can be set/sent from Qualifier or sent by the Tool**
- OK/NOK
  - Torque setting stage (1-40)
  - Flush detection setting (L1-L7)
  - Buzzer setting
  - Flush detection delay
  - LED light setting
  - Rundown error detecting
  - Variable speed control
  - Reset settings
  - Maintenance interval alarm
  - Out of range disable function
  - Cross thread reduction
  - Retightening prevention
  - Long socket mode
  - Enable/Disable

# EYFR04A

## Multi-Station Assembly Qualifier

### Wireless Communication



OK/NOK light on tool flashes green/red to indicate completion of each fastener.



Stores up to 5,000 fastenings per station



Discrete I/O to PLC

Remote I/O



### 4 Interfaces

Multi-Station feature allows use of 1 qualifier over 4 stations to configure 16 tools in any combination.

### Programming Modes

Parameters – Run one tool at a time  
Jobs - Allows parameters to run in a specified order.

- ✓ Ethernet/IP
- ✓ Open Protocol
- ✓ ToolsNet

### Process Control

Utilizing I/O or fieldbus capabilities improves quality and productivity

1-Way Compatible Tools - AccuPulse HR 2Way Series and Mechanical Radio Version

# EYFR02B

## Single Tool Assembly Qualifier

### Wireless Communication



OK/NOK light on the tool housing flashes green/red to indicate the completion of each fastener.



OK/NOK signal and Tool ID Data is transmitted from the tool to the qualifier



Discrete I/O to PLC

From qualifier, the following data can be output to a computer or PLC

- OK/NOK



Green light Indicates a successful fastening



Red light indicates unsuccessful fastening

# Qualifier Features

## Tool Distance

A highly reliable data signal can be transmitted if tool is within 10m (33 feet) of the assembly qualifier and if there are no barriers between tool and qualifier.



## Out-of-Range Anti-Theft Function

In the event that wireless communication cannot be completed between tool and qualifier, tool will be disabled and cannot be operated. Operation of this function is set on tool body with remote control.



## Enable/Disable Tools

Tools can be locked out to prevent use after batch is completed and/or when not in use. Tools can be enabled again when needed.



# Features Chart

	Model																							
	EYFLA4A	EYFLA5A	EYFLA5Q	EYFLA5B	EYFLA6J	EYFLA6B	EYFMA1J	EYFMA1B	EYFLA4AR	EYFLA5AR	EYFLA5QR	EYFLA6JR	EYFMA1JR	EYFME1C	EYFNA1C	EYFPA1J	EYFGA1A	EYFGA2A	EYFGA3A	EYFGA1AR	EYFGA2AR	EYFGA3AR	EYFEA1N	
Torque adjustment	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
Auto battery shut down	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Retightening prevention function	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
Cross thread reduction														●	●	●	●	●	●	●	●	●	●	
Rundown error detecting function														●	●	●	●	●	●	●	●	●	●	
RPM adjustment																	●	●	●	●	●	●	●	
Auto downshift function																	●	●	●	●	●	●	●	
Maintenance interval alarm														●	●	●	●	●	●	●	●	●	●	
Variable speed control function	○	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	●	●	○
Wireless Communication									●	●	●	●	●								●	●	●	

\*Variable speed control function: Models with "○" don't have ON/OFF setting.

# Transducers / Joint Simulators

## Stationary Transducers

MODEL NUMBER	TORQUE RANGE [Nm]	DRIVE
EYFST22NM	2.2 - 22	3/8" Square
EYFST100NM	10 - 100	1/2" Square
EYFST750NM	75 - 750	3/4" Square

- USB Plug 'n Play Technology – automatic transducer recognition
- Accuracy class: 0.1 % of F.S.R.
- Smart memory – transducer retains settings
- Full bridge strain gauge based torque measurement
- 24 bit analog-to-digital converter (ADC) on rotor
- 126 Kbps data transfer via photocoupler
- Powerful 32-bit-cpu
- Robust, built to last utilizing an aluminum housing and double ball bearings
- User selectable bi-directional measurement
- Simple PC based software
- Ultra-compact size
- Economy software & USB cable included



## Joint Simulators

MODEL NUMBER	TORQUE RANGE [Nm]	BOLT SIZE	DRIVE
EYFJS22NM	22	M8	3/8" Square
EYFJS100NM	100	M12	1/2" Square
EYFJS200NM	200	M16	3/4" Square
EYFJS400NM	400	M24	3/4" Square

- Multiple cup washer sizes provide a more accurate simulation of clamp load
- Geared structure resolves frictional issues inherent in conventional joint simulators
- Limited components better represents real world applications
- Cup washers are laser engraved for differentiating between sizes
- Lightweight joint simulator reduces issues with inertia and increases torque accuracy
- Heat treated stainless steel components ensure long life even in harsh environments
- Standard off the shelf bolts can easily be replaced
- Cup washers are sized for specific working torque ranges
- Accurately certify any type of shut-off tool or hand wrench
- Minimal points of lubrication significantly reduces frictional changes during the rundown





## Battery Pack/Battery Charger – Compatibility Chart

VOLTAGE	MODEL	BATTERY	CHARGING TIMES USABLE: FULL CHARGE	CHARGER
21.6V	EYFPA1J	EYFB60B (4.2Ah)	65 min : 85 min	EY0L82B
18V	EYFNA1J	EYFB50B (5.0Ah)	65 min : 80 min	
14.4V	EYFGA1A/AR, EYFGA2A/AR, EYFGA3A/AR EYFMA1J/1JR, EYFMA1P, EYFMA2P/PR	EYFB41B (2.0Ah)	35 min : 40 min	
		EYFB42B (4.2Ah)	50 min : 60 min	
10.8V	EYFLA4A/4AR, EYFLA5A/5AR, EYFLA5B, EYFLA5Q/5QR EYFLA6J/6JR, EYFLA6B, EYFLA7A/7AR, EYFLA8A/C/B/AR/ CR/PR, EYFLA9C/P/CR/PR	EYFB30B (3.0Ah)	35 min : 45 min	
		EYFB32B (2.0Ah)	35 min : 40 min	
7.2V	EYFEA1N, EYFEA1N2S	EY9L20B	35 min : 60 min	EY0L20B

## Mechanical Pulse Tool Working Capacities\*

	MODELS	EYFLA4A EYFLA4AR	EYFLA5A/5B/5Q EYFLA5AR/5QR	EYFLA6J/6B EYFLA6JR	EYFMA1J/1B EYFMA1JR	EYFNA1J	EYFPA1J
	Settings	M6: 10Nm Stage: 19	M8: 23Nm Stage: 22	M10: 43Nm Stage: 23	M12: 71Nm Stage: 22	M14: 100Nm Stage: 13	M16: 180Nm Stage: 6
Application Capacity/ Working Speed	EYFB30B 3.0Ah Battery	1200 pcs/pack 0.7 sec/1 pcs	800 pcs/pack 0.8 sec/1 pcs	500 pcs/pack 0.9 sec/1 pcs	—	—	—
	EYFB42B 4.2Ah Battery	—	—	—	785 pcs/pack 0.9 sec/1 pcs	—	—
	EYFB50B 5.0Ah Battery	—	—	—	—	500 pcs/pack 1.0 sec/1 pcs	—
	EYFB60B 4.2Ah Battery	—	—	—	—	—	450 pcs/pack 0.7 sec/1 pcs

## AccuPulse Working Capacities\*

	MODELS	EYFLA7A/EYFLA7AR	EYFLA8A/AR/C/CR/P/PR	EYFLA9C/CR/P/PR	EYFMA2C/CR/P/PR
	Settings	M6: 10Nm, Stage: 22	M8: 23Nm, Stage: 22	M10: 43Nm, Stage: 23	M12: 71Nm, Stage: 22
Application Capacity/ Working Speed	EYFB30B 3.0Ah Battery	1200 pcs/pack 0.7 sec/1pcs	800 pcs/pack 0.8 sec/1pcs	400 pcs/pack 0.8 sec/1pcs	—
	EYFB32B 2.0Ah Battery	800 pcs/pack 0.7 sec/1pcs	540 pcs/pack 0.8 sec/1pcs	260 pcs/pack 0.8 sec/1pcs	—
	EYFB42B 4.2Ah Battery	—	—	—	600 pcs/pack 0.8 sec/1pcs
	EYFB41B 2.0Ah Battery	—	—	—	270 pcs/pack 0.8 sec/1pcs

## Precision Clutch Tool Working Capacities\*

	MODELS	JOINT	EYFGA1A/AR	EYFGA2A/AR	EYFGA3A/AR
	Settings		M6 - 5.5Nm	M6 - 8Nm	M6 - 10Nm
Application Capacity/ Working Speed	EYFB41B 2.0Ah Battery	Hard Joint 30°	1200 pcs/pack 1.1 sec/1 pcs	1050 pcs/pack 1.0 sec/1 pcs	1100 pcs/pack 1.0 sec/1 pcs
		Soft Joint 720°	540 pcs/pack 1.3 sec/1 pcs	410 pcs/pack 1.3 sec/1 pcs	310 pcs/pack 1.4 sec/1 pcs
	EYFB42B 4.2Ah Battery	Hard Joint 30°	2700 pcs/pack 1.1 sec/1 pcs	2350 pcs/pack 1.0 sec/1 pcs	2500 pcs/pack 1.0 sec/1 pcs
		Soft Joint 720°	1250 pcs/pack 1.3 sec/1 pcs	1000 pcs/pack 1.3 sec/1 pcs	730 pcs/pack 1.4 sec/1 pcs

## Low Torque Clutch Tool and Driver Working Capacities\*

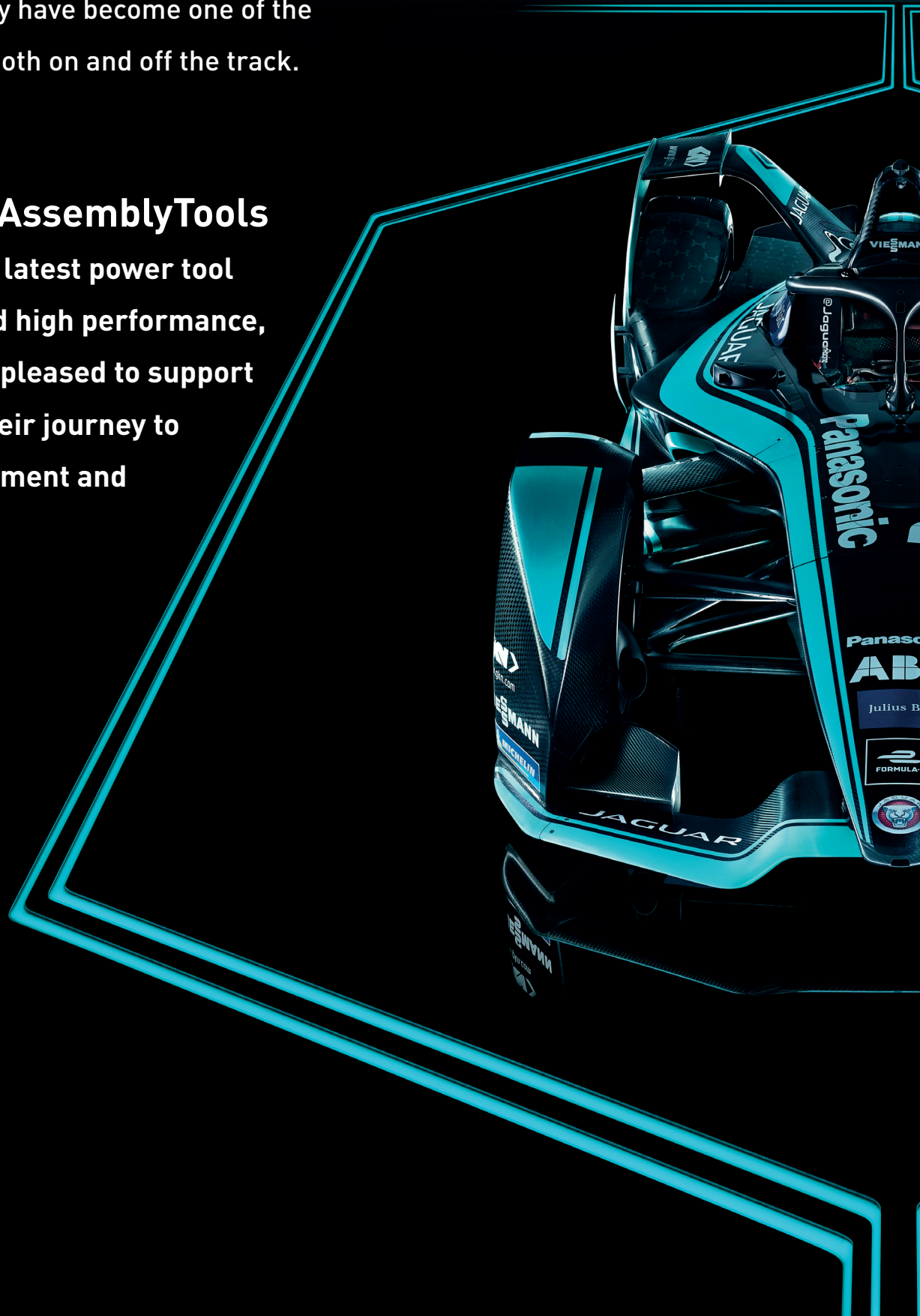
	MODEL	FASTENING	EYFEA1N
Application Capacity/ Working Speed	EY9L20B 1.5Ah Battery	Screws in Sheet Metal (M2.5 x 1/4")	High: 1900 pcs
		Screws in Sheet Metal (M4 x 3/8")	High: 1850 pcs
		Screws in Sheet Metal (M5 x 5/16")	Low: 1450 pcs

Note: \*Approximately

In 2016 **Panasonic Jaguar Racing** announced its return to global motorsport as the first premium manufacturer in the ABB FIA Formula E World Championship, confirming its electric future. In the two years since, they have become one of the leading teams both on and off the track.

## **Panasonic AssemblyTools**

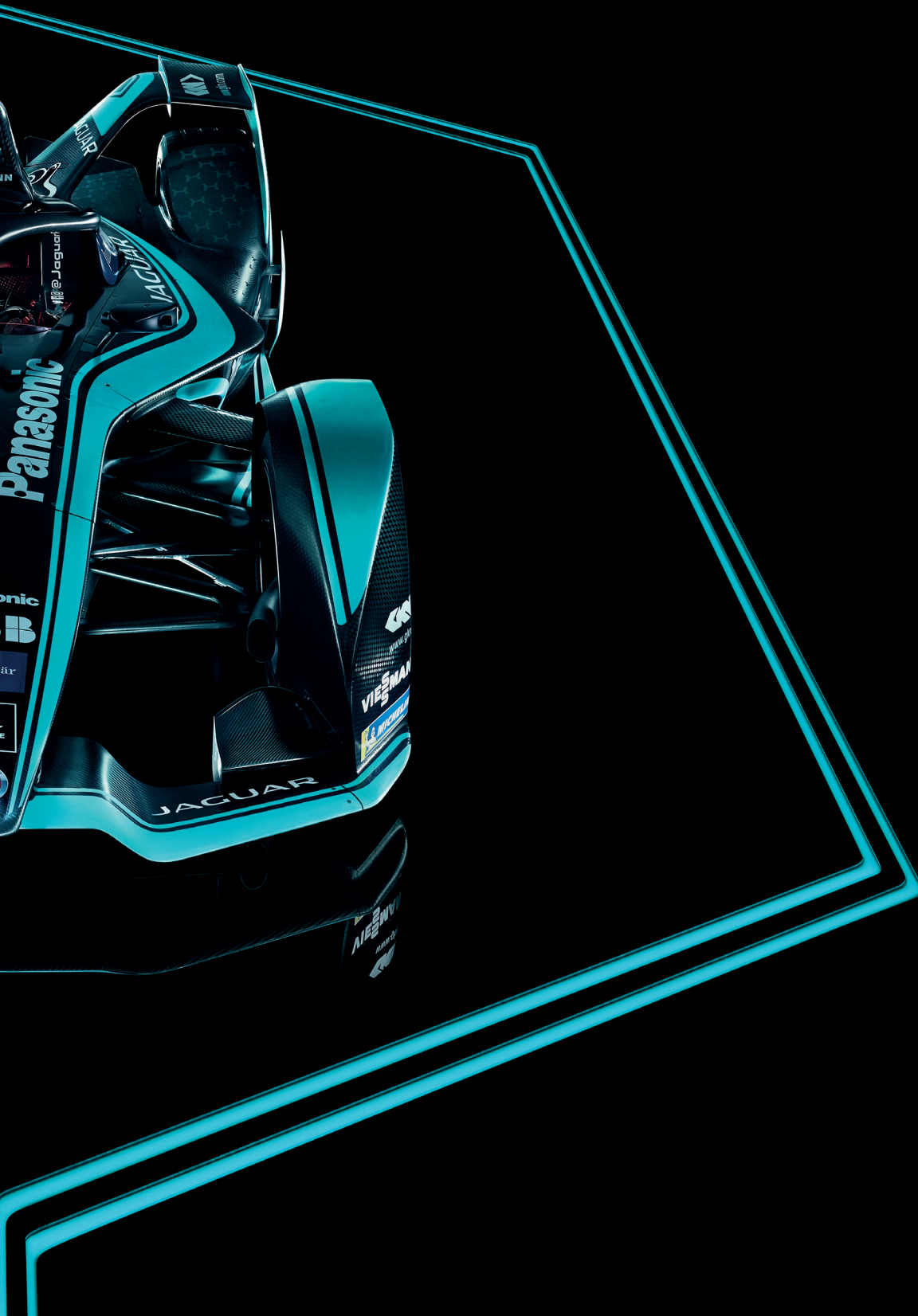
Using the very latest power tool technology and high performance, Panasonic are pleased to support the team on their journey to future development and success.



**Panasonic**  
**JAGUAR**  
**RACING**

FORMULA-E TEAM

OFFICIAL TITLE PARTNER

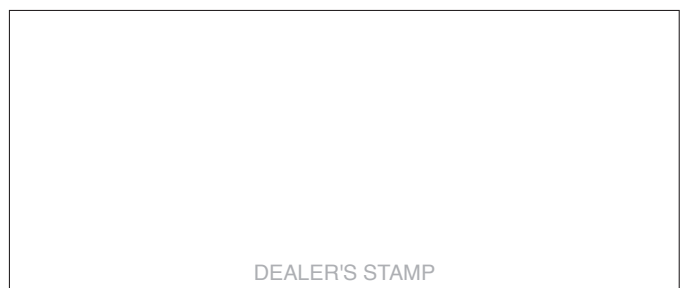


# Panasonic®

**Panasonic Electric Works Europe AG**  
Caroline-Herschel-Strasse 100  
85521 Ottobrunn - Germany

Produced in Germany 04/2019  
© 2019 Panasonic Electric Works Europe AG

**[www.panasonic-powertools.eu](http://www.panasonic-powertools.eu)**



**Panasonic Electric Works Europe AG**

The design and specification of products are constantly changing in the interest of improvement. Whilst every care has been taken in preparation of this catalogue, some changes may not have been indicated and may have occurred after publication. Please check with your Panasonic dealer for details. Panasonic Electric Works Europe AG cannot accept responsibility for any errors and omissions.