

Service Manual

Cordless Power Tools for TOUGH TOOL IP

Model No. **EY7460/EY7960/
EY7540/EY7541/
EY7542/EY7840/
EY7880/EY4541/
EY4542/EY4640**

Europe and Oceania
for TOUGH TOOL IP MODEL

Supplement

Please file and use this manual together with the service manual for
Model No. EY7460/EY7960, Order No. PTD0810X45CE,
Model No. EY7540-X8, Order No. PTD0609X43CE, Model No. EY7541, Order No. PTD0703X31AE,
Model No. EY7542, Order No. PTD0707X38CE, Model No. EY7840, Order No. PTD0803X31CE,
Model No. EY7880, Order No. PTD0709X41CE, Model No. EY4541, Order No. PTD0810X47CE,
Model No. EY4542, Order No. PTD0810X43CE, Model No. EY4640, Order No. PTD0810X49CE.

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE


There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.


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





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1 REPLACEMENT PARTS LIST for IP MODEL

Reason for Change	
*The circled item indicates the reason. If no marking, see the Notes in the bottom column.	
1. Improve performance	Some products with the same model number bear a  label. IP labeling on a product indicates that it has achieved IP 56 rating. As non-labeled housing and the housing beard a IP logo label are provided under the individual part numbers. Use appropriate part number depends on the customer's original tool.
2. Change of material or dimension	
3. To meet approved specification	
4. Standardization	
5. Addition	
6. Deletion	
7. Correction	
X 8. Other	

Interchangeability Code	
**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.	
Parts	Set Production
X A Original  Early New  Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
B Original  Early New  Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
C Original  Early New  Late	New parts only may be used in early or late production sets. Stock new parts.
D Original  Early New  Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E Other	

Part Number					
Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
EY7460	1	WEY7460K3079	WEY7460K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7460K3070	WEY7460K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY7460K7018	WEY7460K7029	*8, **A	TOOL CASE
	-	WEY7460K8109	WEY7460K8119	*8, **A	OPERATING INSTRUCTIONS
EY7960	1	WEY7960K3079	WEY7960K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7960K3070	WEY7960K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY7460K7018	WEY7460K7029	*8, **A	TOOL CASE
	-	WEY7460K8109	WEY7460K8119	*8, **A	OPERATING INSTRUCTIONS
EY7540-X8	1	WEY7540K3079 WEY7540K3073	WEY7540K3083	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7540K3070 WEY7540K3071	WEY7540K3081	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9633K7018	WEY9633K7010	*8, **A	TOOL CASE
	-	WEY7540K8109	WEY7540K8119	*8, **A	OPERATING INSTRUCTIONS
EY7541	1	WEY7541K3079	WEY7541K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7541K3070	WEY7541K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9633K7018	WEY9633K7010	*8, **A	TOOL CASE
	-	WEY7541K8109	WEY7541K8119	*8, **A	OPERATING INSTRUCTIONS
EY7542	1	WEY7542K3079	WEY7542K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7542K3070	WEY7542K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9633K7018	WEY9633K7010	*8, **A	TOOL CASE
	-	WEY7542K8109	WEY7542K8119	*8, **A	OPERATING INSTRUCTIONS

Part Number					
Model No.	Ref. No.	Original Part No.	New Part No.	Notes	Part Name & Descriptions
EY7840	1	WEY7840K3079	WEY7840K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7840K3070	WEY7840K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9637K7018	WEY9637K7029	*8, **A	TOOL CASE
	-	WEY7840K8109	WEY7840K8119	*8, **A	OPERATING INSTRUCTIONS
EY7880	1	WEY7880K3079	WEY7880K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY7880K3070	WEY7880K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9635K7018	WEY9635K7029	*8, **A	TOOL CASE
	-	WEY7880K8109	WEY7880K8119	*8, **A	OPERATING INSTRUCTIONS
EY4541	1	WEY4541K3079	WEY4541K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY4541K3070	WEY4541K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9638K7018	WEY9638K7028	*8, **A	TOOL CASE
	-	WEY4541K8109	WEY4541K8119	*8, **A	OPERATING INSTRUCTIONS
EY4542	1	WEY4542K3079	WEY4542K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY4542K3070	WEY4542K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9642K7018	WEY9642K7029	*8, **A	TOOL CASE
	-	WEY4542K8109	WEY4542K8119	*8, **A	OPERATING INSTRUCTIONS
EY4640	1	WEY4640K3079	WEY4640K3089	*8, **A	HOUSING AB SET (EUROPE)
	1	WEY4640K3070	WEY4640K3080	*8, **A	HOUSING AB SET (OCEANIA)
	-	WEY9639K7018	WEY9639K7028	*8, **A	TOOL CASE
	-	WEY4640K8109	WEY4640K8119	*8, **A	OPERATING INSTRUCTIONS

2 Q & A for IP MODEL


2.1. IP SOLICITATION

Question		Answer
1	What is IP?	IP is an abbreviation of the International Protection Code. International Protection Code classified the degree of protection provided against intrusion of solid objects and water in electric machinery and fixtures as determined in accordance with measurement and test methods defined by the IEC60529 international standard.
2	How can IP examination be taken?	Examination can be taken under the regulation by IEC 60529.
3	Can tool be used in water?	The tool is designed for minimizing effect of water and dust, but it is not guaranteed when used in water, rain or the place where dust is apt to be accumulated.
4	How much amount of rain can tool endure?	
5	How much amount of dust can tool endure?	
6	Water infiltrates from a wind hole.	The tool is designed for minimizing effect of water and dust, but it is not guaranteed when used in water or rain. If it is drenched with water, use it after removing water from the tool and drying it immediately.
7	Can tool be washed with water ?	The tool is designed for minimizing effect of water and dust, but it is not guaranteed when used in water or rain. Washing with water will result in a malfunction.
8	Pictures of tools in the catalogue seem to be fully drenched with water. Is this enlarged advertisement?	Those pictures provide the image that the tool can endure water and dust. Note that the tool is designed for minimizing effect of water and dust, but it is not guaranteed when used in water, rain or the place where dust is apt to be accumulated.
9	What is the solution when tool got wet ?	Use it after draining any accumulated water from inside the product and drying it out immediately. If performance of the tool is still a problem, contact a repair shop.
10	What is the solution when dust came in the tool?	Remove all dust from the product, If performance of the tool is still problematic, contact a repair shop. NOTE: Turning the product on while there is dust inside it may cause it to expel dust, which may then enter the eyes or mouth of the user.
11	In light of the fact that the product passed the examination, 1. Can it be used underwater? 2. How heavy a rainstorm can it be used in? 3. How dusty of an environment can it be used in?	See Safety and Operating Instructions for further details on how the tool should be used properly. The rating of IP56 qualifies this tool for the minimum impact of water or dust, but not for the assurance of performance in such conditions.

2.2. WARRANTY FOR WATER AND DUST

Question		Answer
1	If tool is broken due to using in water, rain or the place where dust is apt to be accumulated, can it be repaired (replaced) under warranty?	The tool is designed for enduring effect of water and dust, but it is not suitable for using in such environment. Because of this, free repair is not applicable in such case.
2	Motor was locked with dust. Can it be replaced under warranty?	Replacement will be guaranteed if the tool was used in normal condition and within warranty period. However, if it was apparently used in the place where dust is apt to be accumulated, the warranty and replacement are not applicable.
3	If customers told that tool was broken due to dust, what are the criteria for out of warranty repairs?	Ask condition of usage to the customers. If it was used apparently in the place where dust is apt to be accumulated, they are liable for the out of warranty repairs. NOTE: Use your usual criteria without any changes.
4	If customers told that tool was broken due to water, what are the criteria for out of warranty repairs?	Ask situation of use to the customers. If the tool was used apparently in water, rain or wet conditions, they are liable for the out of warranty repairs. NOTE: Use your usual criteria without any changes.

2.3. DIFFERENCES FROM PREVIOUS TOOLS

Question		Answer
1	Same items, but one is labeled with IP mark and the other is not. What is the difference?	Since quality of dust-proof and water-proof has improved, our tools were confirmed to pass IP examination and could have IP mark.
2	Tool was not used in water, rain or the environment where dust is apt to be accumulated. But is deterioration delayed if tool is drenched with water or dust covers the tool?	Deterioration will be delayed if properly following the maintenance described in the Operating instructions. However, level of the deterioration changes depending on the environment to use. Because of this, it is not completely guaranteed.
3	Some products with the same model number bear a IP logo label, but others do not. What is the difference?	IP labeling on a product indicates that it has achieved IP56 rating as a result of quality improvements relating to dust and water resistance. 

2.4. REPAIR AND SERVICE

Question		Answer
1	Is IP standard satisfied even after the repair was taken?	IP products satisfy IP standard as far as repair was taken using regular service repair parts in the Panasonic repair shop. IP standard is not applicable to non-IP products in any cases.
2	How can IP tool and non-IP tool be differentiated from each other?	① Check the serial number. (Checking is not possible after housing replacement repair was taken, because the service parts do not have the serial number.) ② Whether or not IP label is sealed on housing.
3	Should two kinds of the service parts of the housing be prepared? (Two kinds: IP logo label is sealed or not.)	Yes. Non-labeled housing and the housing beard a IP logo label are provided under the individual part numbers. Use appropriate part number depends on the customer's original tool.