

MODELS EC34ES-1, EC34ES-2, EC34US-1 AND EC34US-2 ELECTRIC SCREWDRIVER CONTROLLERS

NOTICE

These Controllers are designed for dry location use only, with Series EP/EL 34V Electric Screwdrivers.

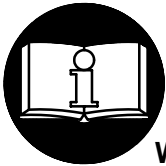
⚠ WARNING

**IMPORTANT SAFETY INFORMATION ENCLOSED.
READ ALL THESE INSTRUCTIONS BEFORE PLACING TOOL IN SERVICE OR OPERATING
THIS TOOL AND SAVE THESE INSTRUCTIONS.**

**IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THE INFORMATION
IN THIS MANUAL INTO THE HANDS OF THE OPERATOR.**

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

**WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE
FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY,
INCLUDING THE FOLLOWING.**



PLACING TOOL IN SERVICE

- Always operate, inspect and maintain this tool in accordance with all regulations (local, state, federal and country), that may apply to hand held/hand operated electric tools.
- Inspect tool cords periodically and if damaged, have them repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged.
- Do not remove any labels. Replace any damaged label.

USING THE TOOL

- Always wear eye protection when operating or performing maintenance on this tool.
- Power tools can vibrate in use. Vibration, repetitive motions, or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- **Guard Against Electric Shock.** Prevent body contact with earthed or grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
- **Don't Abuse Cord.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.

- **Keep work area clean.** Cluttered areas and benches invite injuries.
- **Consider work area environment.** Don't expose power tools and chargers to water. Keep work area well lighted. Do not use tool in explosive or flammable atmospheres.
- **Keep bystanders and children away.** Do not permit unauthorized personnel to operate this tool, or touch tool or cord.
- **Store idle tools.** When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.
- **Don't force tool.** It will do the job better and more safely at the rate for which it was intended.
- **Use the right tool.** Do not force a small tool or attachment to do the job of a heavy-duty tool.
- **Do not use a tool for a purpose for which it is not intended.** Example: Do not use a screwdriver as a drill.
- **Dress properly.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

NOTICE

The use of other than genuine Ingersoll-Rand replacement parts may result in personal injury, decreased tool performance and increased maintenance, and may invalidate all warranties.

Have your tool repaired by a qualified person. This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

Repairs should be made only by authorized, trained personnel. Consult your nearest Ingersoll-Rand Authorized Servicenter.

⚠ WARNING

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

USING THE TOOL (*Continued*)

- **Secure work.** Use clamps or a vise to hold work. Operators often need both hands to perform job functions.
- **Don't overreach.** Keep proper footing, balance, and a firm grip on the tool at all times.
- **Maintain tools with care.** Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have them repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- **Remove adjusting keys and wrenches.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- **Avoid unintentional starting.** Don't carry tool with finger on switch.
- **Do not drop or abuse the tool.**
- **Whenever a tool is not being used, position the Power Switch to the "OFF" position and unplug the power cord.**
- **Stay alert.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- **Check damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this operation manual.
- **Have defective switches replaced by an authorized service center.**
- **Do not use the tool if the switch does not turn it on and off.**
- **Do not drop or abuse the screwdriver.**
- **Whenever changing a bit, make certain the Forward/Reverse Switch is in the "OFF" position and the tool is unplugged.**
- **Do not allow chemicals such as acetone, benzene, thinner, ketone, trichloroethylene or other similar chemicals to come in contact with the screwdriver housing as damage will result.**
- **Do not adjust the torque setting higher than 5 on the Torque Scale.**

Duty cycle:

MAX 0.5 sec. "ON"
MIN 3.5 sec. "OFF"

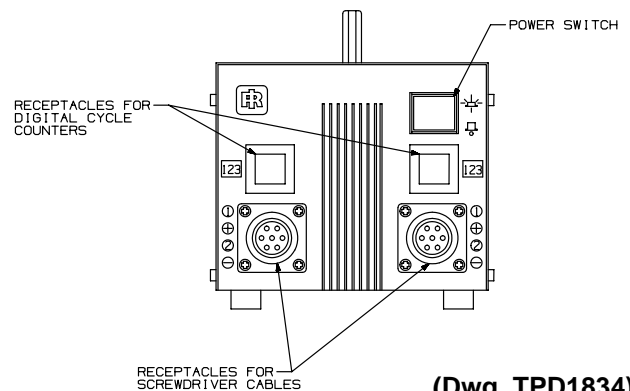
- **Do not tighten more than 900 tapping screws (size: 2 mm, length: 4 mm) per hour.**
- **Do not operate the Forward/Reverse Switch when the motor is running.**
- **Whenever a tool is not being used, move the Forward/Reverse Switch to the "OFF" position and unplug the screwdriver.**
- **The use of any accessory or attachment other than recommended in this manual can present a risk of personal injury.**

OPERATION

CAUTION

- **Do not drop or abuse the Controller.**
- **Whenever a Controller is not being used, position the Power Switch to the "OFF" position and unplug the power cord.**

MODELS EC34ES AND EC34US CONTROLLERS



(Dwg. TPD1834)

POWER SWITCH

The POWER SWITCH turns the power on or off. When power is on, a light illuminates the push-button of the switch.

SCREWDRIVER CORD RECEPTACLE

The SCREWDRIVER CORD RECEPTACLE connects the screwdriver power cord to the controller.

RECEPTACLE FOR DIGITAL CYCLE COUNTER

The RECEPTACLE FOR DIGITAL CYCLE COUNTER connects the cable used with the optional Digital Cycle Counter (Part No. EC24-DC).

MAINTENANCE

DO NOT ATTEMPT TO REPAIR THIS TOOL.

All repairs and maintenance of the Controller and its cord must be performed by an authorized servicer. Contact sales office listed on last page of this form.


EC34ES and EC34US Screwdriver Controllers


MODEL NO.	HERTZ	AMPS	INPUT VOLTS (ALTERNATING CURRENT)	OUTPUT VOLTS (DIRECT CURRENT)	WT., PDS.	SIZE IN INCHES (WIDTH, HEIGHT, DEPTH)	TYPE OF CORD
EC34ES-1	50/60 Hz	2	230 V ~	34 V	12.0	4.56 x 5 x 10.38	VDE
EC34US-1	50/60 Hz	2	230 V ~	34 V	12.0	4.56 x 5 x 10.38	UK
EC34ES-2	50/60 Hz	2	230 V ~	34 V	12.0	4.56 x 5 x 10.38	VDE
EC34US-2	50/60 Hz	2	230 V ~	34 V	12.0	4.56 x 5 x 10.38	UK

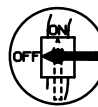
WARNING LABEL IDENTIFICATION

⚠ WARNING


FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.


	<p>⚠ WARNING</p> <p>Always wear eye protection when operating or performing maintenance on this tool.</p>
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	<p>⚠ WARNING</p> <p>Always wear hearing protection when operating this tool.</p>
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	<p>⚠ WARNING</p> <p>Always turn off the electrical supply and disconnect the power cord before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.</p>
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	<p>⚠ WARNING</p> <p>Powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.</p>
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	<p>⚠ WARNING</p> <p>Do not carry the tool by the cord.</p>
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	<p>⚠ WARNING</p> <p>Do not use damaged, frayed or deteriorated power cords.</p>
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	<p>⚠ WARNING</p> <p>Keep body stance balanced and firm. Do not overreach when operating this tool.</p>
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	<p>⚠ WARNING</p> <p>DRY LOCATION USE ONLY. RISK OF ELECTRIC SHOCK</p>
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DECLARATION OF CONFORMITY

We Ingersoll-Rand, Co.
(supplier's name)

Swan Lane, Hindley Green, Wigan WN2 4EZ
(address)

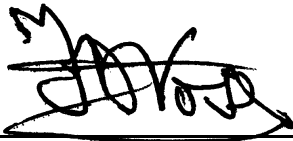
declare under our sole responsibility that the product,

Models EC34ES and EC34US Electric Screwdriver Controllers

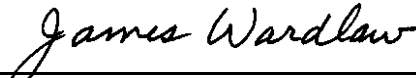
to which this declaration relates, is in compliance with the provisions of
73/23/EEC, 89/336/EEC, 92/31/EEC AND 98/37/EC Directives.

By using the following Principle Standards: EN292, EN55014,
EN50082-1 and EN60742

Serial No. Range: (1995 →) 3VH XXXXX →



D. Vose
Name and signature of authorised persons



James Wardlaw
Name and signature of authorised persons

February, 1999
Date

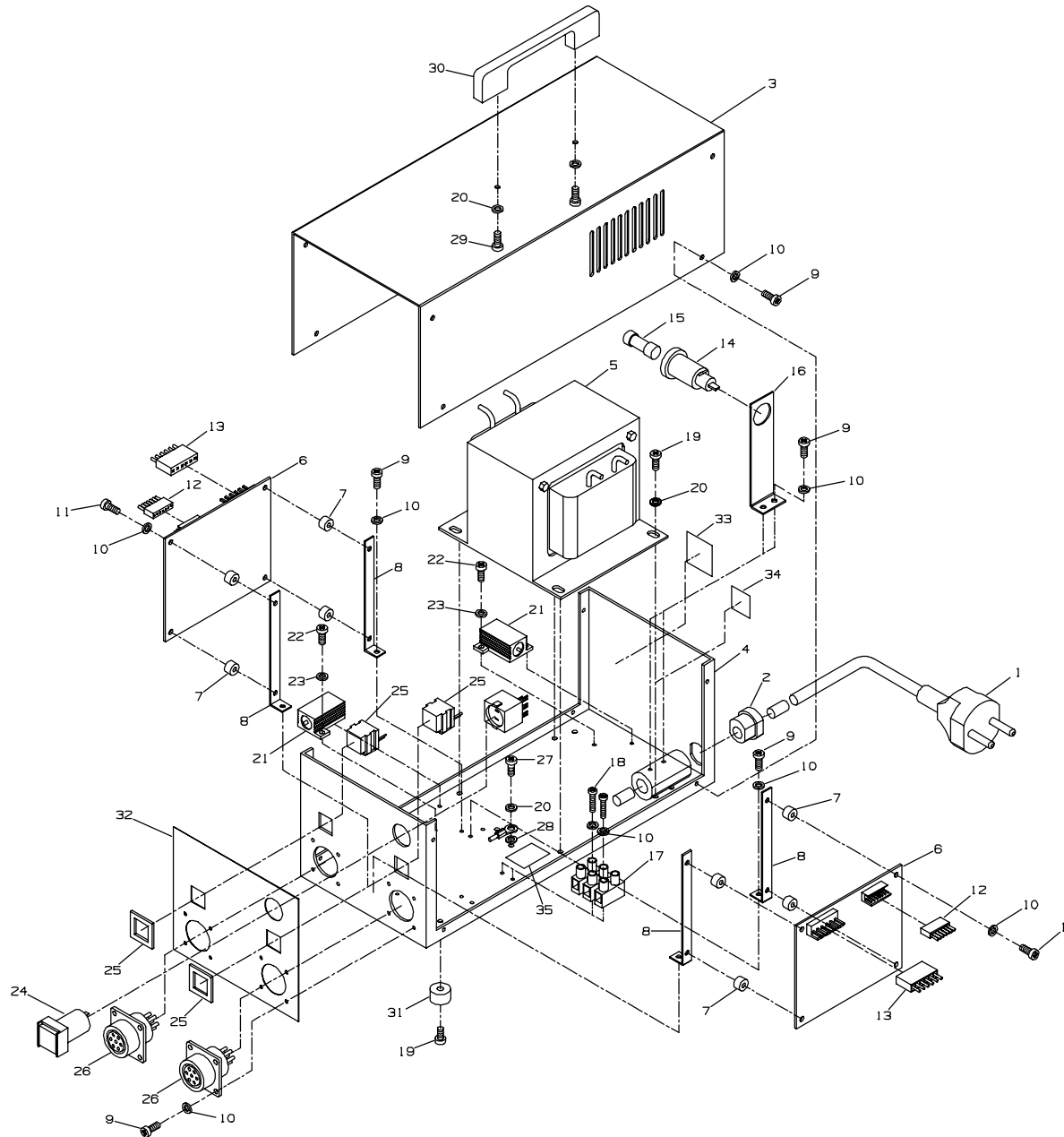
February, 1999
Date

NOTICE

SAVE THESE INSTRUCTIONS. DO NOT DESTROY.

When the life of the tool has expired, it is recommended that the tool be disassembled, degreased and parts be separated by material so that they can be recycled.

MODELS EC34ES AND EC34US ELECTRIC SCREWDRIVER CONTROLLERS



MAINTENANCE SECTION

(Dwg. TPA1525)



PART NUMBER FOR ORDERING →

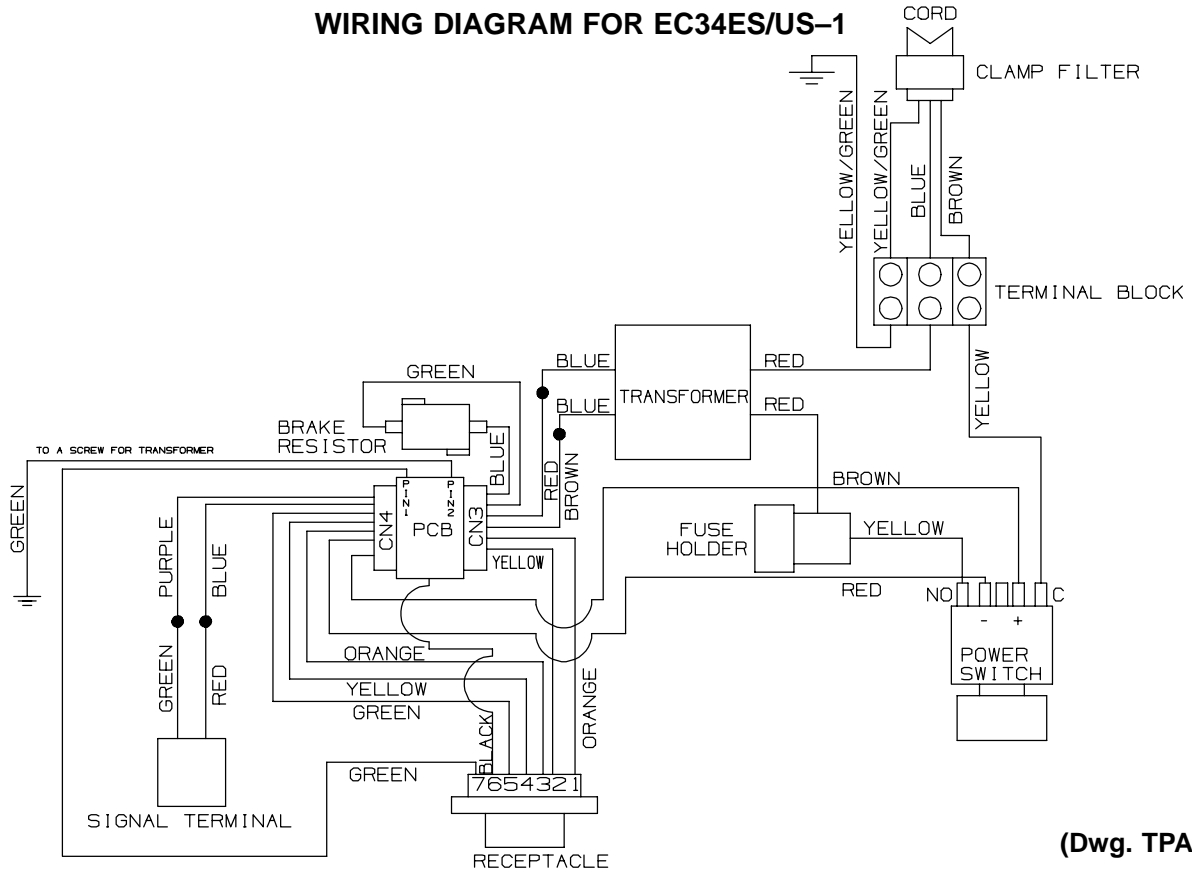
PART NUMBER FOR ORDERING →

1	Cord Assembly for Europe (Models EC34ES-1 and EC34ES-2)	EC24E-239B	21	Brake Resistor (2 for EC34ES-2 and EC34US-2) ..	EC29E-524
	for U.K. (Models EC34US-1 and EC34US-2)	EC24U-239B	22	Self-tapping Screw (2 for EC34ES-1 and EC34US-1; 4 for EC34ES-2 and EC34US-2)	_____
2	Strain Relief	EC24N-240	23	Spring Washer (2 for EC34ES-1 and EC34US-1; 4 for EC34ES-2 and EC34US-2)	_____
3	Cover	EC29E-40	24	Power Switch	EC24N-565
4	Chassis	EC29E-3	25	Signal Terminal (2 for EC34ES-2 and EC34US-2) ..	EC24N-P47
5	Transformer	EC29E-53	26	Receptacle (2 for EC34ES-2 and EC34US-2)	EC29E-203
6	PCB Assembly (2 for EC34ES-2 and EC34US-2) ..	EC34ES-525	27	Ground Screw	EC24N-41
7	Control Base Spacer (4 for EC34ES-1 and EC34US-1; 8 for EC34ES-2 and EC34US-2)	EC24N-425	28	Lockwasher	EC24N-43
8	Control Base Mounting Bracket (2 for EC34ES-1 and EC34US-1; 4 for EC34ES-2 and EC34US-2) ..	EC24N-426	29	Handle Screw (2)	_____
9	Screw (8 for EC34ES-1 and EC34US-2; 14 for EC34ES-2 and EC34US-2)	_____	30	Handle	EC29E-48
10	Spring Washer (22 for EC34ES-1 and EC34US-1; 32 for EC34ES-2 and EC34US-2)	_____	31	Rubber Foot (4)	EC24N-26
11	Self-tapping Screw (4 for EC34ES-1 and EC34US-1; 8 for EC34ES-2 and EC34US-2)	_____	32	Front Face Plate for EC34ES-1 and EC34US-1	EC29E-300-1
12	Plug (2 for EC34ES-2 and EC34US-2)	EC24N-P238		for EC34ES-2 and EC34US-2	EC29E-300-2
13	Plug (6P) (2 for EC34ES-2 and EC34US-2)	EC29E-237	33	Nameplate for EC34ES-1	EC34ES-301-1
14	Fuse Holder	EC24N-45		for EC34ES-2	EC34ES-301-2
	Fuse Package (package of 10 Fuses) for EC34ES-1 and EC34US-1	EC29E-P46-1		for EC34US-1	EC34US-301-1
	for EC34ES-2 and EC34US-2	EC29E-P46-2		for EC34US-2	EC34US-301-2
15	Fuse	_____	34	Caution Label	EC24E-99
16	Fuse Holder Bracket	EC29E-427	35	Ground Label	EC29E-98
17	Terminal Block	EC24N-30	*	Digital Cycle Counter	EC24-DC
18	Self-tapping Screw (2)	_____	*	Chassis Hardware Package (includes illustrated items 9[6], 10[32], 11[8], 18[2], 19[8], 20[7], 22[4], 23[4] and 29[2])	EC29E-P3
19	Self-tapping Screw (8)	_____			
20	Spring Washer (7)	_____			

* Not illustrated.

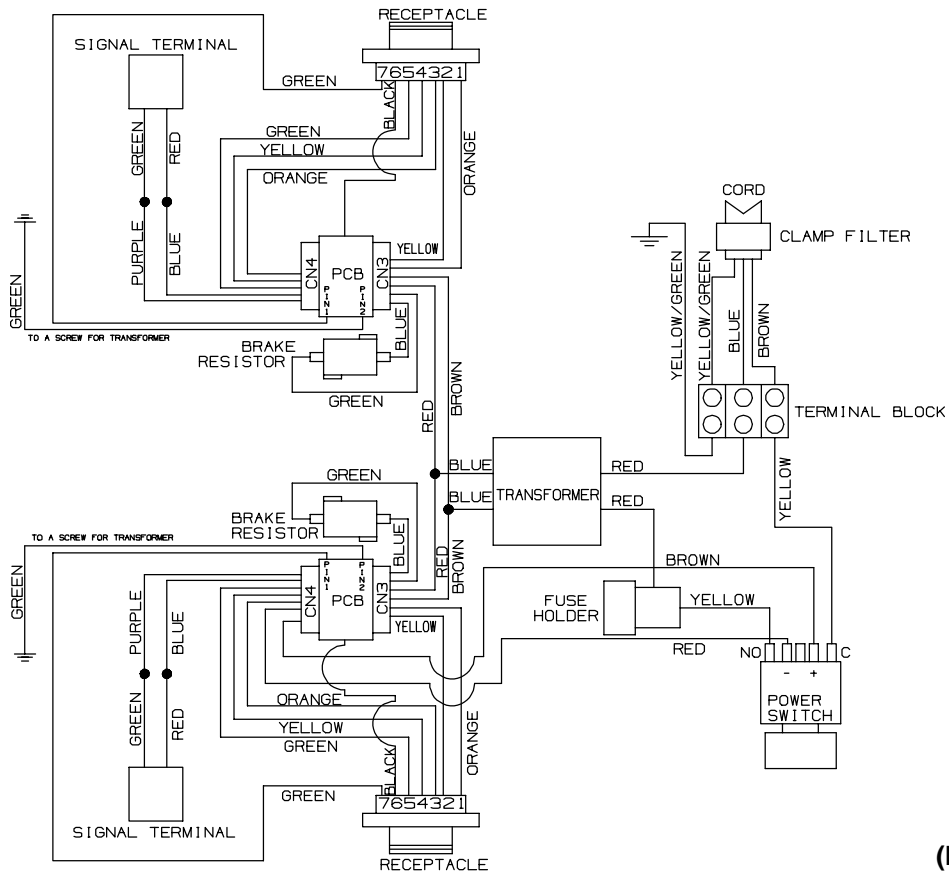
MAINTENANCE SECTION

WIRING DIAGRAM FOR EC34ES/US-1



(Dwg. TPA1582)

WIRING DIAGRAM FOR EC34ES/US-2



(Dwg. TPA1583)

MAINTENANCE SECTION

TROUBLESHOOTING GUIDE

Trouble	Probable Cause	Solution
No Power	Fuse	Disconnect Power Cord. Replace fuse.
	Power Switch	Disconnect Power Cord. Use ohmmeter to check yellow and black leads at Switch. Reading should be 0 to full scale when switched from on to off.
	Power Cord	Use Voltmeter to check white lead at terminal block and black lead at Switch. Reading should be 115 VAC for Model EC24N and 230VAC for Model EC24E.
	Transformer	Use voltmeter to check the two yellow leads from the Transformer. Reading should be 24 VAC.
	Circuit Board	Replace the Circuit board.
Faulty braking	Circuit Board	Replace the Circuit Board.
Speed Control does not work	Speed Potentiometer	Disconnect Power Cord. Unplug the Socket Assembly from Circuit Board. Using an ohmmeter, check the yellow and orange leads at the potentiometer by rotating the knob. Reading should be 0 to 50,000 ohms.
	Circuit Board	Replace the Circuit Board.

Service Centers

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White House
TN 37188
USA
Tel: (615) 672 0321
Fax: (615) 672 0601

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Fax: (49) 208 9994445

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20100 Milano
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