

IsoTour™ Pump

Maintenance Manual

REF 2874



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Warning/Caution/Note Definition

The words WARNING, CAUTION, and NOTE carry special meanings and should be carefully reviewed.

WARNING

Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

CAUTION

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

Note - Provides special information to make maintenance easier or important instructions clearer.

Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

WARNING

- Do not modify or change this device. Service should only be completed by qualified personnel. Failure could result in injury and void your warranty.
- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.
- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of **IsoTour**, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.

CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
- · Do not place unprotected circuit boards on the floor.
- Always use a grounded static strap to prevent static coming into contact with the PCB assembly.

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Introduction for service

This manual assists you with the service of your Stryker product. Read this manual to service this product. This manual does not address the operation of this product. See the Operations Manual for operating and use instructions. To view your Operations Manual online, see https://techweb.stryker.com/.

Expected service life

The **IsoTour Pump** has a 5 year expected service life under normal use, conditions, and with appropriate periodic maintenance.

The air hose has a 2 year expected service life under normal use, conditions, and with appropriate periodic maintenance.

Contact information

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

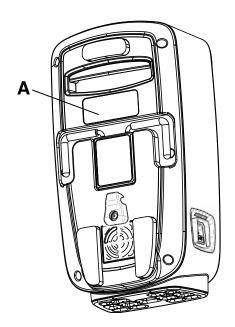
Stryker Medical 3800 E. Centre Avenue Portage, MI 49002 USA

Note - The user and/or the patient should report any serious product-related incident to both the manufacturer and the Competent authority of the European Member State where the user and/or patient is established.

To view your operations or maintenance manual online, see https://techweb.stryker.com/.

Have the serial number (A) of your Stryker product available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

Serial number



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Service

Connecting the power cord

- 1. Bring the product to room temperature.
- 2. Attach the power cord to the pump.
- 3. Insert the power cord under the power cord retention flex grip (A) (Figure 1).

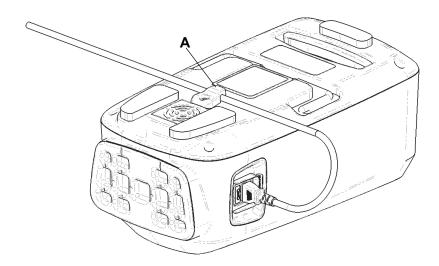


Figure 1 - Cord retention flex grip

- 4. Plug the pump power cord into an accessible outlet.
- 5. Place the pump power cord out of the path of foot traffic to avoid trip hazards.
- 6. Place the pump in a secure location. Allow space around the pump to connect and disconnect the hoses and power cord.
 - a. Option 1: Hang the pump on a compatible bed. Make sure that the pump is secure.
 - b. Option 2: Place the pump on the floor.

Access diagnostic mode

Procedure:

- 1. Make sure that the support surface hoses are plugged into the pump and there is no weight on the support surface.
- 2. Power on the pump.
- 3. As the software loads, within 5 seconds of pressing the on button (Figure 2), press and hold the upper left button (Figure 3).

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Figure 2 – Software loading

Figure 3 – Service screen and version

4. Press the lower left button to start the diagnostics mode.

Note - The software version is located on the service screen (Figure 3).

- 5. The diagnostic results should all pass with OK.
 - a. If diagnostic results do not pass, investigate failed area referenced in the diagnostic test results.

Protecting against electrostatic discharge (ESD)

CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
- Do not place unprotected circuit boards on the floor.

Note - Always ship the circuit boards back to Stryker. Use the antistatic bag that the new board was originally shipped in.

The electronic circuits in the product are completely protected from static electricity damage when factory assembled. Always use adequate static protection when you service the electronic systems of the product. All service personnel must use static protection whenever they touch wires.

Sample antistatic protection equipment includes:

- Antistatic wrist strap
- Grounding plug
- Test lead with a banana plug on one end and an alligator clip on the other end

Make sure that you follow the ESD manufacturer's instructions for appropriate protection against static discharge.

Powering off the pump

Press the power button and hold for 2 seconds to power off the pump.

Note

- Allow the support surface to deflate before you unplug the power cord.
- For optional deflation, remove the CPR plug from the support surface.

Fuse replacement

Fuse: F3.5AH250V

Tools required:

Slotted screwdriver

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· Digital multi-meter

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump face down on a work surface.
- 4. Using a slotted screwdriver, remove the fuse cover located below the power inlet. Save the fuse cover.

Note - If you need to check a fuse, use a digital multi-meter.

- 5. Remove and discard the fuse.
- 6. Reverse steps to reinstall.
- 7. Verify proper operation before you return the product to service.

Bumper replacement

Tools required:

Pick

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump with the front pump housing side down on a work surface.
- 4. Using a pick, remove the bumpers (A) from the back pump housing (Figure 4). Discard the bumpers.

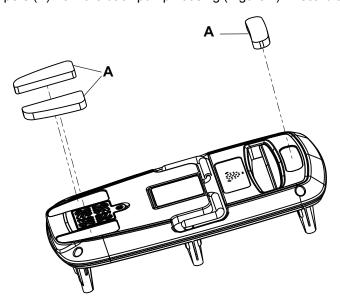


Figure 4 - Bumpers

5. Place and press the bumpers in place.

Foot replacement

Tools required:

- · T20 Torx driver
- 6 mm socket

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Ratchet

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is on your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.
- 7. Using a ratchet and a 6 mm socket, remove the six nuts (A) that secure the foot (B) to the front pump housing (*Foot replacement* (page 7)). Save the nuts.

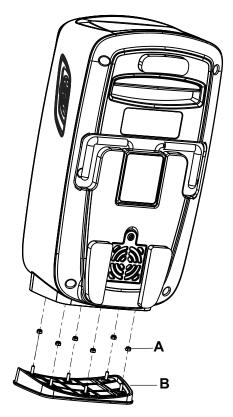


Figure 5 - Foot

- 8. Remove and discard the foot.
- 9. Reverse the steps to reinstall.
- 10. Run and pass the diagnostic test.
- 11. Verify proper operation before you return the product to service.

Filter replacement

Tools required:

T20 Torx driver

Procedure:

1. Unplug the power cord from the wall outlet.

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- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump face down on a work surface.
- 4. Using a T20 Torx driver, remove the screw (A) that secures the filter access door (B) (Figure 6). Save the screw.

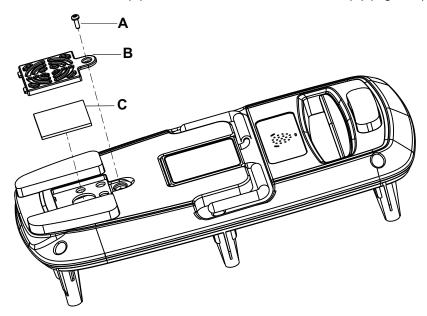


Figure 6 - Filter

- 5. Remove and save the filter access door.
- 6. Remove and discard the filter (C).
- 7. Reverse steps to reinstall.
- 8. Verify proper operation before you return the product to service.

Flex grip replacement

Tools required:

T20 Torx driver

Procedure:

- 1. Unplug the pump power cord from the wall outlet.
- 2. Unplug the support surface hose from the pump.
- 3. Place the pump face down on a work surface.
- 4. Using a T20 Torx driver, remove the screw (A) that secures the filter access door (B) to the back cover (Figure 7). Discard the screw.

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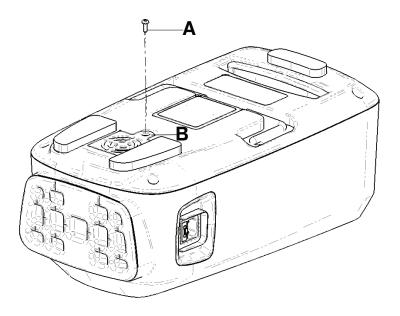


Figure 7 - Back cover

5. Using a T20 Torx driver, install the supplied delta screw (C) (0023-162-000), flat washer (D) (2941-007-002), and power cord retention flex grip (E) (2941-007-004) to secure the filter access door (B) to the back cover (Figure 8).

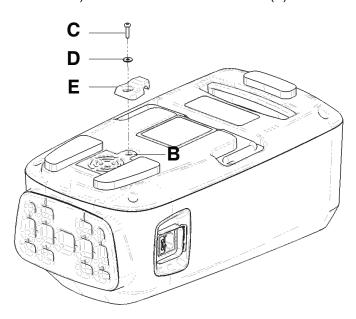


Figure 8 – Install the pump power cord p-clamp

6. Insert the power cord under the power cord retention flex grip (F) (Figure 9).

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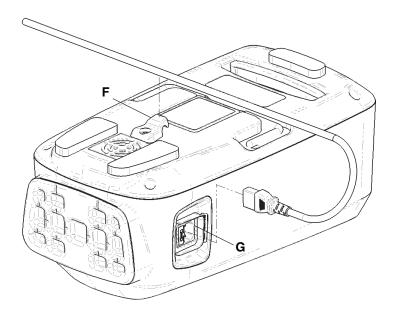


Figure 9 – Insert power cord

- 7. Plug the support surface hose back into the pump (G) (Figure 9).
- 8. Secure the power cord (Figure 10).

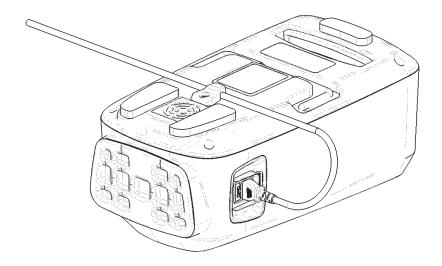


Figure 10 – Power cord secure

- 9. Plug the pump back into the wall outlet.
- 10. Verify proper operation before you return the product to service.

LCD screen replacement

Tools required:

- T20 Torx driver
- #2 Phillips screwdriver

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.

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- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.
- 7. Unplug all cables from the PCBA assembly.
 - Note Pay attention to the hose locations for reinstallation.
- 8. Unplug the four pressure transducer hoses.
 - Note The hoses are labeled to match the silk screen on the PCBA for proper hose location.
- 9. Using a #2 Phillips screwdriver, remove the two screws that secure the support bracket to the PCBA assembly and the screen to the front pump housing. Save the screws.
- 10. Using a #2 Phillips screwdriver, remove the three screws (D) that secure the board to the PCBA assembly (B and C) to the screen (A) (Figure 11). Save the screws.

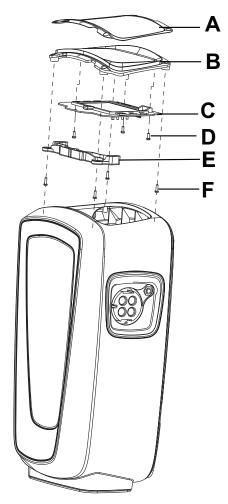


Figure 11 - PCBA assembly

- 11. Using a #2 Phillips screwdriver, remove the four screws (F) that secure the LCD screen and gasket (E) to the front pump housing. Save the screws.
- 12. Remove and discard the LCD screen and gasket.
- 13. Reverse the steps to reinstall.
- 14. Run and pass the pump diagnostic test.

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15. Verify proper operation before you return the product to service.

Transport handle replacement

Tools required:

- T20 Torx driver
- #2 Phillips screwdriver

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump face down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Rotate the pump assembly to the right, so the front of the pump is on your left.
- 6. Separate the front and back pump housing. Place the back of the pump down on the work surface.
- 7. Using a #2 Phillips screwdriver, remove the eight screws that secure the mounting plate to the back pump housing. Save the screws.
- 8. Using a #2 Phillips screwdriver, remove the one screw that secures the p-clamp and compressor wires to the mounting plate. Save the screw.
- 9. Tip the mounting plate in toward the front pump housing to access the transport handle screws.
- 10. Remove and save the backboard.
- 11. Using a #2 Phillips screwdriver, remove the four screws (B) that secure the transport handle (A) to the back pump housing (Figure 12). Save the screws.

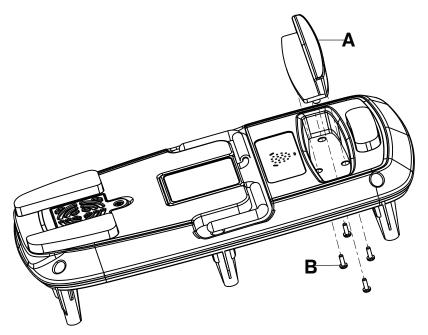


Figure 12 - Transport handle

- 12. Remove and discard the transport handle.
- 13. Reverse steps to reinstall.
- 14. Plug the pump cord into an accessible outlet.
- 15. Run the pump diagnostic test. All tests must pass.

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16. Verify proper operation before you return the product to service.

Hook replacement

Tools required:

- T20 Torx driver
- #2 Phillips screwdriver
- Pick

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump face down on a work surface.
- 4. Using a pick, remove the information label (A) on the hook assembly (Figure 13). Discard the information label.

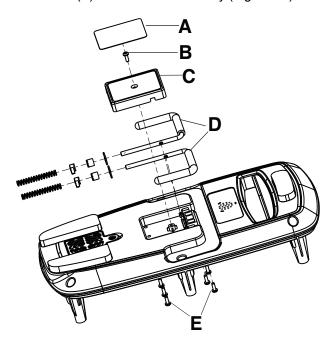


Figure 13 - Hook assembly

- 5. Using a #2 Phillips screwdriver, remove the screw (B) that secures the hook assembly to the back pump housing. Save the screw.
- 6. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 7. Rotate the pump assembly to the right, so the front of the pump is on your left.
- 8. Separate the front and back pump housing. Place the back of the pump down on the work surface.
- 9. Using a #2 Phillips screwdriver, remove the eight screws that secure the mounting plate to the back pump housing. Save the screws.
- 10. Using a #2 Phillips screwdriver, remove the one screw that secures the p-clamp and compressor wires to the mounting plate. Save the screw.
- 11. Tip the mounting plate in toward the front pump housing to access the transport handle screws.
- 12. Using a #2 Phillips screwdriver, remove the six screws (E) that secure the hook assembly (D) to the back pump housing. Save the screws.

13. Remove and discard the hook assembly.

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- 14. Reverse steps to reinstall.
- 15. Plug the pump cord into an accessible outlet.
- 16. Run the pump diagnostic test. All tests must pass.
- 17. Verify proper operation before you return the product to service.

Front pump housing replacement

Tools required:

- T20 Torx driver
- #2 Phillips screwdriver
- Stubby #2 Phillips screwdriver

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.

CAUTION - Always use a grounded static strap to prevent static coming into contact with the PCB assembly.

7. Unplug all cables from the PCB assembly.

Note - Pay attention to the cable connection locations for reinstallation.

- 8. Using a #2 Phillips screwdriver, remove the two screws that secure the support bracket holding the PCB assembly and the screen to the front pump housing. Save the screws and support bracket.
- 9. Using a #2 Phillips screwdriver, remove the three screws that secure the board to the screen. Save the screws.
- 10. Grasp each of the air hoses individually and pull out from the mattress hose connector to detach each hose from the connector.
 - Note Pay attention to the air hose connection locations for reinstallation.
- 11. Grasp each of the pressure transducer hoses individually and pull out from the mattress hose connector to detach each hose from the connector.
 - Note Pay attention to the pressure transducer hose connection locations for reinstallation.
- 12. Using a stubby #2 Phillips screwdriver, remove the four screws that secure the LED board assembly to the front pump housing assembly. Save the screws.
- 13. Remove the PCB assembly.
- 14. Remove and discard the front pump housing.
- 15. Reverse the steps to reinstall (Pump housing assembly 2874-007-017 (page 24)).
- 16. Run and pass the diagnostic test.
- 17. Verify proper operation before you return the product to service.

Power supply replacement

Tools required:

T20 Torx driver

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#2 Phillips screwdriver

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.
- 7. Grasp the hose at the manifold coming from the pump and pull to remove the hose from the manifold.
- 8. Unplug the power input cable and the power output cable from the power supply.
- 9. Using one hand to hold the fish paper and a #2 Phillips screwdriver, remove the four Phillips screws and washers that secure the power supply to the main frame. Save the screws, washers, and fish paper.
- 10. Remove and discard the power supply.
- 11. Reverse the steps to reinstall (Power supply assembly 2874-007-024 (page 30)).
- 12. Run and pass the diagnostic test.
- 13. Verify proper operation before you return the product to service.

Power inlet replacement

Tools required:

- T20 Torx driver
- · Flat blade screwdriver

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.
- 7. Unplug the power inlet from the power supply.
- 8. Using a flat blade screwdriver and your finger, push out on the power inlet while you push in on each of the power inlet locks to loosen the power inlet from the front pump housing. Repeat on the other side to remove.
- 9. Remove and discard the power inlet.
- 10. Reverse the steps to reinstall (Pump housing assembly 2874-007-017 (page 24)).
- 11. Run and pass the diagnostic test.
- 12. Verify proper operation before you return the product to service.

PCB assembly replacement

Tools required:

T20 Torx driver

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- #2 Phillips screwdriver
- Protecting against electrostatic discharge (ESD) (page 6)

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.

CAUTION - Always use a grounded static strap to prevent static coming into contact with the PCB assembly.

7. Unplug all cables from the PCB assembly.

Note - Pay attention to the cable connection locations for reinstallation.

8. Grasp each of the pressure transducer hoses individually and pull out from the PCB assembly to detach each hose from the PCB assembly.

Note - Pay attention to the pressure transducer hose connection locations for reinstallation.

- 9. Using a #2 Phillips screwdriver, remove the two screws that secure the support bracket that hold the PCB assembly and the screen to the front pump housing. Save the screws and support bracket.
- 10. Using a #2 Phillips screwdriver, remove the three screws that secure the board to the screen. Save the screws.
- 11. Remove and discard the PCB assembly.
- 12. Reverse the steps to reinstall (PCBA assembly 2874-007-025 (page 31)).
- 13. Run and pass the diagnostic test.
- 14. Verify proper operation before you return the product to service.

LED board replacement

Tools required:

- T20 Torx driver
- Stubby #2 Phillips screwdriver
- Protecting against electrostatic discharge (ESD) (page 6)

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.

CAUTION - Always use a grounded static strap to prevent static coming into contact with the PCB assembly.

7. Unplug the LED board cable from the PCB assembly.

Note - Pay attention to the cable connection locations for reinstallation.

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- 8. Using a stubby #2 Phillips screwdriver, remove the four screws that secure the LED board assembly to the front pump housing assembly. Save the screws.
- 9. Unplug and save the cable from the LED board assembly.
- 10. Remove and discard the LED board assembly.
- 11. Reverse the steps to reinstall (Front LED module assembly 2874-007-030 (page 36)).
- 12. Run and pass the diagnostic test.
- 13. Verify proper operation before you return the product to service.

Solenoid/valve replacement

Tools required:

- T20 Torx driver
- #2 Phillips screwdriver
- 2.5 mm hex wrench

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.
- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.
- 7. On the solenoid/valve that needs to be replaced, make note of the hose locations first, then unplug each hose from the valve.
 - **Note** Pay attention to the hose locations for reinstallation.
- 8. Unplug the solenoid cable from the PCB.
- 9. Using a #2 Phillips screwdriver and a 2.5 mm hex wrench, remove the two screws that secure the valve bracket. Save the screws.
- 10. Remove and discard the solenoid/valve.
- 11. Reverse the steps to reinstall (3 way digital valve assembly 2874-007-028 (page 34) or 5 way digital valve assembly 2874-007-029 (page 35)).
- 12. Run and pass the diagnostic test.
- 13. Verify proper operation before you return the product to service.

Pump replacement

Tools required:

- T20 Torx driver
- · Wire cutters
- #2 Phillips screwdriver

Procedure:

- 1. Unplug the power cord from the wall outlet.
- 2. Unplug the support surface tubing from the pump.

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- 3. Place the pump front down on a work surface.
- 4. Using a T20 Torx driver, remove the six screws that secure the back pump housing to the front pump housing. Save the screws.
- 5. Using two hands, rotate the pump assembly to the right so the front is to your left.
- 6. Separate the front and back pump housing. Place the back pump housing down on the work surface.
- 7. Grasp the hose at the manifold coming from the pump and pull to remove the hose from the manifold.
- 8. Using wire cutters, cut the four zip ties that secure the pump power cable to the rest of the cables.

CAUTION - Always use a grounded static strap to prevent static coming into contact with the PCB assembly.

Note

- Use care when you cut the zip ties that you do not cut or damage the cables.
- · Replace the zip ties when you reinstall.
- 9. Unplug the pump power cable from the PCB assembly.
- 10. Using a #2 Phillips screwdriver, remove the screw that secures the pump cable p-clamp to the main frame. Remove the p-clamp. Save the screws and the p-clamp.
- 11. Using a T20 Torx driver, remove the four screws that secure the pump frame to the main frame. Save the screws.
- 12. Remove the spring from the hose and insert into the new pump assembly hose.
- 13. Remove and discard the pump assembly.
- 14. Reverse the steps to reinstall (Compressor assembly 2874-007-023 (page 29)).
- 15. Run and pass the diagnostic test.
- 16. Verify proper operation before you return the product to service.

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Preventive maintenance

Date:

Note - Consult your local regulations to dispose of electronic equipment.

WARNING - Do not modify or change this device. Service should only be completed by qualified personnel. Failure could result in injury and void your warranty.

Remove product from service before you perform preventive maintenance. At a minimum, check all items listed during annual preventive maintenance for all Stryker Medical products. You may need to perform preventive maintenance checks more often based on your level of product usage. Service only by qualified personnel

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Troubleshooting

Problem	Screen	Cause	Recommended action
Kinked air hoses	stryleer in the stryleer is a stryleer in the	Air hose is bent or an obstruction in the hose may cause air flow to be compromised TruTurn was attempted but you have a standard model (bottom cover is orange)	 Make sure that the hoses are straight and air flow is not obstructed. Press the action button next to the Alarm off icon to reset the pump. Contact sales support for TruTurn option.
Missed connection with air hoses	stryleer Stryleer	Air hoses are not connected to the pump or the support surface	1. Make sure that the hoses are seated all the way onto the hose ports on the pump or the support surface. 2. Press the action button next to the Alarm off icon to reset the pump.
			\bowtie
Power loss, product does not turn on	atryleer ©	Power cord not seated, power cord unplugged from outlet, or possible internal damage, button is stuck	 Make sure that the power cord is plugged into the product and the outlet. Secure the power cord to the flex grip. See Connecting the power cord. Replace the LCD screen.
Power loss, while TruTurn is in use	stryker ©	Unintentional or intentional power loss	Pull the hose from the pump or the support surface to activate CPR. The bladder deflates and returns the support surface to a flat position.
Button not responsive	stryker 1 1 1 1 1 1 1 1 1	Lock function active, button is stuck	 Press and hold the action button next to the locked icon for 2 seconds to turn off the lock. Replace the LCD screen. Power cycle the pump.

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Problem	Screen	Cause	Recommended action
TruTurn not shown on screen	atrylee*	Kinked hose during setup or IsoTour standard model is connected	Check for kinked hoses. Verify that you have premium bottom cover (black). Contact sales support for TruTurn option.
TruTurn shown on screen	atryler Da O	Graphical user interface shows TruTurn but you have a standard model (bottom cover is orange)	 Turn off the pump to reset the pump features. Make sure that the air hose is connected before you turn the pump on.

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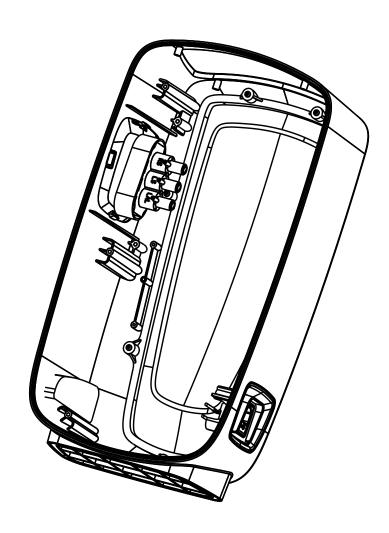
Power cords

Part	Number
Power cord, type B, 1 meter	2874-007-001
Power cord, type B, 5 meter	2874-007-002
Power cord, type E/F, 1 meter	2874-007-003
Power cord, type E/F, 5 meter	2874-007-004
Power cord, type B, 220V, 1 meter	2874-007-005
Power cord, type B, 220V, 5 meter	2874-007-006
Power cord, type J, 1 meter	2874-007-007
Power cord, type J, 5 meter	2874-007-008
Power cord, type I, 1 meter	2874-007-009
Power cord, type I, 5 meter	2874-007-010
Power cord, type G, 1 meter	2874-007-011
Power cord, type G, 5 meter	2874-007-012
Power cord, type L, 1 meter	2874-007-013
Power cord, type L, 5 meter	2874-007-014
Power cord, type N, 1 meter	2874-007-015
Power cord, type N, 5 meter	2874-007-016
Power cord, type D, 1 meter	2874-007-037
Power cord, type D, 5 meter	2874-007-038
Power cord, type M, 1 meter	2874-007-041
Power cord, type M, 5 meter	2874-007-042

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Pump housing assembly - 2874-007-017

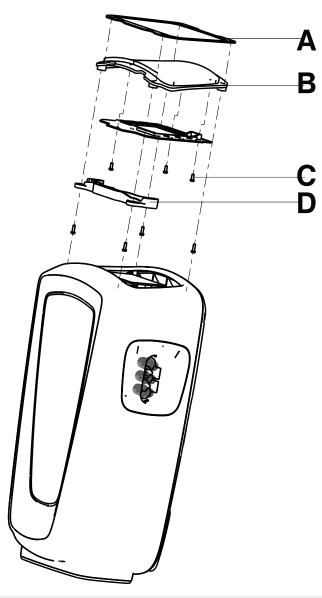
Rev AB (Reference only)



EN 24 2874-009-002 Rev AA.0

Top panel assembly - 2874-007-018

Rev AB (Reference only)

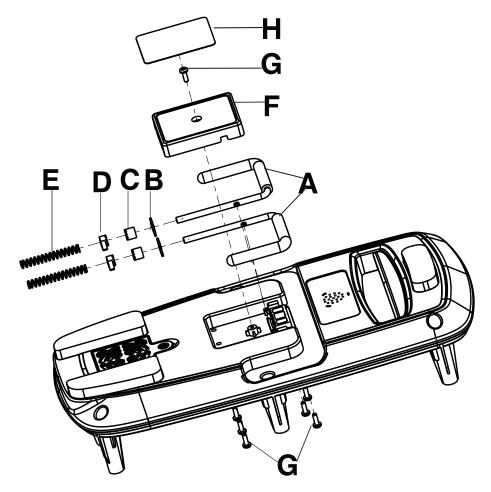


Item	Number	Name	Quantity
Α	517M064022	Gasket	1
В	Reference only	Top panel subassembly	1
С	521096S05	Screw	3
D	521M064051	Screw	4

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Hook assembly - 2874-007-019

Rev AA (Reference only)

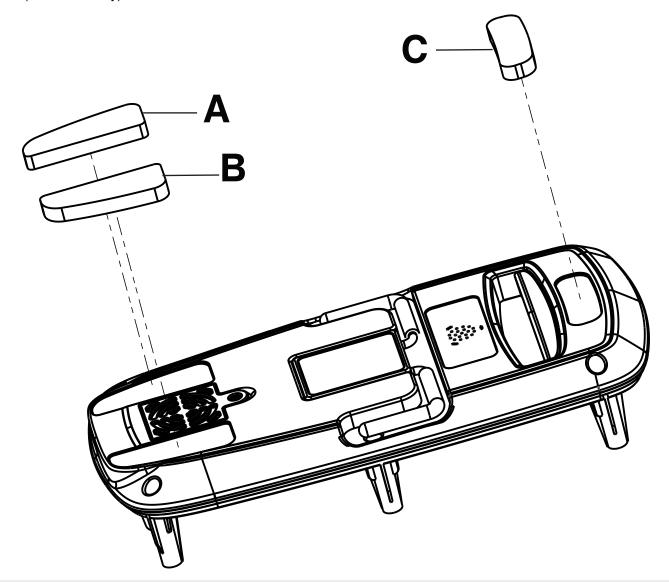


Item	Number	Name	Quantity
Α	515M064013	Hook	2
В	515M064014	Hook stopper	2
С	511M064104	Hook clutch gear A	2
D	511M064105	Hook clutch gear B	2
E	523M064001	Hook spring	2
F	511M104016	Hook back cover	1
G	521M064005	Internal screw	7
Н	622M104003	Label, hook back cover	1

EN 26 2874-009-002 Rev AA.0

Bumper pack - 2874-007-020

Rev AA (Reference only)

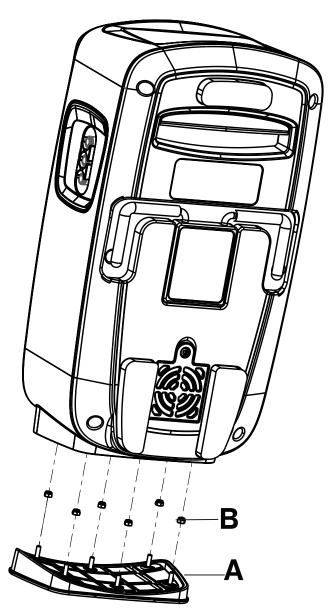


Item	Number	Name	Quantity
Α	517M104004	Bumper bottom, left	1
В	517M104005	Bumper bottom, right	1
С	517M104006	Bumper top	1

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Pump housing rubber foot assembly - 2874-007-022

Rev AA (Reference only)

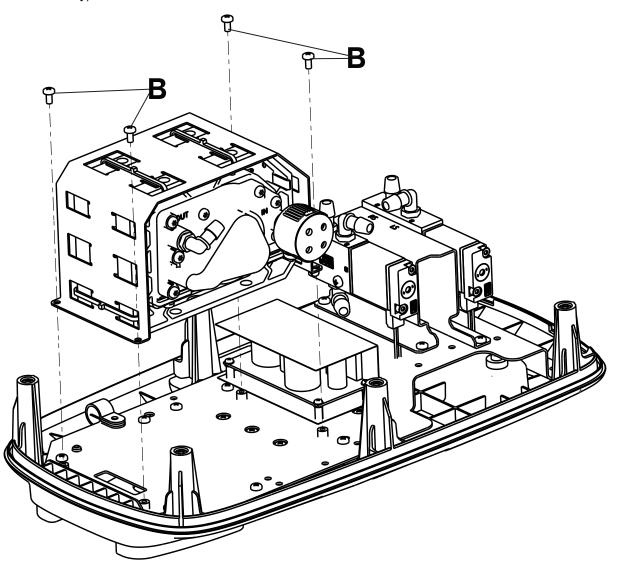


Item	Number	Name	Quantity
Α	517M104001	Molded rubber foot	1
В	521096N01	Nut fastener	6

EN 28 2874-009-002 Rev AA.0

Compressor assembly - 2874-007-023

Rev AA (Reference only)

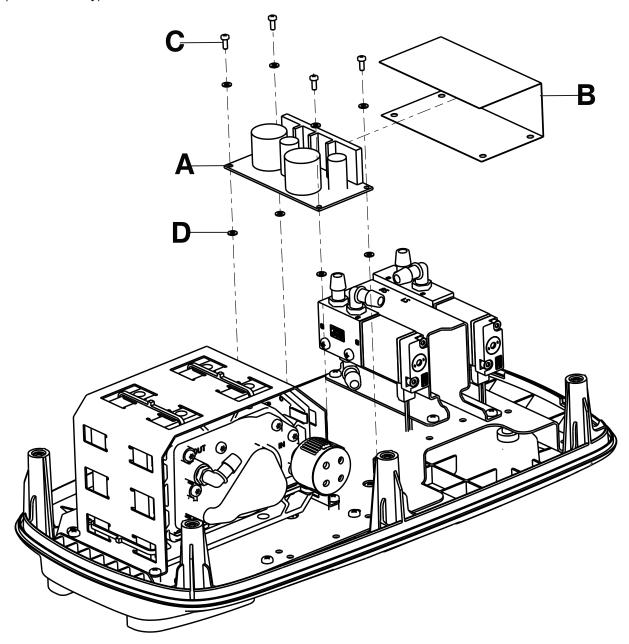


Item	Number	Name	Quantity
Α	Reference only	Compressor subassembly	1
В	521M064026	Screw	4
С	511M092013	Nylon wire tie (not shown)	6

2874-009-002 Rev AA.0 29 EN

Power supply assembly - 2874-007-024

Rev AA (Reference only)

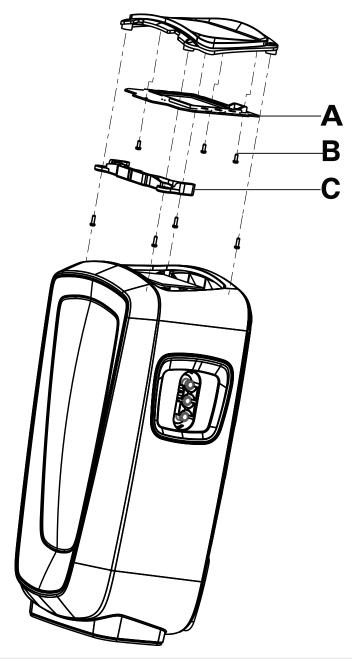


Item	Number	Name	Quantity
Α	553M104003	Power supply	1
В	521M064024	Isolation paper	1
С	521096B07	Mounting screw	4
D	521M064050	Screw gasket	8
Е	555M064028	Cable (not shown)	1
F	511M092013	Cable nylon tie (not shown)	4

EN 30 2874-009-002 Rev AA.0

PCBA assembly - 2874-007-025

Rev AA (Reference only)

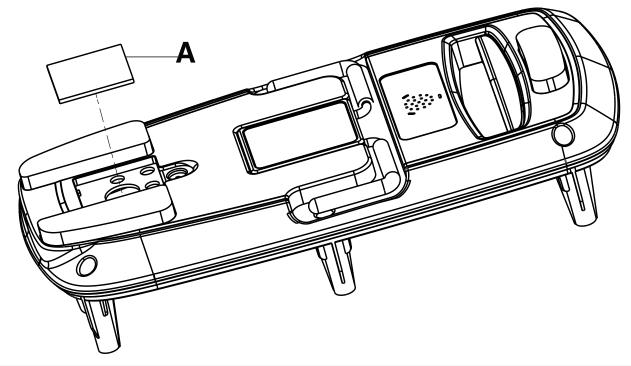


Item	Number	Name	Quantity
Α	Reference only	PCBA subassembly	1
В	521096S05	Screw	3
С	511M104013	Molded PCB holder	1

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HEPA filter - 2874-007-026

Rev AA (Reference only)

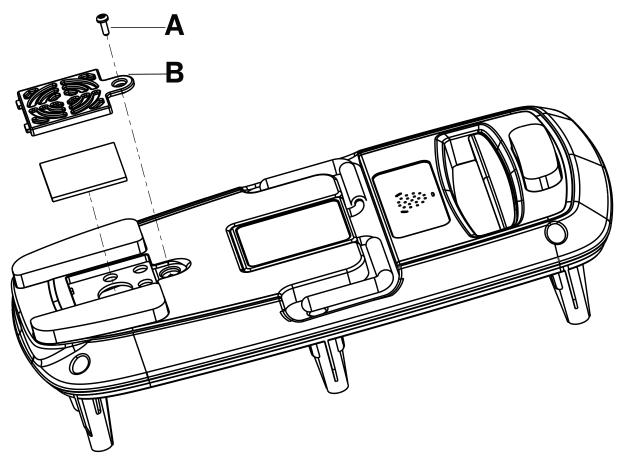


Item	Number	Name	Quantity
Α	517M104015	HEPA filter	1

EN 32 2874-009-002 Rev AA.0

Air filter guard - 2874-007-027

Rev AA (Reference only)

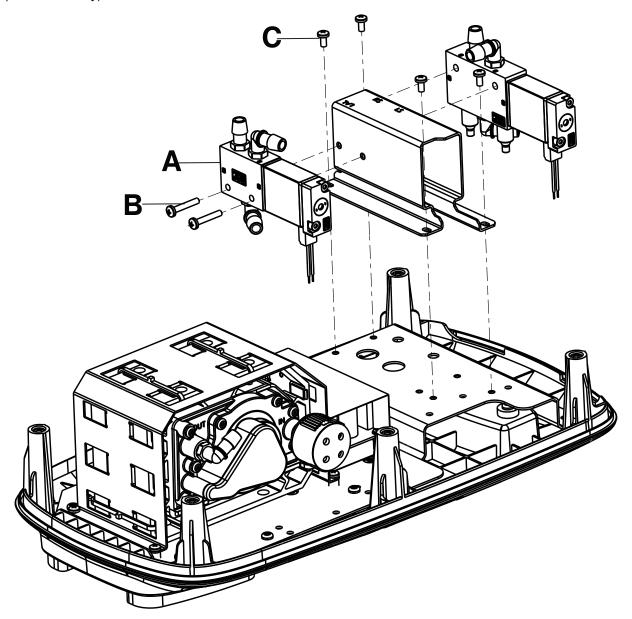


Item	Number	Name	Quantity
Α	511M104015	Molded air filter guard	1
В	521M064029	Screw	1

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3 way digital valve assembly - 2874-007-028

Rev AA (Reference only)

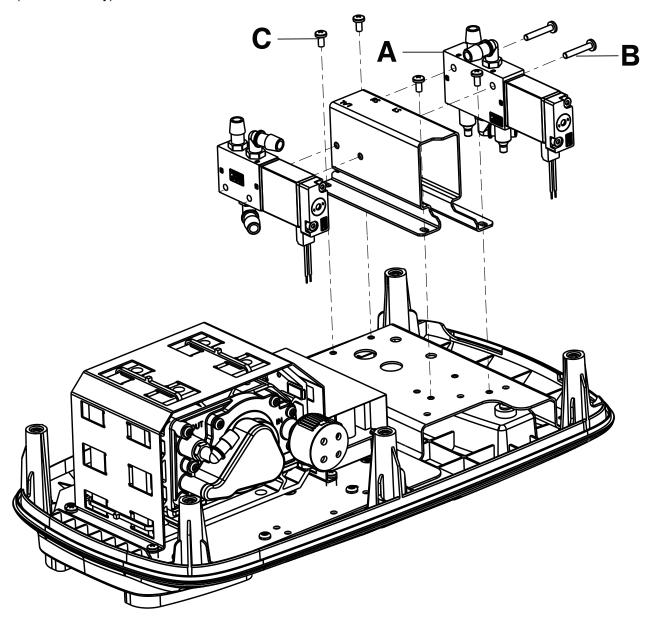


Item	Number	Name	Quantity
Α	Reference only	3 way digital valve subassembly	1
В	521M064025	Screw	2
С	521M064026	Screw	4

EN 34 2874-009-002 Rev AA.0

5 way digital valve assembly - 2874-007-029

Rev AA (Reference only)

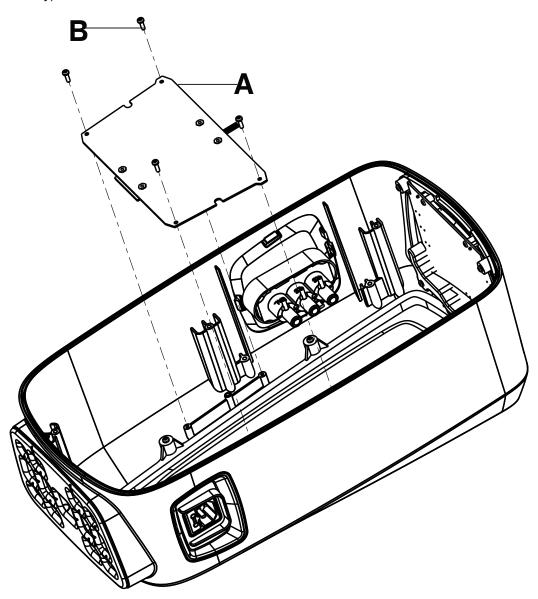


Item	Number	Name	Quantity
Α	Reference only	5 way digital valve subassembly	1
В	521M064025	Screw	2
С	521M064026	Screw	4

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Front LED module assembly - 2874-007-030

Rev AA (Reference only)

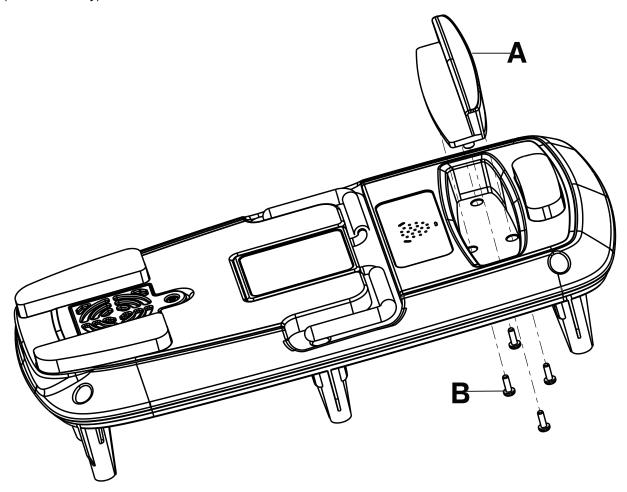


Item	Number	Name	Quantity
Α	Reference only	Front LED PCB subassembly	1
В	521M064051	Screw	4

EN 36 2874-009-002 Rev AA.0

Handle assembly - 2874-007-031

Rev AA (Reference only)

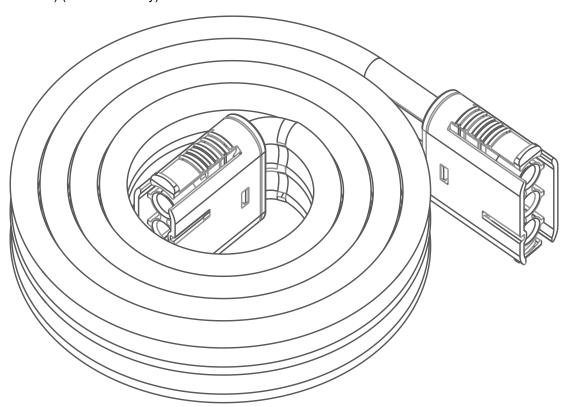


Item	Number	Name	Quantity
Α	511M104017	Molded handle	1
В	521M064005	Screw	4

2874-009-002 Rev AA.0 37 EN

Mattress hose assembly - 2874-007-034

Rev AA (518M104001) (Reference only)



EN 38 2874-009-002 Rev AA.0

EMC information

WARNING - The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.

Note

- The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.
- This equipment is suitable for use in hospitals except for near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Guidance and manufacturer's declaration - electromagnetic emissions

The 2874 **IsoTour** pump is intended for use in the electromagnetic environment specified below. The customer or the user of the 2874 **IsoTour** pump should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment
RF Emissions CISPR 11	Group 1	The 2874 IsoTour pump uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	The 2874 IsoTour pump is suitable for use in all establishments other than domestic and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations Flicker Emissions IEC 61000-3-3	Complies	

WARNING

- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of **IsoTour**, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.

Recommended separations distances between portable and mobile RF communication equipment and the 2874 IsoTour pump

The 2874 **IsoTour** pump is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the 2874 **IsoTour** pump can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the 2874 **IsoTour** pump as recommended below, according to the maximum output power of the communications equipment.

Band (MHz)	Camina	Maximum Power	Minimum Separation Distance
band (MHZ)	Service	(W)	(m)

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Recommended separat	Recommended separations distances between portable and mobile RF communication equipment and the 2874 IsoTour pump				
380-390	TETRA 400	1.8	0.3		
430-470	GMRS 460; FRS 460	2.0	0.3		
704-787	LTE Band 13, 17	0.2	0.3		
800-960	GSM 800/900; TETRA 800; iDEN 820; CDMA 850; LTE Band 5	2.0	0.3		
1,700-1,990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	2.0	0.3		
2,400-2,570	Bluetooth; WLAN; 802.11 b/g/n; RFID 2450; LTE Band 7	2.0	0.3		
5,100-5,800	WLAN 802.11 a/n	0.2	0.3		

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note - These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Guidance and manufacturer's declaration - electromagnetic immunity

The 2874 **IsoTour** pump is suitable for use in the electromagnetic environment specified below. The customer or the user of the 2874 **IsoTour** pump should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	<u>+</u> 8 kV contact <u>+</u> 15 kV air	<u>+</u> 8 kV contact <u>+</u> 15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic fast transient/ burst	±2 kV for power supply lines±1 kV for input/ output lines	±2 kV for power supply lines±1 kV for input/ output lines	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV for input/output lines	±1 kV for input/output lines	Main power quality should be that of a typical commercial or hospital environment.

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Guidance and manufacturer's declaration - electromagnetic immunity					
Voltage dips, voltage variations and short interruptions on power supply input lines IEC 61000-4-11	0%U _T for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0%U _T for 1 cycle 70%U _T (30% dip in U _T) for 25/30 cycles 0% U _T for 250/300 cycles	0%U _T for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0%U _T for 1 cycle 70%U _T (30% dip in U _T) for 25/30 cycles 0% U _T for 250/300 cycles	Main power quality should be that of a typical commercial or hospital environment. If the user of the 2874 IsoTour pump requires continued operation during power main interruptions, it is recommended that the device be powered from an uninterrupted power supply or a battery.		
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.		

 $\textbf{Note} \textbf{-} \textbf{U}_{T} \textbf{ is the a.c. mains voltage before applications of the test level}.$

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			Portable and mobile RF communications equipment should be used no closer to any part of the 2874 IsoTour pump, including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter.
			Recommended separation distance
			D=(1.2) (√ <i>P</i>) 80 MHz to 800 MHz
Conducted RF	3 Vrms		D=(2.3) (√ <i>P</i>) 800 MHz to 2.7 GHz
IEC 61000- 4-6	150 kHz to 80 MHz	3 Vrms	where <i>P</i> is the maximum
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz	3 V/m	output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <i>d</i> is the recommended separation distance in meters (m).
			Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ^a , should be less than the compliance level in each frequency range ^b .
			Interference may occur in the vicinity of equipment marked with the following symbol:

Note

- At 80 MHz and 800 MHz, the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.
- The ISM (Industrial, Scientific, and Medical) bands between 0.15 MHz and 80 MHz are 6.765 MHz to 6.795 MHz;
 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.

^aField strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the 2874 **IsoTour** pump is used exceeds the applicable RF compliance level above, the 2874 **IsoTour** pump should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the 2874 **IsoTour** pump.

bOver the frequency range 150 kHz to 80 MHz, field strengths are less than 3 Vrms.

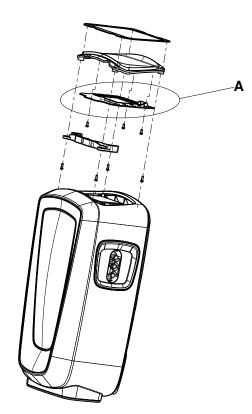
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Recycling passport

583M104002

Rev A





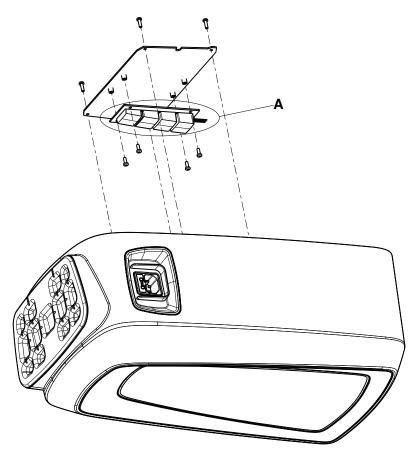
Item	Recyclable part number	Material code	Important information	Quantity
А	583M104002	Circuit board with surface > 10cm2	Bare main control PCBA and LCD	1

2874-009-002 Rev AA.0 43 EN

583M104001

Rev A





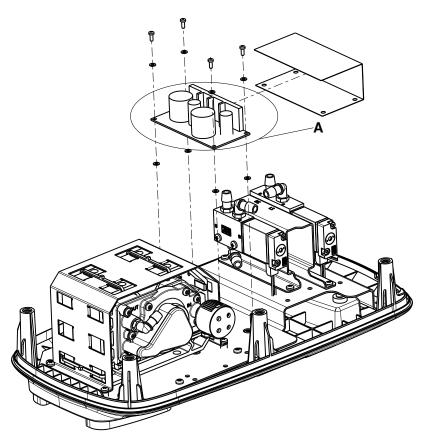
Item	Recyclable part number	Material code	Important information	Quantity
А	583M104001	Circuit board with surface > 10cm2	LED Status PCBA	1

EN 44 2874-009-002 Rev AA.0

553M104003

Rev A





Item	Recyclable part number	Material code	Important information	Quantity
А	553M104003	Circuit board with surface > 10cm2	SMPS power supply	1
		Capacitors > 25mm in height or diameter		

2874-009-002 Rev AA.0 45 EN

Rev AA



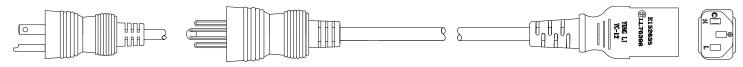


Item	Recyclable part number	Material code	Important information	Quantity
Shown	511M064098	External cable	Power cord, type B, 1 meter	1

EN 46 2874-009-002 Rev AA.0

Rev AA



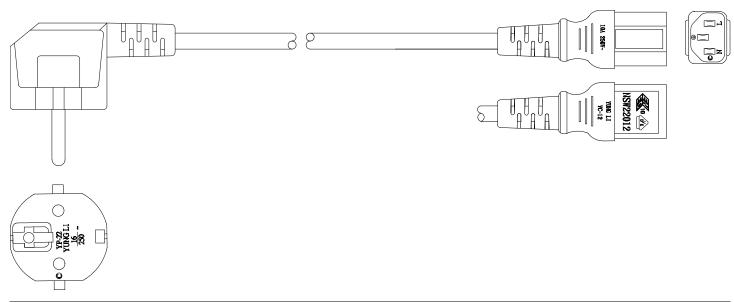


Item	Recyclable part number	Material code	Important information	Quantity
Shown	511M064099	External cable	Power cord, type B, 5 meter	1

2874-009-002 Rev AA.0 47 EN

Rev AA



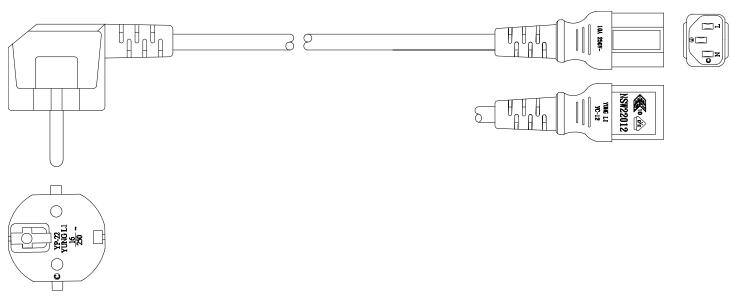


Item	Recyclable part number	Material code	Important information	Quantity
Shown	511M064049	External cable	Power cord, type E/F, 1 meter	1

EN 48 2874-009-002 Rev AA.0

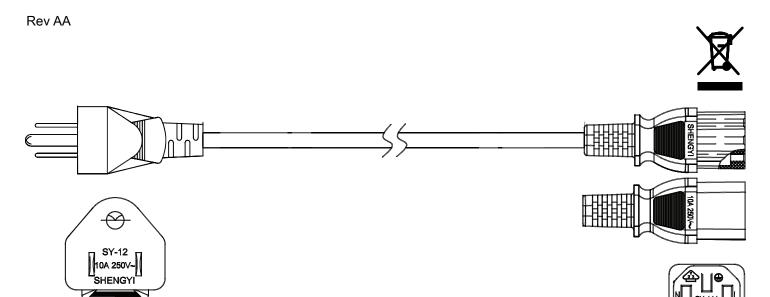
Rev AA





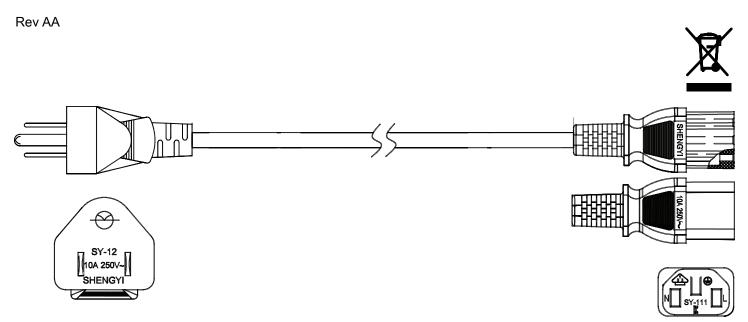
Item	Recyclable part number	Material code	Important information	Quantity
Shown	511M064050	External cable	Power cord, type E/F, 5 meter	1

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Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064056	External cable	Power cord, type B, 220V, 1 meter	1

EN 50 2874-009-002 Rev AA.0

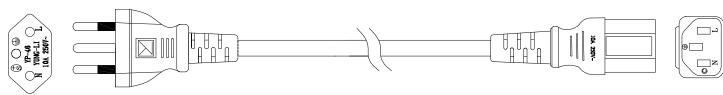


Item	Recyclable part number	Material code	Important information	Quantity
Shown	511M064057	External cable	Power cord, type B, 220V, 5 meter	1

2874-009-002 Rev AA.0 51 EN

Rev AA





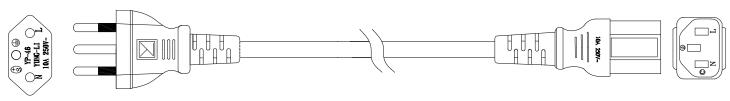


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064041	External cable	Power cord, type J, 1 meter	1

EN 52 2874-009-002 Rev AA.0

Rev AA





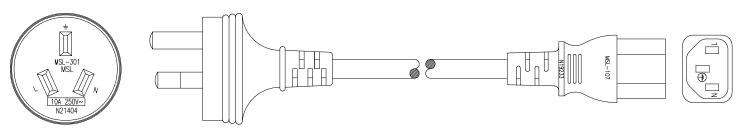


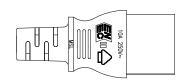
Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064042	External cable	Power cord, type J, 5 meter	1

2874-009-002 Rev AA.0 53 EN

Rev AA





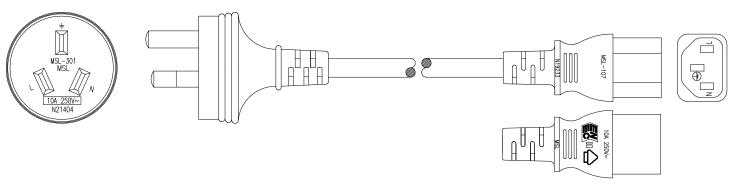


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064033	External cable	Power cord, type I, 1 meter	1

EN 54 2874-009-002 Rev AA.0

Rev AA



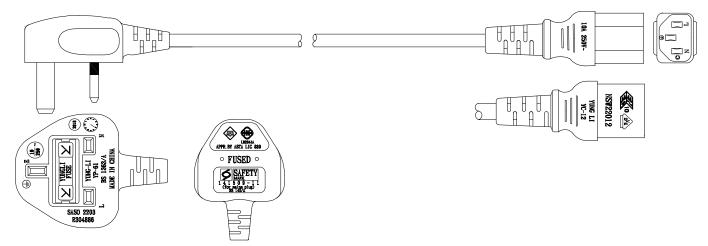


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064034	External cable	Power cord, type I, 5 meter	1

2874-009-002 Rev AA.0 55 EN

Rev AA



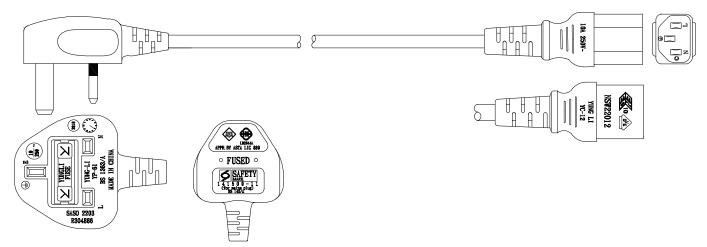


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064039	External cable	Power cord, type G, 1 meter	1

EN 56 2874-009-002 Rev AA.0

Rev AA



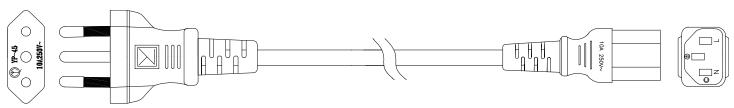


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064040	External cable	Power cord, type G, 5 meter	1

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Rev AA





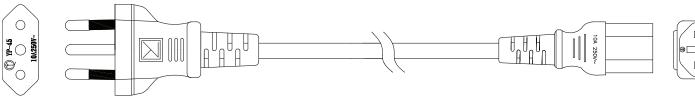


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064053	External cable	Power cord, type L, 1 meter	1

EN 58 2874-009-002 Rev AA.0

Rev AA







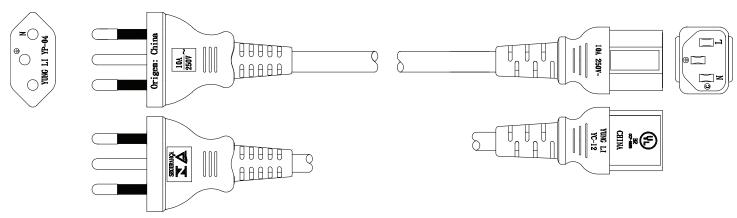


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064054	External cable	Power cord, type L, 5 meter	1

2874-009-002 Rev AA.0 59 EN

Rev AA



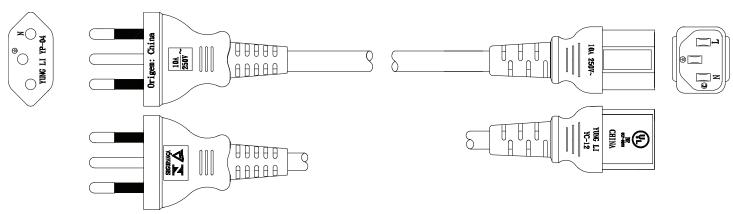


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064047	External cable	Power cord, type N, 1 meter	1

EN 60 2874-009-002 Rev AA.0

Rev AA

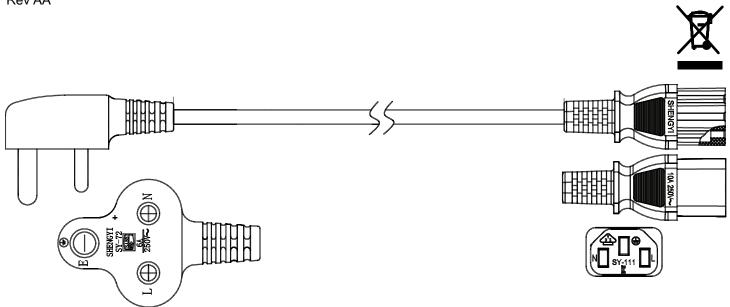




Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064048	External cable	Power cord, type N, 5 meter	1

2874-009-002 Rev AA.0 61 EN

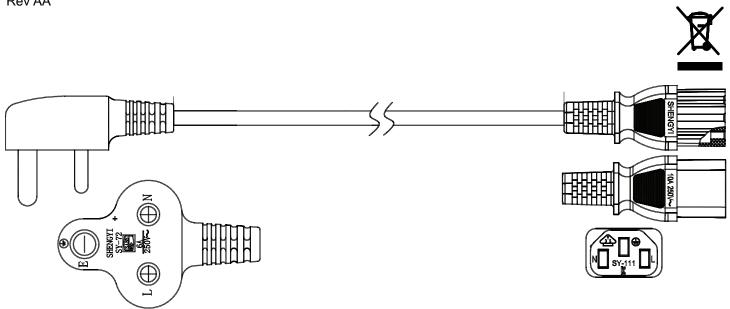
Rev AA



Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064058	External cable	Power cord, type D, 1 meter	1

EN 62 2874-009-002 Rev AA.0

Rev AA

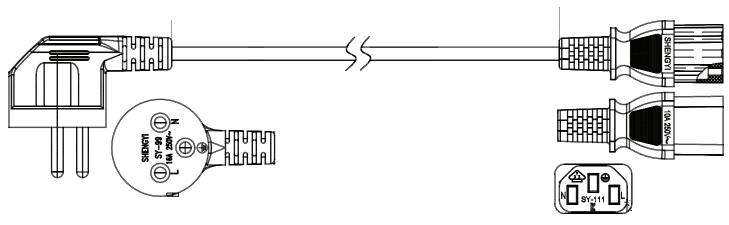


Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064059	External cable	Power cord, type D, 5 meter	1

2874-009-002 Rev AA.0 63 EN

Rev AA

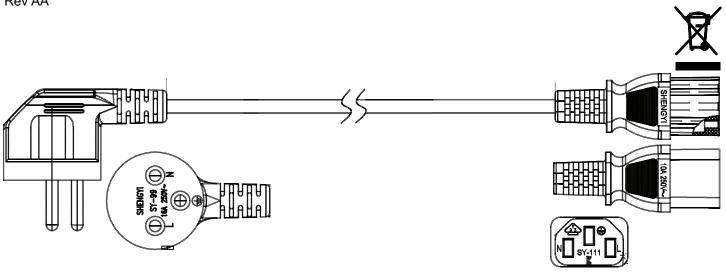




Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064062	External cable	Power cord, type M, 1 meter	1

EN 64 2874-009-002 Rev AA.0

Rev AA



Item	Recyclable part number	Material code	Important information	Quantity
Shown	555M064063	External cable	Power cord, type M, 5 meter	1

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