

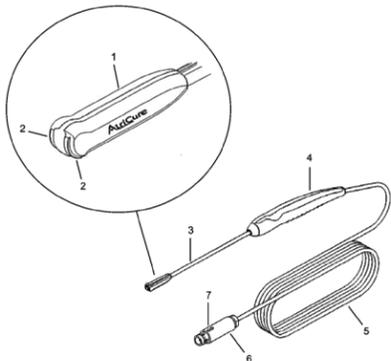
AtriCure

Isolator® Transpolar Pen System/Sistema de Caneta Isolator® Transpolar

Instructions for Use/Instruções de uso

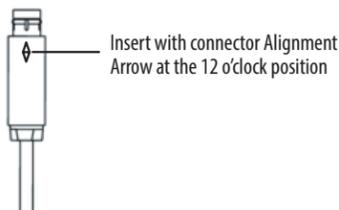
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FIGURE 1, ILLUSTRATION AND NOMENCLATURE/FIGURA 1, ILUSTRAÇÃO E NOMENCLATURA



- [1] Distal Tip
- [2] Electrodes
- [3] Malleable Shaft
- [4] Handle
- [5] Cable
- [6] Connector
- [7] Alignment Arrow (See Figure 2)

FIGURE 2/FIGURA 2



INSTRUCTIONS FOR USE EN

DESCRIPTION

The Isolator Transpolar pen System is comprised of the AtriCure® Ablation and Sensing Unit (ASU), the Isolator Transpolar pen (Pen), Footswitch, and ASU Source Switch. The Pen is a single patient use electrosurgical instrument designed for use only with the ASU2/ASU3. The Pen is used to ablate cardiac tissues and as a surgical pacing and mapping tool. When the Pen is connected to the ASU, the ASU provides the bipolar radiofrequency (RF) energy flowing between both electrodes of the Pen. The Operator controls the application of this RF energy by pressing the Footswitch. When the Pen is connected to an auxiliary pace, sense, or stimulation device, the Pen is designed to provide temporary pacing or monitoring.

INCOMPATIBLE DEVICES

OSCOR PACE 203H and ORLAB (Not included in this license).

INDICATION FOR USE

The Isolator pen is a sterile, single use electrosurgery device intended to ablate cardiac tissue during cardiac surgery using radiofrequency (RF) energy when connected directly to the ASU or ASB3 in Ablation mode.

The Isolator pen may be used for temporary cardiac pacing, sensing, recording, and stimulation during the evaluation of cardiac arrhythmias during surgery when connected to a temporary external cardiac pacemaker or recording device.

CONTRAINDICATIONS

- The device is not intended for contraceptive tubal coagulation (permanent female sterilization).

POTENTIAL COMPLICATIONS

- Possible complications related to the creation of spot or linear lesions in cardiac and soft tissues are:
- Tissue perforation
- Postoperative embolic complications
- Extension of extracorporeal bypass
- Perioperative heart rhythm disturbance (atrial and/or ventricular)
- Pericardial effusion or tamponade
- Damage to adjacent nerve and/or blood vessels
- Valve leaflet damage
- Conduction disturbances (SA/AV node)
- Acute ischemic myocardial event

⚠️ WARNINGS ⚠️

Read all instructions carefully for the AtriCure ASU, Isolator Transpolar pen, ASU Source Switch, and any compatible auxiliary device being used prior to using the device. Failure to properly follow instructions may lead to electrical or thermal injury and may result in improper function of the device.

Do not touch the electrodes of the Pen while activating the ASU.

Touching the Pen electrodes during ASU activation could result in a burn to the operator.

As with other unidirectional devices, do not place anything in front of or behind the target tissue (tissue being ablated). Any tissue within the RF energy field may experience heating and/or tissue damage. Ensure that non-target tissue is adequately separated from the RF field. Ensure non-target tissue is protected from the RF field by carefully placing and orienting the electrodes. Refer to Potential Complications list.

To prevent ineffective cardioversion, always remove the Pen from the patient during defibrillation.

To avoid the risk of patient infection, inspect the product packaging prior to opening to ensure that the sterility barrier is not breached. If the sterility barrier is breached, do not use the Pen.

The Pen device is intended for single use only. Do not RESTERILIZE.

Resterilization may cause loss of function or injury to patient.

To avoid damage to the device or sterility breach do not drop the Pen. If the Pen is dropped, do not use. Replace with a new Pen.

Ensure the full lengths of both electrodes are in contact with the targeted tissue, prior to, and throughout RF activation. Partial contact of the electrodes may produce perforations in the tissue.

Total duration of ablation(s) per lesion not to exceed recommended ablation time. Do not overlap ablations by more than 50%. Ablations exceeding recommended time and/or overlap may produce perforations in tissue.

Do not connect the ASB3 auxiliary device cable to supply main (line voltage) operated equipment without verifying isolation of the connected equipment to EN60601-1.

Supply mains operated equipment may introduce dangerous leakage currents into the heart.

⚠️ PRECAUTIONS

- Do not allow the connectors of the Pen to get wet, as this may affect the device performance.
- Do not immerse the Pen in liquids as this may damage the device.
- Do not touch the electrodes of the Pen to metal staples or clips, or to sutures while activating the ASU.
- The distal tip of the Pen must be kept clean of debris during surgery to avoid loss of power. Before activating the ASU, inspect the area at the distal tip of the Pen for foreign matter. Foreign matter captured on the tip will adversely affect the ablation.
- The Pen is only compatible with the AtriCure ASU and ASB3. Use of the Pen with another manufacturer's generator may damage the device.
- The Pen should only be used with compatible auxiliary cardiac pacing and sensing devices.
- The Pen has an eight hour useful life that is tracked by the ASU. If you attempt to plug in a device that has reached its time limit expiration, the Pen will no longer function and the ASU will display a message indicating that the Pen must be replaced.
- Excessive bending of the malleable stainless steel will cause the shaft to harden and may increase the potential for breakage. Only bend the shaft in the malleable zone.
- Use caution during device insertion and removal and if bending the malleable portion of the shaft with surgical tools.
- Electrosurgery should be used with caution in the presence of internal or external pacemakers. Interference produced with the use of the electrosurgical devices could cause devices such as pacemaker to enter an asynchronous mode or can block the pacemaker conduction entirely. Consult the pacemaker manufacturer or hospital Cardiology department for further information when use of electrosurgical appliances is planned in patients with cardiac pacemakers.

INSTRUCTIONS FOR USE

1. Using sterile technique, remove the Pen from its packaging.
2. With the Connector Alignment Arrow symbol in the 12 o'clock position, push the Connector into the Pen receptacle on the front of the ASU (See Figure 2). Verify that the connections between the Pen and the ASU are secure. If the connections are loose, do not use the Pen. Inspect the Cable and do not use the Pen if the cable is frayed or the insulation is damaged.

PACING AND MAPPING MODE

3. Connect one end of the auxiliary device cable provided with the ASB3 into the compatible auxiliary device. Connect the other end of the auxiliary device cable into one set of PSS ports on the ASB3.
4. Rotate the ASB3 knob to indicate the PSS port used.
5. Turn on the temporary pacing or sensing equipment and ensure proper connections to validate electrical continuity. For detailed instructions refer to temporary pacemaker manual.
6. Settings and procedures for the auxiliary device are determined according to the instructions for use provided with the auxiliary device. Set auxiliary device to atrial asynchronous mode (sensing disabled or increased to maximum value).

Note: The Pen will pace when the auxiliary device is in the ON position.

7. Identify and expose the sites for pacing and sensing using standard surgical techniques. Under direct visualization, place the electrodes against the targeted tissue. Assure both electrodes are in contact with targeted tissue
8. Ensure the pacing is only on when the end effector is in contact with the targeted tissue. The device will pace when the auxiliary device pacing is on.
9. For sensing (mapping), place the distal tip onto the targeted tissue to display the electrogram (EGM).
10. Upon completion of the surgical procedure, disconnect the Pen from the ASB3 and discard the Pen after use. Follow local governing ordinances and recycling plans regarding disposal or recycling of device component.

ABLATION MODE

11. Rotate the ASB3 knob to indicate the Pen port used.

12. Painting ablation technique

- a) Maintaining visualization, move the distal tip gently across the targeted cardiac tissue.
- b) While maintaining continuous contact between the tissue and the electrodes, move the device continuously in an oscillating manner at a rate of approximately 1cm/sec.

Painting Lesion Thickness*
20 seconds 2 cm (0.79 inches) oscillation
2.0 - 4.0 mm (0.079 - 0.16 inches)

*Data was obtained from ablations performed on excised bovine myocardium and represent 95% confidence intervals. Results may vary based on live tissue properties.

13. Stamping Ablation technique:

- a) Apply constant firm pressure to the tissue without movement. Maintain full contact of the electrode surface with the tissue. A stamping lesion is approximately 8 mm x 6 mm (0.31 in x 0.24 in).
- b) If creating longer lesions with the Stamp technique, overlap the contiguous ablations by 50% to ensure a continuous and complete lesion.

Stamp Lesion Thickness*	
10 seconds	15 seconds
3.3 - 3.8 mm (0.13 - 0.15 inches)	3.8 - 4.4mm (0.15 - 0.17 inches)

*Data was obtained from ablations performed on excised bovine myocardium and represent 95% confidence intervals. Results may vary based on live tissue properties.

14. Press the Footswitch to activate the ASU.

15. When the Footswitch is pressed, the ASU will emit an audible tone indicating that current is flowing between the electrodes located at the distal tip of the Pen and through the tissue.

16. Inspect the surgical area to ensure adequate ablation.

17. Between ablations, wipe the distal tip clean with a saline soaked gauze pad. Important: For optimal performance, keep the Pen electrodes clear of coagulum. To ensure the electrodes are clear of coagulum.

- a) Use saline-soaked gauze to clean the electrodes after each ablation. The coagulum is much easier to remove within the first several seconds after ablation. In a brief period of time, the coagulum may dry making removal of coagulum more difficult.
- b) Check both electrodes before each ablation to ensure that the gold of each electrode is visible and coagulum is removed.

18. If the Pen is idle between ablations, place the Pen distal tip onto saline soaked gauze to prevent any coagulum not cleaned off the electrodes from drying. Repeat ablation if necessary.

19. Upon completion of the surgical procedure, disconnect the Pen from the ASU/ASB3 and discard the Pen after use. Follow local governing ordinances and recycling plans regarding disposal or recycling of device component.

HOW SUPPLIED

The Isolator is supplied STERILE and NON-PYROGENIC in unopened, undamaged package. For single use only. Do not re-sterilize. Do Not Re-Use.

RETURN OF USED PRODUCT

If for any reason this product must be returned to AtriCure, Inc., a return goods authorization (RGA) number is required from AtriCure, Inc., prior to shipping. If the product has been in contact with blood or body fluids, it must be thoroughly cleaned and disinfected before packing. It should be shipped in either the original carton or an equivalent carton, to prevent damage during shipment; and it should be properly labeled with an RGA number and an indication of the biohazardous nature of the contents of shipment. Instructions for cleaning and materials, including appropriate shipping containers, proper labeling, and an RGA number may be obtained from AtriCure, Inc.

⚠️ CAUTION: It is the responsibility of the health care institution to adequately prepare and identify the products for shipment.

DISCLAIMER STATEMENTS

Users assume responsibility for approving the acceptable condition of this product before it is used, and for ensuring that the product is only used in the manner described in these instructions for use, including, but not limited to, ensuring that the product is not re-used.

Under no circumstances will AtriCure, Inc. be responsible for any incidental, special or consequential loss, damage, or expense, which is the result of the deliberate misuse or re-use of this product, including any loss, damage, or expense which is related to personal injury or damage to property.

INSTRUÇÕES DE USO BZ-PT

DESCRIÇÃO

O sistema de caneta Isolator Transpolar é composto pela Unidade de ablação e detecção (ASU) AtriCure®, pela caneta Isolator Transpolar (Pen), pelo pedal e pela chave de alimentação da ASU. A caneta é um instrumento eletrocirúrgico de uso em um único paciente projetado para uso apenas com a ASU2/ASU3. A caneta é usada para ablação de tecidos cardíacos e como uma ferramenta de estimulação e mapeamento cirúrgico. Quando a caneta é conectada à ASU, esta fornece a energia de radiofrequência (RF) bipolar que flui entre os dois eletrodos da caneta. O operador controla a aplicação desta energia de RF pressionando o pedal. Quando a caneta é conectada a um dispositivo auxiliar de estimulação, sensor ou ritmo; ela fornece estimulação ou monitoramento temporário.

NOMENCLATURA DA CANETA ISOLATOR™ TT LONG (VEJA A FIGURA 1)

- [1] Ponta distal
- [2] Eletrodos
- [3] Dobra maleável
- [4] Cabo
- [5] Cabo
- [6] Conector
- [7] Seta de alinhamento (veja a Figura 2)

DISPOSITIVOS COMPATÍVEIS

OSCOR PACE 203H e ORLAB (não incluídos nesta licença).

USO INDICADO

A caneta Isolator é um dispositivo de eletrocirurgia estéril, de uso único, destinado à ablação de tecido cardíaco durante a cirurgia cardíaca utilizando energia de radiofrequência (RF) quando ligada diretamente à ASU ou ASB3 em modo de ablação.

A caneta Isolator pode ser usada para estimulação cardíaca temporária, detecção, gravação e estimulação durante a avaliação de arritmias cardíacas durante a cirurgia, quando conectada a um marcapasso cardíaco externo temporário ou dispositivo de gravação.

CONTRAINDICAÇÕES

- O dispositivo não se destina à coagulação tubária contraceptiva (esterilização feminina permanente).

POSSÍVEIS COMPLICAÇÕES

- Possíveis complicações relacionadas com a criação de lesões pontuais ou lineares em tecidos moles e cardíacos são:
- Perfuração de tecido
- Complicações embólicas pós-operatórias
- Extensão do bypass extracorpóreo
- Distúrbio perioperatório do ritmo cardíaco (atrial e/ou ventricular)
- Efusão pericárdica ou tamponamento
- Danos nos nervos adjacentes e/ou vasos sanguíneos
- Danos no folheto da válvula
- Distúrbios de condução (nó SA/AV)
- Evento isquêmico agudo do miocárdio

⚠️ AVISOS ⚠️

Antes do uso, leia cuidadosamente todas as instruções para a AtriCure ASU, caneta Isolator Transpolar, chave de alimentação da ASU e qualquer dispositivo auxiliar compatível a ser usado. O não cumprimento dessas instruções pode levar a ferimentos no paciente e provocar o funcionamento inadequado do dispositivo.

Não toque nos eletrodos da caneta enquanto ativa a ASU.

Tocar nos eletrodos da caneta durante a ativação da ASU pode causar queimaduras no operador.

Como com outros dispositivos unidirecionais, não coloque nada na frente ou atrás do tecido alvo (tecido que sofrerá ablação). Qualquer tecido dentro do campo de energia de RF pode sofrer aquecimento e/ou danos teciduais. Certifique-se de que o tecido não-alvo esteja devidamente separado do campo de RF. Certifique-se de que o tecido não-alvo esteja protegido do campo de RF, colocando e orientando cuidadosamente os eletrodos. Consulte a lista de Possíveis complicações.

Para evitar a cardioversão ineficaz, sempre retire a caneta do paciente durante a desfibrilação.

Para evitar o risco de infecção no paciente, inspecione a embalagem do produto antes de abrir para ter certeza de que a barreira estéril não está quebrada. Se a barreira estéril estiver violada, não utilize a caneta.

O dispositivo da caneta deve ser usado apenas uma vez. Não REESTERILIZE.

A reesterilização pode causar perda de função ou lesões no paciente.

Para evitar danos ao dispositivo ou violação da esterilidade, não derrube a caneta.

Se a caneta cair, não a utilize. Troque-a por uma nova caneta.

Certifique-se de que os comprimentos completos de ambos os eletrodos estejam em contato com o tecido-alvo antes e durante toda a ativação de RF. O contato parcial dos eletrodos pode produzir perfurações no tecido.

A duração total da(s) ablação(ões) por lesão não deve exceder o tempo de ablação recomendado.

Não sobreponha as ablações em mais de 50%. Se as ablações excederem o tempo recomendado e/ou forem sobrepostas, elas poderão produzir perfurações no tecido.

Não conecte o cabo do dispositivo auxiliar ASB3 para alimentar o equipamento principal (tensão de linha) sem verificar o isolamento do equipamento conectado à EN60601-1.

O equipamento operado pela rede de alimentação pode introduzir correntes de fuga perigosas no coração.

