



ENDO TEST II MANUAL

INSTRUCTIONS FOR USE



UNIT SET UP:

1. PLACE UNIT ON A LEVEL SURFACE IN THE AREA TO BE USED (CENTRAL STERILIZATION, OR, ETC.)
2. ATTACH FOOTSWITCH TO THE SOCKET IN THE BACK OF THE UNIT.
3. TURN ON TO TEST CHARGE THE BATTERY.

NOTE: IF THE BATTERY IS LOW THE YELLOW WARNING LIGHT ABOVE THE POWER SWITCH WILL LIGHT UP INDICATING THAT THE UNIT NEEDS TO BE CHARGED. PLUG THE CHARGER INTO THE BACK OF THE UNIT AND A STANDARD AC OUTLET AND LET IT CHARGE FOR A MINIMUM OF 4 HOURS.

IMPORTANT SAFETY NOTICE: NEVER USE UNIT FOR TEST PROCEDURES WITH CHARGER CONNECTED TO UNIT.

INSULATION TESTING ON LAPAROSCOPIC INSTRUMENTS

1. INSERT A SPONGE (CHOOSE SPONGE TO BE USED BY INSTRUMENT SHAFT DIAMETER, SIZE TO BE TESTED 3MM DIAMETER, (C1), 5MM DIAMETER, (C2), 10MM DIAMETER, (C3), INTO THE TEST ELECTRODE (2) BY PRESSING THE MIDDLE PART OF THE ELECTRODE, USING THE THUMB AND THE INDEX FINGER, CENTER THE SPONGE AND RELEASE PRESSURE ON ELECTRODE SHAFT.
2. THOROUGHLY MOISTEN THE SPONGE WITH SALINE (SUGGESTED) OR DISTILLED WATER (SQUEEZE OUT EXCESS WATER). NOTE: IF USED IN STERILE FIELD, FLUIDS SPONGE, ELECTRODE MUST BE STERILIZED AND FLUIDS USED MUST BE STERILE.
3. INSERT THE INSULATION TEST ELECTRODE (2) INTO SOCKET (B) LOCATED ON THE RIGHT SIDE OF THE SOCKET BAR.

TESTING SHAFT INSULATION ONLY

1. ATTACH CABLE (1) FEMALE BANANA PLUG OF THE INSTRUMENT RF-POST. PLUG MALE BANANA PLUG INTO SOCKET (A) ON THE TEST UNIT.
2. HOLD INSTRUMENT AT HANDLE, ACTIVATE FOOTSWITCH ON UNIT—INSERT TIP OF INSTRUMENT INTO SPONGE HOLDER, SLOWLY PUSH INSTRUMENT SHAFT ALL THE WAY TOWARDS THE HANDLE ASSEMBLY. IF A DEFECT IS FOUND ON THE SHAFT INSULATION ON THE UNIT ALARM LIGHT AND BUZZER WILL SOUND ALERTING USER OF THE DEFECT.
3. DO A PHYSICAL INSPECTION OF THIS AREA TO CONFIRM AND REPAIR INSTRUMENT AS NECESSARY BEFORE USING IT IN A SURGICAL PROCEDURE.

TESTING SHAFT AND HANDLE INSULATION

LAPAROSCOPIC INSTRUMENT

1. ATTACH CABLE (1) FEMALE BANANA PLUG TO INSTRUMENT RF- POST. PLUG MALE BANANA PLUG INTO SOCKET (A) ON THE TEST UNIT.
2. PLUG IN INSULATED TEST ELECTRODE HANDLE (3) INTO SOCKET (B) ON UNIT. INSERT INSULATION TEST ELECTRODE (2) INTO INSULATED TEST ELECTRODE HANDLE (3). INSERT A SPONGE INTO THE TEST ELECTRODE WITH ABOUT ¼" OF THE SPONGE STICKING OUT ON TOP.
3. THOROUGHLY MOISTEN SPONGE WITH SALINE (SUGGESTED) OR DISTILLED WATER (SQUEEZE OUT EXCESS WATER).
4. HOLD THE INSTRUMENT AT THE HANDLE IN ONE HAND AND WITH THE OTHER HAND HOLD THE INSULATED TEST ELECTRODE HANDLE. WITH THE UNIT TURNED ON, ACTIVATE THE FOOTSWITCH AND SWIPE THE UPPER PART OF THE SPONGE ALONG ALL PARTS OF THE SHAFT. IF THERE IS AN INSULATION FAILURE THE FAILURE LIGHT AND ALARM WILL ACTIVATE.
5. PROCEED TO WIPE DOWN THE HANDLE IN THE SAME FASHION. IF THERE IS AN INSULATION FAILURE THE ALARM WILL ACTIVATE WHEN THE DEFECTIVE SPOT IS TOUCHED.
6. DO A PHYSICAL INSPECTION OF THIS AREA TO CONFIRM FAILURE AND REPAIR INSTRUMENT AS NECESSARY BEFORE USING IT IN A SURGICAL PROCEDURE.

INSULATION TESTING ON MONOPOLAR + BIPOLAR FORCEPS

MONOPOLAR FORCEPS

1. CONNECT THE ALLIGATOR CLIP (4) TO THE FEMALE END OF THE TEST CABLE (1). PLUG THE MALE END OF THE CABLE INTO THE SOCKET (A). CLIP THE ALLIGATOR CLIP TO EXPOSED METAL ON THE FORCEPS TO BE TESTED. CONNECT INSULATED TEST HANDLE (3) TO SOCKET (B) OF THE UNIT AND INSERT INSULATION TEST ELECTRODE (2) INTO HANDLE (3). INSERT A SPONGE OF THE APPROPRIATE SIZE WITH ¼" STICKING OUT ON THE TOP AND MOISTENED IT WITH SALINE OR DISTILLED WATER (SQUEEZE OUT EXCESS WATER).
2. HOLD THE FORCEPS IN ONE HAND AND THE INSULATED TEST IN THE OTHER. ACTIVATE THE FOOTSWITCH AND WITH THE UPPER PART OF THE SPONGE, SWIPE ALL INSULATED PARTS OF THE FORCEPS.
3. IF AN INSULATION FAILURE IS DETECTED THE FAILURE LIGHT AND AUDIBLE ALARM WILL ACTIVATE. CONFIRM FAILURE WITH PHYSICAL INSPECTION OF THE AREA AND PERFORM NECESSARY REPAIRS BEFORE USING THE INSTRUMENT IN A SURGICAL PROCEDURE.

BIPOLAR FORCEPS

1. THE SET UP OF THE UNIT AND ACCESSORIES IS THE SAME AS TESTING MONOPOLAR FORCEPS. CONNECT THE ALLIGATOR CLIP TO ONE TIP OF THE FORCEPS.
2. WITH THE FORCEPS IN ONE HAND AND THE INSULATED TEST HANDLE (3) IN THE OTHER, ACTIVATE THE FOOTSWITCH AND WITH THE UPPER PART OF THE SPONGE SWIPE THE INSULATION ON THE ONE SHANK WHERE THE CLIP IS CONNECTED. IF AN INSULATION FAILURE IS DETECTED AND THE ALARM IS ACTIVATED, CONFIRM THE INSULATION DAMAGE WITH A PHYSICAL INSPECTION AND PROCEED WITH THE NECESSARY REPAIRS BEFORE USING IT IN SURGICAL PROCEDURES.
3. IF NO LARM SOUNDS, PROCEED TO THE SECOND SHANK OF THE FORCEPS, CLIP THE ALLIGATOR CLIP ON THE TIP AND PERFORM THE PREVIOUS STEPS.

NOTE: THE SAME TEST PROCEDURE CAN BE USED ON ANY INSULATED INSTRUMENT WITH THE UNIT SET UP AS DESCRIBED ABOVE.

IMPORTANT

WHEN PERFORMING ALL TESTS AND THE UNIT IS ACTIVATED, **DO NOT** COME INTO CONTACT (PHYSICALLY) WITH ANY PART OF THE INSTRUMENT THAT IS NOT INSULATED.

MONOPOLAR & BIPOLAR CABLE TESTING

IMPORTANT: VISUALLY INSPECT THE CABLE FOR NICKS AND CUTS OR FRAYING OF THE INSULATION, MAKING SURE PLUGS ARE TIGHT ON THE CABLE AND IN THE PROPER WORKING ORDER.

MONOPOLAR CABLE TEST

1. TURN THE POWER SWITCH ON.
2. DEPENDING ON THE CABLES TO BE TESTED, ONE SIDE OF THE CABLE HAS TO BE PLUGGED INTO SOCKET (C) AND THE OTHER END INTO SOCKET (D) OR (E) OF THE UNIT. IF THE FULL CURRENT FLOW IS ACHIEVED THE GREEN LIGHT AND SOUND WILL ACTIVATE INDICATING THE CABLE IS IN GOOD WORKING ORDER.

NOTE: IF THE CABLE BEING TESTED DOES NOT HAVE EITHER A MALE OR FEMALE INSTRUMENT PLUG, THE TEST CAN BE COMPLETED BY TOUCHING THE INSIDE METAL CONNECTOR TO THE 4MM MALE/MALE ADAPTER PLUG (5) INSERTED INTO THE SOCKET (E) ON THE TEST UNIT.

BIPOLAR CABLE TEST

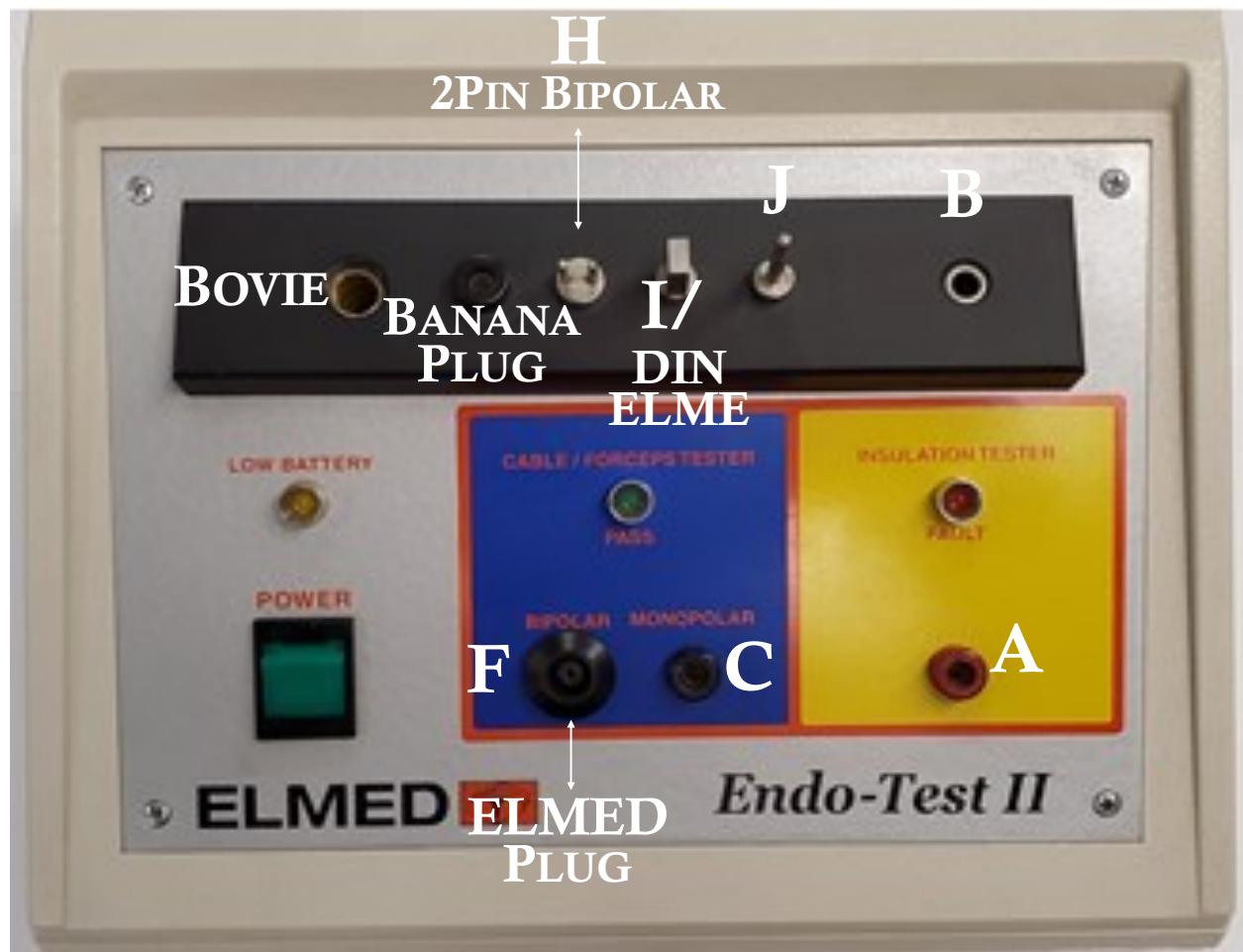
1. TURN ON THE POWER SWITCH
2. PLUG IN THE UNIT SIDE (USUALLY 2 MALE BANANA PLUGS) OF THE CABLE INTO THE CABLE ADAPTER (6). THE CABLE ADAPTER (6) NEEDS TO BE PLUGGED INTO THE SOCKET (F) OF THE UNIT. IF YOUR BIPOLAR CABLE HAS THE EUROPEAN STYLE UNIT PLUG YOU CAN CONNECT IT DIRECTLY TO THE SOCKET (F) WITHOUT CABLE ADAPTER (6).
3. PLUG IN THE INSTRUMENT SIDE PLUG OF THE CABLE INTO ONE OF THE TERMINAL PLUGS ON THE
 - a. TESTER TERMINAL BAR (G).
 - b. TESTER TERMINAL BAR 2 PIN PLUG (H)
 - c. TESTER TERMINAL BAR SQUARE DIN PLUG (I)
 - d. TESTER TERMINAL BAR WOLF/STORZ/ELMED LAP BIPOLAR FORCEPS PLUG (J)
4. IF THE CURRENT FLOW IS ACHIEVED THE GREEN LIGHT AND SOUND WILL ACTIVATE, INDICATING THE CABLE IS IN GOOD WORKING ORDER.

MONOPOLAR FORCEPS TEST

1. TURN ON POWER SWITCH
2. WITH THE PROPER CABLE CONNECTED TO THE FORCEPS, PLUG IN THE CABLE INTO SOCKET (C) AND TOUCH THE TIP OF THE FORCEPS TO SOCKET (D) ON THE TERMINAL BAR.
3. IF THE PROPER CURRENT FLOW IS ACHIEVED THE GREEN LIGHT AND AUDIBLE SOUND INDICATOR WILL ACTIVATE INDICATING THE FORCEPS AND CABLE ARE WORKING WITH REGARDS TO CURRENT FLOW.

BIPOLAR FORCEPS TEST

1. TURN ON THE POWER SWITCH
2. WITH THE PROPER CABLE CONNECTED TO THE FORCEPS DEPENDING ON THE CABLE UNIT CONNECTOR PLUG IN DIRECTLY OR WITH CABLE CONNECTOR (6) INTO SOCKET (F) ON THE TEST UNIT. TOUCH THE DIN PLUG WITH THE FORCEPS END.
3. IF PROPER CURRENT FLOW IS ACHIEVED THE GREEN LIGHT AND AUDIBLE SOUND INDICATOR WILL ACTIVATE INDICATING THE FORCEPS AND CABLE IS WORKING WITH REGARD TO CURRENT FLOW.
4. USING THE SAME TEST PROCEDURE THE TEST CAN BE PERFORMED ON MONOPOLAR AND BIPOLAR LAPAROSCOPIC HAND INSTRUMENTS INCLUDING THE KLEPPINGER TYPE FORCEPS.



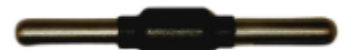
FEMALE BANANA PLUG (1)



INSULATION TEST ELECTRODE (2)
INSULATED TEST ELECTRODE HANDLE (3)



ALLIGATOR CLIP (4)



4MM MALE/MALE
ADAPTER PLUG (5)



CABLE CONNECTOR
(6)



FOOTSWITCH



CAPACITY TESTER



ADAPTER PLUG