

HAND-HELD CONTROL REPAIR INSTRUCTIONS

May 5, 2004
Lit. No. 96455

CAUTION

Circuit board may be damaged by static electricity. Always touch ground before handling PC board.

Before disassembling control and touching the PC board, be sure to remove any static charge from yourself. Static charge can build up as a technician works on the control. Best practice is to work at a properly grounded work station with a grounded wrist strap attached to the technician. In place of proper work station, the technician should work in an oil and solvent free area and touch a good ground each time before touching the PC board while servicing the unit.

Handle the PC board by the edges only.

Do not touch the carbon (black) areas of the keypad. Your skin oils will deteriorate the contact area.

Depending on part or parts being replaced, some or all of the following steps apply.

1. Place control on its side with assembly screws up. Remove screws and top half of control body, leaving PC board and cord with lower half.
2. Touch ground if not at grounded work station before removing PC board and coil cord from control body.
3. Carefully disconnect cord from PC board.
4. If replacing keypad, gently remove keypad from top of PC board.
5. Touch ground if not at grounded work station. Remove new PC board from static bag. PC board is now safe to handle as long as contact with board is maintained. If it is necessary to set down PC board, return it to the anti static bag. Again, touch ground if not at grounded work station before picking up board.
6. If replacing keypad, assemble keypad to PC board by inserting alignment tabs through holes in board and gently tugging on tabs to mate keypad against board.
7. Attach coil cord to back of PC board. Coil cord connector is polarized to insure proper polarity.
8. Slide PC board, then keypad into lower half of control body. Route wires in control body and insert strain relief in lower end of control body.
9. Place top half of control body on assembly and reinstall retaining screws.

JOYSTICK CONTROL REPAIR INSTRUCTIONS

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Depending on part or parts being replaced, some or all of the following steps apply.

1. Turn control upside down (lever down). While holding control body together, remove the three screws holding control together.
2. While holding control body, take hold of cord next to strain relief at control body and gently work strain relief out of groove in control body. This will remove the bottom control housing (base) and PC board with cord as a unit.
3. Touch ground if not at a grounded work station. Carefully remove the PC board and cord from base.
4. Separate cord connector from PC board.
5. Touch ground if not at grounded work station. Remove new PC board from static bag. PC board is now safe to handle as long as contact with board is maintained. If it is necessary to set down PC board, return it to the anti static bag. Again, touch ground if not at grounded work station before picking up board.
6. Attach cord connector to PC board. Cord connector is polarized to insure proper polarity.
7. Assemble PC board with cord to control base. Ensure strain relief is sitting on tab of base.
8. Start strain relief into groove of control top as top is assembled to base and PC board assembly.
9. Hold base and top together while turning assembly over to install the three assembly screws.

The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used.

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