

TITLE

**MITER SAW**

BULLETIN

**58-01-6901**

MILWAUKEE ELECTRIC TOOL CORP. 13135 WEST LISBON RD. BROOKFIELD, WIS.

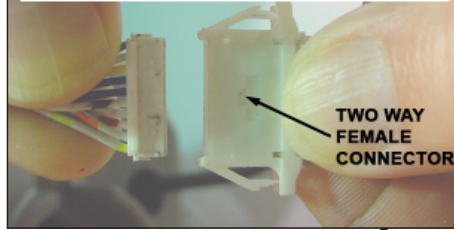
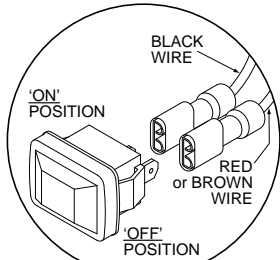
DATE  
Sept. 2011

**AS AN AID TO REASSEMBLY, TAKE NOTE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.**

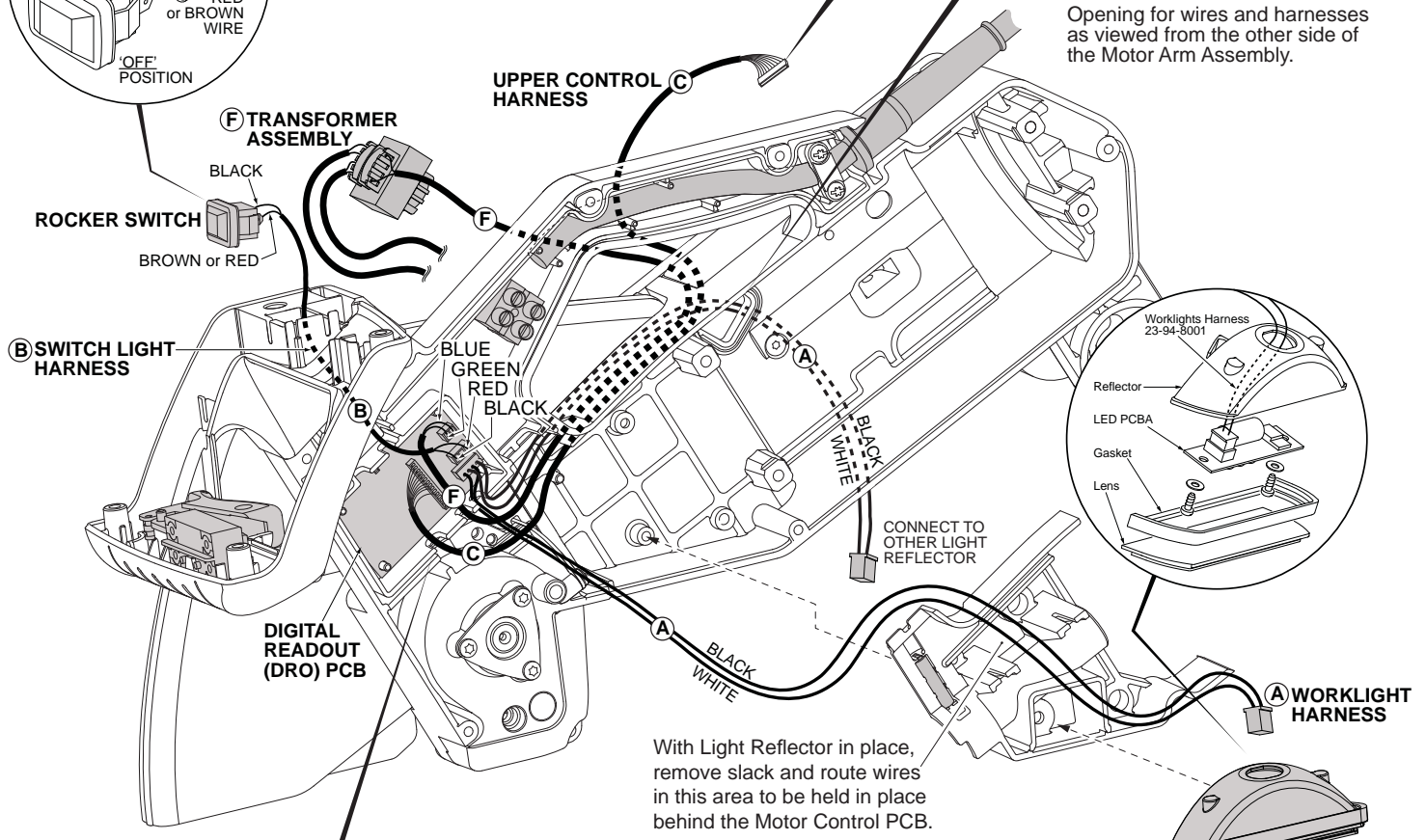
**TWO WAY FEMALE CONNECTOR MUST BE CAREFULLY REMOVED IN ORDER TO ROUTE THIS END OF UPPER CONTROL HARNESS THROUGH MOTOR ARM ASSY. REATTACH AFTER HARNESS HAS BEEN ROUTED.**



Opening for wires and harnesses as viewed from the other side of the Motor Arm Assembly.



TWO WAY FEMALE CONNECTOR



TRAPS

**(A) Worklights Harness**  
Cat. No. 23-94-8001

- Connect 4 wire connector block to DRO (Digital Readout) PCB, Cat. No. 22-09-1060.
- Route black and white wires with male connectors (2 places) as shown.
- The reflector lens must be removed in order to install the harness onto the LED PCBA. Unscrew the LED PCBA from the reflector. Route the male connector through the round opening on the top of the reflector and connect to LED PCBA. Reassemble in reflector.

**(B) Light Switch Harness**  
Cat. No. 23-94-8005

- Connect 2 wire connector block to DRO (Digital Readout) PCB, Cat. No. 22-09-1060.
- Route wire harness as shown and connect black wire to the 'ON' terminal of the Rocker Switch, Cat. No. 23-66-3040. The other wire is red or brown and should be connected to the 'OFF' terminal.

**(F) Transformer**  
Cat. No. 23-81-0585

- Route wire harness as shown and attach two wire connector block to DRO (Digital Readout) PCB, Cat. No. 22-09-1060

**(C) Upper Control Harness**  
Cat. No. 23-94-8012

- Connect larger connector block to DRO (Digital Readout) PCB, Cat. No. 22-09-1060.
- Route wire harness as shown. The smaller connector block will attach to the Table Harness, Cat. No. 23-94-8027 (6955-20) or Cat. No. 23-94-8032 (6950-20). The two harnesses are joined by a double female adapter (see detail) that must be removed in order for the Upper Control Harness to pass through the top of Bevel Arm Assembly.

# WIRING INSTRUCTIONS

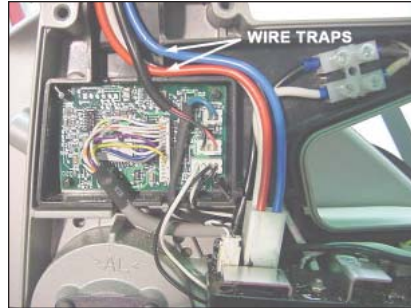
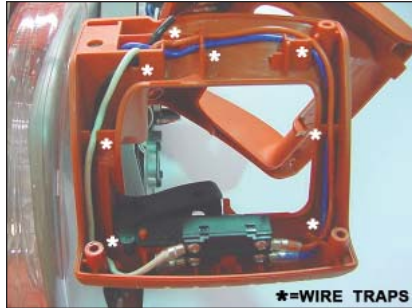
TITLE

MITER SAW

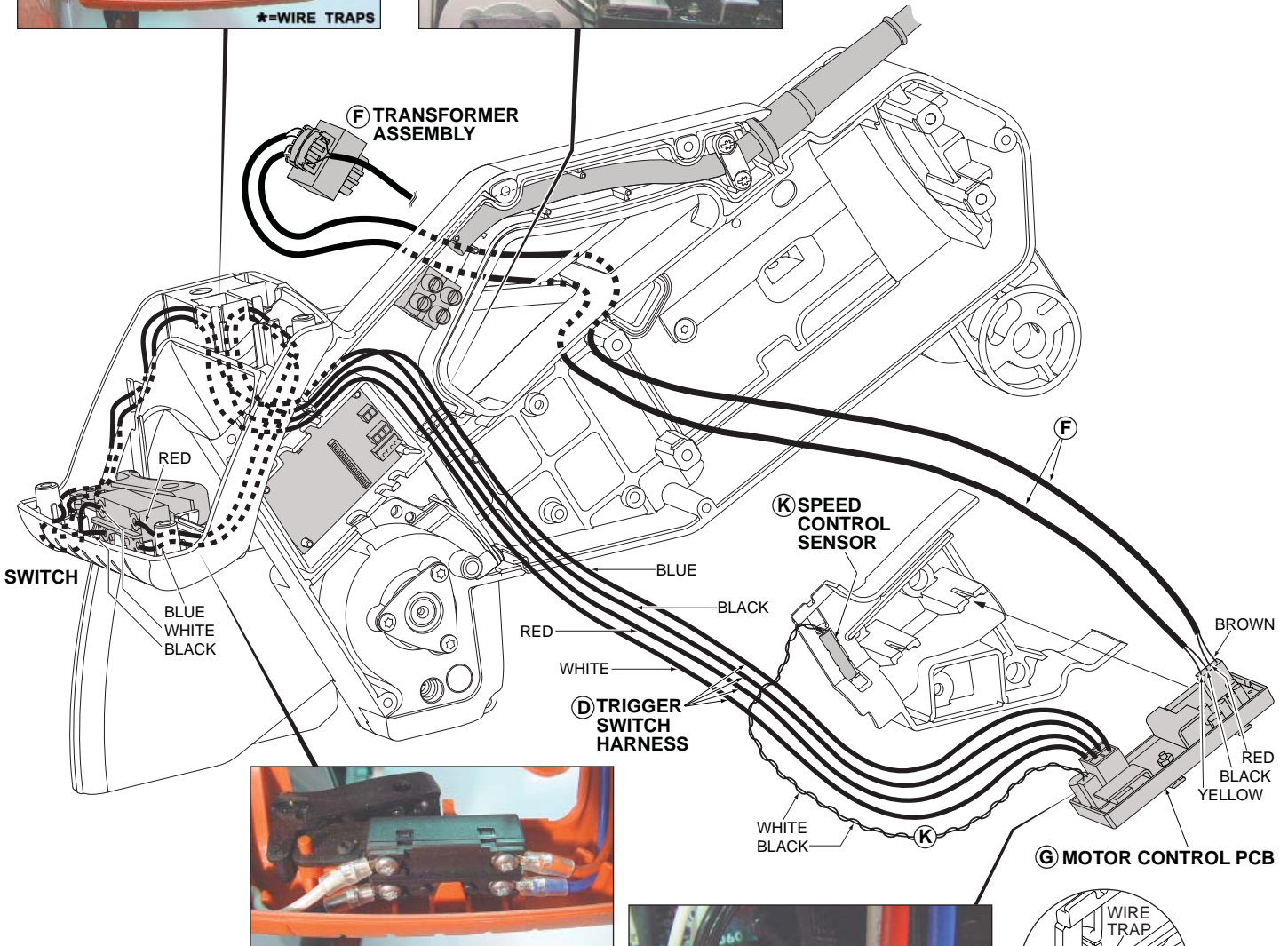
BULLETIN

MILWAUKEE ELECTRIC TOOL CORP. 13135 WEST LISBON RD. BROOKFIELD, WIS.

58-01-6901



AS AN AID TO REASSEMBLY, TAKE NOTE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.



**D Trigger Switch Harness**

Cat. No. 23-94-8020

- Run black and white wires up through the opening in Bottom Handle. Route these wires along the left side of handle and connect to Switch, Cat No. 23-66-3035 as shown.
- Run red and blue wires up through the opening in Bottom Handle. Route these wires along the right side of handle and connect to Switch as shown.
- Connect 4 wire connector block to Motor Control PCB, Cat. No. 22-09-1590.
- Be sure to all wires are firmly pressed in wire traps as shown in details above.

**F Transformer**

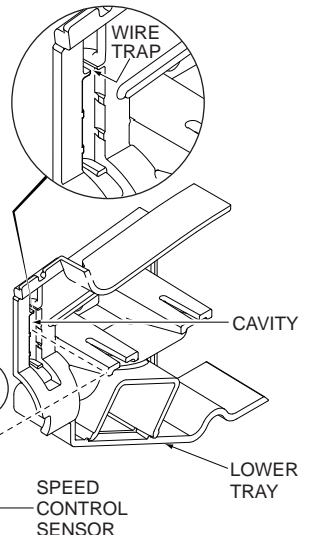
Cat. No. 23-81-0585

- Route wire harness as shown and attach four wire connector block to Motor Control PCB, Cat. No. 22-09-1590.

**K Speed Control Sensor**

Cat. No. 23-80-0020

- Position Speed Control Sensor into cavity of Lower Tray. Place twisted black and white wires into trap above the cavity (see detail).
- Attach the two wire connector block to Motor Control PCB, Cat. No. 22-09-1590.



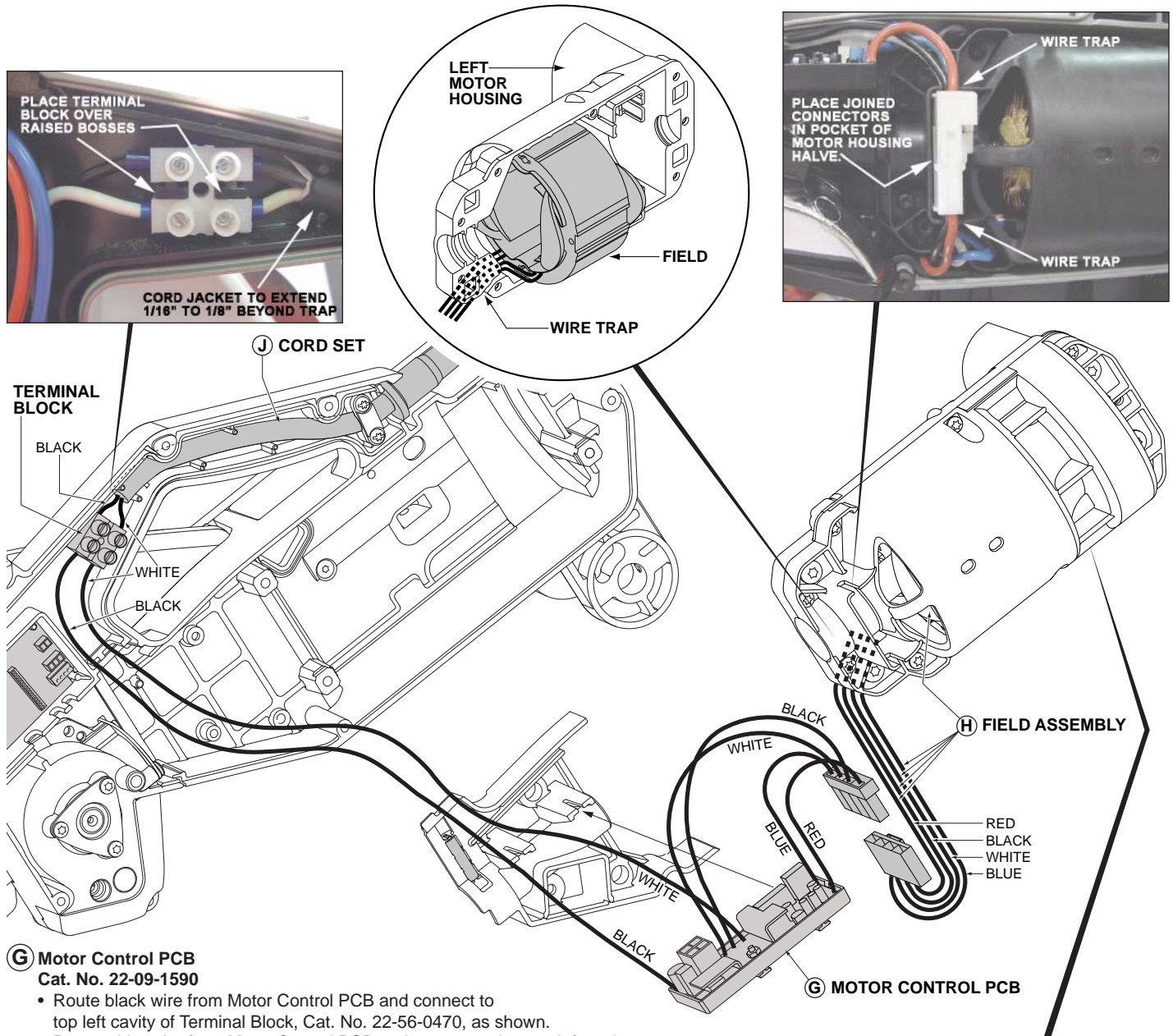
TITLE

**MITER SAW**

BULLETIN

**MILWAUKEE ELECTRIC TOOL CORP. 13135 WEST LISBON RD. BROOKFIELD, WIS.**

**58-01-6901**



**G Motor Control PCB**  
Cat. No. 22-09-1590

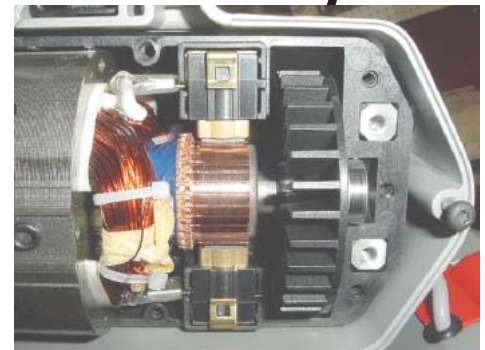
- Route black wire from Motor Control PCB and connect to top left cavity of Terminal Block, Cat. No. 22-56-0470, as shown.
- Route white wire from Motor Control PCB and connect to bottom left cavity of Terminal Block as shown.
- Secure Motor Control PCB by sliding tabs on the bottom of boat into slots on the Lower Tray. The four wire connector block (male) will attach to the 4 wire connector block (female) of the Field Assembly, Cat. No. 18-70-5000.

**H Field Assembly**  
Cat. No. 18-70-5000

- Position Field in the Left Motor Housing with the four colored wires to the bottom. Place the colored wires firmly in the wire trap in the bottom of Motor Housing.
- On the other end of the Field, connect the white wires to the tabs on the Brush Holder Assemblies, Cat. No. 22-20-1020.
- With the Brush Assemblies, Armature Assembly and Field Assembly firmly in place, secure by fastening the Right Motor Housing to the Left Motor Housing.
- Attach 4 wire connector block (female) of the Field Assembly to the corresponding male connector block of the Motor Control PCB. Push joined connectors and wires into exterior cavity/wire traps of the Right Motor Housing (see illustration).

**J Cord Set**  
Cat. No. 22-64-6495

- Route Cord Set in traps as shown, allowing cord jacket to extend 1/16" to 1/8" beyond the last trap. Secure the Cord Set with Cord Clamp.
- Connect black wire from Cord Set to top right cavity of Terminal Block and connect white wire to the bottom right of the Terminal Block.
- Place the Terminal Block with all wires attached over the raised bosses in the Upper Tray (see illustration).



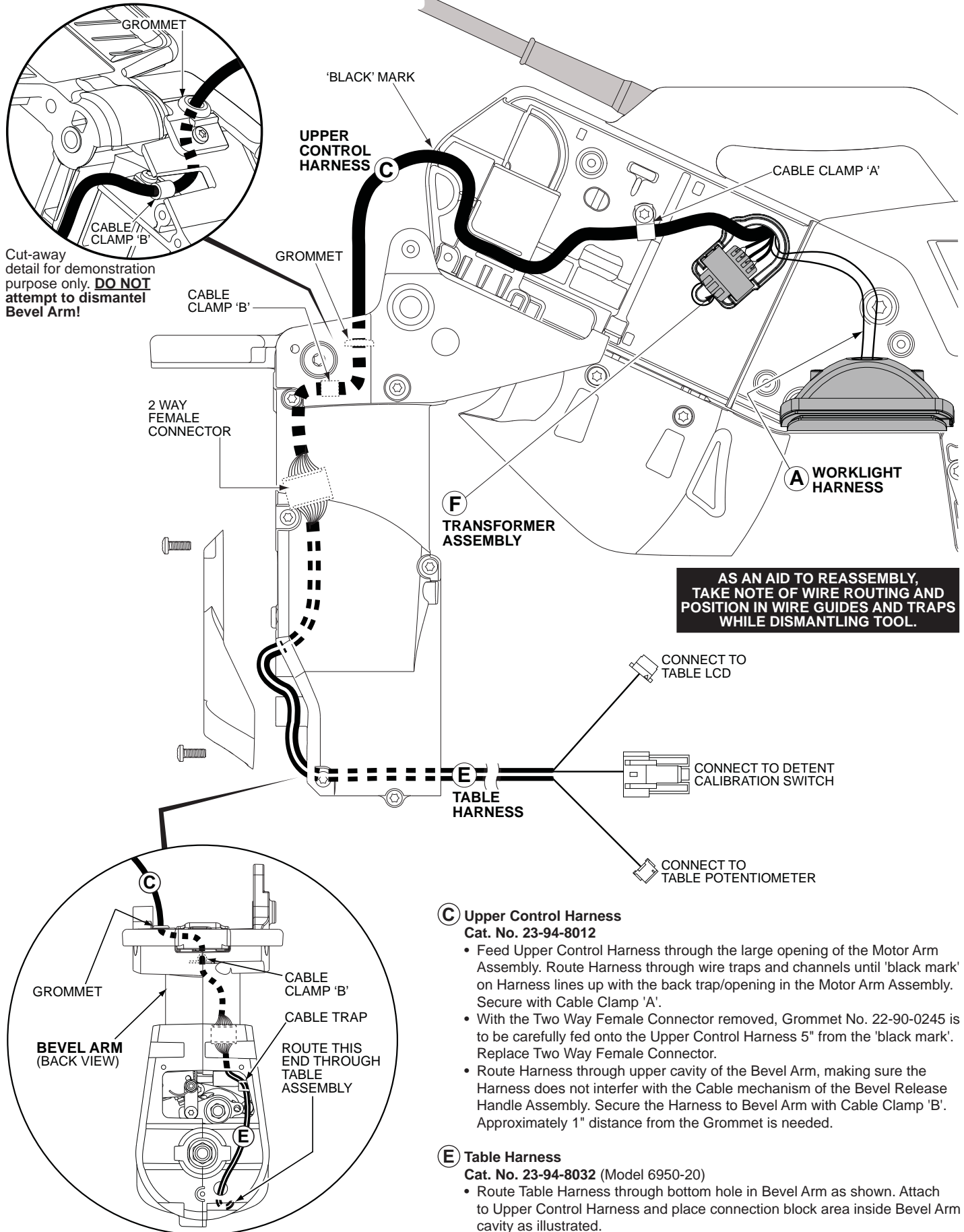
TITLE

**MITER SAW**

BULLETIN

**MILWAUKEE ELECTRIC TOOL CORP. 13135 WEST LISBON RD. BROOKFIELD, WIS.**

**58-01-6901**



**C Upper Control Harness**  
Cat. No. 23-94-8012

- Feed Upper Control Harness through the large opening of the Motor Arm Assembly. Route Harness through wire traps and channels until 'black mark' on Harness lines up with the back trap/opening in the Motor Arm Assembly. Secure with Cable Clamp 'A'.
- With the Two Way Female Connector removed, Grommet No. 22-90-0245 is to be carefully fed onto the Upper Control Harness 5" from the 'black mark'. Replace Two Way Female Connector.
- Route Harness through upper cavity of the Bevel Arm, making sure the Harness does not interfere with the Cable mechanism of the Bevel Release Handle Assembly. Secure the Harness to Bevel Arm with Cable Clamp 'B'. Approximately 1" distance from the Grommet is needed.

**E Table Harness**

Cat. No. 23-94-8032 (Model 6950-20)

- Route Table Harness through bottom hole in Bevel Arm as shown. Attach to Upper Control Harness and place connection block area inside Bevel Arm cavity as illustrated.

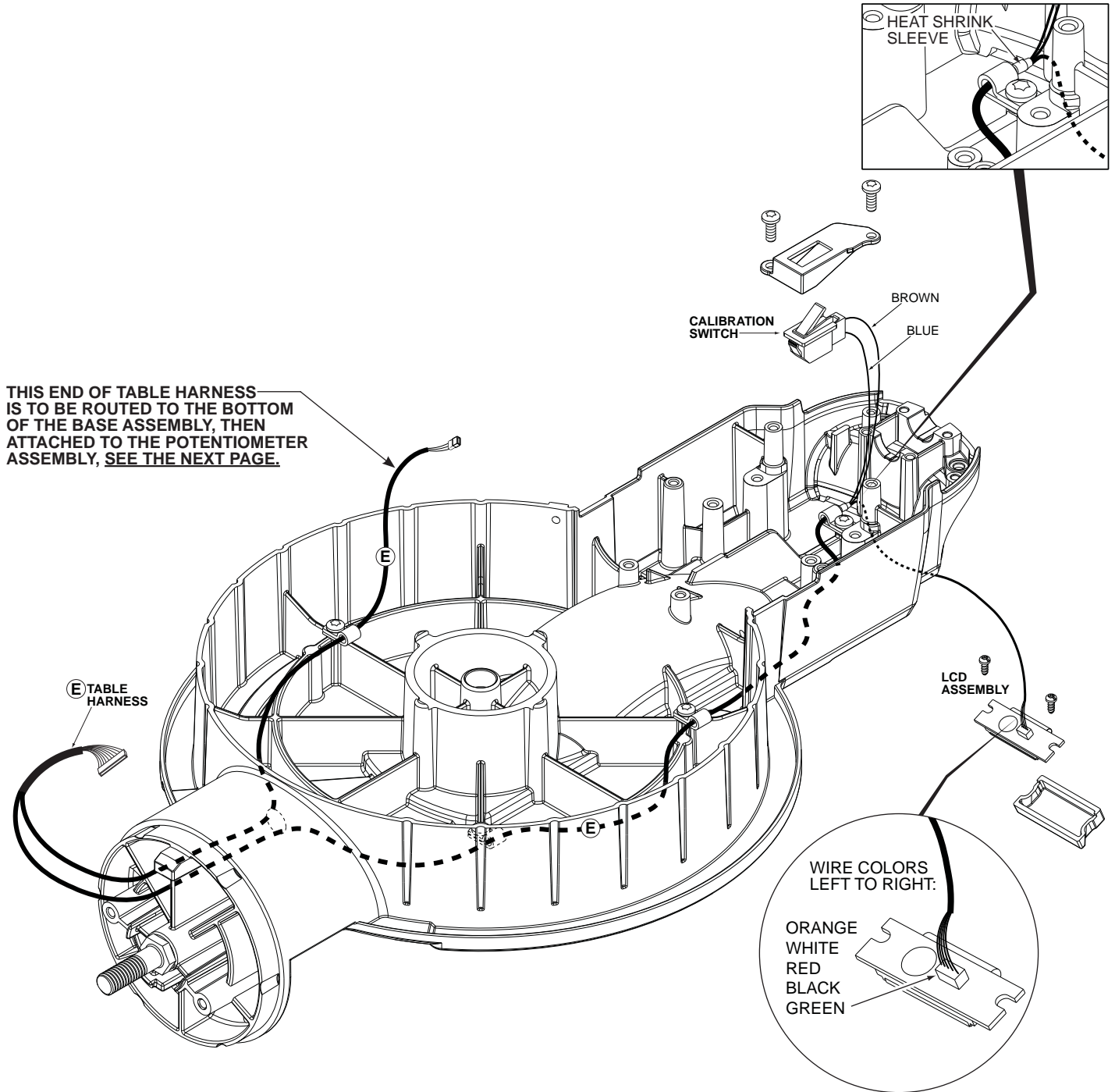
TITLE

MITER SAW

BULLETIN

MILWAUKEE ELECTRIC TOOL CORP. 13135 WEST LISBON RD. BROOKFIELD, WIS.

58-01-6901



**E Table Harness**

**Cat. No. 23-94-8032** (Model 6950-20)

- Route the two sleeves of the Table Harness through the back of the upside down Table Assembly, as shown.
- Route the sleeve with 3 wires (red, white and black) to the left side of the Table. Remove slack and secure the sleeve to the Table with a Cable Clamp. The balance of the sleeve is to be routed into the Base Assembly, secured to the Base and connected to the Potentiometer Assembly No. 23-45-0015, see the next page.
- Route the other sleeve of the Table Harness to the right side of the Table. Secure the sleeve with 3 Cable Clamps, fasten the end of the sleeve directly behind the heat shrink sleeve (see detail).
- Attach the two wire connector block (brown and blue) to the Calibration Switch.
- Route the five wire portion of the harness (orange, white, red, black and green) through the opening in the front of the Table Assembly and connect to the LCD Assembly.

**AS AN AID TO REASSEMBLY, TAKE NOTE OF WIRE GUIDING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.**

TITLE

MITER SAW

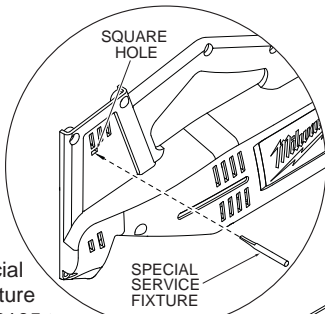
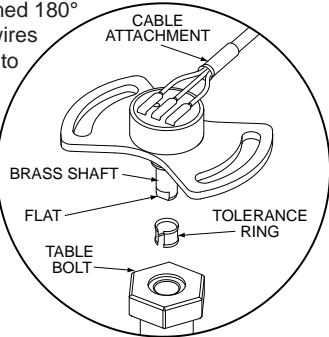
BULLETIN

MILWAUKEE ELECTRIC TOOL CORP.

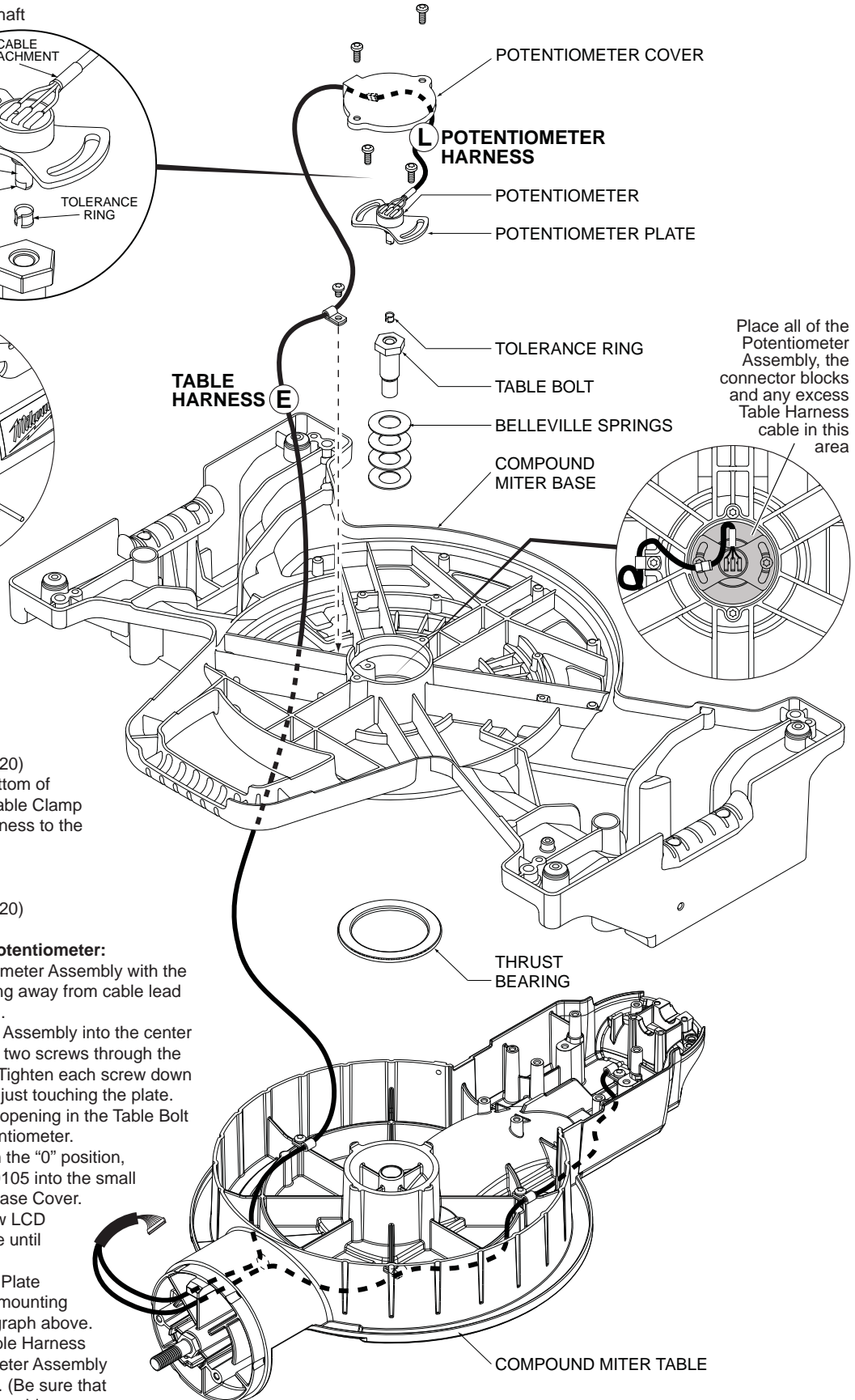
13135 WEST LISBON RD. BROOKFIELD, WIS.

58-01-6901

\*Flat side of the Potentiometer brass shaft must be positioned / turned 180° from cable attachment wires prior to installing shaft into Tolerance Ring. Failure to properly position the brass shaft will limit the adjustment range.



\*\*Use Special Service Fixture No. 61-10-0105 to reset the Digital Readout (DRO) Board. Insert fixture into the small square hole located in the Motor Case Cover as shown.



**(E) Table Harness**

- Cat. No. 23-94-8032** (Model 6950-20)
- Route Table Harness through bottom of Base and secure to Base with Cable Clamp as illustrated. Connect Table Harness to the Potentiometer Assembly.

**(L) Potentiometer Assembly**

**Cat. No. 23-45-0015** (Model 6950-20)

**Adjustment of "zero" on Base Potentiometer:**

- Position the shaft of the Potentiometer Assembly with the flat parallel to lead tabs and facing away from cable lead wires. (Refer to picture example).
- Install shaft of the Potentiometer Assembly into the center opening of \*Table Bolt and place two screws through the Potentiometer Plate 180° apart. Tighten each screw down until the head of each screw are just touching the plate. \*(Tolerance Ring must be inside opening in the Table Bolt and around the shaft of the Potentiometer).
- With tool unplugged and Table in the "0" position, insert service fixture No. 61-10-0105 into the small square hole located in \*\*Motor Case Cover.
- Plug tool into power source. View LCD while turning Potentiometer Plate until digital read out reads 1° or less.
- While holding the Potentiometer Plate steady, securely tighten the two mounting plate screws referenced in paragraph above.
- Place any excess cable from Table Harness and all cable from the Potentiometer Assembly into center hub area under Base. (Be sure that the connector blocks joining both cables are positioned in the center hub area). Place Cover over Potentiometer Assembly and secure using two screws.

**AS AN AID TO REASSEMBLY,  
TAKE NOTE OF WIRE ROUTING AND  
POSITION IN WIRE GUIDES AND TRAPS  
WHILE DISMANTLING TOOL.**

TITLE

MITER SAW

MILWAUKEE ELECTRIC TOOL CORP.

13135 WEST LISBON RD. BROOKFIELD, WIS.

BULLETIN

58-01-6901

## SIMPLIFIED WIRING SCHEMATIC (For Reference Only)

