ALM CORD DATA SHEETS

ALM Cords
Shure ALM cords use a common connector and wiring configuration on the microphone end, with varying connectors and wiring configurations on the radio end. The most basic configuration is model ALM-1, which has no connector on the radio end.

Some ALM cord models are made by taking an ALM-1 and adding a connector on the radio end. Depending on the radio involved, the connector:
  – may have been a commercially-available part
  – may have been assembled by Shure from commercially-available parts
  – may have been a custom part obtained directly from the radio manufacturer, or
  – may have been custom-manufactured by Shure or a contracted vendor according to the radio manufacturer’s specifications.

This means that replacement connectors may or may not be readily available, or may not be available under a single part number.

In some cases, the radio-end connector is molded onto the cable. This is usually done by sending ALM-1 cords to the connector vendor and having them assemble and mold the connector. These connectors are generally not repairable or replaceable without the necessary tooling and machinery. This has been noted on the cord data sheet where applicable.

Instruction Tags
Some ALM cords are shipped with an instruction tag attached, which contains information on required modifications to the microphone or radio that apply in certain situations. Note that the same instruction tag often ships with more than one ALM cord.
GENERAL SPECIFICATIONS:

1. DESCRIPTION
   FIVE-CONDUCTOR, ONE CONDUCTOR SHIELDED, ONE DRAIN WIRE MICROPHONE CABLE

2. OUTER JACKET
   BLACK NEOPRENE
   OVERALL DIAMETER (INCHES) .195 +/- .010

3. CONDUCTORS
   1. FOUR UNSHIELDED CONDUCTORS
      1. COLOR CODE
         YELLOW, BLUE, RED, AND BLACK
      2. MATERIAL
         STRANDED TINNED COPPER WIRE CONSISTING OF 7 STRANDS OF #34 AWG WIRE
            (#26 TOTAL GAUGE)
      3. INSULATION
         POLYPROPYLENE TO A DIAMETER OF .035 NOMINAL
   2. ONE SHIELDED CONDUCTOR
      1. COLOR CODE
         WHITE
      2. MATERIAL
         STRANDED TINNED COPPER WIRE CONSISTING OF 7 STRANDS OF #34 AWG WIRE
            (#26 TOTAL GAUGE)
      3. SHIELD
         #38 AWG TINNED COPPER WIRE WOUND OVER WHITE CONDUCTOR ONLY
   3. DRAIN WIRE
      #22 AWG (26 STRANDS OF #36 AWG TINNED SOFT COPPER)

4. INNER CABLE COVERING
   MYLAR SPIRAL WRAP

4. CONNECTOR (MICROPHONE END)
   1. SIX-PIN MODULAR RJ-11 PLUG, WITH NEOPRENE FLEX RELIEF BOOT  (Note: Data sheets for
      many Shure Modulink communications microphones show an 8-pin connector in the microphone,
      but only the middle 6 pins are used.)
   2. WIRING SCHEME
      PIN 1 = RED
      PIN 2 = YELLOW
      PIN 3 = BLUE
      PIN 4 = BLACK
      PIN 5 = WHITE
      PIN 6 = DRAIN
STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- **RED**: Amplified audio output, and DC bias voltage input
- **WHITE**: Non-amplified audio output
- **YELLOW**: PTT switch
- **BLACK**: PTT switch ground
- **BLUE**: Hang-up button
- **DRAIN**: Ground

(Lockign tab on reverse side)
## Connector Wiring at Radio End

**Connector Type:** MOTOROLA RIGHT-ANGLE 5-PIN MOLDED RECTANGULAR PLUG

**Note:** This connector is assembled from Motorola components, and then has a flex relief molded over it. Connector assembly requires special equipment.

- **Connector Shell:** MOTOROLA #14-84590B01
- **Terminals:** MOTOROLA #09-84151B03 (5 req’d)
- **S-Hook and Clamp:** MOTOROLA #42A-893647

### Connector Wiring Detail

<table>
<thead>
<tr>
<th>Color</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Amplified Audio Output, DC Bias Voltage Input</td>
</tr>
<tr>
<td>White</td>
<td>Non-Amplified Audio Output</td>
</tr>
<tr>
<td>Yellow</td>
<td>PTT Switch</td>
</tr>
<tr>
<td>Black</td>
<td>PTT Switch Ground</td>
</tr>
<tr>
<td>Blue</td>
<td>Hang-up Button</td>
</tr>
<tr>
<td>Drain</td>
<td>Ground</td>
</tr>
</tbody>
</table>

### Instruction Tag

**Important Information!**

Cable and connector assembly for Model 590T, 885TT, and 890TT Microphones

When using with 885TT or 890TT microphones, rewire radio for continuous microphone biasing. Refer to radio manufacturer’s service manual for additional information.

29A2127
MODEL NUMBER

ALM-3

CONNECTOR

MODULAR 6-PIN

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 6-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  BLUE
PIN 2  NO CONNECTION (WHITE LEAD OCCUPYING SLOT – NO CONTACT USED)
PIN 3  YELLOW
PIN 4  RED
PIN 5  BLACK
PIN 6  DRAIN

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER

ALM-4

CONNECTOR

5-PIN ROUND PLUG

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 5-PIN ROUND PLUG
(SWITCHCRAFT PART SL-40-5M)
NOTE: COUPLING RING AND INSULATOR (MANUFACTURED BY SHURE) ALSO REQUIRED

CONNECTOR PIN ASSIGNMENTS:

PIN 1 BLACK
PIN 2 DRAIN
PIN 3 RED
PIN 4 YELLOW
PIN 5 NO CONNECTION

WHITE AND BLUE CONDUCTORS NOT USED

CONNECTOR SIDE VIEW

LATCH
CABLE CLAMP
MALE INSERT
METAL SHELL
STRAIN RELIEF SPRING

CONNECTOR END VIEW

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(locking tab on reverse side)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 4-SOCKET ROUND PLUG (FUJI SEIMITSU PART FM14-4P)

CONNECTOR PIN ASSIGNMENTS:

PIN 1  RED
PIN 2  BLACK & DRAIN
PIN 3  NO CONNECTION
PIN 4  YELLOW

WHITE AND BLUE CONDUCTORS NOT USED

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

Change 270 ohm bias resistor in radio to 1200 ohms. Refer to Midland Service Manual for part location.

2982127

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

LOCKING TAB ON REVERSE SIDE

RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 5-PIN ROUND PLUG (SWITCHCRAFT PART# 12CL5M)

CONNECTOR PIN ASSIGNMENTS:

- PIN 1: RED
- PIN 2: YELLOW
- PIN 3: DRAIN & BLACK
- PIN 4: BLUE
- PIN 5: NO CONNECTION

WHITE CONDUCTOR NOT USED

INSTRUCTION TAG
29C2127
INCLUDED WITH CABLE
(could not be located)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- RED: AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-8

CONNECTOR
MODULAR 8-PIN

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1 NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 2 DRAIN
PIN 3 RED
PIN 4 BLUE
PIN 5 YELLOW
PIN 6 NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 7 NO CONNECTION (NO CONTACT USED)
PIN 8 NO CONNECTION (NO CONTACT USED)

CONNECTOR Wiring DETAIL
(LOCKING TAB ON REVERSE SIDE)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

<table>
<thead>
<tr>
<th></th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT</td>
</tr>
<tr>
<td>WHITE</td>
<td>NON-AMPLIFIED AUDIO OUTPUT</td>
</tr>
<tr>
<td>YELLOW</td>
<td>PTT SWITCH</td>
</tr>
<tr>
<td>BLACK</td>
<td>PTT SWITCH GROUND</td>
</tr>
<tr>
<td>BLUE</td>
<td>HANG-UP BUTTON</td>
</tr>
<tr>
<td>DRAIN</td>
<td>GROUND</td>
</tr>
</tbody>
</table>

(LOCKING TAB ON REVERSE SIDE)
CONNECTION MODEL NUMBER

ALM-10

CONNECTOR

FLAT PC HEADER

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: FLAT PC HEADER
8-PIN MOLEX #2139
(CONNECTOR HOUSING AND PINS SOLD SEPARATELY)

CONNECTOR PIN ASSIGNMENTS:

PIN 1 BLACK
PIN 2 YELLOW
PIN 3 DRAIN & BLUE
PIN 4 RED
PIN 5 NO CONNECTION
PIN 6 NO CONNECTION
PIN 7 NO CONNECTION
PIN 8 NO CONNECTION

WHITE CONDUCTOR NOT USED

CONNECTOR WIRING DETAIL

APPROXIMATE CABLE TERMINATION

CONNECTOR WIRING DETAIL

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: FLAT PC HEADER
8-PIN MOLEX #2139
(CONNECTOR HOUSING AND
PINS SOLD SEPARATELY)

CONNECTOR PIN ASSIGNMENTS:
PIN 1  NO CONNECTION
PIN 2  YELLOW
PIN 3  BLACK
PIN 4  RED
PIN 5  DRAIN & BLUE
PIN 6  NO CONNECTION
PIN 7  NO CONNECTION
PIN 8  NO CONNECTION

WHITE CONDUCTOR NOT USED

CONNECTOR WIRING DETAIL

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 5-PIN ROUND PLUG
(SWITCHCRAFT PART# 12CL5M)

CONNECTOR PIN ASSIGNMENTS:

PIN 1 RED
PIN 2 DRAIN & BLACK
PIN 3 YELLOW
PIN 4 WHITE
PIN 5 BLUE

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T, 885TT, AND 890TT
MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

29F2127

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-16

CONNECTOR
5-PIN ROUND PLUG

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 5-PIN ROUND PLUG
(SWITCHCRAFT PART# 12CL5M)

CONNECTOR PIN ASSIGNMENTS:

<table>
<thead>
<tr>
<th>PIN</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WHITE</td>
</tr>
<tr>
<td>2</td>
<td>YELLOW</td>
</tr>
<tr>
<td>3</td>
<td>DRAIN &amp; BLACK</td>
</tr>
<tr>
<td>4</td>
<td>BLUE</td>
</tr>
<tr>
<td>5</td>
<td>RED</td>
</tr>
</tbody>
</table>

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

Install option jumper in radio per E.F. Johnson service manual to provide +13.8 VDC on pin 3.

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

<table>
<thead>
<tr>
<th>WIRE</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT</td>
</tr>
<tr>
<td>WHITE</td>
<td>NON-AMPLIFIED AUDIO OUTPUT</td>
</tr>
<tr>
<td>YELLOW</td>
<td>PTT SWITCH</td>
</tr>
<tr>
<td>BLACK</td>
<td>PTT SWITCH GROUND</td>
</tr>
<tr>
<td>BLUE</td>
<td>HANG-UP BUTTON</td>
</tr>
<tr>
<td>DRAIN</td>
<td>GROUND</td>
</tr>
</tbody>
</table>

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-17

CONNECTOR
6-PIN SQUARE

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: 6-PIN SQUARE RIGHT-ANGLE PLUG WITH THUMBSCREW (MANUFACTURED BY SHURE; NOT AVAILABLE AS A SINGLE ASSEMBLY)

CONNECTOR PIN ASSIGNMENTS:
PIN 1 DRAIN
PIN 2 RED
PIN 3 YELLOW
PIN 4 NO CONNECTION
PIN 5 BLACK
PIN 6 NO CONNECTION

WHITE, BLUE, AND SHIELD CONDUCTORS ARE NOT USED

COVER REMOVED FOR CLARITY

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** RJ-45 MODULAR 8-PIN

**CONNECTOR PIN ASSIGNMENTS:**

- PIN 1: NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)
- PIN 2: DRAIN
- PIN 3: WHITE
- PIN 4: BLUE
- PIN 5: YELLOW
- PIN 6: RED
- PIN 7: NO CONNECTION
- PIN 8: NO CONNECTION (NO CONTACT USED)

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**

**CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES**

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

Install option jumper in radio per E.F. Johnson service manual to provide +13.8 VDC on pin 3.

2902127
**Model Number:** ALM-19

**Connector:** DB-9 Plug

**Connector Wiring at Radio End**

**Connector Type:** Right-angle DB-9 Plug

*Note: This connector is molded onto the cable by the vendor, and cannot be installed without special equipment.*

**Connector Pin Assignments:**

- **Pin 1** —
- **Pin 2** Yellow
- **Pin 3** —
- **Pin 4** Red
- **Pin 5** —
- **Pin 6** Blue
- **Pin 7** —
- **Pin 8** Black
- **Pin 9** Drain

White conductor not used.

**Standard Microphone-End Connector Wiring**

- **Red** Amplified audio output, and DC bias voltage input
- **White** Non-amplified audio output
- **Yellow** PTT switch
- **Black** PTT switch ground
- **Blue** Hang-up button
- **DRAIN** Ground

*(Locking tab on reverse side)*
MODEL NUMBER  
ALM-20  
CONNECTOR  
4-PIN ROUND

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: 4-PIN ROUND PLUG

CONNECTOR PIN ASSIGNMENTS:

PIN 1 RED  
PIN 2 DRAIN  
PIN 3 YELLOW  
PIN 4 NO CONNECTION  
SHELL/CLAMP BLACK

STANDARD MICROPHONE-END CONNECTOR WIRING  
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND  
DC BIAS VOLTAGE INPUT  
WHITE NON-AMPLIFIED AUDIO OUTPUT  
YELLOW PTT SWITCH  
BLACK PTT SWITCH GROUND  
BLUE HANG-UP BUTTON  
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER CONNECTOR
ALM-22 6-PIN MOLDED R.A.

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: 6-PIN RIGHT-ANGLE MOLDED PLUG
(MOTOROLA PART # 09-D80218J01)

NOTE: CONNECTOR IS MOLDED ONTO CABLE, AND
CANNOT BE INSTALLED WITHOUT SPECIAL EQUIPMENT

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- RED: AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(Locking tab on reverse side)
**MODEL NUMBER**
ALM-23

**CONNECTOR**
FLAT PC HEADER

---

**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** FLAT PC HEADER
8-PIN MOLEX #2139
(CONNECTOR HOUSING AND PINS SOLD SEPARATELY)

**CONNECTOR PIN ASSIGNMENTS:**
PIN 1 RED
PIN 2 YELLOW
PIN 3 BLACK
PIN 4 WHITE
PIN 5 DRAIN
PIN 6 NO CONNECTION
PIN 7 NO CONNECTION
PIN 8 NO CONNECTION

BLUE CONDUCTOR NOT USED

---

**APPROXIMATE CABLE TERMINATION**

---

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 885TT AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions.

Radio will require wiring for continuous microphone biasing if used with 885TT or 890TT microphones. Refer to radio manufacturer’s service manual for additional information.

---

**STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES**

- RED: AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  NO CONNECTION
PIN 2  NO CONNECTION
PIN 3  YELLOW
PIN 4  RED
PIN 5  BLACK
PIN 6  BLUE
PIN 7  NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 8  NO CONNECTION (DRAIN LEAD OCCUPYING SLOT; NO CONTACT USED)

WHITE CONDUCTOR NOT USED

CONNECTOR WIRING DETAIL
(LOCKING TAB ON REVERSE SIDE)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER

ALM-25

CONNECTOR

MODULAR 8-PIN

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  NO CONNECTION
PIN 2  NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 3  DRAIN
PIN 4  YELLOW
PIN 5  BLUE
PIN 6  RED
PIN 7  NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 8  NO CONNECTION

CONNECTOR WIRING DETAIL
(LOCKING TAB ON REVERSE SIDE)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-26

CONNECTOR
MODULAR 6-PIN

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: RJ-45 MODULAR 6-PIN

CONNECTOR PIN ASSIGNMENTS:
PIN 1 BLUE
PIN 2 WHITE
PIN 3 DRAIN
PIN 4 YELLOW
PIN 5 BLACK
PIN 6 RED

INSTRUCTION TAG
IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T, 885TT, AND 890TT
MICROPHONES

When using early production 885TT or 890TT
microphones, red jumper from D-E (W301) must be
removed. In later production units, the red jumper
D-E (W301) is moved to location F-G (W309), per
data sheet instructions. (No modification required
for Model 590T microphone.)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(CONNECTOR WIRING DETAIL
(LOCKING TAB ON REVERSE SIDE))
MODEL NUMBER

ALM-27

CONNECTOR

10-PIN MOLDED
RECTANGULAR

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE:  10-PIN MOLDED
RECTANGULAR PLUG

NOTE: CONNECTOR IS OVERMOLDED
ONTO CABLE. SPECIAL EQUIPMENT IS
REQUIRED FOR ASSEMBLY.

CONNECTOR PIN ASSIGNMENTS:

PIN 1   BLACK
PIN 2   NO CONNECTION
PIN 3   NO CONNECTION
PIN 4   RED
PIN 5   DRAIN
PIN 6   NO CONNECTION
PIN 7   NO CONNECTION
PIN 8   NO CONNECTION
PIN 9   NO CONNECTION
PIN 10  YELLOW

WHITE AND BLUE CONDUCTORS NOT USED

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T MICROPHONES ONLY

For CHANNEL GUARD™ or scanning option, cut
blue wire to hang-up button in microphone or install
logic inverter in radio.

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

(red) AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT

(white) NON-AMPLIFIED AUDIO OUTPUT

(yellow) PTT SWITCH

(black) PTT SWITCH GROUND

(blue) HANG-UP BUTTON

(drain) GROUND

(locking tab on reverse side)
MODEL NUMBER
ALM-27A

CONNECTOR
10-PIN MOLDED
RECTANGULAR

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 10-PIN MOLDED
RECTANGULAR PLUG

NOTE: CONNECTOR IS OVERMOLDED
ONTO CABLE. SPECIAL EQUIPMENT IS
REQUIRED FOR ASSEMBLY.

CONNECTOR PIN ASSIGNMENTS:

- PIN 1: BLACK
- PIN 2: RED
- PIN 3: NO CONNECTION
- PIN 4: WHITE
- PIN 5: DRAIN
- PIN 6: BLUE
- PIN 7: NO CONNECTION
- PIN 8: NO CONNECTION
- PIN 9: NO CONNECTION
- PIN 10: YELLOW

INSTRUCTION TAG
29J2127
INCLUDED WITH CORD
(could not be located)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- RED: AMPLIFIED AUDIO OUTPUT, AND
  DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 6-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 2  DRAIN
PIN 3  YELLOW
PIN 4  WHITE
PIN 5  BLUE
PIN 6  RED

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

29F2127

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-32

CONNECTOR
MODULAR 8-PIN

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  NO CONNECTION
PIN 2  BLACK
PIN 3  BLUE
PIN 4  YELLOW
PIN 5  RED
PIN 6  WHITE
PIN 7  DRAIN
PIN 8  NO CONNECTION

CONNECTOR WIRING DETAIL
(LOCKING TAB ON REVERSE SIDE)

INSTRUCTION TAG
IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T, 885TT, AND 890TT
MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

29F2127

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

(LOCKING TAB ON REVERSE SIDE)

RED  AMPLIFIED AUDIO OUTPUT, AND
      DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: FLAT PC HEADER
8-PIN MOLEX #2139
(CONNECTOR HOUSING AND PINS SOLD SEPERATELY)

CONNECTOR PIN ASSIGNMENTS:
PIN 1  BLACK
PIN 2  YELLOW
PIN 3  DRAIN
PIN 4  NO CONNECTION
PIN 5  NO CONNECTION
PIN 6  NO CONNECTION
PIN 7  RED
PIN 8  BLUE

WHITE CONDUCTOR NOT USED

CONNECTOR WIRING DETAIL

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

(LOCKING TAB ON REVERSE SIDE)
**MODEL NUMBER**

ALM-34

**CONNECTOR**

MODULAR 6-PIN

---

**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** RJ-45 MODULAR 6-PIN

**CONNECTOR PIN ASSIGNMENTS:**

<table>
<thead>
<tr>
<th>PIN</th>
<th>COLOR/DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SHIELD</td>
</tr>
<tr>
<td>2</td>
<td>NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)</td>
</tr>
<tr>
<td>3</td>
<td>BLUE</td>
</tr>
<tr>
<td>4</td>
<td>WHITE</td>
</tr>
<tr>
<td>5</td>
<td>YELLOW</td>
</tr>
<tr>
<td>6</td>
<td>RED</td>
</tr>
</tbody>
</table>

---

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**

CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

---

**STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES**

<table>
<thead>
<tr>
<th>COLOR</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT</td>
</tr>
<tr>
<td>WHITE</td>
<td>NON-AMPLIFIED AUDIO OUTPUT</td>
</tr>
<tr>
<td>YELLOW</td>
<td>PTT SWITCH</td>
</tr>
<tr>
<td>BLACK</td>
<td>PTT SWITCH GROUND</td>
</tr>
<tr>
<td>BLUE</td>
<td>HANG-UP BUTTON</td>
</tr>
<tr>
<td>DRAIN</td>
<td>GROUND</td>
</tr>
</tbody>
</table>

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 6-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1 NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 2 YELLOW
PIN 3 DRAIN
PIN 4 RED
PIN 5 BLUE
PIN 6 NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND
ALM-36

MODEL NUMBER

MODULAR 6-PIN

CONNECTOR

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 6-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1 RED
PIN 2 YELLOW
PIN 3 DRAIN
PIN 4 WHITE
PIN 5 BLUE
PIN 6 NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)

CONNECTOR WIRING DETAIL (LOCKING TAB ON REVERSE SIDE)

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

29F2127

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(Locking tab on reverse side)
MODEL NUMBER
ALM-37

CONNECTOR
MODULAR 8-PIN

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  NO CONNECTION
PIN 2  RED
PIN 3  YELLOW
PIN 4  BLACK
PIN 5  BLUE
PIN 6  WHITE
PIN 7  DRAIN
PIN 8  NO CONNECTION

INSTRUCTION TAG
IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T, 885TT, AND 890TT
MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be
removed. In later production units, the red jumper
D-E (W301) is moved to location F-G (W309), per
data sheet instructions. (No modification required
for Model 590T microphone.)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER

ALM-38

CONNECTOR

4-PIN ROUND

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 4-PIN ROUND PLUG
(MATES WITH SWITCHCRAFT 2504F RECEPTACLE)

CONNECTOR PIN ASSIGNMENTS:

PIN 1  BLACK & SHIELD
PIN 2  RED
PIN 3  BLUE
PIN 4  YELLOW

CONNECTOR PIN CONFIGURATION

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER

ALM-39

CONNECTOR

6-PIN ROUND

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 6-PIN ROUND PLUG

CONNECTOR PIN ASSIGNMENTS:

PIN 1  DRAIN & BLACK
PIN 2  RED
PIN 3  NO CONNECTION
PIN 4  NO CONNECTION
PIN 5  YELLOW
PIN 6  BLUE

WHITE CONDUCTOR NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING

AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
**CONNCTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** 9-PIN CONXALL PLUG
(CONXALL #E1518)

**CONNECTOR PIN ASSIGNMENTS:**

- **PIN 1** RED
- **PIN 2** DRAIN
- **PIN 3** YELLOW
- **PIN 4** NO CONNECTION (HOLE MOLDED CLOSED)
- **PIN 5** NO CONNECTION (HOLE MOLDED CLOSED)
- **PIN 6** NO CONNECTION (HOLE MOLDED CLOSED)
- **PIN 7** BLACK
- **PIN 8** BLUE
- **PIN 9** NO CONNECTION (HOLE MOLDED CLOSED)

**WHITE CONDUCTOR NOT USED**

---

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**

**CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T MICROPHONES ONLY**

For CHANNEL GUARD™ or scanning option, cut blue wire to hang-up button in microphone or install logic inverter in radio.

**29G2127**

---

**STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES**

- **RED** AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- **WHITE** NON-AMPLIFIED AUDIO OUTPUT
- **YELLOW** PTT SWITCH
- **BLACK** PTT SWITCH GROUND
- **BLUE** HANG-UP BUTTON
- **DRAIN** GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-41

CONNECTOR
9-PIN CONXALL

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: 9-PIN CONXALL PLUG
(CONXALL #E1518)

CONNECTOR PIN ASSIGNMENTS:
PIN 1 WHITE
PIN 2 DRAIN
PIN 3 YELLOW
PIN 4 NO CONNECTION (HOLE MOLDED CLOSED)
PIN 5 NO CONNECTION (HOLE MOLDED CLOSED)
PIN 6 RED
PIN 7 BLACK
PIN 8 BLUE
PIN 9 NO CONNECTION (HOLE MOLDED CLOSED)

INSTRUCTION TAG
29J2127
INCLUDED WITH CORD
(could not be located)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

(LOCKING TAB ON REVERSE SIDE)
**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** RJ-45 6-PIN MODULAR PLUG

**CONNECTOR PIN ASSIGNMENTS:**

- **PIN 1** NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
- **PIN 2** YELLOW
- **PIN 3** RED
- **PIN 4** BLUE
- **PIN 5** SHIELD
- **PIN 6** NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)

---

**STANDARD MICROPHONE-END CONNECTOR WIRING**

AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- **RED** AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- **WHITE** NON-AMPLIFIED AUDIO OUTPUT
- **YELLOW** PTT SWITCH
- **BLACK** PTT SWITCH GROUND
- **BLUE** HANG-UP BUTTON
- **DRAIN** GROUND

*(LOCKING TAB ON REVERSE SIDE)*
MODEL NUMBER
ALM-43

CONNECTOR
13-PIN HIROSE

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 13-PIN HIROSE PLUG (4 PINS USED)
HIROSE PART# RP13A-12PB-13SC

CONNECTOR PIN ASSIGNMENTS:

PIN 1 NO CONNECTION
PIN 2 NO CONNECTION
PIN 3 SHIELD
PIN 4 NO CONNECTION
PIN 5 NO CONNECTION
PIN 6 NO CONNECTION
PIN 7 NO CONNECTION
PIN 8 NO CONNECTION
PIN 9 YELLOW
PIN 10 NO CONNECTION
PIN 11 RED
PIN 12 BLUE
PIN 13 NO CONNECTION

CONNECTOR

SHOWN FROM OUTSIDE OF CONNECTOR

(FULLY ASSEMBLED)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND
MODEL NUMBER CONNECTOR

ALM-44 MODULAR 6-PIN

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: RJ-45 MODULAR 6-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1 RED
PIN 2 NO CONNECTION (BLUE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 3 YELLOW
PIN 4 WHITE
PIN 5 DRAIN
PIN 6 NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)

NOTE: RUBBER GROMMET SUPPLIED BY TAIT MOBILE RADIO INC. MARKHAM, ONTARIO, CANADA PART NUMBER 360-02003-00

INSTRUCTION TAG

IMPORTANT!
CABLE AND CONNECTOR ASSEMBLY FOR MODELS 550T, 590T, 885TT MICROPHONES

When using early production 885TT microphones, red jumper from D-E (W301) must be removed. In later production units, red jumper D-E (W301) is moved to location F-G (W309), per user guide instructions. (No modification required for models 550T and 590T.)

For Tait radios requiring CTCSS function, the following modification is required. Open microphone and access main PCB assembly. Remove blue wire from hangup button to PCB. Solder a 12 kilohm resistor from the hangup button to the yellow wire terminal on the PTT switch. Insulate resistor with tape to prevent shorting. This allows proper CTCSS operation when used with a grounded hangup bracket.

29M2127

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
**MODEL NUMBER**

ALM-45

**CONNECTOR**

MODULAR 6-PIN

**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** RJ-45 MODULAR 6-PIN

**CONNECTOR PIN ASSIGNMENTS:**

<table>
<thead>
<tr>
<th>PIN</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DRAIN</td>
</tr>
<tr>
<td>2</td>
<td>WHITE</td>
</tr>
<tr>
<td>3</td>
<td>YELLOW</td>
</tr>
<tr>
<td>4</td>
<td>BLUE</td>
</tr>
<tr>
<td>5</td>
<td>NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)</td>
</tr>
<tr>
<td>6</td>
<td>RED</td>
</tr>
</tbody>
</table>

---

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**

**CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES**

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

---

**STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES**

- **RED:** AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- **WHITE:** NON-AMPLIFIED AUDIO OUTPUT
- **YELLOW:** PTT SWITCH
- **BLACK:** PTT SWITCH GROUND
- **BLUE:** HANG-UP BUTTON
- **DRAIN:** GROUND

---

(LOCKING TAB ON REVERSE SIDE)
STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- **RED**: Amplified audio output, and DC bias voltage input
- **WHITE**: Non-amplified audio output
- **YELLOW**: PTT switch
- **BLACK**: PTT switch ground
- **BLUE**: Hang-up button
- **DRAIN**: Ground

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**

CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

29F2127
CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1  NO CONNECTION
PIN 2  NO CONNECTION
PIN 3  NO CONNECTION (BLACK LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 4  NO CONNECTION (BLUE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 5  NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
PIN 6  SHIELD
PIN 7  YELLOW
PIN 8  RED

CONNECTOR WIRING DETAIL
(LOCKING TAB ON REVERSE SIDE)

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE  NON-AMPLIFIED AUDIO OUTPUT
- YELLOW  PTT SWITCH
- BLACK  PTT SWITCH GROUND
- BLUE  HANG-UP BUTTON
- DRAIN  GROUND

INSTRUCTION TAG
IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T, 885TT, AND 890TT MICROPHONES

When using early production 885TT or 890TT microphones, red jumper from D-E (W301) must be removed. In later production units, the red jumper D-E (W301) is moved to location F-G (W309), per data sheet instructions. (No modification required for Model 590T microphone.)

29F2127
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:

PIN 1 NO CONNECTION
PIN 2 NO CONNECTION
PIN 3 YELLOW
PIN 4 RED
PIN 5 SHIELD
PIN 6 BLUE
PIN 7 NO CONNECTION
PIN 8 NO CONNECTION

BLACK AND WHITE CONDUCTORS NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
**MODEL NUMBER**

ALM-49

**CONNECTOR**

8-PIN MODULAR

---

**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** RJ-45 MODULAR 8-PIN

**CONNECTOR PIN ASSIGNMENTS:**

- **PIN 1:** RED
- **PIN 2:** DRAIN
- **PIN 3:** YELLOW
- **PIN 4:** NO CONNECTION
- **PIN 5:** NO CONNECTION
- **PIN 6:** NO CONNECTION (WHITE LEAD OCCUPYING SLOT; NO CONTACT USED)
- **PIN 7:** BLACK
- **PIN 8:** BLUE

---

**STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES**

- **RED:** AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- **WHITE:** NON-AMPLIFIED AUDIO OUTPUT
- **YELLOW:** PTT SWITCH
- **BLACK:** PTT SWITCH GROUND
- **BLUE:** HANG-UP BUTTON
- **DRAIN:** GROUND

---

**INSTRUCTION TAG**

**IMPORTANT INFORMATION!**

CABLE AND CONNECTOR ASSEMBLY FOR MODEL 590T MICROPHONES ONLY

For CHANNEL GUARD™ or scanning option, cut blue wire to hang-up button in microphone or install logic inverter in radio.

29G2127

---

**CONNECTOR WIRING DETAIL (LOCKING TAB ON REVERSE SIDE)**

---

**RUBBER BOOT** (Shure Part# 66A370)
ALM-49A

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: RJ-45 MODULAR 8-PIN

CONNECTOR PIN ASSIGNMENTS:
PIN 1 WHITE
PIN 2 SHIELD (FROM WHITE)
PIN 3 YELLOW
PIN 4 NO CONNECTION
PIN 5 NO CONNECTION
PIN 6 RED
PIN 7 BLACK
PIN 8 BLUE

CONNECTOR WIRING DETAIL
(LOCKING TAB ON REVERSE SIDE)

RUBBER BOOT
(Shure Part# 66A370)

INSTRUCTION TAG

IMPORTANT INFORMATION!
CABLE AND CONNECTOR ASSEMBLY FOR
MODEL 590T MICROPHONES ONLY

For CHANNEL GUARD™ or scanning option, cut blue wire to hang-up button in microphone or install logic inverter in radio.

29G2127

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: TWO-PRONG RIGHT-ANGLE PLUG
(3.5mm MONO PLUG AND 2.5mm MONO PLUG)

NOTE: CONNECTOR IS MOLDED ONTO CABLE, AND REQUIRES SPECIAL EQUIPMENT FOR INSTALLATION

CONNECTOR WIRING:

2.5mm MONO PLUG:
TIP WHITE
SLEEVE SHIELD

3.5mm MONO PLUG:
TIP BLUE
SLEEVE BLACK

RED AND YELLOW CONDUCTORS NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: TWO-PRONG STRAIGHT PLUG
(3.5mm MONO PLUG AND 2.5mm MONO PLUG)

NOTE: THIS CONNECTOR IS MOLDED ONTO THE CABLE, AND CANNOT BE INSTALLED WITHOUT SPECIAL EQUIPMENT.

CONNECTOR WIRING:

2.5mm MONO PLUG:
TIP WHITE
SLEEVE SHIELD

3.5mm MONO PLUG:
TIP BLUE
SLEEVE BLACK
RED AND YELLOW CONDUCTORS NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
**CONNECTOR WIRING AT RADIO END**

**CONNECTOR TYPE:** TWO-PRONG RIGHT-ANGLE PLUG  
(3.5mm MONO PLUG AND 2.5mm MONO PLUG)

**NOTE:** CONNECTOR IS MOLDED ONTO CABLE, AND REQUIRES SPECIAL EQUIPMENT FOR INSTALLATION

**CONNECTOR WIRING:**

- **2.5mm MONO PLUG:**
  - TIP WHITE
  - SLEEVE SHIELD

- **3.5mm MONO PLUG:**
  - TIP BLUE
  - SLEEVE BLACK

**RED AND YELLOW CONDUCTORS NOT USED**

---

**STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES**

- RED: AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-53

CONNECTOR
TWO-PRONG RIGHT-ANGLE

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: TWO-PRONG RIGHT-ANGLE PLUG
(3.5mm STEREO PLUG AND 2.5mm MONO PLUG)

NOTE: CONNECTOR IS MOLDED ONTO CABLE, AND
REQUIRES SPECIAL EQUIPMENT FOR INSTALLATION

CONNECTOR WIRING:
2.5mm MONO PLUG:
TIP BLUE
SLEEVE BLACK & YELLOW

3.5mm STEREO PLUG:
TIP RED
RING WHITE
SLEEVE SHIELD

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: MOTOROLA JEDI CONNECTOR
(SHURE PART# 95B2156, SUPPLIED BY DTC COMMUNICATIONS, INC.)

NOTE: CONDUCTORS ARE SOLDERED TO A PC BOARD INSIDE THE CONNECTOR, NOT DIRECTLY TO CONNECTOR PINS

<table>
<thead>
<tr>
<th>CONDUCTOR</th>
<th>PC BOARD CONNECTION</th>
<th>PIN ON CONNECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>S5</td>
<td>4</td>
</tr>
<tr>
<td>YELLOW</td>
<td>S6</td>
<td>5</td>
</tr>
<tr>
<td>BLUE</td>
<td>S4</td>
<td>2</td>
</tr>
<tr>
<td>BLACK</td>
<td>S7</td>
<td>6</td>
</tr>
<tr>
<td>WHITE</td>
<td>S1</td>
<td>3</td>
</tr>
<tr>
<td>DRAIN</td>
<td>S3</td>
<td>1, 8</td>
</tr>
</tbody>
</table>

INSTRUCTION TAG

ALM-54 MODULINK CORDSET
For use with Shure Model 810M Speaker Microphone and Motorola Models HT1000, GP1200, MT2000, XTS3000, MTX838, MTX8000, MTX9000 Portable Radios only.
Not for use with Shure 810 Speaker Microphones.

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

<table>
<thead>
<tr>
<th>CONDUCTOR</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT</td>
</tr>
<tr>
<td>WHITE</td>
<td>NON-AMPLIFIED AUDIO OUTPUT</td>
</tr>
<tr>
<td>YELLOW</td>
<td>PTT SWITCH</td>
</tr>
<tr>
<td>BLACK</td>
<td>PTT SWITCH GROUND</td>
</tr>
<tr>
<td>BLUE</td>
<td>HANG-UP BUTTON</td>
</tr>
<tr>
<td>DRAIN</td>
<td>GROUND</td>
</tr>
</tbody>
</table>

(LOCKING TAB ON REVERSE SIDE)
JEDI CONNECTOR COMPONENTS

1. STRAIN RELIEF
2. GROMMET
3. CCA INTERFACE
4. HOUSING (INCLUDES BASE PLATE AND RUBBER SEAL)
**CONNECTOR WIRING AT RADIO END**

CONNECTOR TYPE: 14-PIN ROUND PLUG (ALDEN PL700N-GP)

NOTE: CONNECTOR IS MOLDED ONTO CABLE AND REQUIRES SPECIAL EQUIPMENT FOR INSTALLATION

CONNECTOR PIN ASSIGNMENTS:

<table>
<thead>
<tr>
<th>PIN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RED</td>
</tr>
<tr>
<td>2</td>
<td>BLACK</td>
</tr>
<tr>
<td>3</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>4</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>5</td>
<td>YELLOW</td>
</tr>
<tr>
<td>6</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>7</td>
<td>BLUE</td>
</tr>
<tr>
<td>8</td>
<td>SHIELD</td>
</tr>
<tr>
<td>9</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>10</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>11</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>12</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>13</td>
<td>NO CONNECTION</td>
</tr>
<tr>
<td>14</td>
<td>NO CONNECTION</td>
</tr>
</tbody>
</table>

WHITE CONDUCTOR NOT USED

**STANDARD MICROPHONE-END CONNECTOR WIRING**

AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- RED: AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-85RA

CONNECTOR
14-PIN ROUND RT. ANGLE

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 14-PIN ROUND RIGHT-ANGLE PLUG
(ALDEN PART NUMBER 106825)

NOTE: CONNECTOR IS MOLDED ONTO CABLE AND
REQUIRES SPECIAL EQUIPMENT FOR INSTALLATION

CONNECTOR PIN ASSIGNMENTS:
PIN 1 RED
PIN 2 BLACK
PIN 3 NO CONNECTION
PIN 4 NO CONNECTION
PIN 5 YELLOW
PIN 6 NO CONNECTION
PIN 7 BLUE
PIN 8 SHIELD
PIN 9 NO CONNECTION
PIN 10 NO CONNECTION
PIN 11 NO CONNECTION
PIN 12 NO CONNECTION
PIN 13 NO CONNECTION
PIN 14 NO CONNECTION

NOTE: LOCATION OF PIN 1
IS DENOTED BY A GROOVE
IN THE CONNECTOR BODY

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-86

CONNECTOR
5-PIN ROUND

CONNECTOR WIRING AT RADIO END
CONNECTOR TYPE: 5-PIN ROUND PLUG
(SWITCHCRAFT PART# 12CL5M)

CONNECTOR PIN ASSIGNMENTS:
PIN 1 WHITE
PIN 2 SHIELD
PIN 3 BLACK
PIN 4 YELLOW
PIN 5 NO CONNECTION

RED AND BLUE CONDUCTORS NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND
DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 5-PIN SWITCHCRAFT TINY-QG

NOTE: CONNECTOR IS OVERMOLDED ONTO CABLE. SPECIAL EQUIPMENT IS REQUIRED FOR ASSEMBLY.

PIN 1 RED
PIN 2 DRAIN
PIN 3 BLACK
PIN 4 YELLOW
PIN 5 NO CONNECTION

WHITE AND BLUE CONDUCTORS NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE NON-AMPLIFIED AUDIO OUTPUT
YELLOW PTT SWITCH
BLACK PTT SWITCH GROUND
BLUE HANG-UP BUTTON
DRAIN GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTION WIRING AT RADIO END

CONNECTOR TYPE: PJ-068 3-CONDUCTOR PHONE PLUG

WIRING SCHEME:

- **TIP**: YELLOW
- **RING**: WHITE
- **SLEEVE**: BLACK & DRAIN

RED AND BLUE CONDUCTORS ARE NOT USED

---

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

- RED: AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
- WHITE: NON-AMPLIFIED AUDIO OUTPUT
- YELLOW: PTT SWITCH
- BLACK: PTT SWITCH GROUND
- BLUE: HANG-UP BUTTON
- DRAIN: GROUND

(LOCKING TAB ON REVERSE SIDE)
MODEL NUMBER
ALM-88RA

CONNECTOR
RT. ANGLE PHONE PLUG

CONNECTOR WIRING AT RADIO END

CONNECTOR TYPE: 3-CONDUCTOR RIGHT-ANGLE PHONE PLUG
(SWITCHCRAFT PART# S230)

WIRING SCHEME:
TIP  YELLOW
RING  WHITE
SLEEVE  BLACK & SHIELD/DRAIN

RED AND BLUE CONDUCTORS ARE NOT USED

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

RED  AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT
WHITE  NON-AMPLIFIED AUDIO OUTPUT
YELLOW  PTT SWITCH
BLACK  PTT SWITCH GROUND
BLUE  HANG-UP BUTTON
DRAIN  GROUND

(LOCKING TAB ON REVERSE SIDE)
CONNECTION WIRING AT RADIO END

CONNECTOR TYPE: 4-PIN MALE XLR PLUG
(Switchcraft A4M)

CONNECTOR PIN ASSIGNMENTS:

PIN 1  YELLOW
PIN 2  BLACK
PIN 3  WHITE
PIN 4  SHIELD OF WHITE LEAD

RED AND BLUE CONDUCTORS ARE NOT USED

CONNECTOR PIN CONFIGURATION

STANDARD MICROPHONE-END CONNECTOR WIRING
AND WIRE FUNCTIONS FOR ALL MODULINK CABLES

<table>
<thead>
<tr>
<th>RED</th>
<th>AMPLIFIED AUDIO OUTPUT, AND DC BIAS VOLTAGE INPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHITE</td>
<td>NON-AMPLIFIED AUDIO OUTPUT</td>
</tr>
<tr>
<td>YELLOW</td>
<td>PTT SWITCH</td>
</tr>
<tr>
<td>BLACK</td>
<td>PTT SWITCH GROUND</td>
</tr>
<tr>
<td>BLUE</td>
<td>HANG-UP BUTTON</td>
</tr>
<tr>
<td>DRAIN</td>
<td>GROUND</td>
</tr>
</tbody>
</table>

(LOCKING TAB ON REVERSE SIDE)