

## INSTALLATION INSTRUCTIONS

### MODEL U3805 RADIO JUNCTION MODULE

#### DESCRIPTION

Model U3805 Radio Junction Module is a passive module that permits multiple Series 3800 Radio Interface Modules (a maximum of four) to be connected to one radio. Model U3805 provides one output to a mobile radio, one primary input from a Series 3800 Radio Interface Module, and three secondary inputs from Series 3800 Radio Interface Modules. Model U3805 also accepts input from Model C3019 Utility Radio Adapters (a modification is required to enable the use of Model C3019).

#### INSTALLATION

1. Mounting
  - a) Select a suitable mounting location that will provide clearance for the U3805 and all necessary connections.
  - b) Select an appropriate fastener based on mounting location and surface type (fasteners are not included with the U3805).
  - c) Place a grommet between each of the four mounting brackets and the mounting surface (grommets are included with the U3805).
  - d) Insert the fasteners through the four mounting brackets, and the grommets.
  - e) Tighten the fasteners until the grommets begin to compress. **DO NOT OVER-TIGHTEN THE FASTENERS**
2. Connections
  - a) Connections are made using cords having MS type, screw-on connectors. These connectors mate as follows:
    - i) Align key-way of cord mounted connector with key of module mounted connector.
    - ii) Insert cord mounted connector to module mounted connector until firmly seated.
    - iii) Hand tighten swivel nut of cord connector. **DO NOT OVER-TIGHTEN.**
  - b) Connect the U3805 to a radio using Model C3821 Radio Interface Cord.
    - i) Cut the C3821 Radio Interface to the proper length.
    - ii) Connect the male, six pin, MS connector on the C3821 to the *Radio Input* connector on the U3805.

- iii) Connect the stripped end of Model C3821 Radio Interface Cord to the radio (consult the radio's service manual for proper hook-up of Model C3821 Radio Interface Cord as the exact hook-up will vary depending upon the Make and Model of Radio used.)

Wire Color	Function
Red	Mic High
White	Mic Low
Green	Receive High
Black	Receive Low
Blue	PTT Low
Yellow	PTT High

- c) Connect the U3805 to Series 3800 Radio Modules using Model C3821 radio Interface Cords. (Note: C3821-05 turnkey cable is available -20' length- for use instead of procedures i and ii below).

- i) Cut the C3821 Radio Interface Cord to the proper length.
- ii) Affix a six socket, MS type connector, P/N 18352G-17, to the un-terminated end, wired as follows:

Socket	Wire Color	Function
A	Red	Mic High
B	White	Mic Low
C	Green	Receive High
D	Black	Receive Low
E	Blue	PTT Low
F	Yellow	PTT High

- iii) Connect the six socket, MS type connector on the C3821 to the *Primary Input* connector on the U3805.
- iv) Connect the six pin, MS type connector on the C3821 to a Series 3800 Radio Interface Module *Radio Input Connector*.
- v) Repeat steps i-iv for additional cords, as necessary, using the *Secondary Input* connectors on the U3805.

## Modification to Accept Model C3019 Belt Station for an Updated PCB Assembly

If a Model C3019 Utility Radio Adapter Cord is to be connected to the Radio through Model U3805 it will be necessary to modify the U3805 to permit proper Radio Receive function.

- Move jumper to position A, corresponding to the MS Connector to which the C3019 will be connected, from the PC board.

**NOTE:** Be careful not to disturb the existing wires, respectively of primary input connector.

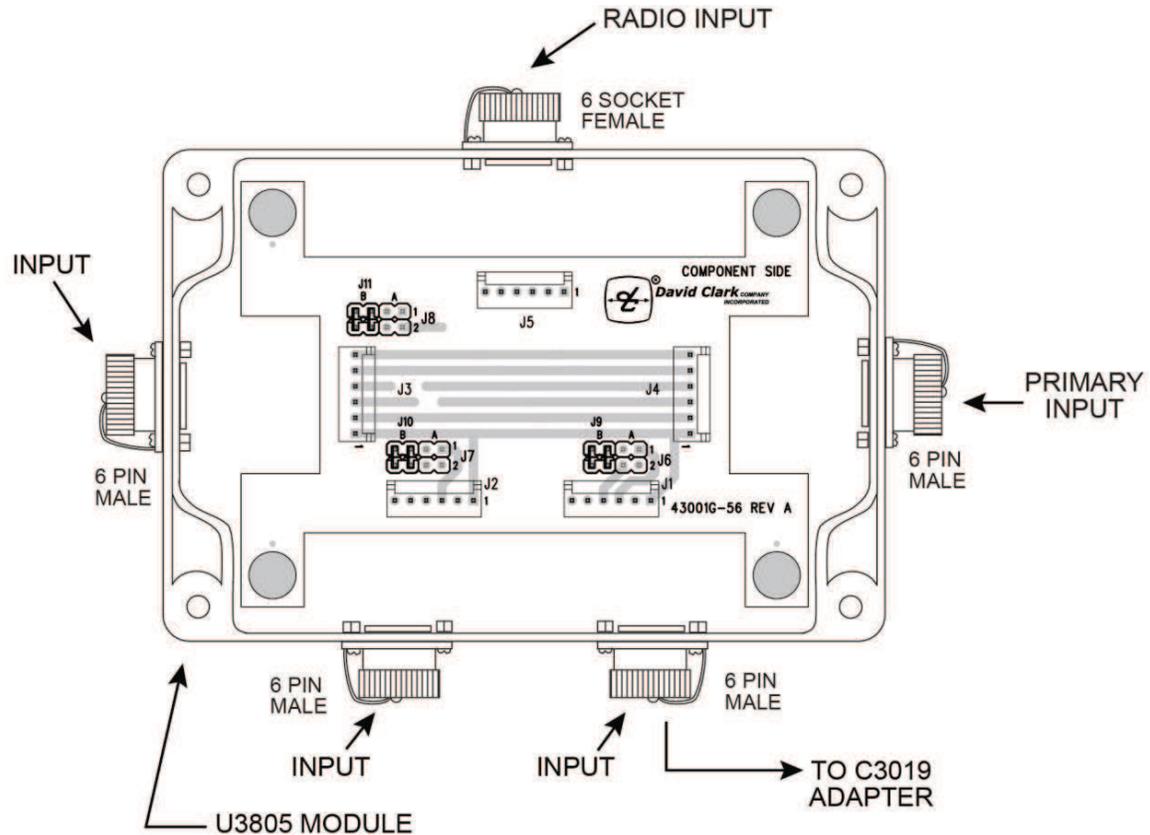


Fig. 1 – New PCB Assembly

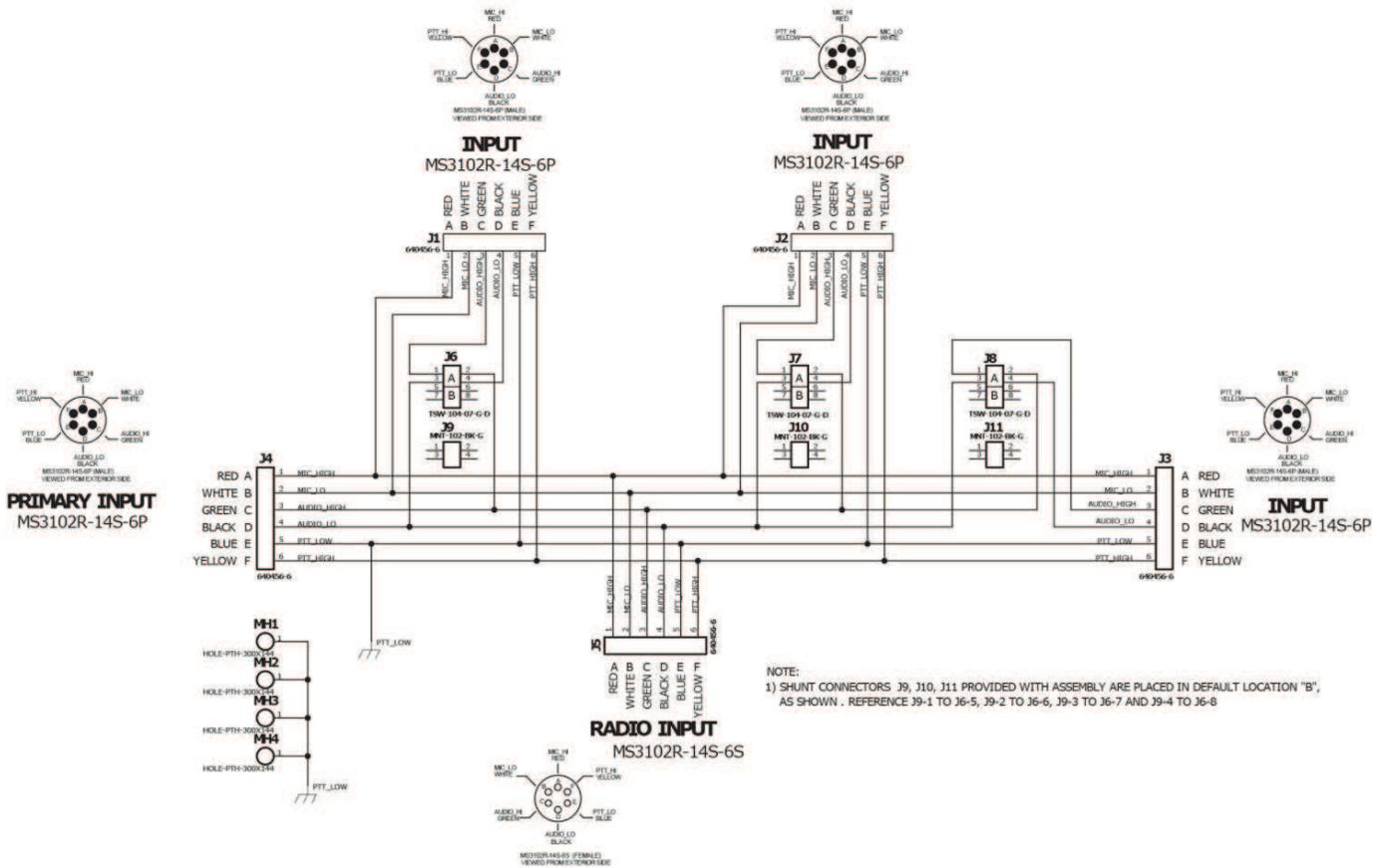


Fig. 2 – Schematic

## Modification to Accept Model C3019 Belt Station for an Original PCB Assembly

If a Model C3019 Utility Radio Adapter Cord is to be connected to the Radio through Model U3805 it will be necessary to modify the U3805 to permit proper Radio Receive function.

- Disconnect the Amp Connector, corresponding to the MS Connector to which the C3019 will be connected, from the PC board.
- Pull up on the green and black wires until they pop out of the connector. (These wires are shown by dashed lines.)
- Strip the green and black wires 1/4" and tin.
- Solder the green wire to Pin C of the Primary Input MS Connector.
- Solder the black wire to Pin D of the Primary Input MS Connector.

**NOTE:** Be careful not to disturb the existing green and black wires in Pins C and D, respectively of primary input connector.

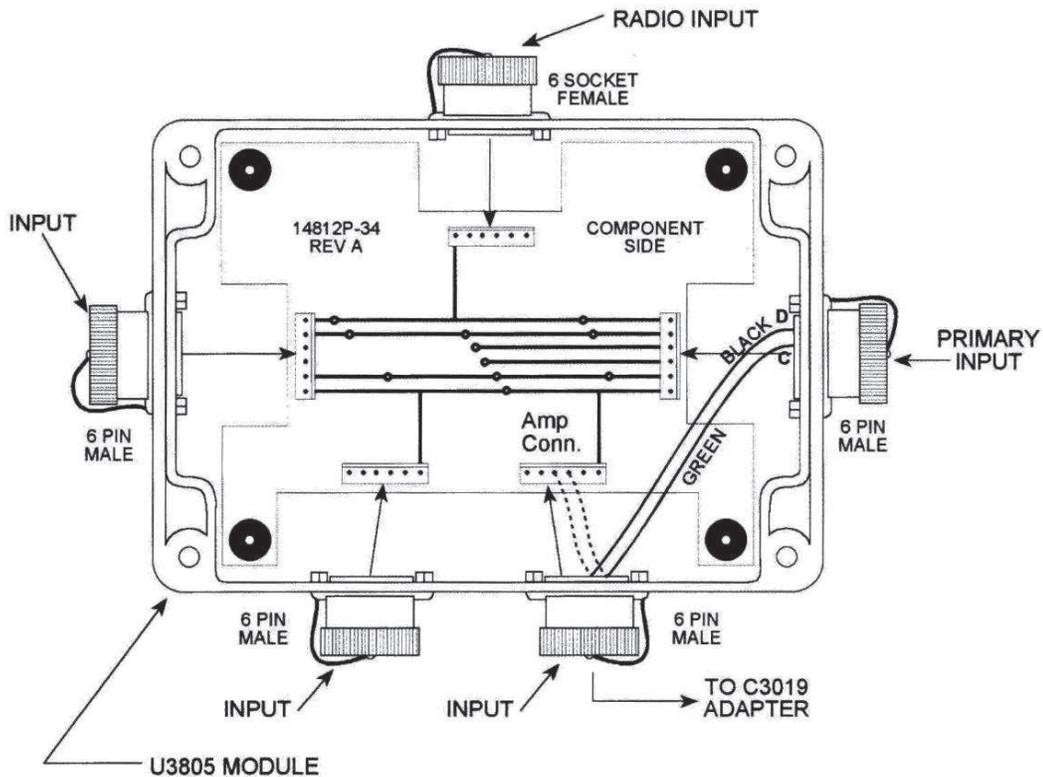


Fig. 3 – Original PCB Assembly