

Flesher Corporation

TU-300
AFSK BOARD

TU-300 AFSK BOARD

Refer to the OPERATORS MANUAL 'PARTS LIST' for installing the following components.

Position the AFSK board as shown in the illustration for the following assembly.

✓ (✓) R1: 2.2M ohm resistor (RED-RED-GRN)

✓ (✓) R2: 220 ohm resistor (RED-RED-BRN)

✓ (✓) D1: 1N4148 diode

✓ (✓) D2: 1N4148 diode

✓ (✓) D4: 1N4148 diode

✓ (✓) D6: 1N4148 diode

✓ (✓) R3: 470K ohm resistor (YEL-VIO-YEL)

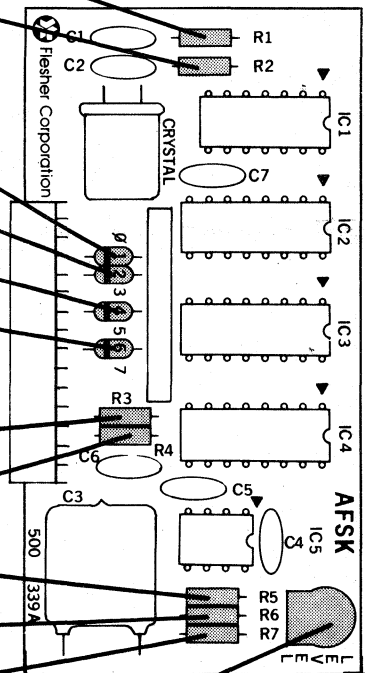
✓ (✓) R4: 470K ohm resistor (YEL-VIO-YEL)

✓ (✓) R5: 390 ohm resistor (ORG-WHT-BRN)

✓ (✓) R6: 680 ohm resistor (BLU-GRY-BRN)

✓ (✓) R7: 33K ohm resistor (ORG-ORG-ORG)

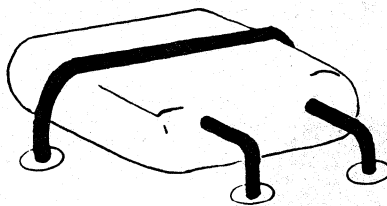
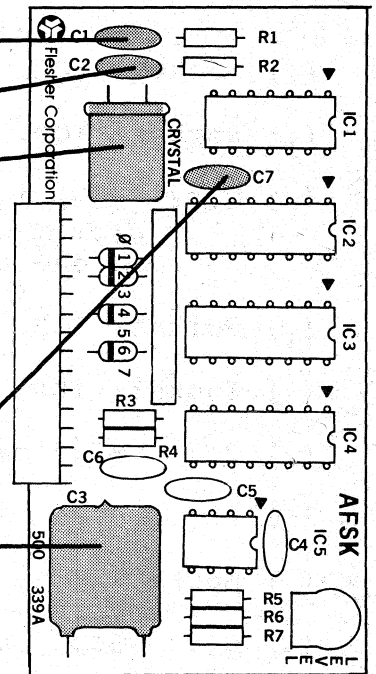
(✓) P1: 10K potentiometer. Install in location marked "LEVEL".



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- ✓ (✓) C1: 25 pf capacitor, disc
- ✓ (✓) C2: 25 pf capacitor, disc
- ✓ (✓) Install the crystal leads in the proper holes and bend the crystal over to lay flat on the circuit board. Additional mounting support may be obtained by looping a small piece of wire around the crystal and soldering the wire in the extra holes provided on the circuit board. (See illustration.)
- ✓ (✓) C7: .01uf capacitor, disc
- ✓ (✓) C3: .22uf mylar capacitor. Install in a similar manner as the crystal with the length of wire for extra mounting support. (See illustration.)

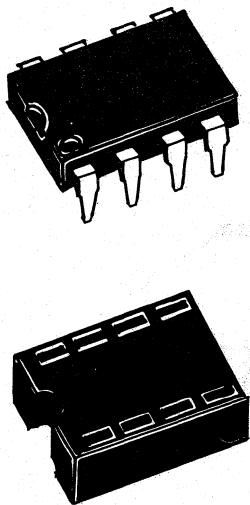
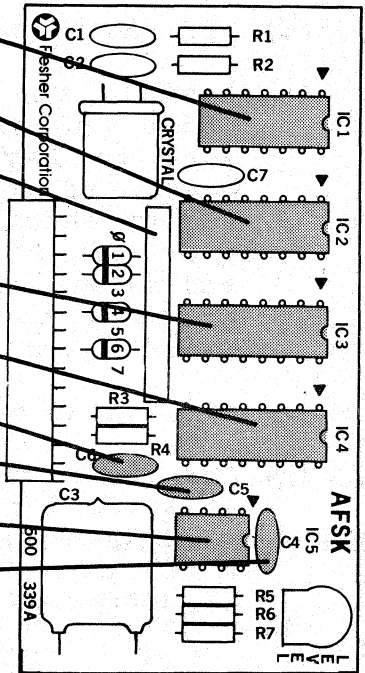


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Be sure the index marks of the IC sockets match the marks on the PC board. (See illustration below.)

- ✓ (✓) Socket: IC1, 14 pin
- ✓ (✓) Socket: IC2, 16 pin
- ✓ (✓) SIP: (single in-line resistor package). Observe index mark on one end.
- ✓ (✓) Socket: IC3, 16 pin
- ✓ (✓) Socket: IC4, 16 pin
- ✓ (✓) C6: .01uf capacitor, disc
- ✓ (✓) C5: .01uf capacitor, disc
- ✓ (✓) Socket: IC5, 8 pin
- ✓ (✓) C4: 750pf capacitor, disc



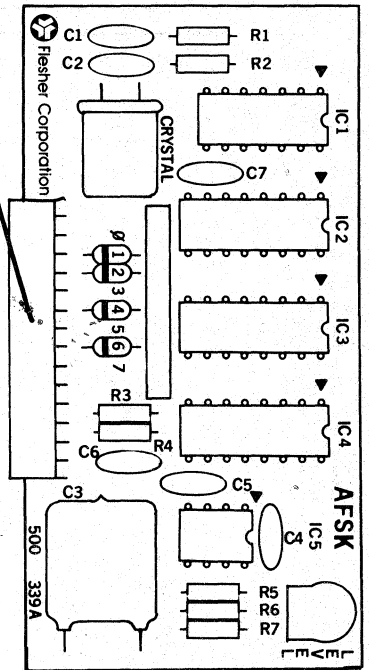
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(✓) Install the circuit board connector by hooking the small tabs on the ends of the connector over the bottom of the board and carefully inserting the pins in the holes. Be sure the connector is sitting flat on the circuit board when soldering pins. A flat piece of material may be used to keep the pins lined up as the connection is installed as shown in illustration on following page.

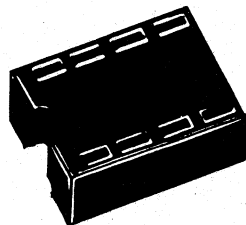
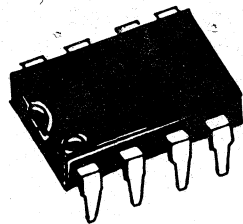
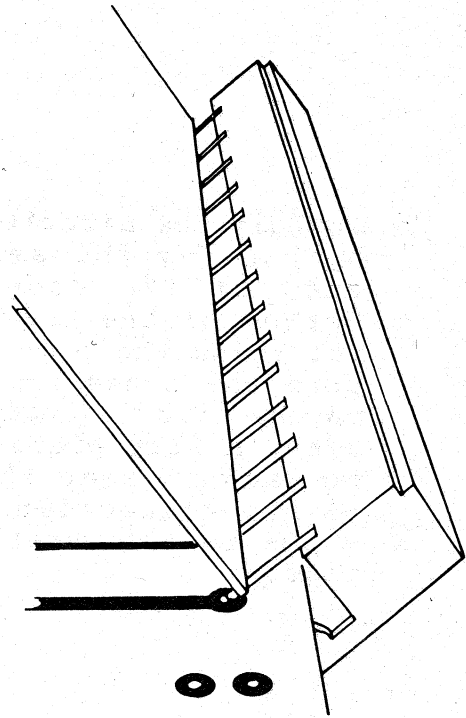
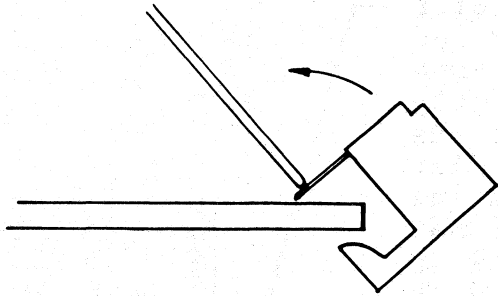
Install the IC's in their respective sockets. Be sure that all pins are inserted properly, are not bent under and the IC orientation matches the index marks of the socket as show in illustration on following page.

- ✓ (✓) IC1: 4069
- ✓ (✓) IC2: 40193
- ✓ (✓) IC3: 40193
- ✓ (✓) IC4: 40193
- ✓ (✓) IC5: MC1741 OR 741



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This completes the assembly of the AFSK circuit board. If you are building a complete TU-300, set this board aside until it is called for in later assembly steps. If you are adding this board to an existing TU-300, it is ready to be installed. Only the LEVEL will need be adjusted.