

FET-AMPLIFIED DYNAMIC MICROPHONE FOR BASE STATION CB TRANSCEIVERS

Catalog Number: 21-1173



SPECIFICATIONS

| | |
|------------------------------|--|
| Type: | Dynamic microphone with two Field Effect Transistors for amplifying. With Press-to-Talk Bar and Lock Bar. |
| Pick-up Pattern: | Omn-directional |
| Output Impedance: | 300 ohms (at 1 kHz) |
| Amplifier Gain: | 25 dB (adjustable) |
| Output Level: | -44 dB (Gain at Maximum) |
| Frequency Response: | 500 to 5,000 Hz |
| Cable: | 4' (122 cm) straight, with 5-pin DIN Plug |
| Battery Requirements: | 2 type AA Penlight cells (23-552) Approximate life = 120 hours Current Drain = 1.5 mA (maximum) |
| Weight: | 18 oz. (500g) |

NOTE: If in use you encounter problems — squeal, no modulation, no transmit/receive switching, erratic operation — be sure the Mic plug is **FIRMLY** pressed into its mating socket.

This deluxe Base Station CB Microphone incorporates two FET's (Field Effect Transistors) to assure adequate gain to drive any and all CB Transceivers to full modulation. The circuitry is specifically designed to taper the frequency response to communications frequencies — thus assuring you of maximum punch and intelligence in your signal. The mic head can be swiveled for best pick-up of your voice. And since the Mic is so sensitive and the sound is amplified, you don't need to get close up to obtain maximum signal. Talk in a normal voice level at arm's length, where you can conveniently operate the PUSH-TO-TALK or LOCK Bar. The GAIN control is a linear sliding type easy to use and you can tell-at-a-glance where you've set it.

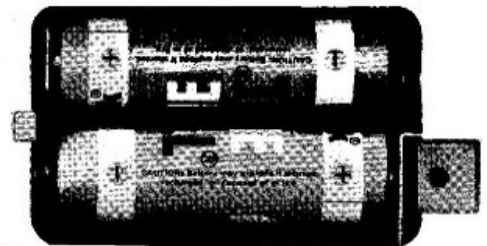
The only thing you need to add is batteries and then plug it in. You will need two type AA Penlight cells; we recommend Radio Shack ALKALINE ENERCELLS® Catalog Number 23-552.

As wired up (and with slide switch on the bottom in position 2), it can be used directly on the following REALISTIC CB sets: TRC-10A (21-126), TRC-23C (21-148), TRC-24A (21-145), TRC-24B/C (21-145), TRC-30/A/B (21-143), *TRC-46 (21-146), *TRC-47 (21-147), *TRC-48 (21-150), TRC-49 (21-149), TRC-50 (21-136), TRC-50A/B (21-138), TRC-52 (21-142), TRC-56 (21-153), TRC-55 (21-151), *TRC-57 (21-157).

*These REALISTIC SSB Transceivers have built-in automatic modulation limiters which electronically set the level of modulation. A Pre-amp mic is not needed at all with these units and if you set the Gain too high, you might over-drive these circuits, resulting in splatter and distortion. Thus, use only with care (stick with low GAIN settings) — or in applications where you have to be located some distance from the Mic.

BATTERY INSTALLATION

Open the Battery Compartment with a coin — turning the screw counter-clockwise. Load two type AA Penlight cells (23-552) into the battery holder **be sure to observe battery polarity markings as noted.** For ease of removal, place the batteries down over the ribbon supplied; then to pop out the batteries all you'll have to do is pull the end of the ribbon. Close the battery compartment and secure the screw.



RADIO SHACK LIMITED WARRANTY

This equipment is warranted against defects for 90 days from date of purchase. Within this period, we will repair it without charge for parts and labor. Simply bring your sales slip as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover equipment subjected to misuse or accidental damage.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

We Service What We Sell

Adjust GAIN control to the point where maximum modulation is obtained — but no further than this point.

Typically you won't need to set the GAIN control above about "2". If you use maximum gain ("5"), you may get feedback, squeal, distortion and all kinds of "garbage" in your transmitted signal.

To achieve the optimum setting, we suggest the following: Transmit to another CBER and test different settings. Ask for a report on your signal and then determine the point where your signal is putting out the most punch, with the least distortion and splatter. Then, **don't use more than that setting**. If you use a higher GAIN setting, you may be over-modulating and producing splatter, signal distortion and thus be transmitting an illegal signal. (Furthermore, the signal you are putting out may be very difficult to copy — and so you are no better off anyway).

While REALISTIC CB Transceivers don't require a pre-amp mic such as this (there is adequate gain built into the set), there are conditions which may require the advantages of such a mic. For example, in a base situation where the operator may want to lean back in his/her chair — or where voice levels vary (from a loud male voice to a soft female voice). In such cases, it's handy to be able to adjust the gain of the mic and thus insure maximum modulation . . . Keep in mind that as you increase the gain setting, background noise pick up will also increase, so plan accordingly.

CAUTION: It may seem we're overstating the point — but we want you to get it. **Set GAIN only as high as necessary to obtain full modulation and don't go past that point.**

As we have noted, for each of the listed Realistic units, use position 2 of the switch on the bottom of the Mic base. Basically this switch is for:

- A. Position #1 — units which utilize relay-type switching.
- B. Position #2 — units which utilize electronic switching.

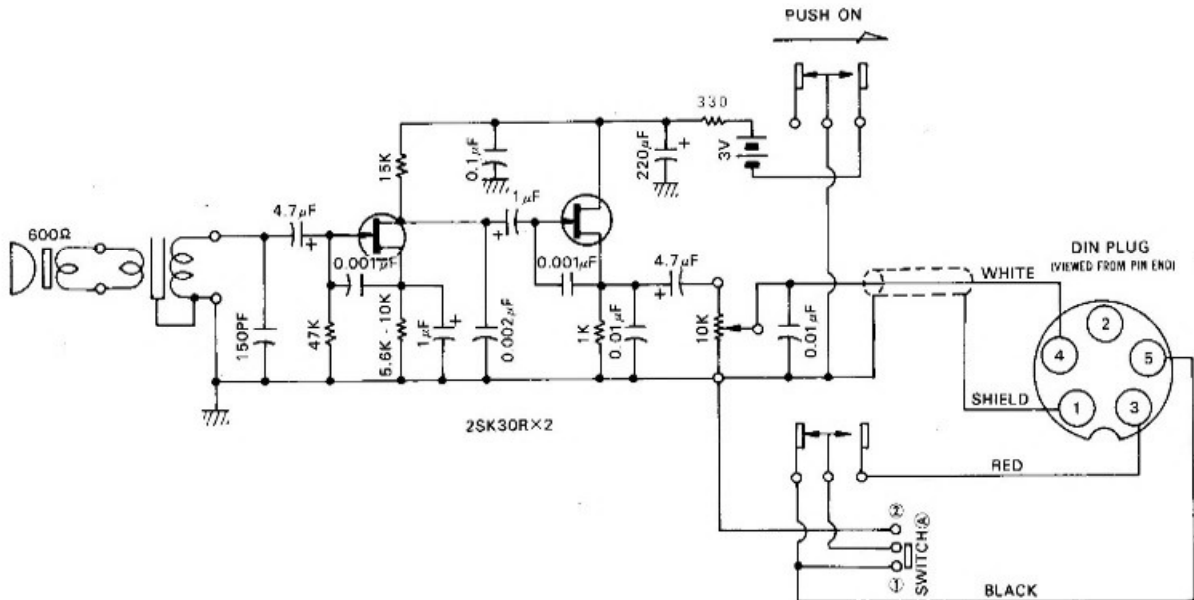
For other units available on the market, it may be necessary to re-wire the DIN plug (or the mic jack on the Transceiver). The Function/Operation chart noted below will be helpful in determining the proper connections. Also, the Schematic will prove helpful. If you have difficulty, check with a qualified Electronics Service Technician — take this instruction sheet, along with the instructions for the CB Transceiver (the Technician will need both pieces of information, especially the Schematic diagrams).

PA use — this mic can also be used for public address systems. Connections should be made for audio "Hot" from pin 4 and ground from 1.

FUNCTION/OPERATION OF MIC CONNECTOR PINS

| Pin Number | Switch position 1 | | Switch position 2 | |
|------------|--------------------------|--------------------------|-------------------------|-------------------------|
| | Button Out (Receive) | Button On (Transmit) | Button Out (Receive) | Button On (Transmit) |
| 1 | Shield /Ground for Audio | Shield/Ground for Audio | Shield/Ground for Audio | Shield/Ground for Audio |
| 2 | No connection | No connection | No Connection | No Connection |
| 3 | Floating free | Floating free (to pin 5) | Floating free | Grounded (to pin 1) |
| 4 | Audio "hot" | Audio "hot" | Audio "hot" | Audio "hot" |
| 5 | Floating free | Floating free | Grounded | Floating free |

SCHEMATIC DIAGRAM



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