SINCE 1948

RACO

REMOTE ALARMS AND CONTROLS

INSTALLATION OF THE MODBUS OPTION FOR VERBATIM

The following items should be included in your upgrade kit, except in cases where a particular item is either not required or already in place:

- ☐ A VDB Daughter Board with standoff fasteners
- ☐ A special board extraction tool if needed
- ☐ Extra speech memory chips
- ☐ A pair of card guides (left and right) with screws
- ☐ A VCP circuit card
- ☐ A pair of EPROM program chips
- ☐ Extra LED array indicators for front panel display
- ☐ A chip extraction tool
- ☐ Special negative film to place under LEDs
- ☐ Manual

Since it will be necessary to clear out all memory contents and reprogram the unit, be sure you have written down all your programming and list of messages to facilitate reprogramming.

Be certain to turn the unit off, and also remove the source of 120 VAC power to the unit. Also disconnect the 6 volt gel cell battery, before performing the following steps. Be sure to straighten chip pins before inserting chips.

INSTALL VDB DAUGHTER BOARD

- • To install the VDB board, place a piece of electrical tape over the metal can U10 (this is to prevent a possible short to the circuitry on the underside of the daughter board).
- • Install 4 nylon standoffs in the mainboard. The holes correspond with the four corners of the daughter board.

- Align this board so that its holes meet the four nylon standoff fasteners and its 64 pins align with connector J1 on the Main Circuit Board.Press the VDB board firmly into place on all four corners so that all four standoff fasteners "snap" into place, locking the VDB board in position.
- Press firmly on the edge with the pins to be sure they are completely seated.

CARD GUIDES:
- Referring to the diagram, after the VDB board is installed, fit the left hand card guide over the two studs which protrude on the inside left side of the metal enclosure (the left hand guide is the one with a notch cut in the bottom to allow clearance for the nylon standoffs of the daughter board). These studs accurately position the card guide.
- Fasten the card guide with two 6-32 machine screws,
- Fasten the right hand card guide in similar fashion.

EXTRA SPEECH MEMORY CHIPS:
- These chips have 32 pins. They go into the vertically oriented VSPE-2 speech card which is located at the very top of the unit. There is a continuous row of 10 32-pin chip sockets on this board, labeled U101-U110, with at least the first 3 sockets containing chips.
- Add whatever additional speech memory chips are included in your upgrade kit to the speech board, starting with the first available socket immediately to the right of the existing chips, so that a continuous group of chips is maintained with no empty sockets between them.
- Be sure that the pins on the chips are straight before plugging them in.
- Plug the chips in with the orientation dimple or end dot facing upward.

VCP CIRCUIT CARD:
- Referring to the diagram, carefully insert the VCP card in the top pair of card guide slots, and slide it firmly into place so that its 64 pins fit into connector J1-E4 on the VDB Daughter Board.

EPROM PROGRAM CHIPS:
- Remove program chips from sockets U3 and U4 using the enclosed chip extractor tool.
- Replace them with the new U3 and U4 program chips respectively, with the orientation indentations facing upward, after first straightening any bent pins.

JUMPER BLOCKS:
- JB1 and JB2 configure the sockets U3/U4 and U1/U2 respectively for the size of chip. If you have a VMP-5 main board (label at the bottom), the JB1 block is always over the right two pins and the JB2 block is always over the left two pins.
- Exceptions (depending on your particular configuration) are noted below:

        JB2   **JB1**
        * * *   * * *

EXTRA LED INDICATORS FOR FRONT PANEL BOARD:
- These will be included in your upgrade kit unless you already have 32 total channels installed, in which case there is no additional room for additional LED's.
- Remove the VFP front panel circuit board via 5 machine screws.
- Observe the insulation material and any spacers so that you can restore them in proper place later.
- Unplug the 2-conductor speaker connector but leave the 26-conductor ribbon cable in place.
- Plug the white LED arrays in place in their sockets, beginning with the first empty sockets to the right of the existing group of LED arrays. Orientation does not matter with these LED arrays as long as they are properly seated in their sockets.
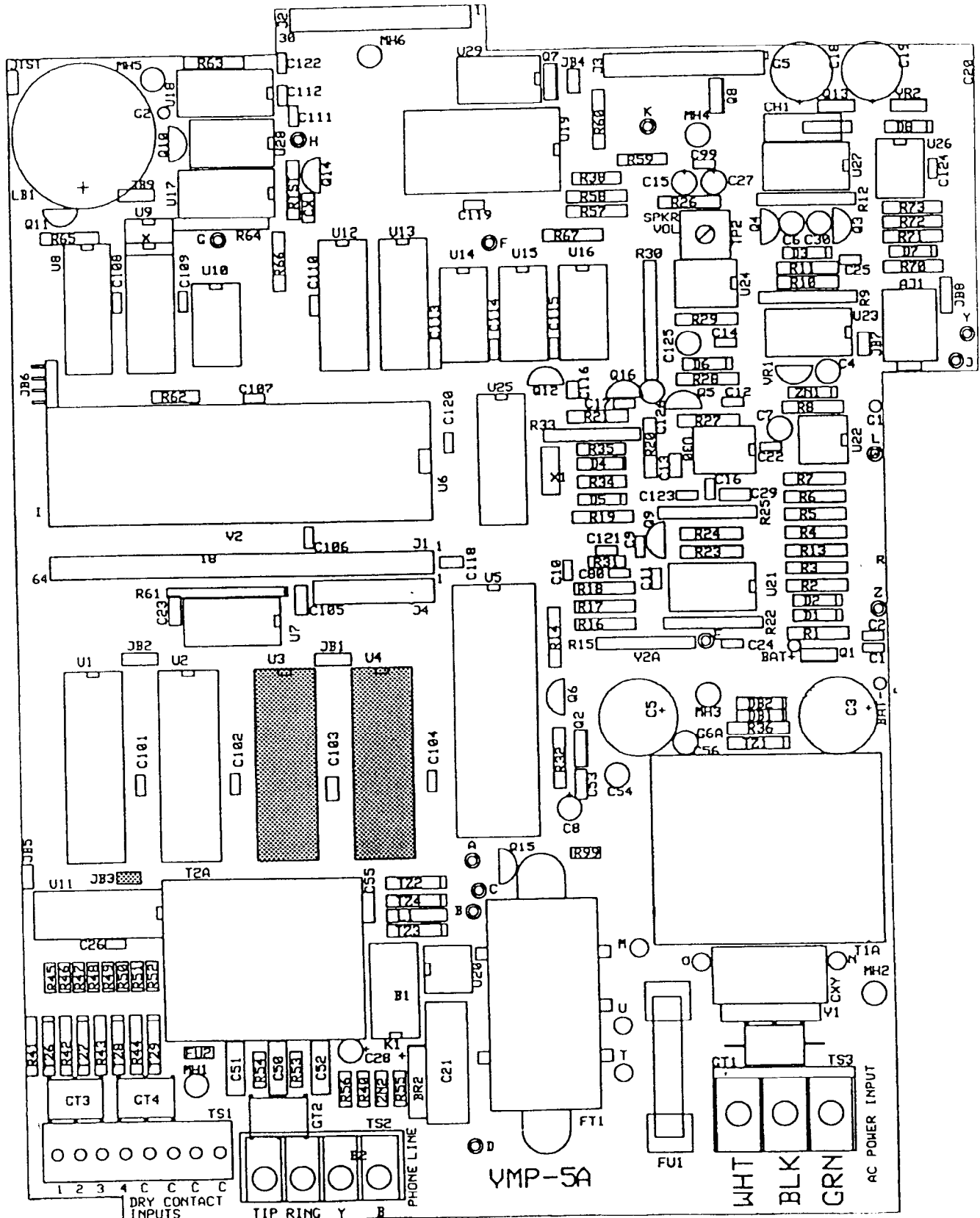
SYSTEM MEMORY CLEARDOWN:
- Reconnect the battery.
- Restore the source of 120 VAC power, which will turn the unit on.
- Locate jumper block JB3, which lies immediately below chip U1.
- Momentarily (about 3-4 seconds) make connection between the two pins of JB3 while the unit is turned on. This will clear out all memory contents of the unit.
- The unit is now ready to have your programming entered.
- The programming may be done at the panel or from a remote telephone.

Your unit is now upgraded to include the Modbus option. Refer to instructions in the owner's manual for connecting and operating this option.

RETURN EXTRA PARTS TO FACTORY:
- To avoid extra charges, return any removed chips or unneeded card guides or daughter boards to the factory at the address shown on the letterhead.
- If you have questions, call Raco Customer Support at 800-449-4539. The Customer Support Department will be available from 8:00am to 4:30pm PST, Monday through Friday (excluding holidays).

VMP-5A

Installation of Comm Card

VSPE Speech Card

Serial Port

RSC B RSC A

J303

J307

VCP Card

Do Not Use

1 2 3 4 C C C C C   R G Y B   WHT BLK GRN

Phone
Connections

Connect grounded
120 VAC power here

Connect unpowred contact
inputs here. C terminals
are common return.