# TALKBACK INTERCOM SYSTEM <br> V-2925A - ADD ON EXPANSION UNIT FOR THE V-2924A 

The basic V-2924A Talkback Intercom System provides 24 stations with one-way, two-way, group call and all call pages. The V-2925A Expansion Unit is an add on unit for the V-2924A. Each V-2925A Expansion Unit will expand the V-2924A by twenty-four (24) additional stations. Up to three (3) Expansion Units can be added to a system for a total of 48,72 , or 96 zones of paging.

The V-2925A can $\boldsymbol{O N L Y}$ be used with the V-2924A. If you have the V-2924 model, please contact Technical Support for assistance.

## WARNING: Disconnect main power before servicing.

## Mounting

- Plug the Expansion Unit into the Control Unit. For the first Expansion Unit, insert the P1 connector from the Expansion Unit into the P8 connector on the Control Unit (Refer to Figure 1 for location of connectors). (For each additional Expansion Unit, insert P2 into P1 - Refer to Figure 1 of the Control Unit document).
- Close latches attached to the top and bottom of the Expansion Unit over the keepers on the top and bottom of the Control Unit.
- Drill holes into backboard through mounting flanges on the Expansion Unit.
- Insert screws into holes and tighten screws firmly.


## Connections

Each Expansion Unit requires (2) 66B type punchdown blocks. Mount these on the backboard near the associated Expansion Unit. Make connections to the punchdown blocks as specified in Figure 2 - Punchdown Block Connections.

## Setting Option Switches

All options programmed for the Control Unit are available on the additional stations provided by the Expansion Units. The only switches on the Expansion Unit requiring attention are those for Background Music. Refer to Figure 1 for location and Table 1 for the default values of these switches. Make changes as desired for the various zones.

## Dimensions/Weight

- 17.5 "H x 8.37 "W x 3.06 "D
( $44.45 \mathrm{~cm} \mathrm{H} \times 21.26 \mathrm{~cm}$ W x 7.77 cm D)
- $\quad 11 \mathrm{lbs} .(5.0 \mathrm{~kg})$


## Operation

Same as Control Unit.


FIGURE 1 - V-2925A CONTROL AND CONNECTOR LOCATIONS


FIGURE 2 - PUNCHDOWN BLOCK CONNECTIONS

Block P3 - Switch Inputs

|  |  | Expansion Unit \#1 | *Expansion Unit \#2 | *Expansion Unit \#3 |
| :---: | :---: | :---: | :---: | :---: |
| 26 | W/BL | INA25 | INA49 | INA73 |
| 1 | BL/W | INB25 | INB49 | INB73 |
| 27 | W/O | INA26 | INA50 | INA74 |
| 2 | O/W | INB26 | INB50 | INB74 |
| 28 | W/GR | INA27 | INA51 | INA75 |
| 3 | GR/W | INB27 | INB51 | INB75 |
| 29 | W/BR | INA28 | INA52 | INA76 |
| 4 | BR/W | INB28 | INB52 | INB76 |
| 30 | W/S | INA29 | INA53 | INA77 |
| 5 | S/W | INB29 | INB53 | INB77 |
| 31 | R/BL | INA30 | INA54 | INA78 |
| 6 | BL/R | INB30 | INB54 | INB78 |
| 32 | R/O | INA31 | INA55 | INA79 |
| 7 | O/R | INB31 | INB55 | INB79 |
| 33 | R/G | INA32 | INA56 | INA80 |
| 8 | G/R | INB32 | INB56 | INB80 |
| 34 | R/BR | INA33 | INA57 | INA81 |
| 9 | BR/R | INB33 | INB57 | INB81 |
| 35 | R/S | INA34 | INA58 | INA82 |
| 10 | S/R | INB34 | INB58 | INB82 |
| 36 | BK/BL | INA35 | INA59 | INA83 |
| 11 | BL/BK | INB35 | INB59 | INB83 |
| 37 | BK/O | INA36 | INA60 | INA84 |
| 12 | O/BK | INB36 | INB60 | INB84 |
| 38 | BK/G | INA37 | INA61 | INA85 |
| 13 | G/BK | INB37 | INB61 | INB85 |
| 39 | BK/BR | INA38 | INA62 | INA86 |
| 14 | BR/BK | INB38 | INB62 | INB86 |
| 40 | BK/S | INA39 | INA63 | INA87 |
| 15 | S/BK | INB39 | INB63 | INB87 |
| 41 | Y/BL | INA40 | INA64 | INA88 |
| 16 | BL/Y | INB40 | INB64 | INB88 |
| 42 | Y/O | INA41 | INA65 | INA89 |
| 17 | O/Y | INB41 | INB65 | INB89 |
| 43 | Y/G | INA42 | INA66 | INA90 |
| 18 | G/Y | INB42 | INB66 | INB90 |
| 44 | Y/BR | INA43 | INA67 | INA91 |
| 19 | BR/Y | INB43 | INB67 | INB91 |
| 45 | Y/S | INA44 | INA68 | INA92 |
| 20 | S/Y | INB44 | INB68 | INB92 |
| 46 | V/BL | INA45 | INA69 | INA93 |
| 21 | BL/V | INB45 | INB69 | INB93 |
| 47 | V/O | INA46 | INA70 | INA94 |
| 22 | O/V | INB46 | INB70 | INB94 |
| 48 | V/G | INA47 | INA71 | INA95 |
| 23 | G/V | INB47 | INB71 | INB95 |
| 49 | V/BR | INA48 | INA72 | INA96 |
| 24 | BR/V | INB48 | INB72 | INB96 |
| 50 | V/S | N.C. | N.C. | N.C. |
| 25 | S/V | N.C. | N.C. | N.C. |

Block P4 - Speaker Outputs

|  |  | Expansion Unit \#1 | *Expansion Unit \#2 | *Expansion <br> Unit \#3 |
| :---: | :---: | :---: | :---: | :---: |
| 26 | W/BL | T STA25 | T STA49 | T STA73 |
| 1 | BL/W | R STA25 | R STA49 | R STA73 |
| 27 | W/O | T STA26 | T STA50 | T STA74 |
| 2 | O/W | R STA26 | R STA50 | R STA74 |
| 28 | W/GR | T STA27 | T STA51 | T STA75 |
| 3 | GR/W | R STA27 | R STA51 | R STA75 |
| 29 | W/BR | T STA28 | T STA52 | T STA76 |
| 4 | BR/W | R STA28 | R STA52 | R STA76 |
| 30 | W/S | T STA29 | T STA53 | T STA77 |
| 5 | S/W | R STA29 | R STA53 | R STA77 |
| 31 | R/BL | T STA30 | T STA54 | T STA78 |
| 6 | BL/R | R STA30 | R STA54 | R STA78 |
| 32 | R/O | T STA31 | T STA55 | T STA79 |
| 7 | O/R | R STA31 | R STA55 | R STA79 |
| 33 | R/G | T STA32 | T STA56 | T STA80 |
| 8 | G/R | R STA32 | R STA56 | R STA80 |
| 34 | R/BR | T STA33 | T STA57 | T STA81 |
| 9 | BR/R | R STA33 | R STA57 | R STA81 |
| 35 | R/S | T STA34 | T STA58 | T STA82 |
| 10 | S/R | R STA34 | R STA58 | R STA82 |
| 36 | BK/BL | T STA35 | T STA59 | T STA83 |
| 11 | BL/BK | R STA35 | R STA59 | R STA83 |
| 37 | BK/O | T STA36 | T STA60 | T STA84 |
| 12 | O/BK | R STA36 | R STA60 | R STA84 |
| 38 | BK/G | T STA37 | T STA61 | T STA85 |
| 13 | G/BK | R STA37 | R STA61 | R STA85 |
| 39 | BK/BR | T STA38 | T STA62 | T STA86 |
| 14 | BR/BK | R STA38 | R STA62 | R STA86 |
| 40 | BK/S | T STA39 | T STA63 | T STA87 |
| 15 | S/BK | R STA39 | R STA63 | R STA87 |
| 41 | Y/BL | T STA40 | T STA64 | T STA88 |
| 16 | BL/Y | R STA40 | R STA64 | R STA88 |
| 42 | Y/O | T STA41 | T STA65 | T STA89 |
| 17 | O/Y | R STA41 | R STA65 | R STA89 |
| 43 | Y/G | T STA42 | T STA66 | T STA90 |
| 18 | G/Y | R STA42 | R STA66 | R STA90 |
| 44 | Y/BR | T STA43 | T STA67 | T STA91 |
| 19 | BR/Y | R STA43 | R STA67 | R STA91 |
| 45 | Y/S | T STA44 | T STA68 | T STA92 |
| 20 | S/Y | R STA44 | R STA68 | R STA92 |
| 46 | V/BL | T STA45 | T STA69 | T STA93 |
| 21 | BL/V | R STA45 | R STA69 | R STA93 |
| 47 | V/O | T STA46 | T STA70 | T STA94 |
| 22 | O/V | R STA46 | R STA70 | R STA94 |
| 48 | V/G | T STA47 | T STA71 | T STA95 |
| 23 | G/V | R STA47 | R STA71 | R STA95 |
| 49 | V/BR | T STA48 | T STA72 | T STA96 |
| 24 | BR/V | R STA48 | R STA72 | T STA96 |
| 50 | V/S | N.C. | N.C. | N.C. |
| 25 | S/V | N.C. | N.C. | N.C. |

## Table 1 - Background Music Options

| Background Music |  |  |  |
| :---: | :---: | :---: | :--- |
|  |  | Switch OFF | Switch ON |
| Stations | Main Board SW1 |  |  |
| $\mathbf{1 - 6}$ | SW1-1 | No BGM group 1 | BGM group 1 |
| $\mathbf{7 - 1 2}$ | SW1-2 | No BGM group 2 | BGM group 2 |
| $\mathbf{1 3 - 1 8}$ | SW1-3 | No BGM group 3 | BGM group 3 |
| $\mathbf{1 9 - 2 4}$ | SW1-4 | No BGM group 4 | BGM group 4 |
|  | Expansion Board 1: |  |  |
| $\mathbf{2 5 - 3 0}$ | SW1-1 | No BGM group 5 | BGM group 5 |
| $31-36$ | SW1-2 | No BGM group 6 | BGM group 6 |
| $\mathbf{3 7 - 4 2}$ | SW1-3 | No BGM group 7 | BGM group 7 |
| $\mathbf{4 3 - 4 8}$ | SW1-4 | No BGM group 8 | BGM group 8 |
|  | Expansion Board 2: |  |  |
| $\mathbf{4 9 - 5 4}$ | SW1-1 | No BGM group 9 | BGM group 9 |
| $\mathbf{5 5 - 6 0}$ | SW1-2 | No BGM group 10 | BGM group 10 |
| $\mathbf{6 1 - 6 6}$ | SW1-3 | No BGM group 11 | BGM group 11 |
| $\mathbf{6 7 - 7 2}$ | SW1-4 | No BGM group 12 | BGM group 12 |
|  | Expansion Board 3: |  |  |
| $\mathbf{7 3 - 7 8}$ | SW1-1 | No BGM group 13 | BGM group 13 |
| $\mathbf{7 9 - 8 4}$ | SW1-2 | No BGM group 14 | BGM group 14 |
| $\mathbf{8 5 - 9 0}$ | SW1-3 | No BGM group 15 | BGM group 15 |
| $\mathbf{9 1 - 9 6 ~}$ | SW1-4 | No BGM group 16 | BGM group 16 |

Table 2 - Numbering Plan
2 Digit Zone Access:

| Dial Code | Function |
| :---: | :--- |
| $10 . .33$ | Handsfree speakers - Main board |
| $34 . .57$ | Handsfree speakers - Expansion board 1 |
| $58 . .81$ | Handsfree speakers - Expansion board 2 |
| $82 . .99$ * | Handsfree speakers - Expansion board 3 (1st 18 sta.) |
|  |  |
| "**" during hf to |  |
| zone 30,31,32, or 33 | Operate relay for longer of 2.5 seconds or duration of <br> second press, or until attendant releases hf. |

(Station 1 = code 10, station 2 = code 11, and so on)
3 Digit Zone Access:

| Dial Code | Function |
| :---: | :--- |
| $101 . .124$ | Handsfree speakers - Main board |
| $125 . .148$ | Handsfree speakers - Expansion board 1 |
| $149 . .172$ | Handsfree speakers - Expansion board 2 |
| $173 . .196$ | Handsfree speakers - Expansion board 3 |
|  |  |
| "**" during hf to zone | Operate relay for longer of 2.5 seconds or duration of <br> second press, or until attendant releases hf. |

(Station 101 = code 101, station 102 = code 102, and so forth)
*If the 2-digit dialing option is enabled in a system with 3 expansion units, the maximum number of zones is 90 .
The 3-digit dialing option must be enabled to access 96 zones.

Table 3 - Page Dial Codes:

| Dial Code | Groups |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Main Board |  |  |  | Expansion 1 |  |  |  | Expansion 2 |  |  |  | Expansion 3 |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| \#10 external all call |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#11 <br> system all call |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#!2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#60 | Exa | \# | 72 | + |  |  | oup | Il - | m | elec | y com | nation | f grour | code | uring | ling |
| \#61 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#62 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#64 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#65 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#67 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#68 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#70 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#71 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#73 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#74 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#75 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#77 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#78 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#79 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#80 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#81 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#84 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \#85 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

- Group 10 (External All Call) is not a valid group selection when using these dial codes

NOTE: For Group selection and Background Music Programming:

| Group 1 | Stations 1-6 |
| :--- | :--- |
| Group 2 | Stations 7-12 |
| Group 3 | Stations 13-18 |
| Group 4 | Stations 19-24 |
| Group 5 | Stations 25-30 |
| Group 6 | Stations 31-36 |
| Group 7 | Stations 37-42 |
| Group 8 | Stations 43-48 |
| Group 9 | Stations 49-54 |
| Group 10 | Stations 55-60 |
| Group 11 | Stations 61-66 |
| Group 12 | Stations 67-72 |
| Group 13 | Stations 73-78 |
| Group 14 | Stations 79-84 |
| Group 15 | Stations 85-90 |
| Group 16 | Stations 91-96 |

## TROUBLESHOOTING CHART

| Problem | Corrective Action |
| :---: | :---: |
| No system operation. | - Verify AC voltage is present at the receptacle. <br> - Check the fuse located on the bottom of the unit. If blown, replace with a $1 \mathrm{amp}, 250 \mathrm{VAC}$ fuse. <br> - Verify that 25 pair cable connectors are completely plugged into circuit board connectors. <br> - Refer to Figure 1 and verify all connections. |
| No paging at speaker. | - Refer to Figure 1 and adjust volume. |
| Paging at speaker but no reply from speaker. | - Refer to Figure 1 and adjust volume. |
| No system ringing when call button is pressed. | - Verify all associated connections. |
| Background music not heard at speakers. | - Verify connection of speakers and background music input. |
| No dial tone. | - Refer to dip switch settings. |

## VALCOM LIMITED WARRANTY

Valcom, Inc. warrants its products to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. inspection by Valcom, Inc. indicates the validity of the claim,
2. the defect is not the result of damage, misuse, or negligence after the original shipment,
3. the product has not been altered in any way or repaired by others and that factory sealed units are unopened (A service charge plus parts and labor will be applied to units defaced or physically damaged),
4. freight charges for the return of products to Valcom are prepaid,
5. all units 'out of warranty' are subject to a service charge. The service charge will cover minor repairs (Major repairs will be subject to additional charges for parts and labor).

This warranty is in lieu of and excludes all other warranties, expressed or implied, and in no event shall Valcom, Inc. be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation or use of the product.

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.

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## TECHNICAL ASSISTANCE

When trouble is reported, verify there are no broken connections. Assistance in troubleshooting is available from the factory. Call (540) 563-2000 and ask for Technical Support, or call (540) 767-1555 for Valcom 24-hour Automated Support or visit our website at http://www.valcom.com.

Valcom equipment is not field repairable. Valcom, Inc. maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating company name, address, phone number, contact person, and nature of the problem. Send the unit to:

Valcom, Inc.<br>Repair \& Return Dept.<br>5614 Hollins Road<br>Roanoke, VA 24019-5056

