CLEAR-COM ECLIPSE

ICS-24
HEADSET PANEL

INSTRUCTION MANUAL

ICS-24 Headset Panel Instruction Manual

Part Number 810265Z Rev. 2

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IMPORTANT SAFETY INSTRUCTIONS

Please read and follow these instructions before operating a ICS-24 headset panel.

For your safety, it is important to read and follow these instructions before operating a ICS-24 headset panel:

(1) **WARNING:** To reduce the risk of fire or electric shock, do not expose a ICS-24 headset panel to rain or moisture. Do not operate a ICS-24 headset panel near water, or place objects containing liquid on it. Do not expose a ICS-24 headset panel to splashing or dripping water.

(2) For proper ventilation, make sure ventilation openings are not blocked. Install the ICS-24 headset panel according to the directions in the Installation chapter of this manual.

(3) Do not install a ICS-24 headset panel near a heat source such as a radiator, heat register, stove, or other apparatus (including amplifiers) that produces heat. Do not place naked flame sources such as candles on or near a ICS-24 headset panel.

(4) Only use attachments/accessories specified by Clear-Com Intercom Systems.

(5) Unplug the ICS-24 headset panel during lightning storms or when unused for long periods of time.

(6) Refer all servicing to qualified service personnel. Servicing is required when:

- The ICS-24 headset panel has been damaged in any way.
- Liquid has been spilled or objects have fallen into the ICS-24 headset panel chassis.
- The ICS-24 headset panel has been exposed to rain or moisture.
- The ICS-24 headset panel does not operate normally.
- The ICS-24 headset panel has been dropped.

Please familiarize yourself with the safety symbols in Figure 1. When you see these symbols on a ICS-24 headset panel, they warn you of the potential danger of electric shock if the ICS-24 headset panel is used improperly. They also refer you to important operating and maintenance instructions in the manual.

This symbol alerts you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

This symbol informs you that important operating and maintenance instructions are included in the literature accompanying this product.

Figure 1: Safety Symbols

OPERATION

DESCRIPTION

The Clear-Com ICS-24 headset panels are ideal for use in theatres, live performances, industrial environments, and small television facilities. They feature excellent speech intelligibility in all noise levels and can be customized through their programmable options.

Selectable talking and/or listening allows the operator to communicate on one of four talk/listen paths. The dual-action talk button operates in electronic momentary or latching mode. The ICS-24 offers visible call and answer-back signaling to attract the attention of operators.

The ICS-24 panel accepts dynamic headsets, such as the Clear-Com PL-Pro™ or the HS-6 Telephone Headset Series. A sidetone control allows the operator to vary the level of his voice heard in the headset.

- *The ICS-24 offers selectable, talking and/or listening paths.*

The ICS-24 mounts in a standard two-gang electrical outlet box. The extra-thick front panel and compact, surface-mounted circuitry results in a small size and lighter weight package that maintains Clear-Com ruggedness. The ICS-24 connects to the Matrix frame with an RJ-45 connector.

The ICS-24 must be powered locally. In permanent wall installations, a 16-VAC doorbell transformer will provide a convenient source of power. In other installations, a 14- to 18-VAC wall-mounted transformer will suffice. The connections to this transformer are made to the circuit board's two-terminal, plug-on connector.

OPERATION

Normal operation of the ICS-24 headset panel only requires the front-panel controls. For intercom operation, set the intercom-level control to the desired level and press the talk button when talking. Set the sidetone control for the desired amount of sidetone in the earphone.

- *The panel must be powered locally.*

ECS System Configuration for ICS-24 Panels

The Eclipse Configuration System (ECS) software does not directly support the ICS-24 headset panel. In order to configure an ICS-24 panel the port is configured to drive an ICS-1008 panel with 14 keys (7 pairs of buttons). The ICS-24 channels are mapped onto the ICS-1008 keys starting from the left. Only the leftmost four pairs of keys on the ICS-1008 can be used to program the ICS-24; any other keys on the ICS-1008 will have no effect.

There must be a corresponding listen key on the top row to the talk key on the bottom row of the ICS-1008 configuration for the ICS-24 panel

to work correctly. If a talk key only is configured on the ICS-1008 in ECS the Talk key on the ICS-24 will not latch.

It should be noted that the panel signalling and control protocol used by the Eclipse matrix differs from the Matrix Plus 3. As a result the operation of these panels with an Eclipse matrix may be slightly different to their operation with a Matrix Plus 3.

FRONT PANEL

The controls, indicators, and connectors found on the ICS-24 front panel are shown in Figure 1-1 on page 1-2 and are described in the text that follows.

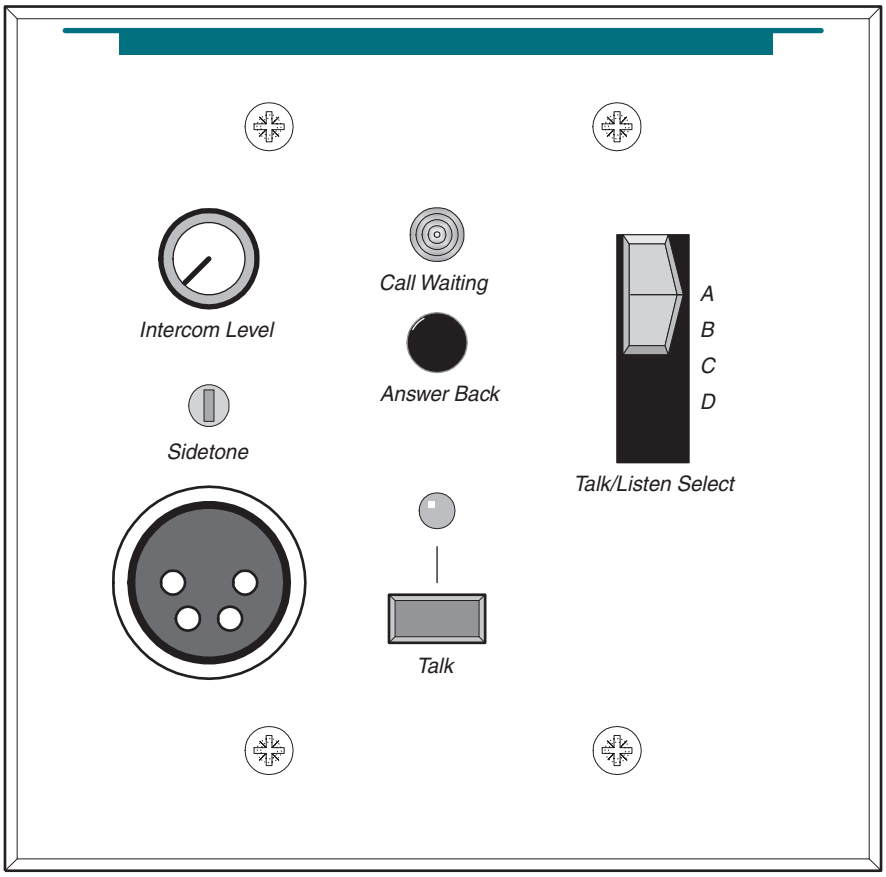

Figure 1-1: ICS-24 Front Panel

- *Appropriately setting the sidetone level decreases confusion, especially in loud environments.*

Talk Button and Light

- *The talk button has two functions.*

The talk button transmits the headset microphone audio to the selected talk/listen path. The button has a dual action (momentary or latching) depending upon how the button is pressed. If desired, the latching function can be defeated in the Matrix configuration program. The following describes the various functions of this button:

- Momentary—Press and hold the talk button while speaking. Release it when finished.
- Latching—Press and release the button quickly to latch the talk function. Press and release the button again to turn off the talk function.
- Talk Indication—The associated talk lamp will illuminate green when the talk function is activated.

Answer-Back Facility

The answer-back facility answers calls from panels or interfaces that the panel has not currently selected.

- ***Note:*** *The call-waiting light does not light when a call is received from a programmed label.*

Call-Waiting Light

This dual-function light:

- is steadily lit when a call signal is received.
- flashes to indicate a call-waiting signal, which has priority over a call signal.

Answer-Back Button

This three-function button:

- *The panel's answer-back feature offers a number of functions.*

- sends a call signal to the selected, programmed label when the call-waiting light is off.
- directs audio to the longest-waiting call in the call-waiting stack when the call-waiting light is flashing.
- ends the current conversation from the call-waiting stack when the call-waiting light is steadily on.

Answer-Back Stack

The answer-back stack tracks incoming calls from any label that is not assigned to the panel. These calls are available in the order they were received. The length of time the calls are available before they are automatically removed is set in the configuration program.

Note: The label programmed to and selected by the panel will never appear in the answer-back stack and duplicate labels are never added.

- *A tone alert is provided to ensure call signals are noticed.*

Answering a Call from the Answer-Back Stack

To answer a call from the answer-back stack:

1. Press and release the answer-back button to select the longest-waiting call.
2. Press the answer-back button while responding. The call-waiting light will be on steadily.

Terminating Calls Answered with the Answer-Back Button

To terminate the call answered with the answer-back button, turn off the call-waiting light, and recover the previous call:

- The receiving panel can terminate the call by pressing and releasing the answer-back button.
- The calling panel can terminate the call.

Answering Another Call from the Answer-Back Stack

To answer another call from the answer-back stack:

- If the calling panel disconnected the call, the call-waiting light will flash.
- If the receiving panel disconnected the call, a call from another unselected label will be activated when the answer-back button is released.

Sending a Call Signal

The answer-back button can send call signals to a panel or interface currently on the selected talk/listen path when the call-waiting light is not on. The light will turn on when the button is pressed and turn off when it is released.

- ***Note:*** *The configuration program can be set to also send an audible signal through the speaker, which can only be heard if the intercom level is turned up.*

Receiving a Call Signal

The call-waiting light turns on when another panel sends a call signal and remains on during the call.

Tone Alerts

Tone alerts are set through the configuration program. The panel has the following three tones:

- *A number of controls are available to adjust the panel's audio levels.*

Tone	Meaning
Four rapid beeps	Call signal
Two beeps	Label change
Single beep	Monitoring

Table 1-1: ICS-24 Tone Alerts

Intercom-Level Control

Turn this control to set the listen level required on the headset.

- ***Note:*** *Do not force the trimpot past its stop points. This will damage it.*

Sidetone Control

Sidetone is the level of the operator's voice heard while talking on the intercom. Setting a comfortable level of sidetone will ensure that the intercom line sounds alive and also helps modulate the operator's voice relative to other voices on the line.

Talk/Listen Switch

This switch selects the intercom label (A, B, C, or D) on which the ICS-24 panel is active.

Headset Connector

- ***Note:*** *Do not connect Pins 1 and 3 together. Headset extension cords or headset "Y" cables are not recommended because they may increase crosstalk between channels.*

The headset connector is located on the front panel. All Clear-Com headsets are recommended for use with the ICS-24. The Clear-Com PT-4 Push-to-Talk Microphone or the HS-6 Telephone Handset will also plug into the headset connector. The following is a description of the characteristics of a suitable headset:

- Mic Type—Dynamic; 150 to 400 ohms impedance; -55 dB output level.
- Headphone—Dynamic; 50 to 2000 ohms impedance.

The wiring of the headset is to be as follows:

Pin Number	Function
1	Microphone ground
2	Microphone hot
3	Headphone ground
4	Headphone hot

Table 1-2: ICS-24 Headset Wiring

The microphone and headphone wiring in the headset cord must be individually shielded.

INTERNAL ADJUSTMENTS AND CONNECTIONS

The connectors found inside the ICS-24 are shown in the following figure and described by the following text.

- *Three power sources are available for the panel.*

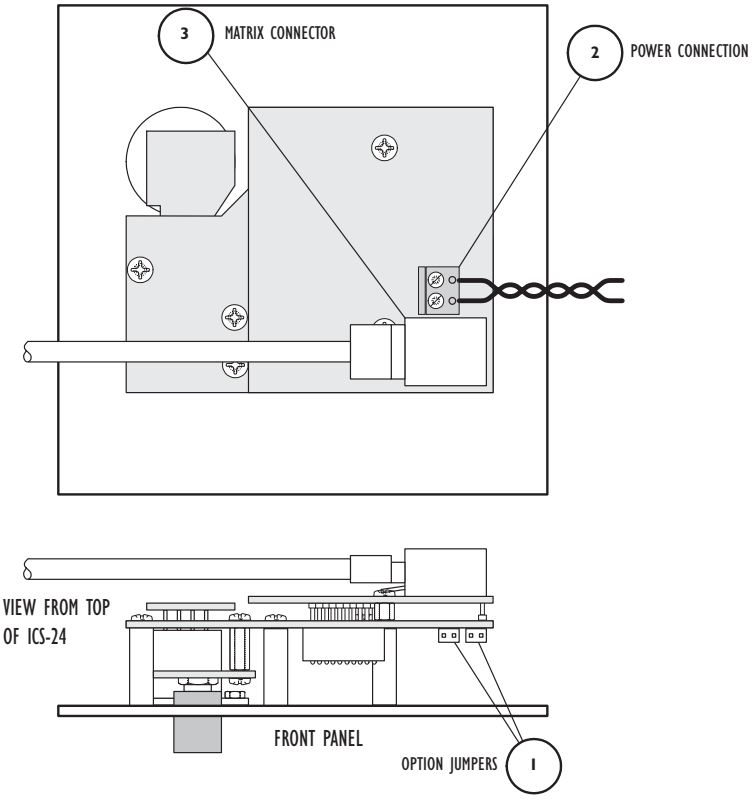

Figure 1-2: ICS-24 Internal Adjustments and Connections

- ***Note:*** *Both 10-VAC and 16-VAC doorbell transformers are commonly available at hardware stores, but only the 16-VAC transformers are suitable in this case.*

Option Jumpers (1)

The option jumpers in the ICS-24 are not used. Options are configured in the Matrix.

Power Connection (2)

The panel requires local power, which can come from various sources, including:

16-VAC Doorbell Transformer

A doorbell transformer can be attached to a separate box containing the power-line connection and the low-voltage 16-VAC secondary can be routed to the connector on the circuit board. This connection is especially useful if the headset panel is installed in a wall.

14-VAC Wall-Mounted Power Supply

A Clear-Com wall-mounted power supply (part number 400008) can be used for powering the panel from 120 VAC. (Use part number 400011 for 220 VAC power.) This connection is a better choice if the headset panel is mounted in an enclosure, which is not located on a wall.

24- to 28-VDC Source

The headset panel can be powered from a DC source, such as batteries.

To connect the selected power supply:

3. Connect the two wires from the power source to the two-position, plug-on terminal strip.
4. Plug this connector onto the circuit board as shown in Figure 1-2 on page 1-6.

Matrix Connector (3)

The eight-wire modular jack (RJ-45) on the ICS-24 provides an audio and communications link to the Matrix.

2 QUICK START

- *Users can use the "Quick Start" approach to get their panels up and running in minutes.*

1. Unpack the unit and inspect for any damage that may have occurred during shipping.
2. Connect the RJ-45 connector to the Matrix frame. Connect the 14- to 18-VAC power to the two-terminal, plug-on connector.
3. Install the ICS-24 into the two-gang outlet box.
4. Connect the appropriate headset or handset.
5. Set listen levels and sidetones. (Figure 1-1 on page 1-2)
6. The headset panel should now be operating properly.
7. Read the rest of this manual for further information.

- ***Note:*** *When the panel is initially powered, the call-waiting lamp will blink slowly indicating the panel is attempting to communicate with the Matrix frame. Once communication is established, the blinking will stop.*

3 INSTALLATION

- *The ICS-24 runs on 14- to 18-VAC power.*
- *Removing the RJ-45 Matrix connector requires two steps.*

1. Connect the 14- to 18-VAC power to the two-position terminal strip. Plug the terminal strip onto the P2 as shown in Figure 1-2 on page 1-6.
2. Connect the eight-wire, modular RJ-45 connector to J1 as shown in Figure 1-2 on page 1-6.
3. If the RJ-45 Matrix connector should need to be unplugged, use the following procedure:
    1. Remove power from the panel.
    2. Using long-nosed pliers, grasp the top and bottom of the plug so that the retaining clip will be depressed. Pull the plug out with the pliers.

4 MAINTENANCE

TROUBLESHOOTING TIPS

Listed below are some of the more common problems the panel may experience, their possible causes, and suggested solutions.

- *Sometimes when the talk light doesn't work it's because the panel isn't receiving power.*
- *When the system doesn't operate, make sure there isn't an incompatibility problem.*

SYMPTOMS	CAUSE	SOLUTION
System does not operate and the talk light does not turn on when talk button is pressed.	1. The panel is not receiving 14- to 16-VAC power. 2. The panel has an has an internal failure.	1. Check the circuit powering the panel and make sure all plug connections are secure. 2. The panel requires servicing.
System does not operate and the call-waiting light blinks slowly.	Communication with the system is lost.	Make sure each eight-wire, modular connector is securely plugged in, check the wiring, and ensure that the Matrix system is turned on.
System does not operate and the call-waiting light blinks quickly.	An incompatibility problem with the Matrix system.	Contact the dealer or Clear-Com's technical service.
Headset does not operate, but the talk light comes on when the talk button is pressed.	1. The headset is unplugged, the intercom-level knob is turned all the way down, or the talk/listen select switch is set to unused label. 2. Defective headset.	1. Adjust controls appropriately. 2. Test with another headset.

SYMPTOMS	CAUSE	SOLUTION
Hum or buzz in system.	Inductive pickup caused by close proximity of this headset panel or connected panels to power lines or transformers.	Relocate the offending unit or wiring.
System feedback (acoustical).	1. The intercom-level control at this panel or another panel is set too high. 2. The sidetone control at the panel or another panel is incorrectly adjusted. 3. A headset extension cord was used.	1. Adjust. 2. Adjust (see Figure 1-1 on page 1-2). 3. Remove the extension cord because its use is not recommended.
Rapid clicking noise.	1. Defective wiring or connectors. 2. Defective IC1 on 710533 assembly.	1. Repair/replace wiring or connectors. 2. Replace IC1.

- *Close proximity of the panel to power lines or transformers can cause a hum or buzz.*
- *System feedback can have three different causes.*

TECHNICAL REFERENCE

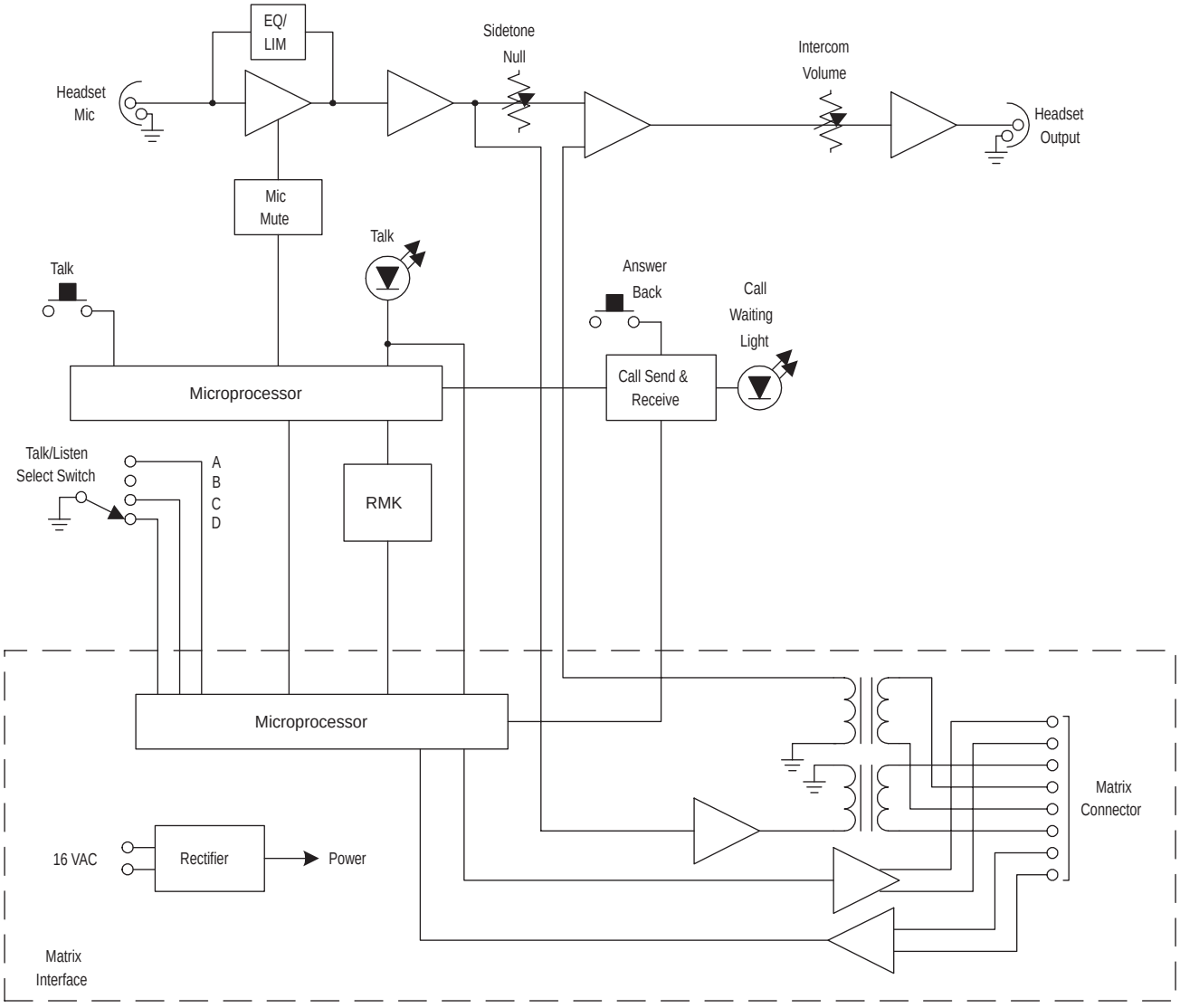

Figure 4-1: ICS-24 Block Diagram

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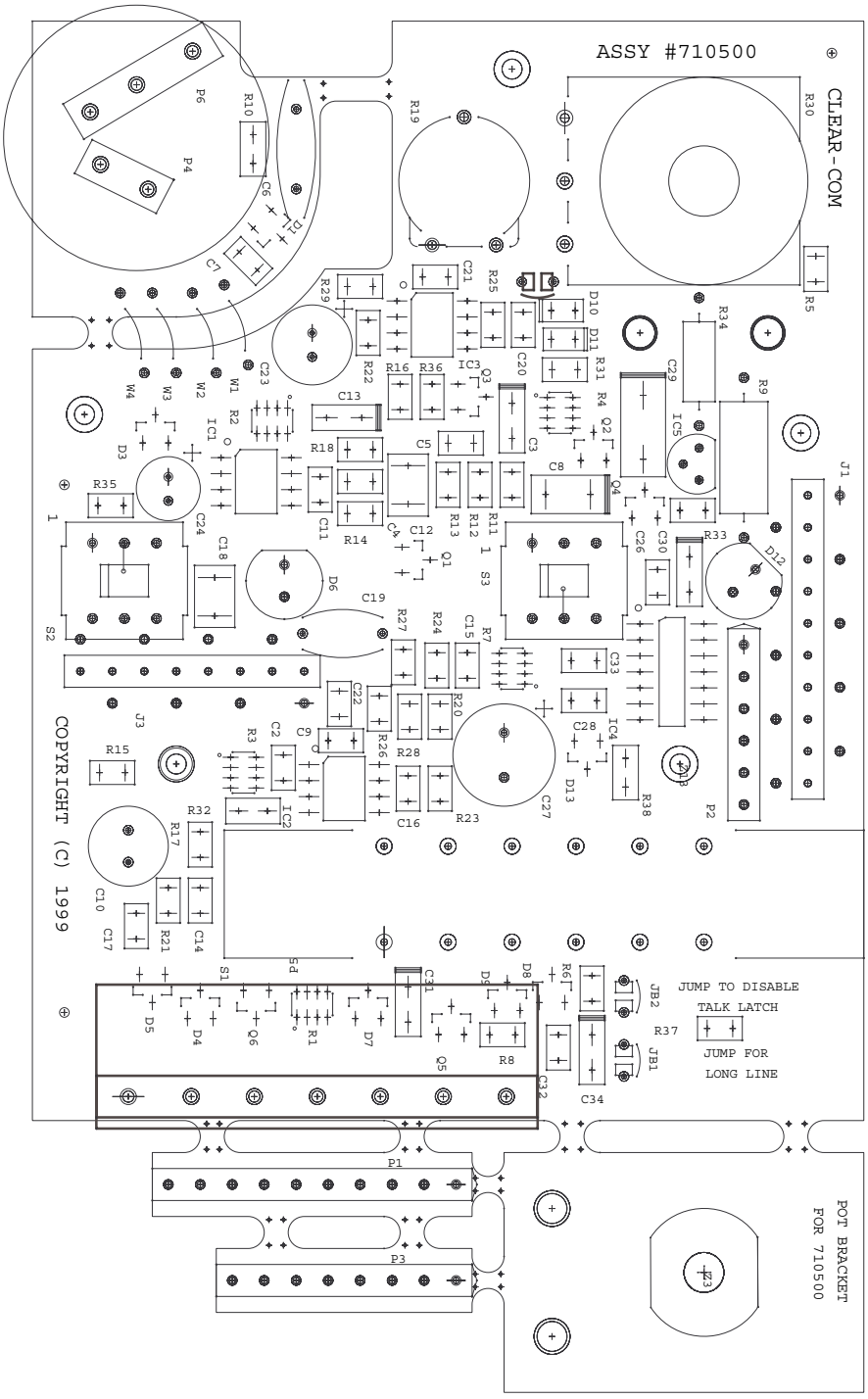

Figure 4-2: ICS-24 Main PCB Component Layout (part no. 710500)

BILL OF MATERIALS

ICS-24 Main PCB and Chassis (Part No. 710500)

CAPACITORS

Designator	Description	Qty
C6	.01 uF Ceramic Disc 1.4KV 20%	1
C10	4.7 uF Aluminum NP 50V	1
C19	.047 uF Metal Film 100V 2%	1
C27	100 uF Aluminum 35V	1
C23	22 uF Aluminum 35V 20%	1
C24	22 uF Tantalum 16V	1
C11 C20	22 pF Ceramic Disc SMD 50V5%	2
C2 C16	47 pF Ceramic Disc SMD 50V5%	2
C22	220 pF Ceramic Disc SMD 50V5%	1
C4 C7	470 pF Ceramic Disc SMD 50V 5%	2
C14	.0022 uF Ceramic Disc SMD 50V 10%	1
C5 C17	.0047 uF Ceramic Disc SMD 50V 10%	2
C28 C32 C33	.01 uF Ceramic Disc SMD 50V10%	3
C15	.047 uF Ceramic Disc SMD 50V 10%	1
C9 C21 C26	.1 uF Ceramic Disc SMD 50V 10%	3
C12 C18	.22 uF Ceramic Disc SMD 50V 10%	2
C31 C34	.47 uF Tantalum SMD 35V 10%	2
C3 C13 C30	1 uF Tantalum SMD 16V 10%	3
C8	4.7 uF Tantalum SMD 16V 10%	1
C29	10 uF Tantalum SMD 25V 10%	1

RESISTORS

Designator	Description	Qty
R34	390 OHM 1/4 Carbon Film 5%	1
R9	1.3K OHM 1/2 Carbon Film 5%	1
R5	22.1 OHM 1/10 SMD 1%	1
R21	39.2 OHM 1/10 SMD 1%	1
R22 R29	100 OHM 1/10 SMD 1%	1
R11	221 OHM 1/10 SMD 1%	1
R35	301 OHM 1/10 SMD 1%	1
R15	432 OHM 1/10 SMD 1%	1
R31	825 OHM 1/10 SMD 1%	1
R18	1.00K OHM 1/10 SMD 1%	1

Designator	Description	Qty
R8	1.50K OHM 1/10 SMD 1%	1
R17	2.00K OHM 1/10 SMD 1%	1
R14	2.74K OHM 1/10 SMD 1%	1
R26	6.19K OHM 1/10 SMD 1%	1
R13	6.81K OHM 1/10 SMD 1%	1
R36	8.25K OHM 1/10 SMD 1%	1
R33	10.0K OHM 1/10 SMD 1%	1
R16	12.1K OHM 1/10 SMD 1%	1
R12	15.0K OHM 1/10 SMD 1%	1
R20 R25 R28	20.0K OHM 1/10 SMD 1%	3
R23	100K OHM 1/10 SMD 1%	1
R27	121K OHM 1/10 SMD 1%	1
R6	221K OHM 1/10 SMD 1%	1
R24	475K OHM 1/10 SMD 1%	1
R37	1.0M OHM 1/10 SMD 5%	1
R7	10K OHM X4 SMD DIP Isolated 1%	1
R2 R3	47K OHM X4 SMD DIP Isolated 1%	2
R1	100K OHM X4 SMD DIP Isolated 1%	1
R4	470K OHM X4 SMD DIP Isolated 1%	1
R19	Pot 5K TRIMPOT	1
R30	Pot 5K POT	1

DIODES AND TRANSISTORS

Designator	Description	Qty
D6	LED LOW CURRENT GREEN T1 3/4 LED	1
D12	LED LED, YLW, ULTRA BRIGHT T1 3/4	1
D10 D11	LED LED SMD 0805 RED SMD	2
IC5	IC 7805L POS 5V RGULTR TO-92 PKG	1
D4 D13	Diode BAV70 DUAL DIODE COM CATH	2
IC1 IC2 IC3	IC 833 DUAL OPAMP	3
Q4	Transistor 2222A NPN 40V 600MA	1
Q3	Transistor 2907A PNP 60V 600MA	1
D1 D3 D8 D9	Diode BAV99 DUAL DIODED	4
Q6	Transistor MPSA14 DNPN 30V 300MA	1
Q1 Q2	Transistor J175 P-CHANNEL JFET	2
D5 D7	Diode 5.1V 5% ZENER 1/4W	2
Q5	Transistor MPSA64 DPNP 30V 500MA	1

Designator	Description	Qty
IC4	IC MICROPROCESSOR, KB/MR SERIES	1

MISCELLANEOUS

Designator	Description	Qty
P4	Connector 5 POS, SCREW TERM.	1
P4	Connector 7 POS, SCREW TERM.	1
	XLR 4 PIN M	1
S1	Knob SB-412 SWTCH KNB GREY	1
R30	Knob KNOB GREY INSERT	1
S3	Button ROUND MINI BUTTON BLACK	1
S2	Button RECT. MINI BUTTON BLACK	1
D12	Lens LENS, YELLOW, ROUND	1
S1	Switch SB-412 SCH#CLA-PV-1X6-MBB-AG-C	1
S3 S2	Switch DPDT P.B. MINI	2

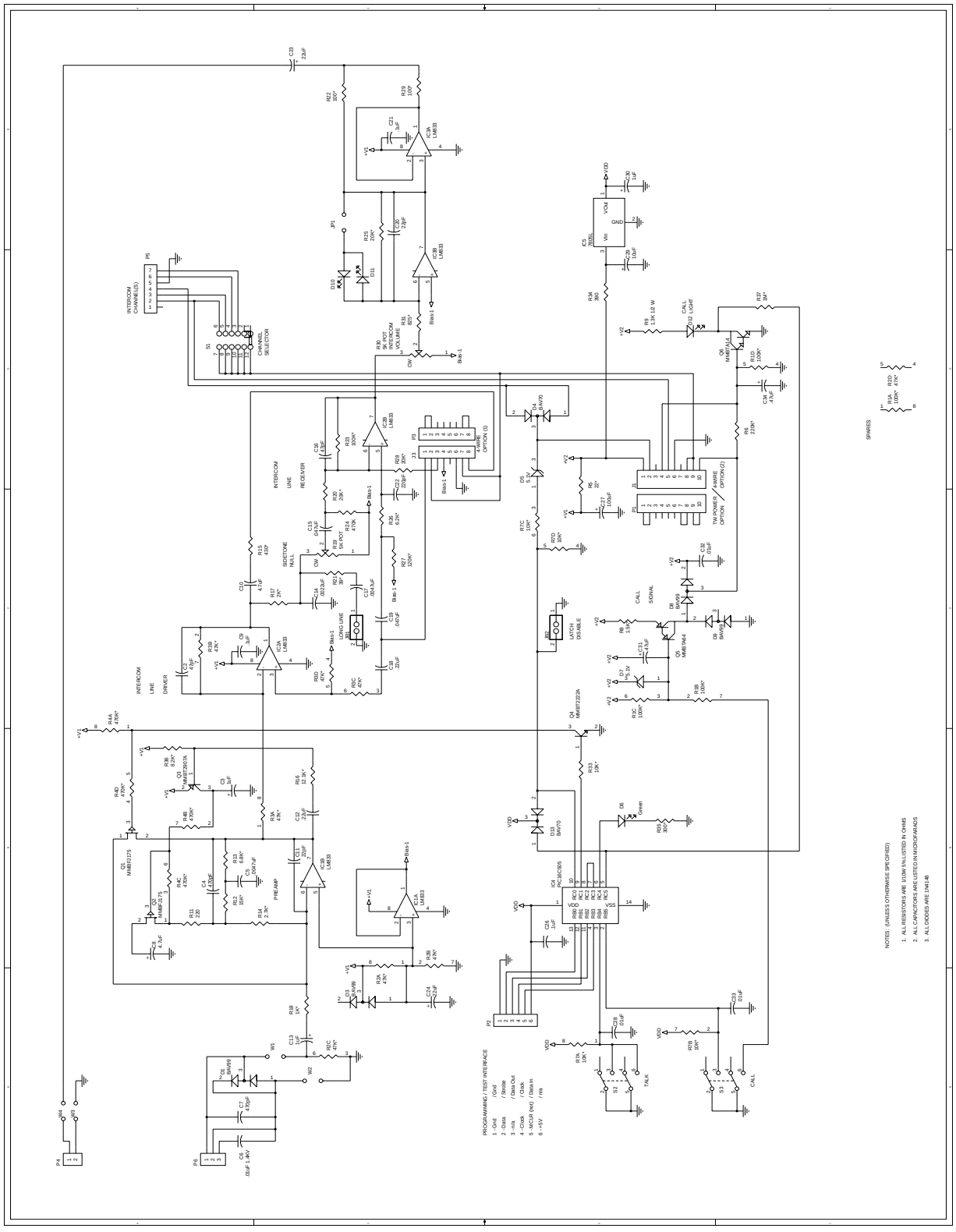

Figure 4-3: ICS-24 Schematic (part no. 710500)

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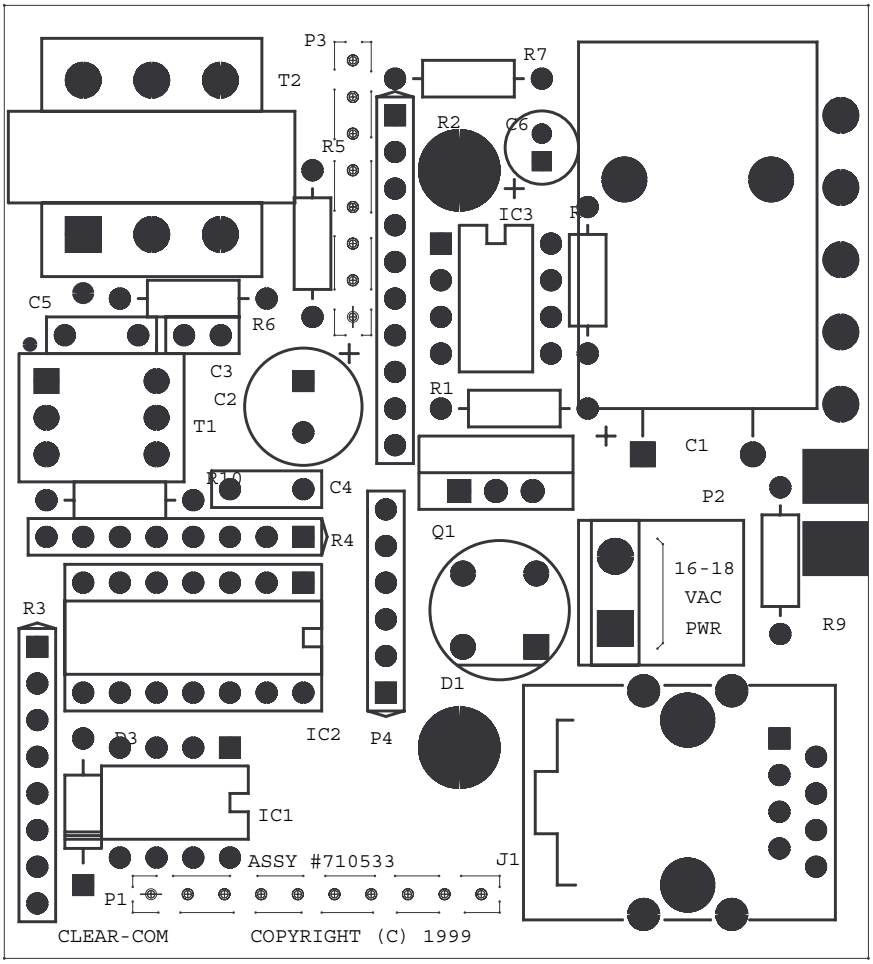

Figure 4-4: Matrix Option PCB Component Layout (part no. 710533)

Matrix Option PCB (Part No. 710533)

CAPACITORS

Designator	Description	Qty
C6	10 uF Aluminum 50V	1
C5	.022 uF Monolithic 50V 10%	1
C4	.1 uF Monolithic 100V 10%	1
C3	.0022 uF Monolithic 50V 10%	1
C2	100 uF Aluminum 35V	1
C1	2200 uF Aluminum 35V 20%	1

RESISTORS

Designator	Description	Qty
R5	2K OHM 1/4 Carbon Film 5%	1
R6	47K OHM 1/4 Carbon Film 5%	1
R8	1.5K OHM 1/4 Carbon Film 5%	1
R9	330 OHM 1/4 Carbon Film 5%	1
R1 R7	100 OHM 1/4 Carbon Film 5%	2
R10	2.2M OHM 1/4 Carbon Film 5%	1
R2	10K OHM X5 SIP ISOLATED	1
R4	4.7K OHM X 4 SIP ISOLATED	1
R3	100K OHM X4 SIP ISOLATED	1

DIODES AND TRANSISTORS

Designator	Description	Qty
D3	Diode 1N4148 SIGNAL 10MA 75PIV	1
Q1	Transistor TIP41 NPN 40V 6A	1
D1	Diode 1.5A 200V BRIDGE	1

INTEGRATED CIRCUITS

Designator	Description	Qty
IC3	IC LM833N	1
IC1	IC 488E RS-422 XCVR	1

MISCELLANEOUS

Designator	Description	Qty
T2	Transformer 600CT/600CT	1
T1	Transformer 10K:10K	1
IC2	IC MICRO, KB/MR MATRIX OPTION	1
P2	Connector 2 POS HSING, SCRW TRM.	1

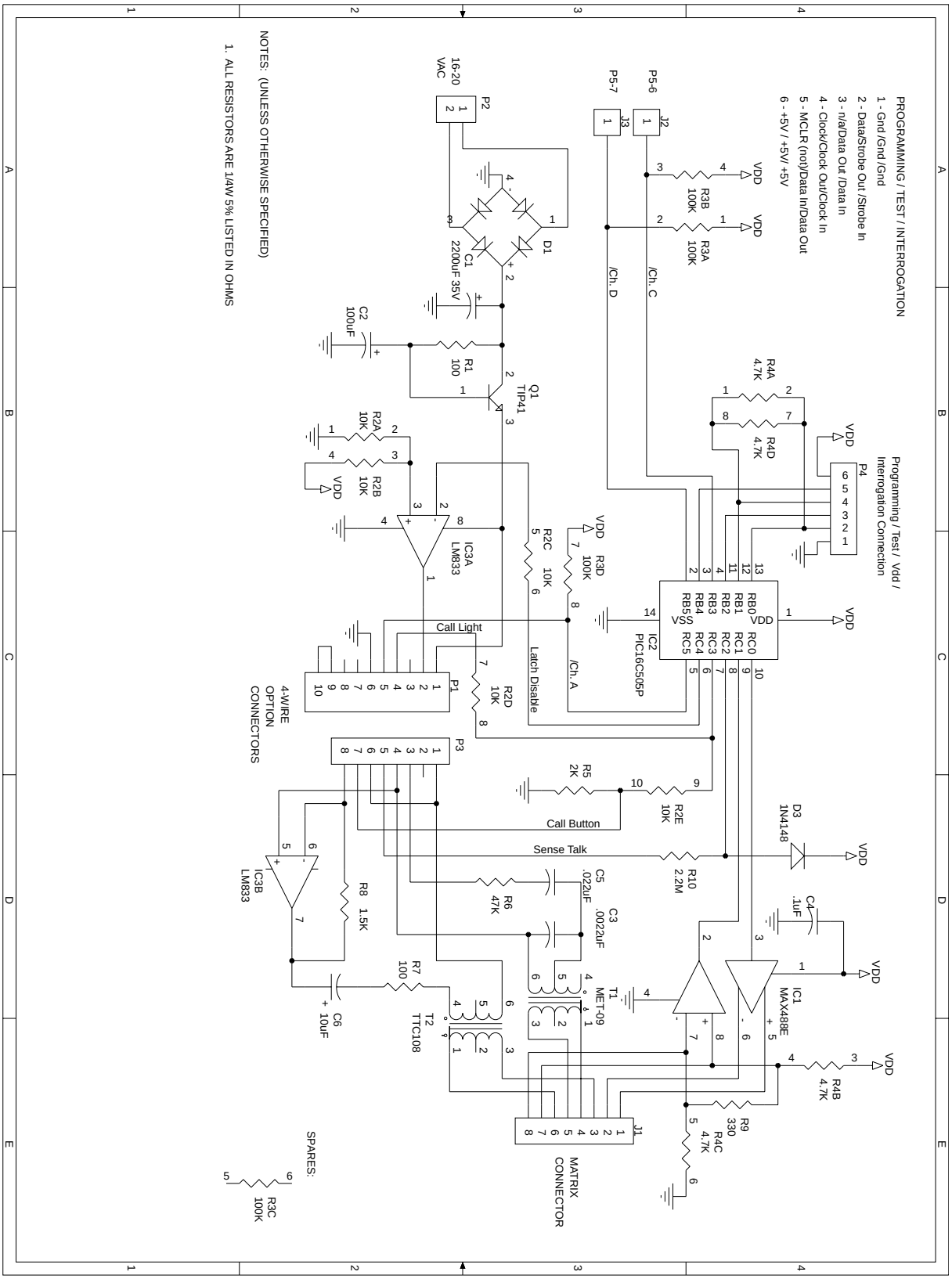

Figure 4-5: Matrix Option Schematic (part no. 710533)

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5 SPECIFICATIONS

Note: 0 dBu is referenced to 0.775 V RMS

Headset Microphone Pre-Amp

Input Type	Dynamic
Impedance	1k ohms
Input Level	-55 dBu nominal; -10 dBu max.

Pre-Amp Response Curve

Frequency Response:	250 Hz to 12 kHz, contoured for intelligibility
Limiter Range	20 dB

Headphone Amplifier

Load Impedance Range	50 ohm to 2k ohm
Output Level	at least +20 dBu across 600 ohms
Distortion	< 0.2% THD at 1 kHz
Frequency Response	200 Hz to 15 kHz, ±3 dB

Power Requirements

Voltage	16 to 18 VAC
Current	30 mA average

Internal Connectors

Intercom	Eight-wire modular connector
AC Power	Two-position, plug-on screw terminals

Front Panel Connectors

Headset: (1) XLR-4M

Front Panel Controls and Indicators

Intercom-volume control	(1)
Sidetone control	(1)
Talk button	(1)
Answer-back button	(1)
Talk/listen selector switch	(1)
Talk LED	(1)
Call-waiting LED	(1)

Environmental

32° to 122° F (0° C to 50° C)

Dimensions

4.625 in. W x 4.5 in. H x 1.75 in. D
(117 mm x 114 mm x 44 mm)

Weight

0.64 lb. (0.29 kg)

Notice About Specifications

While Clear-Com makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.

LIMITED WARRANTY

Vitec Group Communications (VGC) warrants that at the time of purchase, the equipment supplied complies with any specification in the order confirmation when used under normal conditions, and is free from defects in workmanship and materials during the warranty period.

During the warranty period VGC, or any service company authorized by VGC, will in a commercially reasonable time remedy defects in materials, design, and workmanship free of charge by repairing, or should VGC in its discretion deem it necessary, replacing the product in accordance with this limited warranty. In no event will VGC be responsible for incidental, consequential, or special loss or damage, however caused.

WARRANTY PERIOD

Return Material Authorization (RMA) numbers are required for all returns.

Both warranty and non-warranty repairs are available.

The product may consist of several parts, each covered by a different warranty period. The warranty periods are:

- Cables, accessories, components, and consumable items have a limited warranty of 90 days.
- Headsets, handsets, microphones, and spare parts have a limited warranty of one year.
- UHF wireless IFB products have a limited warranty of one year.
- UHF wireless intercom systems have a limited warranty of three years.
- All other Clear-Com and Drake brand systems and products, including beltpacks, have a limited warranty of two years.

The warranty starts at the time of the product's original purchase. The warranty start date for contracts which include installation and commissioning will commence from the earlier of date of the Site Acceptance Test or three months from purchase.

TECHNICAL SUPPORT

To ensure complete and timely support to its customers, VGC's User Support Center is staffed by qualified technical personnel. Telephone and email technical support is offered worldwide by the User Support Center.

The User Support Center is available to VGC's customers during the full course of their warranty period.

Instructions for reaching VGC's User Support Centers are given below.

Telephone for Europe, Middle East and Africa: +49 40 6688 4040 or +44 1223 815000

Telephone for the Americas and Asia: +1 510 337 6600

Email: vitec.support@AVC.de

Once the standard warranty period has expired, the User Support Center will continue to provide telephone support if you have purchased an Extended Warranty.

For latest contact information please refer to the Service and Support section at www.clearcom.com.

WARRANTY REPAIRS AND RETURNS

Before returning equipment for repair, contact a User Support Center to obtain a Return Material Authorization (RMA). VGC representatives will give you instructions and addresses for returning your equipment. You must ship the equipment at your expense, and the support center will return the equipment at VGC's expense.

For out-of-box failures, use the following contact information:

Europe, Middle East and Africa

Tel: +44 1223 815000 Email: SalesSupportEMEA@vitecgroup.com

North America, Canada, Mexico, Caribbean & US Military

Tel: +1 510 337 6600 Email: SalesSupportUSA@vitecgroup.com

Asia Pacific & South America

Tel: +1 510 337 6600 Email: SalesSupportAPAC@vitecgroup.com

VGC has the right to inspect the equipment and/or installation or relevant packaging.

For latest contact information please refer to the Service and Support section at www.clearcom.com.

NON-WARRANTY REPAIRS AND RETURNS

For items not under warranty, you must obtain an RMA by contacting the User Support Center. VGC representatives will give you instructions and addresses for returning your equipment.

You must pay all charges to have the equipment shipped to the support center and returned to you, in addition to the costs of the repair.

EXTENDED WARRANTY

You can purchase an extended warranty at the time of purchase or at any time during the first two years of ownership of the product. The

purchase of an extended warranty extends to five years the warranty of any product offered with a standard two-year warranty. The total warranty period will not extend beyond five years.

Note: VGC does not offer warranty extensions on UHF wireless intercom systems, or on any product with a 1-year or 90-day warranty.

LIABILITY

THE FOREGOING WARRANTY IS VGC'S SOLE AND EXCLUSIVE WARRANTY. THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY OTHER REQUIRED IMPLIED WARRANTY SHALL EXPIRE AT THE END OF THE WARRANTY PERIOD. THERE ARE NO OTHER WARRANTIES (INCLUDING WITHOUT LIMITATION WARRANTIES FOR CONSUMABLES AND OTHER SUPPLIES) OF ANY NATURE WHATSOEVER, WHETHER ARISING IN CONTRACT, TORT, NEGLIGENCE OF ANY DEGREE, STRICT LIABILITY OR OTHERWISE, WITH RESPECT TO THE PRODUCTS OR ANY PART THEREOF DELIVERED HEREUNDER, OR FOR ANY DAMAGES AND/OR LOSSES (INCLUDING LOSS OF USE, REVENUE, AND/OR PROFITS). SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR THE LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. IN ANY EVENT, TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW, VGC'S LIABILITY TO CUSTOMER HEREUNDER SHALL NOT UNDER ANY CIRCUMSTANCES EXCEED THE COST OF REPAIRING OR REPLACING ANY PART(S) FOUND TO BE DEFECTIVE WITHIN THE WARRANTY PERIOD AS AFORESAID.

This warranty does not cover any damage to a product resulting from cause other than part defect and malfunction. The VGC warranty does not cover any defect, malfunction, or failure caused beyond the control of VGC, including unreasonable or negligent operation, abuse, accident, failure to follow instructions in the manual, defective or improperly associated equipment, attempts at modification and repair not approved by VGC, and shipping damage. Products with their serial numbers removed or defaced are not covered by this warranty.

This warranty does not include defects arising from installation (when not performed by VGC), lightning, power outages and fluctuations, air conditioning failure, improper integration with non-approved components, defects or failures of customer furnished components resulting in damage to VGC provided product.

This limited warranty is not transferable and cannot be enforced by anyone other than the original consumer purchaser.

This warranty gives you specific legal rights and you may have other rights which vary from country to country.