T-Adapter Option

INSTALLATION INSTRUCTIONS

T-Adapter Module

The T-Adapter option module adds 2-wire digital input and output via RJ-45 to V-Series main panels and desktop panels. The T-Adapter module cannot be fitted to early versions of the V-Series panels and the panel should be checked for compatibility before attempting to fit the T-Adapter module.

The T-Adapter upgrade kit contains the following items:

1 x T-Adapter interface card part no. 710860Z
1 x T-Adapter screening card part no. 710849Z
2 x mounting blocks part no. 251437Z
2 x panhead screw and washer assemblies part no. 280496Z
2 x panhead screws part no. 280462Z
4 x plastite screws part no. 280536Z
1 x Ferrite part no. 180028Z
1 x BNC cover label 251675Z

Check that all the items are present before starting the upgrade.

The T-Adapter requires a DIG-2 interface to connect to an Eclipse matrix. For information on the DIG-2 interface please refer to the DIG-2 Digital Interface instruction manual (part no. 810311Z) and the Interface Module Frames instruction manual (part no. 810313Z).

Panel Compatibility

To check whether a panel can be fitted with an T-Adapter module the rear of the panel should be checked. Panels that can be fitted with an T-Adapter card have an additional “AES” box in the conformity label on the left of the panel rear and a further box below it. Depending on the age of the panel the box below the box marked ”AES” may be blank or contain the letter “T” to indicate that a T-Adapter may be fitted. The drawings Figure 1 and Figure 2 illustrate the differences.

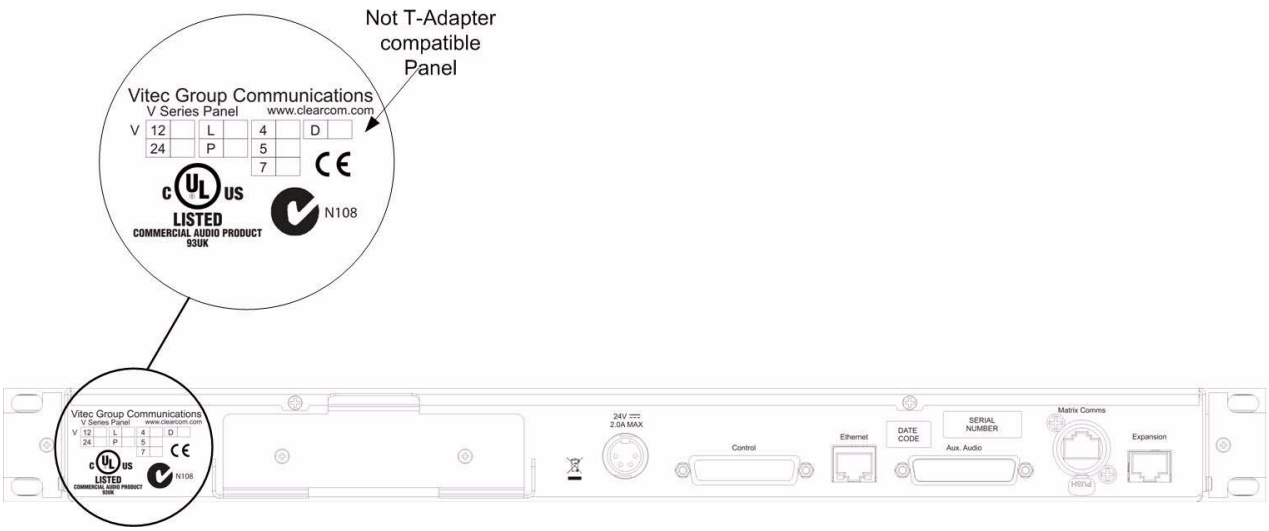


Figure 1: Panel Cannot be Upgraded

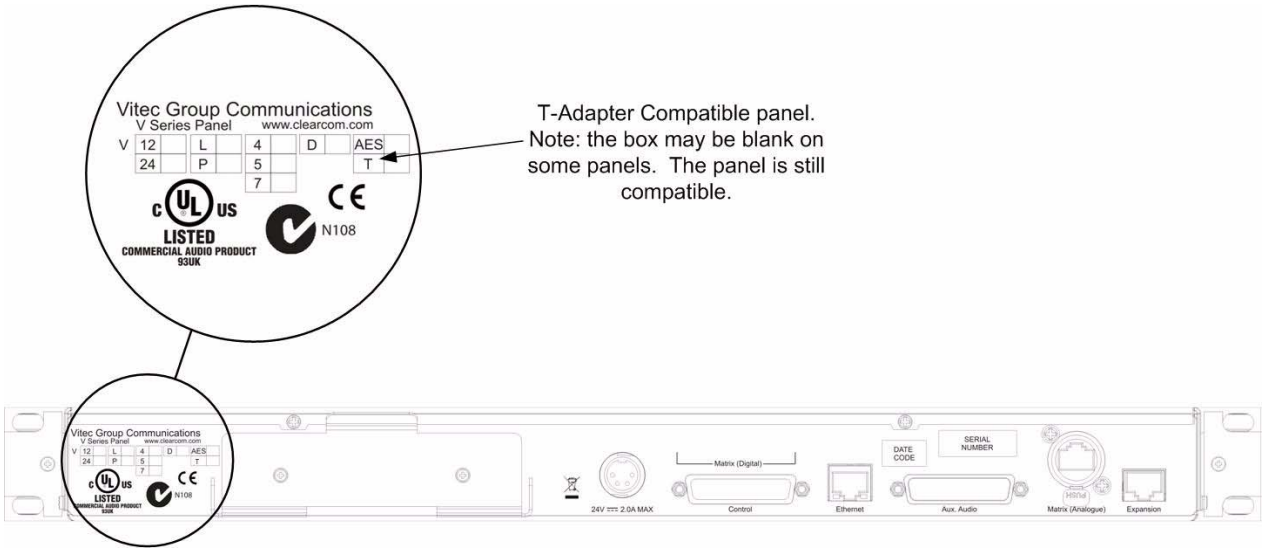


Figure 2: Panel Can Be Upgraded

Fitting the T-Adapter Option Card to Rack Mount Panels

Before fitting the T-Adapter card the panel must be completely disconnected and removed from any rack or console. Place the panel on a clear workspace suitable for antistatic precautions.

Step 1

The power supply should be removed from the cradle at the back of the panel if it has been fitted there (see Figure 3). If the power supply is not fitted in the cradle proceed to step 2.

Figure 3: Power Supply in Cradle on Rack Mount Panel

Unlock the power connector from the panel by turning the outer ring anticlockwise then pulling the connector. Remove the power supply block by pulling it out of the rear of the cradle (Figure 4).

Figure 4: V-Series Rack Mount Panel with PSU Removed

Step 2

The next step is to remove the four countersunk screws and four panhead screw and washer assemblies holding the lid on. The countersunk screws are located on the top of the lid, two of the panhead screw and washer assemblies are located on the rear of the panel and one at each end of the panel (Figure 5). Ensure that all the screws are retained for refitting the lid.

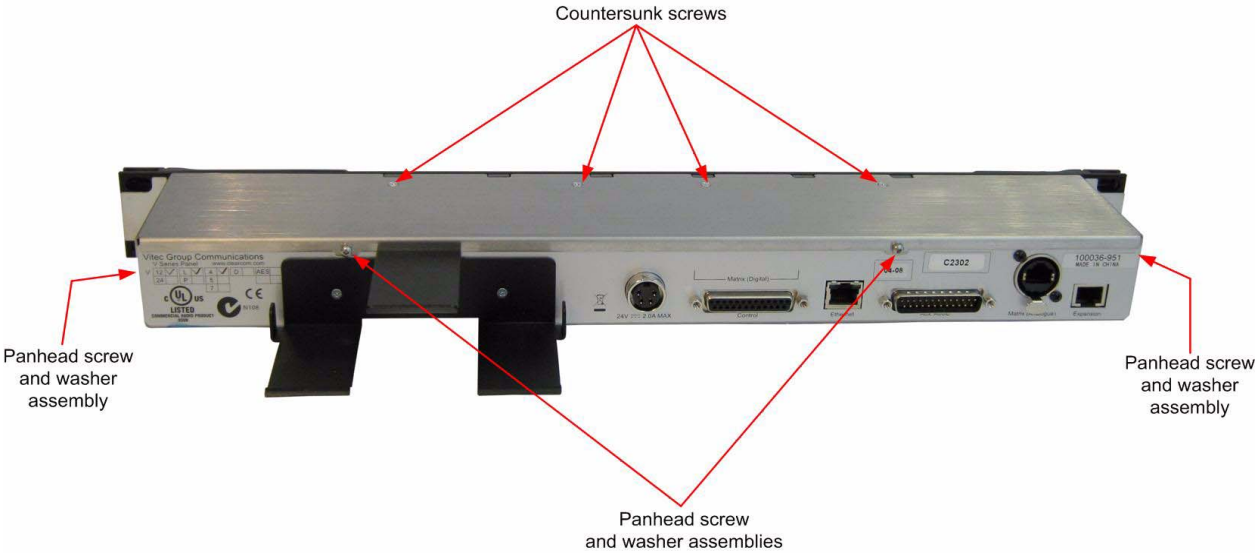


Figure 5: Rack Mount Panel Lid Retaining Screws

Step 3

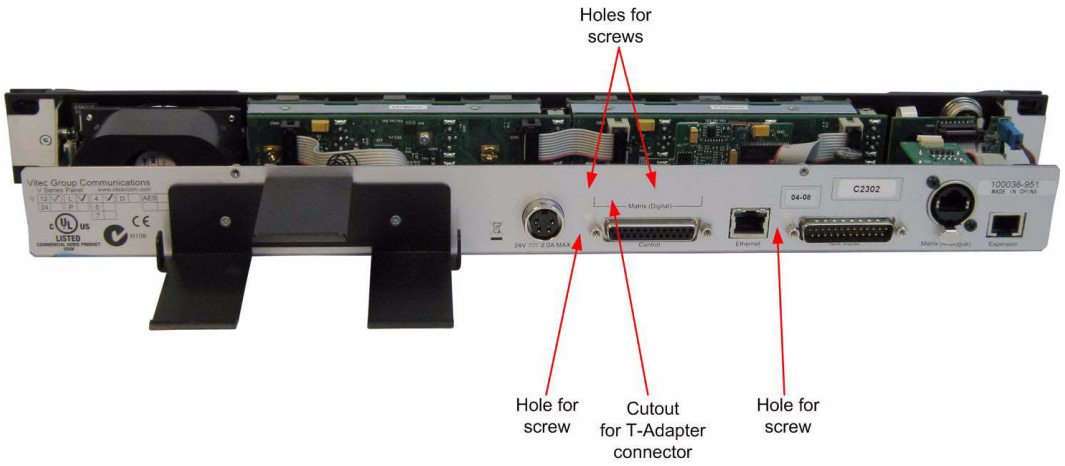


Figure 6: Rack Mount Panel with Lid Removed

There are two cutouts and four screw holes in the rear metalwork which are covered from the outside by the plastic overlay. The overlay covering the RJ-45 cutout only and screw holes must be removed before the T-Adapter card can be inserted. This should be done using a small sharp blade such as a scalpel or craft knife. Care must be taken to avoid any damage to the electronics or cables in the panel while doing this.

Pressing on the overlay will highlight the position of the holes.

Note: Ensure that no pieces of overlay are left inside the panel once the cutouts are cleared as the overlay itself is conductive and could cause damage to the panel.

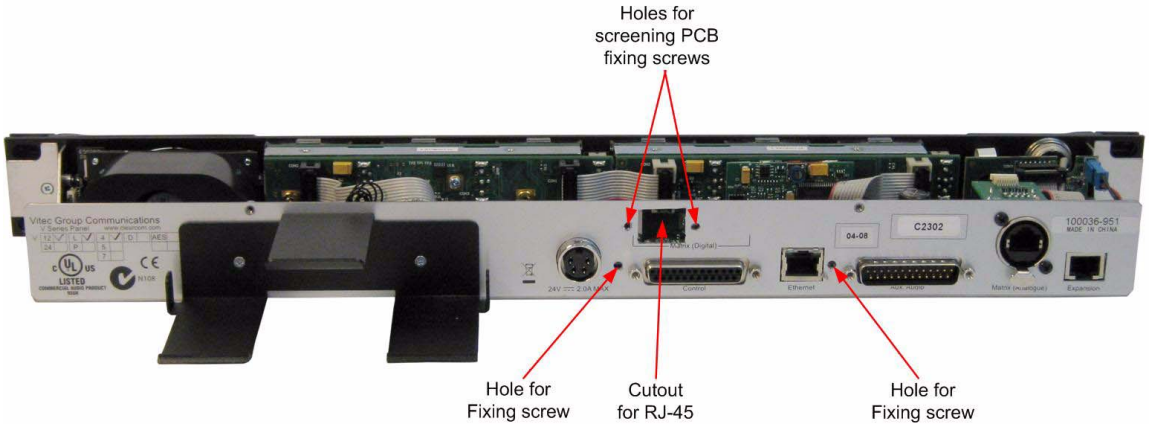


Figure 7: Rack Mount Panel with Overlay Removed from Cutouts

Step 4

If plastic mounting blocks are not already fitted to the panel remove the two plastic mounting blocks supplied from the packaging and fit them to the panel as shown in Figure 8 and secure them using two plastite screws as shown in Figure 9.

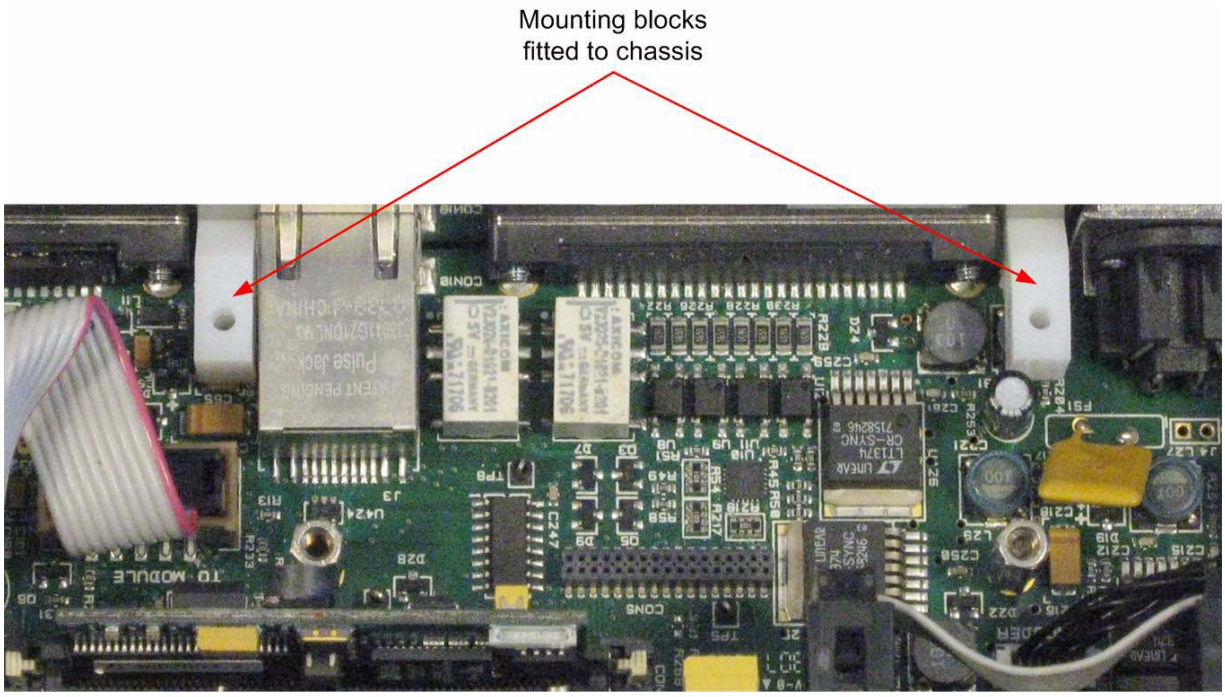


Figure 8: Rack Mount Panel with Mounting Blocks Fitted

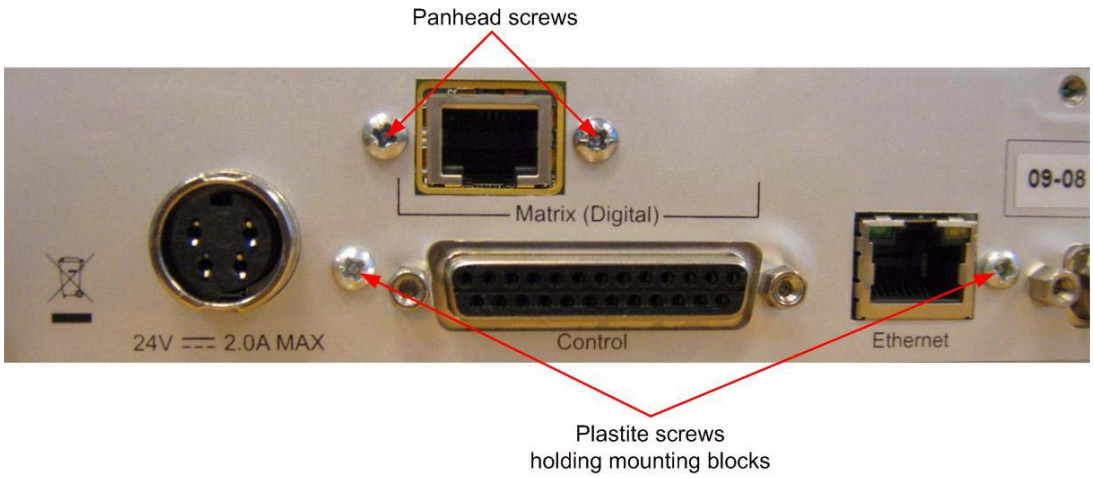
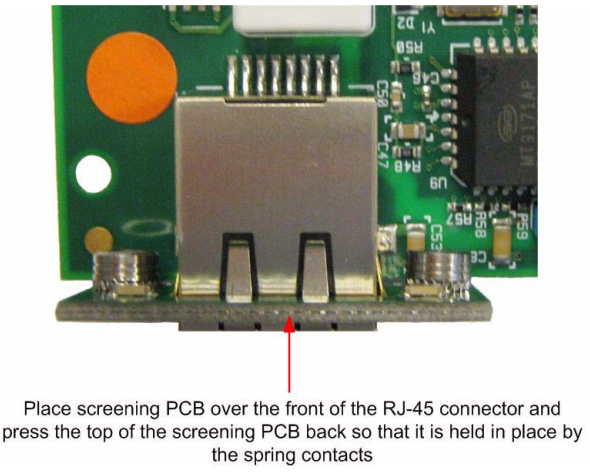


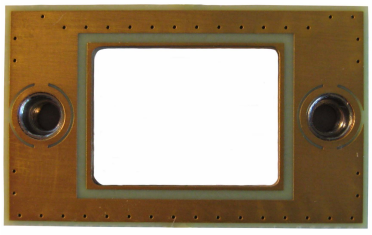
Figure 9: Rack Mount Panel Mounting Block Screws

Step 5

Taking anti-static precautions remove the T-Adapter option card from its packaging.

Slide the screening PCB over the front of the RJ-45 connector ensuring that the capacitors fitted to the rear of the screening PCB are at the top and press the top towards the rear of the connector so that it is held on the spring contacts (Figure 10).





Screening PCB

Figure 10: Screening PCB fitted to T-Adapter Card

Step 6

Slide the T-Adapter option card vertically down onto the panel main PCB.

Care should be taken that the PCB connector pins on the T-Adapter card are aligned with the connector on the PCB to prevent any pins being bent when the card is fitted. Do not use excessive force to fit the card as this may damage the connector if the pins are misaligned.

Ensure that the mounting holes at the rear of the T-Adapter card line up with the spacers fitted to the V-Series panel main PCB . Press the top of the screening PCB forward so that it is in contact with the back of the panel (Figure 11).

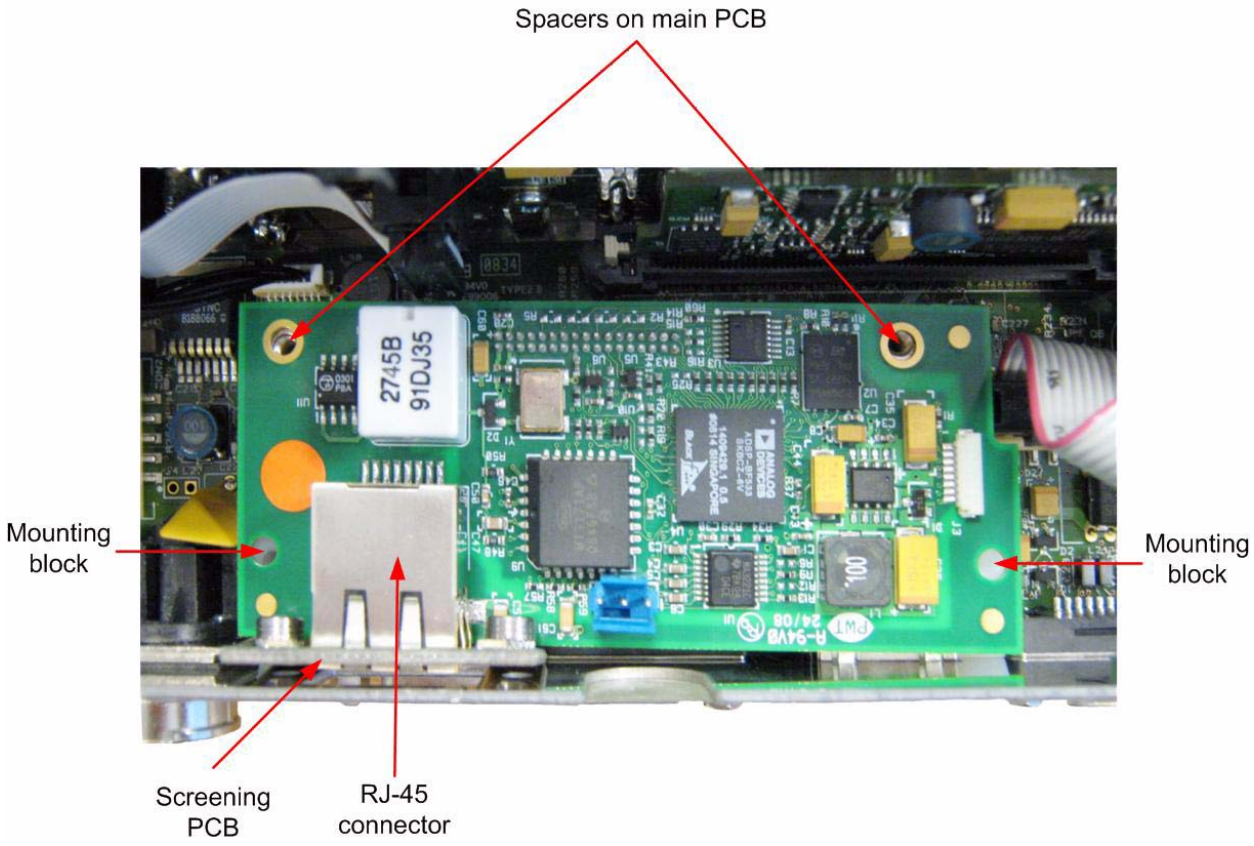


Figure 11: T-Adapter Option card in V-Series Rack Mount Panel

Step 7

Use two panhead screws to fix the screening PCB to the chassis. Use the two panhead screw and washer assemblies to fix the T-Adapter card to the spacers and the two remaining plastite screws to fix the T-Adapter card to the mounting blocks.

The completed assembly is shown in Figure 12.

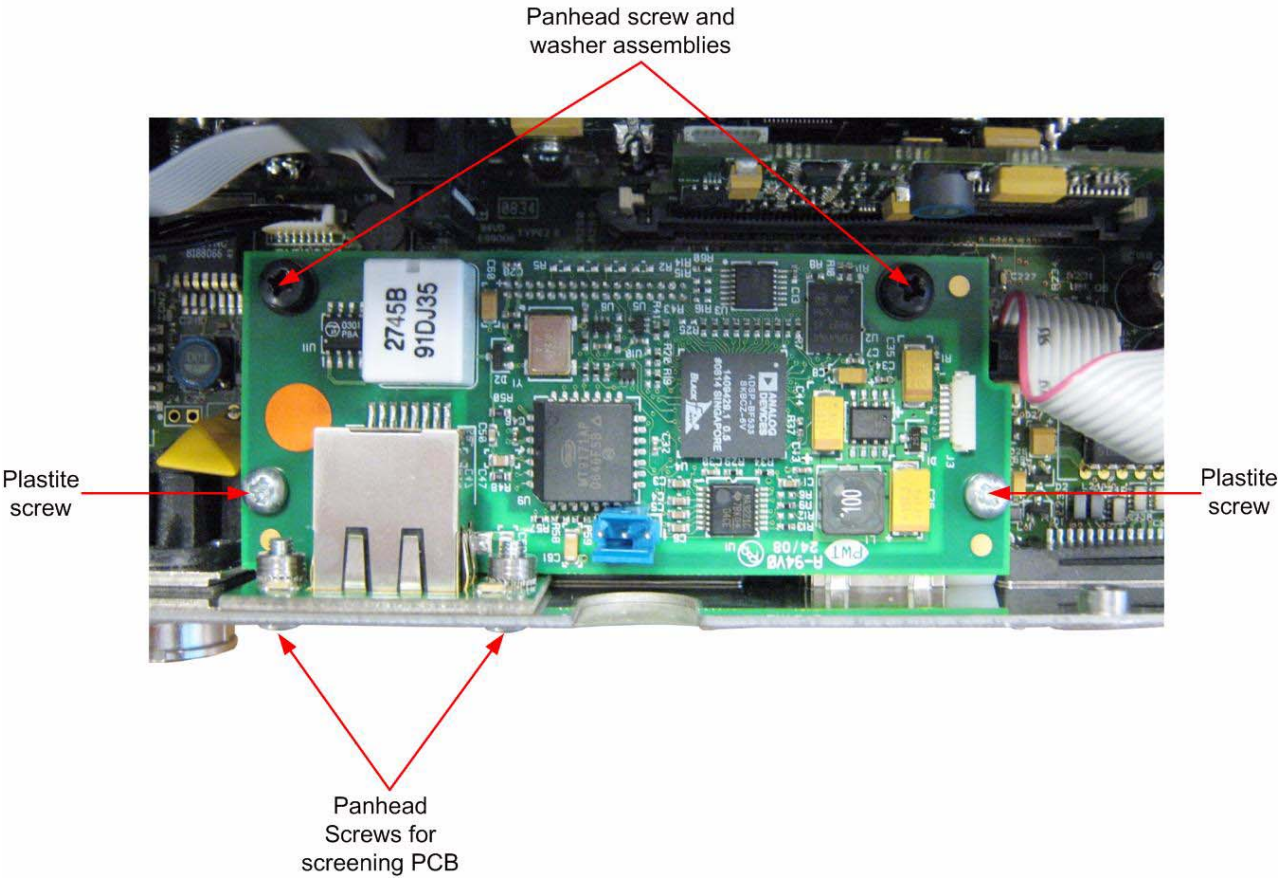


Figure 12: T-Adapter Card with Mounting Screws in Rack Mount Panel

Step 8

If the T-Adapter card is fitted to a chassis which has previously had an AES-3 option card fitted there will be an opening in the rear panel overlay where the BNC connector mounting slot is. The BNC cover label (part 251675Z) should be applied to the outside of the rear panel overlay to cover the BNC connector mounting slot prior to re-fitting the lid.

Step 9

Screw the lid back on the panel making sure that the correct screws are used (see Figure 5). Refit the four panhead screw and washer assemblies first and then the four countersunk screws.

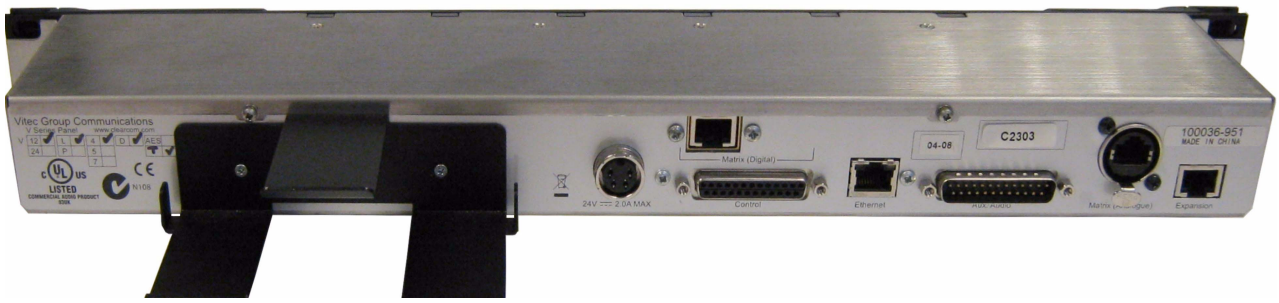


Figure 13: Completed Rack Mount Panel Upgrade with T-Adapter

If the power supply was originally held in the cradle replace it in the cradle and reattach the power supply cable to the power inlet (see Figure 3).

Remount the panel in the rack or console and reconnect power and I/O cables.

Step 10

When the upgraded unit is connected ensure that the ferrite provided is put on the CAT5 cable as close as possible to the connector for the BNC or RJ-45 cable that may be used (Figure 14).

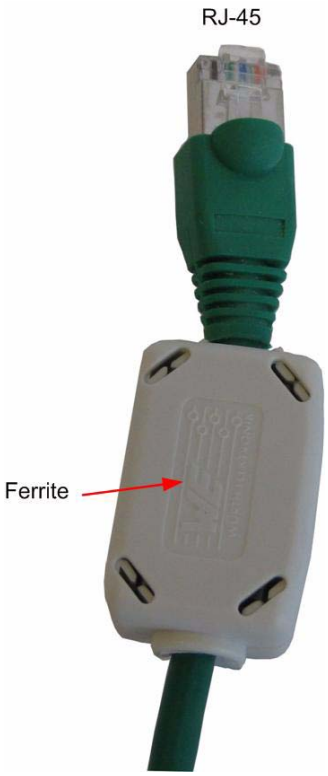


Figure 14: Ferrite Fitted to RJ-45 Cable

When a panel has been fitted with an T-Adapter option card the T-Adapter box below the “AES” box shown in Figure 2 should be marked with a tick using a permanent marker to record the modification.

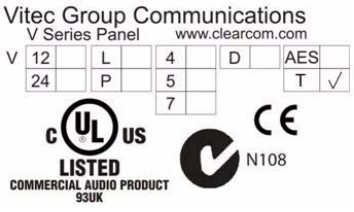


Figure 15: Modification Record

Fitting the T-Adapter Option Card to Desktop Panels

Before fitting the T-Adapter card the panel must be completely disconnected from any cabling. Place the panel on a clear workspace suitable for antistatic precautions.

Step 1

Note: Record whether the panel has been build for desktop use or for attachment to a wall to ensure the front panel is replaced in the correct orientation.

Remove the eight countersunk screws holding the front of the panel on. The countersunk screws are located on the ends of the panel, four on each end (Figure 16).

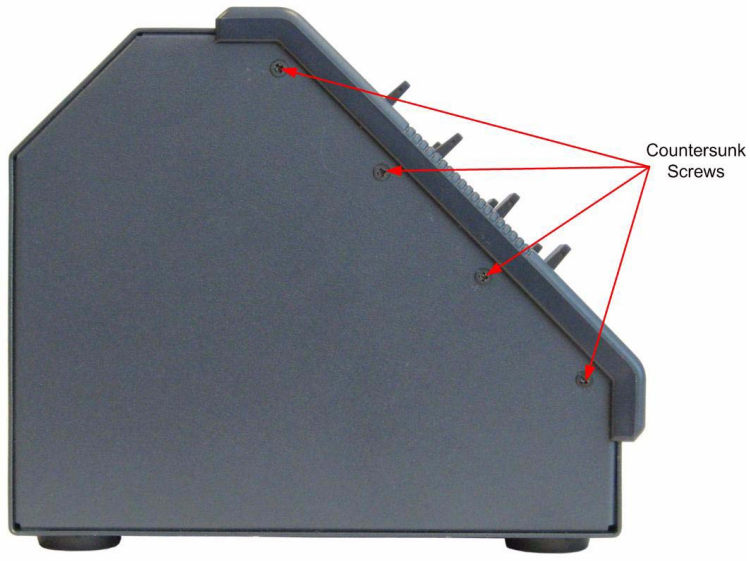


Figure 16: Desktop Panel Retaining Screws

Remove and retain all the screws and remove the front panel assembly. The cables connecting the front panel electronics to the main PCB are long enough to allow the panel front to be removed without having to unplug any of the cables (Figure 17).

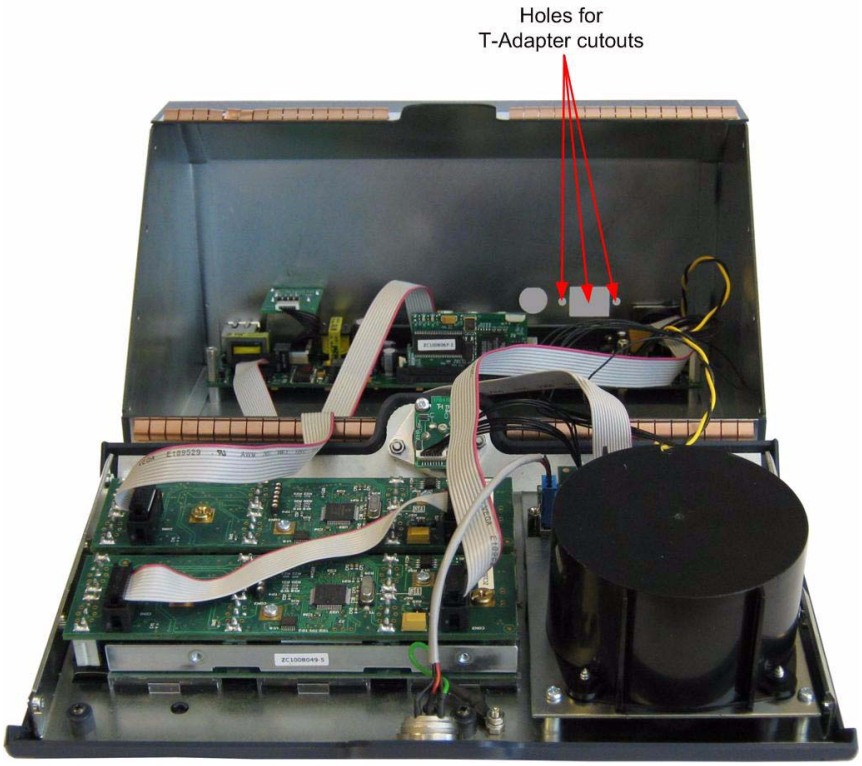


Figure 17: Interior of Desktop Panel Before Removing Cutouts

Step 2

There are two cutouts and four screw holes in the rear metalwork which are covered from the outside by the plastic overlay. The overlay covering the RJ-45 cutout only and the screw holes must be removed before the T-Adapter card can be inserted (Figure 18). This should be done using a small sharp blade such as a scalpel or craft knife. Care must be taken to avoid any damage to the electronics or cables in the panel while doing this.

Pressing on the overlay will highlight the position of the holes.

Note: Ensure that no pieces of overlay are left inside the panel once the cutouts are cleared as the overlay itself is conductive and could cause damage to the panel.

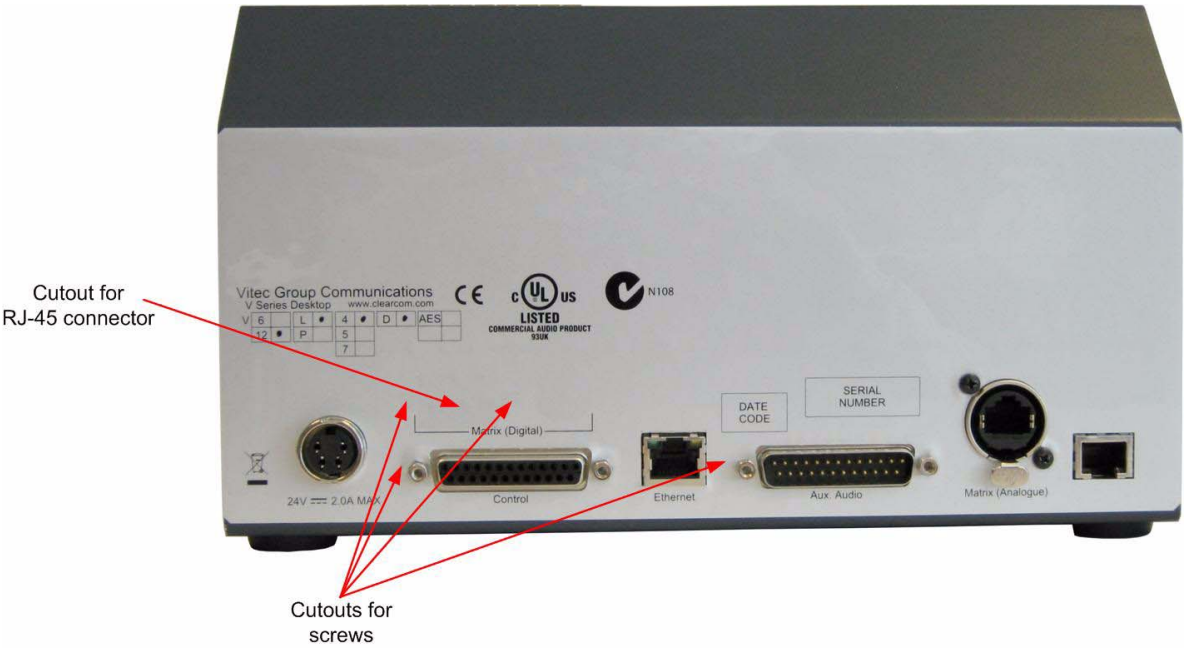


Figure 18: Desktop Panel Rear Before Removing Cutouts

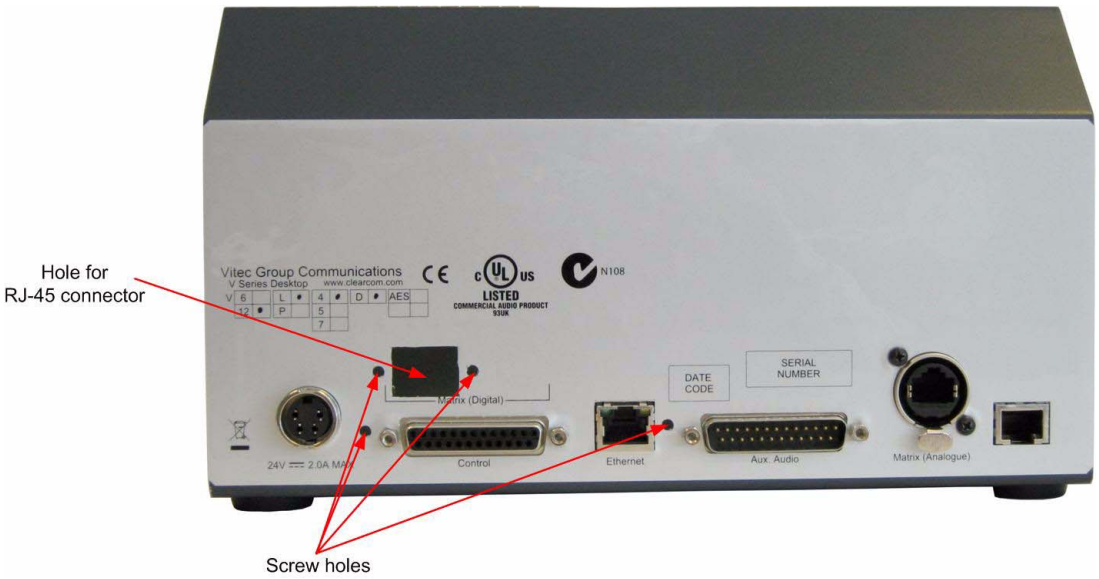


Figure 19: Desktop Panel Rear After Removing Cutout

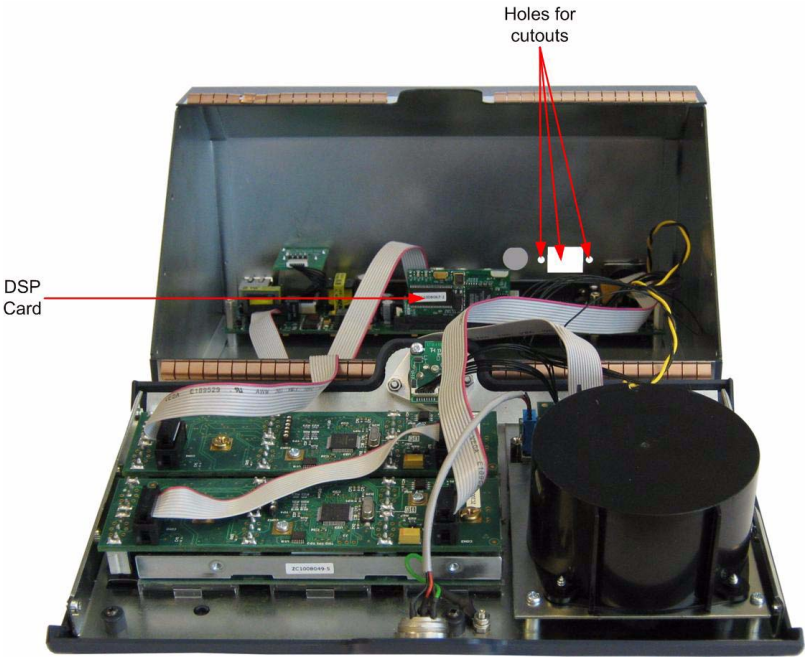


Figure 20: Desktop Panel Interior with Cutouts Removed from Overlay

Step 3

Before installing the T-Adapter option card remove the DSP card at the rear of the main PCB to allow access (see Figure 21).

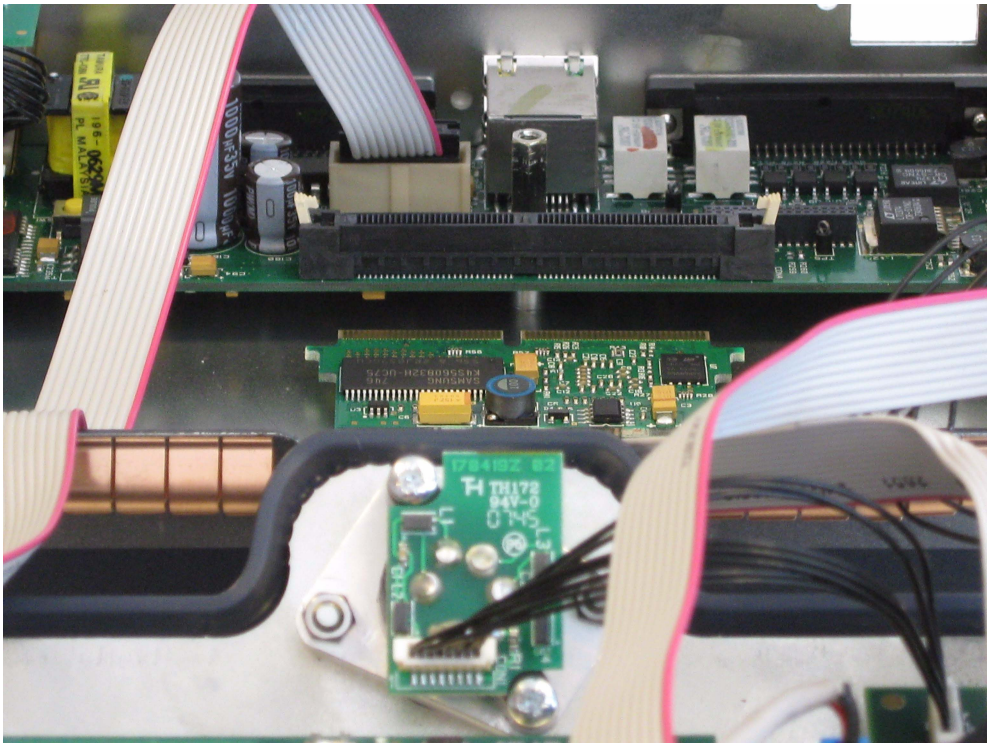


Figure 21: DSP Card Removed to Allow Access

Step 4

Taking anti-static precautions remove the T-Adapter option card from its packaging.

If plastic mounting blocks are not already fitted to the panel remove the two plastic mounting blocks supplied from the packaging and fit them to the panel as shown in Figure 22 and secure them using two plastite screws as shown in Figure 23.

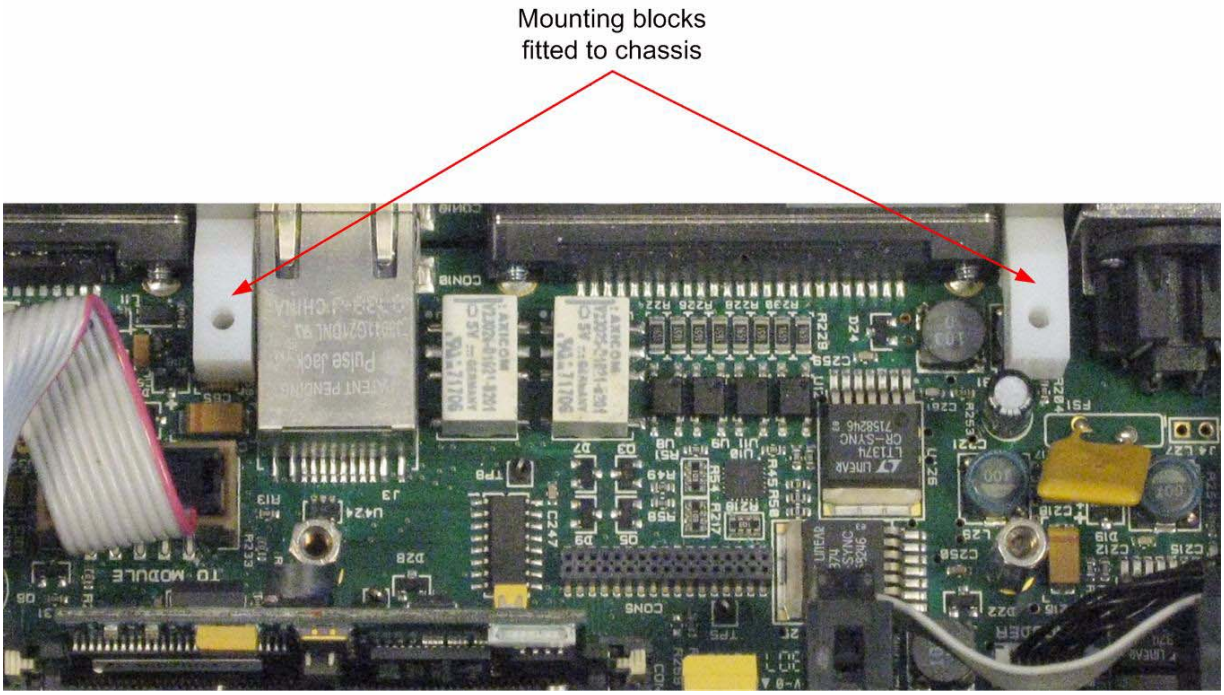


Figure 22: Desktop Panel with Mounting Blocks Fitted

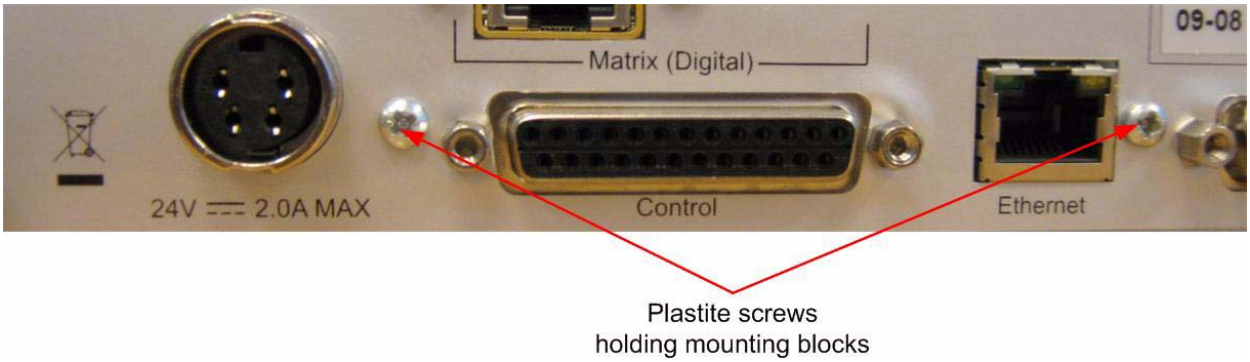
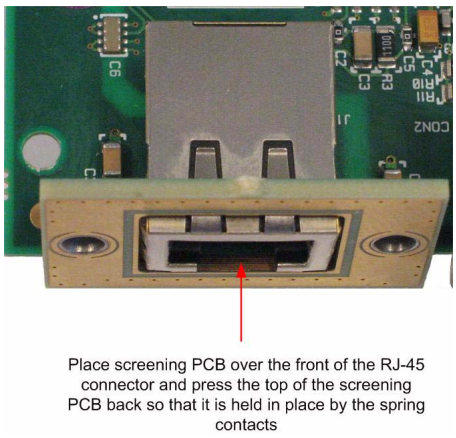
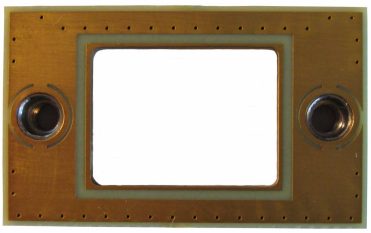


Figure 23: Desktop Panel Mounting Block Screws

Step 5

Slide the screening PCB over the front of the RJ-45 connector ensuring that the capacitors fitted to the rear of the screening PCB are at the top and press the top towards the rear of the connector so that it is held on the spring contacts (Figure 24).





Screening PCB

Figure 24: Screening PCB fitted to T-Adapter Card

Step 6

Insert the T-Adapter option card into position over the main PCB so that the connector lines up with the cutouts and the PCB connector on the bottom of the card lines up with the socket on the main PCB. Ensure that the mounting holes at the rear of the T-Adapter card line up with the spacers fitted to the V-Series panel main PCB and press the card down so that the PCB connector pins are in the socket . Press the top of the screening PCB forward so that it is in contact with the back of the panel (Figure 25).

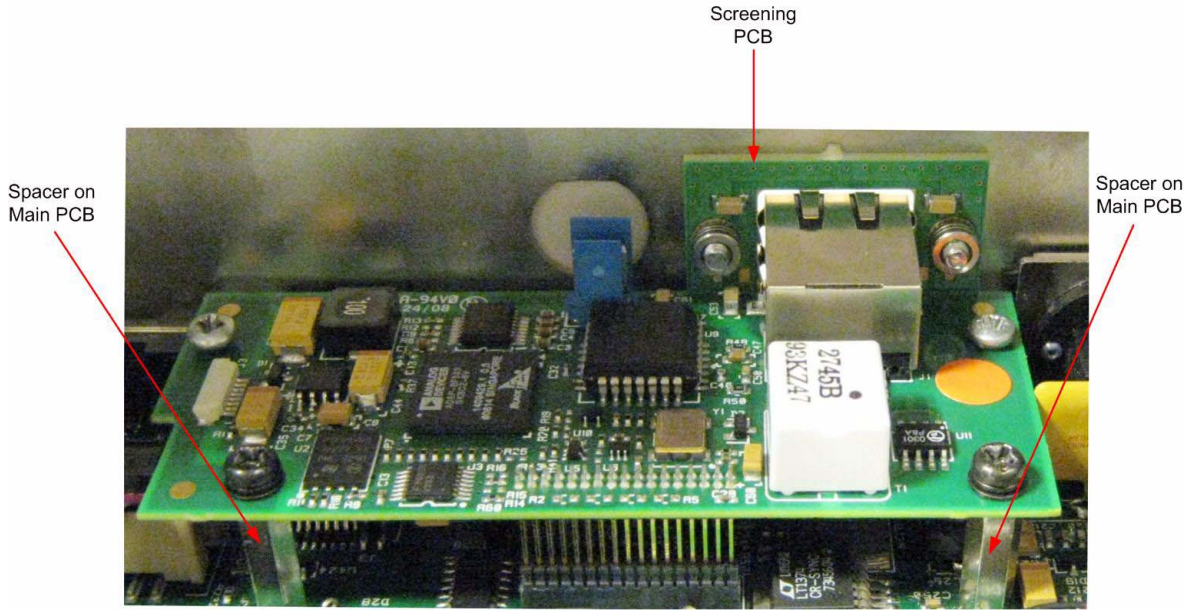


Figure 25: T-Adapter Option card in V-Series Desktop Panel

Step 7

Use the two panhead screws to fix the screening PCB to the chassis.

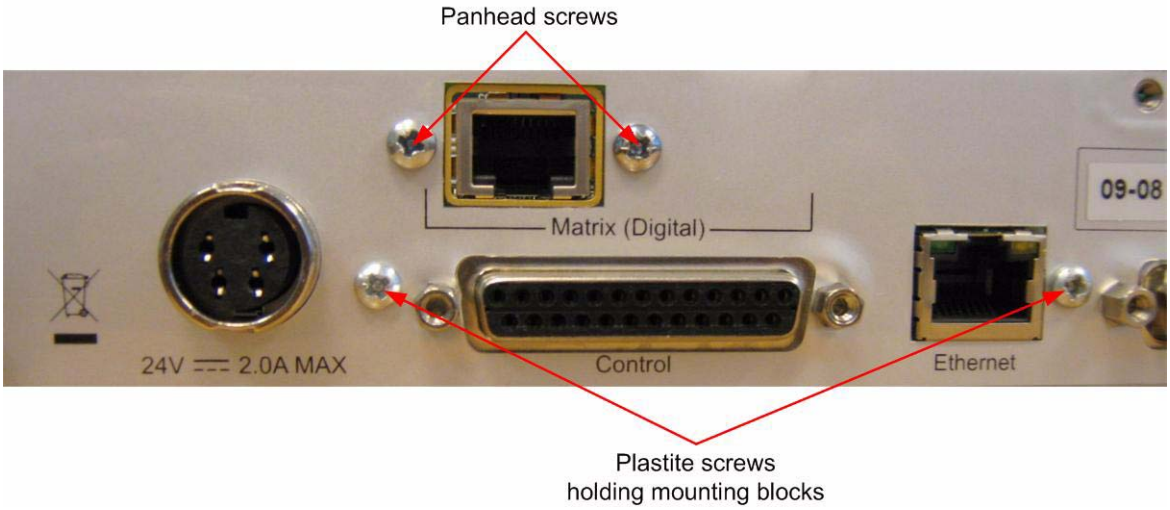


Figure 26: T-Adapter Card Fitted

Step 8

Use the two panhead screw and washer assemblies to fix the T-Adapter card to the spacers and use the two plastite screws to fix the T-Adapter card to the mounting blocks (see Figure 27).

Note: A "stubby" or short handled screwdriver is required for this operation.

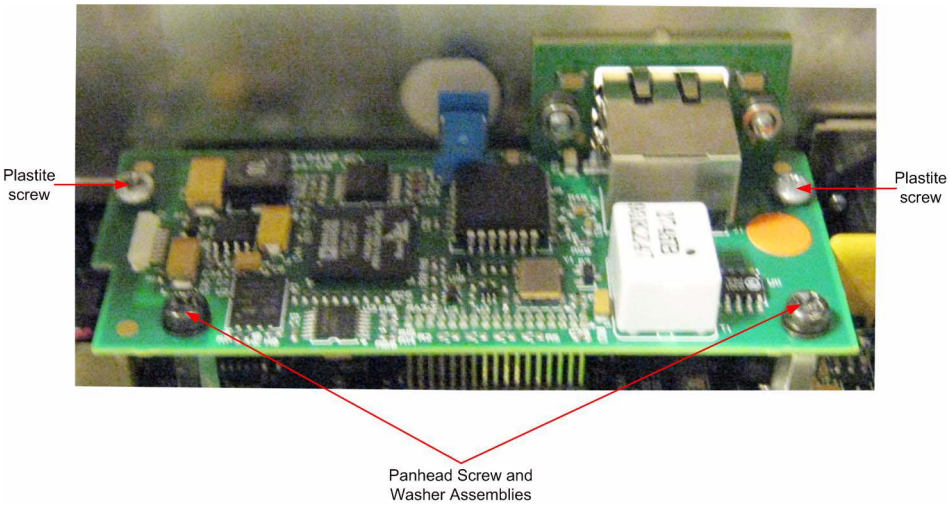


Figure 27: T-Adapter Option Card with Mounting Screws

Step 9

Replace the DSP card in the slot at the rear of the motherboard ensuring that it is securely held by the clips.

Step 10

Replace the front panel assembly ensuring it is replaced in the correct orientation noted in step 1, making sure that the correct screws are used (see Figure 16).

Insert the microphone connector edge into position first, then lower the headset connector into place.

Note: Ensure that no cables are trapped before attempting to refit the screws.

Apply pressure to the panel front to align the screw holes and fit the top and bottom screws loosely on each side before fitting the remaining screws and tightening all the screws.

Step 11

If the T-Adapter card is fitted to a chassis which has previously had an AES-3 option card fitted there will be an opening in the rear panel overlay where the BNC connector mounting slot is. The BNC cover label (part 251675Z) should be applied to the outside of the rear panel overlay to cover the BNC connector mounting slot prior to re-fitting the panel front.

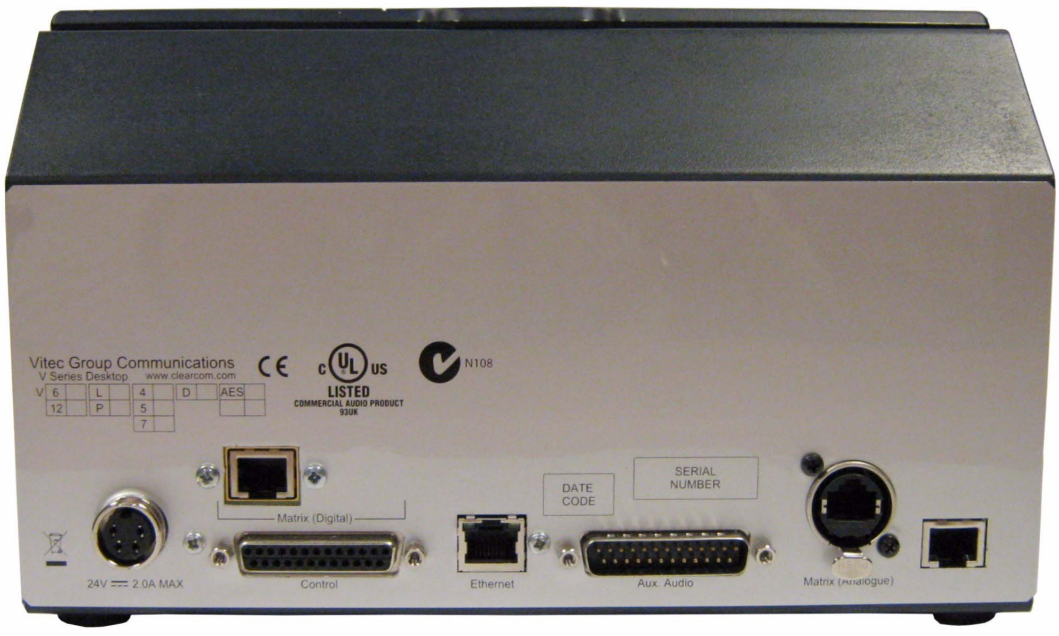


Figure 28: Completed Desktop Panel Upgrade with T-Adapter

Re-site the panel and reconnect power and I/O cables.

Step 12

When the upgraded unit is connected ensure that the ferrite provided is put on the AES cable as close as possible to the connector for the RJ-45 cable that may be used (Figure 29).

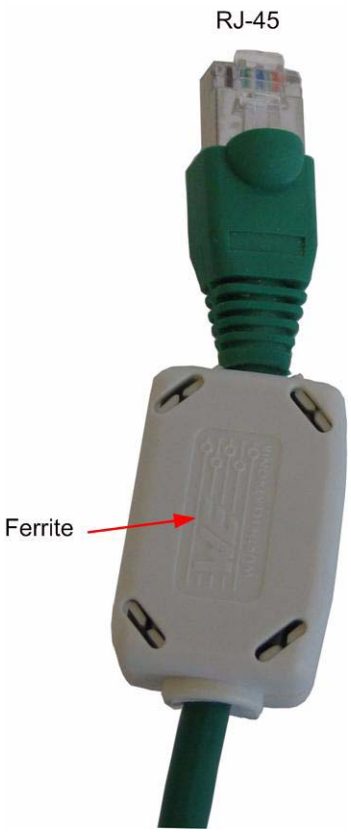


Figure 29: Ferrite Fitted to RJ-45 Cable

When a panel has been fitted with an T-Adapter option card the T-Adapter box shown in Figure 2 should be marked with a tick using a permanent marker to record the modification.

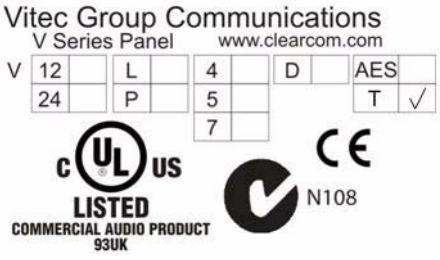


Figure 30: Modification Record