



Tait Electronics (Aust) Pty. Ltd.

A2000-AD FITTING INSTRUCTIONS.

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GENERAL:

The A2000-AD board mounts inside all T2000 mobile radios and buffers the horn alert signal from the radio control board. The A2000-AD can not be used with another option board fitted.

Note: Using the horn alert output from the control board without any buffering will void any warranty.

The A2000-AD can be configured for an open collector output or a relay switched contact.

PARTS:

IPN	Description	QTY
A2000-AD	Alert Driver PCB	1
240-00021-10	Pins	2
	Hook-up wire (30mm in length)	1
	Hook-up wire (100mm in length)	1

CONFIGURATION:

Configuration of the A2000-AD is accomplished by making/breaking solder pad contacts (LK1, LK2 and LK3). To change the configuration , cut the relative link joining pads and solderblob the required pads.

LK1 selects the relay common to be chassis ground or +13.8Vdc.
LK2 selects N/O (normally open) or N/C (normally closed) relay output option.
LK3 selects the BC337 open collector output or the relay contact output.

LK1	LK2	LK3	Output
-	-	7-9	Open collector
1-2	4-5	8-9	Relay N/O to ground
2-3	4-5	8-9	Relay N/O to +13.8Vdc
1-2	5-6	8-9	Relay N/C to ground
2-3	5-6	8-9	Relay N/C to +13.8Vdc

Default

Note: The A2000-AD will not give any valid output with pad 7 linked to pad 8 (LK3).

SPECIFICATIONS:

Max switching current:	RELAY	1A @24Vdc
	BC337	800mA (max 0.6W)
Max switching Voltage:	RELAY	60Vdc
	BC337	50Vdc (max 0.6W)

INSTALLATION:

- (i) Remove case screws and open the T2000 radio.
- (ii) Configure links (if required) before mounting the A2000-AD into the radio.
- (iii) Solder two pins to the T2000 power connector P3 pins 5 and 6. Stand the pins vertically as shown in Figure 1.
- (iv) Solder a wire (100mm in length) from Pin 14 of S14 on the T2000 control board to the S14/P14 pad on the A2000-AD PCB. This is the horn alert output from the control board to the A2000-AD.
- (v) Solder a wire (30mm in length) from the T2000 power connector P3 pin 1 to the S14/P16 pad on the A2000-AD (refer to Figure 2 for pin location). This connects the output of the A2000-AD directly to the power connector of the T2000 radio.

Note: Between the power connector P3 pin 1 and S14 pin 16 on the control board there is a 1k0 ohm resistor (R437). Therefore S14 pin 16 can not be used for the alert driver output unless R437 is bridged out.

- (vi) Using double sided tape mount the A2000-AD PCB as shown in Figure 1 inserting pins soldered to the power connector in step (iii) to GND and 13.8V holes on the A2000-AD PCB. Solder the GND and 13.8V pins and cut off any excess pin length.

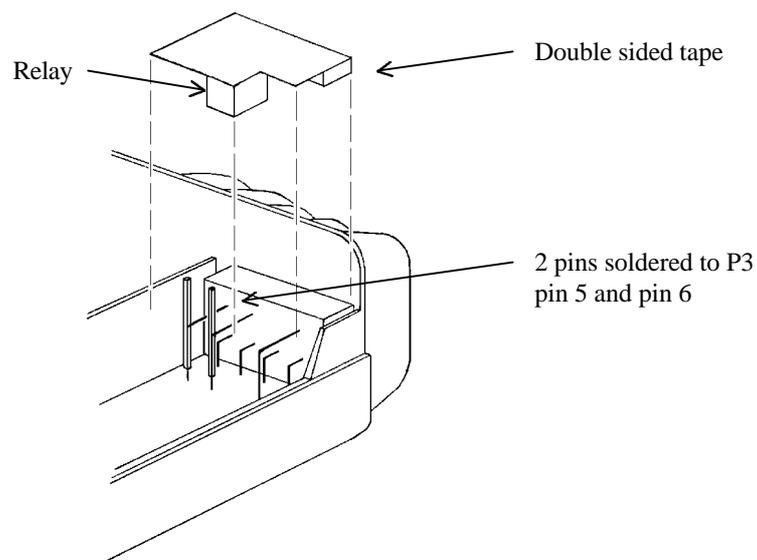


Figure 1 Installing a A2000-AD to a T2000 radio.

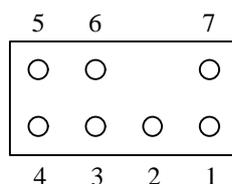
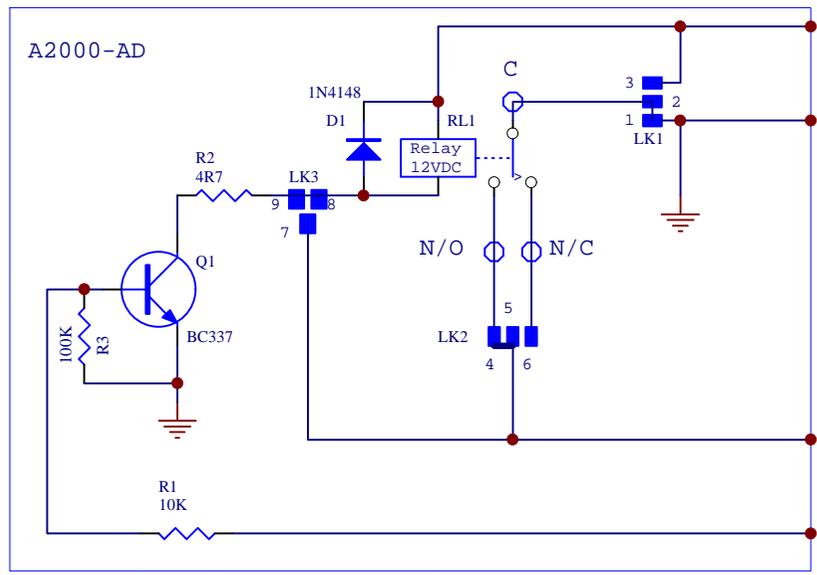


Figure 2 Power connector P3 inside radio view.

- (vii) Test operation of the alert driver (A2000-AD).
- (viii) Re-assemble the T2000 radio. Use extra pin supplied with the T2000 (in the installation pack) for the horn alert output from the T2000 power lead.



+13.8V unsw.
(P3/Pin 6)

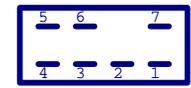
CHASSIS GROUND
(P3/Pin 5)

O/P to 'EXTERNAL'
(P3/PIN 1)

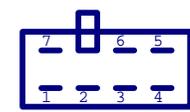
I/P from 'HORN'
(S14/Pin 14)

NOTES:

- FITTING INSTRUCTIONS** (A2000-AD mounts ontop of power socket inside T2000 radio flush to heatsink):
 - Solder 15mm of tinned copper wire .7mm diam. (or 2 pins of IPN 240-00021-10 10pin PCB pins) vertically to power socket P3/Pin 5 (Chassis Gnd) and P3/Pin 6 (+13.8V).
 - Attach 1mm thick double sided tape, 6x25mm to top area of P3 power socket (if reqd.).
 - Solder length of wire to P3/Pin 1 (EXTERNAL O/P) and to A2000-AD O/P pin 'P3/Pin 1'.
 - Slide A2000-AD PCB upside down into the 2 pins, solder pins & cut off excess length.
 - Solder wire from S14/P14 (HORN) T2000 on Ctrl. PCB to A2000-AD I/P pin 'S14/Pin 14'.
 (NOTE: S14/Pin 16 EXTERNAL pin on Ctrl. PCB has a 1k0 resistor (R437) in series to P3/Pin 1 and can therefore not be used for the Alert Driver PCB O/P to S14/Pin 16 EXTERNAL unless bridging R437).
- LINK CONFIGURATION:**
 - Preset link configuration provides N/O relay contact to chassis ground on EXTERNAL P3/Pin 1 power connector.
 - To change configuration, cut relevant link joining tracks and solderplob required link pads:
 - LK1 selects Relay Common to be chassis ground or +13.8VDC.
 - LK2 selects N/O or N/C Relay output option (relative to LK1 selection).
 - LK3 selects BC337 Open Collector O/P or Relay contacts output.
 - For dry relay contact O/P, use wires from 'Common' and 'N/O or N/C' pads to DB9F connector at rear of radio.
- Relay type : OMRON G5V-1 12V.
Part number: RS: 369-359 / FARNELL: 466-890.
- Max switching current: RELAY = 1A @ 24VDC.
BC337 = 800mA (max 0.6W).
Max switching voltage: RELAY = 60VDC.
BC337 = 50VDC (max 0.6W).



T2000 power socket
inside radio view



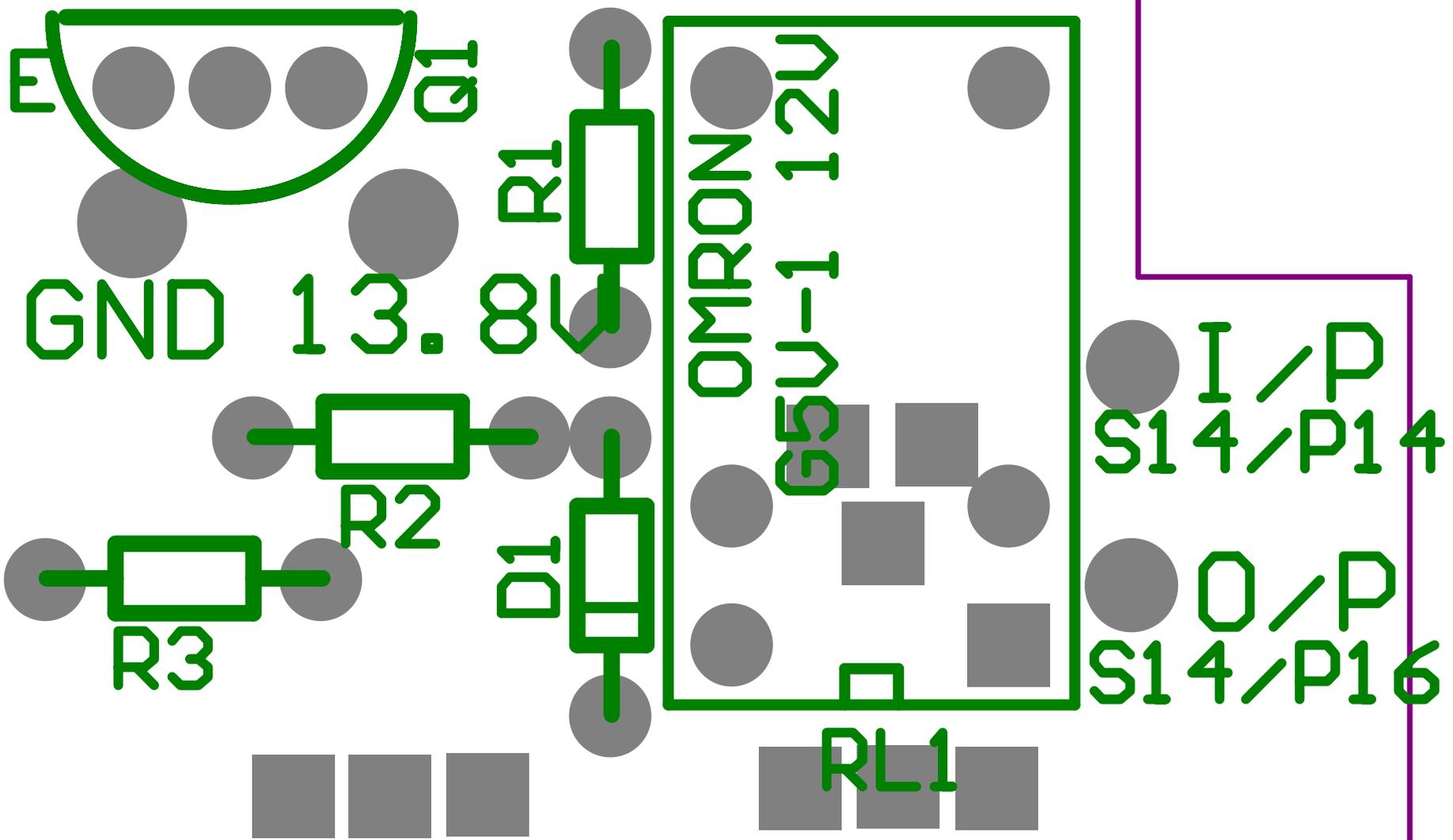
T2000 Power plug
Rear View

				DEPT.	ENG	
				DRAWN	BV	
				CHKD	KB/TEL	
2	Imported to Adv Sch	23-12-99	M.O'B.	SCALE	N.T.S.	TITLE:
1	ORIGINAL	03/10/95	RV	PRINT	A4	
ISSUE	ALTERATION	DATE	APPVD	SHEET 1 OF 1		

TAIT ELECTRONICS (AUST) PTY LTD

T2000 EXTERNAL ALERT DRIVER PCB

DRWG. NO:	
A2000-AD.S01	



A2000-AD
T2000EXT. ALERT DRIVER PCB