

Setting Up The External Alert Feature in a T2000

27th February 2003

Applicability

This Technical Note applies to all T2000 radios

1. Introduction

The External Alert feature in the T2000 series of radios is used to alert an operator of a radio that a call has been received when he/she has been away from the radio. This feature can be used to sound a horn or siren and can be used both for vehicle and base installations.

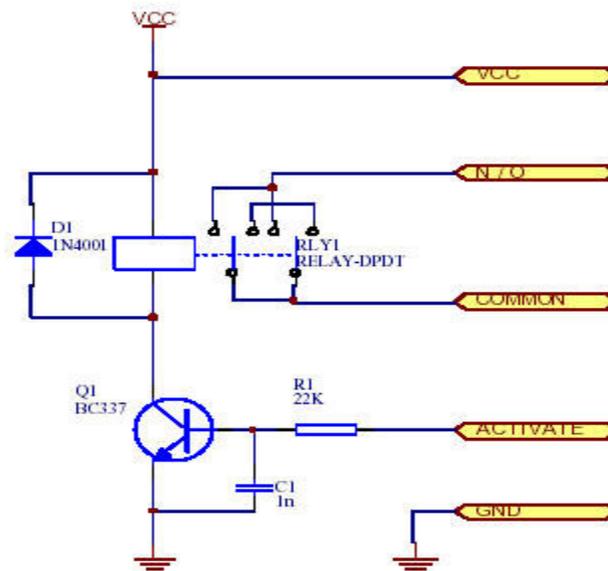
2. Information

Internal Connections

Before any external connections are made Pin 14 (Horn) and 16 (External) of S14 on the control board need to be linked. The link can be a solder short (as the two pads are next to each other) or by the use of soldered wire link

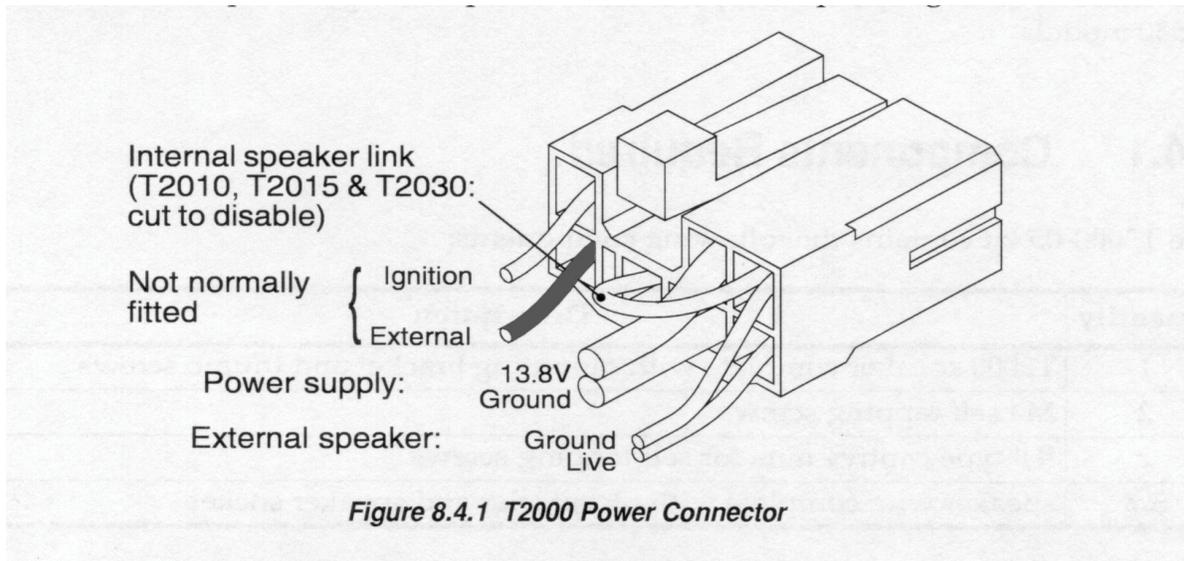
External Connections

The T2000 series of radios are not capable of accepting the current levels that may be needed to drive some external alert devices eg. Vehicle horns. Because of this, an external device is needed. This external device is usually made up of a switching transistor, a relay and other related discrete devices. An example of which is shown below:-



The 5 lines that are used above are connected as follows:-

- **VCC** – Positive voltage to power the relay. This would normally be 12volts
- **N/O** – Connect the “Earth” side of the horn/siren.
- **Common** – Normally connected to GND
- **Activate** – Connected to the “External” line on the T2000 power plug (shown on the diagram below)
- **GND** - Connect to GND, this could be the chassis of a vehicle or the negative of a power supply.



Programming – Trunked Radios

The parameters of the “External Alert” page are described below...

Active Time

Active Time sets how long the external alert remains on, once started. Enter a value between 1 and 60 seconds. Enter 0 to disable the External Alert.

Delay Time

Sets how long the mobile pauses after receiving an incoming call, before activating the external alert. Enter a value between 1 and 60 seconds. Enter 0 to activate the external alert immediately when receiving an incoming call.

Sound

Sets the signal pattern for the external alert. Select from Steady, Pulsed or Ringing.

Emergency Calls

Enables or disables the external alert when receiving an emergency call. The alert will differ according to the settings in Active Time, Delay Time and Sound.

If it is desired to disable the external alert on all emergency calls, uncheck this field and disable “Alert On Speech Calls” and “Alert On Individual Calls”.

Speech Calls

Enables or disables the external alert when receiving a speech call. The alert will differ according to the settings in “Active Time”, “Delay Time” and “Sound”.

If it is desired to disable the external alert on all speech calls, uncheck this field and disable “Alert On Individual Calls”.

Data Calls

Enables or disables the external alert on receiving a status message, short data message or other data calls. The alert will differ according to the settings in “Active Time”, “Delay Time” and “Sound”.

If it is desired to disable the external alert on all data calls, uncheck this field and disable “Alert On Individual Calls”.

Include Calls

If “Alert On Include” calls is set to 'Enabled' it means that if the incoming call is an include call the unit will cause the external alert to activate.

Status Calls

If “Alert On Status” calls is set to 'Enabled' it means that if the incoming call is a status call the unit will cause the external alert to activate.

Group Calls

If “Alert On Group” calls is set to 'Enabled' it means that if the incoming call is a group call the unit will cause the external alert to activate.

Alert On Individual Calls

If “Alert On Individual” calls is set to 'Enabled' it means that if the incoming call is an individual call the unit will cause the external alert to activate.

Programming – Conventional Radios

Internal Alert Duration

Enter a time between 0 and 30 seconds in steps of 2 seconds. This timer defines the duration of the internal alert, which sounds when the radio receives an individual SELCALL. This alert will sound until the timer expires or until the call is answered. If this is set to '0', the timer is disabled and the alert will sound until the call is answered. This duration has no effect on the internal alert that is sounded when a group call is received. When a group call is received, the radio will ring for a period of approximately two seconds.

External Alert Duration

Enter a time between 0 and 30 seconds in steps of 2 seconds. This timer defines the duration of the external alert, which can be enabled by the [AUX] button. If enabled, the external alert will become active after the internal alert timer times out. If set to 0, the external timer will be disabled. The external alert function will cause the external alert line on the options connector to pulse for the duration of this timer.

External Alert Delay (T2020 Only)

Enter the delay after which the external alert should sound in the range 1 to 250 s.

External Alert Level (T2020 Only)

Enter 'Steady' if a steady external alert output line is required during the external alert or 'Pulsed' for a pulsed output line.

Compliance

None

CSO Instruction

CSO's – Please inform all technical staff, and dealers of this Technical Note.

3. Issuing authority**Name and position of issuing officer**

Paul Anderson
Customer Support Engineer - Mobiles

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Distribution Level

Associate

Document History

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