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IRT Eurocard

Types TPD-1130

Visual and Audible Alarm Panel

Designed and manufactured in Australia

IRT can be found on the Internet at:
http://www.irtelectronics.com

IRT Eurocard

Types TPD-1130

Visual and Audible Alarm Panel

Instruction Book

Table of Contents

This instruction book applies to units later than S/N 9700000.

General description

The TPD-1130 is a visible and audible alarm panel (VAAP), designed as an accessory for the TPD-1120 Rack Alarm Gathering Unit (RAGU).

Alarm Summary contacts from the TPD-1120 can be used as the Urgent or Non-Urgent alarm inputs of the TPD-1130.
Activation of the Urgent Alarm input will cause the Urgent LED on the front panel to flash until such time as the input is de-activated.
Similarly the activation of the Non-Urgent input will cause the Non-Urgent LED to flash.

Detection of the start of an alarm condition on either the Urgent or Non-Urgent inputs will cause the audible cadence generator to start and the audio output will increase in level from a low level to the maximum over a period of approximately 4 seconds.

The operation of the Audible Mute switch will prevent any audible alarms.

The momentary operation of the Audible Cut-off switch will stop the audible alarm until a new alarm is detected. This switch can be wired in an 'OR' manner to other TPD-1130s. It can also be wired to operate the remote ARA input of a TPD-1120.

Technical specifications
Type TPD-1130

Alarm and Audible Cut-off:

Inputs:

Internal 12 Volt relay.

Must operate current	20 mA.
Must release current	1.5 mA.
Internal relay supply voltage	+12V ±1 V.

Damage will occur if a voltage of greater than +12 Volts is applied to any of these inputs.

Audio Output:

Maximum audio power	Approximately 4 watts into internal speaker.

Connectors:

Plugable screw block connectors.

Power Requirements:

220 Vac RMS - 260 Vac RMS, 45 - 60 Hz.
or
-48 Vdc +15/-5 Volts @ approx. 0.8A.

Power consumption	<10 VA.
Power supply 'drop out' immunity	The normal operation of the unit will not be affected by power drop outs of up to 300 ms duration.

Other:

Temperature range	0 - 50° C ambient
Mechanical	1 RU chassis suitable for mounting in 19" rack.
Finish: Front panel	Grey enamel, silk-screened black lettering & red IRT logo.
Dimensions	1 RU.
Optional accessories	Instruction manual.

Due to our policy of continuing development these specifications are subject to change without notice

Technical description

There are a number of cadences or note sequences that can be selected for the audible alarm. SW1 on rear panel (4 miniature piano key switches) allows this selection.

The operation of the Audible Mute switch will prevent any audible alarms.

The momentary operation of the Audible Cut-off switch (SW1 on the front panel) will stop the audible alarm until a new alarm is detected. This switch can be wired in an 'OR' manner to other TPD-1130s. It can also be wired to operate the remote ARA input of a TPD-1120.

A new alarm causes the Audible Alarm to ramp up its level over 4 seconds.

Two alarm inputs are provided, labelled URGENT and NONURGENT. A new alarm on either input will cause the Alarm Cut-off to be reset and the audible alarm to ramp up to its pre-set level.

A ground on the ARA input causes the ARA LED to light.

The maximum power delivered to the internal speaker is approximately 4 watts.

Power:
Either -48 Vdc or 240 Vac may be used to operate the TPD-1120. It is not recommended that both supplies be present at the same time.

The fuse for the 240V input is integral to the rear IEC 320 AC power input connector. The fuse for the -48 Vdc input is on the rear panel.

Internal adjustments

The following adjustable resistor is factory set and should not be adjusted unless a component has been replaced. It is not an 'operational' control. Before adjusting allow time for the unit to reach temperature stability.

RV 2 Maximum gain. Pre-set to onset of clipping at maximum volume setting.
Note that setting this control past the clipping point may result in damage to the internal loudspeaker.

Configuration

Alarm cadence:
A number of different “musical” sequences are available for the alarm sound. These may be selected using SW 1 on the rear panel (4 miniature piano key switches).

The cadence selected has no bearing on the function of the alarm and selection may be made at will so that the sequence selected is distinct from any other alarms in the vicinity.

It is not possible to accurately describe these sequences in text form. The user should simply experiment with different settings to determine which they prefer.

Factory setting is for all four switches to be in the ON position.

Power supply ground:
Link LK 1 (normally installed) provides a ground connection from the +ve side of the DC supply input to the chassis ground. This link should always be installed unless a negative ground DC supply input is used.

Installation

Operational Safety:

WARNING

Operation of electronic equipment involves the use of voltages and currents that may be dangerous to human life. Note that under certain conditions dangerous potentials may exist in some circuits when power controls are in the **OFF** position.
Maintenance personnel should observe all safety regulations.

Do not make any adjustments inside equipment with power **ON** unless proper precautions are observed. All internal adjustments should only be made by suitably qualified personnel. All operational adjustments are available externally without the need for removing covers or use of extender cards.

Pre-installation:

Handling:

This equipment may contain or be connected to static sensitive devices and proper static free handling precautions should be observed.

Where individual circuit cards are stored, they should be placed in antistatic bags. Proper antistatic procedures should be followed when inserting or removing cards from these bags.

Power:

AC mains supply: Ensure that operating voltage of unit and local supply voltage match and that correct rating fuse is installed for local supply.

DC supply: Ensure that the correct polarity is observed and that DC supply voltage is maintained within the operating range specified.

Earthing:

The earth path is dependent on the type of frame selected. In every case particular care should be taken to ensure that the frame is connected to earth for safety reasons. See frame manual for details.

Signal earth: For safety reasons a connection is made between signal earth and chassis earth. No attempt should be made to break this connection.

Connections:

Alarm inputs:

Connector TB 1 on rear panel:

Pin	Function
1	"Urgent" alarm input. Contact closure to ground causes alarm. Front panel "Urgent" LED will flash and audio will increase in volume over approximately four seconds. Removal of contact closure will stop alarm.
2	Ground
3	"Non-urgent" alarm input. Contact closure to ground initiates alarm. Front panel "Non-urgent" LED will flash and audio will increase in volume over approximately four seconds. Removal of contact closure will stop alarm.
4	Ground

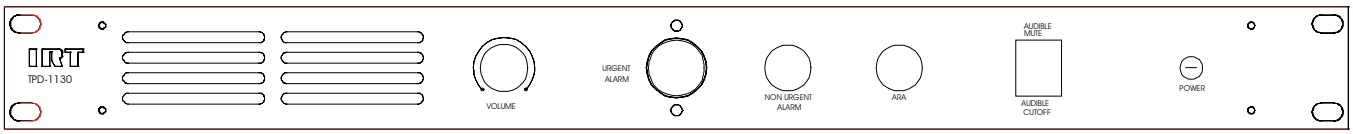
Control inputs:

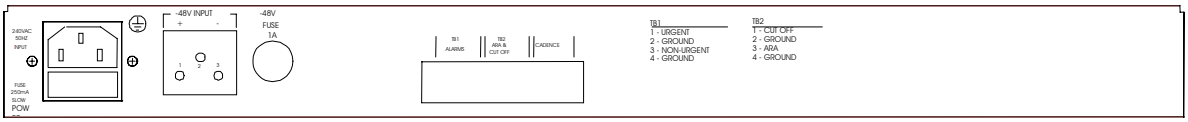
Connector TB 2 on rear panel:

Pin	Function
1	Cut-off. Momentary contact to ground mutes audible alarm until a new alarm is sensed. The momentary operation of the front panel Audible Cut-off switch will stop the audible alarm until a new alarm is detected. This contact to ground also connects to TB 2 pin 1 and so this switch can be wired in an 'OR' manner to other TPD-1130s. It can also be wired to operate the remote ARA input of a TPD-1120.
2	Ground
3	ARA. Alarm Receiving Attention. Contact closure to ground lights front panel ARA LED to indicate that the alarm has been noted at the source. This input is purely indicative and does not cancel the alarm. LED will remain lit only while contact is maintained.
4	Ground

Front & rear panel connector diagrams

The following front panel and rear assembly drawings are not to scale and are intended to show relative positions of connectors, indicators and controls only.





Maintenance & storage

Maintenance:

No regular maintenance is required.

Care however should be taken to ensure that all connectors are kept clean and free from contamination of any kind. This is especially important in fibre optic equipment where cleanliness of optical connections is critical to performance.

Storage:

If the equipment is not to be used for an extended period, it is recommended the whole unit be placed in a sealed plastic bag to prevent dust contamination. In areas of high humidity a suitably sized bag of silica gel should be included to deter corrosion.

Where individual circuit cards are stored, they should be placed in antistatic bags. Proper antistatic procedures should be followed when inserting or removing cards from these bags.

Warranty & service

Equipment is covered by a limited warranty period of three years from date of first delivery unless contrary conditions apply under a particular contract of supply. For situations when "**No Fault Found**" for repairs, a minimum charge of $A100.00 will apply, whether the equipment is within the warranty period or not.

Equipment warranty is limited to faults attributable to defects in original design or manufacture. Warranty on components shall be extended by IRT only to the extent obtainable from the component supplier.

Equipment return:

Before arranging service ensure that the fault is in the unit to be serviced and not in associated equipment. If possible, confirm this by substitution.

Before returning equipment contact should be made with IRT or your local agent to determine whether the equipment can be serviced in the field or should be returned for repair.

The equipment should be properly packed for return observing antistatic procedures.

The following information should accompany the unit to be returned:

1. A fault report should be included indicating the nature of the fault
2. The operating conditions under which the fault initially occurred.
3. Any additional information which may be of assistance in fault location and remedy.
4. A contact name and telephone and fax numbers.
5. Details of payment method for items not covered by warranty.
6. Full return address.
7. For situations when "**No Fault Found**" for repairs, a minimum charge of $A100.00 will apply, whether the equipment is within the warranty period or not.

Please note that all freight charges are the responsibility of the customer.

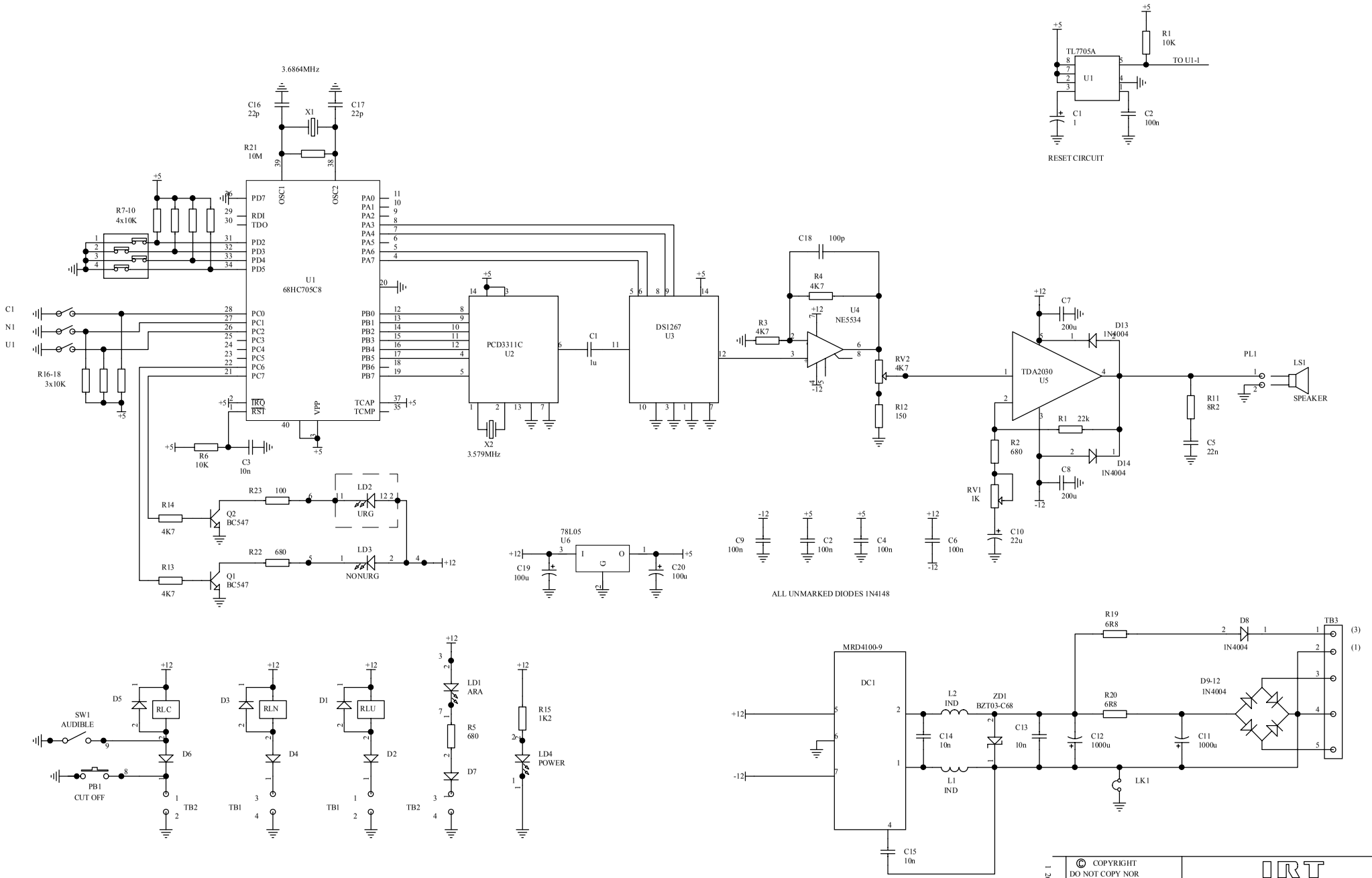
The equipment should be returned **to the agent who originally supplied the equipment or, where this is not possible**, to IRT direct as follows.

Equipment Service
IRT Electronics Pty Ltd
26 Hotham Parade
ARTARMON
N.S.W. 2064
AUSTRALIA

Phone: 61 2 9439 3744 Fax: 61 2 9439 7439
Email: service@irtelectronics.com

Drawing index

Drawing #	Sheet #	Description
804179		TPD-1130 main circuit schematic.



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CHECKED	SCALE	DRAWING No. 804179	SHEET 1 OF 1
ENG. APP.			
CONTRACT No.	IRT Electronics Pty. Ltd. ARTARMON NSW AUSTRALIA 2064		

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