

User Manual /

# Disabled Persons Toilet Alarm (DPTA)



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# 1 Introduction

This Disabled Persons Toilet Alarm Kit is available in 1, 2, 3 or 4 zones (where one zone is used for each toilet). It has been designed for use in disabled persons dwellings typically for disabled toilets where this design process considered the requirements of BS8300.

The system consists of a 4 zone control panel (DPTA-CP4) which is (for each zone) connected to a Pull Cord (DPTA-PC), Remote Reset (DPTA-RR) and Remote Indicator (DPTA-RI). These connected items are known as field devices which provide the Control Panel with the necessary input and output signals to allow the system to function. These field devices are categorised as follows;

- ✓ Pull Cords (DPTA-PC) are “Call Devices” which are ceiling mounted pull cords used to generate an alarm activation by a person in distress or requiring attention from a carer. When a call devices is activated the system will generate an alarm and the Remote Indicator (DPTA-RI) will illuminate & sound.



- ✓ Remote Resets (DPTA-RR) are “Reset Devices” which are generally wall mounted and consist of a push button which is pressed to cancel an alarm activation.



- ✓ Remote Indicators (DPTA-RI) are “Warning Devices” that are generally wall mounted devices which during an alarm activation will alert cares / staff of a person requiring attention. Warning devices typically have visual and audible element within the same housing, but devices with only audible or visual elements may be fitted to a system.



- ✓ The control panel (DPTA-CP) is powered by mains supply and an optional battery back-up can be installed which allows the system to function during a power outage.

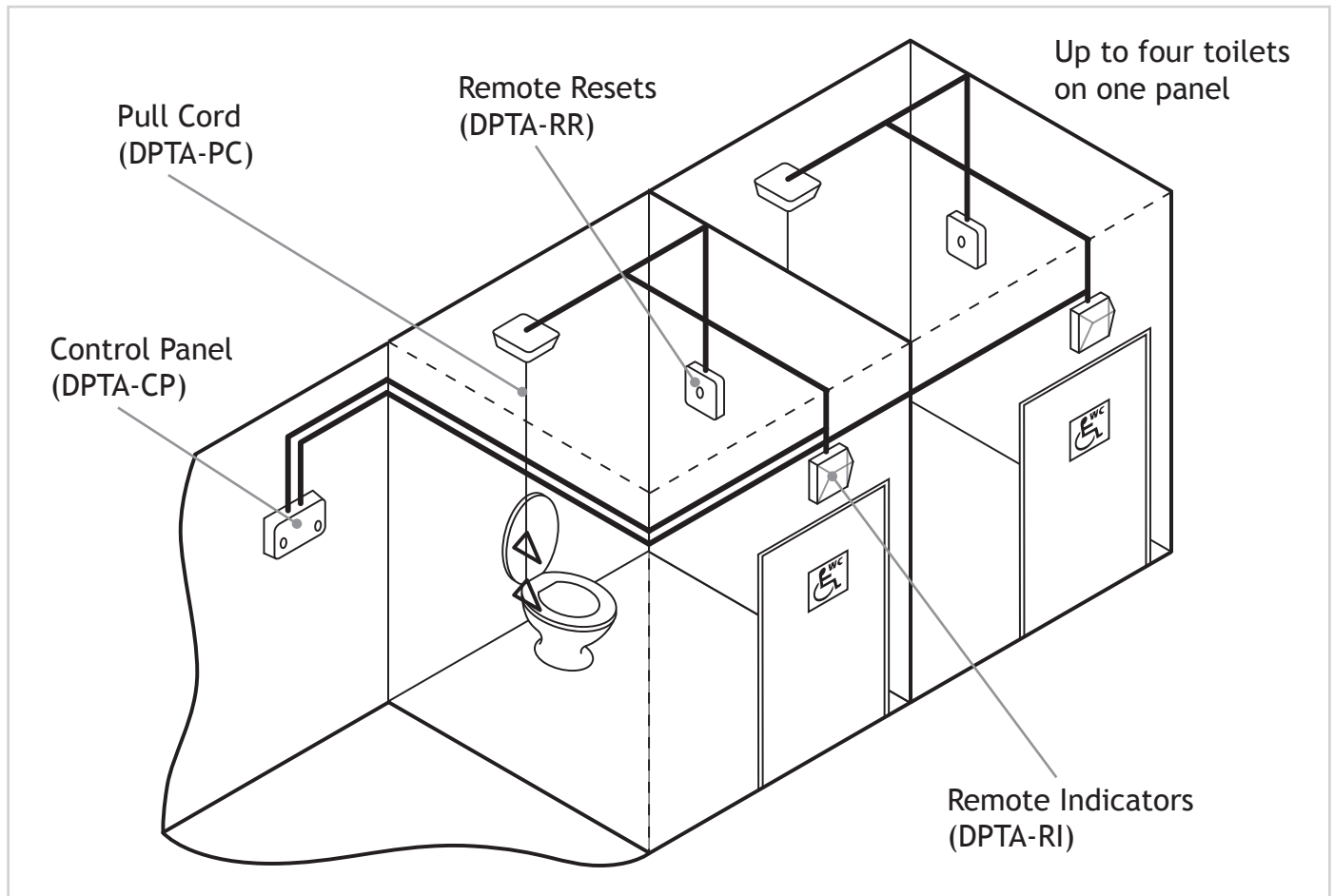


## 2 Features

- ✓ Simple 3 wire operation for all field devices
- ✓ Control Panel supporting up to 4 zones
- ✓ Simple maintenance and fault diagnosis.
- ✓ On board buzzer in both Control Panel & Remote Indicator
- ✓ Zone LED indication on Control Panel
- ✓ Full range of field devices available (i.e. Pull Cord, Remote Reset & Remote Indicator)
- ✓ System silence/mute option from Control Panel
- ✓ Local (at Control Panel) or remote (at Remote Reset) reset options
- ✓ Optional battery back-up
- ✓ Auto shut down function to save battery power

### 3 Typical Installation

The following illustration shows how the Control Panel and field devices are connected in a typical installation for a single toilet;



# 4 Product Specifications

## 4.1 DPTA-CP - Control Panel (Surface/Flush Mounted)

### a. Power Supply

Mains Input Voltage	230VAC 50Hz/60Hz
Quiescent Standby Current	3mA DC (Buzzer Muted)
Maximum Overall Supply Current	250 mA DC (Maximum)
DC Input Voltage	12VDC Battery

### b Button Functions

Button	System Status	Operation	Function
Silence	Alarm Activation	Press for 0.5 Seconds	Mute Control Panel
Reset	Alarm Activation	Press for 0.5 Seconds	Rest All Zones
Zone 1	Alarm Activation	Press for 0.5 Seconds	Reset Zone 1
Zone 2	Alarm Activation	Press for 0.5 Seconds	Reset Zone 2
Zone 3	Alarm Activation	Press for 0.5 Seconds	Reset Zone 3
Zone 4	Alarm Activation	Press for 0.5 Seconds	Reset Zone 4

### c. Led's

LED	System Status	LED Response
Mains - Green	Mains On	Constant: Mains Present
	Battery Back-Up	Pulse Every 5 Seconds
	Battery Saver Pulse	Every 20 Seconds
Alarm (Zone 1, 2, 3, 4) - Red	Alarm Activation	Slow Flashing - 1.Hz

### d. Internal Buzzer

Type	Piezo (PCB Mounted)
Current	5mA maximum
Frequency	1 Khz Tone
Sound	1 Hz Pulse (Alarm Activation)
	Mute (System Normal)
	Beep Every 20 Seconds (Battery Saver Mode)

**Section 4 Product Specifications /**

**e. Field Device Inputs**

Number of Zone Circuits		1
Detection Supply	Voltage	12 VDC +/- 10%
	Maximum Current	30mA
Detection Mode Monitoring	Short Circuit	> 30mA
	Open Circuit	< 1.5mA

**f. Field Device Outputs**

Number of Zone Circuits		1
Sounder Supply	Voltage	12 VDC +/- 10%
	Maximum Current	200mA
	Protection	Shut Down At
Alarm	Call	1 Hz Pulse

**g. Battery Input**

Charging Voltage	13.8 VDC
Deep Discharge Protection	Less than 10.5 VDC

**h. Fuses**

F1: Auxiliary	500mA Anti Surge 20mm Glass
F2: Battery	500mA Anti Surge 20mm Glass

**i. Housing**

Front Cover	Polycarbonate - Fire Retardant
Back Box	Polycarbonate - Fire Retardant
Maximum Current During Alarm	30 mA DC (Maximum)

**4.2 DPTA-PC - Pull Cord (Ceiling Mounted)**

**a. Power Supply**

Input Voltage	12 VDC
Quiescent Standby Current	0mA
Maximum Current During Alarm	15 mA DC (Maximum)

**Section 4 Product Specifications /**

**b. User Operation**

Action	Response
Pull Card	Alarm Activation

**c. LED**

LED	System Status	LED Response
Front Mounted	Alarm Activation	Illuminates in Sympathy with System

**d. Termination**

Device is wired with 3 wires (positive, negative & signal) in and 3 wires (positive, negative & signal) out.

**e. Housing**

Material	ABS
Colour	White

**4.3 DPTA-RR - Remote Reset (Surface/Flush Mounted)**

**a. Power Supply**

Input Voltage	12 VDC
Quiescent Standby Current	0mA
Maximum Current During Alarm	15 mA DC (Maximum)

**b. User Operation**

Action	Response
Pull Card	Alarm Activation

**c. LED**

LED	System Status	LED Response
Front Mounted	Alarm Activation	Illuminates in Sympathy with System

**d. Termination**

Device is wired with 3 wires (positive, negative & signal) in and 3 wires (positive, negative & signal) out.



**Section 4 Product Specifications /**

**e. Housings**

Material	ABS
Colour	White

**4.4 DPTA-RI - Remote Indicator (Surface/Flush Mounted)**

**a. Power Supply**

Input Voltage	12 VDC
Quiescent Standby Current	0mA
Maximum Current During Alarm	30 mA DC (Maximum)

**c. LED**

LED	System Status	LED Response
Front Mounted	Alarm Activation	Illuminates in Sympathy with System

**d. Termination**

Device is wired with 3 wires (positive, negative & signal) in and 3 wires (positive, negative & signal) out.

**e. Housings**

Material	ABS
Colour	White

## 5 Electrical Requirements

### A. Power Supply

- ✓ 230V AC at 50/60Hz
- ✓ 12V DC Storage battery
- ✓ Standby Current : 4mA
- ✓ Alarm Current : 250mA (max)

### B. DPTA-CP Internal Safety Fuses

#### F1 - Auxiliary - 500mA, Anti Surge / Timed.

The Auxiliary Fuse protects the DPTA-CP circuitry, field devices and field device wiring from current overload. The field device wiring is protected with electronic current limiting.

#### F2 - Battery - 500mA, Anti Surge / Timed.

The battery fuse protects the DPTA-CP battery supply from overload either while charging or in standby.

# 6 Wiring Diagram

