

MT50-W INDUSTRIAL TALKBACK INTERCOM SYSTEM SWITCH



DS-176 Issue 02

Thank you for your interest in Zitel - we are a UK based manufacturer of PAGA and Intercom products. Our systems are mainly designed for use in the Hazardous Oil, Gas and Petrochemical industries.

The MT50-W is a safe area talkback intercom exchange. The MT50 range includes both hazardous and safe area apparatus and allows a range of subscriber options including ear defender headset stations, noise cancelling microphone input subs, and *shout back* re-entrant horn stations. For a fully zone 1 certified solution see DS009.

MT50-W – SAFE AREA TALKBACK SWITCH

Hands free subscribers – *Simple operation*

High power 150Watt paging amplifier –
Effective public address in high noise areas

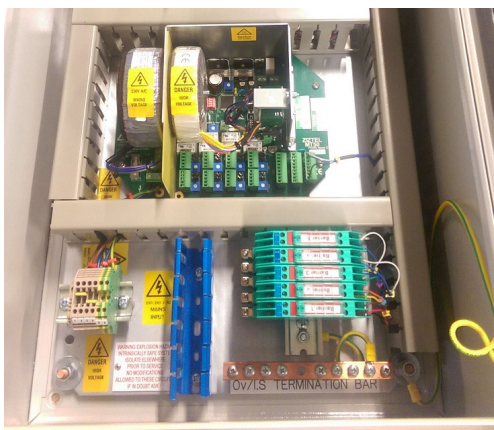
MG600 Ex i, ZAP10-02 or MG400 noise
cancelling microphone options –
Intelligible speech in noisy areas

Configurable operating system – *Future proof*

The Master Talk MT50 system is designed to provide reliable, efficient two-way speech in hostile environmental conditions. The typical application is for use on a drill rig installation where secure 'open channel' communications is required between, for example, the Derrick man, the Monkey board and the Driller/Dog house positions. Where a safe area location is available for the central exchange the MT50-W industrial switch can be specified. This unit comprises of a robust bulk head mount IP55 sheet steel enclosure which houses all active talkback system components thereby allowing simple to maintain passive subscriber stations.

Master Talk basic MT50-W supports up to eight subscriber talk back slave station positions and a priority master position. A subscriber position can be utilised as a drill floor paging port enabling one way public address/paging speech to dedicated horn loudspeakers (enabling public address master position speech coverage). Further subscriber stations can be specified by cascading the MT50-W switch or by specifying MT50-20D.

The control of the MT50 system is from the master position which can initiate or override established speech transmission at any time. Operation is completely hands-free once a call plan is established with speech control managed by a single foot/thigh/knee switch paddle at



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the master position. The master location can also be fitted with a robust push button stepped hi/low/off volume control option and a heavy duty station select switch assembly which then enables private intercom to/ from either slave subscriber position or public address loudspeaker set.

Subscriber positions can employ 'shout' back horns or for more critical applications AP10-02 or MG400 noise cancelling cardioid microphones for safe areas and ZAP10-02 and MG600Exi units which have IECEx and ATEX certification. In certain applications headsets are specified, these units can be worn in conjunction with a safety helmet and provide ear defender capability as well as noise rejecting boom mounted microphone capsules.

The essence of an MT50 system is *simplicity* of both operation and equipment installation/service. There are NO subscriber keypads / multiway rotary switches, complex call plans; the philosophy is to provide a simple, robust, secure package which is easy to operate, reliable and that will survive an aggressive environment. The system does not require use of special field cables and in most cases standard low cost single pair field cables are all that is required to complete the installation.

The Master Talk MT50-W central control unit provides power and management for the entire system and can be energised from voltages between 90V to 254 V AC 50/60 Hz (tap selection to be given at order stage).

An integral 150Watt speech power amplifier enables a network of loudspeakers to be connected to the system with distribution on a 70/100Volt reticulation basis. Additional power can be given by adding DAS05 slave amplifier (50 Watt increments) or 350A, 350 Watt amplifier.

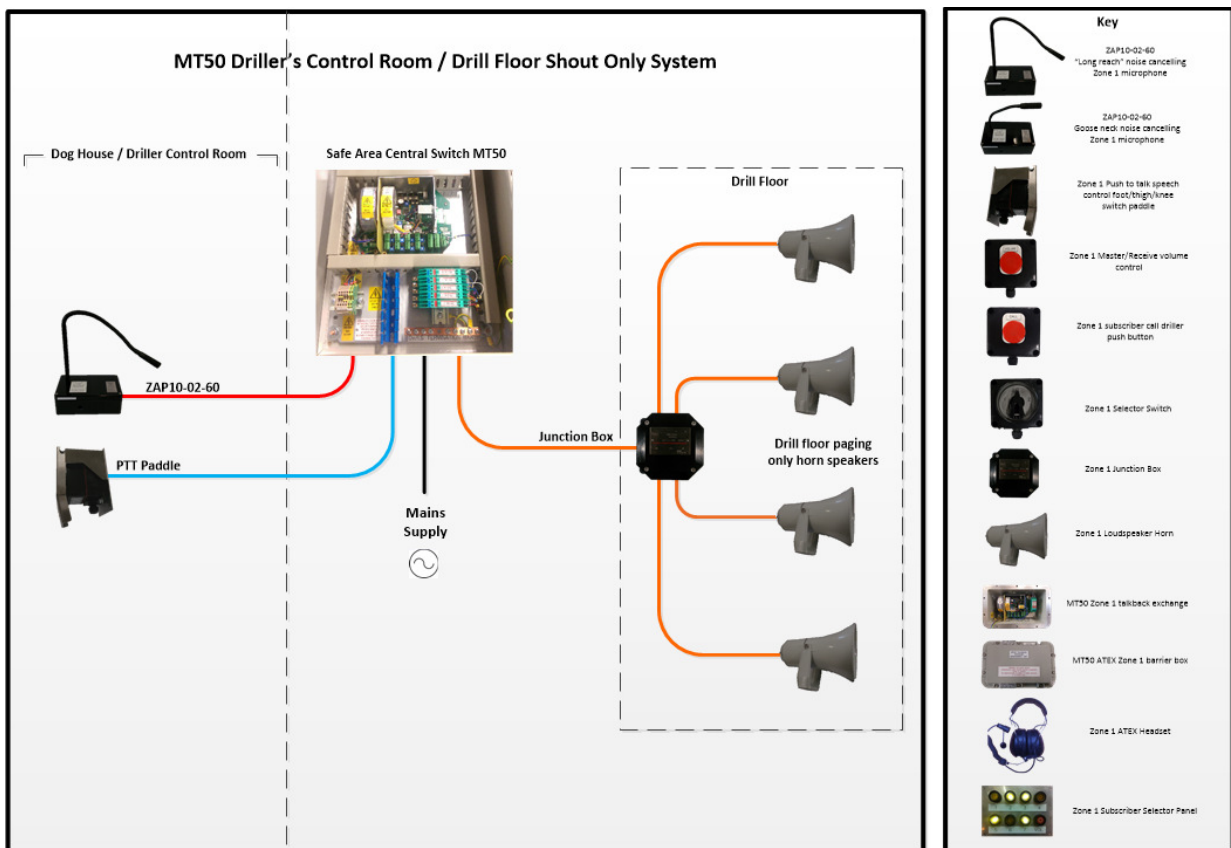
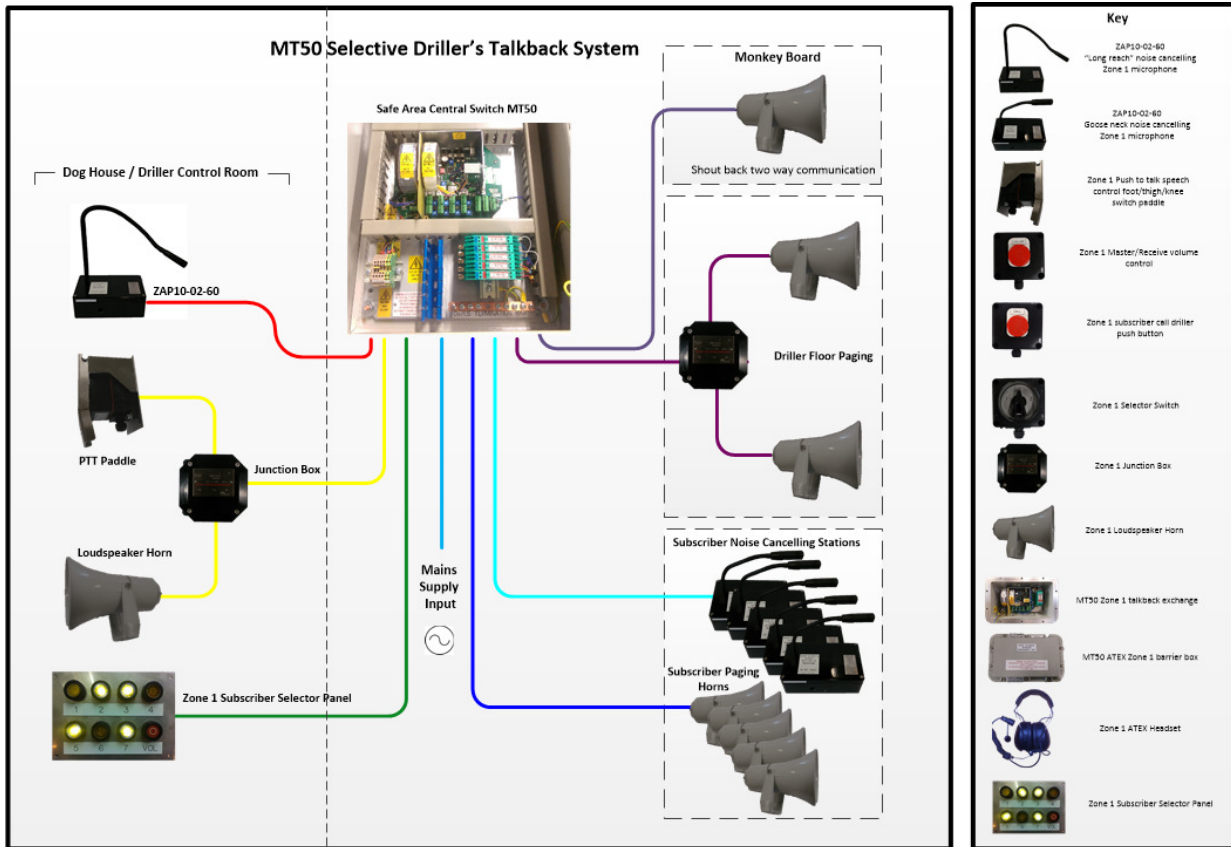
The MT50-W is managed by a secure PC configurable operating system which allows a range of possible package architectures. The unit can support a simple one way paging 'shout' type system through to combined paging and talk back communications with audible tone signaling.



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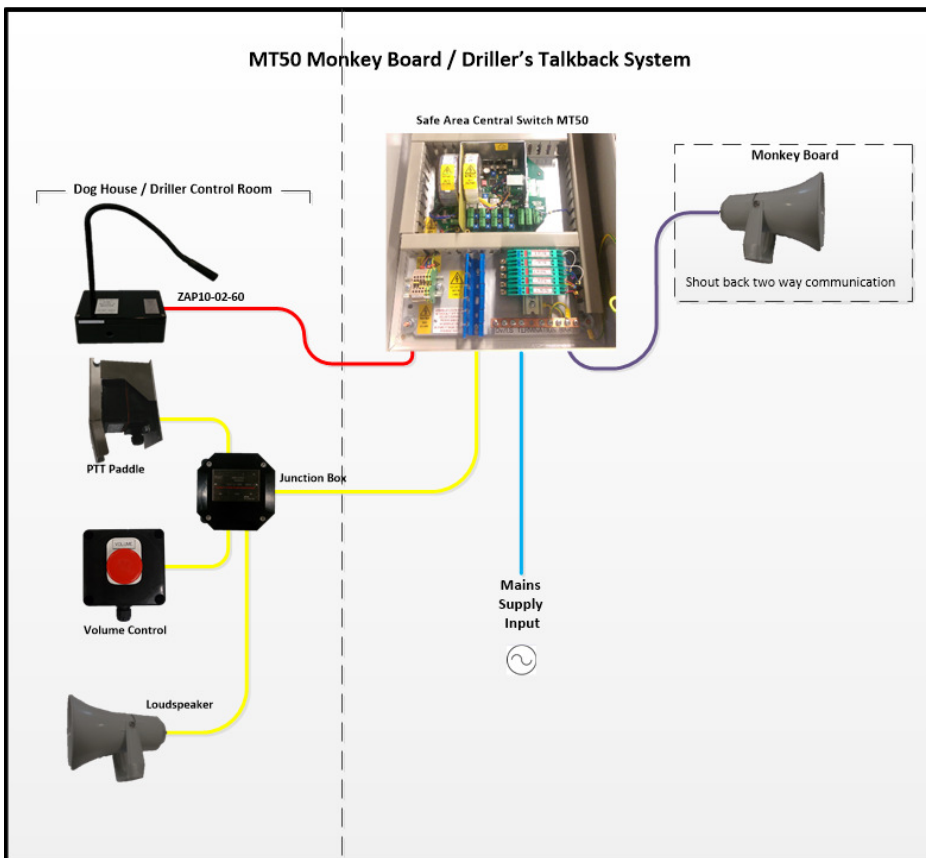
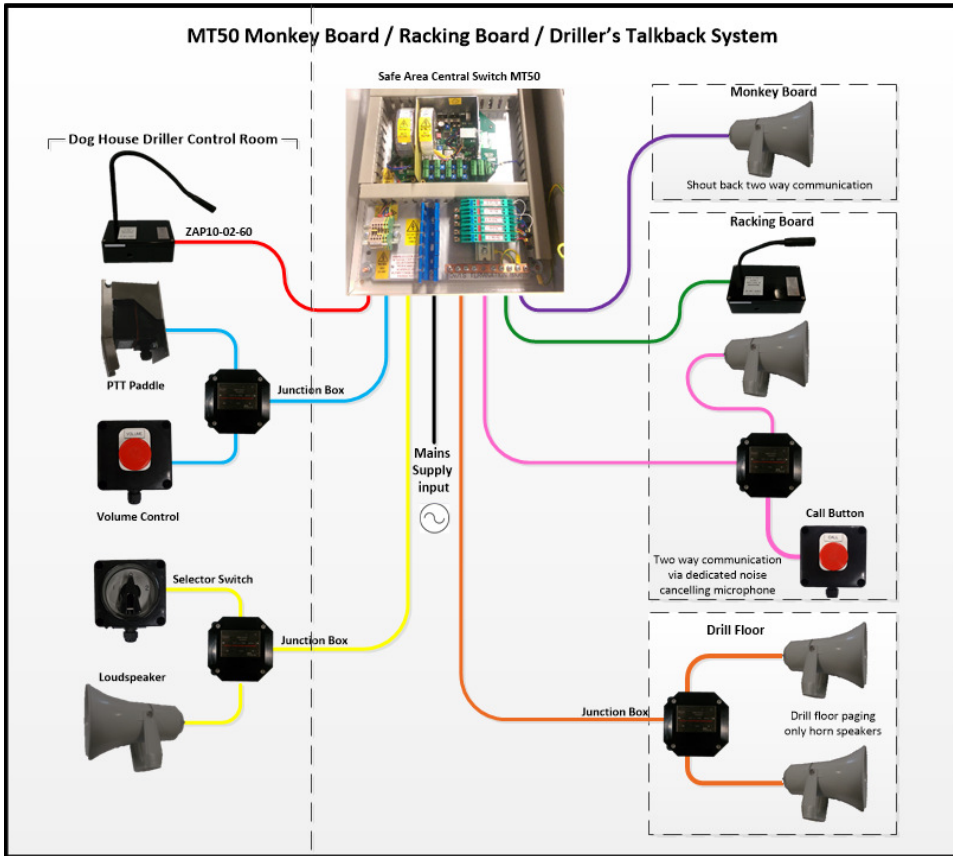
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Technical Specification – Electrical	
Mains supply input	90-254 Volts AC 50/60 Hz
Consumption max	300VA
Input sensitivity	50mV for full output
Frequency response – 3dB points	200Hz and 10kHz
Distortion THD	Better than 5%
Line output	100 or 70 Volt line protection, short/open-circuit overload
Power output capability	150Watts
Number of paging horns	Up to ten 15Watt rated horn units
Subscriber inputs	8 (expandable)
Master positions	1 (expandable)
Mechanical Safe Area	
Dimensions	600mm High x 330mm wide x 200mm deep
Construction	Fabricated steel with corrosion resistant finish
Finish	RAL 7035 Grey
Service Location	-40° C to +70° C
Environmental	IP55
Vibration	Maximum shock 1g (any direction)
Gland entries	Uncut
Weight	20kg
Certification	Safe area

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