

MT50 TALK-BACK INTERCOM SYSTEM

DS-009 Issue 06



Thank you for your interest in Ziztel - 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.

Consequently our products are very robust and designed to comply with international standards.

Please do not hesitate to contact us for further information on our products. We look forward to working with you on a project soon...

ZIZTEL MT50 EXPLOSION PROOF TALKBACK

Centralised control - Hands free operation

Integral 150 Watt amplifier - effective speech communications in noisy areas

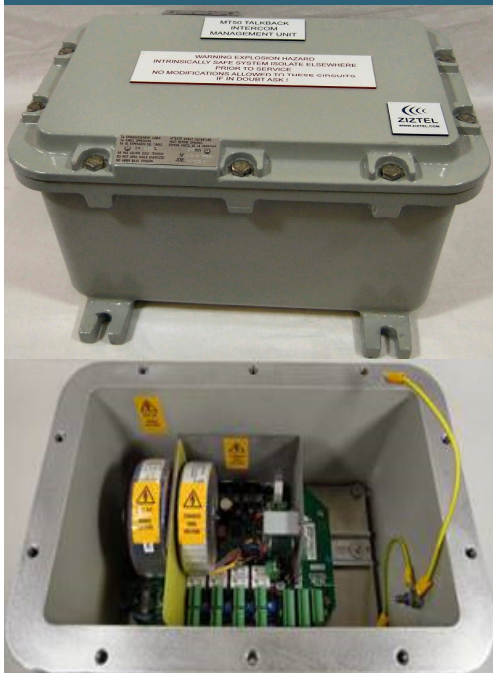
Simple standard non critical inter connecting cable – low cost installation

Passive subscriber outstations – simple maintenance

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 the Derrick man, the Monkey Board and the Driller/Dog House positions. MT50 Explosion Proof Switch is Zone 1 ATEX Certified enabling the *complete talk back system* to be operated in a hazardous area without requirement a safe location.

Master Talk MT50 supports up to eight subscriber talk-back slave station positions and a priority master location. A subscriber location can be utilised as a drill floor paging port enabling one way public address/paging speech to dedicated horn loudspeakers (example to provide Dog House speech coverage to the drill floor).

The control of the entire MT50 system is from the master location which can initiate or override established speech transmissions 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 the master location. The master location can also be fitted with a robust push button stepped hi/low/off volume control and a heavy duty station select switch assembly which then enables private intercom to/from either slave subscriber location or public address loudspeaker.



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Master Talk MT50 can be supplied in heavy duty industrial marine packaging for those elements of the system located in a safe area or ATEX explosion proof execution for hazardous Zone 1 areas.

Subscriber locations can utilise explosion proof talk-back horns or, for more critical applications, ZAP10-02 noise-cancelling cardioid microphones which are both IECEEx and ATEX certified. [Microphones can be of a fixed type or mounted on a robust flexible stem]. In certain locations it is more convenient to specify ATEX Exi headsets, 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. Where Exi microphones/headsets are required a secondary MT50 enclosure is fitted which is located adjacent to the main exchange MT50 assembly, this contains the required Exi safety barriers necessary to conform to ATEX requirements.

MT50 can optionally incorporate an alarm tone subsystem allowing the rig to interface a volt-free BOP alarm broadcast initiate contact. The alarm tone can be configured to client requirements both in terms of alarm tone frequency/cadence, priority of access and broadcast speaker destination.

MT50 can be configured to support direct two-way communications with the Monkey Board subscriber on a dual speech path basis thereby allowing the driller to monitor audio from the Monkey Board at all times even when servicing calls from other locations. Call plans are held in secure nonvolatile programmable micro system enabling changes to the operating system without replacing hardware.

The essence of an MT50 system is simplicity of both operation and equipment installation/service. There are NO subscriber keypads, rotary switches, complex call plans on MT50. The philosophy is to provide a simple robust secure package which is easy to operate, reliable and that will survive the aggressive environment typical aboard an offshore drilling rig. The system does not require special cables and many of the interconnecting field cables are just single pair.

A Master Talk MT50 system consists of the following:

- Central Master Talk MT50 control box
- Ex high performance reentrant horn loudspeaker/microphones type HS15 series
- ZAP10-02 Exi microphone units
- FKS01Ex push-to-talk foot/knee/thigh switch (at the master location only, there is no requirement for speech controls at the slave subscriber location)
- LP121 Optional Ex Volume up down push button assembly for the master location
- LCP106 Optional Ex station selector where there is more than one speech destination fitted
- MG600Exi Exi microphone range
- DSP15-15 Ex 15 watt projector horn loudspeakers

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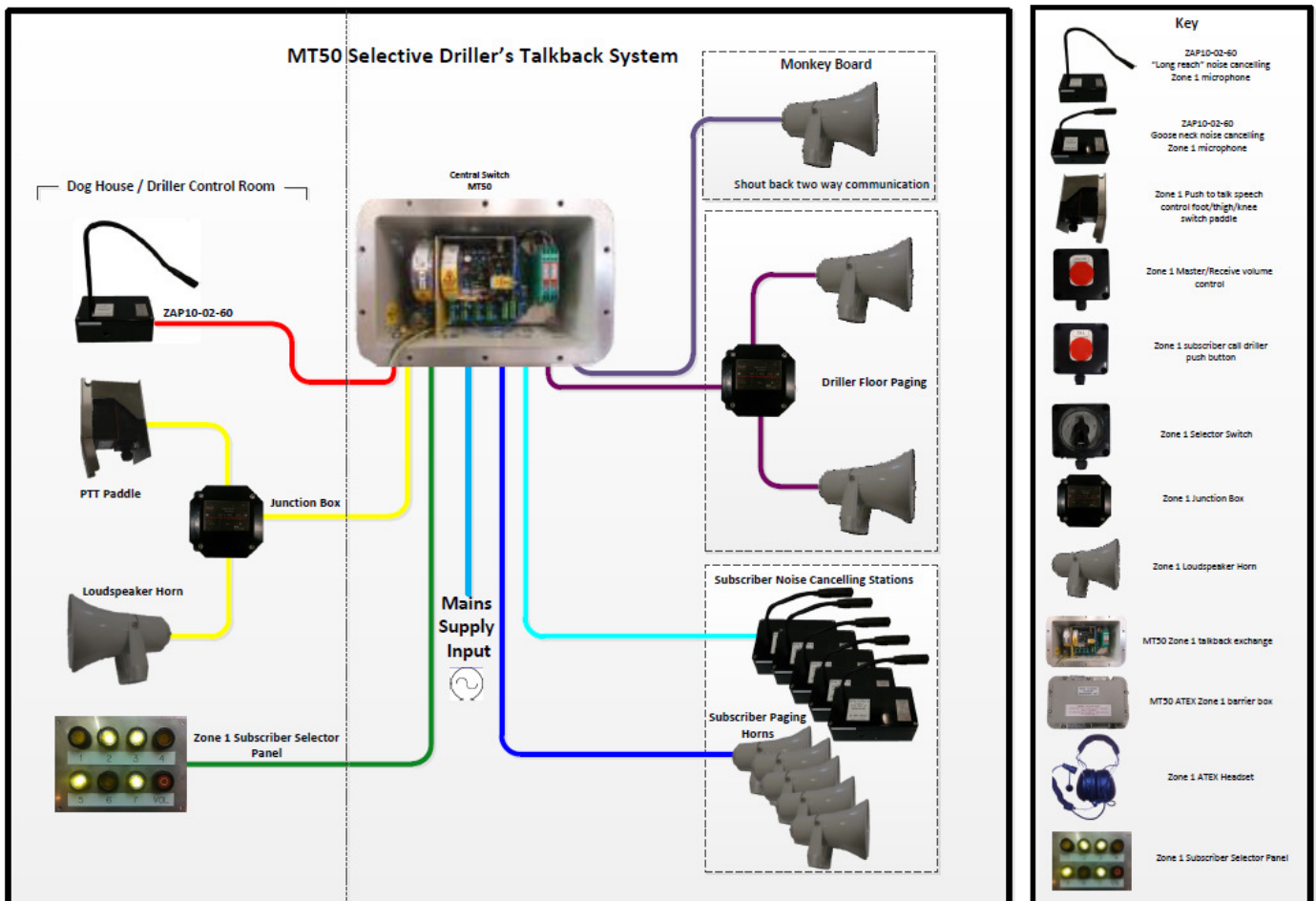
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The Master Talk MT50 central control box provides power and management for the entire system and can be energised from voltages between 90V to 254 V AC 50/60 Hz (tap selection to be given at order stage).

An integral 150 Watt speech power amplifier enables a network of loudspeakers to be connected to the system with distribution on a 70/100Volt reticulation basis.

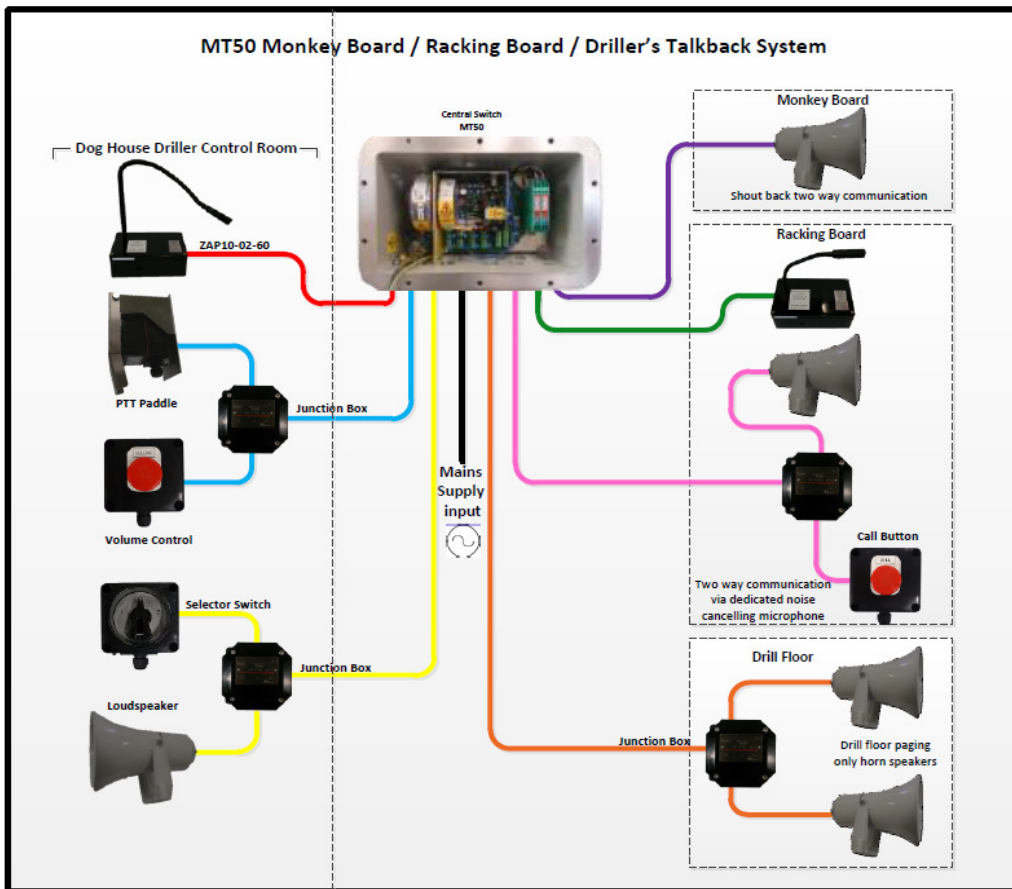
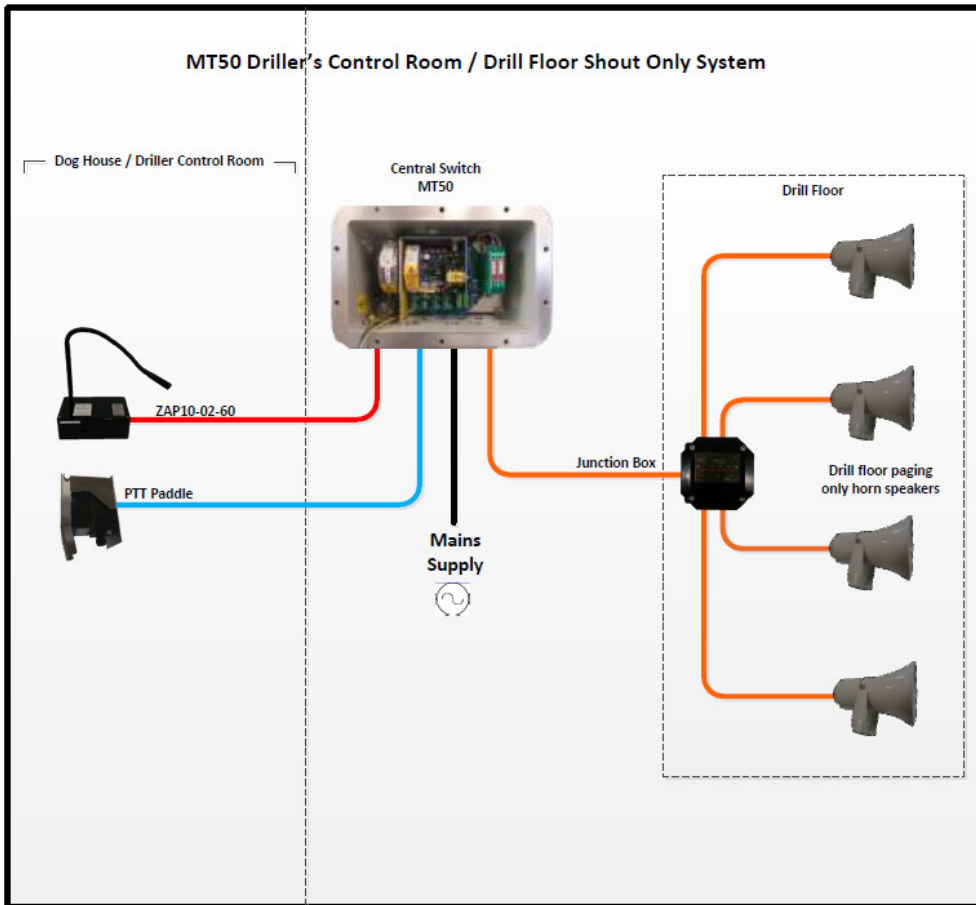
The MT50 is managed by a secure PC configurable operating system which allows a range of possible package architectures. The unit can support a simple one-way paging 'shout' type system through to combined paging and talk-back communications with audible tone signaling.



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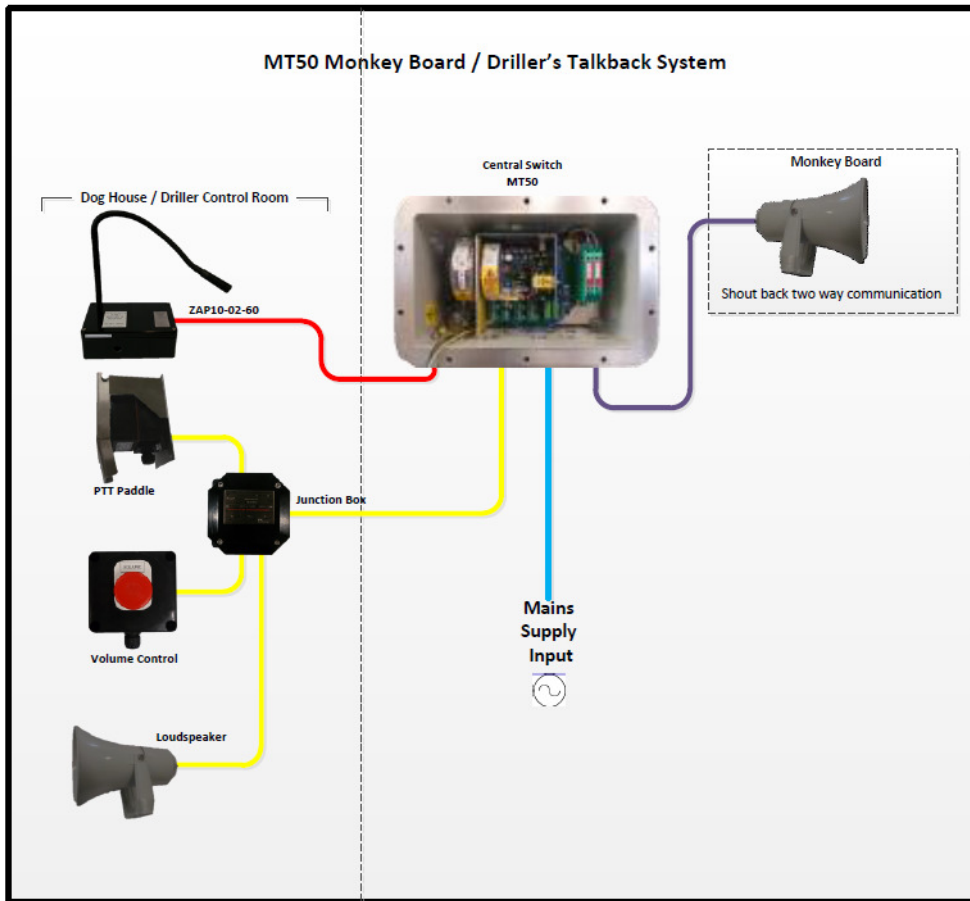
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Technical Specification – Electrical	
Mains supply input	90-254 Volts AC 50/60 Hz
Consumption max	300 VA
Input sensitivity	50mV for full output
Frequency response – 3dB points	200Hz and 10kHz
Distortion THD	Better than 5%
Line output	100 or 70 Volt line protection, short/open circuit over load
Power output capability	150 Watts
Number of slave subscribers	8
Number of paging horns	Up to 10 x 15 Watts
Mechanical Hazardous area ATEX certified	
size	390mm High x 330mm wide x 222mm deep
Construction	Alloy Exd
Finish	RAL 7035 Grey
Service Location	-40°C to +50°C
Vibration	Maximum shock 1g (any direction)
Gland entries	To project speech requirements
Weight	20Kg
Certification	Zone 1 llb T4 IP66

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