Remote Indicator/Start Switch - HTM02-01
Anaesthetic Gas Scavenge Systems
Installation Manual

AGS Disposal System
Published by Pneumatech Medical Gas Solutions

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Important
Personnel must make themselves familiar with the contents of this manual and the function of the unit before installing, operating or maintaining any Remote Indicators/Start Switches.

Information contained in this manual is correct at the date of publication. The policy of Pneumatech Medical Gas Solutions is one of continuous product improvement. Pneumatech Medical Gas Solutions reserves the right to make changes that may affect instructions in this manual without prior notice.

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Lot/ Batch Number
Approximate date of purchase
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Contents

3 Description and Operation
3 Installation procedure
3 Figure 1 - Concealed and Surface Mounted back box diagram
4 Figure 2 - Duplex Remote Start Switch diagram & connection details
4 Figure 3 - Simplex Remote Start Switch diagram & connection details

Safety, Storage and Handling Data

The following symbols apply to this product and are used in these instructions and on the product in question. The meanings of these symbols are as specified below:

- Read Instructions
- Temperature Limitations
- Date of Manufacture

Environmental Transport and Storage Conditions

All products are separately packaged and stored in controlled conditions.

Environmental Operating Conditions

Adverse environmental conditions and harsh abrasives or chemicals may cause damage to the unit.

Environmental Protection

Discard the unit and/or components in any standard refuse facility. The unit does not contain and hazardous substances.

Power source

The switches are powered using a set of 24 volt contacts from the AGS motor control unit, located in the plant room.

Mode of operation

Continuous (equipment may be left switched on indefinitely)

Degree of protection against ingress of liquids

IPX0 (Not protected)
Description and Operation

When remote start switches are installed and the motor control unit is ‘ON’ and selected to ‘AUTO’, the operation of any remote start switch will start the motor of the pump unit. This will be the pump selected as 'DUTY' on duplex pump assemblies. This will create the vacuum and suction required at the terminal unit/s.

There are 2 types of remote start switch, with varying light indications for alarm signals. All switches have a green indicator lamp, which should illuminate when the AGS pump assembly is in normal operation. Duplex units incorporate 2 alarm conditions, which are red for 'Plant Emergency', and amber for 'Plant Fault'. For simplex pump assemblies, there is a 'Plant Emergency' (red) indicator light. For information on the operation of remote start panels and motor control units, please see the AGSS Operating and Maintenance manual.

Remote start switch panels are available for both surface and concealed mounting and require a 24V control and indication circuit supplied from a PMGS anaesthetic gas scavenging disposal system. A typical system schematic is shown below:

Cabling Requirements

There may be up to 8 remote start switches connected in the parallel wiring circuit. Cable should be 1mm2 copper conductors for runs of up to 100m. If runs are longer than this, then a larger cable size should be selected. For remote start switches, connected to a simplex plant, a 5-core cable is required, and for remote start switches for duplex systems, a 6-core cable must be used. PMGS recommend Belden 8446 specification for remote switches.
Installation of a Remote Start Switch Panel

WARNING...ENSURE THAT THE ELECTRICAL SUPPLY TO THE REMOTE START SWITCH PANEL/S IS/ARE OFF AND REMAINS ISOLATED DURING INSTALLATION. THIS SHOULD BE KEPT AS SUCH UNTIL COMMISSIONING IS CARRIED OUT.

Switch panel. Prepare

Remove both securing screws, fascia plate and switch assembly from the support box.

Support box. Fit

Remove the four-corner screw knock out segments and the correctly positioned segments to enable the electrician's cables to enter the box. Secure the box with four wood screws and raw plugs. Position cable retainer leaving sufficient length to allow for connection to switch terminals. See figure 3 for installation details.

Switch panel. Electrically connect.

Identify each wire in support box and connect to terminal block on rear of fascia plate in accordance with the wiring diagram. Connect earth stud on fascia plate. Fit fascia plate with the two securing screws. See specific wiring diagram for connection to motor control unit. See correct figure for the type of switch you are installing.

CAUTION...ENSURE THAT ALL SWITCH PANELS ARE EARTHED. THIS CAN BE DONE BY EITHER RUNNING AN EXTRA CORE FROM THE STARTER/ISOLATOR PANEL, OR BY LOCALLY EARTHING EACH SWITCH PANEL.

Switch panel. Check operation.

Check operation of all remote start switch panels and indicator lights in accordance with the commissioning procedure.

Figure 1
Figure 2 - Duplex Remote Start Switch diagram & connection details

Figure 3 - Simplex Remote Start Switch diagram & connection details