SDXRTX Remote Transmitter
For The
SDX-15 Plant Alarm System

About this manual.

When you see this symbol, the associated text in **bold type** refers to something which may cause danger or damage.

Transmitters introduce signals from plant etc. onto the multiplexed signal wiring. They also monitor the wiring between the plant contacts and the transmitter terminals via termination boards mounted in or near the plant, checking for short or open circuits of the cable. If a fault is detected on the contact lines, an alarm condition is transmitted for the condition relating to the faulty line, and a system fault LED SF4 (5mm round yellow) within the transmitter will flash.

The Remote transmitter is a self-contained unit, used where indication of the alarm condition is not required locally, e.g., when a manifold or plant has an integral plant to alarm interface, and are available as 1, 2, 3 or 4 service units.

The services are selected, as in the alarm panel, with a rotary switch. However, the remote transmitter has only one switch for up to 4 services. This switch is set to the first service (A) required and the other services will follow in sequence. e.g., if the switch on a 3-service transmitter is set to channel 2 then the services transmitted will be channels 2 (Service A), 3 (Service B) & 4 (Service C). Each service on the system is allocated a channel when the system is initially set up, this being entered on the log sheet.

For example, if Oxygen is allocated channel 1, this plant could be connected to the alarm input terminals on the transmitter, which would then be set to channel 1.

The Red System Fault LED (5mm round) will flash if the SDXRTX does not see the signals from the central alarm on the system, either because of a cable fault or because no central alarm is installed. In this case, all alarm conditions will default to alarm.

Mounting

Fix the plastic box securely using the mounting holes at each corner.

Connecting

Bring the cables into the box using the holes provided.
Remove the **"Warning"** cover to reveal the mains terminals.
Connect 230-volt 50/60 Hertz live, neutral & earth to the appropriate terminals.
Make a small cutout in the side of the cover to allow the cable to pass and replace the cover.
The two core inter-panel wiring is connected to the 'Signal' 1 & 2 terminals to the 1 & 2 terminals on the nearest SDX-15 Plant alarm or transmitter (using a cable size of at least 0.5sq mm, cable may be a maximum of 500 meters).
Volt-free Inputs from the Plant of Manifold Should be connected to the 'Inputs' Terminals as follows:

Across C Common & 1 First condition	Plant Fault or Change Cylinders
Across C Common & 2 Second condition	Plant Emergency or Change Cylinders Immediately
Across C Common & 3 Third condition	Reserve Low (Use wire link if not used)
Across C Common & 4 Fourth condition	Pressure Fault

Note:
Any condition not transmitted from this transmitter must be linked with a Resistor (56K) to set that condition to normal. If the condition is not to be used (or transmitted from a second transmitter) it must be linked with a Resistor (1K8). It is important to ensure that any condition is only transmitted from one location although other conditions on the service may be transmitted from other transmitters.

The resistors are used to prevent a system fault due to short or open circuit. Note that if a resistor is fitted, the condition must NOT be connected to the termination board.
Resistor codes: -
1k8 brown/grey/red/silver or gold
56k green/blue/orange/silver or gold

Supply

This equipment is not suitable for connection to an IT power source.
A readily accessible disconnect device must be provided.
The supply must be fused at 3 amps.
The Maximum Prospective Fault Current must not exceed 1500 amps.
The cable must not be shared with any other system.
Cables must have a minimum of 20mm clearance from all other cables.
The 2 core inter-panel wiring must be connected to earth at both ends.
The 2 core inter-panel wiring is connected to signal terminals 1 & 2.
The cable screen must be connected to the "S" terminal.

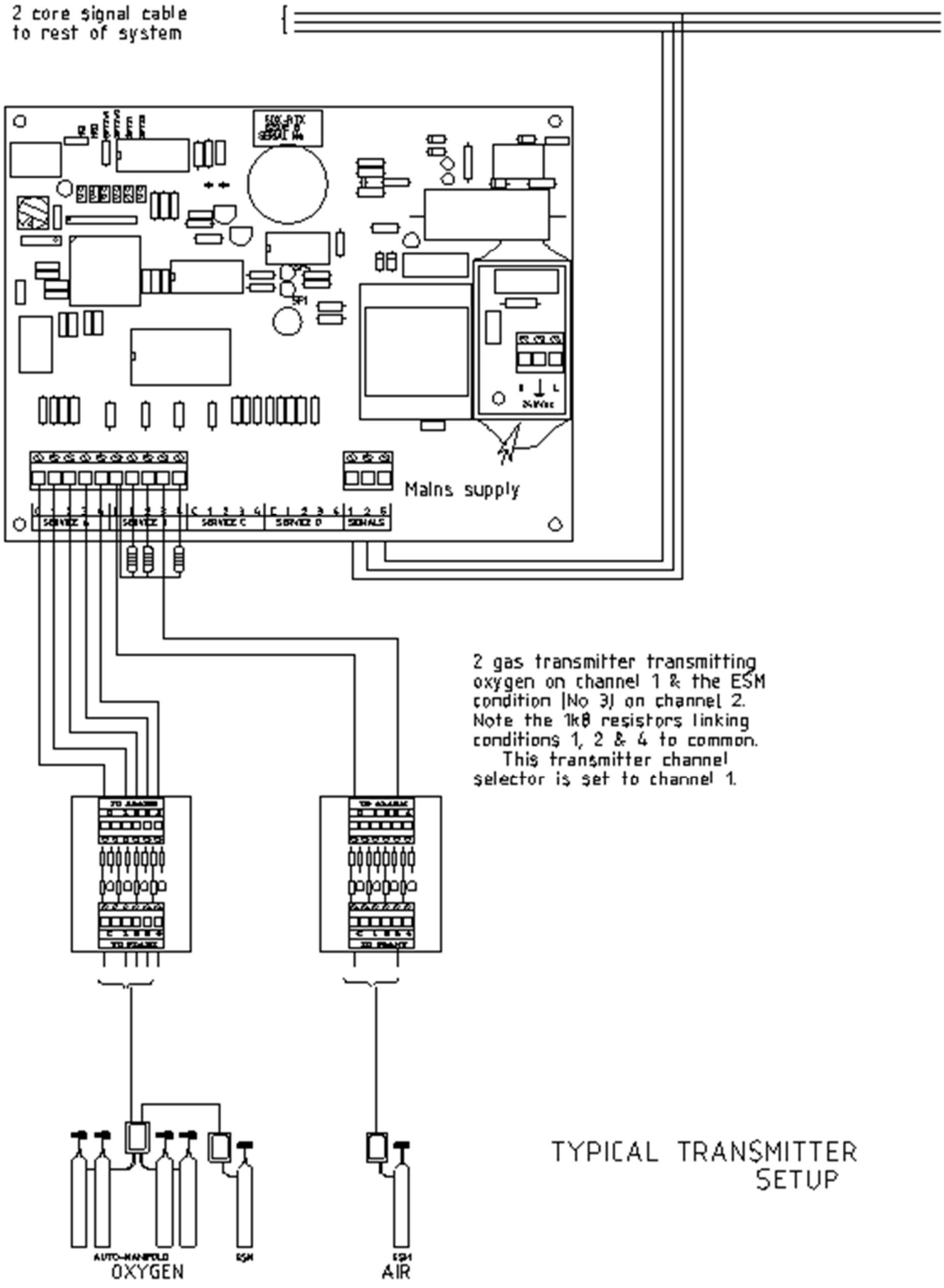

Figure 1: Showing Connection To Manifold c/w Reserve and a Separate Reserve

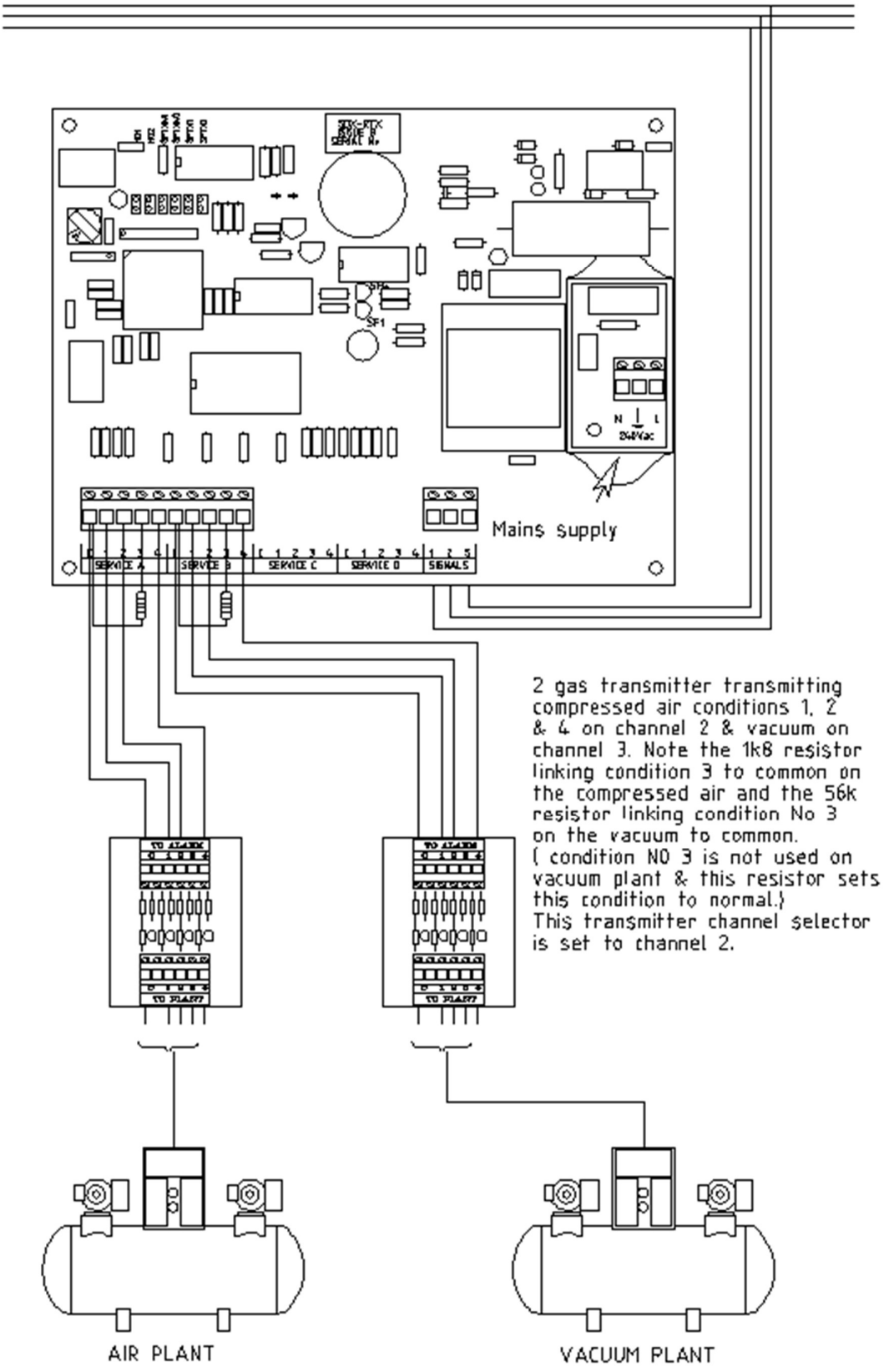

Figure 2: Showing Connection to Plant (no Reserve) & Vacuum Plant

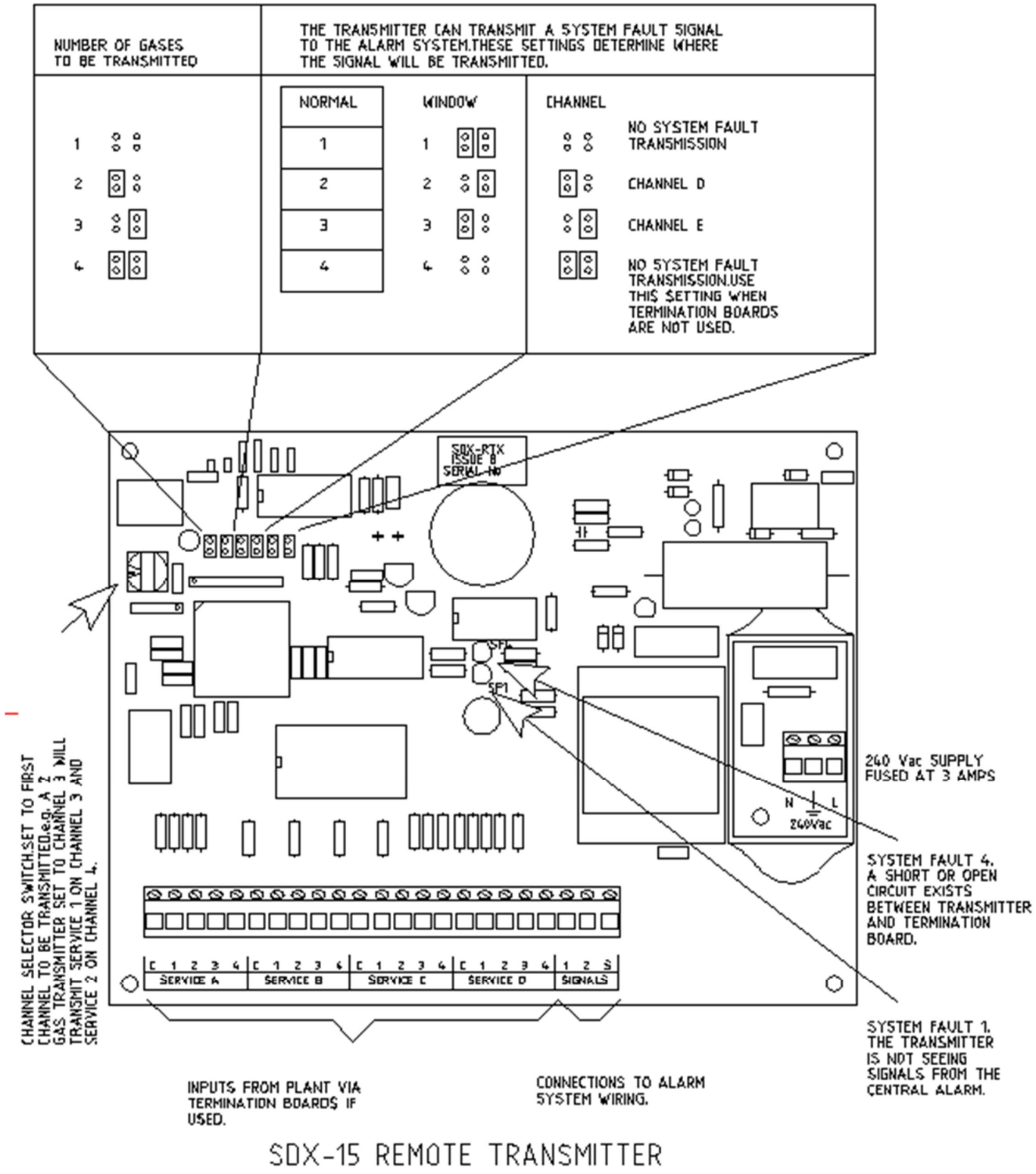

Figure 3: Transmitter Set-up