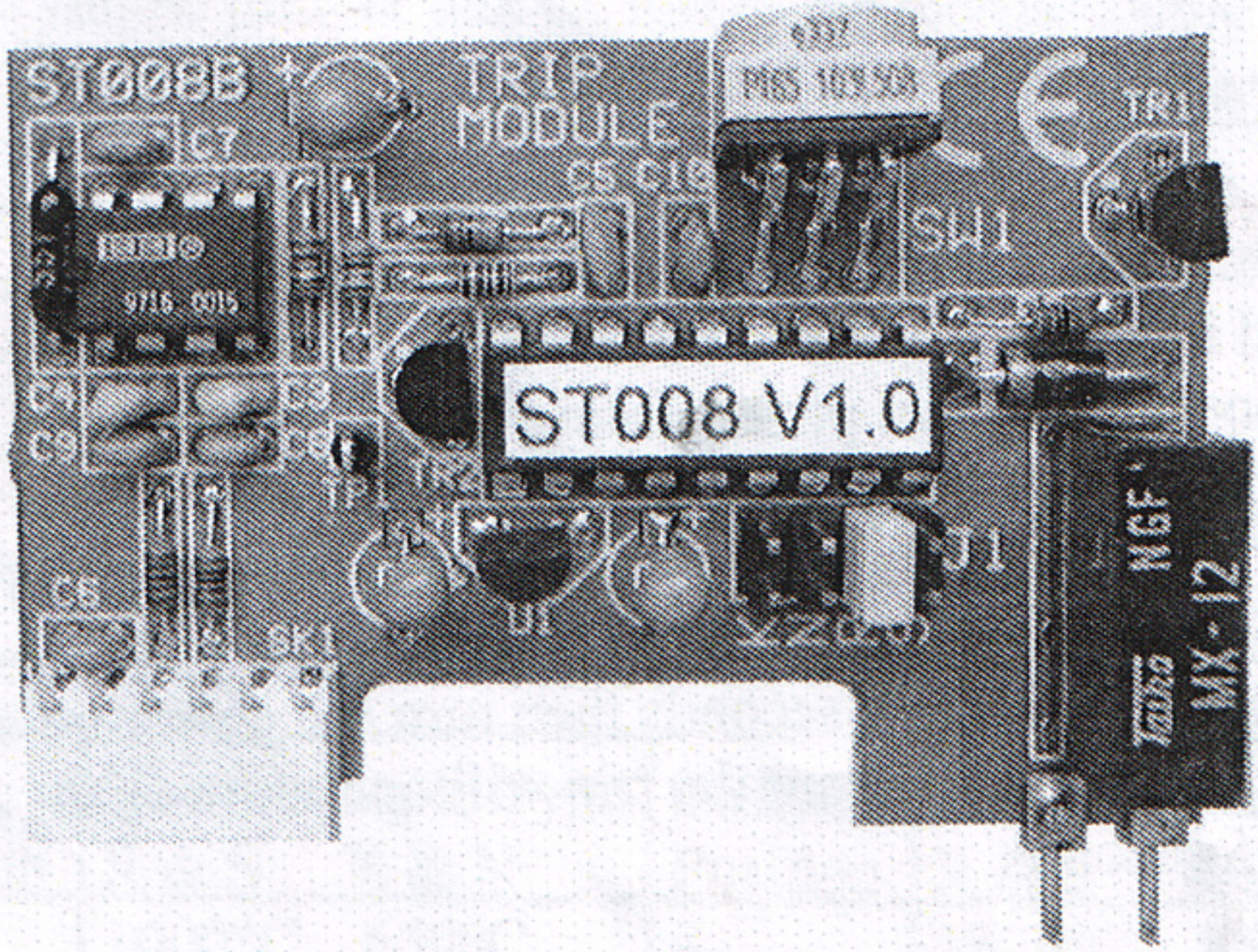
STAFFORD INSTRUMENTS

ST008

Operating Instructions
For
ST008 Temperature Trip



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Manufactured in Staffordshire, U.K.

Use

The ST008 Temperature Trip Module is designed solely for internal fitment to the ST501 temperature controller. It is an optional safety device designed to protect kilns & furnaces from over-firing. It behaves like a re-settable heat fuse.

Operation

In the event of an over-temperature condition the trip will operate. This is indicated by a normally hidden 'FAULT' legend illuminating in red on the ST501's front panel. The trip module removes power from the switched outputs of the controller thus turning off the kiln contactor and any other contactors that might be controlled. The only way of re-setting the trip is to turn off the mains supply to the controller, wait a few seconds then turn the power on again. If the fault is still present the trip will operature again after about 5 seconds.

Setting

The ST008 has a trip temperature selection switch and a thermocouple type selection jumper. Both of these require setting before use. The thermocouple type selection jumper requires setting before the trip is installed into the controller because it cannot be accessed when the trip is fitted in place. The trip temperature can be set after installation.

Thermocouple Selection

Both the ST008 trip module and the ST501 controller must have the same type of thermocouple selected. The thermocouple type selection on the ST501 is made via the INSTALL menu.

The thermocouple type selection jumper on the ST008 is J1. Set the yellow jumper link on this to the thermocouple type set on the ST501.

Trip Temperature Selection

The trip temperature is set by switch SW1 mounted at the top of the trip module. This switch has 16 positions and can be adjusted with a small flat bladed screwdriver:-

Switch Position	Thermocouple Type R & S	K & N	Switch Position	Thermocouple Type R & S	K & N
0	1000°C	650°C	8	1320°C	850°C
1	1050°C	675°C	9	1330°C	875°C
2	1100°C	700°C	A	1340°C	900°C
3	1150°C	725°C	B	1350°C	925°C
4	1200°C	750°C	C	1360°C	950°C
5	1250°C	775°C	D	1370°C	975°C
6	1300°C	800°C	E	1380°C	1000°C
7	1310°C	825°C	F	1400°C	1025°C

Safety

ISOLATE BEFORE REMOVING COVER

WARNING

ISOLATE CONTROLLER FROM ELECTRICAL SUPPLY BEFORE OPENING FOR INSTALLATION, CONFIGURATION OR REPAIR PURPOSES

Installation

Remove the lid of the ST501 controller. Remove the controller's red jumper plug J3 & discard. Check that the thermocouple type settings on the trip module and the controller match. Plug the trip module into the controller's printed circuit board so that it mates both with J3 & PL1 on the controller. Check that the correct trip temperature has been selected. Replace the lid of the controller.

Characteristics (@20°C ambient)

Typical Error:	+17°C
Maximum Error:	-5°C to +35°C
Cold Junction Compensation:	Not compensated
Environmental:	As ST501