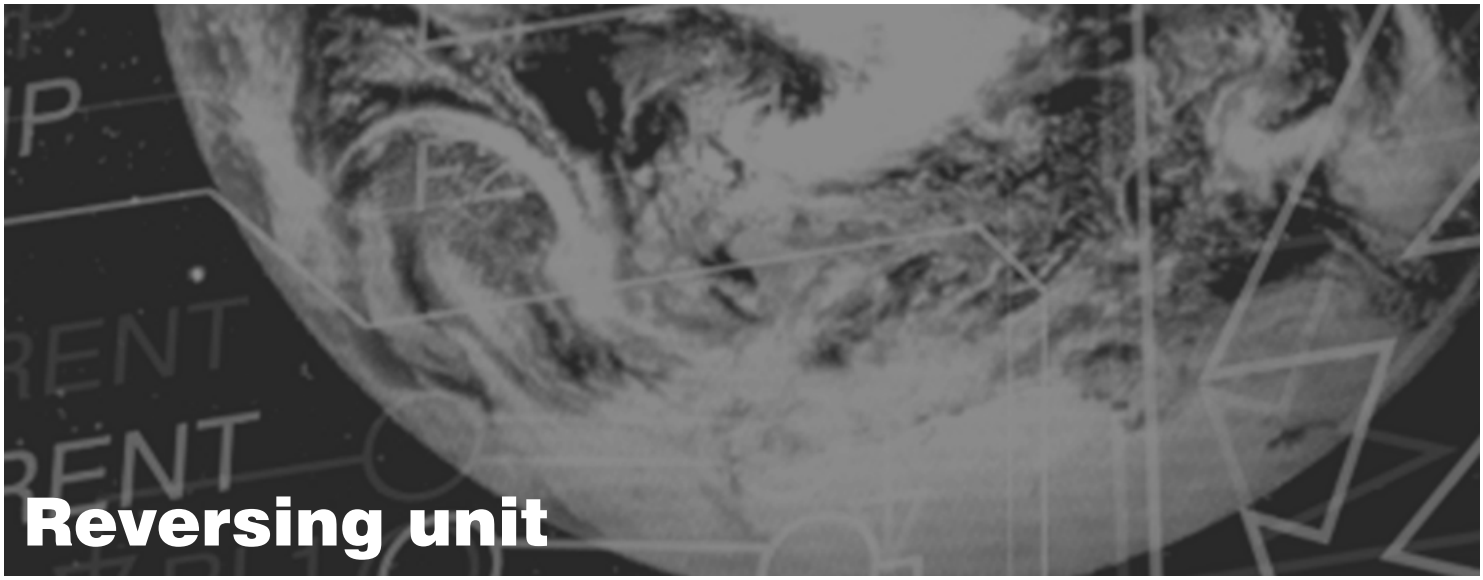


Reversing unit

Instruction manual

SPRINT Electric

Instruction manual
Reversing unit

The REVERSING UNIT is a complex component only for professional assemblers. The unit is CE marked according to LVD 73/23/EEC amended 93/68/EEC. Follow these installation guidelines for EMC compatability. Further measures may be necessary. Installers must have a level of technical competence to correctly install. The EMC behaviour is the responsibility of the manufacturer of the system or installation using this component.

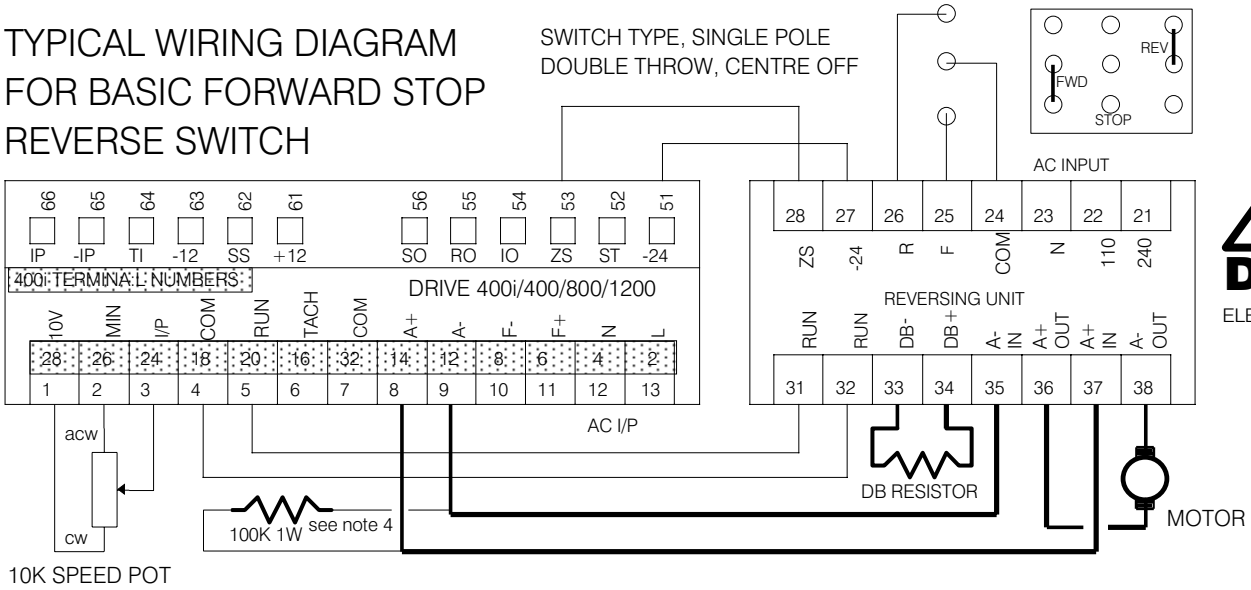
Used with 400/800/1200 DC. drive units

FEATURES
Safe reversing with zero speed interlock
Connections for dynamic brake resistor
Includes all power contacts
110 or 240V AC power supply
Minimises wiring
Versatile control options
Very compact
12 AMP current rating
Switch terminals are isolated
May be interfaced with logic controller

SPECIFICATION

supply voltage	110 or 240 volts AC
current rating	12 AMPS
max. form factor	1.5
switch requirement	single pole 2 way centre off
ambient temp	0 to 40C
control action	automatic zero speed interlock
dimensions	W 50 mm H 130 mm D 40 mm

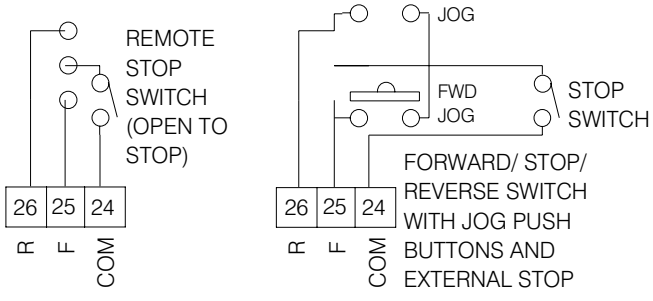
TYPICAL WIRING DIAGRAM FOR BASIC FORWARD STOP REVERSE SWITCH

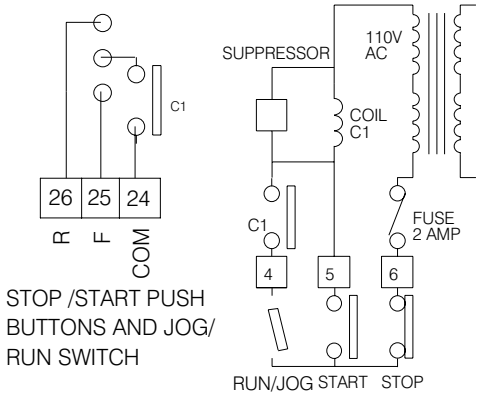


10K SPEED POT

DANGER
ELECTRIC SHOCK RISK

Alternative configurations of the FWD STOP REVERSE control section





Dynamic braking resistor

Provision is made on the reversing unit to fit a dynamic braking resistor if required. The resistor value and wattage depends on various factors.
The formulae below allows useful parameters to be calculated according to the motor rating.

1) Braking resistance $RB = \left[PT/Ian + PT/Ibm - Uan \right] X \ 1/Ian$

2) Max. braking torque $Ma = Mn \ X \ Ibm / Ian$

3) Average dissipation = average braking current X average braking voltage

4) Peak dissipation $= (Ian)^2 X \ RB$

RB = braking resistance in OHMS
PT = nameplate power of the motor
Uan = nominal armature volts
Mn = nominal torque of the motor in Nm

Ian = nominal armature current
Ibm = maximum braking current in Amps
Ibm should not exceed 3 times Ian
Ma = braking torque in Nm

NOTES

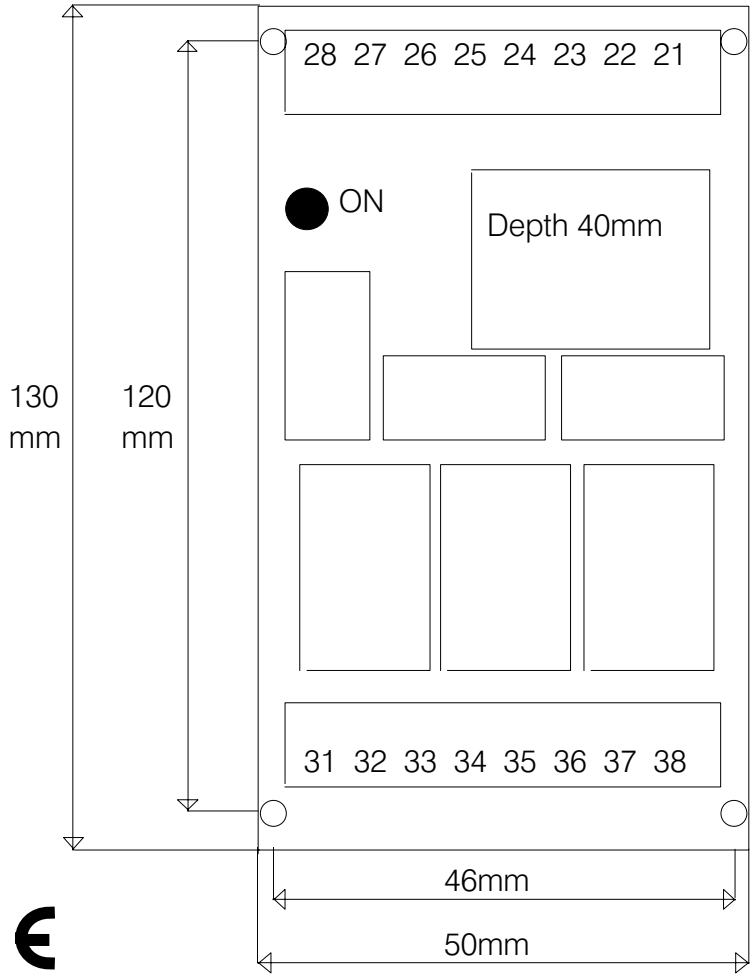
1) The unit is designed to be used with models 400/800/1200 and 400i

2) The unit is the same length as the drive and the terminals are located close to the appropriate drive terminal.

3) For EMC installation guidelines refer to the drive manual. The unit must be in the same enclosure as the drive. The noise generated by the unit itself is minimal, due to the use of interlocking relay logic.

4) Some installations may require a resistor of 100K Ohms 1 Watt fitted across the DRIVE armature terminals to prevent the drive zero detector being triggered by cable induced noise

Fixings are by rear access No. 6 self tapping screws

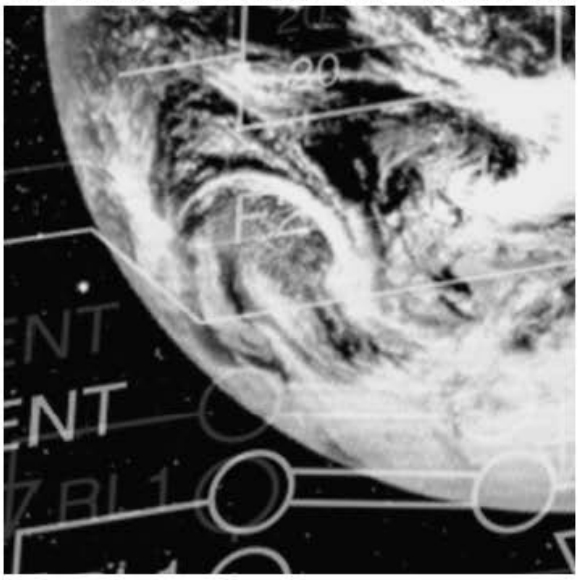


HEALTH AND SAFETY AT WORK. ELECTRICAL DEVICES CONSTITUTE A SAFETY HAZARD. IT IS THE RESPONSIBILITY OF THE USER TO ENSURE COMPLIANCE WITH ANY ACTS OR BYLAWS IN FORCE. ONLY SKILLED PERSONS SHOULD INSTALL THIS EQUIPMENT.

SPRINT ELECTRIC LTD. DOES NOT ACCEPT ANY LIABILITY WHATSOEVER FOR THE INSTALLATION, FITNESS FOR PURPOSE OR APPLICATION OF ITS PRODUCTS. IT IS THE USERS RESPONSIBILITY TO ENSURE THE UNIT IS CORRECTLY USED AND INSTALLED.

SPRINT Electric © 1994

WORLD CLASS IN DESIGN



WORLD BEATING IN FUNCTION

SPRINT Electric

HEAD OFFICE

Ford

Arundel

West Sussex

Great Britain

Email sales@sprint-electric.com

Web site www.sprint-electric.com