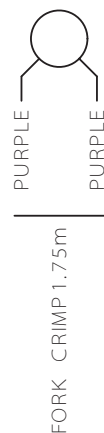


KEY SWITCH



MACHINE ON
LAMP



EMERGENCY
STOP
SWITCH

FORK CRIMP
AT SWITCH END



SPINDLE MOTOR

RED	650mm	FERRULE
BLACK	650mm	FERRULE
ORANGE	1.4m	FERRULE
WHITE	1.1m	FORK CRIMP
GREEN	650m	FERRULE

STEPPER MOTOR (VEXTA)
(PK 266 - E 2.0A)

RED	RED	
BROWN *		X AXIS 1.1m
WHITE	YELLOW	Y AXIS 1.75m
BLUE		Z AXIS 1.15m
BLACK		
ORANGE *	ORANGE	FERRULE
GREEN		
YELLOW	BLACK	

DATUM SWITCHES

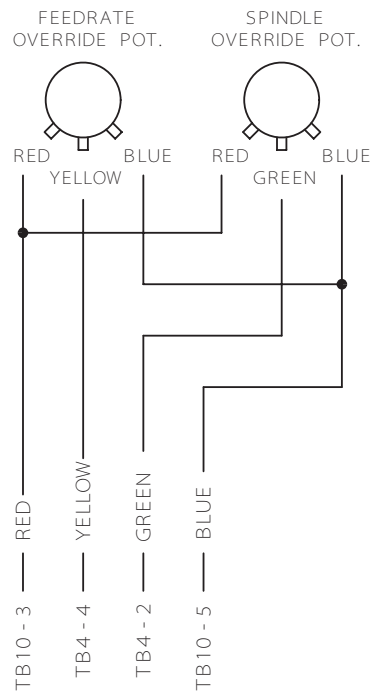
90° CRIMPS AT SWITCH END WITH
180mm BLACK HEATSHRINK
FERRULES AT PANEL END

X AXIS	1.1m	GREY
Y AXIS	1.9m	PINK
Z AXIS	1m	PURPLE

* ENSURE THAT CORRECT COLOURS ARE USED

MICROMILL 2000
SWITCH AND MOTOR
WIRING DETAILS

SHEET 5
MICROMILL
DENSTEP



KEY SWITCH



MACHINE ON
LAMP



EMERGENCY
STOP
SWITCH

FORK CRIMP
AT SWITCH END



SPINDLE MOTOR

RED	650mm	FERRULE
BLACK	650mm	FERRULE
ORANGE	1.4m	FERRULE
WHITE	1.1m	FORK CRIMP
GREEN	650mm	FERRULE

STEPPER MOTOR (SANYO DENKI)
(103 H 7123 - 0440)

RED	RED
BLACK	BLACK
ORANGE	ORANGE
WHITE	YELLOW
BLUE	NOT CONNECTED
YELLOW	

X AXIS	1.1m	FERRULE
Y AXIS	1.75m	
Z AXIS	1.15m	

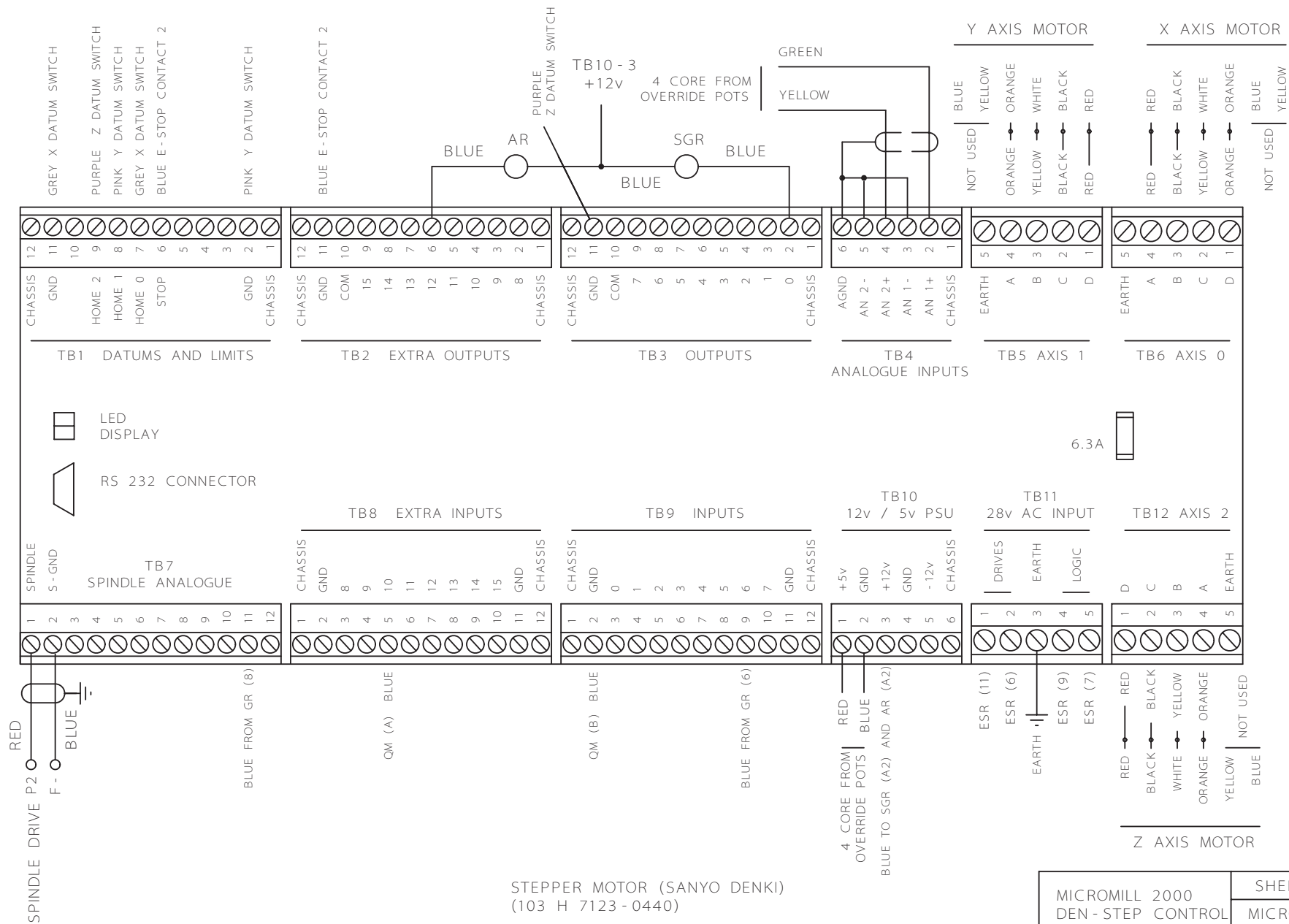
DATUM SWITCHES

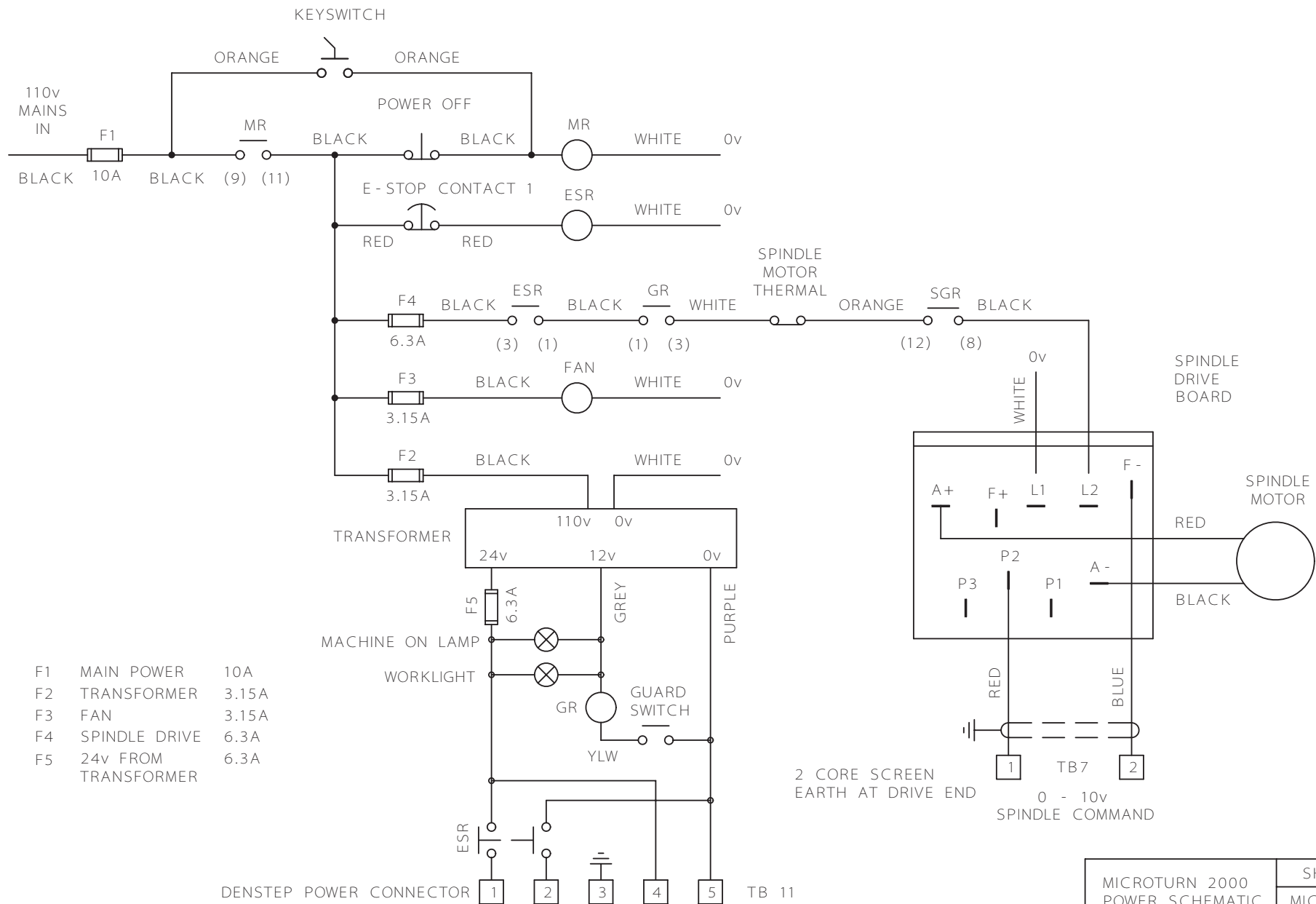
90° CRIMPS AT SWITCH END WITH
180mm BLACK HEATSHRINK
FERRULES AT PANEL END

X AXIS	1.1m	GREY
Y AXIS	1.9m	PINK
Z AXIS	1m	PURPLE

MICROMILL 2000
SWITCH AND MOTOR
WIRING DETAILS

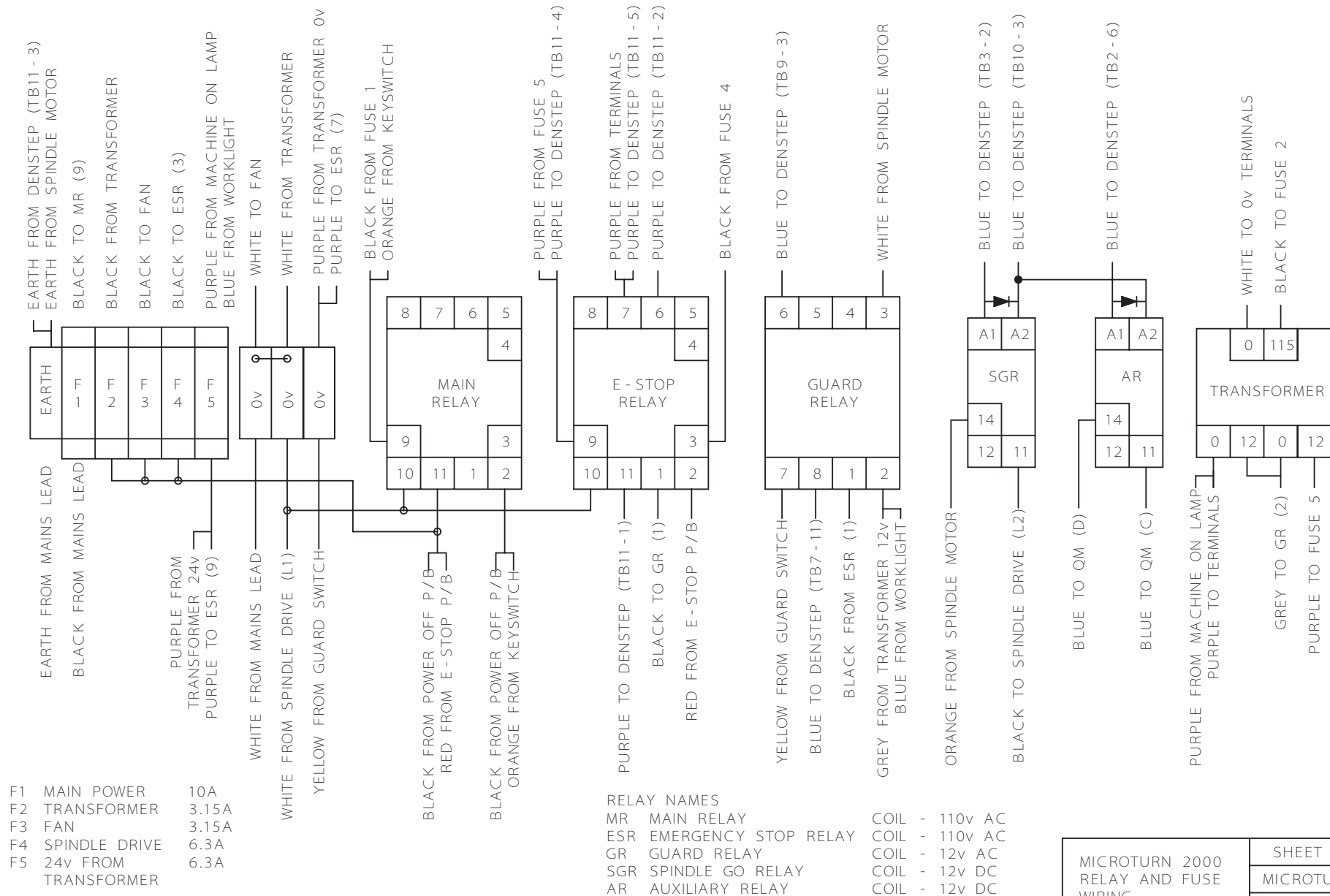
SHEET 5
MICROMILL
DENSTEP

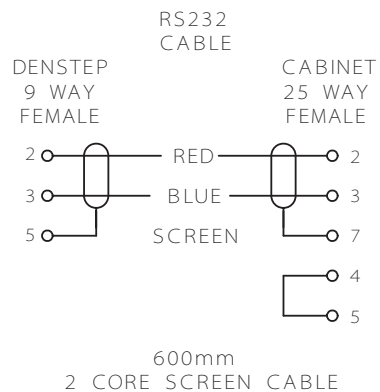




MICROTURN 2000
POWER SCHEMATIC
110v SUPPLY

SHEET 1
MICROTURN
DENSTEP

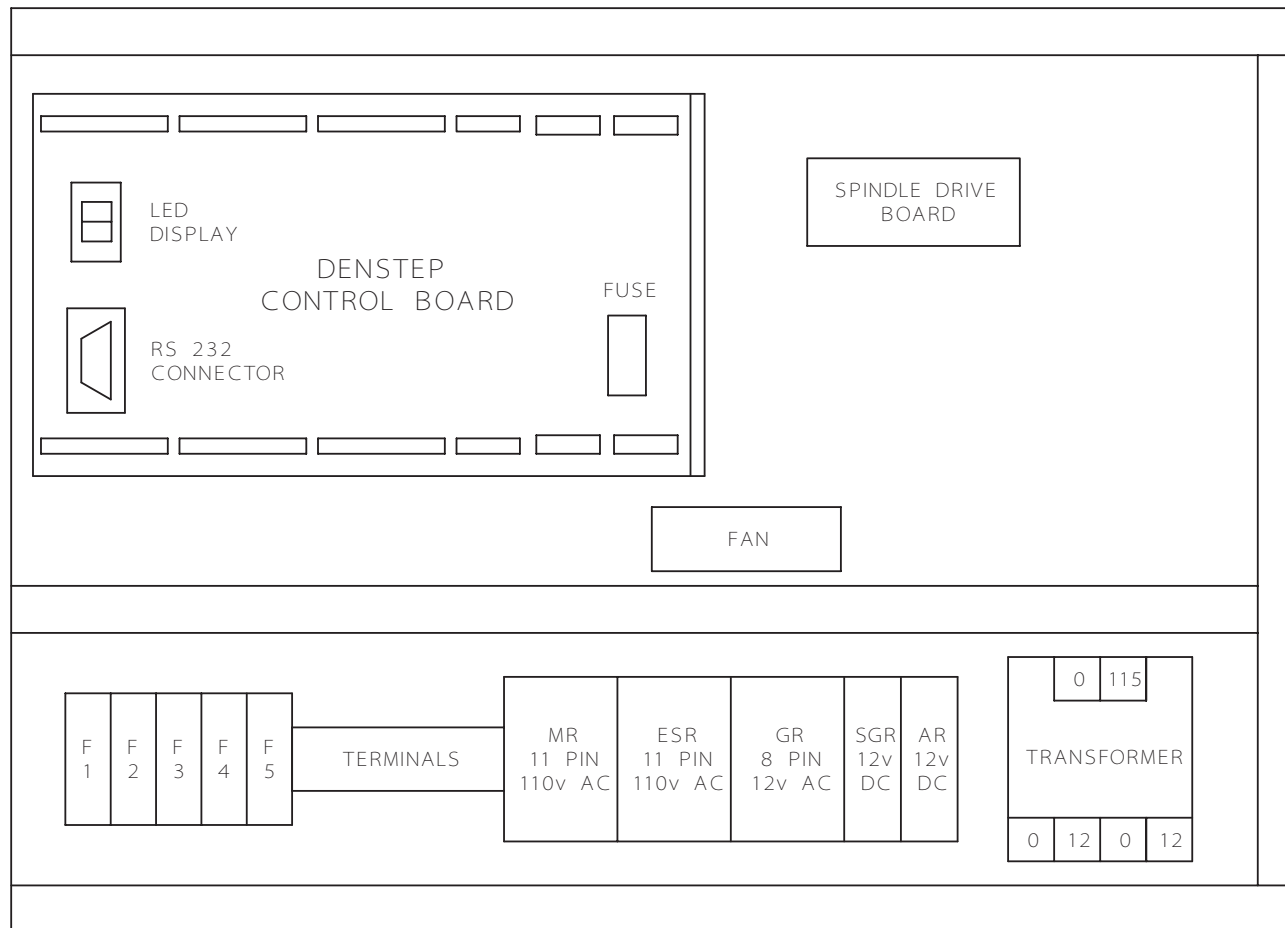




AUXILIARY CONNECTOR



8 WAY QM (RS 467-194)
FEMALE PINS (RS 468-557)



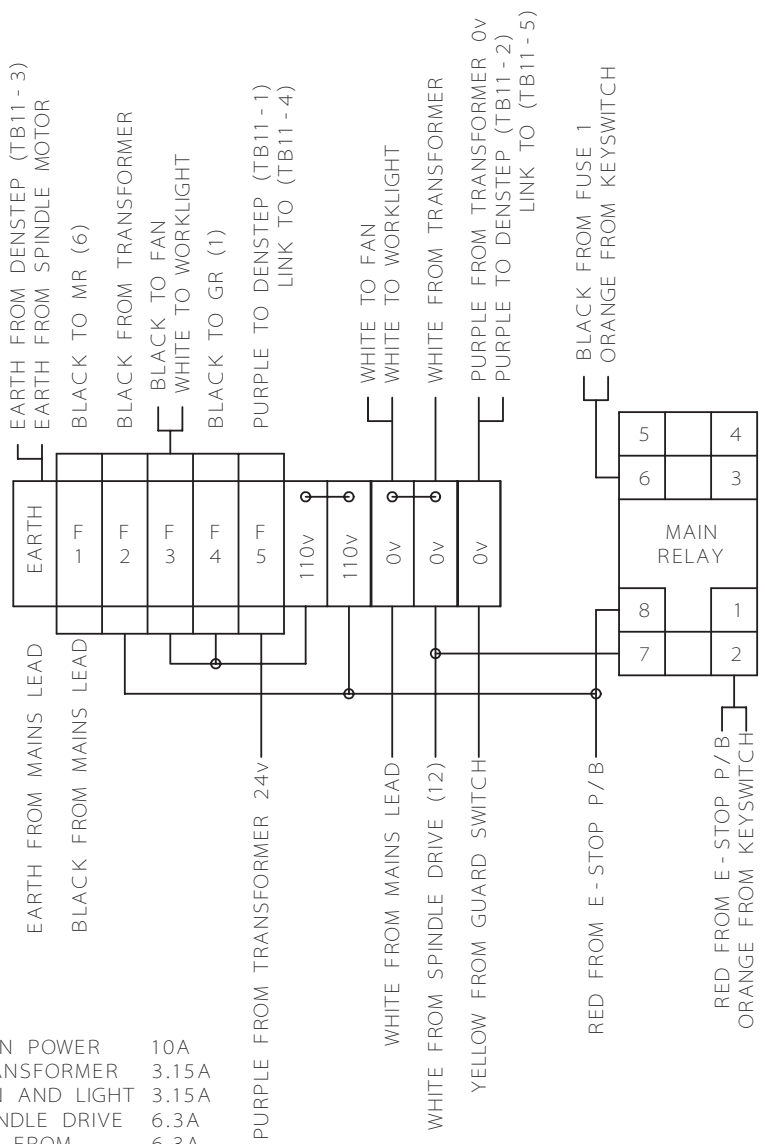
RELAY NAMES

MR MAIN RELAY
ESR EMERGENCY STOP RELAY
GR GUARD RELAY
SGR SPINDLE GO RELAY
AR AUXILIARY RELAY

MICROTURN 2000
PANEL LAYOUT
AND RS232 CABLE

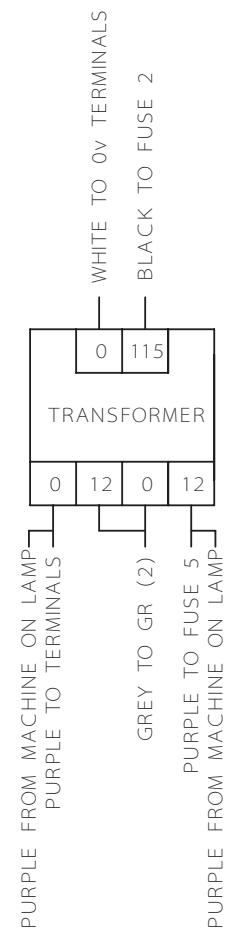
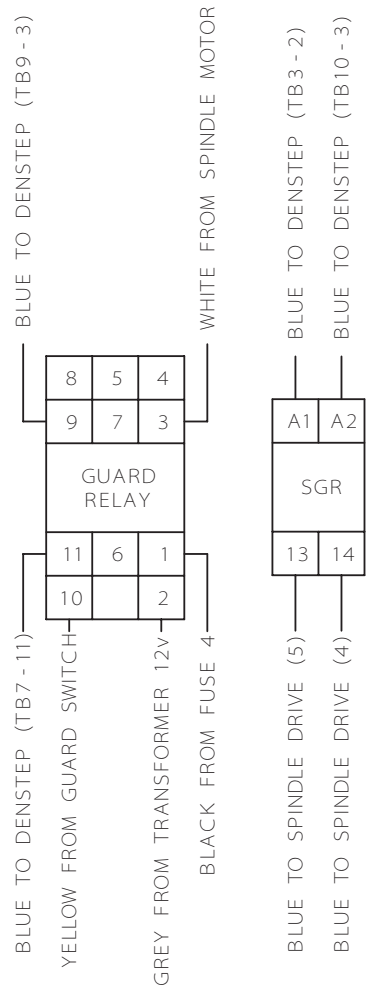
SHEET 4
MICROTURN
DENSTEP

- F1 MAIN POWER 10A
- F2 TRANSFORMER 3.15A
- F3 FAN AND LIGHT 3.15A
- F4 SPINDLE DRIVE 6.3A
- F5 24v FROM TRANSFORMER 6.3A



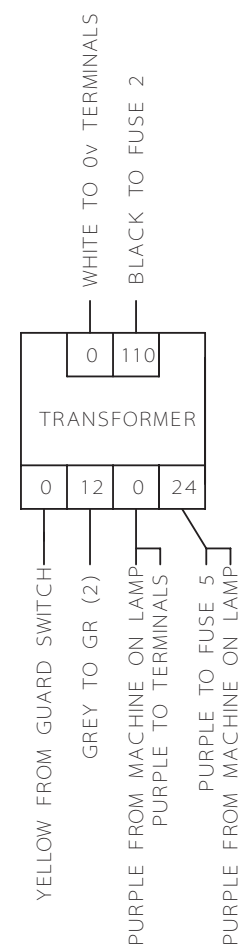
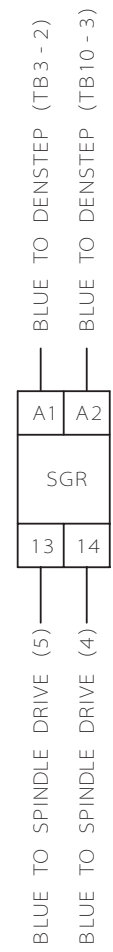
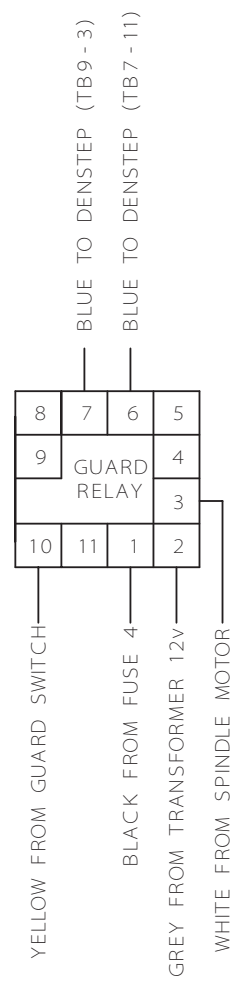
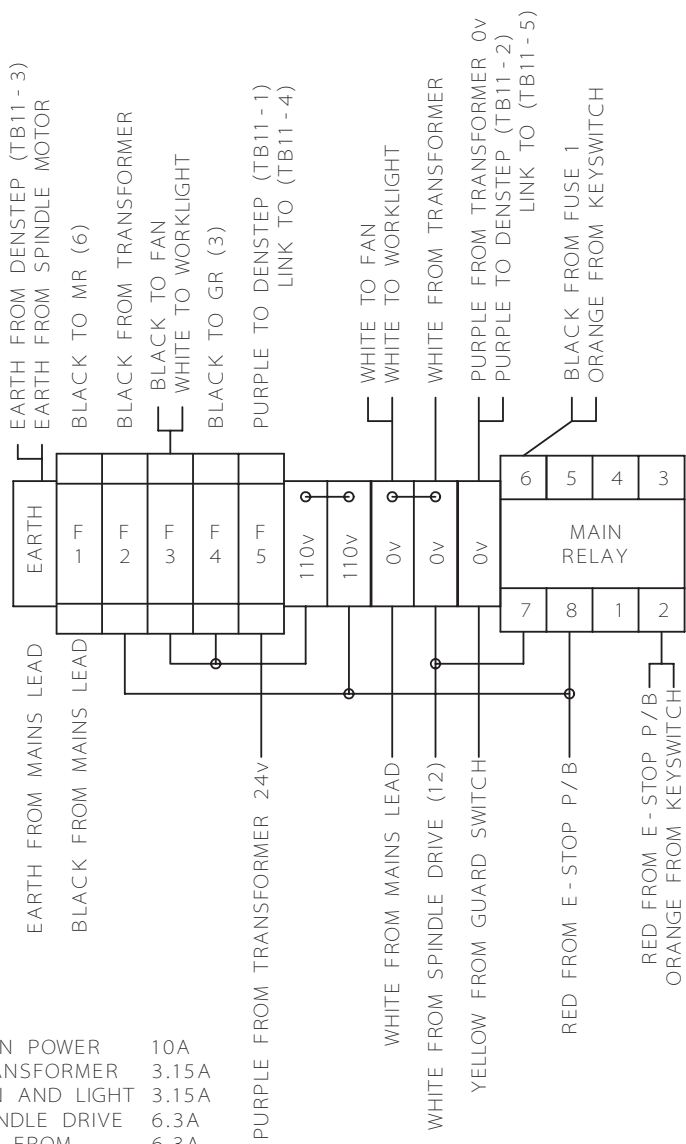
RELAY NAMES
 MR MAIN RELAY
 GR GUARD RELAY
 SGR SPINDLE GO RELAY

COIL - 110v AC
 COIL - 12v AC
 COIL - 12v DC



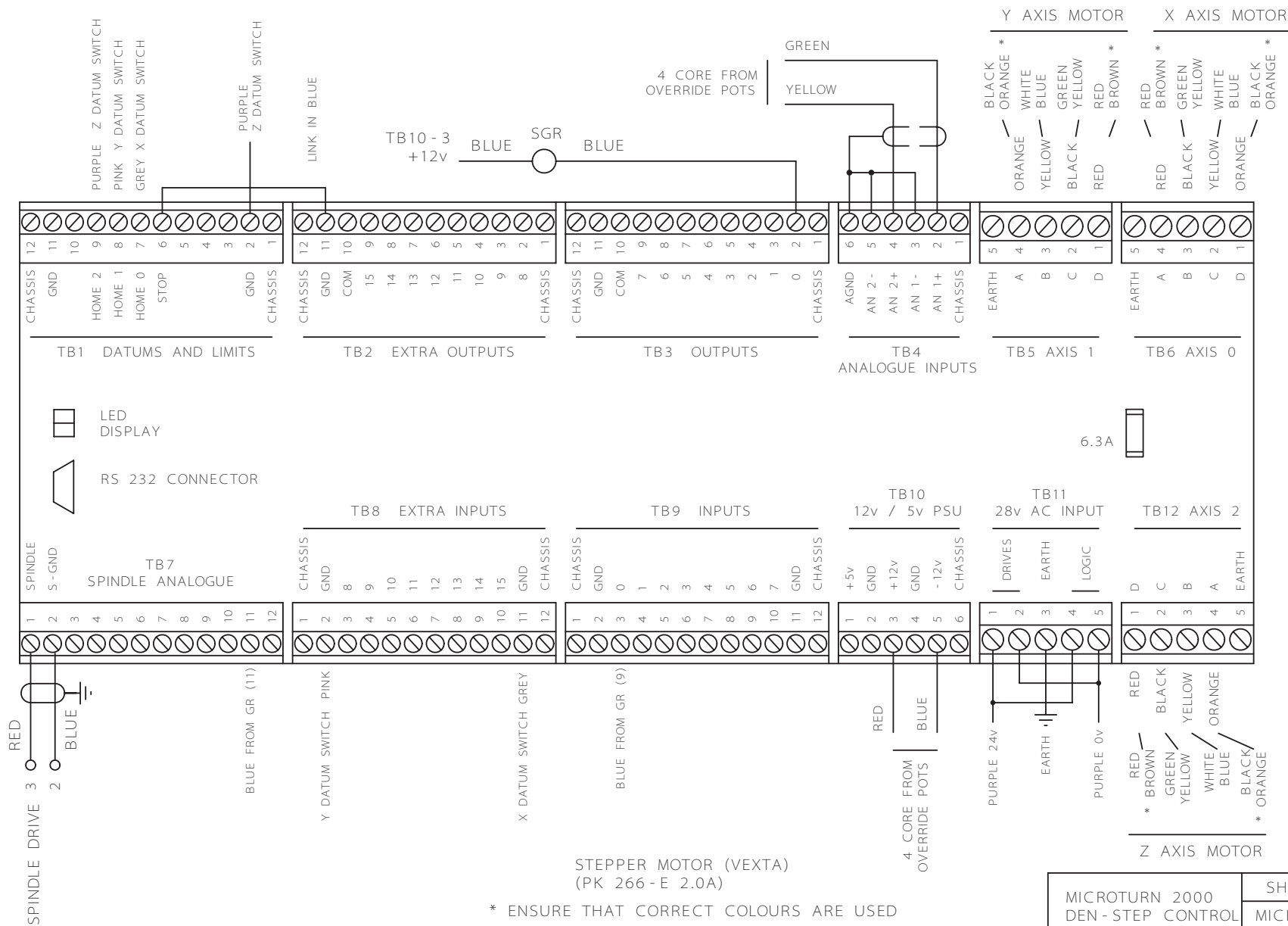
MICROTURN 2000 RELAY AND FUSE WIRING	SHEET 2
	MICROTURN
	DENSTEP

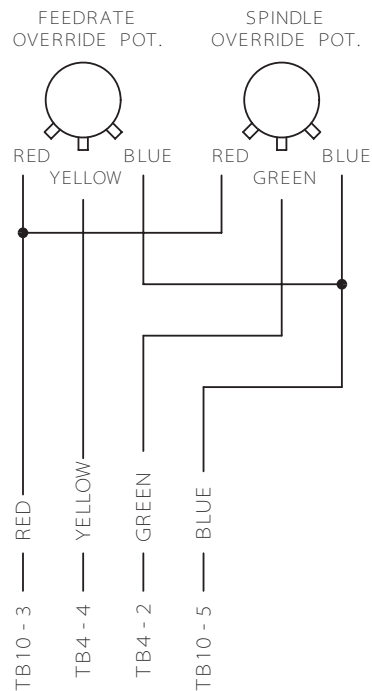
- F1 MAIN POWER 10A
- F2 TRANSFORMER 3.15A
- F3 FAN AND LIGHT 3.15A
- F4 SPINDLE DRIVE 6.3A
- F5 24v FROM TRANSFORMER 6.3A



RELAY NAMES
 MR MAIN RELAY COIL - 110v AC
 GR GUARD RELAY COIL - 12v AC
 SGR SPINDLE GO RELAY COIL - 12v DC

MICROTURN 2000 RELAY AND FUSE WIRING	SHEET 2
	MICROTURN
	DENSTEP

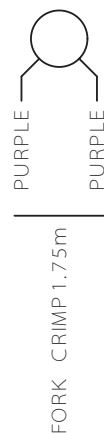




KEY SWITCH



MACHINE ON
LAMP



EMERGENCY
STOP
SWITCH

FORK CRIMP
AT SWITCH END



SPINDLE MOTOR

RED	650mm	FERRULE
BLACK	650mm	FERRULE
ORANGE	1.4m	FERRULE
WHITE	1.1m	FORK CRIMP
GREEN	650m	FERRULE

STEPPER MOTOR (VEXTA)
(PK 266 - E 2.0A)

RED	RED	
BROWN *		X AXIS 1.1m
WHITE	YELLOW	Z AXIS 1.75m
BLUE		
BLACK	ORANGE	
ORANGE *		FERRULE
GREEN	BLACK	
YELLOW		

DATUM SWITCHES

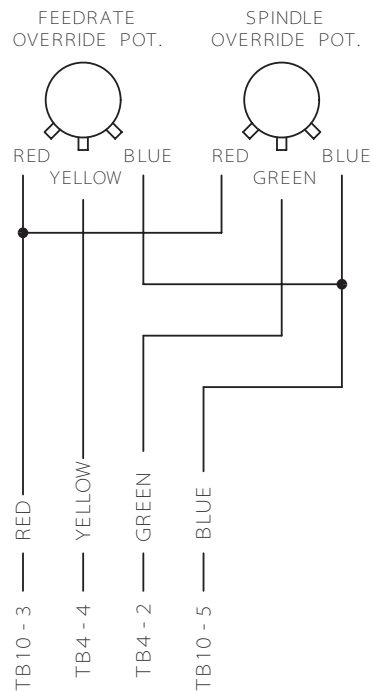
90° CRIMPS AT SWITCH END WITH
180mm BLACK HEATSHRINK
FERRULES AT PANEL END

X AXIS	1.1m	GREY
Z AXIS	1.9m	PINK

* ENSURE THAT CORRECT COLOURS ARE USED

MICROTURN 2000
SWITCH AND MOTOR
WIRING DETAILS

SHEET 5
MICROTURN
DENSTEP



KEY SWITCH



MACHINE ON
LAMP



EMERGENCY
STOP
SWITCH

FORK CRIMP
AT SWITCH END



SPINDLE MOTOR

RED	650mm	FERRULE
BLACK	650mm	FERRULE
ORANGE	1.4m	FERRULE
WHITE	1.1m	FORK CRIMP
GREEN	650mm	FERRULE

STEPPER MOTOR (SANYO DENKI)
(103 H 7123 - 0440)

RED	RED
BLACK	BLACK
ORANGE	ORANGE
WHITE	YELLOW
BLUE	NOT CONNECTED
YELLOW	

X AXIS	1.1m	FERRULE
Z AXIS	1.75m	

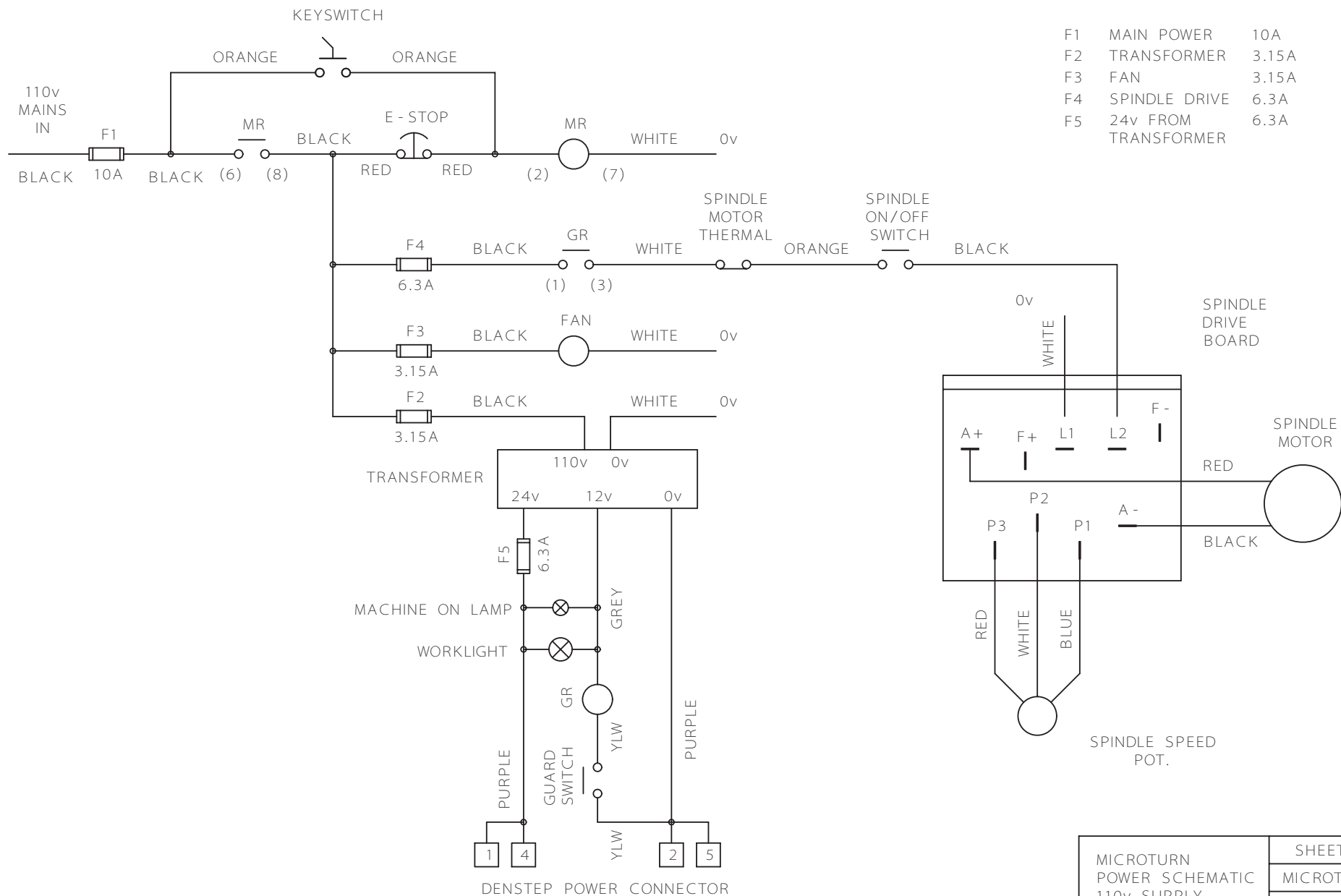
DATUM SWITCHES

90° CRIMPS AT SWITCH END WITH
180mm BLACK HEATSHRINK
FERRULES AT PANEL END

X AXIS	1.1m	GREY
Z AXIS	1.9m	PINK

MICROTURN 2000
SWITCH AND MOTOR
WIRING DETAILS

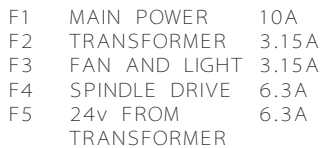
SHEET 5
MICROTURN
DENSTEP



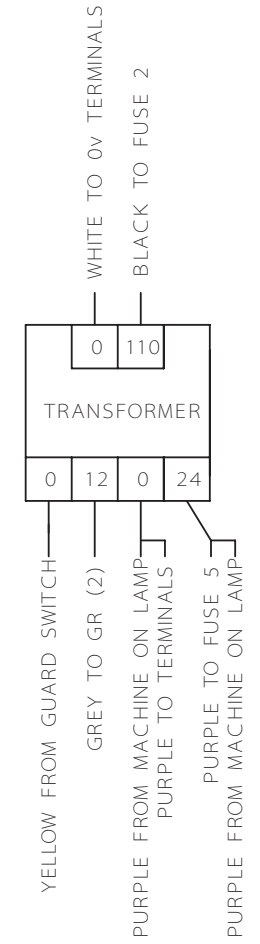
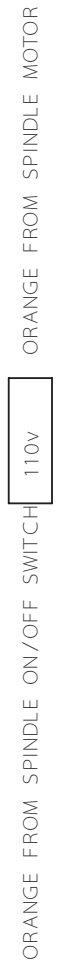
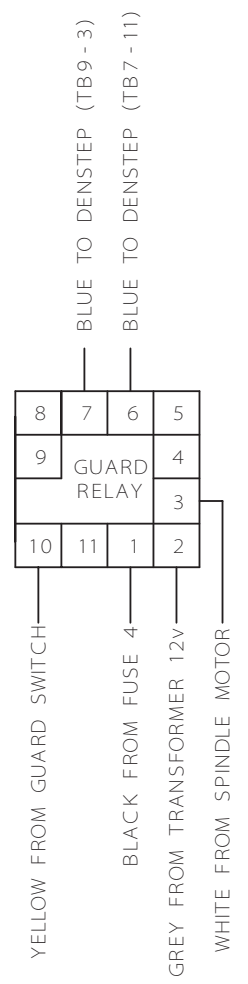
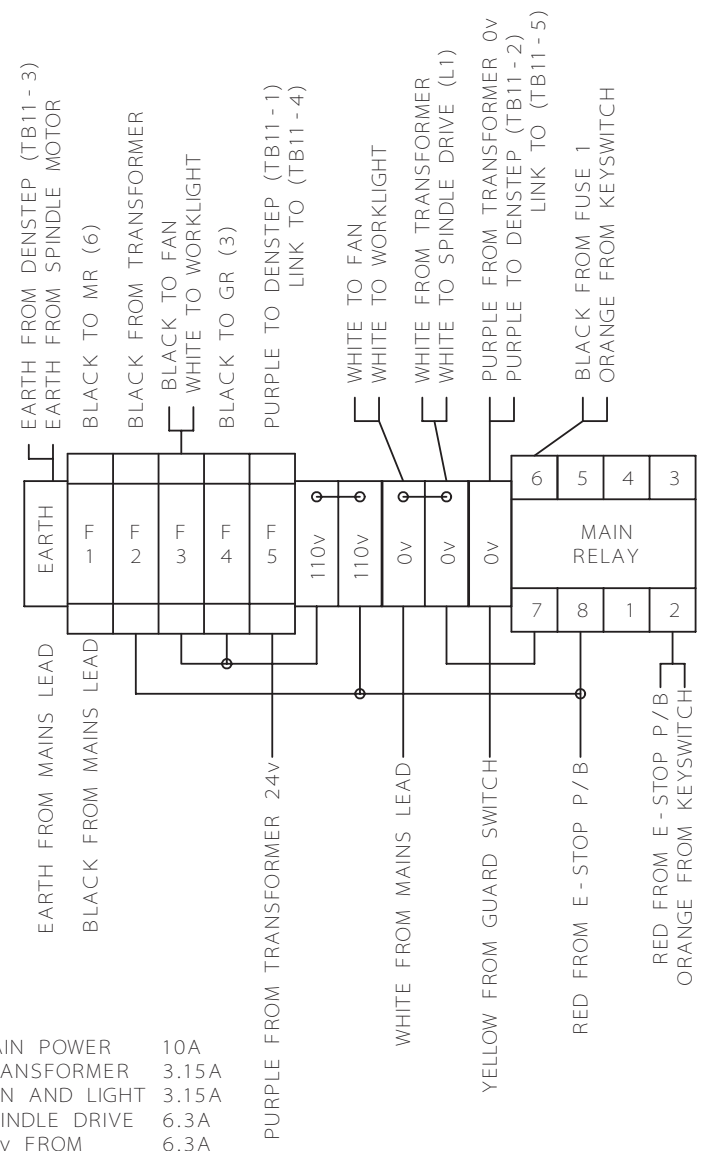
F1	MAIN POWER	10A
F2	TRANSFORMER	3.15A
F3	FAN	3.15A
F4	SPINDLE DRIVE	6.3A
F5	24v FROM TRANSFORMER	6.3A

MICROTURN
POWER SCHEMATIC
110v SUPPLY

SHEET 1
MICROTURN
DENSTEP

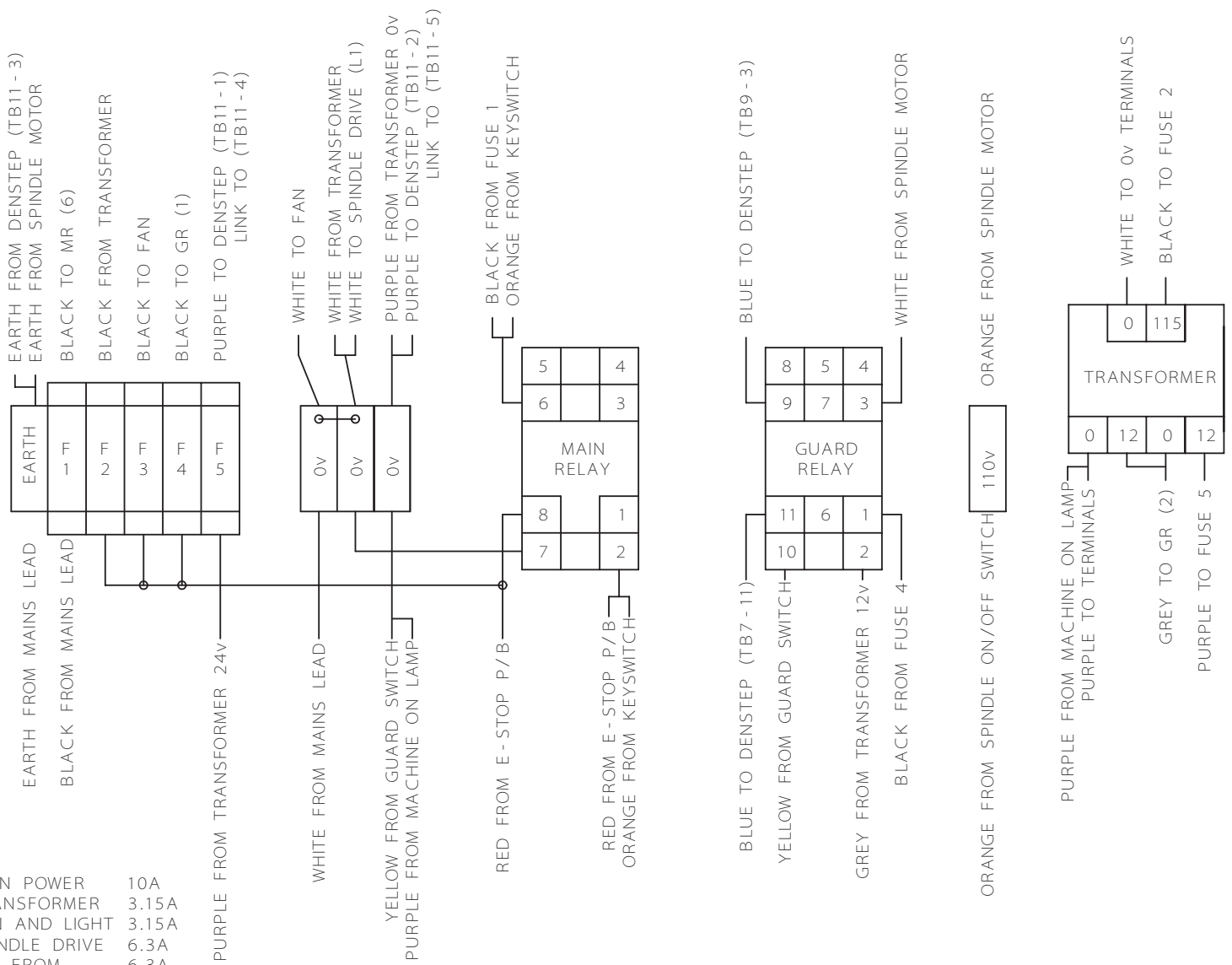


- F1 MAIN POWER 10A
- F2 TRANSFORMER 3.15A
- F3 FAN AND LIGHT 3.15A
- F4 SPINDLE DRIVE 6.3A
- F5 24v FROM TRANSFORMER 6.3A



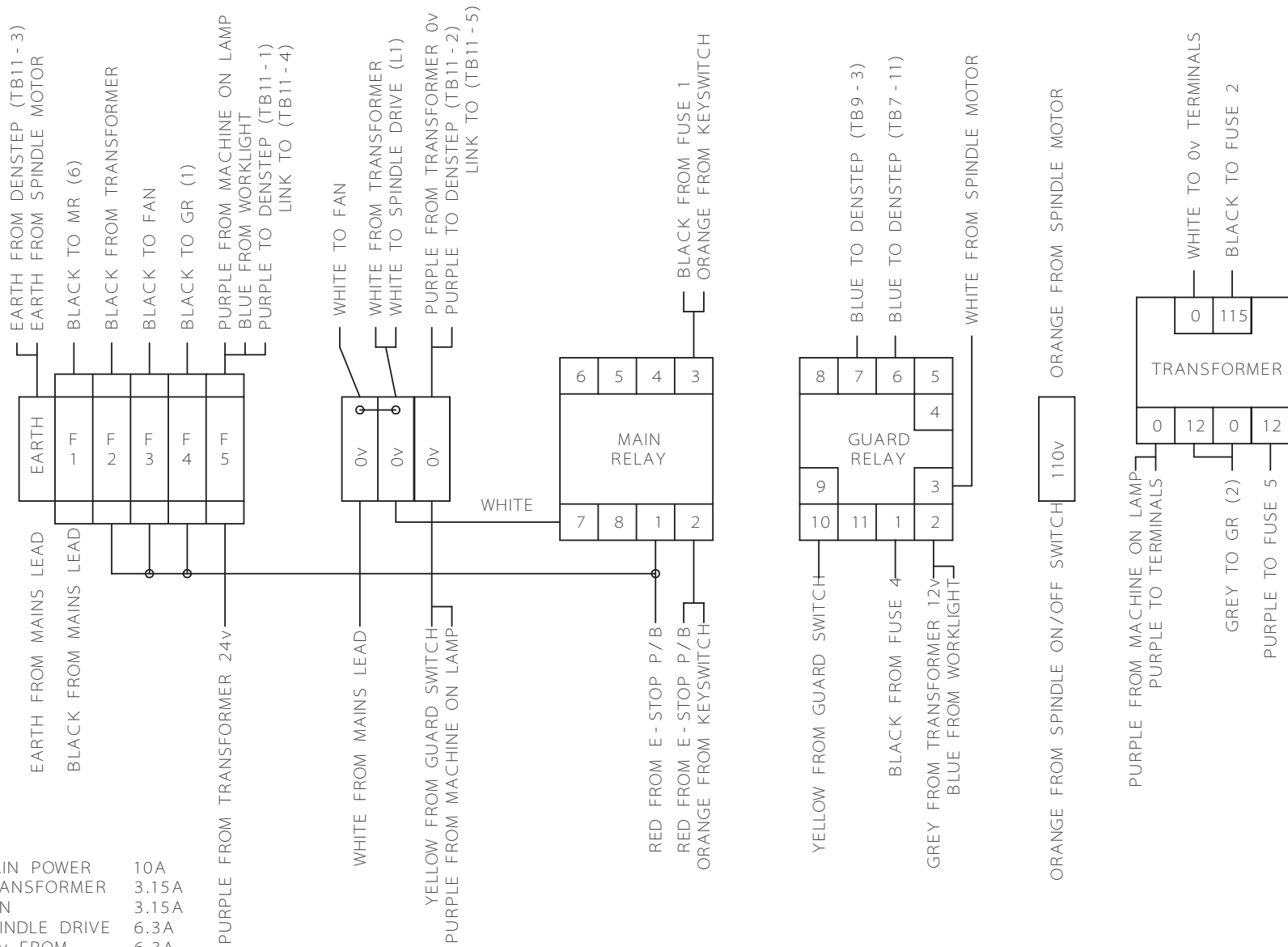
MICROTURN RELAY AND FUSE WIRING	SHEET 2
	MICROTURN
	DENSTEP

- F1 MAIN POWER 10A
- F2 TRANSFORMER 3.15A
- F3 FAN AND LIGHT 3.15A
- F4 SPINDLE DRIVE 6.3A
- F5 24v FROM TRANSFORMER 6.3A

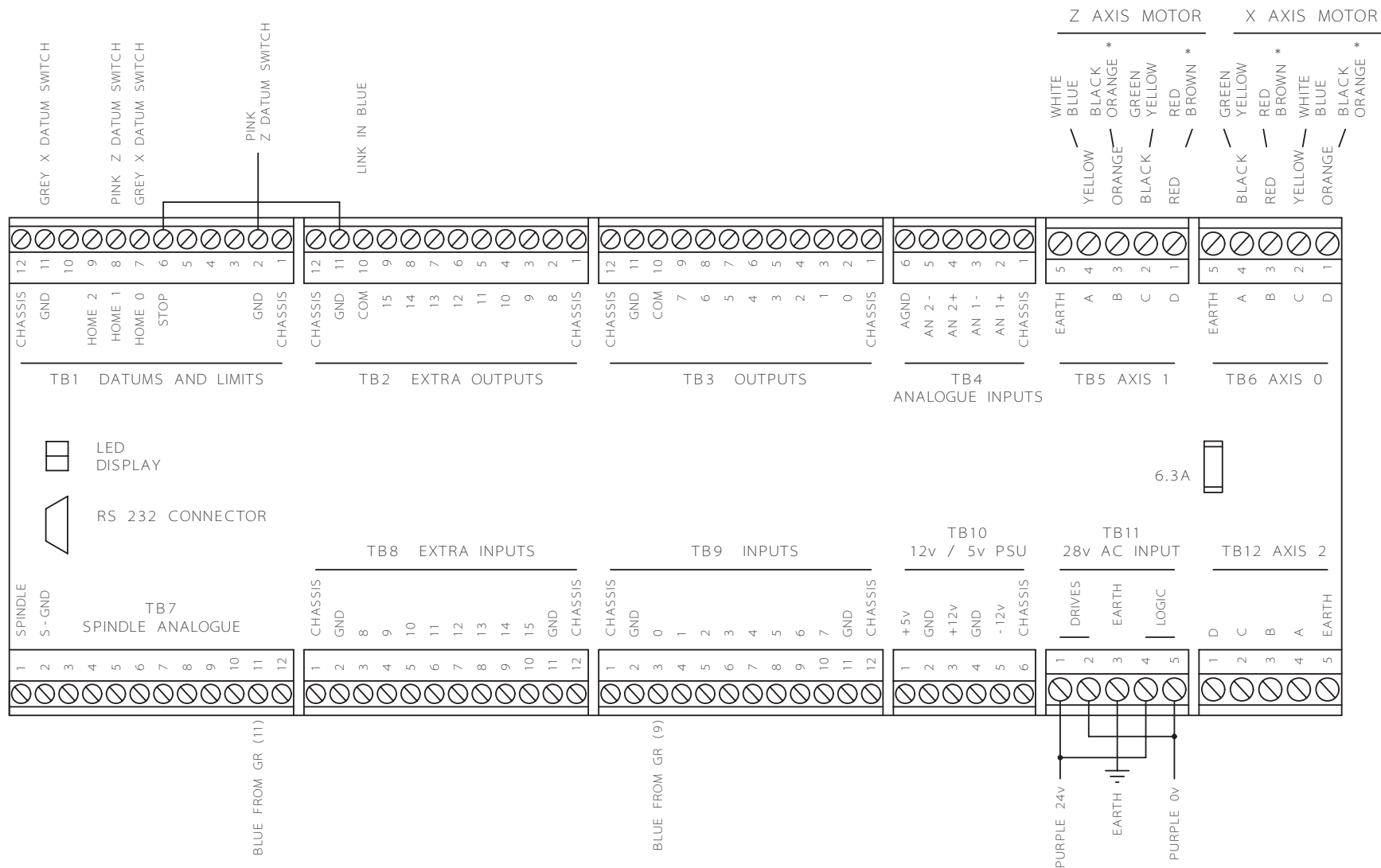


MICROTURN RELAY AND FUSE WIRING	SHEET 2
	MICROTURN
	DENSTEP

- | | | |
|----|----------------------|-------|
| F1 | MAIN POWER | 10A |
| F2 | TRANSFORMER | 3.15A |
| F3 | FAN | 3.15A |
| F4 | SPINDLE DRIVE | 6.3A |
| F5 | 24v FROM TRANSFORMER | 6.3A |



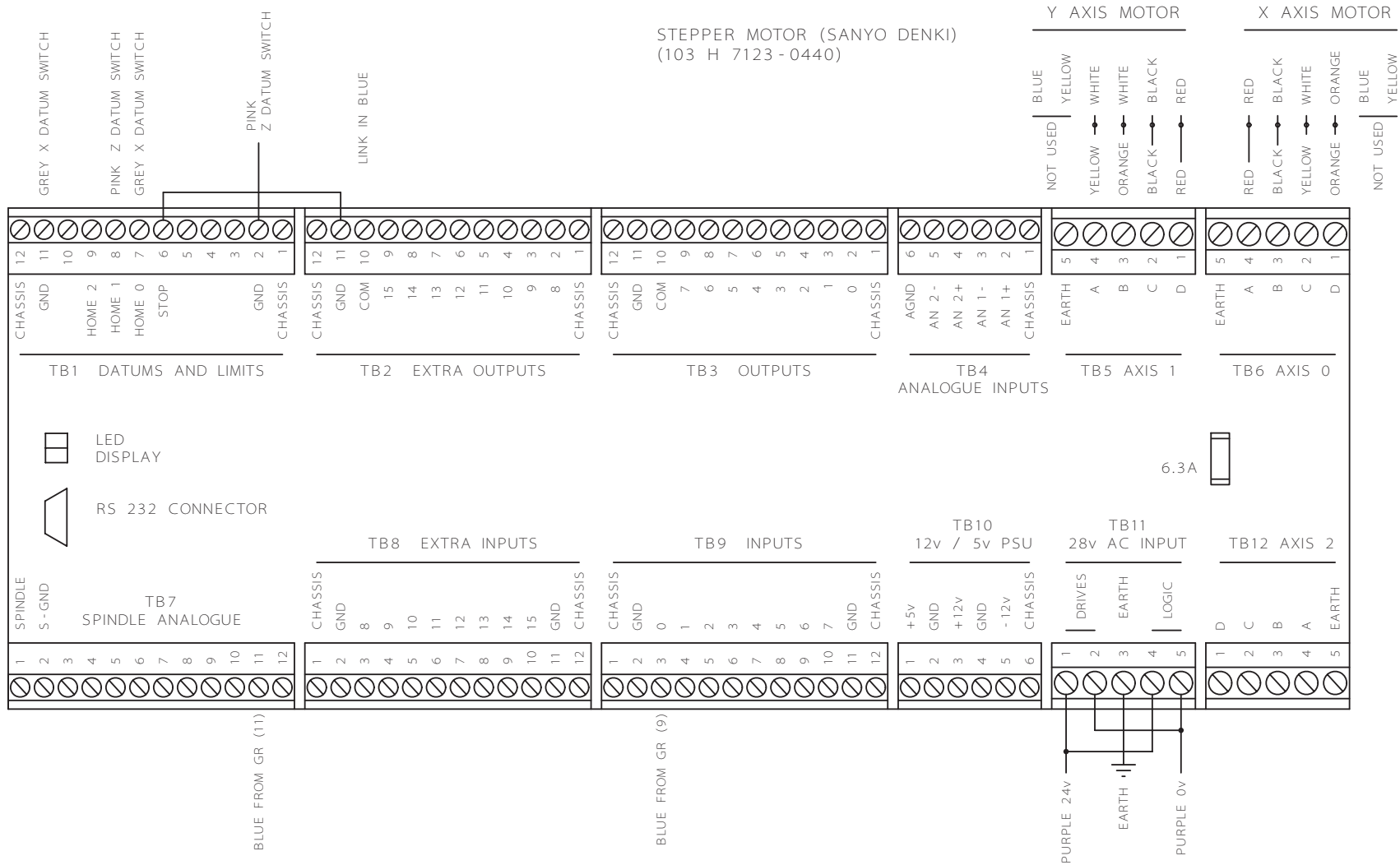
MICROTURN RELAY AND FUSE WIRING	SHEET 2
	MICROTURN
	DENSTEP

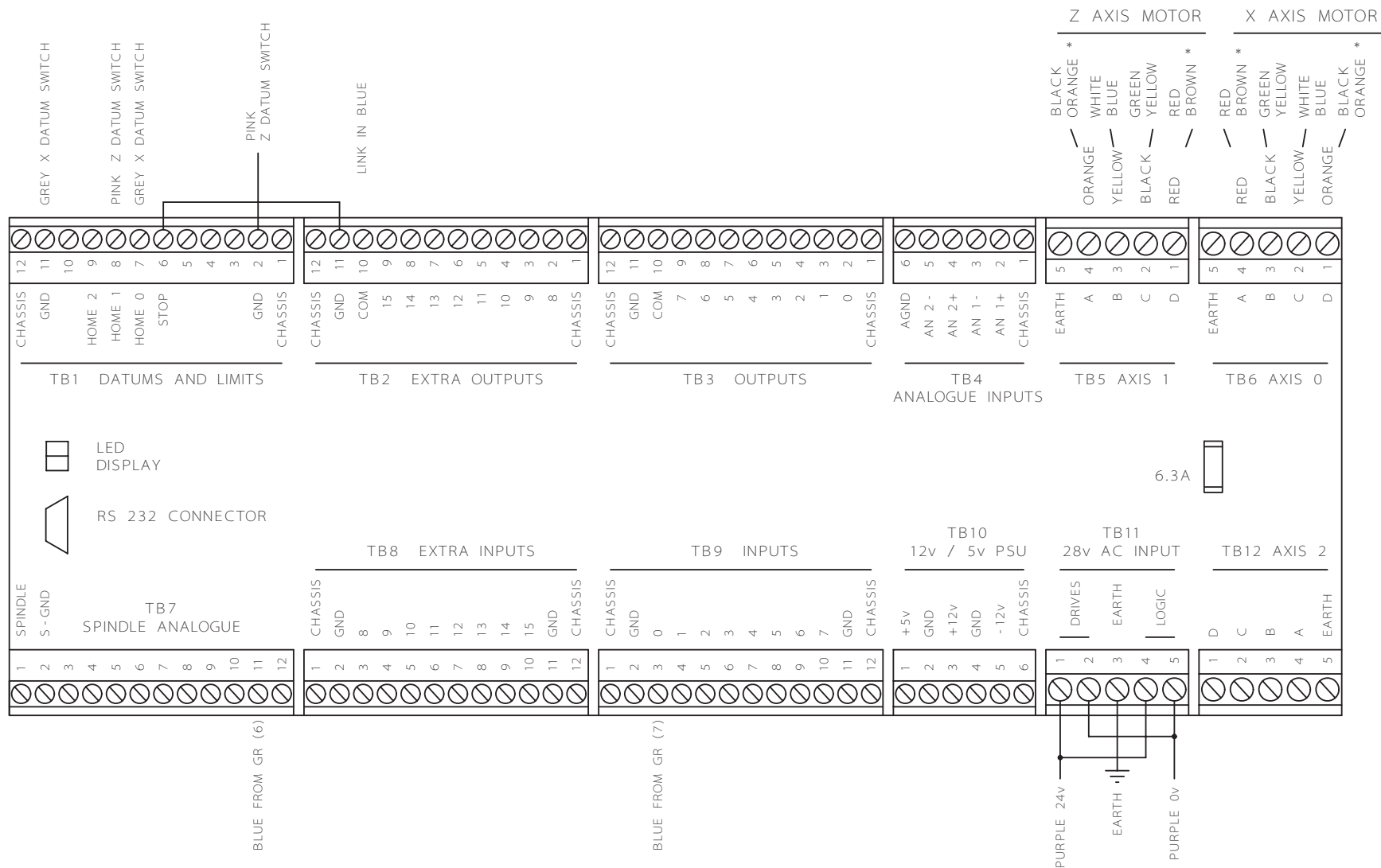


STEPPER MOTOR (VEXTA)
(PK 266 - E 2.0A)

* ENSURE THAT CORRECT COLOURS ARE USED

MICROTURN DEN - STEP CONTROL BOARD WIRING	SHEET 3
	MICROTURN
	DENSTEP



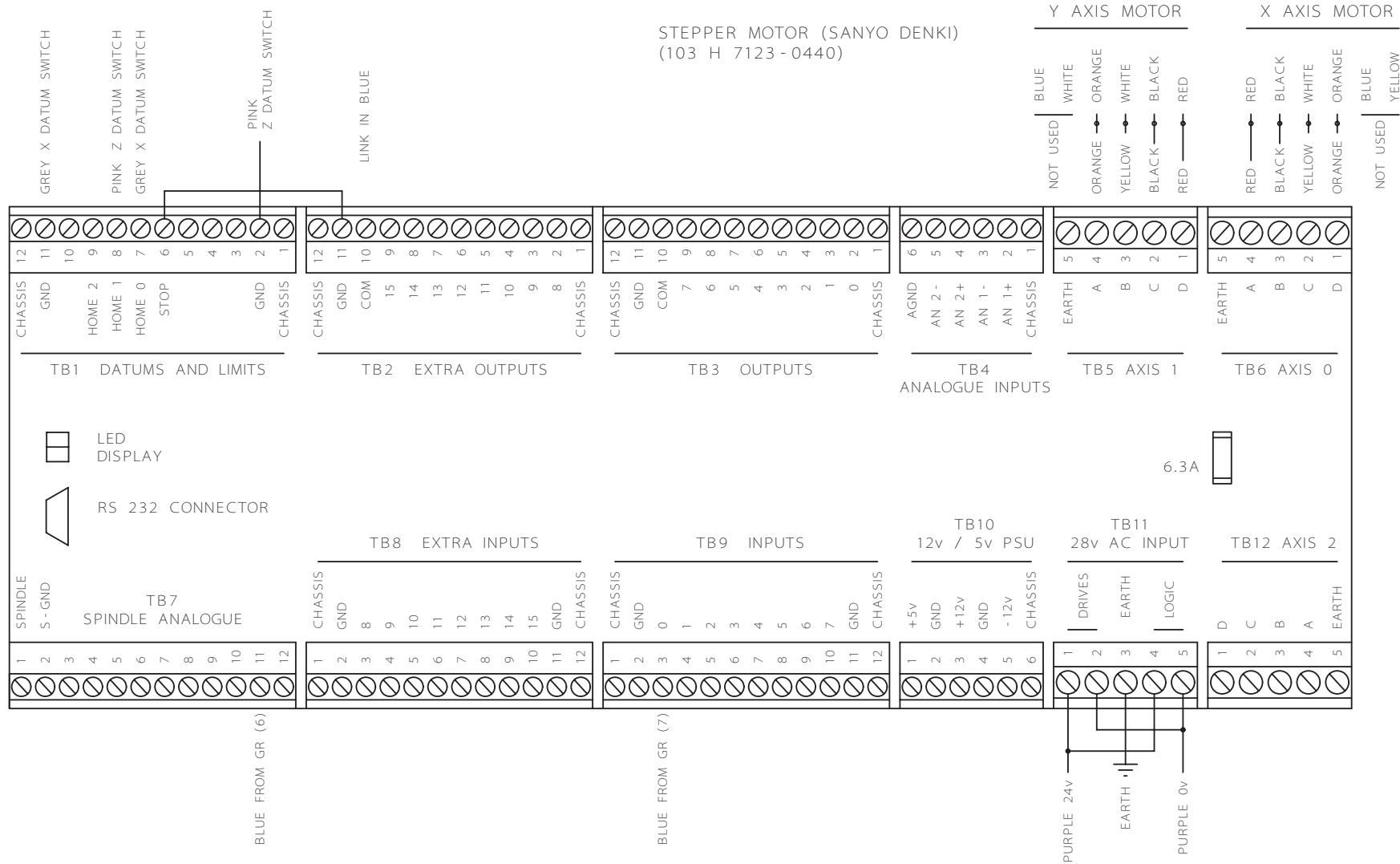


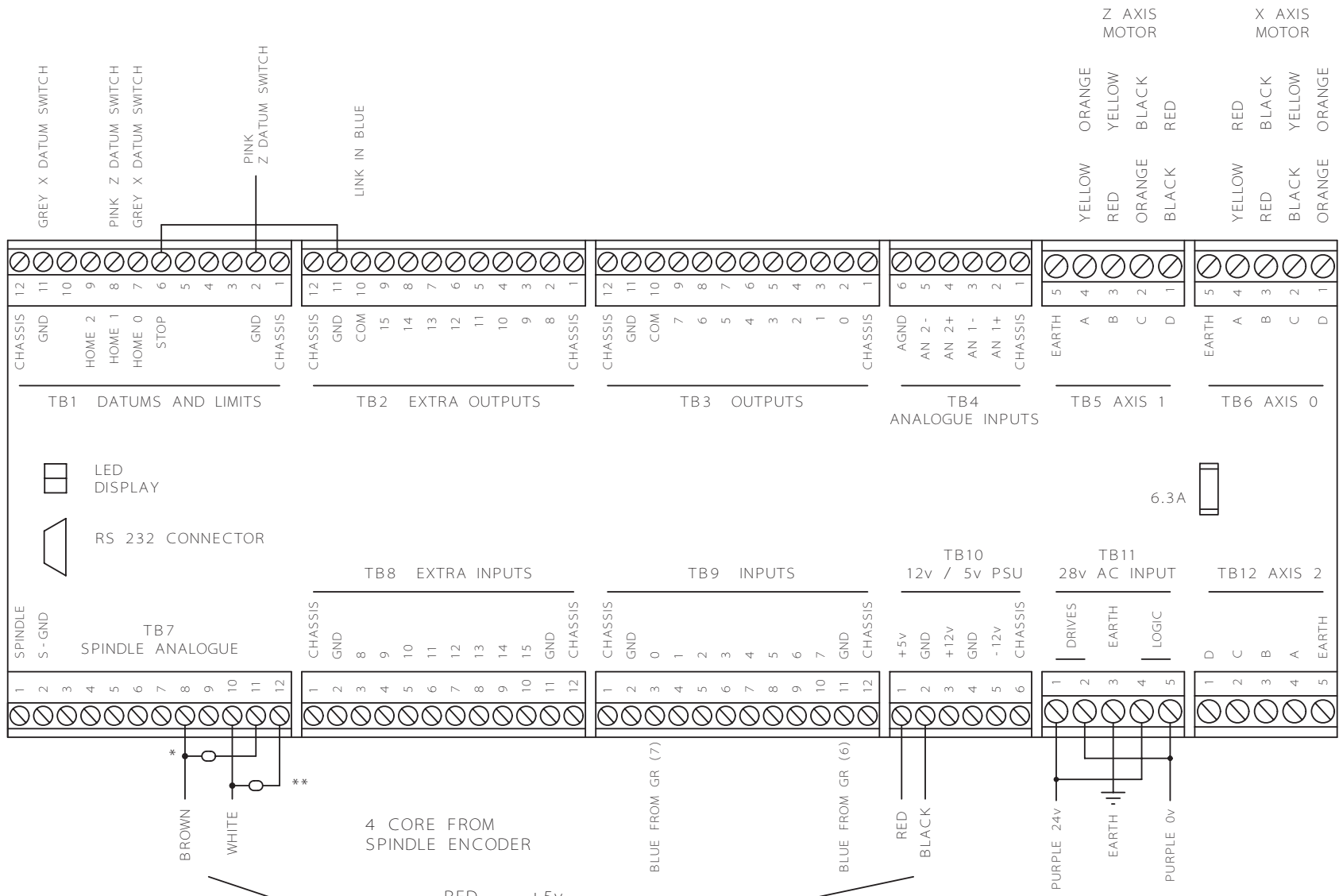
STEPPER MOTOR (VEXTA)
(PK 266 - E 2.0A)

* ENSURE THAT CORRECT COLOURS ARE USED

MICROTURN
DEN - STEP CONTROL
BOARD WIRING

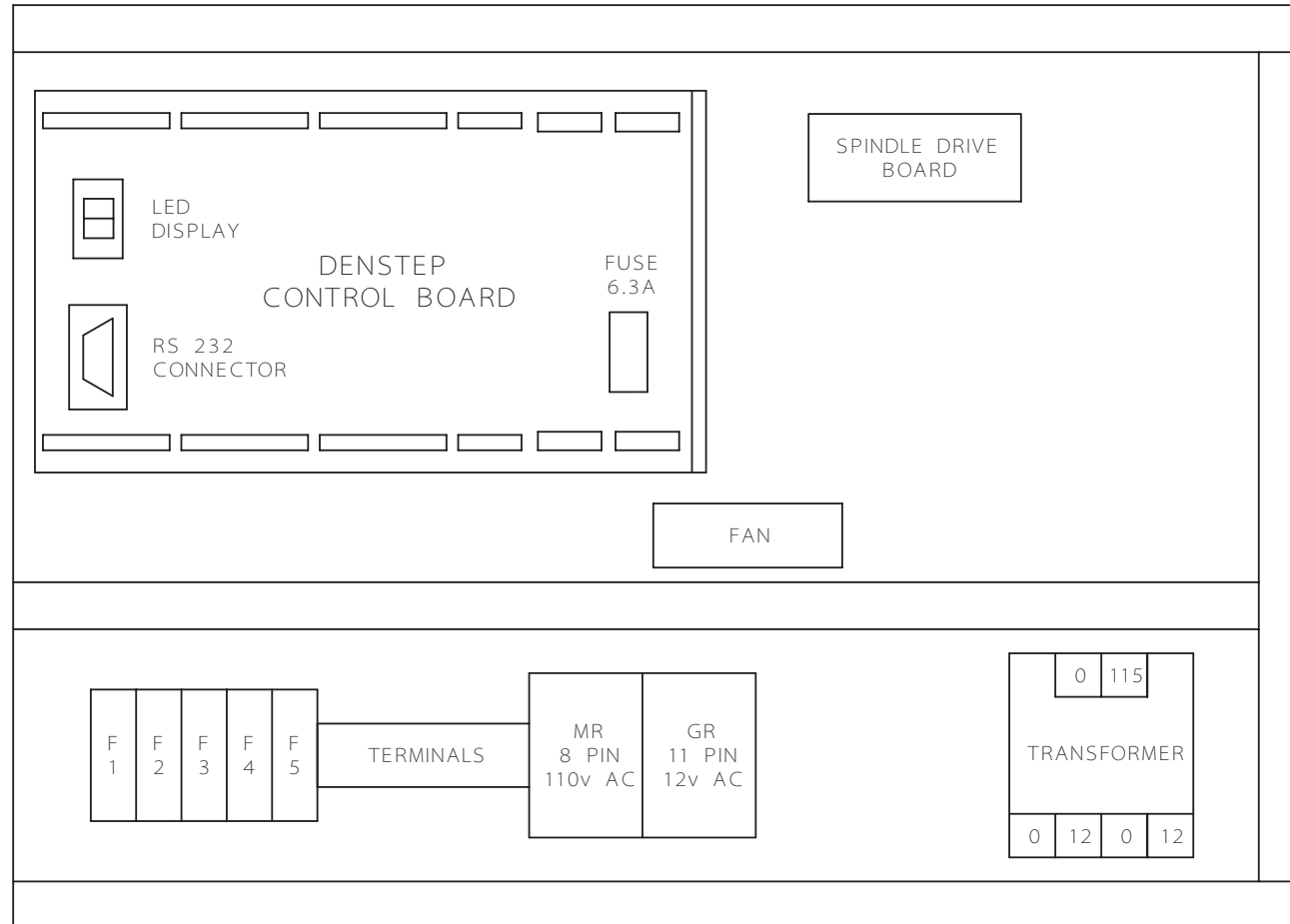
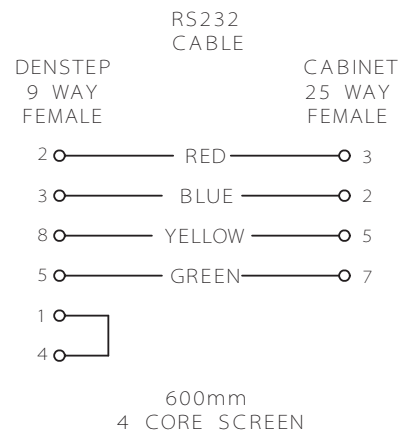
SHEET 3
MICROTURN
DENSTEP





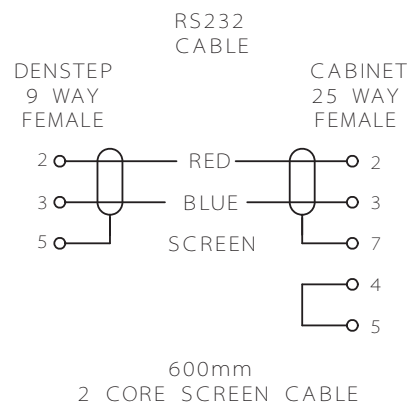
CAPACITORS
 * 33pF RS 211-4909
 (33J ON CAPACITOR)
 ** 33nF RS 211-5148
 (333K ON CAPACITOR)

RED +5v
 BROWN PULSE
 WHITE RESET
 BLACK GND
 SCREEN
 NOT EARTHED

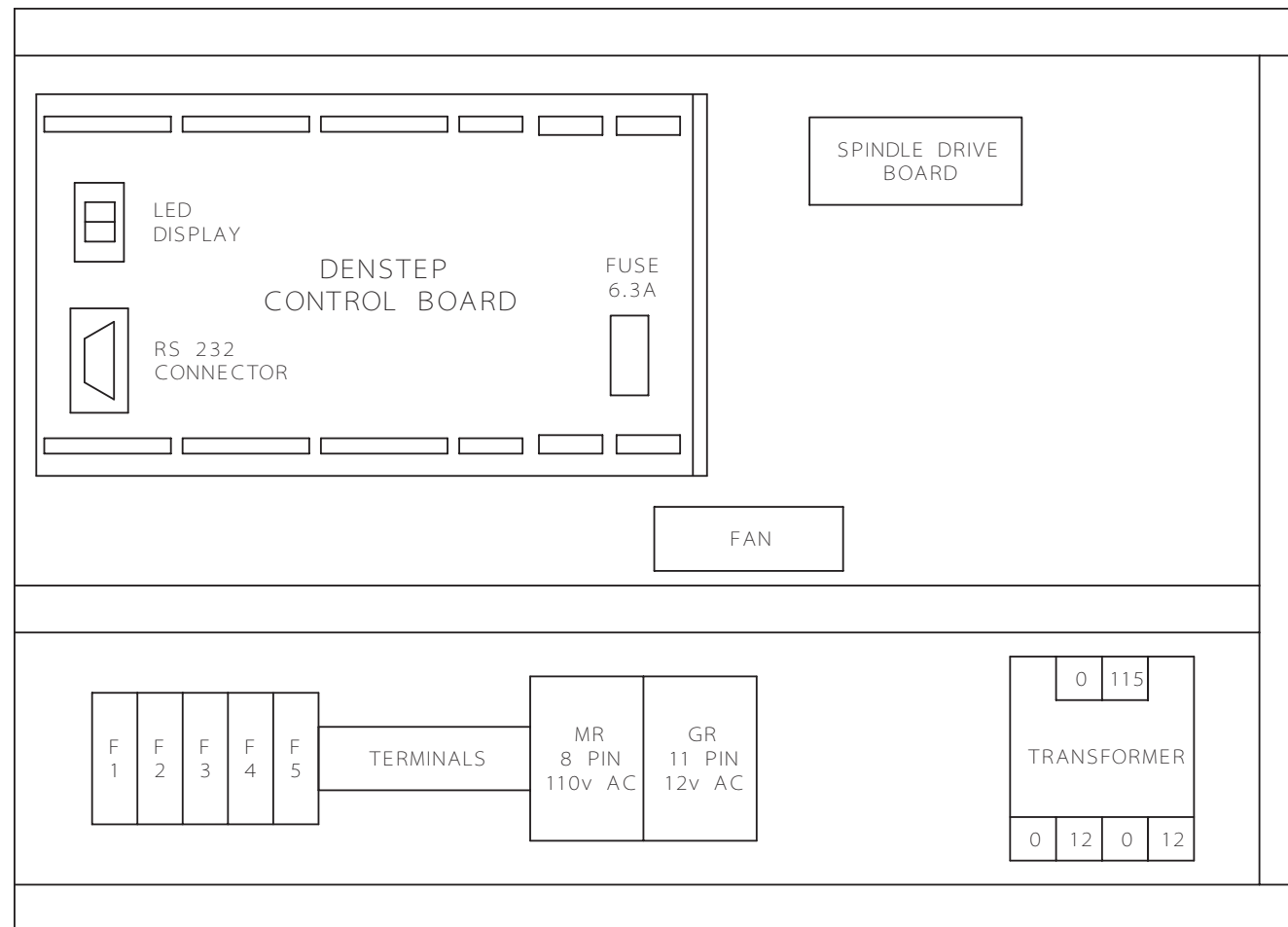


MICROTURN
PANEL LAYOUT
AND RS232 CABLE

SHEET 4
MICROTURN
DENSTEP



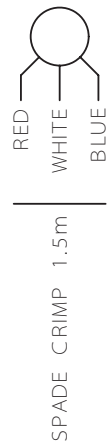
NEW RS 232 CABLE
REQUIRED FOR ALL
MICROMILLS AND MICROTURNS



MICROTURN
PANEL LAYOUT
AND RS232 CABLE

SHEET 4
MICROTURN
DENSTEP

SPINDLE
SPEED POT.



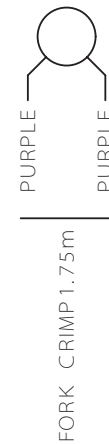
SPINDLE
ON / OFF
SWITCH



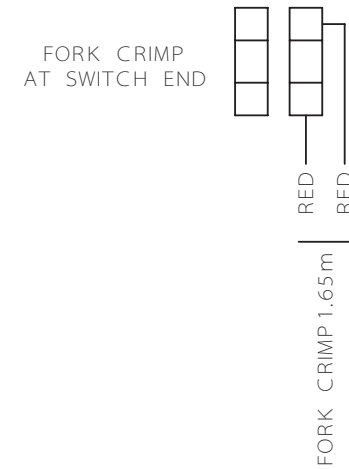
KEY SWITCH



MACHINE ON
LAMP



EMERGENCY
STOP
SWITCH



SPINDLE MOTOR

RED	DO NOT	SPADE CRIMP
BLACK	EXTEND	
ORANGE	1.4m	FERRULE
WHITE	1.1m	FORK CRIMP
GREEN	650m	FERRULE

STEPPER MOTOR (VEXTA)
(PK 266 - E 2.0A)

RED	RED	
BROWN *		
WHITE	YELLOW	X AXIS 1.1m
BLUE		Z AXIS 1.75m
BLACK		
ORANGE *	ORANGE	FERRULE
GREEN		
YELLOW	BLACK	

DATUM SWITCHES

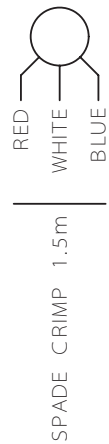
90° CRIMPS AT SWITCH END WITH
180mm BLACK HEATSHRINK
FERRULES AT PANEL END

X AXIS	1.1m	GREY
Z AXIS	1.9m	PINK

* ENSURE THAT CORRECT COLOURS ARE USED

MICROTURN SWITCH AND MOTOR WIRING DETAILS	SHEET 5
	MICROTURN
	DENSTEP

SPINDLE
SPEED POT.



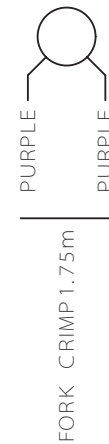
SPINDLE
ON / OFF
SWITCH



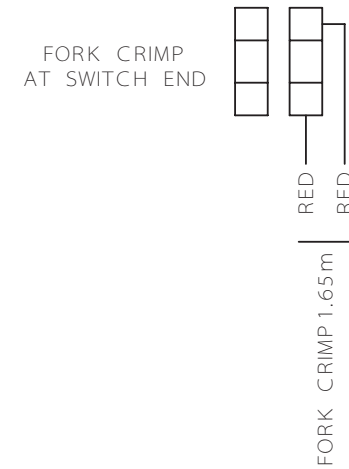
KEY SWITCH



MACHINE ON
LAMP



EMERGENCY
STOP
SWITCH



SPINDLE MOTOR

RED	DO NOT	SPADE CRIMP
BLACK	EXTEND	FERRULE
ORANGE	1.4m	FORK CRIMP
WHITE	1.1m	FERRULE
GREEN	650m	

STEPPER MOTOR (SANYO DENKI)
(103 H 7123 - 0440)

RED	RED
BLACK	BLACK
ORANGE	ORANGE
WHITE	YELLOW
BLUE	NOT CONNECTED
YELLOW	

X AXIS	1.1m	FERRULE
Z AXIS	1.75m	

DATUM SWITCHES

90° CRIMPS AT SWITCH END WITH
180mm BLACK HEATSHRINK
FERRULES AT PANEL END

X AXIS	1.1m	GREY
Z AXIS	1.9m	PINK

MICROTURN
SWITCH AND MOTOR
WIRING DETAILS

SHEET 5
MICROTURN
DENSTEP