

# SPARE PARTS SECTION

## Electric Pipe & Tube Bender

### Models TB-60 & TB-70

Order Code T606, Order Code T607

*Edition No* :TB-60,70-2

*Date of Issue* :02/2021

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at any time without notification.

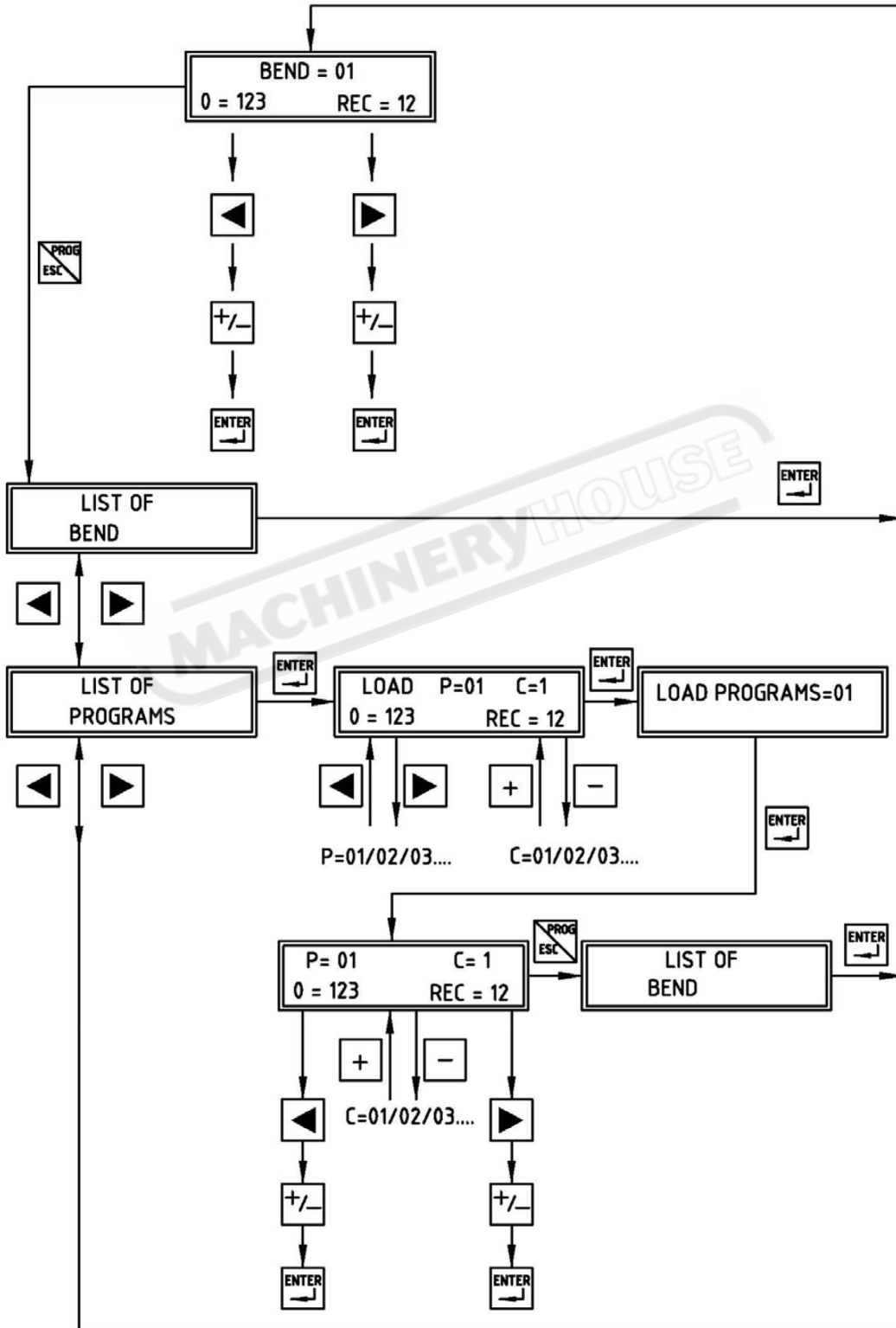
#### HOW TO ORDER SPARE PARTS

1. Have your machines **model number, serial number & date of manufacture** on hand, these can be found on the specification plate mounted on the machine
2. A scanned copy of your parts list/diagram with required spare part/s identified
3. Go to [www.machineryhouse.com.au/contactus](http://www.machineryhouse.com.au/contactus) and fill out the inquiry form attaching a copy of scanned parts list.

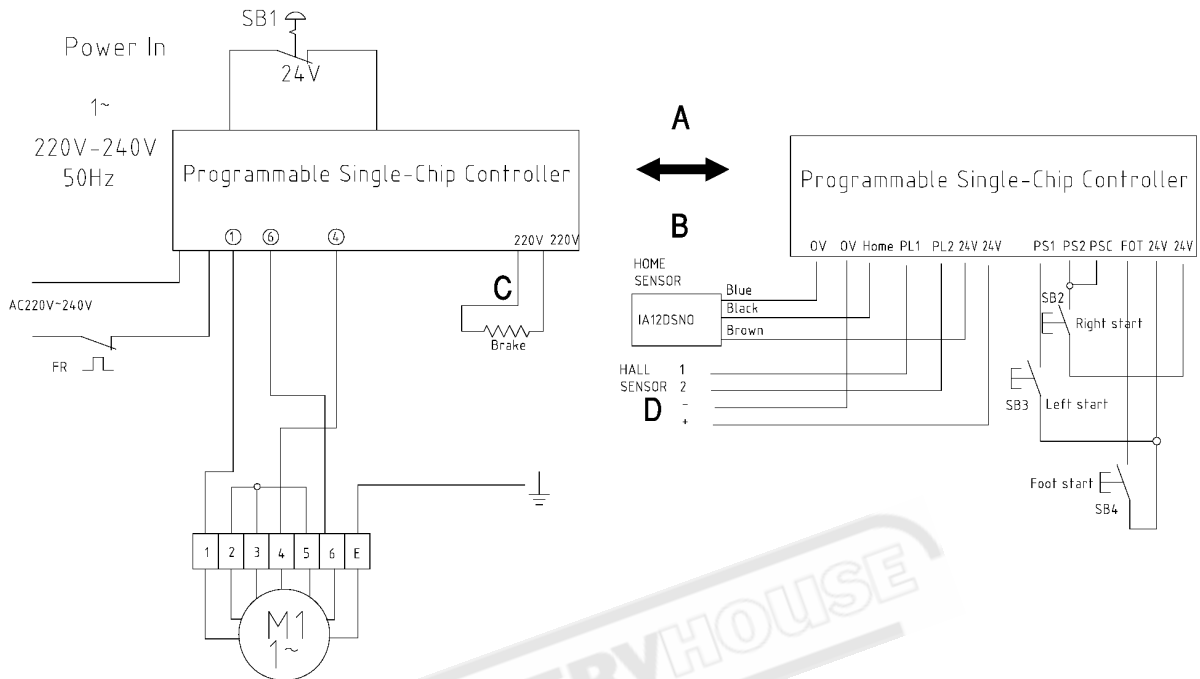
#### CONTENTS

|   |    |
|---|----|
| Digital Control Sequence.....           | 25 |
| TB-60 Electrical Diagram (240volt)..... | 26 |
| TB-60 Spare Parts Diagram.....          | 28 |
| TB-60 Spare Parts List.....             | 29 |
| TB-70 Electrical Diagram (415volt)..... | 32 |
| TB-70 Spare Parts Diagram.....          | 36 |
| TB-70 Spare Parts List.....             | 37 |

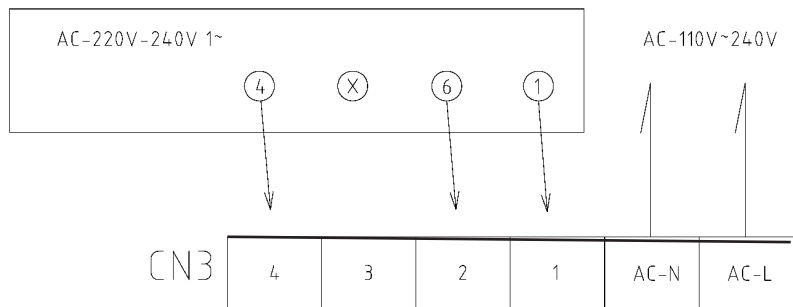
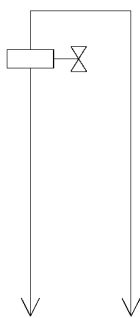
**DIGITAL CONTROL SEQUENCE**



**TB-60 ELECTRICAL DIAGRAM (240VOLT)**

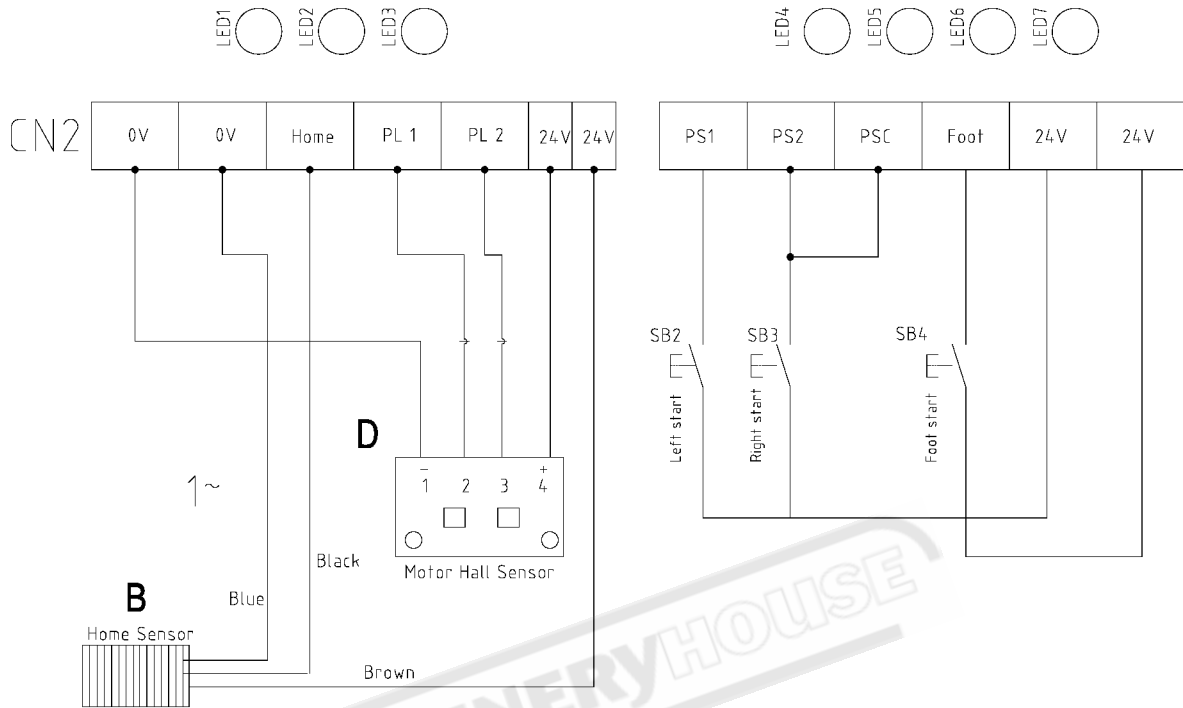


**C** BREAK FOR 220V-240V



|     |      |      |      |      |
|-----|------|------|------|------|
| CN2 | 220V | 220V | 110V | 110V |
|     | BK-  | BK+  | BK+  | BK-  |

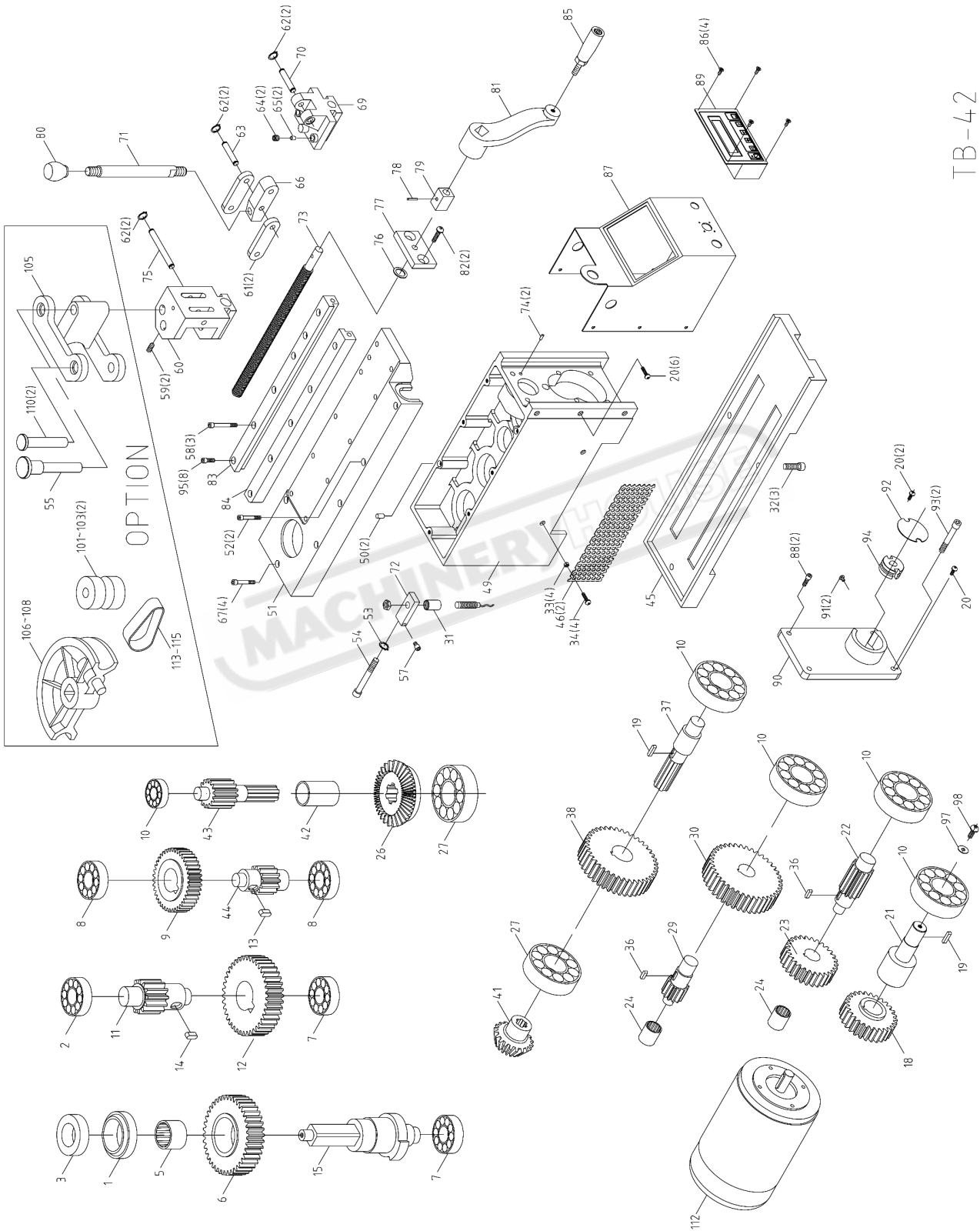
**TB-60 ELECTRICAL DIAGRAM (240VOLT)**



**TB-60 ELECTRICAL PARTS LIST (240VOLT)**

| Item | Function                            | Technical Data        | Qty |
|------|-------------------------------------|-----------------------|-----|
| A    | Programmable Single Chip Controller |                       | 1   |
| B    | Home Sensor                         | DC 10-30V             | 1   |
| C    | Brake                               |                       | 1   |
| D    | Hall Sensor                         |                       | 1   |
| SB1  | Emergency Stop Switch               | HY57                  | 1   |
| SB2  | Right Start                         | NPB-F-1a              | 1   |
| SB3  | Left Start                          | NPB-F-1a              | 1   |
| SB4  | Optional Foot Start                 | Optional              | 1   |
| M1   | Motor for TB-60                     | 1.5hp/230V/50HZ/1P/2P | 1   |
| FR   | Overload Relay (TB60 only)          | 8A                    | 1   |

**TB-60 SPARE PARTS DIAGRAM**



TB-42

**TB-60 SPARE PARTS LIST**

| No. | Part No.  | Description            | Specification | Qty |
|-----|-----------|------------------------|---------------|-----|
| 1   | 168029    | Positioning ring       |               | 1   |
| 2   | CANU206   | Bearing                | NU206         | 1   |
| 2-1 | HS519     | Cross Round Head Screw | M5x10L        | 2   |
| 2-2 | HW003     | Washer                 | M5            | 2   |
| 3   | 168030    | Outlet shaft's spacer  |               | 1   |
| 5   | CANK6525  | Bearing                | NK65/25       | 1   |
| 6   | 168013    | Outlet gear            |               | 1   |
| 7   | CA6206ZZ  | Bearing                | 6206ZZ        | 2   |
| 8   | CA6204ZZ  | Bearing                | 6204ZZ        | 2   |
| 9   | 168017    | Plate wheel            |               | 1   |
| 10  | CA62022RS | Bearing                |               | 5   |
| 11  | 168014    | Pinion                 |               | 1   |
| 12  | 168015    | Plate wheel            |               | 1   |
| 13  | 168536    | Key                    | 8x7x20L       | 1   |
| 14  | 168535    | Key                    | 12x8x20L      | 1   |
| 15  | 168012    | Outlet shaft           |               | 1   |
| 18  | 168028    | Motor's Pinion         |               | 1   |
| 19  | HK118     | Key                    | 5*5*12L       | 2   |
| 20  | HT020     | Cross Round Head Screw | M5-0.8PX8L    | 9   |
| 21  | 168027    | Motor shaft's nut      |               | 1   |
| 22  | 168025    | Motor's pinion         |               | 1   |
| 23  | 168026    | Motor's plate wheel    |               | 1   |
| 24  | CAHK1012  | Bearing                | HK1012        | 2   |
| 26  | 168020    | Plate wheel            |               | 1   |
| 27  | CA60042RS | Bearing                | 6004-2RS      | 2   |
| 29  | 168024    | Pinion                 |               | 1   |
| 30  | 168023    | Plate wheel            |               | 1   |
| 31  | 168031    | Spacer                 |               | 1   |
| 32  | HS259     | Hex. Socket Head Screw | M10-1.5Px25L  | 3   |
| 33  | HN003     | Hex. Nut               | M5            | 4   |
| 34  | HT002     | Cross Round Head Screw | M5-0.8Px16L   | 4   |
| 36  | HK006     | Key                    | 5x5x10L       | 2   |
| 37  | 168019    | Keyed shaft            |               | 1   |
| 38  | 168022    | Plate wheel            |               | 1   |
| 41  | 168021    | Bevel pinion           |               | 1   |
| 42  | 168033    | Spacer                 |               | 1   |
| 43  | 168018    | Outlet pinion          |               | 1   |
| 44  | 168016    | Pinion                 |               | 1   |
| 45  | 168001    | Reduction box base     |               | 1   |

**TB-60 SPARE PARTS LIST Cont.**

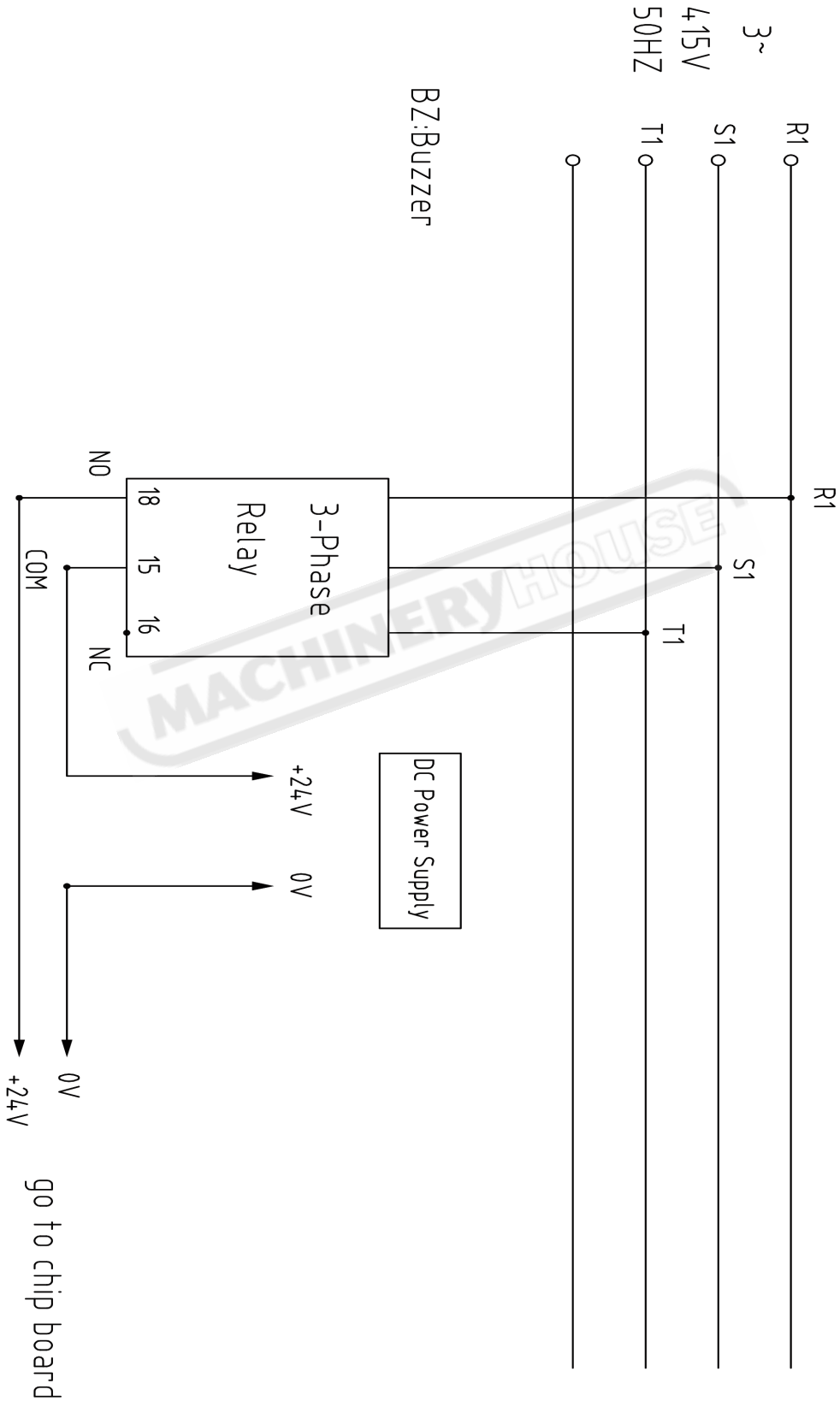
| No. | Part No. | Description                | Specification | Qty |
|-----|----------|----------------------------|---------------|-----|
| 46  | 168034   | Protection plate           |               | 2   |
| 49  | 168003   | Reduction box              |               | 1   |
| 50  | 168061   | Positioning ring           |               | 2   |
| 51  | 168002   | Box reduction cap          |               | 1   |
| 52  | HS250    | Hex. Socket Head Screw     | M8x60L        | 2   |
| 53  | HCS39    | C-Retainer Ring            | S8            | 1   |
| 54  | 168062   | Screw                      |               | 1   |
| 55  | 168036   | C/former support pin       |               | 1   |
| 57  | HS332    | Hex. Socket Head Screw     | M5X6L         | 1   |
| 59  | HS413    | Hex. Socket Headless Screw | M5x5L         | 2   |
| 60  | 168011   | C/former support           |               | 1   |
| 61  | 168038   | Action rod                 |               | 2   |
| 62  | HCS01    | C-Retainer Ring            | S10           | 6   |
| 63  | 168039   | Plug rod                   |               | 1   |
| 64  | HS430    | Hex. Socket Headless Screw | M8x10L        | 2   |
| 65  | 168739   | Friction plate             |               | 2   |
| 66  | 168040   | Locking rod                |               | 1   |
| 67  | HS248    | Carriage Screw             | M8x50L        | 6   |
| 69  | 168005   | Quick positioner           |               | 1   |
| 70  | 168042   | Plug for quick positioner  |               | 1   |
| 71  | 168043   | Locking lever              |               | 1   |
| 72  | 168044   | Sensor plate               |               | 1   |
| 73  | 168010   | Regulation screw           |               | 1   |
| 74  | HP108    | Pin                        | Ø6X12L        | 2   |
| 75  | 168045   | Plug 10x85                 |               | 1   |
| 76  | 168046   | Washer                     |               | 1   |
| 77  | 168047   | Flange regulation screw    |               | 1   |
| 78  | HP031    | Spring Pin                 | Ø6X20L        | 1   |
| 79  | 168048   | Hexagon regulation screw   |               | 1   |
| 80  | 290086   | Plastic Round Knob         |               | 1   |
| 81  | 168060   | Action arm                 |               | 1   |
| 82  | HT043    | Cross Round Head Screw     | M10X20L       | 2   |
| 84  | HS242    | Hex. Socket Head Screw     | M8x20L        | 12  |
| 85  | 6027-1S  | Clamp Handle               |               | 1   |
| 86  | HS639    | Flat Cross Head Screw      | M3X6L         | 4   |
| 87  | 168051D  | Front Cover Plate          |               | 1   |
| 88  | HS244    | Hex. Socket Head Screw     | M8x30L        | 2   |
| 89  | ET2544   | Controller                 | 110/220V//1PH | 1   |
| 89  | ET2545   | Controller                 | 220/380V//3PH | 1   |

**TB-60 SPARE PARTS LIST Cont.**

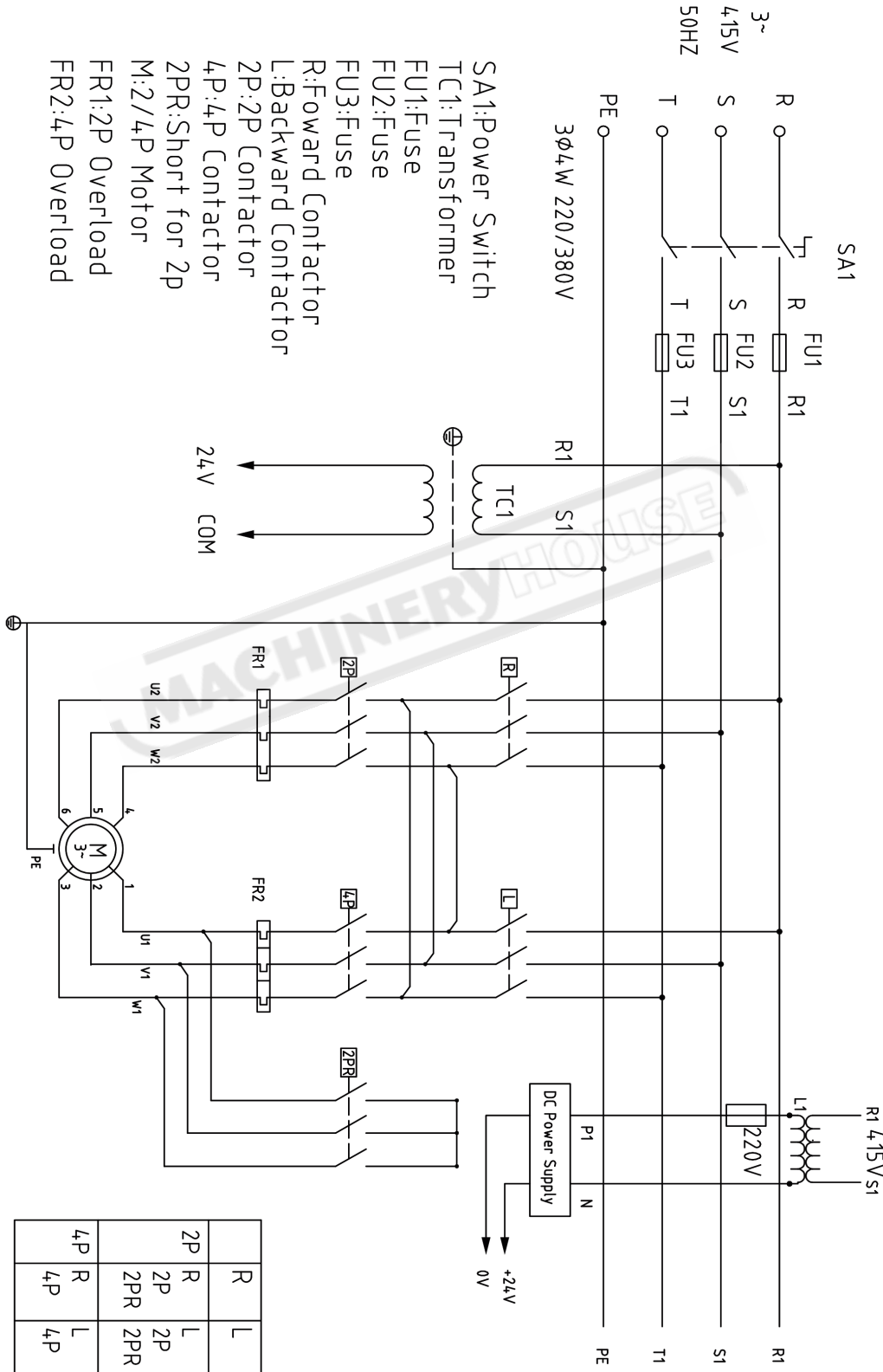
| No. | Part No.     | Description            | Specification       | Qty |
|-----|--------------|------------------------|---------------------|-----|
| 90  | 168004       | Flange                 |                     | 1   |
| 91  | HS503        | Cross Round Head Screw | M3x10L              | 2   |
| 92  | 168032       | Cover                  |                     | 1   |
| 93  | HS252        | Hex. Socket Head Screw | M8x70L              | 2   |
| 94  | 168065       | Magnets flange         |                     | 1   |
| 97  | HW016        | Washer                 | φ6.5Xφ18xt1.5mm     | 1   |
| 98  | HT003        | Cross Round Head Screw | M6-1.0Px10L         | 1   |
| 101 | 168054       | Roll-1                 | 1/2"G (Optional)    | 2   |
| 102 | 168055       | Roll-2                 | 1"G (Optional)      | 2   |
| 103 | 168056       | Roll-3                 | 1 1/4"G (Optional)  | 2   |
| 104 | 168059       | Roll-4                 | 1/4"G (Optional)    | 2   |
| 105 | 168057       | Guide body             | (Optional)          | 1   |
| 106 | 168006       | Former-1               | 1/4"G (Optional)    | 1   |
| 107 | 168007       | Former-2               | 1/2"G (Optional)    | 1   |
| 108 | 168008       | Former-3               | 1"G (Optional)      | 1   |
| 109 | 168009       | Former-4               | 1 1/4"G (Optional)  | 1   |
| 110 | 168058       | C/former support       | (Optional)          | 2   |
| 112 |              | Motor                  | 1.5HP/50HZ/220V/1PH | 1   |
| 113 | 168067       | Ring-1                 | 1/4"G (Optional)    | 1   |
| 114 | 168068       | Ring-2                 | 1/2"G (Optional)    | 1   |
| 115 | 168069       | Ring-3                 | 1"G (Optional)      | 1   |
| 116 | 168070       | Ring-4                 | 1 1/4"G (Optional)  | 1   |
| 117 | 168264       | Handle Rod             | (Optional)          | 1   |
| 118 | 168265       | Foot Switch Bracket    | (Optional)          | 1   |
| 119 | HN006        | Hex. Nut               | M10 (Optional)      | 1   |
| 120 | HW106        | Spring Washer          | M10 (Optional)      | 1   |
| 121 | MET1654      | Foot Switch            | (Optional)          | 2   |
| 122 | HE506        | Cross Round Head Screw | M5x10L (Optional)   | 6   |
| 123 | HN003        | Hex. Nut               | M5 (Optional)       | 6   |
| 124 | MET2190      | Coupler                | 1/2" (Optional)     | 1   |
| 125 | MET2189      | Hose                   | 1/2" (Optional)     | 1   |
| 126 | 168097       | Scale                  | (Optional)          | 1   |
| 127 | HH001        | Rivet                  | ØM2x5L (Optional)   | 2   |
| 128 | PJNG681505E4 | Lable                  | (Optional)          | 1   |



TB-70 ELECTRICAL DIAGRAM (415VOLT)



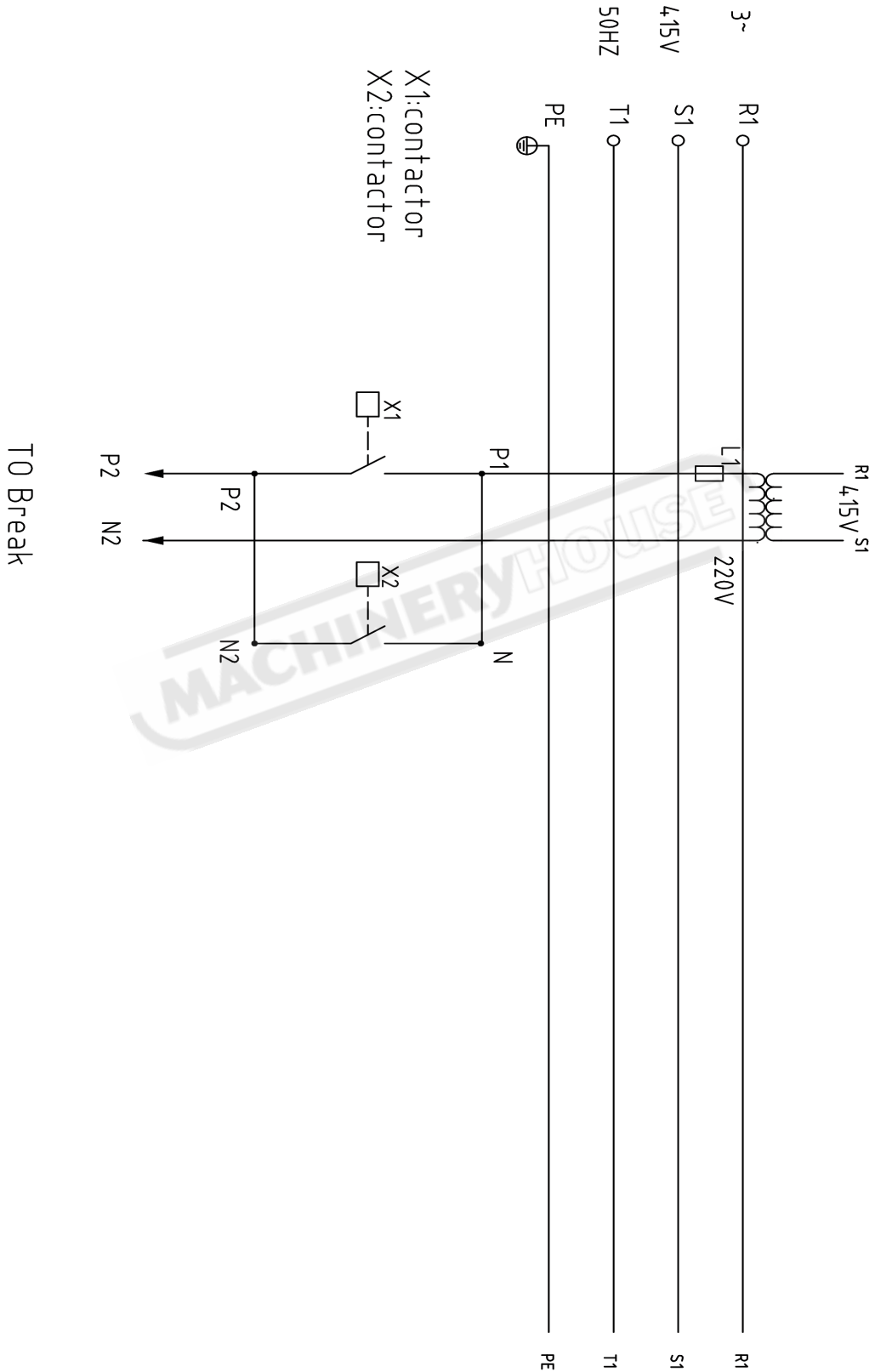
**TB-70 ELECTRICAL DIAGRAM (415VOLT) Cont.**



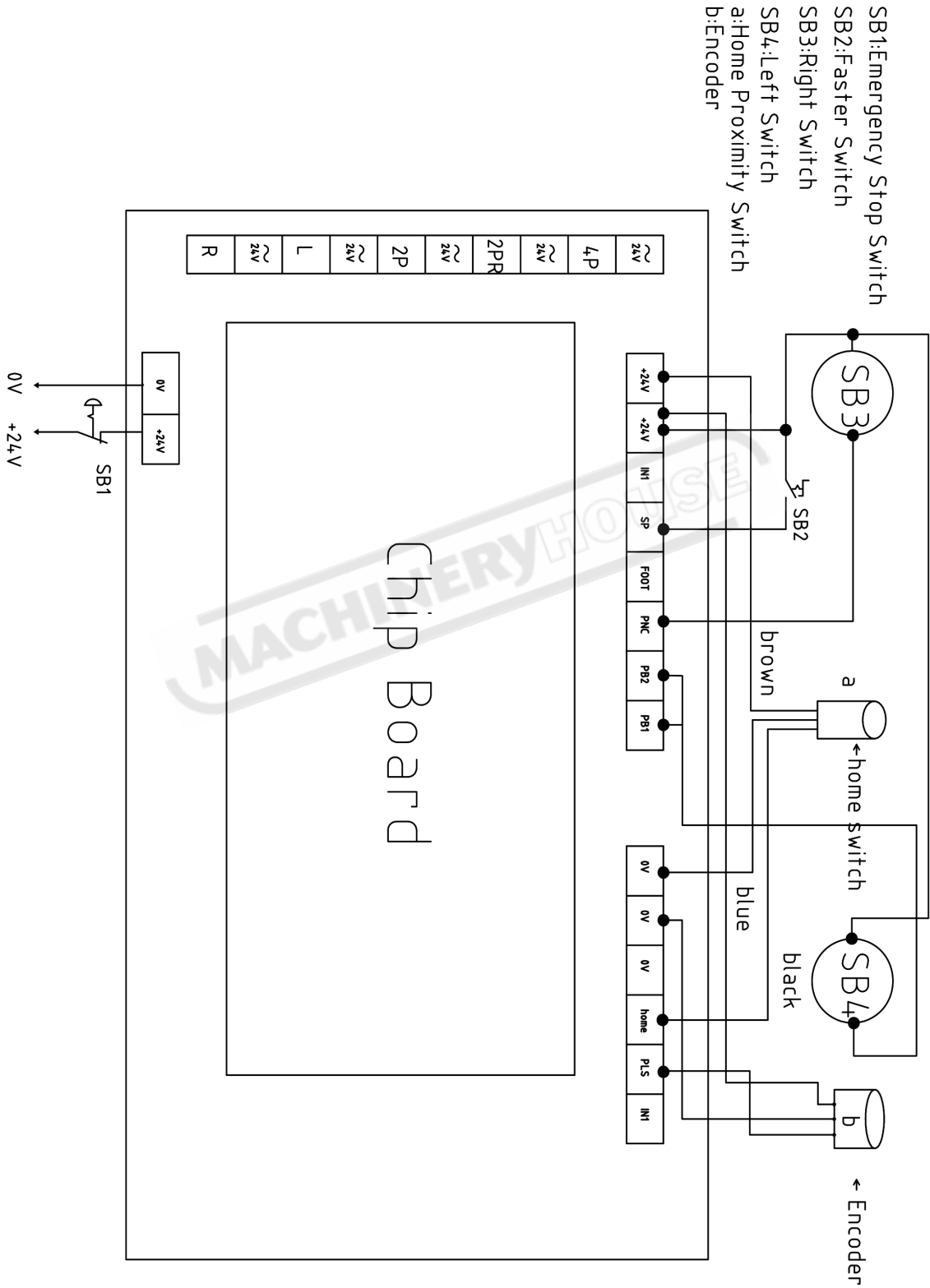
- SA1: Power Switch
- TC1: Transformer
- FU1: Fuse
- FU2: Fuse
- FU3: Fuse
- R: Forward Contactor
- L: Backward Contactor
- 2P: 2P Contactor
- 4P: 4P Contactor
- 2PR: Short for 2P
- M: 2/4P Motor
- FR1: 2P Overload
- FR2: 4P Overload

|    |     |     |
|----|-----|-----|
|    | R   | L   |
| 2P | R   | L   |
|    | 2P  | 2P  |
|    | 2PR | 2PR |
| 4P | R   | L   |
|    | 4P  | 4P  |

**TB-70 ELECTRICAL DIAGRAM (415VOLT) Cont.**



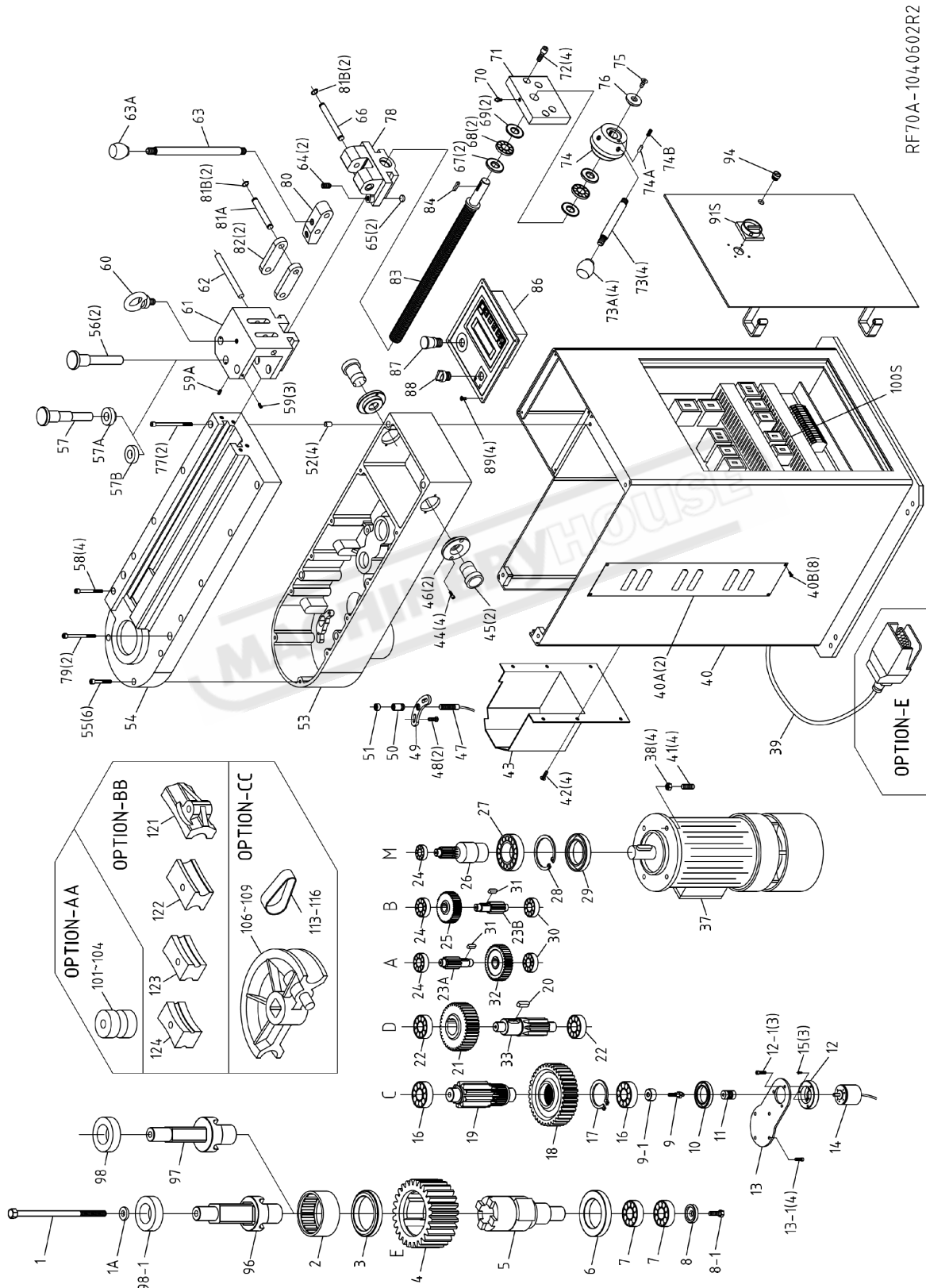
**TB-70 ELECTRICAL DIAGRAM (415VOLT) Cont.**



SB1:Emergency Stop Switch  
 SB2:Faster Switch  
 SB3:Right Switch  
 SB4:Left Switch  
 a:Home Proximity Switch  
 b:Encoder

MACHINERYHOUSE.COM.AU

**TB-70 SPARE PARTS DIAGRAM**



RF70A-1040602R2

**TB-70 SPARE PARTS LIST**

| No. | Part No.  | Description            | Specification | Qty |
|-----|-----------|------------------------|---------------|-----|
| 1   | 168748    | Leadscrew              |               | 1   |
| 1A  | 168747    | Bushing                |               | 1   |
| 2   | CANK7535  | Bearing                | NK75/35(92B)  | 1   |
| 3   | 168718    | Shaft Bushing(B)       |               | 1   |
| 4   | 168717    | Gear                   |               | 1   |
| 5   | 168715    | Power Shaft            |               | 1   |
| 6   | 168716    | Shaft Bushing(A)       |               | 1   |
| 7   | CA30206J  | Tapered Bearing        | #30206J       | 2   |
| 8   | 168730    | Washer Ring            |               | 1   |
| 9   | 168731    | Fixed Bolt             |               | 1   |
| 10  | HG042     | Oil Seal               | TC40X62X10b   | 1   |
| 11  | 168770    | Connecting shaft       |               | 1   |
| 12  | 168750    | Connect Plate          |               | 1   |
| 13  | HS230     | Hex. Socket Head Screw | M6X20L        | 2   |
| 14  | ET2501    | Encoder                |               | 1   |
| 15  | HS610     | Flat Cross Head Screw  | M5X10L        | 3   |
| 16  | CANJ2206  | Bearing                | #NJ2206       | 2   |
| 17  | HCS24     | C-Retainer Ring        | S42           | 1   |
| 18  | 168722    | Gear                   |               | 1   |
| 19  | 168721    | Gear                   |               | 1   |
| 20  | HK139     | Key                    | 10X8X30L      | 1   |
| 21  | 168720    | Gear                   |               | 1   |
| 22  | CANJ2304  | Bearing                | #NJ2304       | 2   |
| 23A | 168723    | Gear                   |               | 1   |
| 23B | 168725    | Gear                   |               | 1   |
| 24  | CA6202RS  | Bearing                | #6202RS       | 3   |
| 25  | 168726    | Gear                   |               | 1   |
| 26  | 168727    | Gear                   |               | 1   |
| 27  | CA60082RS | Bearing                | #6008-2RS     | 1   |
| 28  | HCR09     | C-Retainer Ring        | R68           | 1   |
| 29  | HG043     | Oil Seal               | TC40X68X10b   | 1   |
| 30  | MCA6202ZZ | Bearing                | #6202         | 2   |
| 31  | HK025     | Key                    | 6X6X20L       | 2   |
| 32  | 168724    | Gear                   |               | 1   |
| 33  | 168719    | Gear                   |               | 1   |
| 37  | MFV2165-1 | Motor                  |               | 1   |
| 38  | HN006     | Hex. Nut               | M10           | 4   |
| 39  |           |                        |               | 1   |
| 40  | 168701    | Stand                  |               | 1   |

**TB-70 SPARE PARTS LIST Cont.**

| No. | Part No.  | Description                | Specification | Qty |
|-----|-----------|----------------------------|---------------|-----|
| 40A | 168702    | Chip Tray                  |               | 2   |
| 40B | HT026     | Cross Round Head Screw     | M5X12L        | 8   |
| 40C | 168702-1  | Vesicant Pad               | 10X10X1750L   | 1   |
| 41  | HS444     | Hex. Socket Headless Screw | M10X40L       | 4   |
| 42  | HT016     | Cross Round Head Screw     | M6X12L        | 4   |
| 43  | 168703    | Cover                      |               | 1   |
| 44  | HS218     | Hex. Socket Head Screw     | M5X10L        | 4   |
| 45  | MET1276   | Push-Button Switch         |               | 2   |
| 46  | 168749    | Bushing                    |               | 2   |
| 47  | ET1641    | Sensor                     |               | 1   |
| 48  | HS229     | Hex. Socket Head Screw     | M6X15L        | 2   |
| 49  | 168765    | Connect Plate              |               | 1   |
| 50  | 168766    | Connecting pipe            |               | 1   |
| 51  | 168767    | Register Sensor            |               | 1   |
| 52  | 168732    | Positioning Ring           |               | 4   |
| 53  | 168710    | Reduction box              |               | 1   |
| 54  | 168711    | Box reduction cap          |               | 1   |
| 55  | HS250     | Hex. Socket Head Screw     | M8x60L        | 6   |
| 56  | 168036    | Pin                        |               | 2   |
| 57  | 168052    | Pin                        |               | 1   |
| 57A | 168053    | Base Broad                 |               | 1   |
| 57B | 168041    | Interval Ring              |               | 1   |
| 58  | HS324     | Hex. Socket Head Screw     | M8x90L        | 4   |
| 59  | HS462     | Hex. Socket Headless Screw | M6X8L         | 3   |
| 59A | HS422     | Hex. Socket Headless Screw | M6X10L        | 1   |
| 60  | HI413     | Ring Bolt                  | M12           | 1   |
| 61  | 168709    | Fixed Board                |               | 1   |
| 62  | 168737    | Shaft(C)                   |               | 1   |
| 63  | 168043    | Locking lever              |               | 1   |
| 63A | 290086    | Plastic Round Knob         |               | 1   |
| 64  | HS464     | Hex. Socket Headless Screw | M12X16L       | 2   |
| 65  | 168739    | Screw rod washer           |               | 2   |
| 66  | 168735    | Shaft(A)                   |               | 1   |
| 67  | CAGS2035  | Sheaths                    | #GS2035       | 2   |
| 68  | CANTB2035 | Bearing                    | #NTB2035      | 2   |
| 69  | CAAS2035  | Sheaths                    | #AS2035       | 2   |
| 70  | HB501     | Grease Nipple              | PT-1/8"       | 1   |
| 71  | 168745    | Vice Plate                 |               | 1   |
| 72  | HS259     | Hex. Socket Head Screw     | M10X25L       | 4   |

**TB-70 SPARE PARTS LIST Cont.**

| No.  | Part No. | Description                | Specification      | Qty |
|------|----------|----------------------------|--------------------|-----|
| 73   | 168744   | Handle Rod                 |                    | 4   |
| 73A  | 290086   | Plastic Round Knob         |                    | 4   |
| 74   | 168743   | Handle Body                |                    | 1   |
| 74A  | 168741   | Shaft Block                |                    | 1   |
| 74B  | HS434    | Hex. Socket Headless Screw | M8X30L             | 1   |
| 75   | HS619    | Flat Cross Head Screw      | M8X20L             | 1   |
| 76   | 168742   | Chunk                      |                    | 1   |
| 77   | HS367    | Hex. Socket Head Screw     | M10X190L           | 2   |
| 78   | 168708   | Quick Positioner           |                    | 1   |
| 79   | HS368    | Hex. Socket Head Screw     | M10X160L           | 2   |
| 80   | 168740   | Shaft Block                |                    | 1   |
| 81A  | 168736   | Shaft(B)                   |                    | 1   |
| 81B  | HCS02    | C-Retainer Ring            | S12                | 4   |
| 82   | 168738   | Shaft Plate                |                    | 2   |
| 83   | 168746   | Leadscrew                  |                    | 1   |
| 84   | HK009    | Key                        | 5X5X25L            | 1   |
| 86   | 168764   | Name Plate                 |                    | 1   |
| 86-1 | ET2557   | Controller                 | Single Bending     | 1   |
| 86-1 | ET2557-1 | Controller                 | Multiple Bending   | 1   |
| 87   | MET1245  | Emergency Switch           |                    | 1   |
| 88   | MET1222  | Selector Switch            |                    | 1   |
| 89   | HT026    | Cross Round Head Screw     | M5X12L             | 4   |
| 91S  | MET1732  | Power Switch               |                    | 1   |
| 94   | 168777   | Key Lock                   |                    | 1   |
| 96   | 168707-1 | Output shaft(42)           |                    | 1   |
| 97   | 168707   | Output shaft(32)           |                    | 1   |
| 98   | 168030A  | Interval Ring              |                    | 1   |
| 98-1 | 168706   | Interval Ring              | Ø54                | 1   |
| 100S |          | Electronic Control Module  |                    | 1   |
| 101  | 168054   | D213 Roll                  | 1/2"G (Optional)   | 2   |
| 102  | 168055   | D337 Roll                  | 1"G (Optional)     | 2   |
| 103  | 168056   | D423Roll                   | 1 1/4"G (Optional) | 2   |
| 104  | 168773   | D483 Roll                  | 1 1/2"G (Optional) | 2   |
| 106  | 168771   | D483 Former                | 1 1/2"G (Optional) | 1   |
| 107  | 168007   | D213 Former                | 1/2"G (Optional)   | 1   |
| 108  | 168008   | D337 Former                | 1"G (Optional)     | 1   |
| 109  | 168009   | D423 Former                | 1 1/4"G (Optional) | 1   |
| 113  | 168068   | Ring-2                     | 1/2"G (Optional)   | 1   |
| 114  | 168069   | Ring-3                     | 1"G (Optional)     | 1   |



**TB-70 SPARE PARTS LIST Cont.**

| No. | Part No. | Description | Specification                        | Qty |
|-----|----------|-------------|--------------------------------------|-----|
| 115 | 168070   | Ring-4      | 1 1/4"G (Optional)                   | 1   |
| 116 | 168089   | D51 Ring    | D51/1 1/2"G (Optional)               | 1   |
| 121 | 168755   | Gib(A)      | 1 1/4"G(Ø42.7) (Optional)            | 1   |
| 122 | 168756   | Gib(B)      | 1"G(Ø34)X3/4"G(Ø27.2) (Optional)     | 1   |
| 123 | 168757   | Gib(C)      | 1/2"G(Ø21.7)X3/8"G(Ø17.3) (Optional) | 1   |
| 124 | 168758   | Gib(D)      | 1/4"G(Ø13.8)X1/8"G(Ø10.5) (Optional) | 1   |

MACHINERYHOUSE