DIP-SWITCH SETTINGS (- = irrelevant)

| DSW1 in main pieceboard 501335 | ON | OFF |
|---|---|---|
| DIP 1 – dental unit mode | configuration | normal |
| DIP 2 – hot water outlet for spraying | disabled | enabled |
| DIP 3 – not used | - | - |
| DIP 4 – not used | - | - |

ADJUSTMENTS

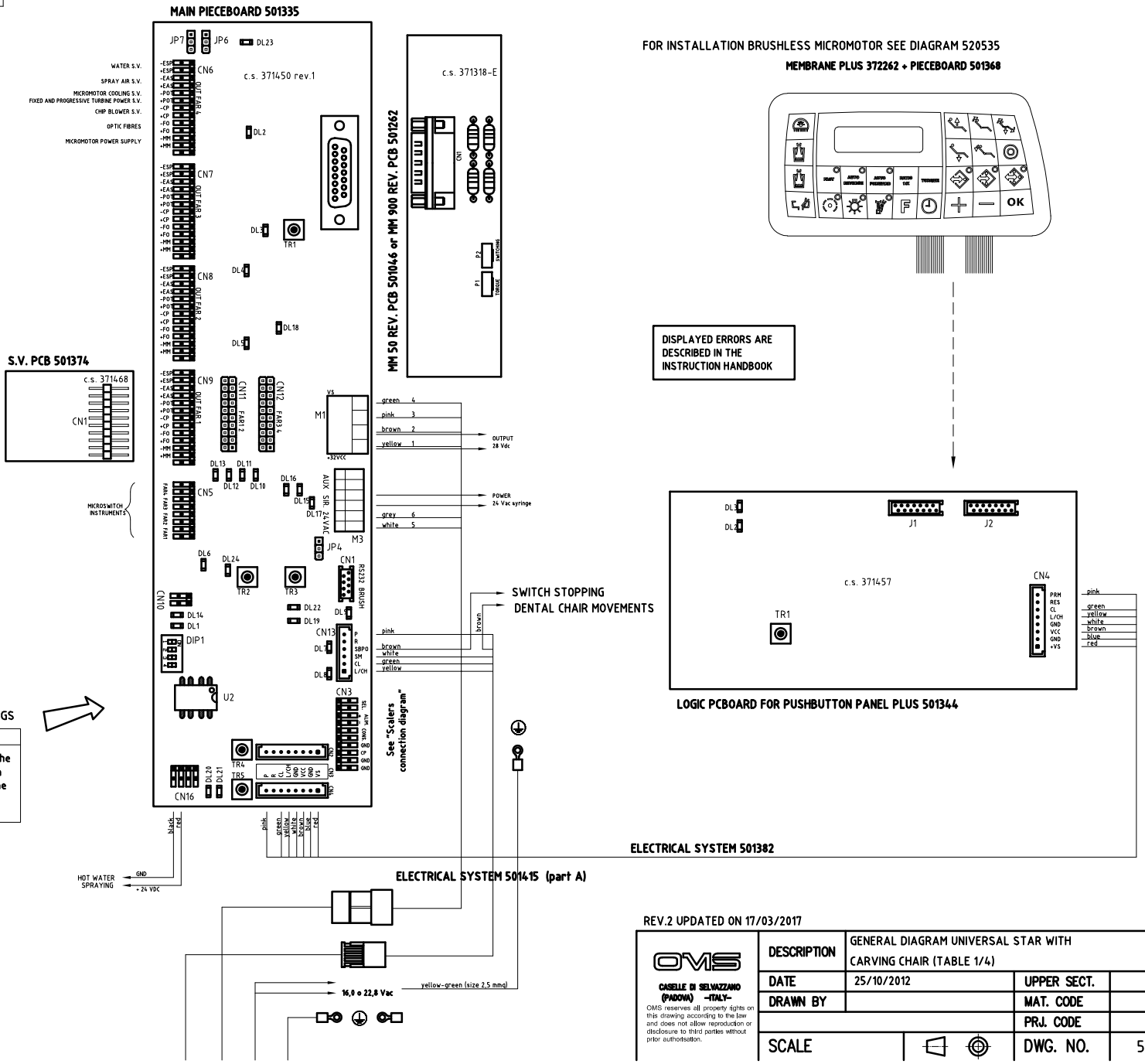
| Main pieceboard 501335 | |
|---|---|
| TR1 | Optic fibre light intensity |
| TR2 | Minimum micromotor speed |
| TR3 | Maximum micromotor speed (Max voltage scaler) |
| TR4 e TR5 | free |
| Micromotor pieceboard 50 rev. 501046 and 900 rev. 501262 | |
| P1 | Analog-to-digital switching |
| P2 | Micromotor torque |
| Logic pcboard 501344 | |
| TR1 | Display contrast adjustment |

WARNING SIGNS

| Main pieceboard 501335 | |
|---|---|
| DL1 | free |
| DL2 | LED – enable delivery unit 4 |
| DL3 | LED – enable delivery unit 3 |
| DL4 | LED – enable delivery unit 2 |
| DL5 | LED – enable delivery unit 1 |
| DL6 | LED – enable optic fibre |
| DL7 | LED – SBPO out |
| DL8 | LED – enable tooth scaler out |
| DL9 | LED – analog exchange MM or tooth scaler out |
| DL10 | LED – inlet of delivery unit 4 |
| DL11 | LED – inlet of delivery unit 3 |
| DL12 | LED – inlet of delivery unit 2 |
| DL13 | LED – inlet of delivery unit 1 |
| DL14 | LED on during EEPROM re-initialization |
| DL15 | LED – 28Vs power on |
| DL16 | LED – VCC 5V power on |
| DL17 | LED – 24VAC2 power on |
| DL18 | LED – enable optic fibre |
| DL19 | LED in SBPO monitor |
| DL20 | LED – reset for prog |
| DL21 | LED – press for prog. |
| DL22 | LED in mot. safety dev. |
| DL23 | LED – invert MM out |
| DL24 | LED – delivery unit interblock output |

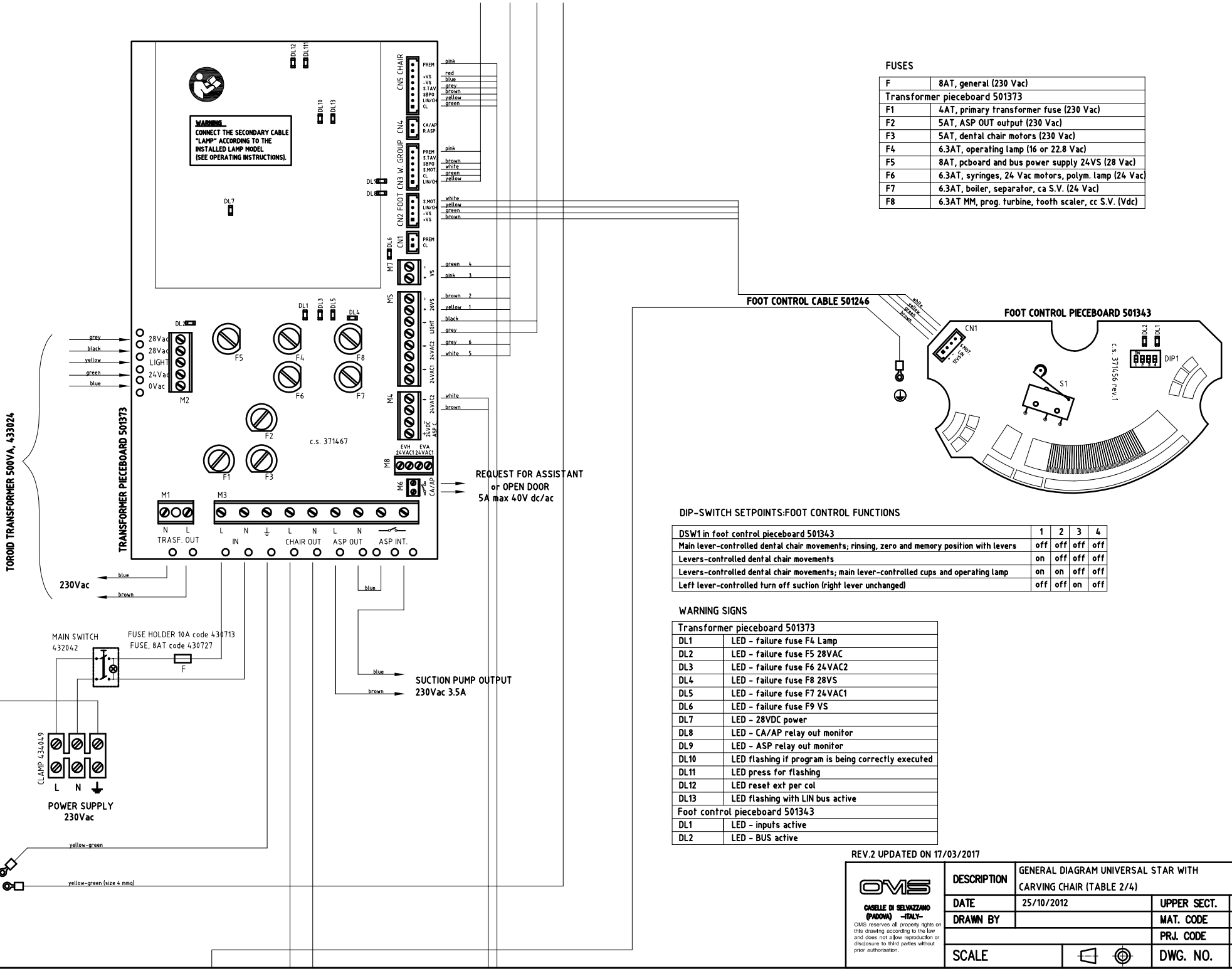
STORAGE DEVICE SETTINGS

| Main pieceboard 501335 |
|---|
| In case of replacement of the general pcboard, move U2 in the new pcboard to keep the settings made. |




REV.2 UPDATED ON 17/03/2017

| | | | |
|---|---|---|---|
| OMS | DESCRIPTION | GENERAL DIAGRAM UNIVERSAL STAR WITH CARVING CHAIR (TABLE 1/4) | |
| CASELLE DI SELVAZZANO (PADOVA) –ITALY– | DATE | 25/10/2012 | UPPER SECT. |
| | DRAWN BY | | MAT. CODE |
| | | | PRJ. CODE |
| | SCALE | | DWG. NO. 520545 |




FUSES

| | |
|---|---|
| F | 8AT, general (230 Vac) |
| Transformer pieceboard 501373 | |
| F1 | 4AT, primary transformer fuse (230 Vac) |
| F2 | 5AT, ASP OUT output (230 Vac) |
| F3 | 5AT, dental chair motors (230 Vac) |
| F4 | 6.3AT, operating lamp (16 or 22.8 Vac) |
| F5 | 8AT, pcboard and bus power supply 24VS (28 Vac) |
| F6 | 6.3AT, syringes, 24 Vac motors, polym. lamp (24 Vac) |
| F7 | 6.3AT, boiler, separator, ca S.V. (24 Vac) |
| F8 | 6.3AT MM, prog. turbine, tooth scaler, cc S.V. (Vdc) |

DIP-SWITCH SETPOINTS:FOOT CONTROL FUNCTIONS

| DSW1 in foot control pieceboard 501343 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Main lever-controlled dental chair movements; rinsing, zero and memory position with levers | off | off | off | off |
| Levers-controlled dental chair movements | on | off | off | off |
| Levers-controlled dental chair movements; main lever-controlled cups and operating lamp | on | on | off | off |
| Left lever-controlled turn off suction (right lever unchanged) | off | off | on | off |

WARNING SIGNS

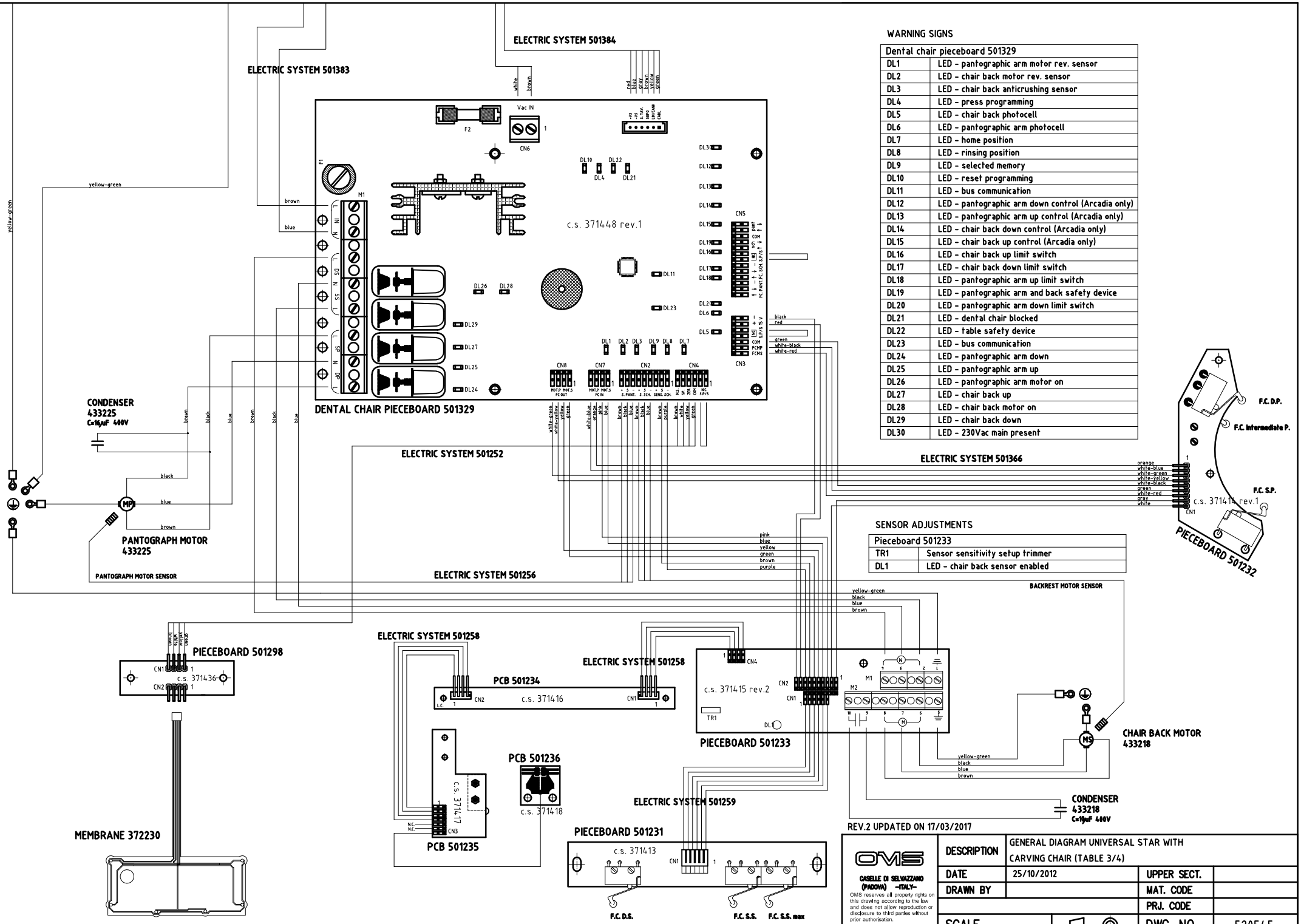
| Transformer pieceboard 501373 | |
|---|---|
| DL1 | LED - failure fuse F4 Lamp |
| DL2 | LED - failure fuse F5 28VAC |
| DL3 | LED - failure fuse F6 24VAC2 |
| DL4 | LED - failure fuse F8 28VS |
| DL5 | LED - failure fuse F7 24VAC1 |
| DL6 | LED - failure fuse F9 VS |
| DL7 | LED - 28VDC power |
| DL8 | LED - CA/AP relay out monitor |
| DL9 | LED - ASP relay out monitor |
| DL10 | LED flashing if program is being correctly executed |
| DL11 | LED press for flashing |
| DL12 | LED reset ext per col |
| DL13 | LED flashing with LIN bus active |
| Foot control pieceboard 501343 | |
| DL1 | LED - inputs active |
| DL2 | LED - BUS active |

REV.2 UPDATED ON 17/03/2017


OMS
CASELLE DI SELVAZZANO (PADOVA) -ITALY-



| | | | |
|---|---|---|---|
| DESCRIPTION | GENERAL DIAGRAM UNIVERSAL STAR WITH CARVING CHAIR (TABLE 2/4) | | |
| DATE | 25/10/2012 | UPPER SECT. | |
| DRAWN BY | | MAT. CODE | |
| | | PRJ. CODE | |
| SCALE | | DWG. NO. | 520545 |




## WARNING SIGNS

| Dental chair pieceboard 501329 | |
|---|---|
| DL1 | LED - pantographic arm motor rev. sensor |
| DL2 | LED - chair back motor rev. sensor |
| DL3 | LED - chair back anticrushing sensor |
| DL4 | LED - press programming |
| DL5 | LED - chair back photocell |
| DL6 | LED - pantographic arm photocell |
| DL7 | LED - home position |
| DL8 | LED - rinsing position |
| DL9 | LED - selected memory |
| DL10 | LED - reset programming |
| DL11 | LED - bus communication |
| DL12 | LED - pantographic arm down control (Arcadia only) |
| DL13 | LED - pantographic arm up control (Arcadia only) |
| DL14 | LED - chair back down control (Arcadia only) |
| DL15 | LED - chair back up control (Arcadia only) |
| DL16 | LED - chair back up limit switch |
| DL17 | LED - chair back down limit switch |
| DL18 | LED - pantographic arm up limit switch |
| DL19 | LED - pantographic arm and back safety device |
| DL20 | LED - pantographic arm down limit switch |
| DL21 | LED - dental chair blocked |
| DL22 | LED - table safety device |
| DL23 | LED - bus communication |
| DL24 | LED - pantographic arm down |
| DL25 | LED - pantographic arm up |
| DL26 | LED - pantographic arm motor on |
| DL27 | LED - chair back up |
| DL28 | LED - chair back motor on |
| DL29 | LED - chair back down |
| DL30 | LED - 230Vac main present |



| | | | |
|---|---|---|---|
| DESCRIPTION | GENERAL DIAGRAM UNIVERSAL STAR WITH CARVING CHAIR (TABLE 3/4) | | |
| DATE | 25/10/2012 | UPPER SECT. | |
| DRAWN BY | | MAT. CODE | |
| | | PRJ. CODE | |
| SCALE | | DWG. NO. | 520545 |

# LIST OF DISPLAYED ERRORS

| | |
|---|---|
| E000 | foot control pcboard is not connected or is malfunctioning |
| E001 | pushbutton panel pcboard is not connected or is malfunctioning |
| E002 | pcboard of the floor-mounted box not connected or malfunctioning |
| E003 | pcboard of the assistant table is not connected or is malfunctioning |
| E004 | dental chair pcboard is not connected or is malfunctioning |
| E005 | main pcboard is not connected or is malfunctioning |
| E006 | water group pcboard is not connected or is malfunctioning |
| E007 | faulty drive micromotor |
| E016 | other error |
| E017 | power protection |
| E018 | motor phase missing |
| E019 | serial communication timeout |
| E020 | invalid EEPROM error |
| E021 | over temperature error |
| E022 | under voltage error |
| E023 | over voltage error |
| E024 | additional board disconnected (after startup) error |
| E025 | timeout with additional board error |
| E026 | invalid additional board version error |
| E027 | invalid EEPROM in additional board error |
| E028 | invalid mode error |
| E029 | not used (free) |
| E030 | frame error |
| E031 | communication error between RS232 |
| E032 | 28DC power fuse broken (fuse F8) |
| E033 | 24AC power fuse 1 broken (fuse F7) |
| E034 | Lamp fuse broken (fuse F4) |
| E035 | 24AC power fuse 2 broken (fuse F6) |
| E036 | output suction short circuit |
| E037 | output assistant call short circuit |
| E038 | overcurrent in branch 2, 24 AC |
| E039 | pcboards and bus overcurrent |
| E040 | switching overheated |
| E041 | stabilised 28 DC voltage error |
| E042 | rectified 28 DC voltage error |
| E043 | 24 AC voltage error |
| E044 | lamp voltage error |
| E045 | stabilised 24 DC voltage error |
| E046 | overcurrent in branch 1, 24 AC |
| E047 | lamp overcurrent |
| E064 | "motor safety device" signal error |
| E065 | EEPROM error water group pcboard |
| E066 | EEPROM error main pcboard |
| E067 | EEPROM error pushbutton panel pcboard |
| E068 | a touch is stuck in the instrument table pushbutton panel |
| E069 | a touch is stuck in the assistent table pushbutton panel |
| E070 | DAC error: dc micromotor and scaler |
| E071 | overheating micromotor driver error |
| E072 | battery error pedal wireless |
| EP01 | power solenoid valve short circuit |
| EP03 | short circuit power solenoid valve to grounding system |
| EA01 | water solenoid valve short circuit |
| EA03 | short circuit water solenoid valve to grounding system |
| EC01 | chip blower solenoid valve short circuit |
| EC03 | short circuit chip blower solenoid valve to grounding system |
| ES01 | spray solenoid valve short circuit |
| ES03 | short circuit spray solenoid valve to grounding system |
| EL01 | wash output short circuit |
| EL03 | short circuit wash output to grounding system |
| EZ01 | shutter output short circuit |
| EZ03 | short circuit shutter output to grounding system |
| EX01 | shutter output 1 short circuit |
| EX03 | short circuit shutter output 1 to grounding system |
| EY01 | shutter output 2 short circuit |
| EY03 | short circuit shutter output 2 to grounding system |
| EH01 | assistant call / open door output short circuit |
| EH03 | short circuit assistente call/open door output to grounding system |
| ER01 | suction output short circuit |
| ER03 | short circuit suction output to grounding system |
| EQ01 | short circuit in distilled / standard water exchange output |
| EQ03 | short circuit to grounding system of distill./st.d. water exchange out |
| EB01 | chair release piston output short circuit |
| EB03 | short circuit to grounding system of chair release piston output |

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CASELLE DI SELVAZZANO
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| | | | |
|---|---|---|---|
| DESCRIPTION | GENERAL DIAGRAM UNIVERSAL STAR WITH CARVING CHAIR (TABLE 4/4) | | |
| DATE | 25/10/2012 | UPPER SECT. | |
| DRAWN BY | | MAT. CODE | |
| | | PRJ. CODE | |
| SCALE | | DWG. NO. | 520545 |