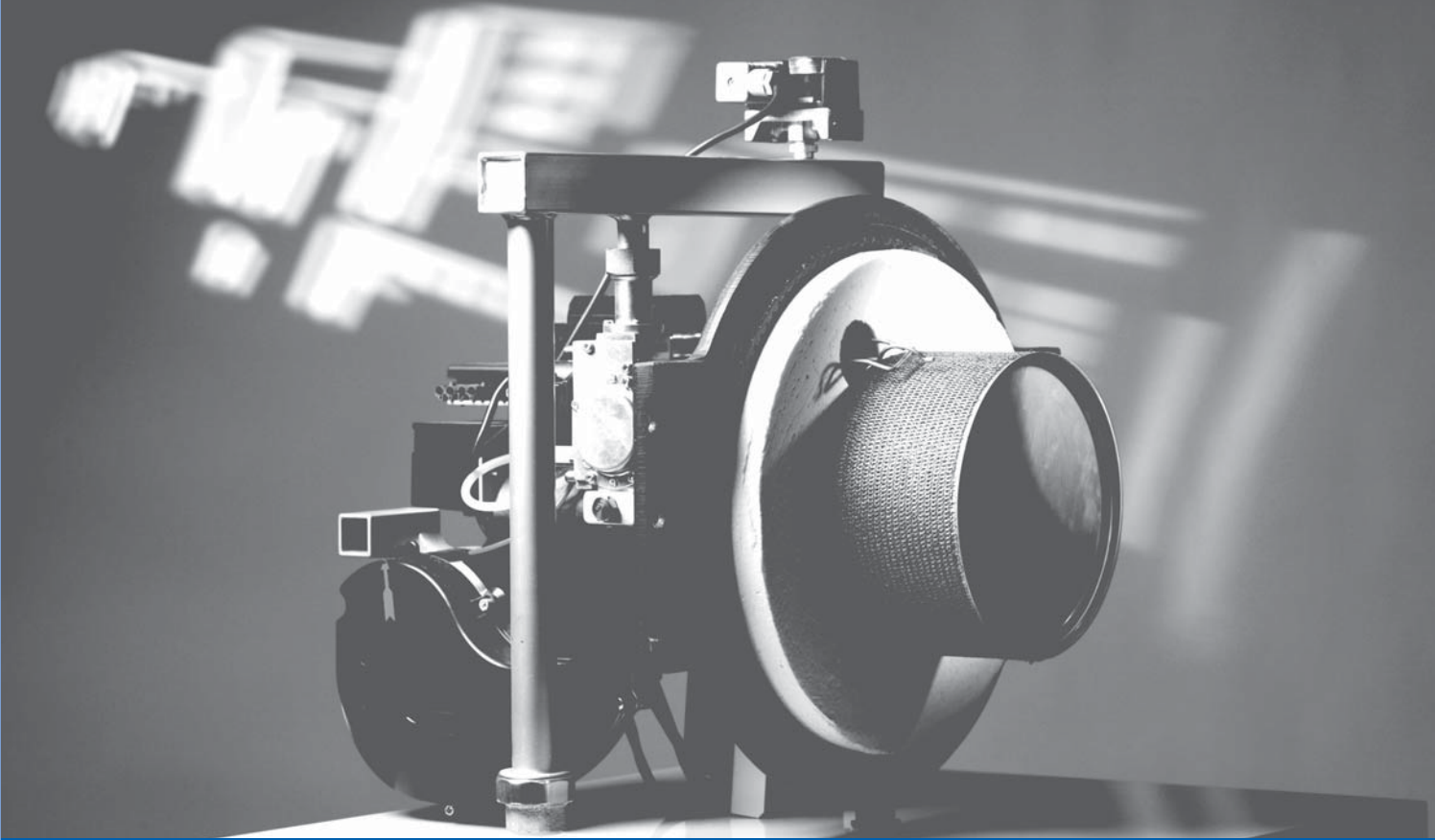


Buderus



Commercial Burner Specifications

Buderus

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BECKETT OIL BURNER SELECTION CHART

BUDERUS G515 SERIES CAST IRON BOILERS

BOILER MODEL	BECKETT BURNER MODEL	IBR FUEL INPUT		AIR TUBE COMBINATION	HEAD SETTING	LOW FIRE AIR OR SHUTTER	HIGH FIRE AIR OR BAND	OIL BURNER NOZZLE INFO (PSI)	
		OIL (US GPH)	INSERTION DEPTH					PUMP PRESSURE (PSI)	NOZZLE
G515/7	CF1400	6.9	6"	CF102KD	5.0	2.0	3.0	150 - LOW FIRE	4.00 x 60P
								300 - HIGH FIRE	
G515/8	CF1400	8.4	6"	CF102KD	9.0	3.0	4.25	150 - LOW FIRE	5.00 x 60P
								275 - HIGH FIRE	
G515/9	CF2300A	10.0	6"	CF102KG	0.0	2.0	3.25	150 - LOW FIRE	5.50 x 45P
								300 - HIGH FIRE	
G515/10	CF2300A	11.6	6"	CF102KG	2.0	2.5	4.0	150 - LOW FIRE	6.50 x 45P
								300 - HIGH FIRE	
G515/11	CF2300A	13.0	6"	CF102KG	6.0	2.5	4.0	150 - LOW FIRE	7.50 x 45P
								300 - HIGH FIRE	
G515/12	CF2300A	14.6	6"	CF102KG	8.5	3.0	7.0	150 - LOW FIRE	8.50 x 45P
								300 - HIGH FIRE	

BUDERUS G615 SERIES CAST IRON BOILERS

BOILER MODEL	BECKETT BURNER MODEL	IBR FUEL INPUT		AIR TUBE COMBINATION	HEAD SETTING	LOW FIRE AIR OR SHUTTER	HIGH FIRE AIR OR BAND	OIL BURNER NOZZLE INFO (PSI)	
		OIL (US GPH)	INSERTION DEPTH					PUMP PRESSURE (PSI)	NOZZLE
G615/9	CF2300A	16.0	6-1/4"	CF102KG	5.0	3.0	6.0	150 - LOW FIRE	9.00 x 45P
								300 - HIGH FIRE	
G615/10	CF2500	18.5	6-1/4"	CF102KP	2.0	0.5	2.50	300 - LOW FIRE	5.00 x 45P (2X)
								300 - HIGH FIRE	
G615/11	CF2500	21.0	6-1/4"	CF102KP	5.0	1.0	4.00	300 - LOW FIRE	6.00 x 45P (2X)
								300 - HIGH FIRE	
G615/12	CF3500A	23.5	6-1/4"	CF102KM	4.5	0.75	3.5	300 - LOW FIRE	6.50 x 45P (2X)
								300 - HIGH FIRE	
G615/13	CF3500A	26.0	6-1/4"	CF102KM	5.0	1.0	4.0	300 - LOW FIRE	7.50 x 45P (2X)
								300 - HIGH FIRE	
G615/14	CF3500A	28.5	6-1/4"	CF102KR	6.0	1.0	6.0	300 - LOW FIRE	8.50 x 60P (2X)
								300 - HIGH FIRE	

RIELLO BURNERS NORTH AMERICA
RL SERIES OIL & RLS SERIES DUAL FUEL BURNER SELECTION CHART
BUDERUS G515 SERIES CAST IRON BOILERS

BOILER MODEL	RIELLO BURNER OIL/DUAL FUEL	IBR FUEL INPUT		CHAMBER PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	MANIFOLD PRESSURE (INCHES W.C.)	OIL BURNER NOZZLE INFO (PSI)	
		OIL (US GPH)	GAS (MBH)				PUMP PRESSURE (PSI)	NOZZLE (SOLID SPRAY)
G515/7	RL 28/2	6.9	995	0.22	3.0	N/A	175 - 1 ST STAGE	2.75 X 60°
	RLS 28						175 - 2 ND STAGE	2.50 X 60°
	RLS 28	4.0	3.69	175 - 1 ST STAGE	2.75 X 60°			
				175 - 2 ND STAGE	2.50 X 60°			
G515/8	RL 28/2	8.4	1216	0.48	5.0	N/A	175 - 1 ST STAGE	3.25 X 60°
	RLS 28						175 - 2 ND STAGE	3.00 X 60°
	RLS 28	6.0	4.74	175 - 1 ST STAGE	3.25 X 60°			
				175 - 2 ND STAGE	3.00 X 60°			
G515/9	RL 38/2	10.0	1438	0.55	6.0	N/A	175 - 1 ST STAGE	4.00 X 60°
	RLS 38						175 - 2 ND STAGE	3.50 X 60°
	RLS 38	4.0	4.92	175 - 1 ST STAGE	4.00 X 60°			
				175 - 2 ND STAGE	3.50 X 60°			
G515/10	RL 38/2	11.6	1660	1.00	6.0	N/A	175 - 1 ST STAGE	4.50 X 60°
	RLS 38						175 - 2 ND STAGE	4.50 X 60°
	RLS 38	6.0	6.09	175 - 1 ST STAGE	4.50 X 60°			
				175 - 2 ND STAGE	4.50 X 60°			
G515/11	RL 50/2	13.0	1881	1.17	6.0	N/A	175 - 1 ST STAGE	5.00 X 60°
	RLS 50						175 - 2 ND STAGE	5.00 X 60°
	RLS 50	4.0	5.84	175 - 1 ST STAGE	5.00 X 60°			
				175 - 2 ND STAGE	5.00 X 60°			
G515/12	RL 50/2	14.6	2103	1.11	6.0	N/A	175 - 1 ST STAGE	5.50 X 60°
	RLS 50						175 - 2 ND STAGE	5.50 X 60°
	RLS 50	5.0	6.37	175 - 1 ST STAGE	5.50 X 60°			
				175 - 2 ND STAGE	5.50 X 60°			

NOZZLE SELECTION NOTE:

- USAGE OF 30-45-60-70-80-90° NOZZLE ANGLES ARE ACCEPTABLE
- NOZZLE MANUFACTURERS = DELAVAN, HAGO & DANFOSS
- NOZZLE SPRAY TYPES - SOLID SPRAY RECOMMENDED
- NOZZLE SIZES & PUMP PRESSURE BASED ON CALCULATED OUTPUT

GAS MANIFOLD NOTE:

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO2 LEVELS OF 9 - 10%
- BASED ON SEA LEVEL 0 - 2000 FT
- NATURAL GAS HHV = 1010 BTU PER FT3/Hr.

RIELLO BURNERS NORTH AMERICA
RL SERIES OIL & RLS SERIES DUAL FUEL BURNER SELECTION CHART
BUDERUS G615 SERIES CAST IRON BOILERS

BOILER MODEL	FUEL TYPE	IBR FUEL INPUT GAS (MBH)	IBR FUEL INPUT OIL (US GPH)	IBR FUEL INPUT GAS (MBH)	GAS MANIFOLD PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	GAS MANIFOLD PRESSURE (INCHES W.C.)	OIL BURNER NOZZLE SIZES SUPPLY PRESSURE (PSIG ± 5%)	
								PUMP PRESSURE	NOZZLE INFO. (SOLID SPRAY)
G615-9	OIL	RL 70/2	16.0	2309	0.85	3.0	N/A	175	6.00 X 60°
								175	6.00 X 60°
	DUAL FUEL	RLS 70					N/A	175	6.00 X 60°
								175	6.00 X 60°
G615-10	OIL	RL 70/2	18.5	2670	1.07	6.0	N/A	175	7.00 X 60°
								175	7.00 X 60°
	DUAL FUEL	RLS 70					3.42	175	7.00 X 60°
								175	7.00 X 60°
G615-11	OIL	RL 70/2	21.0	3031	1.3	8.0	N/A	175	8.00 X 60°
								175	8.00 X 60°
	DUAL FUEL	RLS 70					3.72	175	8.00 X 60°
								175	8.00 X 60°
G615-12	OIL	RL 100/2	23.5	3392	1.6	4.0	N/A	175	9.00 X 60°
								175	9.00 X 60°
	DUAL FUEL	RLS 100					5.11	175	9.00 X 60°
								175	9.00 X 60°
G615-13	OIL	RL 100/2	26.0	3753	1.4	5.0	N/A	175	10.0 X 60°
								175	10.0 X 60°
	DUAL FUEL	RLS 100					5.06	175	10.0 X 60°
								175	10.0 X 60°
G615-14	OIL	RL 100/2	28.5	4113	1.4	7.0	N/A	175	11.0 X 60°
								175	11.0 X 60°
	DUAL FUEL	RLS 100					5.22	175	11.0 X 60°
								175	11.0 X 60°
G615-15	OIL	RL 100/2	31.0	4474	1.4	8.0	N/A	175	12.0 X 60°
								175	11.5 X 60°
	DUAL FUEL	RLS 130				7.0	5.33	175	12.0 X 60°
								175	11.5 X 60°
G615-16	OIL	RL 130/2	33.5	4835	1.5	9.0	N/A	175	13.0 X 60°
								175	12.5 X 60°
	DUAL FUEL	RLS 130					5.66	175	13.0 X 60°
								175	12.5 X 60°

NOZZLE SELECTION NOTE:

- EACH BURNER TO BE EQUIPPED WITH TWO NOZZLES FOR TWO STAGE OPERATION
- USAGE OF 30-45-60-70-80-90° NOZZLE ANGLES ARE ACCEPTABLE
- NOZZLE MANUFACTURERS = DELAVAN, HAGO & DANFOSS
- NOZZLE SPRAY TYPES - SOLID SPRAY RECOMMENDED
- NOZZLE SIZES & PUMP PRESSURE BASED ON CALCULATED OUTPUT

GAS MANIFOLD NOTE:

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO₂ LEVELS OF 9 - 10%
- BASED ON SEA LEVEL 0 - 2000 FT
- NATURAL GAS HHV = 1010 BTU PER FT³/Hr.

RIELLO BURNERS NORTH AMERICA
RS SERIES GAS & Low NOX RS GAS BURNER SELECTIONS
BUDERUS G515 SERIES CAST IRON BOILERS

BOILER MODEL	RIELLO BURNER MODEL	INPUT GAS (MBH)	CHAMBER PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	GAS MANIFOLD (INCHES W.C.)
G515 - 7	RS 28/M	995	0.22	4.0	2.42
	RS 45/M LN			R1 = 2.0	2.56
				R2 = 1.0 R3 = 0.0	
G515 - 8	RS 28/M	1216	0.48	6.0	3.38
	RS 45/M LN			R1 = 3.0	3.70
				R2 = 2.0 R3 = 1.0	
G515 - 9	RS 38/M	1438	0.55	4.0	2.68
	RS 45/M LN			R1 = 5.0	4.53
				R2 = 3.0 R3 = 1	
G515 - 10	RS 38/M	1660	1.00	6.0	3.59
	RS 45/M LN			R1 = 6.0	5.52
				R2 = 4.0 R3 = 2.0	
G515 - 11	RS 50/M	1881	1.17	4.0	3.42
	RS 45 LN			R1 = 6.0	6.26
				R2 = 5.0 R3 = 4.0	
G515 - 12	RS 50/M	2103	1.11	6.0	3.77
	RS 68/M LN			R1 = 6.0	3.43
				R2 = 6.0 R3 = 6.0	

GAS MANIFOLD NOTE:

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO₂ LEVELS OF 9 - 10%
- BASED ON SEA LEVEL 0 - 2000 FT
- NATURAL GAS HH_v = 1010 BTU PER FT³/Hr.

RIELLO BURNERS NORTH AMERICA
RS SERIES GAS & Low NOX RS GAS BURNER SELECTION
BUDERUS G615 SERIES CAST IRON BOILERS

BOILER MODEL	RIELLO BURNER MODEL	IBR FUEL INPUT GAS (MBH)	CHAMBER PRESSURE (INCHES W.C.)	COMB. HEAD SETTING	GAS MANIFOLD PRESSURE (INCHES W.C.)
G615 - 9	RS 70/M	2309	0.85	3.0	3.33
	RS 68/M LN			R1=4.0 & R2 = 4.0	3.57
G615 - 10	RS 70/M	2670	1.07	6.0	4.26
	RS 68/M LN			R1=2.0 & R2 = 6.0	4.53
G615 - 11	RS 70/M	3031	1.3	8.0	5.25
	RS 68/M LN			R1=1.0 & R2 = 7.0	5.47
G615 - 12	RS 100/M	3392	1.6	4.0	3.9
	RS 120/M LN			R1=3.0 & R2 = 4.0	6.48
G615 - 13	RS 100/M	3753	1.4	5.0	4.13
	RS 120/M LN			R1=2.0 & R2 = 5.0	7.32
G615 - 14	RS 100/M	4113	1.4	7.0	4.68
	RS 120/M LN			R1=1.0 & R2 = 7.0	8.1
G615 - 15	RS 130/M	4474	1.4	6.0	3.72
	RS 120/M LN			R1=0.0 & R2 = 9.0	8.69
G615 - 16	RS 130/M	4835	1.5	9.0	4.15
	RS 160/M LN			R1 = 6.0 & R2 = 0.0	4.77

GAS MANIFOLD NOTE:

- MANIFOLD PRESSURE PROVIDED BASED ON CHAMBER PRESSURES SHOWN IN CHART
- BASED ON CO₂ LEVELS OF 9 - 10%
- BASED ON SEA LEVEL 0 - 2000 FT
- NATURAL GAS HH_v = 1010 BTU PER FT³/Hr.



**RIELLO BURNERS NORTH AMERICA ~ OEM BURNER SELECTION CHART
BUDERUS SB 615 SERIES CONDENSING GAS BOILERS**

BOILER MODEL	RIELLO BURNER MODEL	COMBUSTION HEAD TYPE	IBR FUEL INPUT GAS (MBH ± 5%)	IBR GROSS OUTPUT (MBH ± 5%)	IBR NET WATER (MBH ± 5%)	IBR THERMAL EFFICIENCY %	IBR COMBUSTION EFFICIENCY %	CHAMBER PRESSURE (INCHES W.C.)	BURNER FIRING SEQUENCE	COMBUSTION HEAD SETTING	COMBUSTION AIR SETTING	GAS MANIFOLD (INCHES W.C.)
SB615-145	40 G900	STANDARD	506	484	421	95.56	97.1	0.49	LFS - 2 STAGE	0.5	3.5	3.38
	40 G900	STANDARD	644	612	532	95.02	96.7	0.63	LFS - 2 STAGE	1.0	4.0	3.39
SB615-240	RS 28/M	STANDARD	835	791	688	94.77	96.5	0.89	LFS - 2 STAGE - MOD.	3.0	50°	2.59
	RS 45/M LOW NO _x								LFS - 2 STAGE - MOD. R1 - R2 - R3 = 0	5.0	50°	2.67
SB615-310	RS 28/M	STANDARD	1080	1022	889	94.63	96.4	0.97	LFS - 2 STAGE - MOD.	5.0	70°	3.65
	RS 45/M LOW NO _x								LFS - 2 STAGE - MOD. R1 = 3.0 R2 = 2.0 R3 = 0.0		70°	3.9
SB615-400	RS 38/M	STANDARD	1393	1317	1145	94.53	96.3	1.22	LFS - 2 STAGE - MOD.	4.0	60°	3.25
	RS 45/M LOW NO _x								LFS - 2 STAGE - MOD. R1 = 5.0 R2 = 3.0 R3 = 1.0		60°	5.14
SB615-510	RS 50/M	STANDARD	1776	1678	1459	94.47	96.2	1.44	LFS - 2 STAGE - MOD.	4.0	60°	3.52
	RS 45/M LOW NO _x								LFS - 2 STAGE - MOD. R1 = 6.0 R2 = 4.0 R3 = 3.0		60°	6.31
SB615-640	RS 70/M	STANDARD	2228	2104	1830	94.42	96.2	1.78	LFS - 2 STAGE - MOD.	3.0	50°	4.13
	RS 68/M LOW NO _x								LFS - 2 STAGE - MOD. R1 = 4.0 R2 = 3.0		50°	4.34



RIELLO BURNERS NORTH AMERICA ~ OEM BURNER SELECTION CHART
BUDERUS SB 735 SERIES CONDENSING GAS BOILERS

BOILER MODEL	RIELLO BURNER MODEL	COMBUSTION HEAD TYPE	IBR FUEL INPUT GAS (MBH ± 5%)	IBR GROSS OUTPUT (MBH ± 5%)	IBR NET WATER MBH	IBR THERMAL EFFICIENCY %	IBR COMBUSTION EFFICIENCY %	CHAMBER PRESSURE (INCHES W.C.)	BURNER FIRING SEQUENCE	COMBUSTION AIR SETTING	COMBUSTION HEAD SETTING	GAS MANIFOLD (INCHES W.C.)
SB735-790	RS 70/M	STANDARD	2,751	2,605	2,265	96.9	94.7	1.98	LFS - 2 STAGE - MOD.	70°	7.0	5.38
	RS68/M LOW NOx											
SB735-970	RS 100/M	STANDARD	3,378	3,251	2,827	96.3	95.6	2.31	LFS - 2 STAGE - MOD.	60°	4.0	4.60
	RS 120/M LOW NOx											
SB735-1200	RS 100/M	STANDARD	4,179	4,079	3,547	97.6	96.5	2.6	LFS - 2 STAGE - MOD.	80°	8.0	5.96
	RS 120/M LOW NOx											
										80°	RI = 1.0 R2 = 7.0	9.43

R2107 /w FM242 Settings for Riello Modulating RS Gas Burners

Refer to pages 13 to 15 in the R2107 Service Manual for programming details.

MIN MOD is the minimum firing rate as a percentage of the maximum input.

MOD TIME is the travel time in seconds for a modulation burner from low fire to high fire.

Both settings must be programmed when operating a Riello RS series burner with a R2107 and FM242 programmed for modulating operation. Program the R2107 for "MODULATE" program setting and follow the instructions in the Service Manual.

G515 Cast Iron Boiler Series

Burner	Boiler Model	Max Input (MBH)	MIN MOD	MOD TIME
RS38/M	G515/7	995	30	25
RS38/M	/8	1216	25	25
RS38/M	/9	1438	24	25
RS38/M	/10	1660	30	25
RS50/M	/11	1881	32	25
RS50/M	/12	2103	29	25

G615 Cast Iron Boiler Series

Burner	Boiler Model	Max Input (MBH)	MIN MOD	MOD TIME
RS70/M	G615/9	2309	35	35
RS70/M	/10	2670	35	35
RS70/M	/11	3031	35	35
RS100/M	/12	3392	40	35
RS100/M	/13	3753	37	35
RS100/M	/14	4113	34	35
RS130/M	/15	4474	36	35
RS130/M	/16	4835	35	35

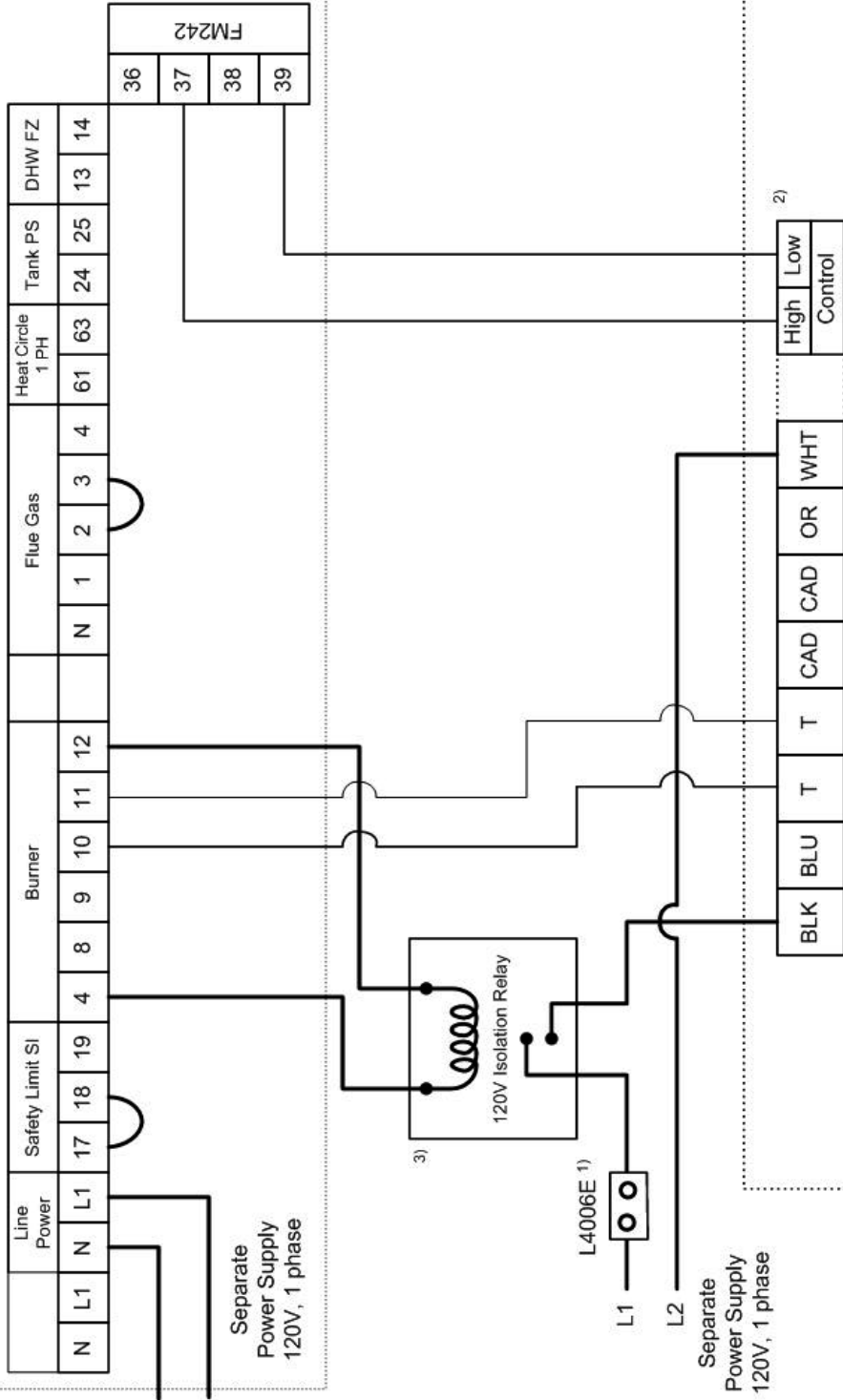
SB615 Stainless Steel Condensing Boiler Series

Burner	Boiler Model	Max Input (MBH)	MIN MOD	MOD TIME
900N	SB615/145	506	N/A	N/A
900N	/185	644	N/A	N/A
RS28/M	/240	835	40	25
RS28/M	/310	1080	32	25
RS38/M	/400	1393	33	25
RS50/M	/510	1776	35	25
RS70/M	/640	2228	50	35

SB735 Stainless Steel Condensing Boiler Series

Burner	Boiler Model	Max Input (MBH)	MIN MOD	MOD TIME
RS70/M	/790	2751	45	35
RS100/M	/970	3378	45	35
RS100/M	/1200	4079	45	35

R2107 Terminal



Beckett CF1400 - CF2300 Burner Terminal

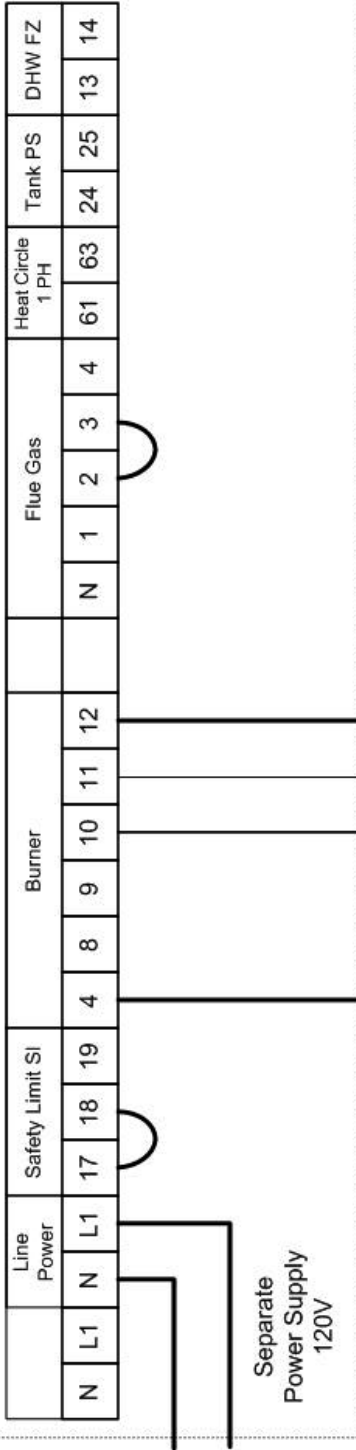


Wiring Diagram for Beckett CF1400 – CF2300 and R2107 w/ FM242
 Burner Operating Mode: LHL

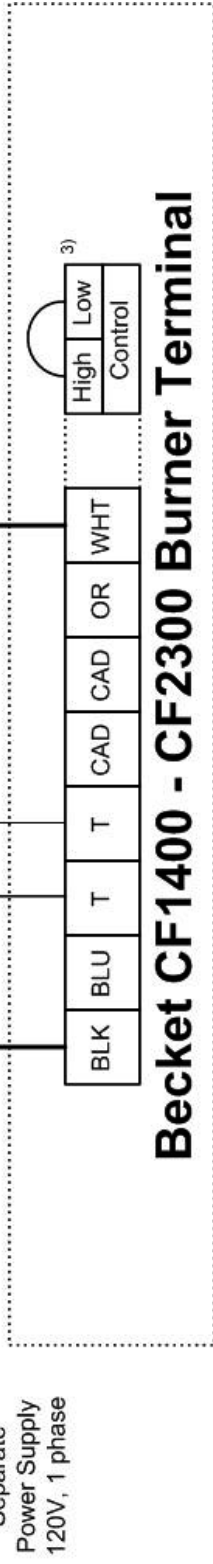
Drawn by:	Holger Hinse	Date:	12/08/2003
Version No:	1	Drawing No:	2003-0003

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Please look for Beckett wiring diagram for 2-stage-operation.
 - 3) Isolation Relay is provided with by burner.

R2107 Terminal



Beckett CF1400 - CF2300 Burner Terminal



Note:

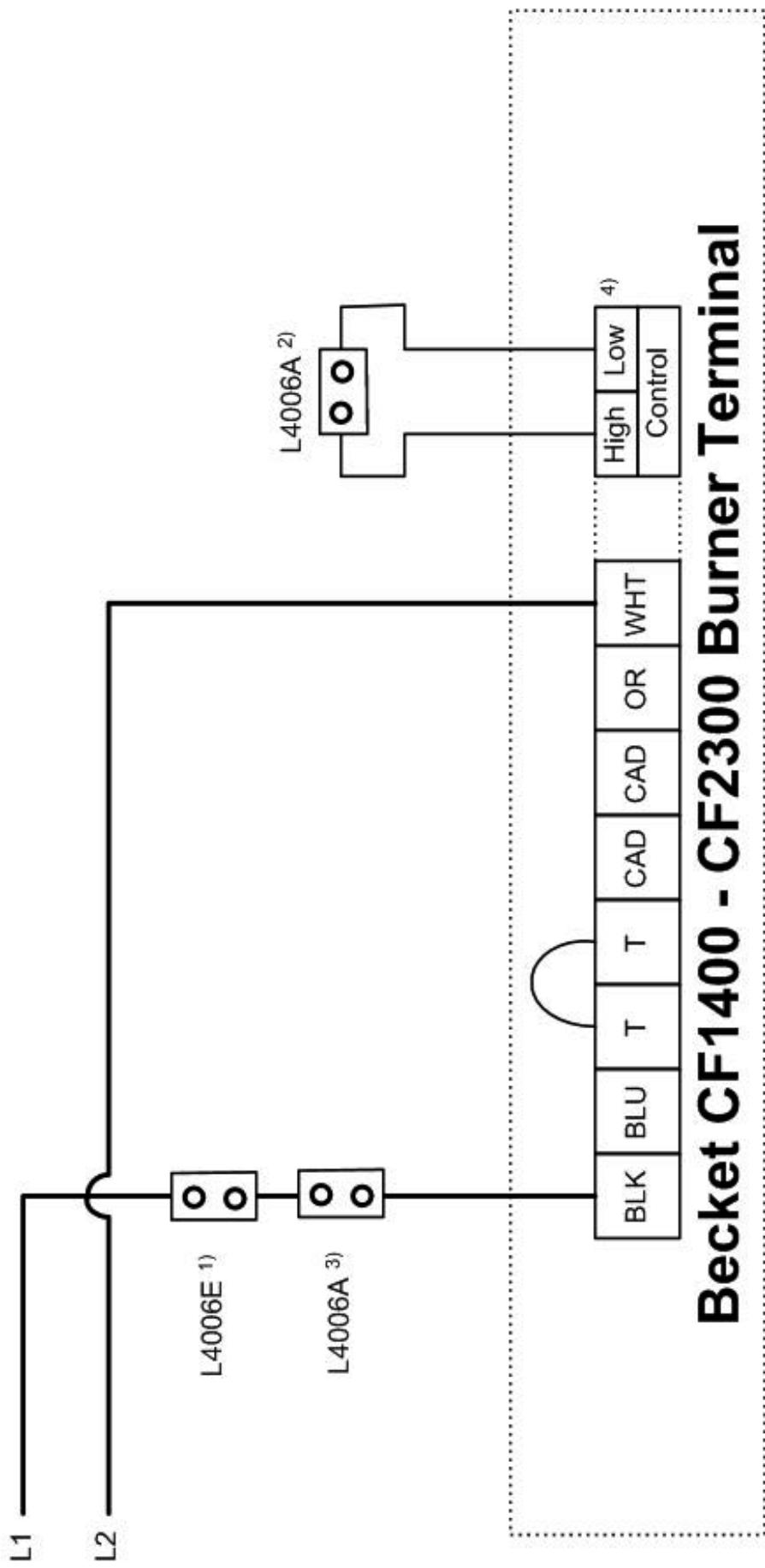
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
- 2) Isolation Relay is provided with by burner.
- 3) Jumper has to be installed for LHO operation. Please look for Beckett wiring diagram.

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HYDRONIC SYSTEMS

Wiring Diagram for Beckett CF1400 – CF2300 and R2107
Burner Operating Mode: LHO

Drawn by:	Holger Hinse	Date:	12/30/2003
Version No:	1	Drawing No:	2003-0026



Beckett CF1400 - CF2300 Burner Terminal

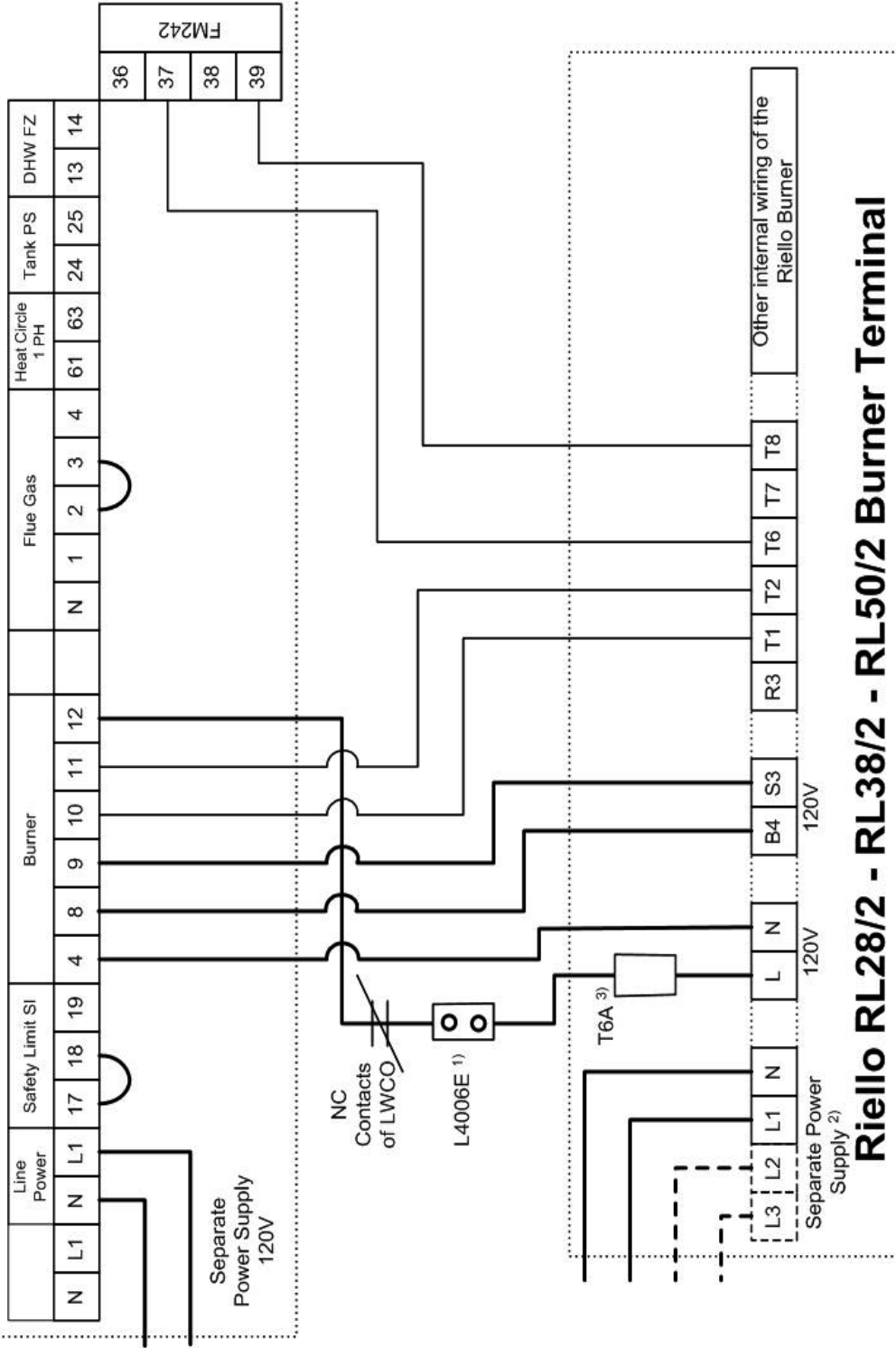
- Note:
- 1) L4006E is required for code compliance.
 - 2) Set this aquastat 10° lower than aquastat³⁾ with differential of 10° F
 - 3) Set this aquastat 10° higher than aquastat²⁾ with differential of 20° F
 - 4) Jumper has to be installed for LHO operation. Please look for Beckett wiring diagram.

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HYDRONIC SYSTEMS

Wiring Diagram for Beckett CF1400 – CF2300 and Standard Controls
Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/30/2003
Version No:	1	Drawing No:	2003-0027

R2107 Terminal



Riello RL28/2 - RL38/2 - RL50/2 Burner Terminal

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HYDRONIC SYSTEMS

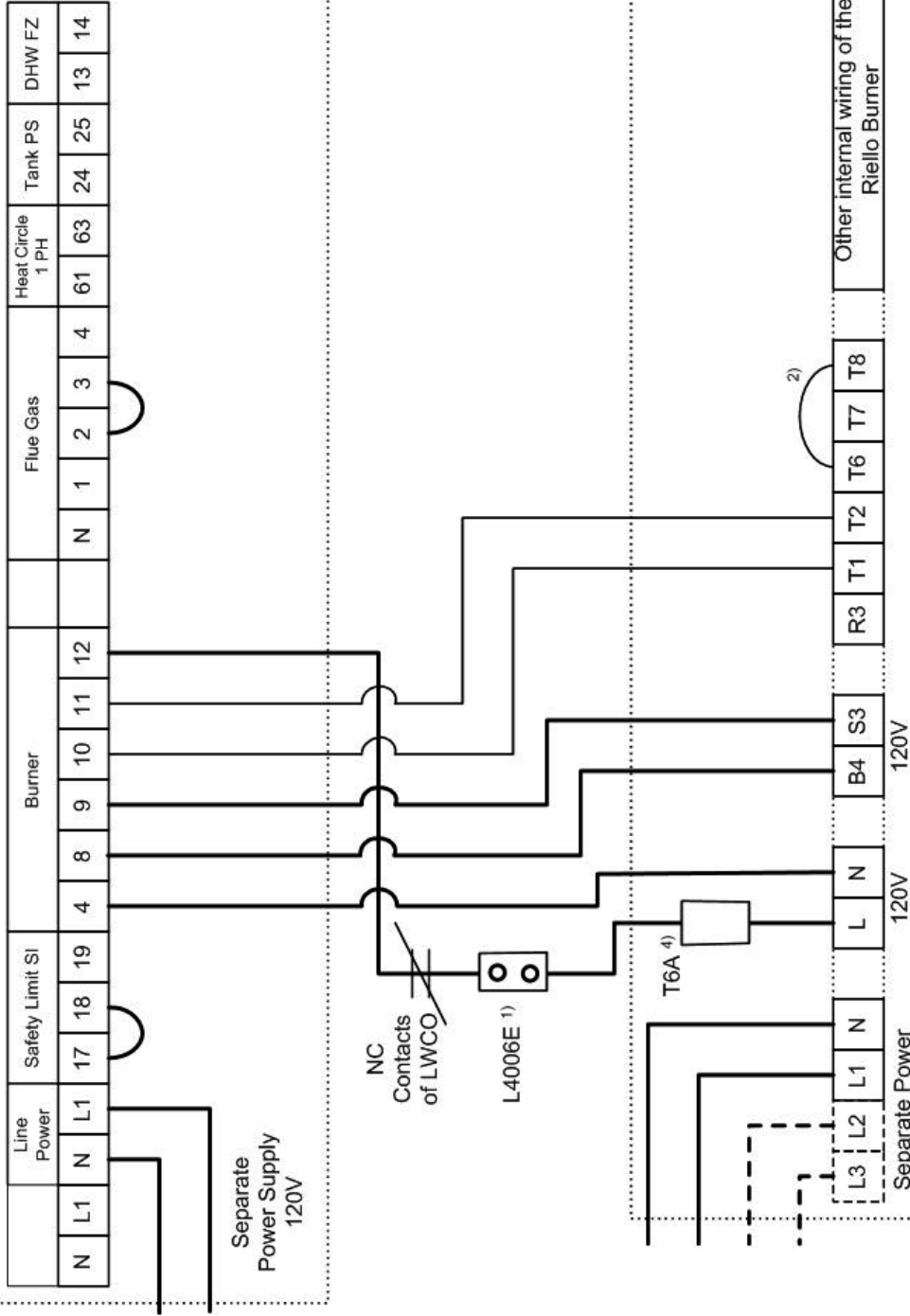
Wiring Diagram for Riello RL28/2 - RL38/2 - RL50/2 and R2107 w/ FM242

Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No.:	1	Drawing No.:	2003-0008

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Supply Power RL28/2 and RL38/2 120V/1Phase (Standard); Supply Power RL50/2 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 3) Fuse has to be field installed.

R2107 Terminal



Riello RL28/2 - RL38/2 - RL50/2 Burner Terminal

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HYDRONIC SYSTEMS

Wiring Diagram for Riello RL28/2-RL38/2-RL50/2 and R2107
Burner Operating Mode: ON / OFF - LHO

Drawn by: Holger Hinse Date: 12/09/2003
Version No: 1 Drawing No: 2003-0009

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed for ON / OFF and LHO Operation.
 - 3) Supply Power RL28/2 and RL38/2 120V/1Phase (Standard); Supply Power RL50/2 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 4) Fuse has to be field installed.

Separate Control
Power 120V



NC
Contacts
of LWCO

L4006E

T6A ³⁾

Separate Power
Supply ²⁾

120V

120V

Riello RL28/2 - RL38/2 - RL50/2 Burner Terminal

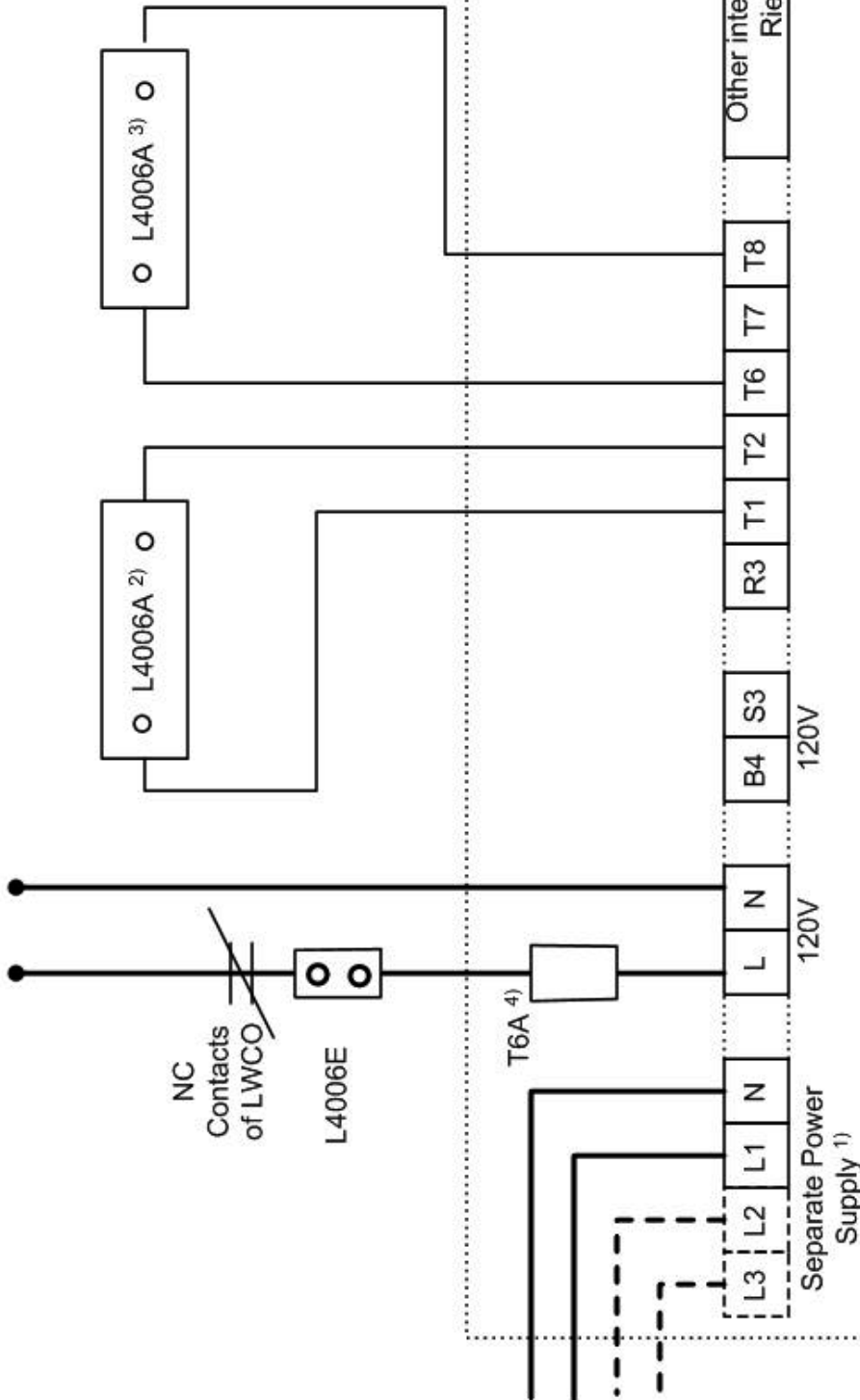
Buderus
HYDRONIC SYSTEMS

- Note:
- 1) Jumper has to be installed for ON / OFF and LHO Operation.
 - 2) Supply Power RL28/2 and RL38/2 120V/1Phase (Standard);
Supply Power RL50/2 208V/3Phase (Standard) and see
manuals of the Burner manufacturer about the voltage of the different burners.
 - 3) Fuse has to be field installed.

Wiring Diagram for Riello RL28/2 - RL38/2 - RL50/2 w/
Standard Controls
Burner Operating Mode: ON / OFF - LHO

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0010

Separate Control
Power 120V



Riello RL28/2 - RL38/2 - RL50/2 Burner Terminal

- Note:
- 1) Supply Power RL28/2 and RL38/2 120V/1Phase (Standard);
Supply Power RL50/2 208V/3Phase (Standard) and
manuals of the Burner manufacturer about the voltage of the different burners.
 - 2) Set this aquastat 10° higher than aquastat³⁾ with differential of 20° F
 - 3) Set this aquastat 10° lower than aquastat²⁾ with differential of 10° F
 - 4) Fuse has to be field installed.

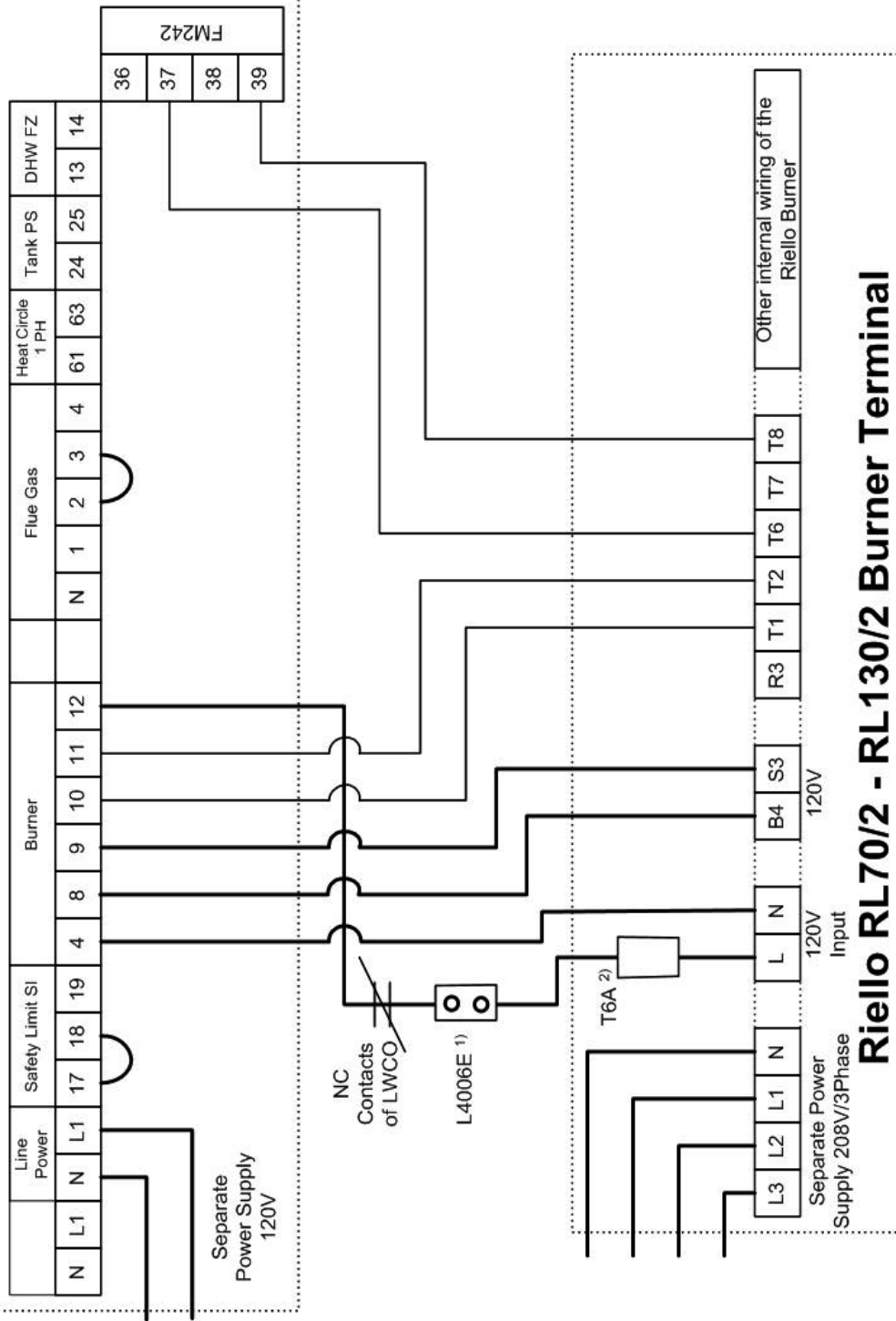
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HYDRONIC SYSTEMS

Wiring Diagram for Riello RL28/2RL38/2-RL50/2 w/
Standard Controls

Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0011

R2107 Terminal



Riello RL70/2 - RL130/2 Burner Terminal

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HYDRONIC SYSTEMS

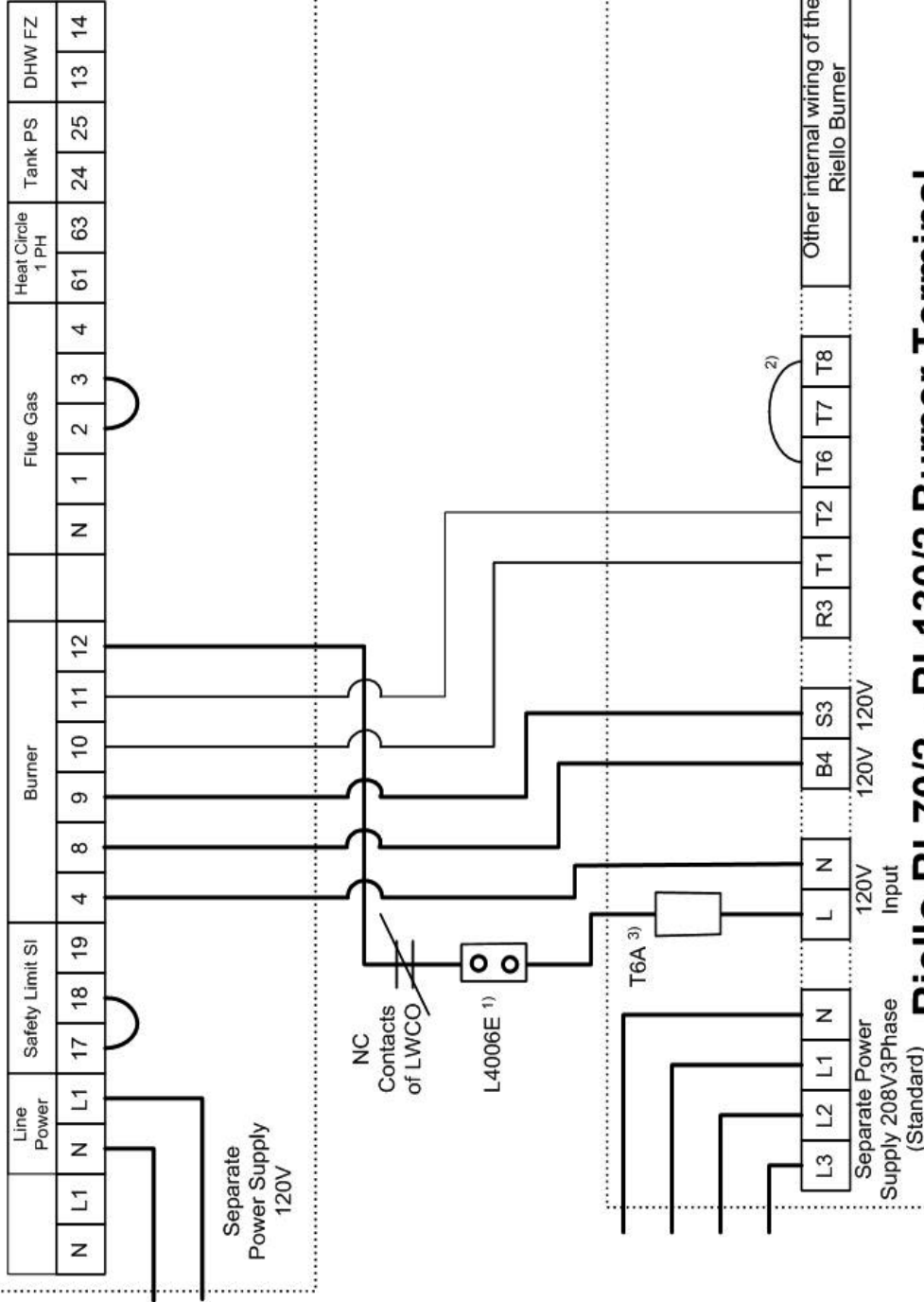
Wiring Diagram for Riello RL70/2-RL130/2 and R2107 w/ FM242 Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No.:	1	Drawing No.:	2003-0012

Note: 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
2) Fuse has to be field installed.

See also manuals of the Burner manufacturer about the voltage of the burners.

R2107 Terminal



Riello RL70/2 - RL130/2 Burner Terminal

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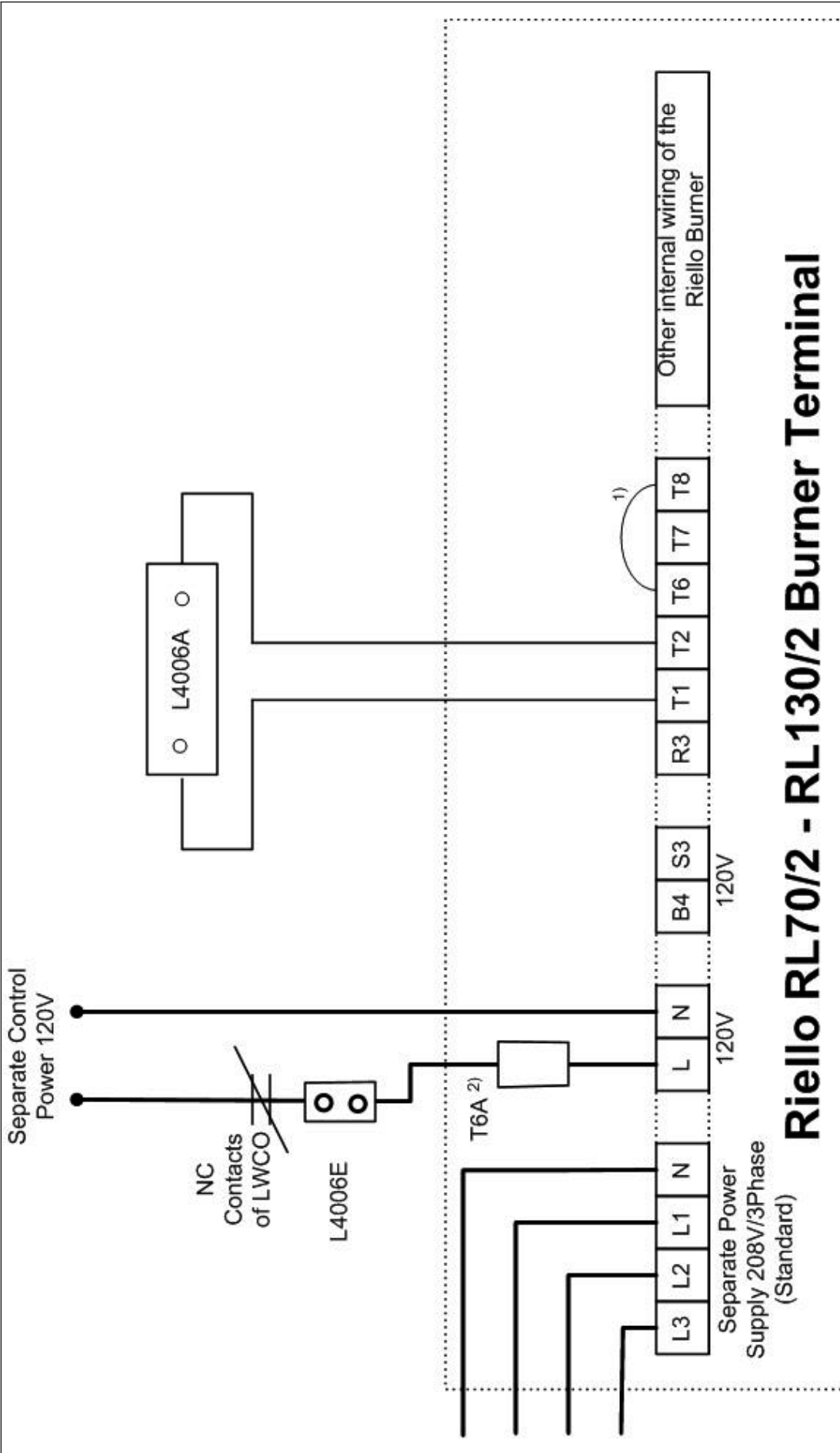
Wiring Diagram for Riello RL70/2-RL130/2 and R2107

Burner Operating Mode: ON / OFF - LHO

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0013

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed for ON / OFF and LHO Operation.
 - 3) Fuse has to be field installed.

See also manuals of the Burner manufacturer about the voltage of the burners.



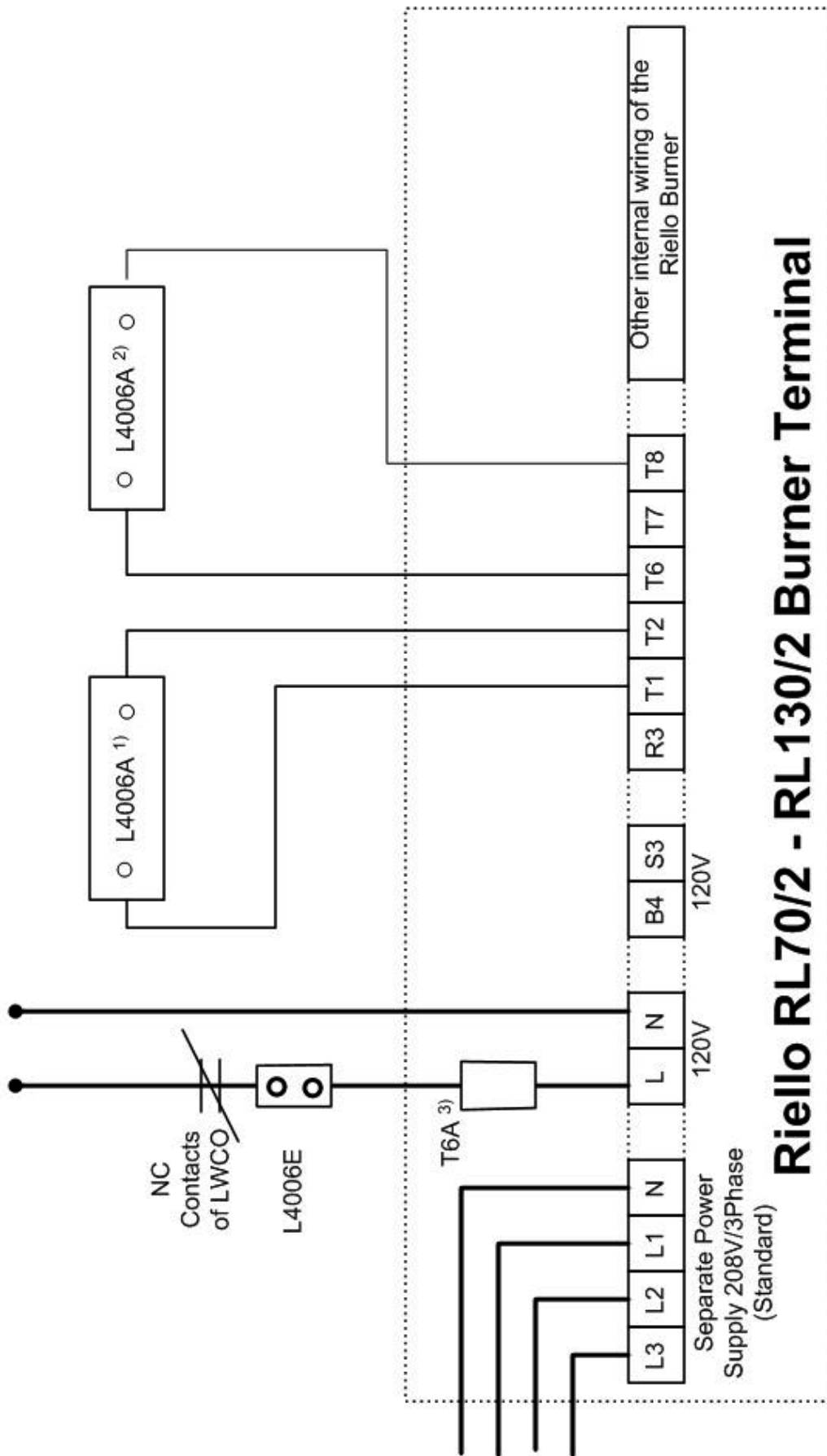
Buderus HYDRONIC SYSTEMS	
Wiring Diagram for Riello RL70-RL130/2 w/ Standard Controls Burner Operating Mode: ON / OFF - LHO	
Drawn by:	Holger Hinse
Date:	12/09/2003
Version No:	1
Drawing No:	2003-0014

Note:

- 1) Jumper has to be installed for ON / OFF and LHO Operation.
- 2) Fuse has to be field installed.

See also manuals of the Burner manufacturer about the voltage of the burners.

Separate Control
Power 120V



Riello RL70/2 - RL130/2 Burner Terminal

- Note:
- 1) Set this aquastat 10° higher than aquastat²⁾ with differential of 20° F
 - 2) Set this aquastat 10° lower than aquastat¹⁾ with differential of 10° F
 - 3) Fuse has to be field installed.

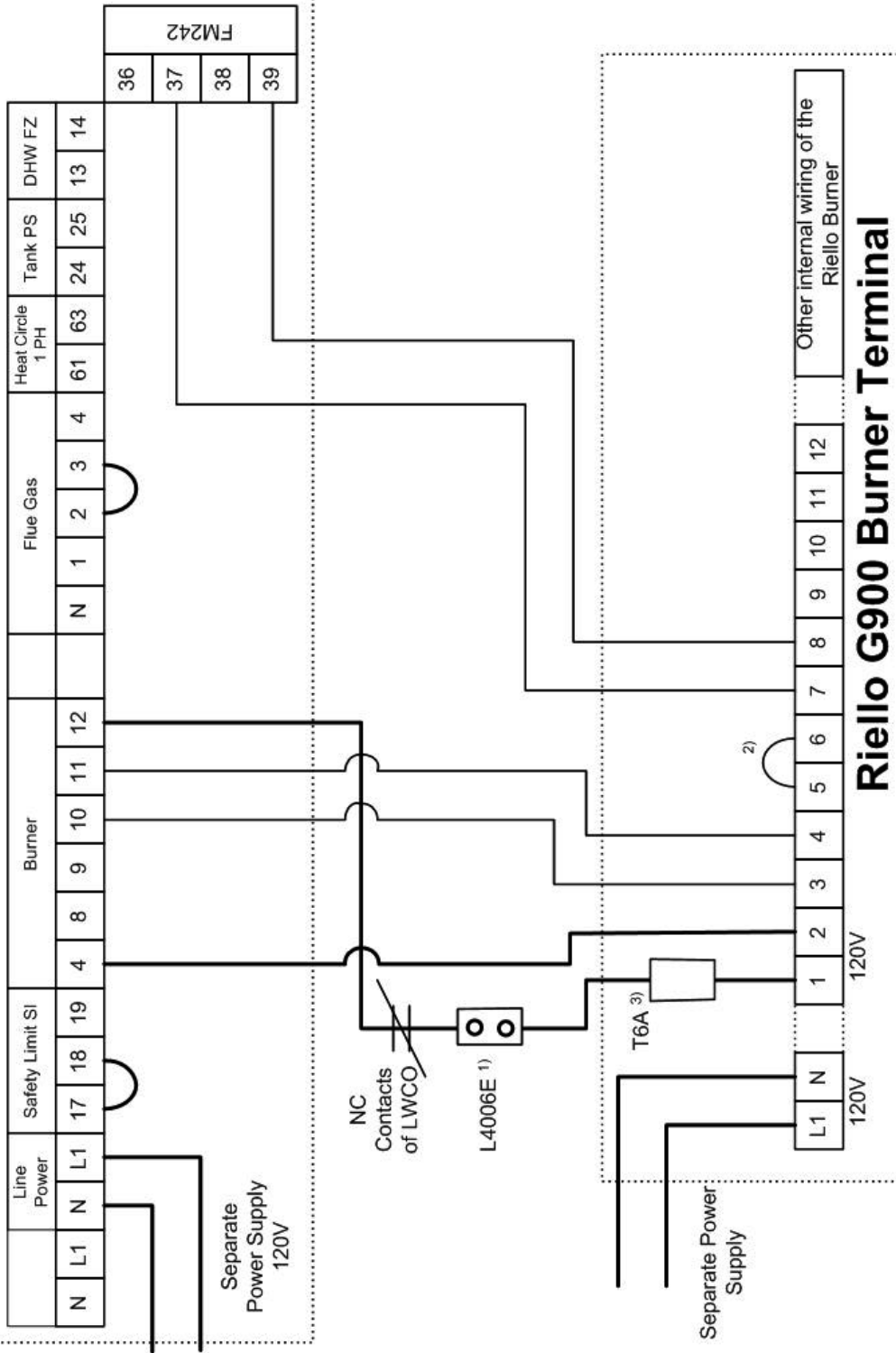
See also manuals of the Burner manufacturer about the voltage of the burners.

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HYDRONIC SYSTEMS

Wiring Diagram for Riello RL70-RL130/2 w/ Standard Controls
Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0015

R2107 Terminal



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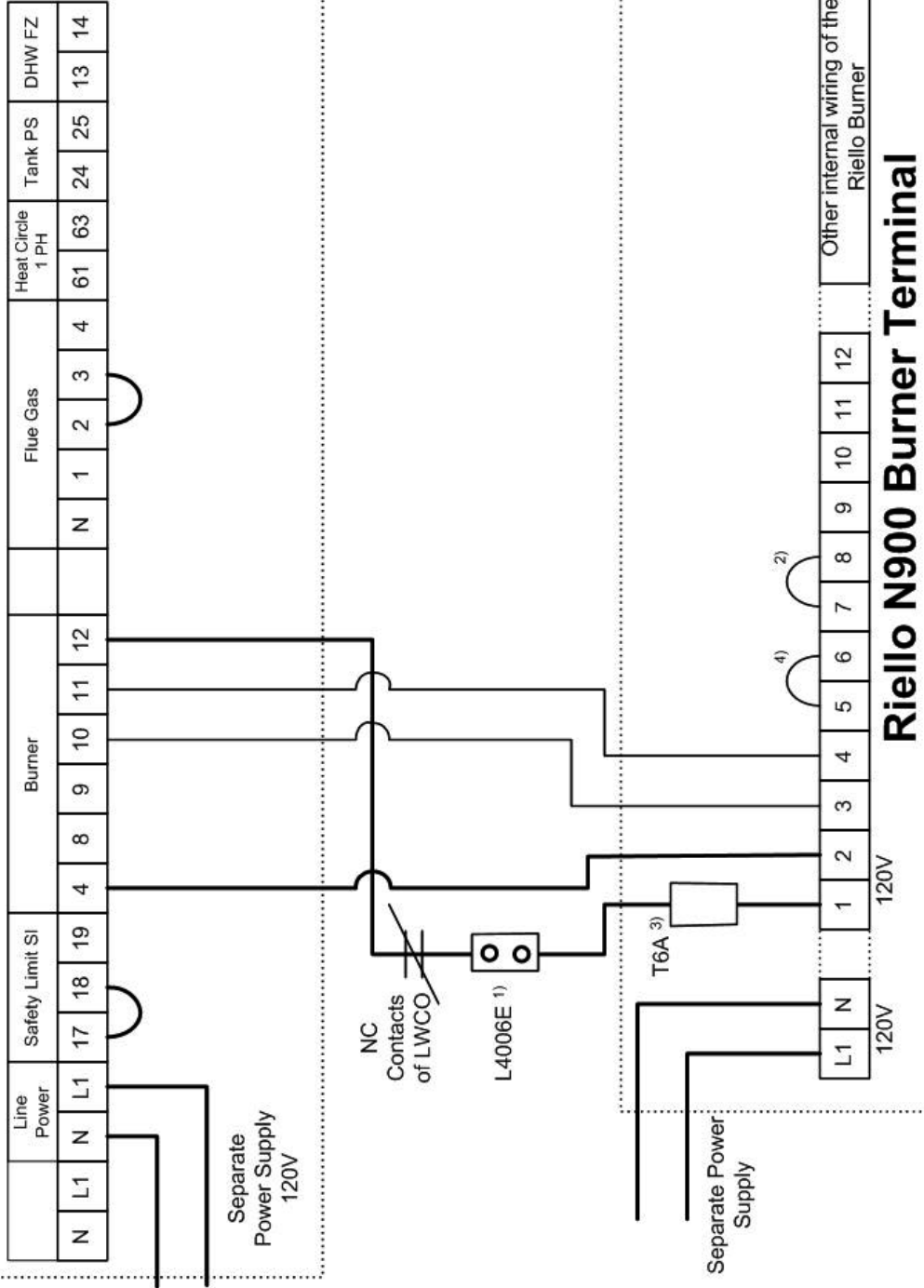
HYDRONIC SYSTEMS

Wiring Diagram for Riello G900 and R2107 w/ FM242
Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/30/2003
Version No:	1	Drawing No:	2003-0022

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed for the proof of closure switch.
 - 3) Fuse has to be field installed.

R2107 Terminal



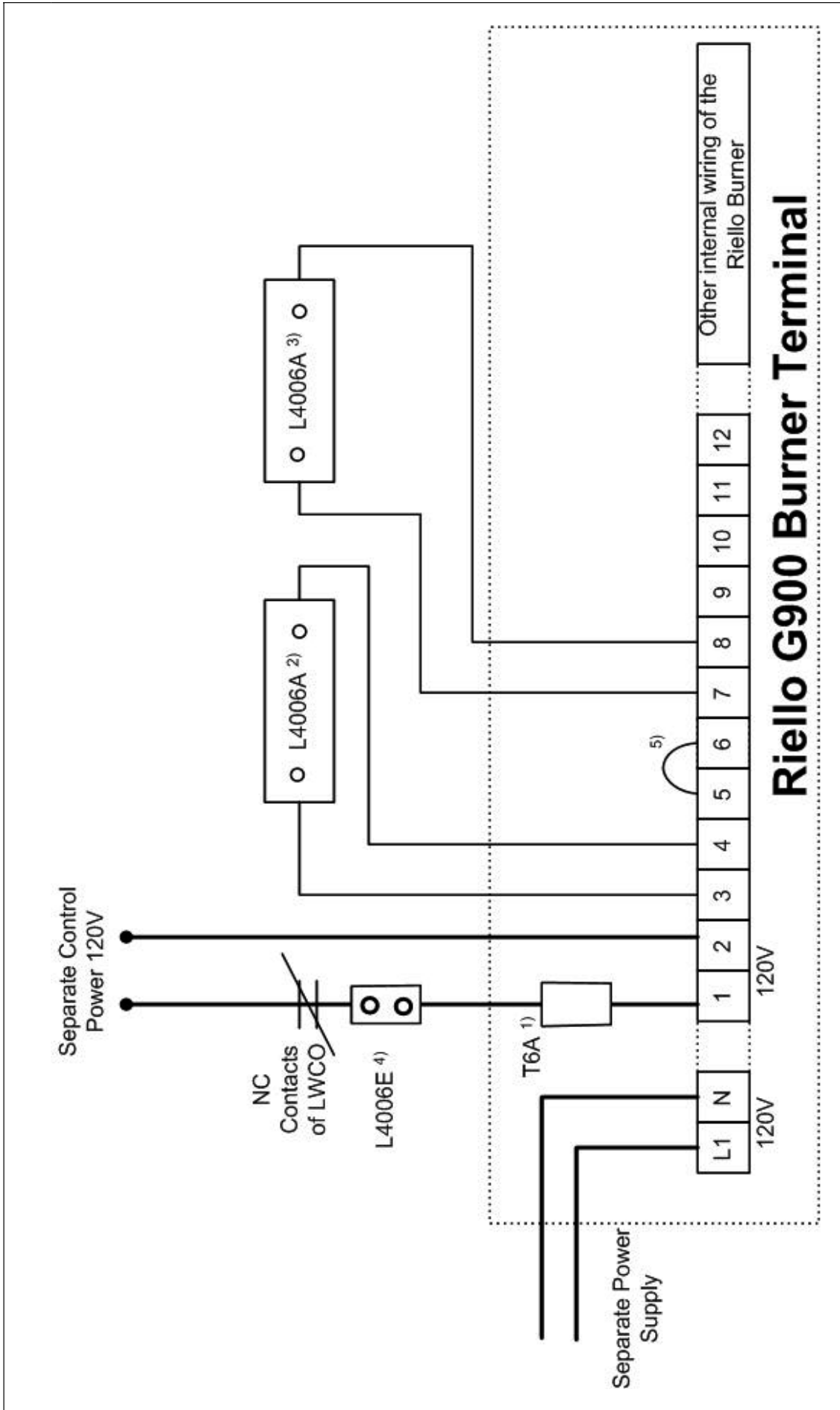
Riello N900 Burner Terminal

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HYDRONIC SYSTEMS

Wiring Diagram for Riello G900 and R2107
Burner Operating Mode: LHO

Drawn by:	Holger Hinse	Date:	12/30/2003
Version No:	1	Drawing No:	2003-0023

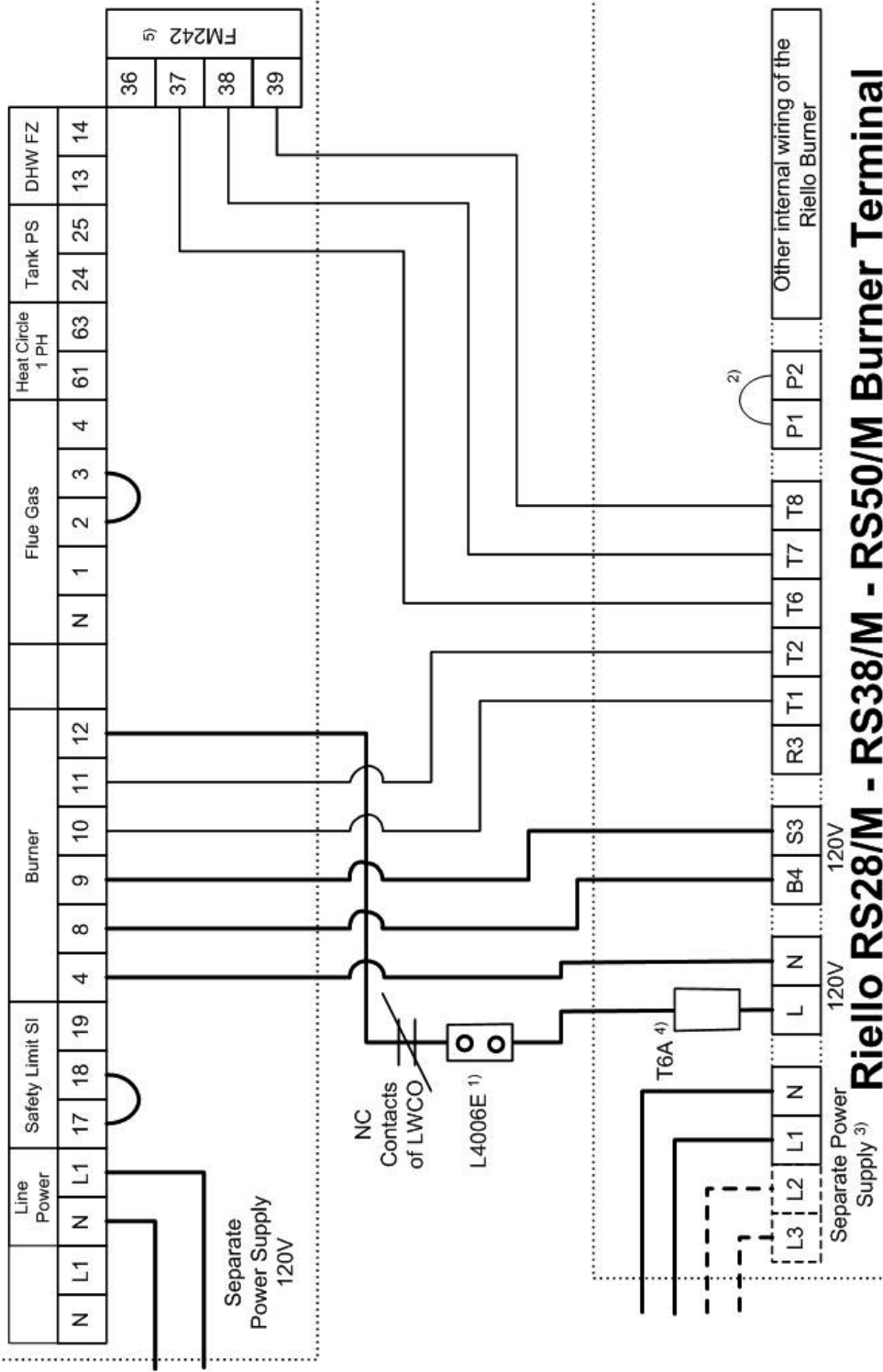
- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed for ON / OFF and LHO Operation.
 - 3) Fuse has to be field installed.
 - 4) Jumper has to be installed for the proof of closure switch.



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Wiring Diagram for Riello G900 w/ Standard Controls Burner Operating Mode: LHL			
Drawn by:	Holger Hinse	Date:	12/30/2003
Version No:	1	Drawing No:	2003-0024

- Note:
- 1) Fuse has to be field installed.
 - 2) Set this aquastat 10° higher than aquastat 3) with differential of 20° F
 - 3) Set this aquastat 10° lower than aquastat 2) with differential of 10° F
 - 4) L4006E is required for code compliance.
 - 5) Jumper has to be installed for the proof of closure switch.

R2107 Terminal



Riello RS28/M - RS38/M - RS50/M Burner Terminal

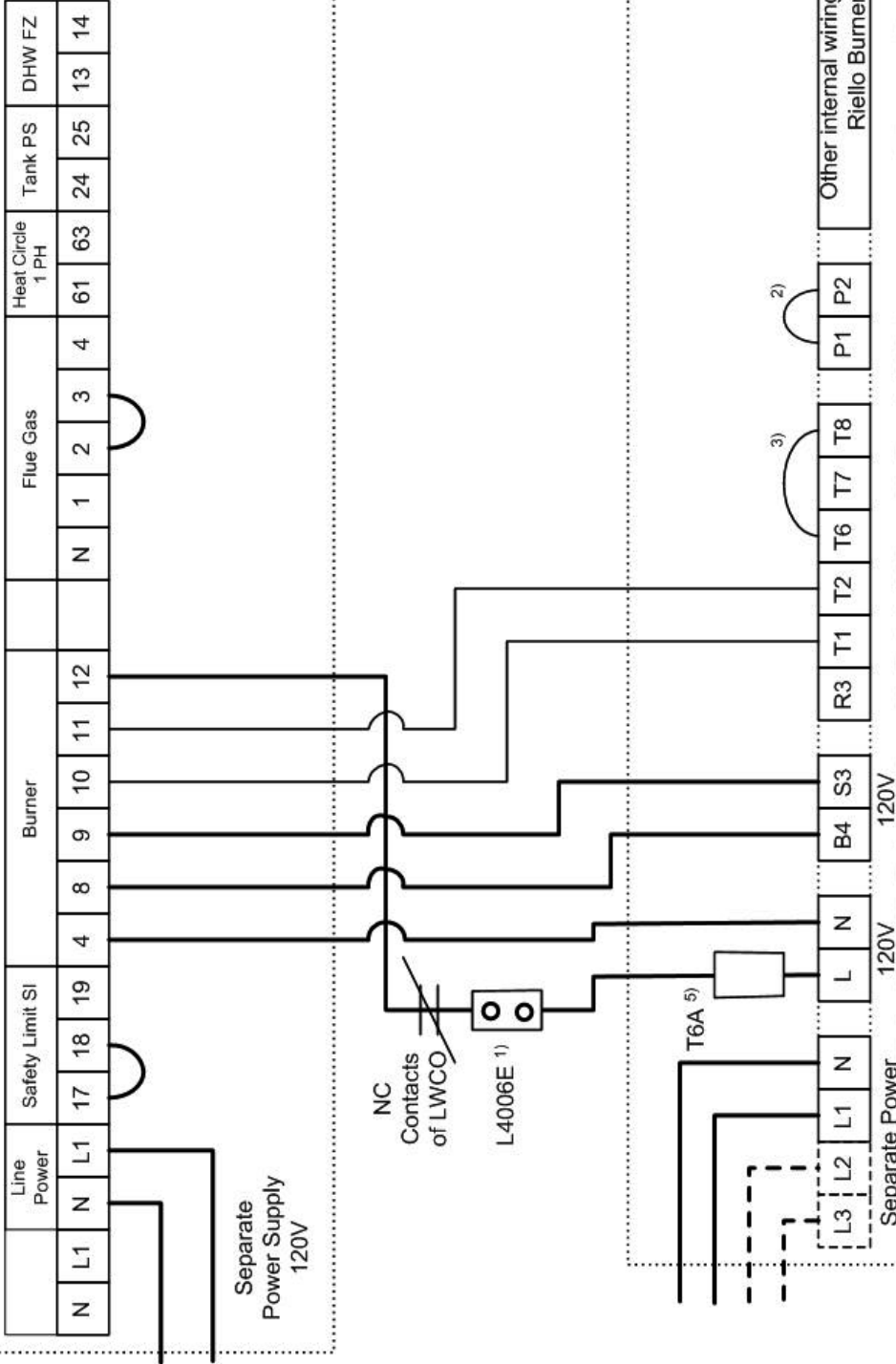
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HYDRONIC SYSTEMS

Wiring Diagram for Riello RS28/M-RS38/M-RS50/M and R2107 w/ FM242
Burner Operating Mode: Full Modulation or LHL

Drawn by:	Holger Hinse	Date:	12/08/2003
Version No:	1	Drawing No:	2003-0003

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 3) Supply Power RS28/M and RS38/M 120V/1Phase (Standard); Supply Power RS50/M 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 4) Fuse has to be field installed.
 - 5) Burner operation is set by programming of R2107.

R2107 Terminal



Note:

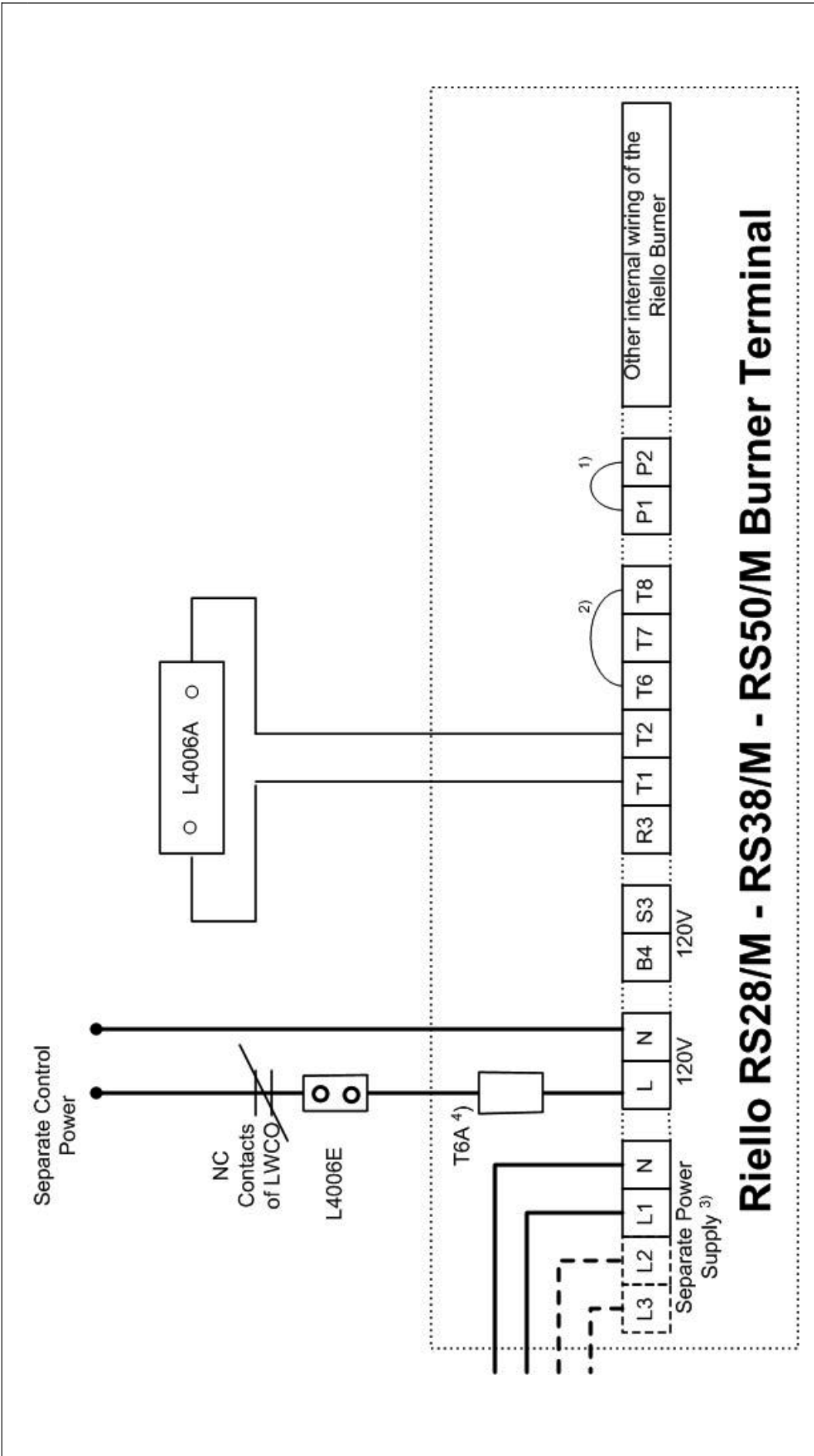
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
- 2) Jumper has to be installed, if low and high pressure gas switches are not installed.
- 3) Install T6-T8-Jumper for LHO operation.
- 4) Supply Power RS28/M and RS38/M 120V/1Phase (Standard); Supply Power RS50/M 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
- 5) Fuse to be field installed.

Riello RS28/M - RS38/M - RS50/M Burner Terminal

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HYDRONIC SYSTEMS

Wiring Diagram for Riello RS28/M-RS38/M-RS50/M and R2107 Burner Operating Mode: LHO

Drawn by:	Holger Hinse	Date:	12/08/2003
Version No:	1	Drawing No:	2003-0004



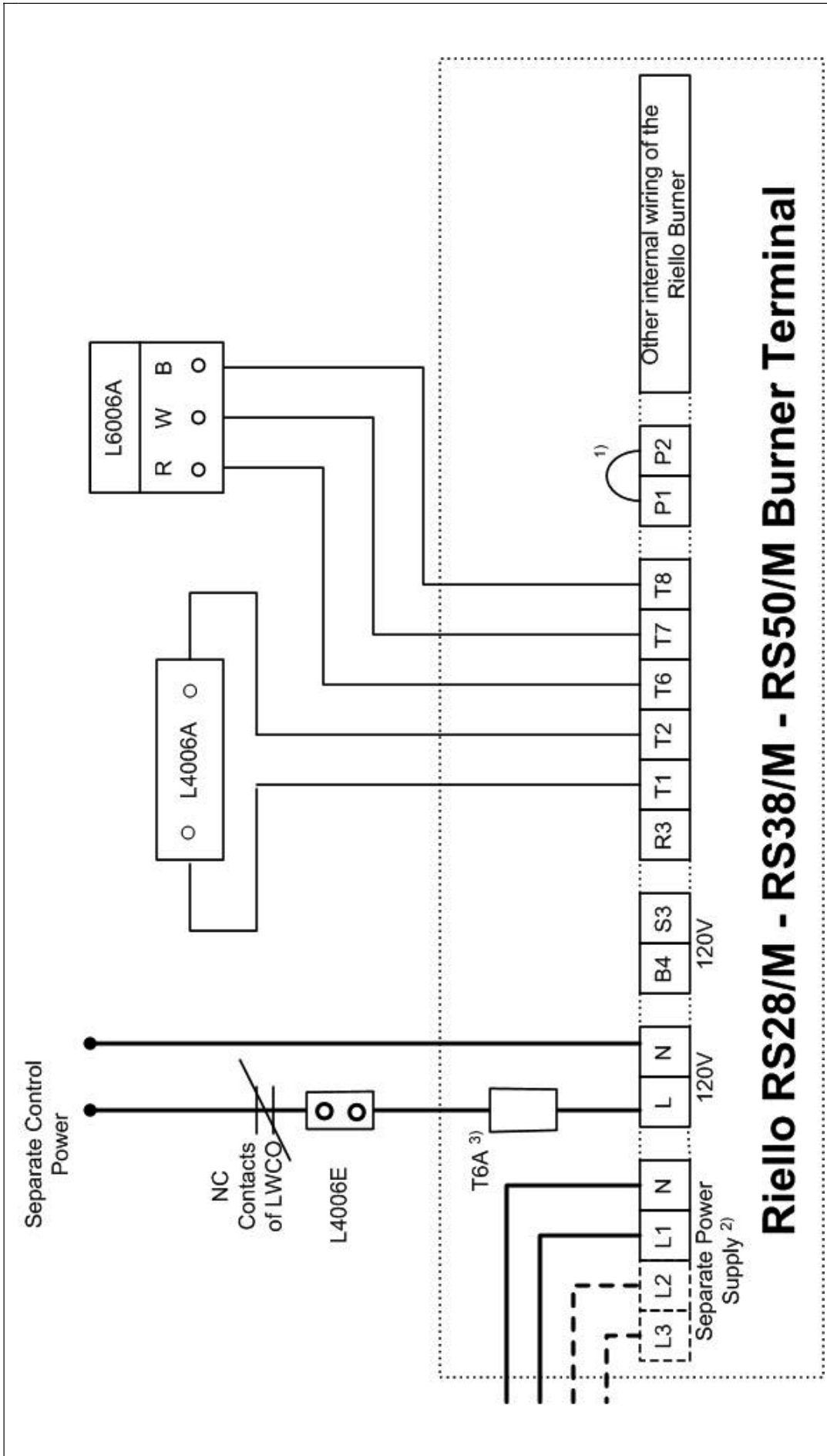
Riello RS28/M - RS38/M - RS50/M Burner Terminal

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HYDRONIC SYSTEMS

Wiring Diagram for Riello RS28/M-RS38/M-RS50/M w/
 Standard Controls
 Burner Operating Mode: LHO

Drawn by:	Holger Hinse	Date:	12/08/2003
Version No.:	1	Drawing No.:	2003-0005

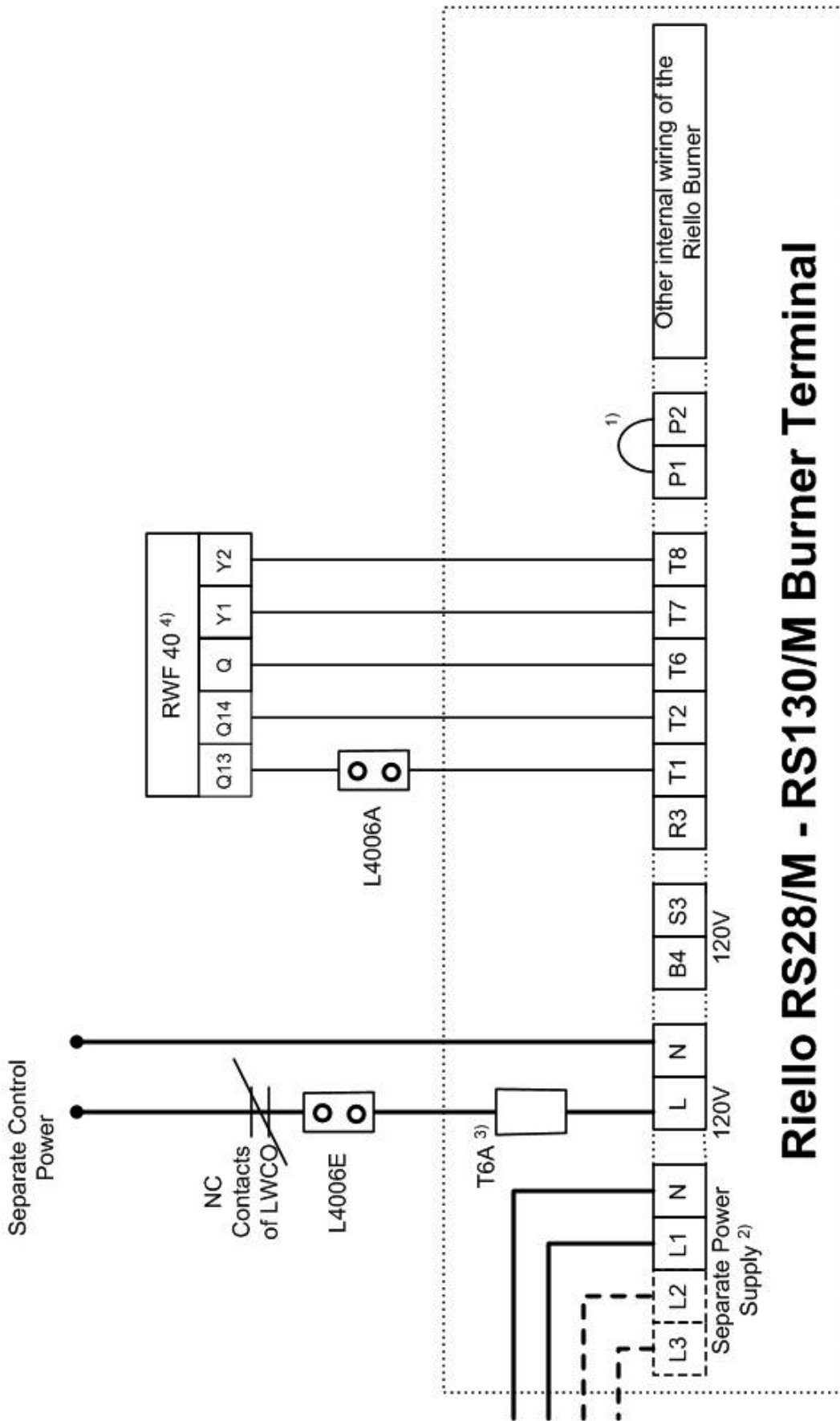
- Note:
- 1) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 2) Jumper for LHO
 - 3) Supply Power RS28/M and RS38/M 120V/1Phase (Standard);
 Supply Power RS50/M 208V/3Phase (Standard) and see
 manuals of the Burner manufacturer about the voltage of the different burners.
 - 4) Fuse has to be field installed.



Riello RS28/M - RS38/M - RS50/M Burner Terminal

- Note:
- 1) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 2) Supply Power RS28/M and RS38/M 120V/1Phase (Standard);
Supply Power RS50/M 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 3) Fuse has to be field installed.

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Wiring Diagram for Riello RS28/M-RS38/M-RS50/M w/ Standard Controls Burner Operating Mode: LHL	
Drawn by:	Holger Hinse
Date:	12/09/2003
Version No:	1
Drawing No:	2003-0006



Riello RS28/M - RS130/M Burner Terminal

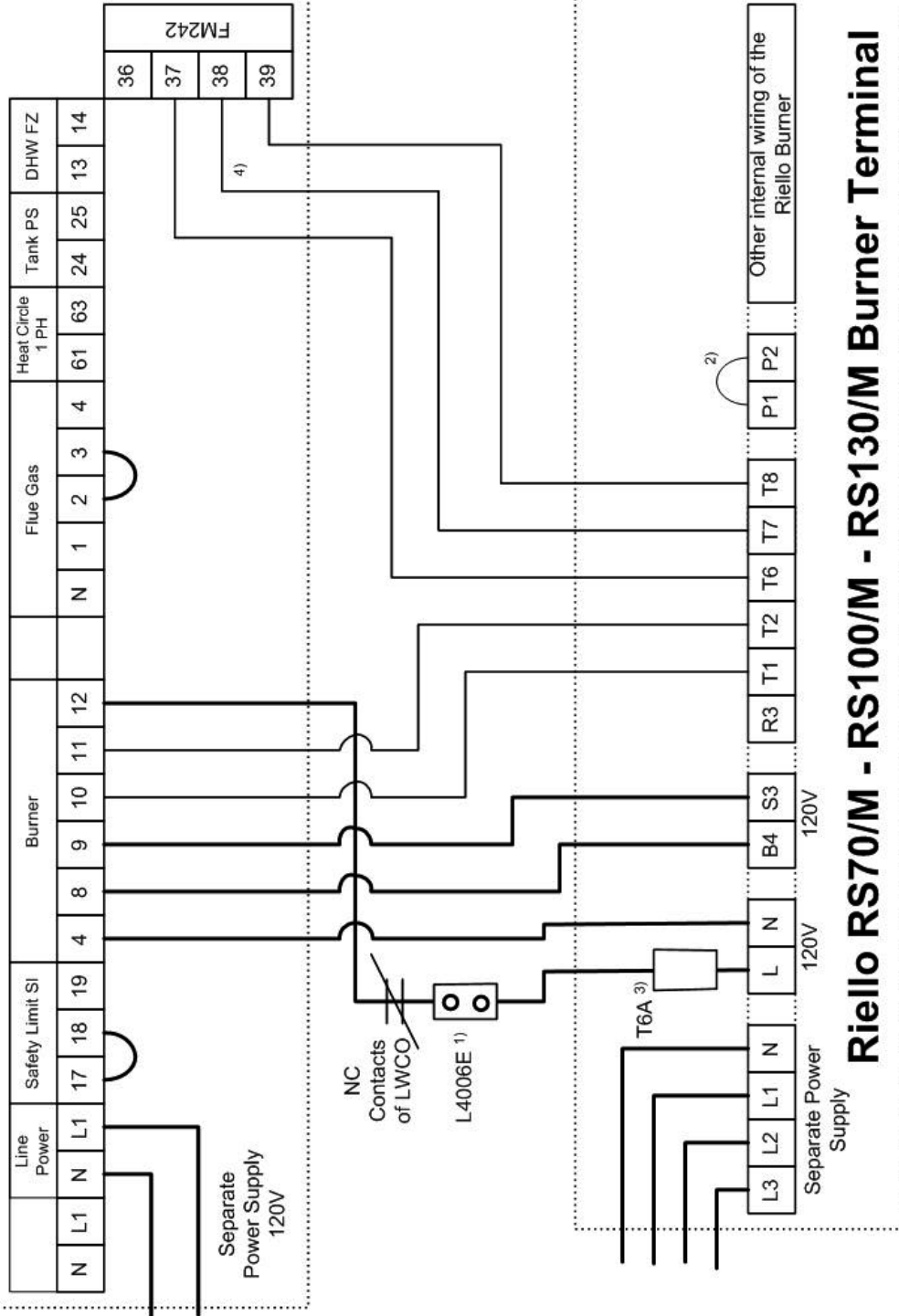
- Note:
- 1) Jumper has to be installed, if low pressure gas switch is not installed.
 - 2) Supply Power RS28/M and RS38/M 120V/1Phase (Standard);
Supply Power RS50/M to RS130/M 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 3) Fuse has to be field installed.
 - 4) RWF 40 pre programmed or field programmed. Please consult factory.

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Wiring Diagram for Riello RS28/M-RS130/M w/ RWF40
Burner Operating Mode: Full Modulate

Drawn by:	Holger Hinse	Date:	12/29/2003
Version No:	1	Drawing No:	2003-0007

R2107 Terminal



Riello RS70/M - RS100/M - RS130/M Burner Terminal

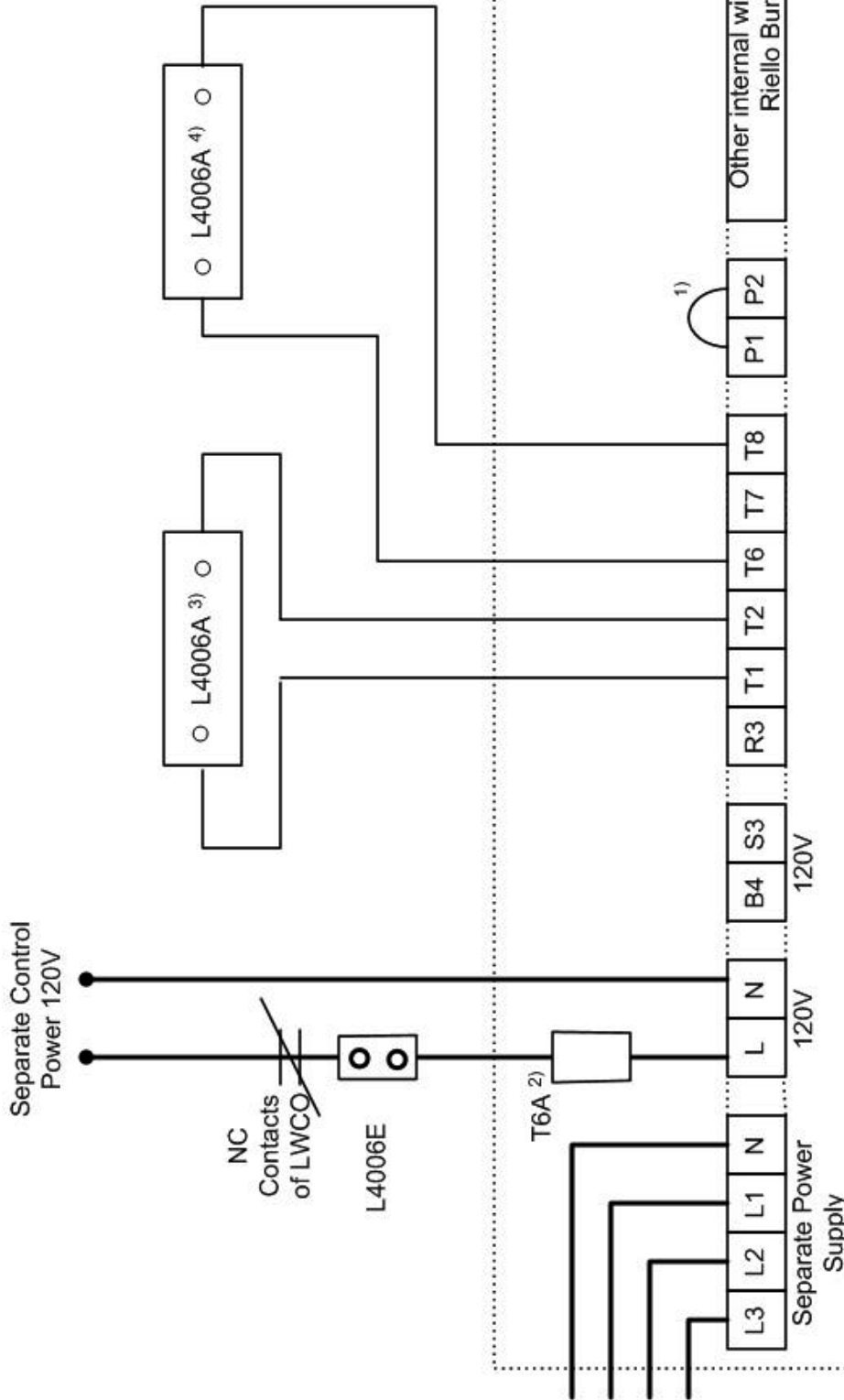
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HYDRONIC SYSTEMS

Wiring Diagram for Riello RS70/M-RS100/M-RS130/M and R2107 w/ FM242
Burner Operating Mode: Full Modulation or LHL

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0016

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 3) Fuse has to be field installed.
 - 4) Burner operation is set by programming of R2107

Supply Power 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.



Riello RS70/M - RS100/M - RS130/M Burner Terminal

- Note:
- 1) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 2) Fuse has to be field installed.
 - 3) Set this aquastat 10° higher than aquastat 4) with differential of 20° F
 - 4) Set this aquastat 10° lower than aquastat 3) with differential of 10° F

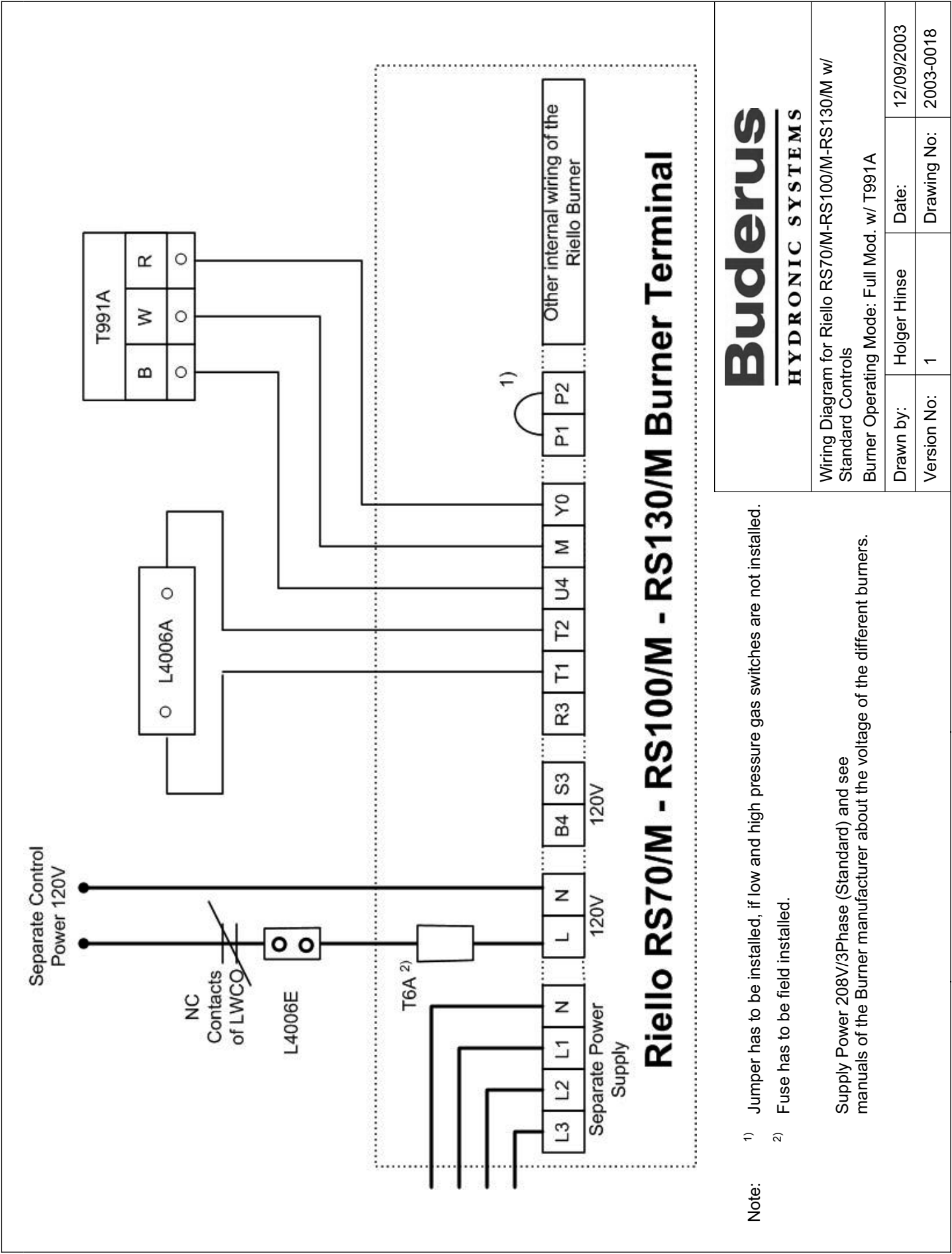
Supply Power 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.

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HYDRONIC SYSTEMS

Wiring Diagram for Riello RS70/M-RS100/M-RS130/M w/
Standard Controls
Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0017



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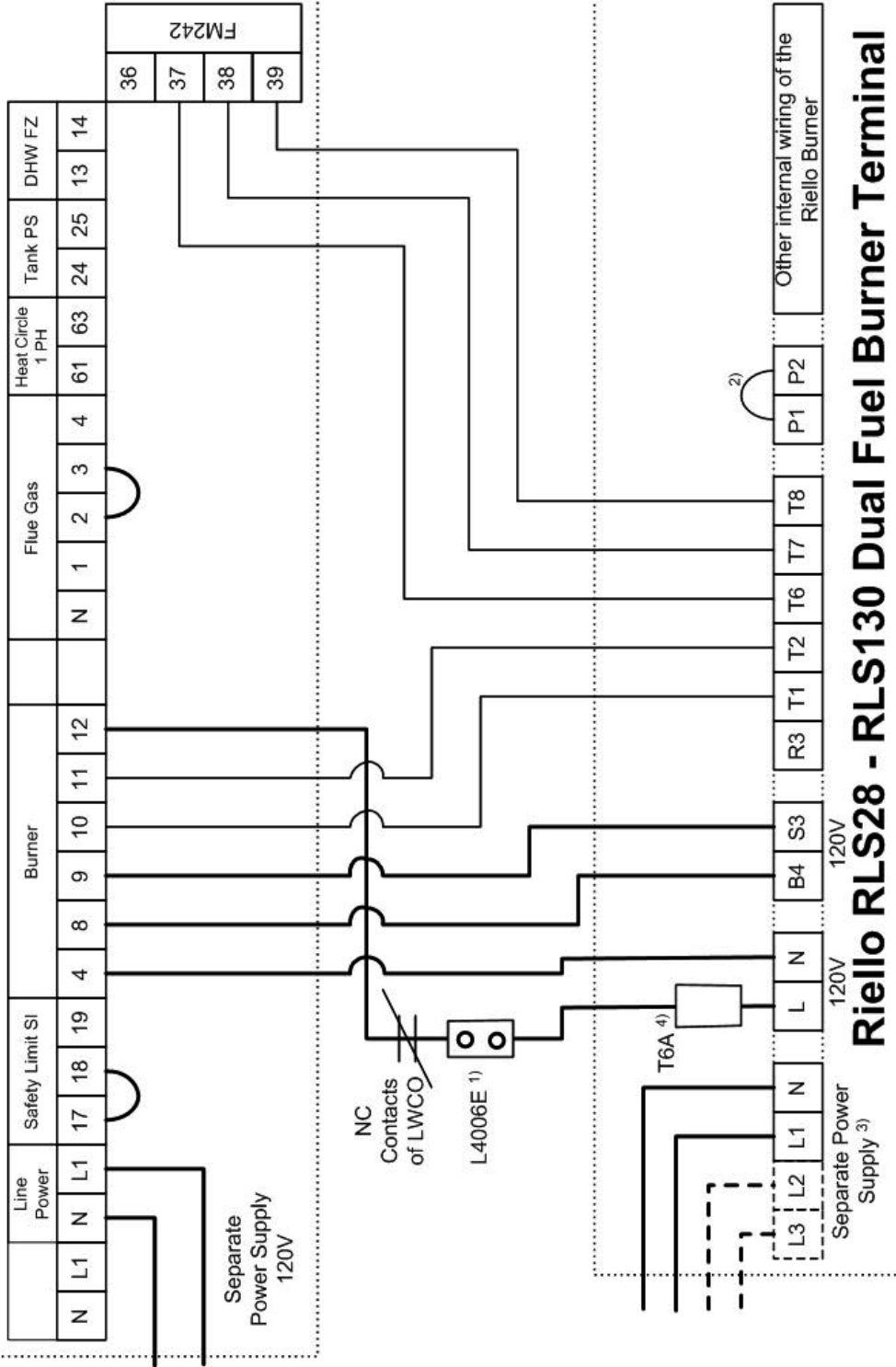
Wiring Diagram for Riello RS70/M-RS100/M-RS130/M w/
Standard Controls
Burner Operating Mode: Full Mod. w/ T991A

Drawn by:	Holger Hinse	Date:	12/09/2003
Version No:	1	Drawing No:	2003-0018

- Note:
- 1) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 2) Fuse has to be field installed.

Supply Power 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.

R2107 Terminal



Riello RLS28 - RLS130 Dual Fuel Burner Terminal

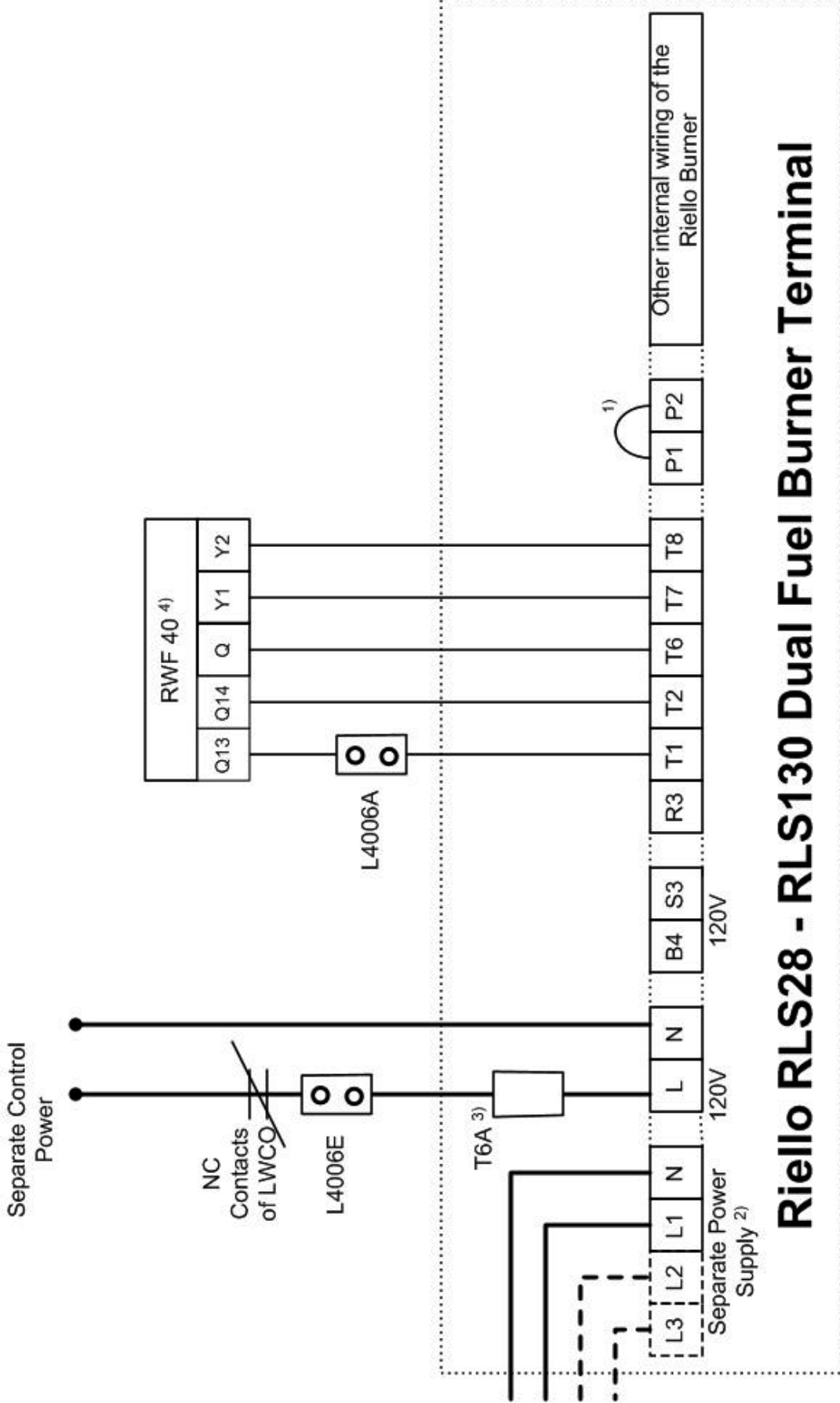
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HYDRONIC SYSTEMS

Wiring Diagram for Riello RLS28-RLS130 and
 R2107 w/ FM242

Burner Operating Mode: LHL, Dual Fuel

Drawn by:	Holger Hinse	Date:	12/08/2003
Version No:	1	Drawing No:	2003-0019

- Note:
- 1) L4006E is required only, if both capillary tubes are NOT installed in boiler manifold and if local inspector requires a separate manual reset high limit.
 - 2) Jumper has to be installed, if low and high pressure gas switches are not installed.
 - 3) Supply Power RLS28 and RLS38 120V/1Phase (Standard);
 Supply Power RLS50 to RLS130 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 4) Fuse has to be field installed



Riello RLS28 - RLS130 Dual Fuel Burner Terminal

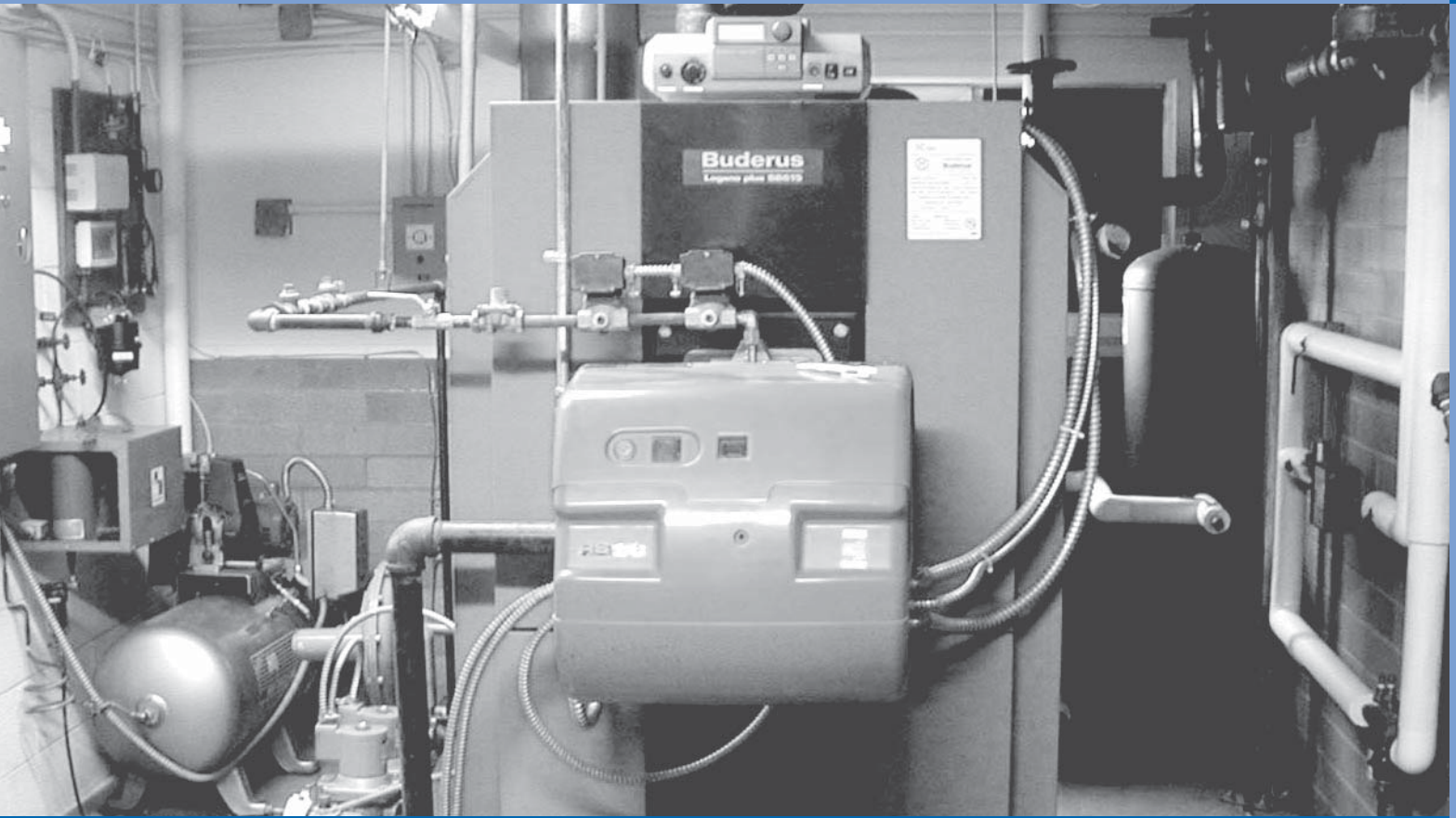
- Note:
- 1) Jumper has to be installed, if low pressure gas switch is not installed.
 - 2) Supply Power RLS28 and RLS38 120V/1Phase (Standard);
Supply Power RLS50 to RLS130 208V/3Phase (Standard) and see manuals of the Burner manufacturer about the voltage of the different burners.
 - 3) Fuse has to be field installed
 - 4) RWFF 40 pre programmed or field programmed. Please consult factory.

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Wiring Diagram for Riello RSL28 - RLS130 w/ RWFF40
Burner Operating Mode: LHL

Drawn by:	Holger Hinse	Date:	12/08/2003
Version No:	1	Drawing No:	2003-0020



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