

Parts Manual

for domestic and standard export ovens

Serial Number Code:

First Four Digits - Order Of Production

Fifth Digit - Model Specific

Sixth & Seventh Digit - Month of Production

Eight & Ninth Digit - Year of Production

047270906 - Starting Serial Number and Higher

Serial Tag
Location

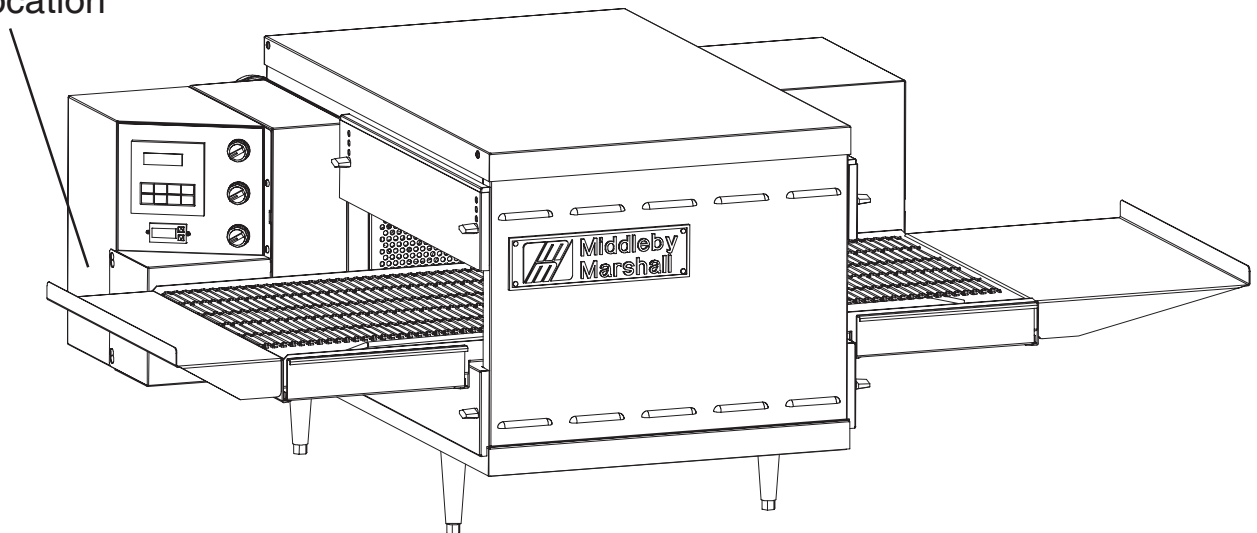


Table Of Contents: Page III

www.middleby.com

email: techsupport@middleby.com

phone: 847-741-3300 • fax: 847-741-4406

1400 Toastmaster Drive • Elgin, IL 60160

WARNING
FOR YOUR SAFETY, DO NOT STORE OR
USE GASOLINE OR OTHER FLAMMABLE
VAPORS AND LIQUIDS IN THE VICINITY OF
THIS OR ANY OTHER APPLIANCE.

WARNING
Improper installation, adjustment, alteration,
service, or maintenance can cause property
damage, injury, or death. Read the installa-
tion, operating, and maintenance instruc-
tions thoroughly before installing or servic-
ing this equipment.

NOTICE
The warranty is NOT VALID unless the oven is installed, started, and demon-
strated under the supervision of a factory-authorized installer

NOTICE
Contact your authorized Service Agency to perform maintenance and
repairs. A Service Agency Directory is supplied with your oven.

NOTICE
Using any parts other than genuine Middleby Marshall factory-manufactured
parts relieves the manufacturer of all warranty and liability.

NOTICE
Middleby Marshall (Manufacturer) reserves the right to change specifications
at any time.

KEEP THIS MANUAL IN A VISIBLE LOCATION NEAR THE
OVEN FOR FUTURE REFERENCE.

TABLE OF CONTENTS

Oven Specifications	1
Oven Dimensions.....	2-3
Installation Kit	4
Key Parts List	5
Finger placement and part number	6
Front view of oven	7
Parts for front view of oven	8
View of right hand of electrical compartment	9
Parts for right hand electrical compartment	10
Rear-view blower compartment	11
Parts for rear-view blower compartment	12
View of left hand electrical compartment	13
Parts for left hand electrical compartment	14
View of conveyor parts	15
Parts for conveyor	16

WIRING DIAGRAMS

208/240V World Oven - 59113C	17
------------------------------------	----

PS520G SERIES OVEN SPECIFICATIONS

Conveyor Belt Width	18.00" (457mm)
Heating Zone Length	20.00" (5098mm)
Baking Area Square Feet	2.5 sq ft (.023 sq. m.)
Overall Dimensions	
Standard Single Oven w/Legs	42.00" (1067mm) L x 35.21" (894mm) W x 21.10" (536mm) H x
Overall Dimensions	
Double Oven	42.00" (1067mm) L x 35.21" (894mm) W x 36.64" (931mm) H x
Overall dimensions	
Triple Oven	42.00" (1067mm) L x 35.21" (894mm) W x 48.19" (1224mm) H x
Weight of Single Oven	250 lbs (93.3kg)
Shipping Weight	325 lbs (121.3kg)
Shipping Cube	22.1 ft ³ (0.62 m ³)
Operating Range	8.3 kW/hr
Maximum Operating temperature	550°F (287°C)
Warm-up Time	20 min.
Belt Speed Limits	1-10 minutes

SERIES PS520 ELECTRICAL SPECIFICATIONS

	Main Blower & Elements Voltage	Control Circuit Voltage	Phase	Frequency	Amperage Draw	Poles	Wires
All Models	208-240V	208-240V	1 Ph	50/60 Hz	1.5 Amp	2 Pole	3 Wire (2 hot, 1 grd)

GAS ORIFICE AND PRESSURE SPECIFICATIONS (PER OVEN CAVITY) - DOMESTIC AND STANDARD EXPORT OVENS

Gas Type	BTU	Main Orifice I.D.	Bypass Orifice I.D.	Supply (Inlet) Pressure	Orifice (Manifold) Pressure
Natural	40,000	0.082" (2.08mm, #45 drill)	0.073" (2.0574mm, #49 drill)	6-12" W.C. (14.9-29.9mbar)*	3.5" W.C. (8.72mbar)
Propane	40,000	0.057" (1.45mm, #46 drill)	0.052" (1.85mm, #55 drill)	11-14" W.C. (27.4-34.9mbar)	7" W.C. (17.44mbar)

* The gas supply pressures and orifices sizes shown are for ovens installed in North America. The required gas supply pressures and orifice sizes of ovens installed in other locations are dependant on the local gas type and on all applicable codes.

GAS ORIFICE AND PRESSURE SPECIFICATIONS (PER OVEN CAVITY) - DOMESTIC AND STANDARD EXPORT OVENS

Gas Type	Main Orifice dia.	UK, CH, IT, AT DK, FI I _{2H}	NL I _{2L}	DE I _{2E}	BE,FR I _{2E+}	SE, CH, AT, DK FI, DE, NL I _{3B/P}	BE, IE, IT, PT, ES, UK I ₃₊	(Manifold) Pressure	Heat Input
G20	2.3749mm	20mbar	--	20mbar	20mbar	--	--	11.21mbar	22.36kW-hr
G25	2.3749mm	--	25mbar	--	--	--	--	16.19mbar	22.36kW-hr
G30	1.3970mm	--	--	--	--	29 or 50mbar	28-30, 37 or 50mbar	26.2mbar	22.59kW-hr

Figure 2-5. MODEL PS520 SINGLE OVEN DIMENSIONS

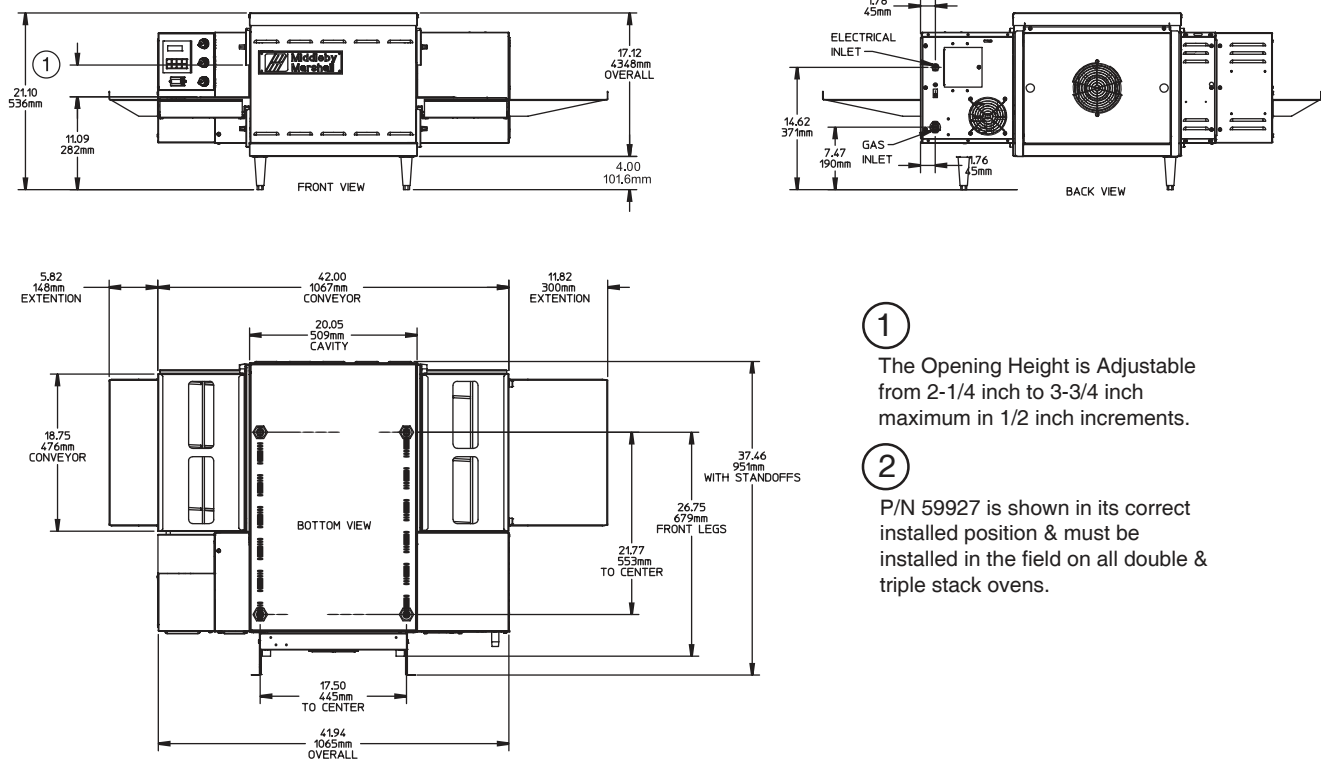


Figure 2-6. MODEL PS520 DOUBLE OVEN DIMENSIONS

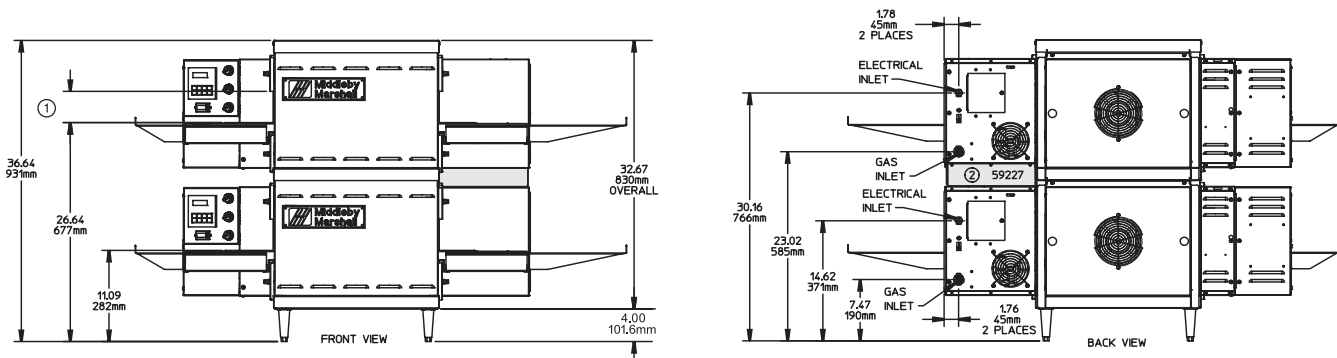


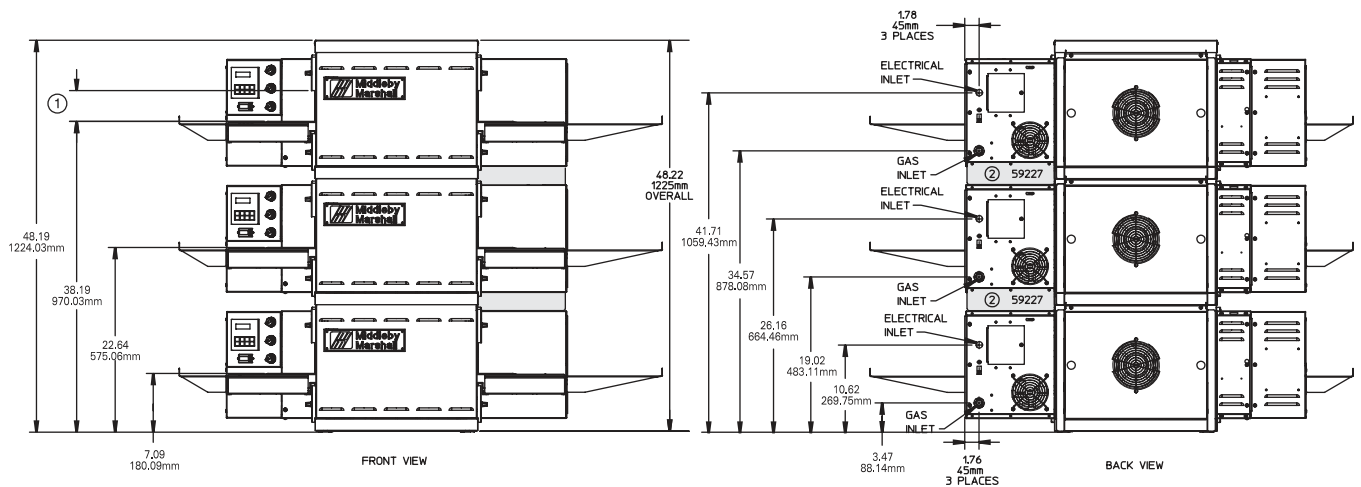
Figure 2-7. MODEL PS520 TRIPLE OVEN DIMENSIONS

①

The Opening Height is Adjustable from 2-1/4 inch to 3-3/4 inch maximum in 1/2 inch increments.

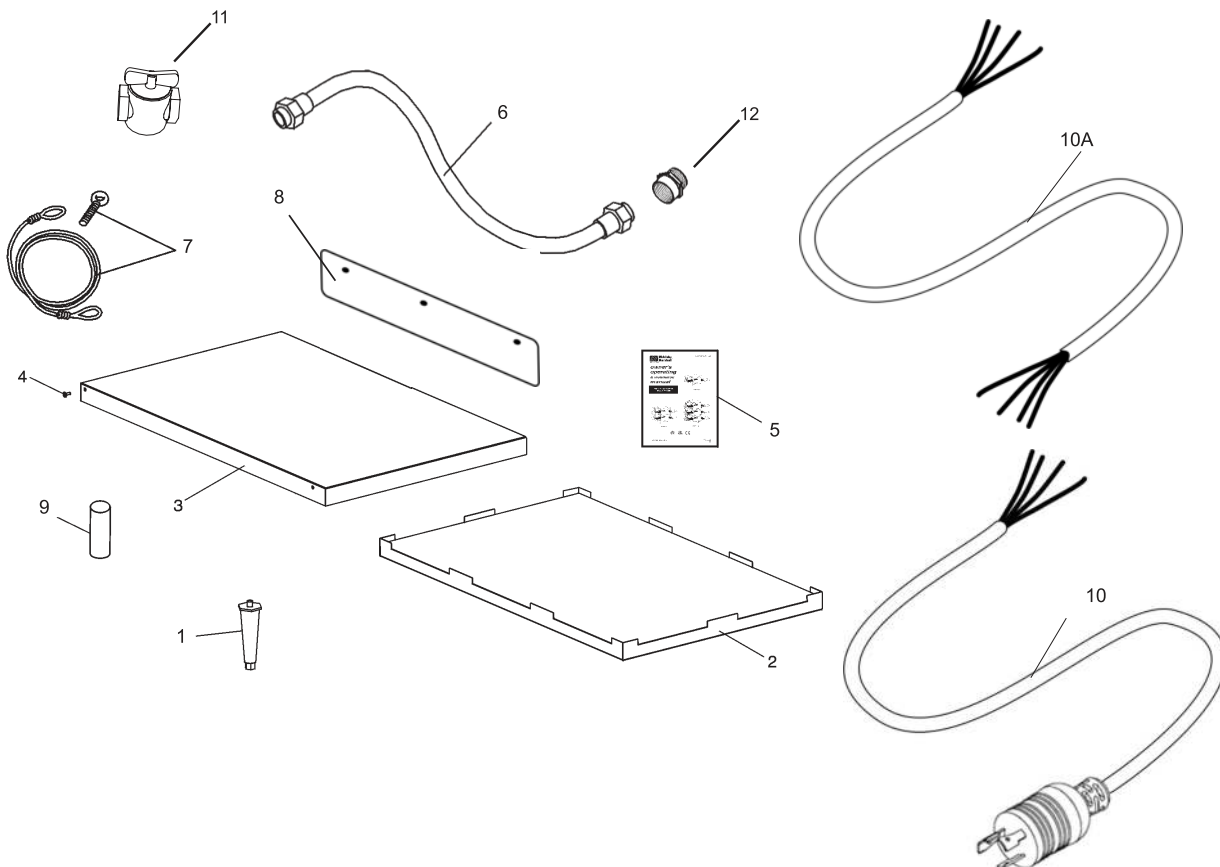
②

P/N 59927 is shown in its correct installed position & must be installed in the field on all double & triple stack ovens.



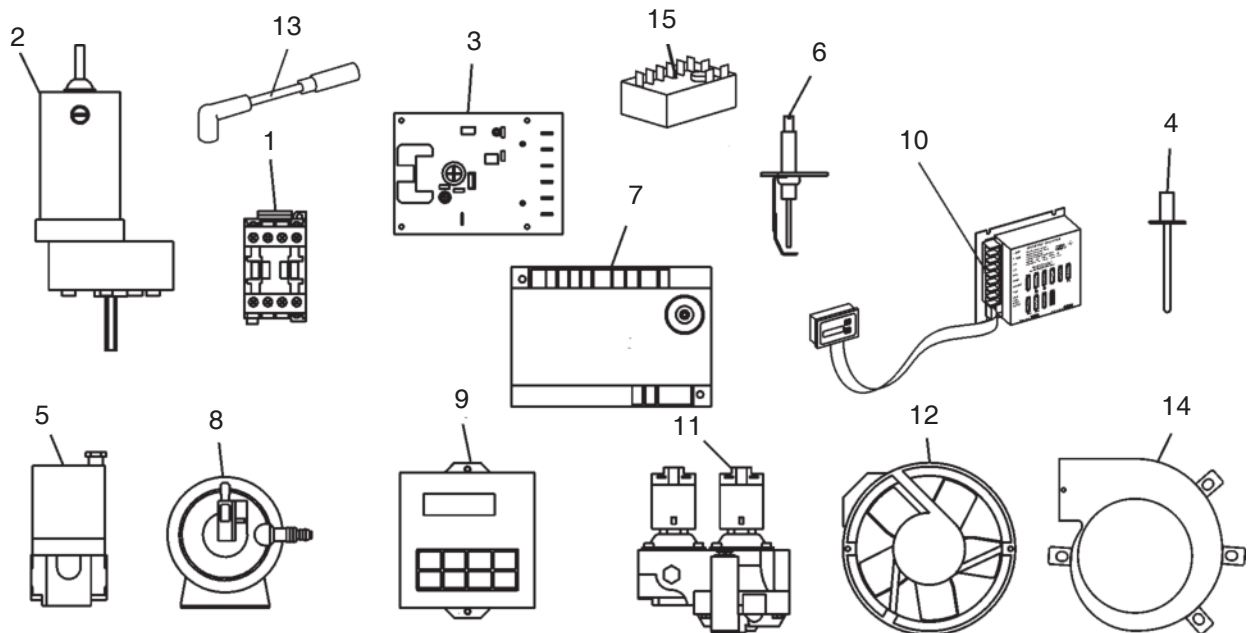
PARTS LIST FOR SERIES PS520 GAS OVEN **INSTALLATION KIT** **Single, Double and Triple Stack Ovens**

Kit #--> Item	Single 59182	Double 59183	Triple 59184	PART NO.	DESCRIPTION
NO.	QTY	QTY	QTY		
1	4	4	-	3101908	Leg 4"
2	1	1	1	48395	Bottom Tray w/insulation
3	1	1	1	48396	Top cover
4	4	4	4	51387	Screw MSSLT Thread 8-32 x 1/2, 18-8
5	1	1	1	59223	Installation & Operation Manual - English
6	1	2	3	22361-0001	Flexible gas hose 48"
7	1	1	1	22450-0228	Restraint Cable
8	-	1	2	59227	Guard - Heat (must be installed in field)
9	-	-	4	M3828	Pin - Alignment
10	1	2	3	49975	Cord & plug (L6-20P)
10A	1	2	3	49976	Cord only CE
11	1	2	3	23115-0009	Manual on/off gas valve
12	1	2	3	31823	3/4" to 1/2" NPT reducer

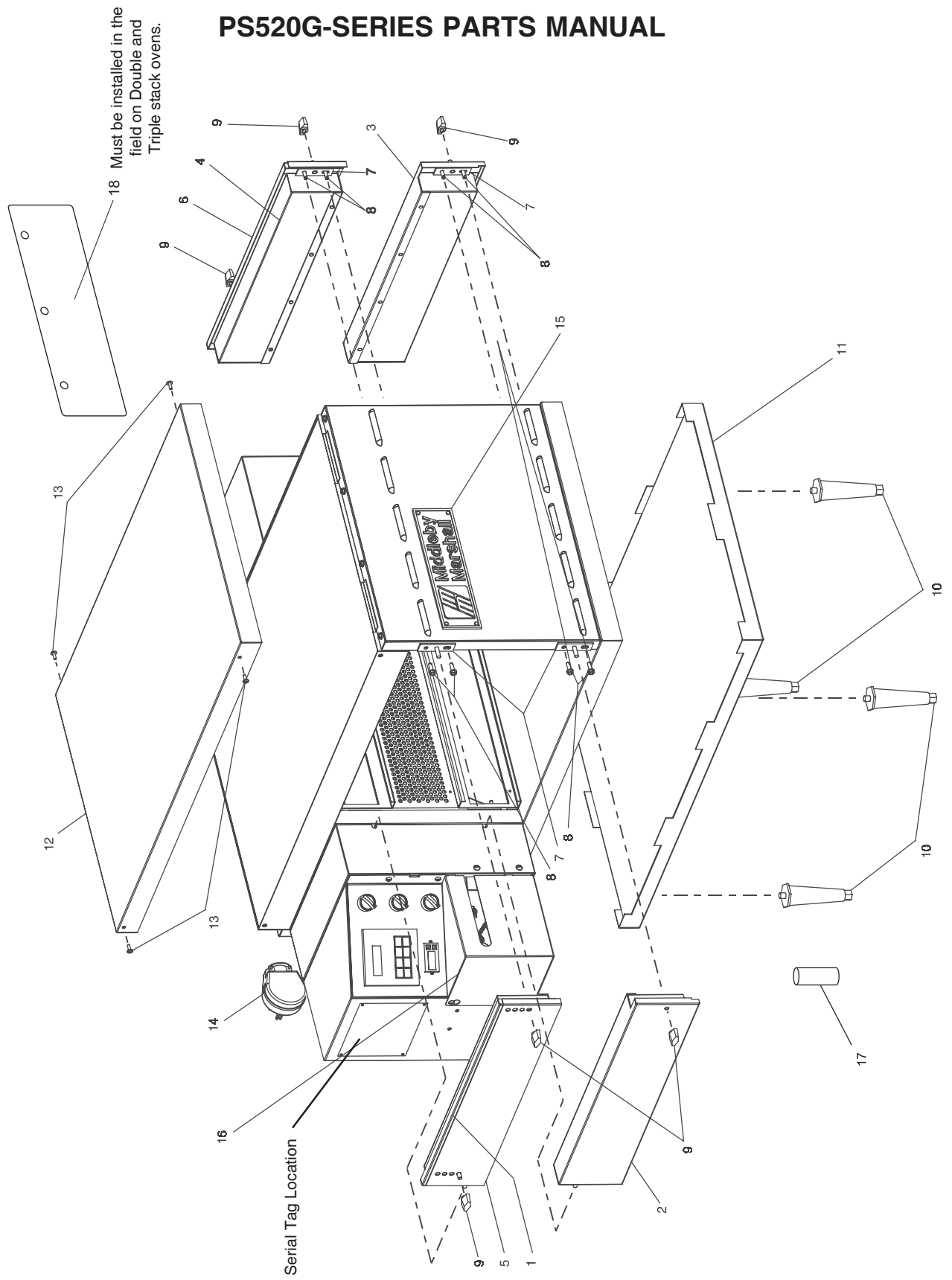


PS520-SERIES GAS OVEN KEY PARTS

ITEM	PART NO.	DESCRIPTION	QUANTITY
1	28041-0011	Contactor, DP 25A 208/240V	1
2	58390	Motor, Conveyor Drive	1
3	31651	Signal Amplifier Board	1
4	33812-5	Thermocouple, Type "J" Shielded 2.50" x 120"	3
5	59450	Valve, Module M420 (41647)	1
6	48455	Ignitor, Single Rod	1
7	50239	Ignition, Spark Module 24VAC 50/60Hz	1
8	50610	Switch, Air .13" W.C.	1
9	47321	Control, Combo 4-20MA (58504)	1
10	58323	Controller, Digital w/o Dip Switch	1
11	59142	Valve, Gas PS520 - Nat Gas	1
12	36451	Fan, Cooling 230VAC 295 CFM	1
13	50240	Ignition Cable 25"	1
14	52244	Main Blower	2
15	33983	High Limit Module	1



Front View Of Oven

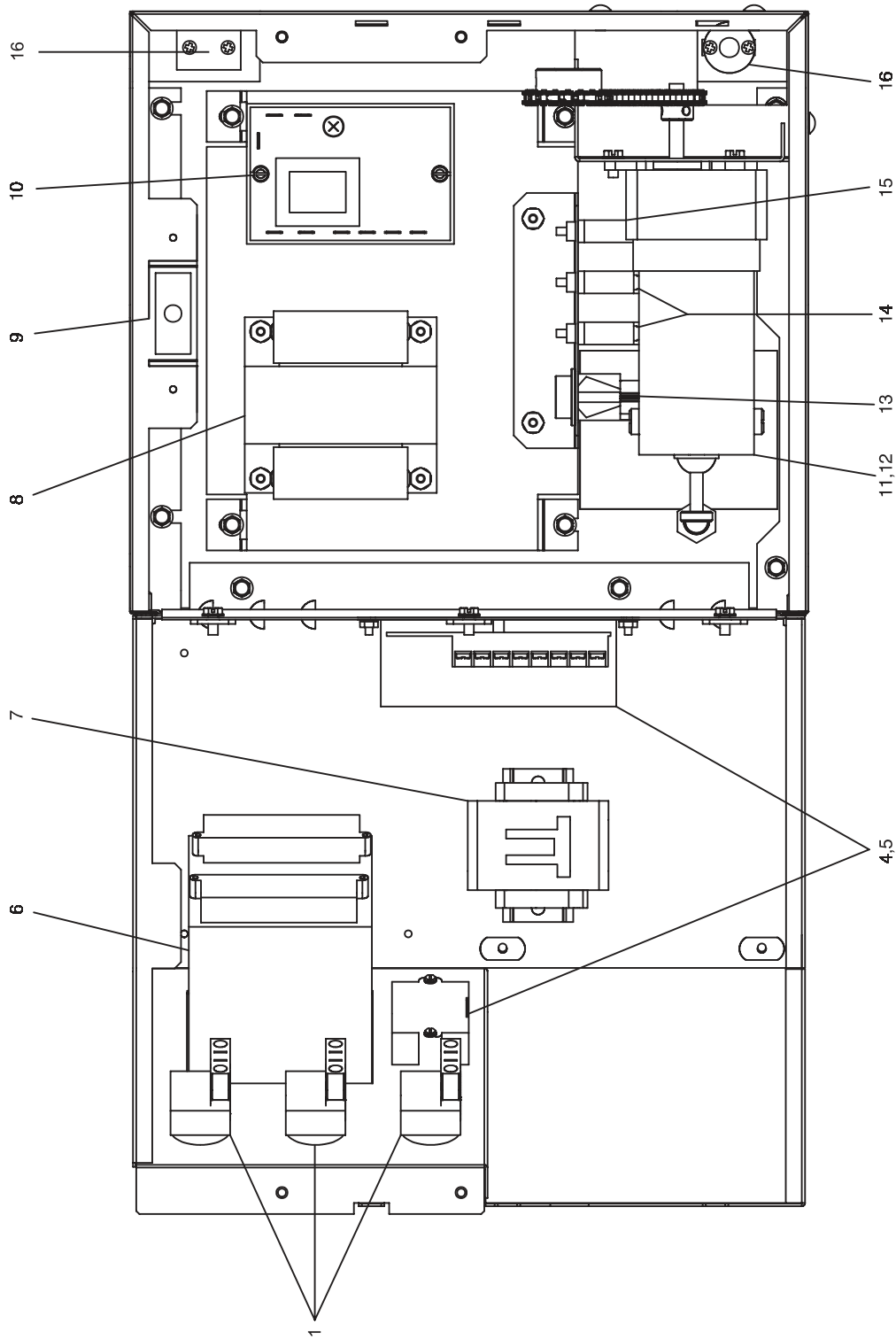


PS520G-SERIES PARTS MANUAL

Parts For Front View Of Oven

ITEM	QTY	PART NO.	DESCRIPTION
1	1	48382	Upper LH End Plug Assembly, includes item 5 eyebrow
2	1	48387	Lower LH End Plug Assembly
3	1	48408	Lower RH End Plug Assembly
4	1	48412	Upper RH End Plug Assembly, includes item 6 eyebrow
5	1	48378	Eyebrow, Upper LH End Plug Assembly
6	1	48410	Eyebrow, Upper RH End Plug Assembly
7	4	51398	End Plug Mounting Bracket Assembly .875"
8	8	21296-0005	Screw, Hex Head, WSHHD 12-14x3/4 SS BSD
9	6	36452	Nut, Wing-Plastic 1/4-20
10	4	3101908	Leg, 4" ADJ FT (NPS)
11	1	48395	Bottom Tray Assembly
12	1	48396	Cover, Top
13	4	51387	Scr, MS, SLT THRD 8-32x1/2" 18-8
14	1	49975	Cordset, L6-20P
14A	1	49976	Cord only (CE Models)
15	1	45739	Nameplate, Middleby Marshall
16	1	47861	Cover, Motor
17	4	M3828	Alignment Pin (Triple Stack)
18	1 or 2	59227	Guard, Heat (must be installed in the field on Double and Triple stack ovens)

View of Left Hand Electrical Compartment

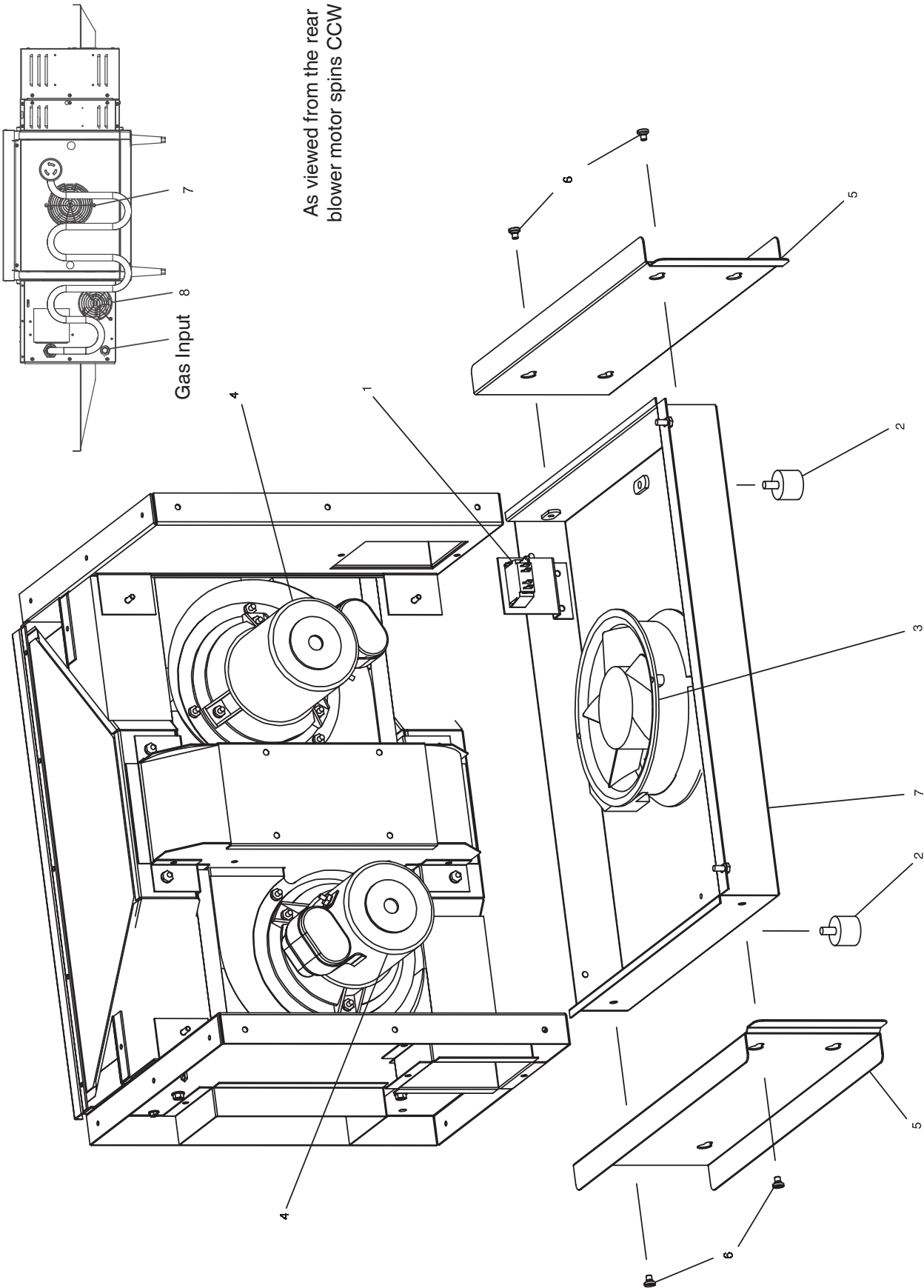


Parts For Left Hand Electrical Compartment

ITEM	QTY	PART NO.	DESCRIPTION
1	3	46521	Kit Blower Switch (Contains (1) 44697, (1) 44696)
4	1	58323	Conveyor Speed control w/Digital Speed Display
5	1	37503	Digital Speed Control (Display Only)
6	1	47321	Temperature Control (58504)
7	1	28041-0011	Contact, 208/240V-25A
8	1	31504	Transformer, 230V(P)/120(S), 200VA
9	1	28021-0047	Switch, Interlock, 10A, NO 2 Pole
10	1	33983	Control, Electric, Hi-Limit, 240V
11	1	58390	Motor, Conveyor Drive With 2-Pole Magnet
11a	1	39002	Magnet 2-Pole
11b	1	310-0017	Adhesive
11d	1	58484	Kit, 2 brushes & 2 caps
12	1	38185	Sensor-Conveyor Pick-up
13	1	35145	Switch, Push-button, Molveno, 250V
14	2	45036	Breaker, Circuit 240V, 3A
15	1	48635	Breaker, Circuit 240V, 0.3A
16	1 or 2	33812-5	Thermocouple, Type "j", Shielded, 2.5"x 20"

PS520G-SERIES PARTS MANUAL

Rear View Of Blower Compartment

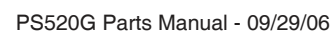


PS520G-SERIES PARTS MANUAL

Parts For Rear View Blower Compartment

ITEM	QTY	PART NO.	DESCRIPTION
1	1	28021-0061	Switch, Momentary-10A, NO 2 Pole
2	2	30927	Bumper, Window
3	1	36451	Fan, Cooling, 230V AC, 295 CFM
4	2	52244	Motor, Blower, CW, 208/230V 50/60 Hz With Blower Wheel
5	2	57258	Plate, Air Vent
6	4	7007413	SCR, Shoulder 10-32x3/4 18-8
7	1	31497	Guard-Cooling Fan
8	1	27470-0004	Guard - Right Hand Control Compartment

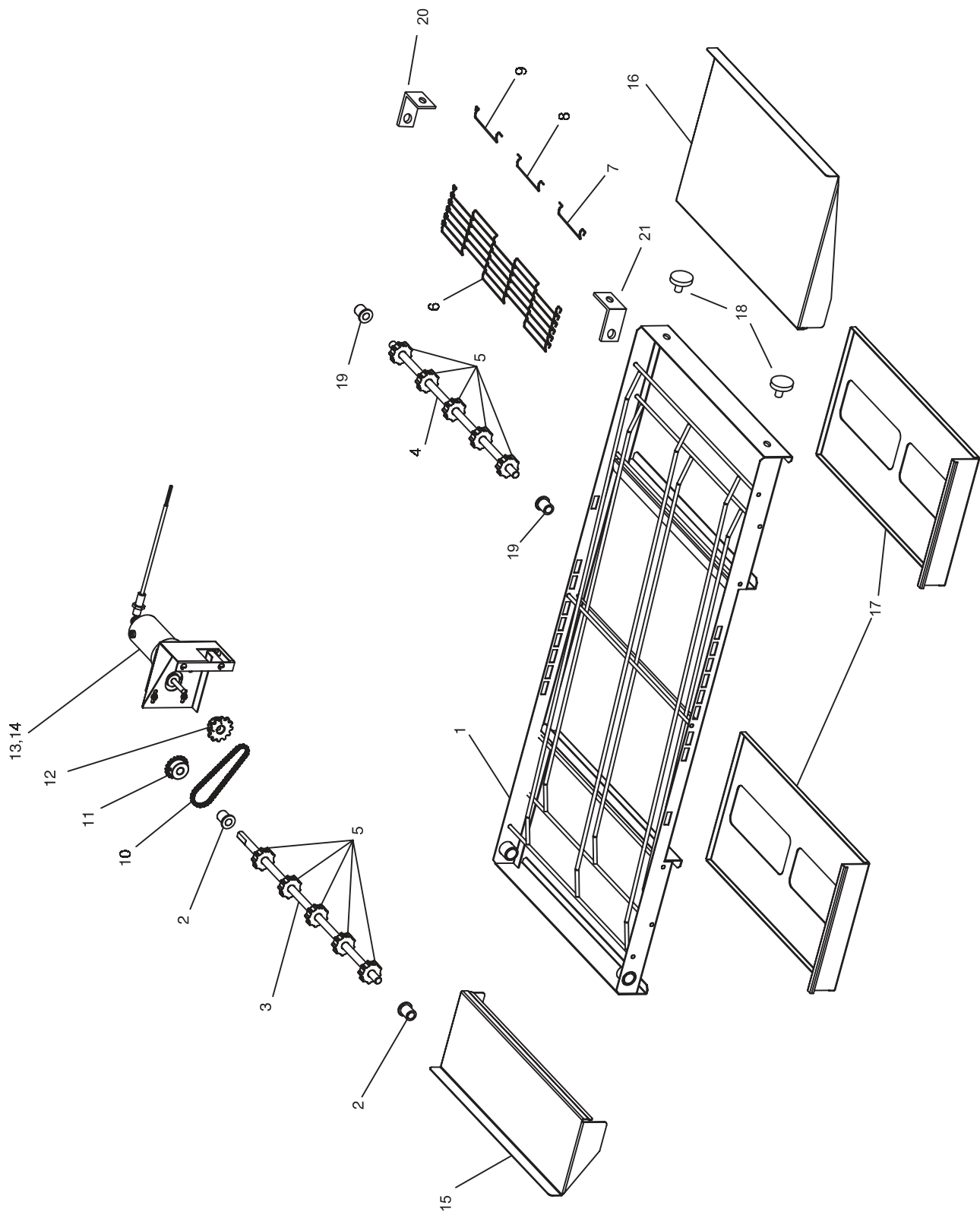
View Of Right Hand Of Electrical Compartment



Parts For Right Hand Electrical Compartment

ITEM	QTY	PART NO.	DESCRIPTION						
1	1 or 2	33812-5	Thermocouple, Type "J" Shielded 2.5" x 120"	16A	1	59416	Kit, Convert gas valve to NAT		
2	1	28021-0047	Switch, Interlock	16B	1	59415	Kit, Convert gas valve to LP		
3	2	30002	Tap, Plug	17	1	31651	Amplifier Board		
4	1	59023	Manifold	18	1	50239	Ignition Module		
5A	2	59144	Main Orifice Natural #45 .082"	19	1	50240	Ignition Cable 25" (635mm)		
5B	2	59143	Main Orifice Propane 0.057" (1.45mm)	20	1	59450	Modulating Gas Valve (41647)		
6	1	59125	Cover Plate, Inshot Burner Housing	21	1	50794	Ignition Relay		
7	1	59006	Assembly, Burner Tubes	22	2	44888	Fitting, Compression		
8	1	48455	Ignitor	23A	1	59145	Orifice Bypass, Natural #49 .073"		
9	2	59002	Burner, Inshot	23B	1	49948	Orifice Bypass, Propane 0.0520" #55		
10	1	50610	Air Switch	24	1	44390	Terminal Block		
11	1	33813	RFI Filter	25A	1	59146	LP to Nat Kit (includes 16A, 5A, 23A)		
12	1	27470-0004	Fan Guard	25B	1	59147	Nat to LP Kit (includes 16B, 5B, 23B)		
13	1	41872	Transformer 240V Pri, 24V Sec 25VA	26	1	59018	Bypass Tube		
14	1	32108	Transformer 240V Pri, 24V Sec 65VA	27	1	59127	Pipe Assembly Clamp		
15	1	45644	Circuit Breaker, 1 Amp	28	1	59227	Heat Guard		
16	1	59142	Combo Gas Valve - Natural Gas	29	1	37000-0781	Pipe Clamp		

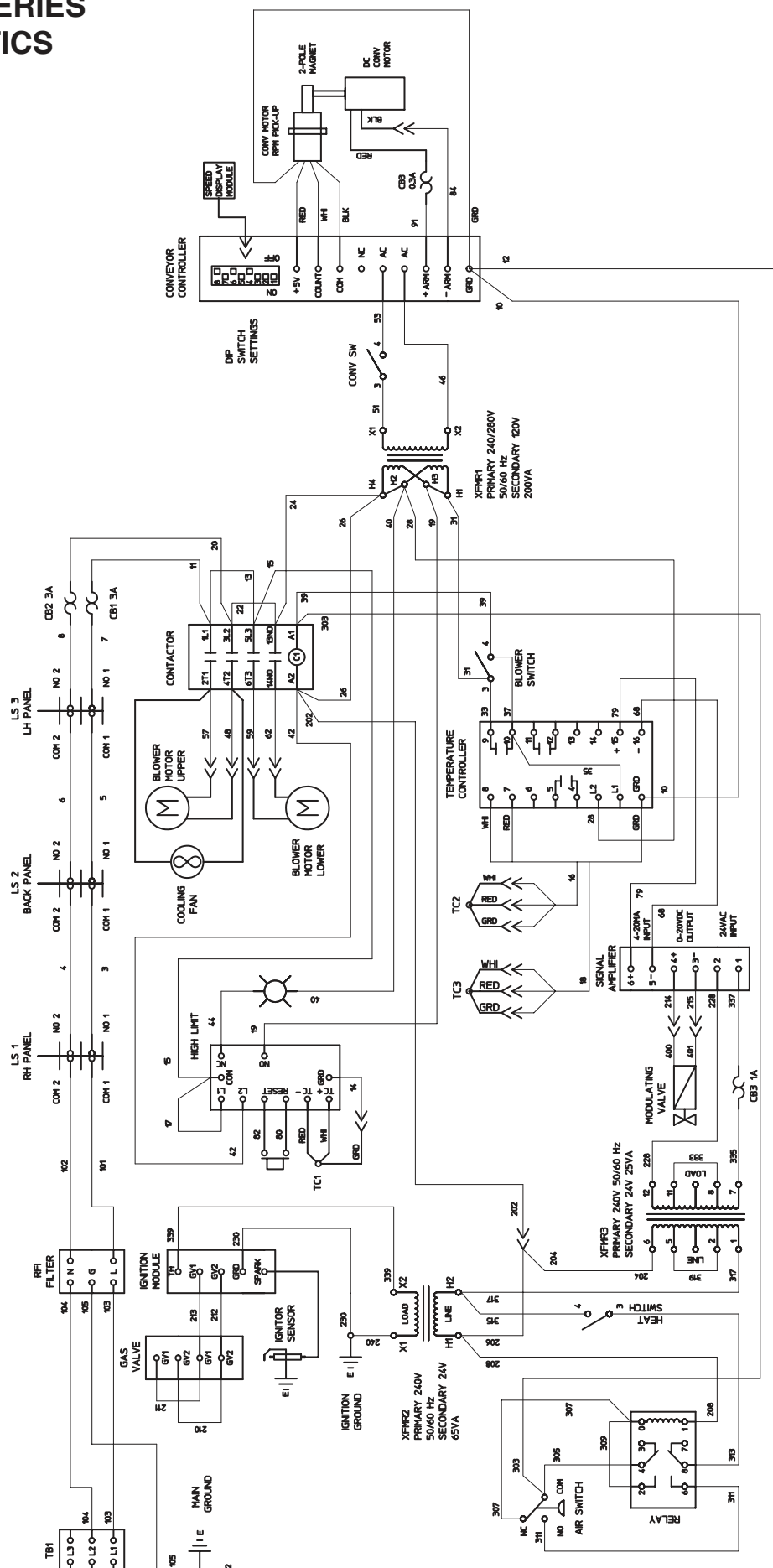
View of Conveyor Parts



Parts For Conveyor

ITEM	QTY	PART NO.	DESCRIPTION
1	1	59275	Weldment
2	2	M4817	Bearing, Rulon
3	1	M4815	Shaft, Drive
4	1	59271	Shaft, Idler
5	10	M4818	Sprocket, Wire Belt
6	1	59307	Belt, Wire, Stainless Steel, 18"x87'-1/2"
7	1	58391	Kit, Master Link Front, Middle, Rear
10	1	55567	Assy, Chain High Speed w/Master Link
10a	1	310-1212	Master Link Only
11	1	55217	Sprocket, chain #25-20T-1/2" Conveyor Shaft
12	1	45349	Sprocket, 25B25 w/5/16" Bore - Drive Shaft
13	1	58390	Motor, Conveyor Drive w/2 Pole Magnet
13a	1	39002	Magnet 2-Pole
13b	1	310-0017	Adhesive
13c	1	58484	Kit, 2 Brushes & 2 Caps
14	1	38185	Sensor-Conveyor Pick-up
15	1	59280	Extension, Conveyor - 6"
16	1	59272	Extension, Conveyor - 12"
17	2	51409	Pan, Crumb Vented - Shipped As Standard
18	2	59276	Screw Adjustment
19	2	59264	Bushing, Rulon - Idler
20	1	59267	Idler Guide - Back
21	1	59270	Idler Guide - Front

PS520E-SERIES SCHEMATICS



Drawing 59113 Rev C: Wiring Diagram, 208/240V - GAS, World Oven

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

NOTICE

During the warranty period. ALL parts replacement and servicing should be performed by your Middleby Marshall Authorized Service Agent. Service that is performed by parties other than your Middleby Marshall Authorized Service Agent may void your warranty.

NOTICE

Using any parts other than genuine Middleby Marshall factory manufactured parts relieves the manufacturer of all warranty and liabilities.

NOTICE

Middleby Marshall reserves the right to change specifications at any time.



Commercial Food Equipment Service Association

Middleby is proud to support the Commercial Food Equipment Service Association (CFESA). We recognize and applaud CFESA's ongoing efforts to improve the quality of technical service in the industry.

Middleby Cooking Systems Group • 1400 Toastmaster Drive • Elgin, IL 60120 • USA • (847) 741-3300 • FAX (847) 741-4406

www.middleby.com