

Ploog Engineering Co., Inc.

814 N. Indiana Ave.
Crown Point, IN 46307 USA
219-663-2854

Owner / Operator Manual for Electric Centrifuge Extractor

Meets ASTM D2172 and AASHTO T164



- Used to determine the amount of bitumin content in paving mixtures.
- Electronic speed control is adjustable from 0 to 3600 rpm.
- Includes hand operated braking mechanism.
- Use with either 1500 gram bowl or 3000 gram bowl.
- Available with explosion proof motor, or open frame motor.
- 115 V is standard, 230 V also available.
- 100 filter papers included.

Models

		with 1500 gram bowl	with 3000 gram bowl
115 V	open motor	M205	M207
	explosion proof motor	MX205	MX207
230 V	explosion proof motor	MX205-2	MX207-2

M255, extra 1500 gram bowl, M245, extra 1500 gram bowl cover
M257, extra 3000 gram bowl, M247 extra 3000 gram bowl cover
F265, extra filter papers for 1500 gram bowl (package of 100).
F267, extra filter papers for 3000 gram bowl (package of 100).

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Operating Instructions for Series 5 Extractors

Applications

The Ploog Electric Centrifuge Extractor enables testing in accordance with D2172, Standard Test Methods for Quantitative Extraction of Bitumen From Bituminous Paving Mixtures, and AASHTO T164, Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA). These methods cover the quantitative determination of bitumen in hot mixed paving mixtures and paving samples.

Installation

After unpacking, bolt the machine down to a suitable work bench, and connect the power cord to a suitable receptacle of the proper voltage.

Operation

The machine may be used with either a 3000 gram or 1500 gram bowl. Set the speed control knob to zero before starting the machine. Flip the toggle switch to the "on" position, and gradually turn the knob clockwise to the desired speed. For 3000 grams, we recommend a setting of "8." For 1500 gram bowls, we recommend a setting of "10." To stop the machine, flip the toggle switch to the "off" position. Use the hand brake to slow the rotation of the bowl. To restart, return the speed control to zero before restarting the machine.

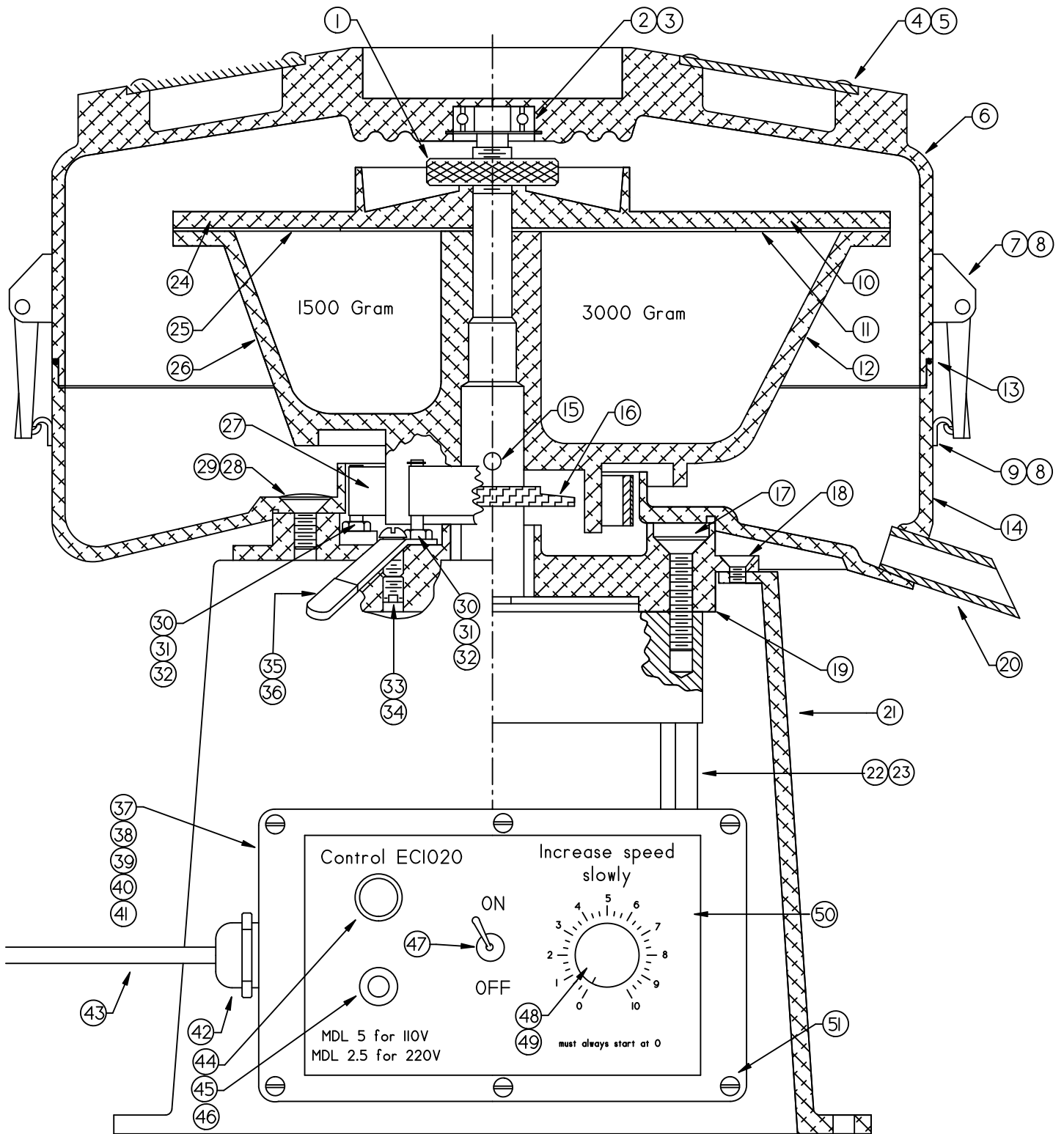
Extractor Parts List
Series 5
M205, M207, MX205, MX207 MX205-2, MX207-2

REF.	NEW PART NO	OLD P/N	DESCRIPTION	QTY
1	1015P0005	E230	Cover Nut	1
2	1015P0010	B1000	Bearing	1
3	1015P0011	SR1000	Retaining Ring	1
4	1015P0012	PA156	Cover Handle	2
5	1015P0013	SO15	Handle Screws	8
6	1015P0014	PA13	Outer Cover	1
6	1015P0014A	PA13A	Outer Cover Assy. w/ref #2,3,4,5, & S212	1
7	1015P0015KIT	CL1000A	Cover Clamp Assy.,all Parts for 1 Machine	1 kit
8	1015P0016	SO16	Cover Clamp Screws	8
10	1015P0004	M247	3000 Gram Bowl Cover	1
11	1085P0000	F267	3000 Gram Filter	1
12	1015P0002	M257	3000 Gram Bowl	1
13	1015P0018	S212	O" Ring, Buna N	1
13	1015P0019	S212V	O" Ring, Viton	1
14	1015P0020	PA14	Lower Bowl	1
15	1015P0021	PA12-2	Drive Pin	1
16	1015P0031.1	S213.1	Flinger, machined aluminum	1
16	1015P0031	S213	Flinger, neoprene (old design)	1
17	1015P0022	SO18.1	Motor mounting Screws	4
18	1015P0023	SO19	Base Screws	5
19	1015P0024	PA15.1	Motor Base Plate	1
20	1015P0025	PA28	Spout	1
21	1015P0026	PA34	Base	1
22	1015P0027	M1010	Motor Assy.w/Shaft,Explo-proof 115 Volt	1
22	1035P0001	M1015	Motor Assy.w/Shaft,Explo-proof 230 Volt	1
23	1015P0028	M1011	Motor Assy. w/Shaft, open 115 Volt	1
23	1035P0002	M1016	Motor Assy. w/Shaft,open, 230V, obs. use M1015	1
24	1015P0003	E245	1500 Gram Bowl Cover	1
25	1080P0000	F265	1500 Gram Filter	1
26	1015P0001	M255	1500 Gram Bowl	1
27	1015P0032	PA29	Brake Band	1
28	1015P0029	SO20	Bowl Mounting Screws	3
29	1015P0030	A12	Epoxy kit	1 kit
30	1015P0033	NO5	Lock Nut	2
31	1015P0034	PA16	Retaining Pin for Brake Band	2
32	1015P0035	SR1002	Retaining Ring	2
33	1015P0036	SO21	Handle Pivot Screw	1
34	1015P0037	SO22	Handle Pivot Lock Screw	1
35	1015P0038	PA27	Brake Handle	1
35	1015P0040	PA27A	Brake Handle Assy w/ref # 27,30,31,32,35,36	1
36	1015P0041	SO24	Plastic Handle Cover	1
37	1015P0046	EC1020	Complete Control , Electronic	1

Extractor Parts List
 Series 5
 M205, M207, MX205, MX207 MX205-2, MX207-2

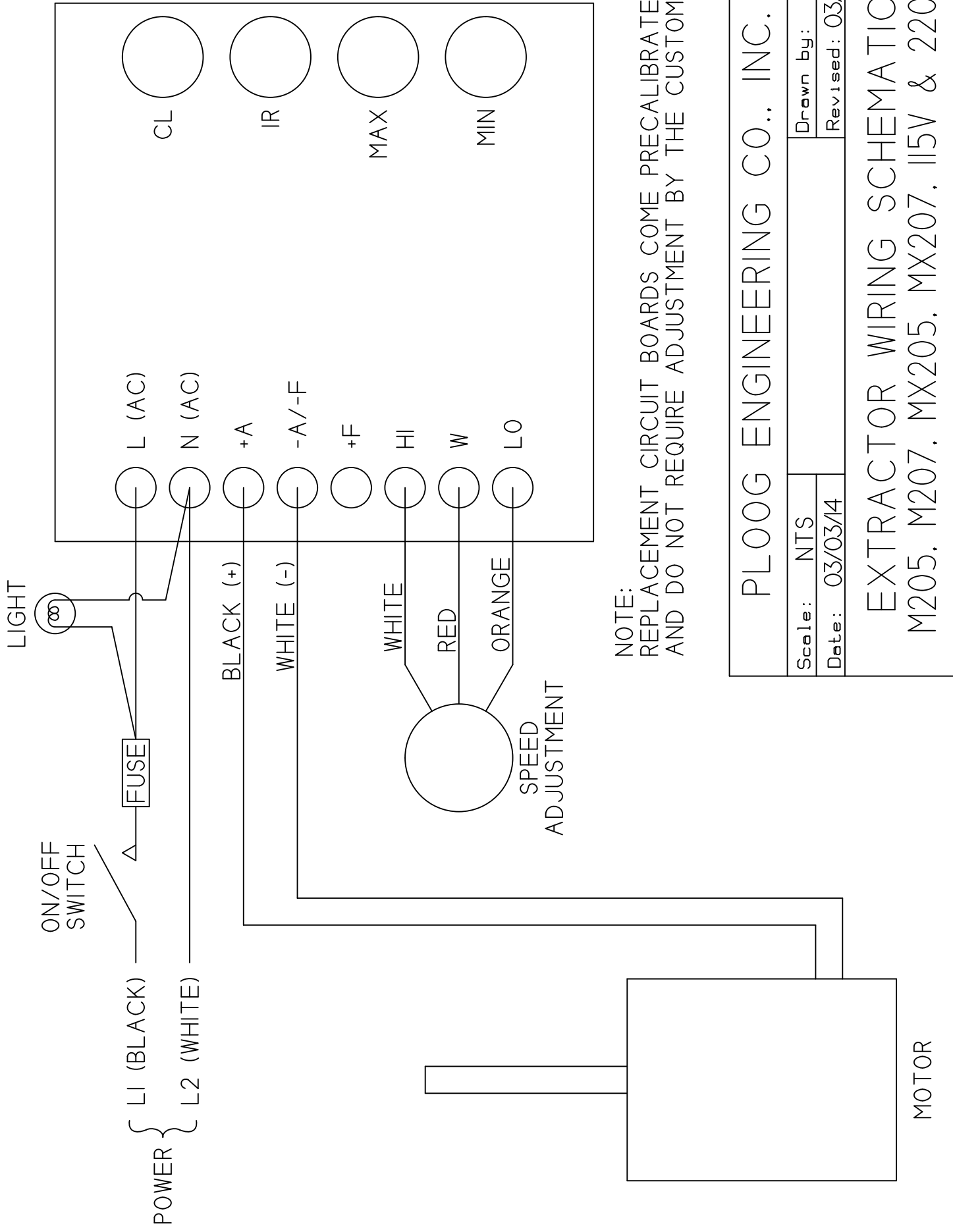
Complete Control, EC1020 Components

REF.	NEW PART NO	OLD P/N	DESCRIPTION	QTY
38	1015P0101	E101	Electronic Board	1
	1015P0101.1	E101.1	Mtg. screws for electronics	2
39	1015P0102	E102	Enclosure	1
40	1015P0103	E103	Pipe Nipple	1
	1015P0103.1		3/4" Coupling	1
	1015P0103.2		3/4" Lock Nut	1
41	1015P0104	E104	Front Panel (Cover)	1
42	1015P0105	E105	Cord Grip	1
43	1015P0106	E106	Power Cord 120 Volt	1
43	1015P0107	E107	Power Cord 220 Volt	1
44	1015P0108	E108	Pilot Light 120 Volt	1
44	1015P0108.1	E109	Pilot Light 220 Volt	1
45	1015P0110	E110	Fuse Holder	1
46	1015P0111	E111	Fuse for 120V 5 Amp (MDL-5-R)	1
46	1015P0111.1	E112	Fuse for 220V 2.5 Amp (MDL-2.5-R)	1
47	1015P0113	E113	Switch	1
48	1015P0114	E114	Potentiometer	1
49	1015P0115	E115	Knob	1
50	1015P0116	E116	Decal	1
51	1015P0117	E117	Cover Screws	6



Extractor Parts List Series 5

Scale:		Drawn by:
Date:		Revised: 5/1/98
Ploog Engineering Co. Inc Crown Point, In. 46307		
		Drawing Number PC-IC



NOTE:
 REPLACEMENT CIRCUIT BOARDS COME PRECALIBRATED
 AND DO NOT REQUIRE ADJUSTMENT BY THE CUSTOMER.

PLOOG ENGINEERING CO., INC.	
Scale: NTS	Drawn by: RGF
Date: 03/03/14	Revised: 03/03/14
EXTRACTOR WIRING SCHEMATIC M205, M207, MX205, MX207, 115V & 220V	
	Drawing Number PA246