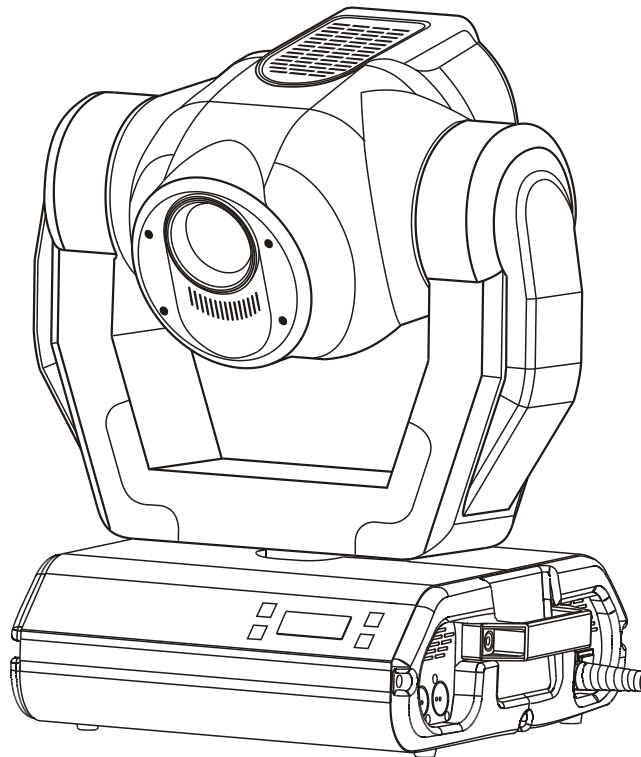




# Service manual V 5.1



**MH - 660 Spotlight**

## Spare-parts MH-660

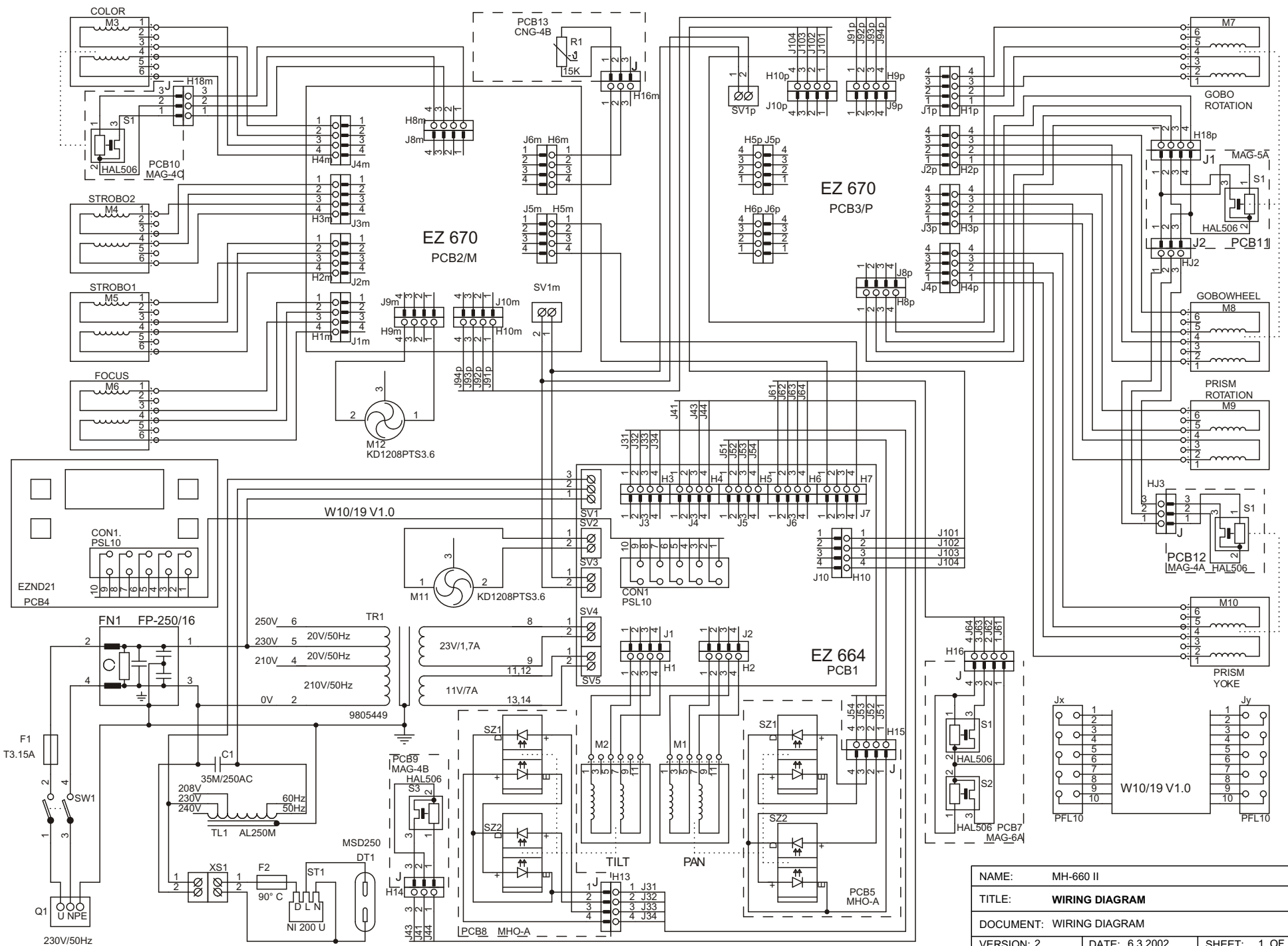
No.	Designation - German	Designation - English	Designation - French	Designation - Spanish	Sheet/Pos.
51836236	Linse 18° für MH-660	Lens 18° for MH-660	Lentille 18° pour MH-660	Lente 18° para MH-660	
51836910	Linse 12° für MH-660	Lens 12° for MH-660	Lentille 12° pour MH-660	Lente de 12° para MH-660	
89102010	OSRAM HSD 200 70V/200W GY-9,5 2000h	OSRAM HSD 200 70V/200W GY-9.5 2000h	OSRAM HSD 200 70V/200W GY-9.5 2000h	OSRAM HSD 200 70V/200W GY-9.5 2000h	
89102015	PHILIPS MSD200 70V/200W GY-9,5 2000h	PHILIPS MSD200 70V/200W GY-9.5 2000h	PHILIPS MSD200 70V/200W GY-9.5 2000h	PHILIPS MSD200 70V/200W GY-9.5 2000h	
89102020	SYLVANIA 70V/200W GY-9,5 2000h	SYLVANIA 70V/200W GY-9.5 2000h	SYLVANIA 70V/200W GY-9.5 2000h	SYLVANIA 70V/200W GY-9.5 2000h	
89106010	OSRAM HSD 250 90V/250W GY-9,5 2000h	OSRAM HSD 250 90V/250W GY-9.5 2000h	OSRAM HSD 250 90V/250W GY-9.5 2000h	OSRAM HSD 250 90V/250W GY-9.5 2000h	
89106015	PHILIPS MSD250 90V/250W GY-9,5 2000h	PHILIPS MSD250 90V/250W GY-9.5 2000h	PHILIPS MSD250 90V/250W GY-9.5 2000h	PHILIPS MSD250 90V/250W GY-9.5 2000h	
89106115	PHILIPS MSD250/2 90V/250W GY-9,5 2000h	PHILIPS MSD250/2 90V/250W GY-9.5 2000h	PHILIPS MSD250/2 90V/250W GY-9.5 2000h	PHILIPS MSD250/2 90V/250W GY-9.5 2000h	
E3121008	IC L-293-D	IC L-293-D	IC L-293-D	IC L-293-D	4/1
E3121437	Griff	Handle	Poignée	Asa	
E3122821	Sicherungshalter für SC-330/SC-370	Fuse-holder for SC-330/SC-370	Porte-fusible pour SC-330/SC-370	Portafusible para SC-330/SC-370	
E3123022	XLR-Einbaubuchse für SC-740/SC-780 Scan	XLR mounting-socket for SC-740/SC-780	Douille XLR encastrable pour SC-740/780	Casquillo XLR incorporado p.SC-740/SC-780	2/19
E3123023	XLR-Einbaustecker für SC-740/SC-780 Scan	XLR-Connector male for SC-740/SC-780 Scan	Fiche encastrable XLR pour SC-740/SC-780	Clavija incorporado XLR p. SC-740/SC-780	2/13
E3123610	IC PIC 17C43-16/P für MH-660 V1.3/IC1	IC PIC 17C43-16/P for MH-660 V1.3/IC1	IC PIC 17C43-16/P pour MH-660 V1.3/IC1	IC PIC 17C43-16/P para MH-660 V1.3/IC1	2/8
E3123611	IC PIC 17C43-16/P für MH-660 V1.6/IC1	IC PIC 17C43-16/P for MH-660 V1.6/IC1	IC PIC 17C43-16/P pour MH-660 V1.6/IC1	IC PIC 17C43-16/P para MH-660 V1.6/IC1	
E3123615	IC PIC 16-C-57-HS/P für MH-660 IC1-P	IC PIC 16-C-57-HS/P for MH-660 IC1-P	IC PIC 16-C-57-HS/P pour MH-660 IC1-P	IC PIC 16-C-57-HS/P para MH-660 IC1-P	
E3123616	IC PIC 16C57-HS/P für MH-660 IC1-M	IC PIC 16C57-HS/P for MH-660 IC1-M	IC PIC 16C57-HS/P pour MH-660 IC1-M	IC PIC 16C57-HS/P para MH-660 IC1-M	4/2
E3123617	IC PBL-3772 für MH-660	IC PBL-3772 for MH-660	IC PBL-3772 pour MH-660	IC PBL-3772 para MH-660	2/10
E3123618	IC PIC 17C43-16/P DS V1.2/IC1 für MH-660	IC PIC 17C43-16/P DS V1.2/IC1 for MH-660	IC PIC 17C43-16/P DS V1.2/IC1 pour MH-660	IC PIC 17C43-16/P DS V1.2/IC1 para MH-660	
E3123619	Magnetsensor für MH-660	Hall sensor magnet for MH-660	Senseur magnetique pour MH-660	Sensor magnético para MH-660	3/1,6/20
E312361A	IC PIC 17C43-16/P DS V1.4/IC1 für MH-660	IC PIC 17C43-16/P DS V1.4/IC1 for MH-660	IC PIC 17C43-16/P DS V1.4/IC1 pour MH-660	IC PIC 17C43-16/P DS V1.4/IC1 para MH-660	
E312361B	Relais für Platine MH-660	Relay for PCB MH-660	Relais pour platine MH-660	Relé para platina MH-660	
E3123620	Platine für MH-6xx	PCB for MH-6xx	Platine pour MH-6xx	Platina para MH-6xx	
E3123621	Lichtschränke für MH-660	Light-sensor for MH-660	Senseur de lumière pour MH-660	Sensor de luz para MH-660	3/11,2/14
E3123622	Platine für MH-660 Bedieneinheit	PCB for MH-660 remote control	Platine pour MH-660 télécommande	Platina para MH-660 teledirigida	4/5
E3123623	Platine für MH-660 Motorsteuerung	PCB for MH-660 motor-control	Platine pour contr�l de moteur p. MH-660	Platina para control de motor p. MH-660	
E3123624	Quarz 16MHz für MH-660	Quarz 16MHz for MH-660	Quarz 16MHz pour MH-660	Quarz 16MHz para MH-660	
E3123625	Taster für Display MH-660	Contact switch for display MH-660	Bouton poussoir pour display MH-660	Pulsador para display MH-660	1/14
E3123626	Photodiode für MH-660	Photodiode for MH-660	Photodiode pour MH-660	Fotodiode para MH-660	8/7
E3123627	IC PIC 17C43-16/P DS V1.5/IC1 für MH-660	IC PIC 17C43-16/P DS V1.5/IC1 for MH-660	IC PIC 17C43-16/P DS V1.5/IC1 pour MH-660	IC PIC 17C43-16/P DS V1.5/IC1 para MH-660	
E3123628	IC 24C08 EEPROM für MH-660 V1.0/IC2	IC 24C08 EEPROM for MH-660 V1.0/IC2	IC 24C08 EEPROM pour MH-660 V1.0/IC2	IC 24C08 EEPROM para MH-660 V1.0/IC2	
E3123629	Netzschalter für MH-660	Powerswitch for MH-660	Interrupteur ON/OFF pour MH-660	Interruptor de alimentación para MH-660	2/18
E3123630	Linse 1te für MH-660	First lens for MH-660	1�re lentille pour MH-660	1a lente para MH-660	8/4
E3123631	Linse 2te für MH-660	Second lens for MH-660	Lentille seconde pour MH-660	Lente segunda para MH-660	8/13
E3123632	Linse für Fokus MH-660	Focus lens for MH-660	Lentille de foyer pour MH-660	Lente de foco para MH-660	6/19
E3123633	Objektivlinse für MH-660	Objectiv-lens for MH-660	Objectif pour MH-660	Objetivo para MH-660	6/3
E3123634	Reflektor für MH-660	Reflector for MH-660	R�flecteur pour MH-660	Reflector para MH-660	8/8
E3123635	Prisma für MH-660	Prism for MH-660	Prisme pour MH-660	Prisma para MH-660	5/4
E3123636	Platine Temperatur-Lichtf�hler f�r MH-660	PCB Temperature-lightsensor for MH-660	Platine thermistance-d�tecteur de lumi�re	Platina termistor-sensor de luz p. MH-660	
E3123637	Kabel Platine-Motorplatine f�r MH-660	Cable main PCB-Motor PCB for MH-660	Kabel Platine-Motorplatine f�r MH-660	Kabel Platine-Motorplatine f�r MH-660	
E3123639	Shutter f�r MH-660	Shutter for MH-660	Shutter pour MH-660	Shutter para MH-660	6/8
E3123640	Goborad f�r MH-660	Gobowheel for MH-660	Roue des gobos pour MH-660	Rueda de gobos para MH-660	10/7,7/8
E3123641	Farbrad f�r MH-660	Colorwheel for MH-660	Roue des couleurs pour MH-660	Rueda de colores para MH-660	9/14,7/9
E3123642	Gobo Nr.1 f�r MH-660	Gobo No.1 for MH-660	Gobo No.1 pour MH-660	Gobo No.1 para MH-660	10/6
E3123643	Gobo Nr.2 f�r MH-660	Gobo No.2 for MH-660	Gobo No.2 pour MH-660	Gobo No.2 para MH-660	10/5

## Spare-parts MH-660

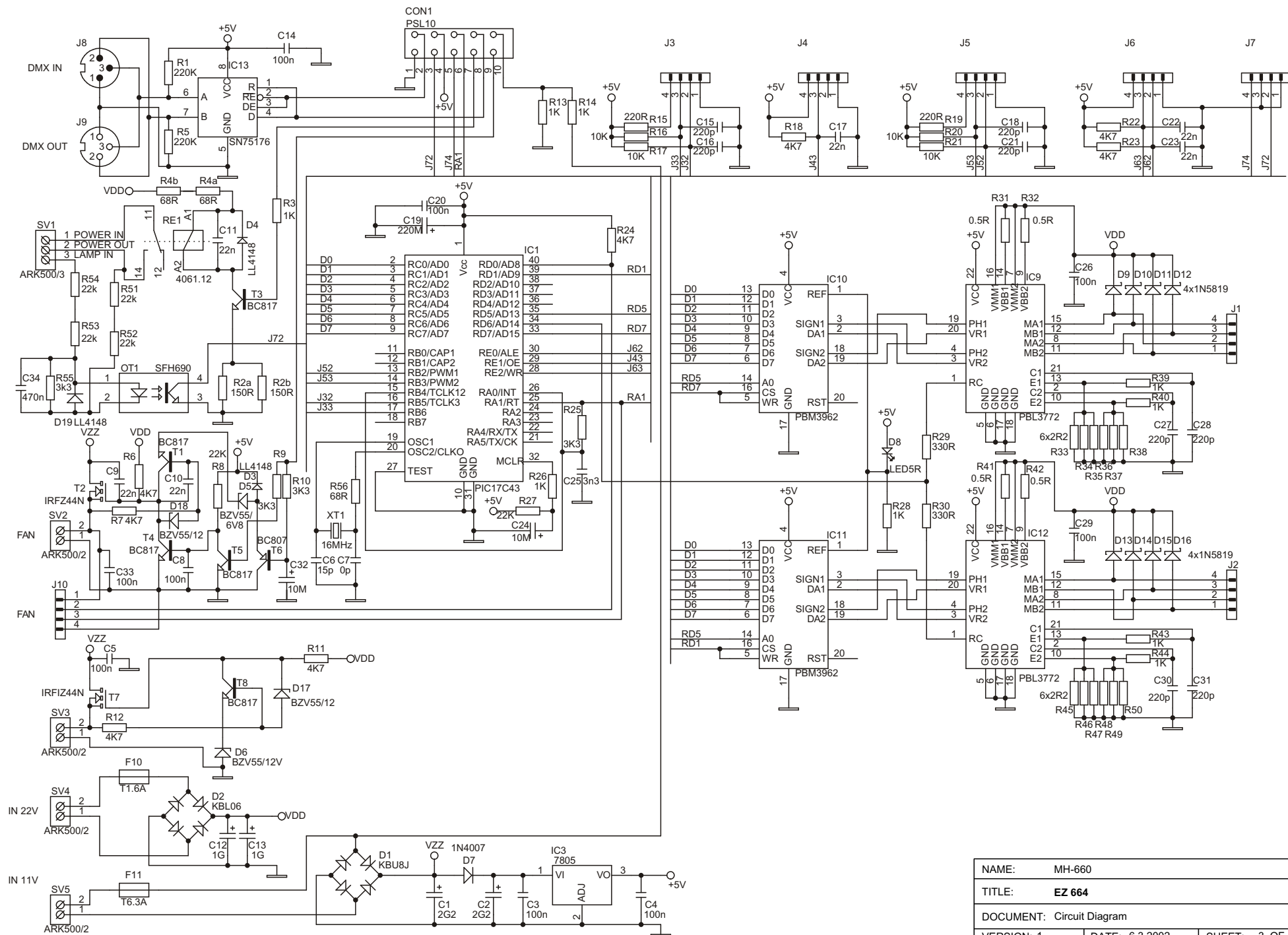
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E3123644	Gobo Nr.3 für MH-660	Gobo No.3 for MH-660	Gobo No.3 pour MH-660	Gobo No.3 para MH-660	10/4
E3123645	Gobo Nr.4 für MH-660	Gobo No.4 for MH-660	Gobo No.4 pour MH-660	Gobo No.4 para MH-660	10/3
E3123646	Gobo Nr.5 für MH-660	Gobo No.5 for MH-660	Gobo No.5 pour MH-660	Gobo No.5 para MH-660	10/2
E3123647	Gobo Nr.6 für MH-660	Gobo No.6 for MH-660	Gobo No.6 pour MH-660	Gobo No.6 para MH-660	10/1
E3123648	Klemmring für rotierendes Gobo MH-660	Clamp ring for rotating gobo MH-660	Anneau de serrage p.gobo rotat. MH-660	Anillo opresor p.gobo girator. MH-660	
E3123649	Zahnrad für Goborotation MH-660	Gearwheel for goborotation MH-660	Roue dentée pour rotation de gobo MH-660	Rueda dentada p. rotación de gobo MH-660	7/7
E3123650	Steppermotor für Kopfbewegung MH-660	Steppermotor for head-movement MH-660	Moteur pas à pas p.movement de tête MH660	Motor paso a paso p.movimiento de cabeza	4/7,3/10
E3123660	Zahnriemen für Kopfbewegung MH-660 (PAN)	Toothed-belt f.head-movement MH-660 (PAN)	Courroie dentée p.movement de tête (PAN)	Correa dentada p.movimien. de cabeza (PAN)	3/9
E3123661	Zahnriemen für Kopfbewegung MH-660 (TILT)	Toothed-belt f.head-movement MH-660 (TILT)	Courroie dentée p.movem. de tête (TILT)	Correa dentada p.movimien.de cabeza (TILT)	4/11
E3123662	Zahnrad für Prisma MH-660 (groß)	Tooth-wheel for prisma MH-660 (big)	Roue dentée pour prisme MH-660 (grand)	Rueda dentada para prisma MH-660 (grande)	
E3123663	Abstandshalter für Prisma (groß) MH-660	Spacer for prism (big) MH-660	Distanceur pour prisme (grand) MH-660	Distanciador para prisma (grande) MH-660	
E3123670	Lüfter für MH-660	Cooling fan for MH-660	Ventilateur pour MH-660	Ventilator para MH-660	8/11,2/5
E3123673	Trafo für MH-660 110V	Transformer for MH-660 110V	Transformateur pour MH-660 110V	Transformador para MH-660 110V	
E3123674	Sockel für MH-660	Lampsocket for MH-660	Douille pour MH-660	Casquillo para MH-660	8/3
E3123675	Starter für MH-660	Ignitor for MH-660	Starter pour MH-660	Encendedor para MH-660	8/6
E3123676	Kondensator für MH-660	Capacitor for MH-660	Condensateur for MH-660	Condensador para MH-660	2/2
E3123677	Trafo für MH-660	Transformer for MH-660	Transformateur pour MH-660	Transformador para MH-660	2/23
E3123678	Drossel für MH-660	Ballast for MH-660	Ballast pour MH-660	Reactor para MH-660	2/1
E3123679	Dichro (dunkelgrün) für MH-660	Dichroic-filter (dark green) for MH-660	Filtre dichroïque (vert foncé) p. MH-660	Filtro dicroico (verde oscuro) p. MH-660	9/3
E3123680	Dichro (rot) für MH-660	Dichroic-filter (red) for MH-660	Filtre dichroïque (rouge) p. MH-660	Filtro dicroico (rojo) p. MH-660	9/4
E3123681	Dichro (hellgrün) für MH-660	Dichroic-filter (lightgreen) for MH-660	Filtre dichroïque (vert clair) p. MH-660	Filtro dicroico (verde claro) p. MH-660	9/6
E3123682	Dichro (magenta) für MH-660	Dichroic-filter (magenta) for MH-660	Filtre dichroïque (magenta) p. MH-660	Filtro dicroico (magenta) p. MH-660	9/7
E3123683	Dichro (blau) für MH-660	Dichroic-filter (blue) for MH-660	Filtre dichroïque (bleu) p. MH-660	Filtro dicroico (azul) p. MH-660	9/8
E3123684	Dichro (gelb) für MH-660	Dichroic-filter (yellow) for MH-660	Filtre dichroïque (jaune) p. MH-660	Filtro dicroico (amarillo) p. MH-660	9/9
E3123685	Dichro (grün) für MH-660	Dichroic-filter (green) for MH-660	Filtre dichroïque (vert) p. MH-660	Filtro dicroico (verde) p. MH-660	9/10
E3123686	Dichro (pink) für MH-660	Dichroic-filter (pink) for MH-660	Filtre dichroïque (rose) p. MH-660	Filtro dicroico (rosa) p. MH-660	9/11
E3123687	Dichro (cyan) für MH-660	Dichroic-filter (cyan) for MH-660	Filtre dichroïque (cyan) p. MH-660	Filtro dicroico (cyan) p. MH-660	9/5
E3123688	Dichro (dunkelblau) für MH-660	Dichroic-filter (dark-blue) for MH-660	Filtre dichroïque (bleu-foncé) p. MH-660	Filtro dicroico (azul oscuro) p. MH-660	9/12
E3123689	Dichro (orange) für MH-660	Dichroic-filter (orange) for MH-660	Filtre dichroïque (orange) p. MH-660	Filtro dicroico (naranja) p. MH-660	9/1
E312368A	Gehäusedeckel f.MH-660(Projektorkopf)silb	Housing-lid for MH-660 (head) silver	Gehäusedeckel f.MH-660(Projektorkopf)silb	Gehäusedeckel f.MH-660(Projektorkopf)silb	
E312368B	Kunststoffabdeckung Base für MH-660	plastic parts base for MH-660	plastic parts base for MH-660	plastic parts base for MH-660	
E3123690	Gehäusedeckel für MH-660 (Projektorkopf)	Housing-lid for MH-660 (head)	Couvercle de boîtier p.MH-660 (tête)	Tapa de caja p. MH-660 (cabeza)	1/4
E3123691	Gummidichtung für MH-660 (Satz)	Rubbergasket for MH-660 (set)	Joint en caoutchouc pour MH-660 (set)	Junta de goma para MH-660 (set)	1/9
E3123692	Armabdeckung für MH-660	Cover of arm for MH-660	Couvercle de bras pour MH-660	Cubierta de brazo para MH-660	1/3
E3123693	Halterung für Steppermotor TILT MH-660	Holder for Steppermotor TILT MH-660	Support pour moteur TILT MH-660	Soporte para motor TILT MH-660	4/12
E3123694	Montageplatte für Steppermotoren MH-660	Holder of head main for MH-660	Support pour moteur pour MH-660	Soporte para motor para MH-660	4/16,5/3
E3123695	Kabelbaum (230V) für MH-660	Cable harness (230V) for MH-660	Harnais de câbles (230V) pour MH-660	Arnés de cables (230V) para MH-660	
E3123696	Seitenabdeckung für Base MH-660 Display	Base cover for MH-660 w. Display	Base couvercle pour MH-660	Base cubierta para MH-660	1/8
E3123697	Seitenabdeckung für Base MH-660 (o.Displ)	Base cover for MH-660	Base couvercle pour MH-660	Base cubierta p. MH-660	1/1
E3123698	Bodenplatte für Base MH-660	Base-cover for Base-unit MH-660	Base couvercle pour base MH-660	Base cubierta para base MH-660	
E3123699	Halteblech für Achse MH-660 PAN-Joke	Holder for axle MH-660	Support pour axe MH-660	Soporte para eje MH-660	3/19
E312369A	Montageplatte für Goborad MH-660	Mounting plate for gobo wheel MH-660	Plaque de fixation/roue des gobos MH-660	Placa de fijación p. rueda de gobo MH-660	5/5
E312369B	Montageplatte für Farbrad MH-660	Mounting plate for color wheel MH-660	Plaque de fixation p.roue des couleurs	Placa de fijación p. rueda de colores	
E312369C	Rändelschraube f. MH-660(Lampenabdeckung)	Knurled-head screw for MH-660 (Lampcover)	Vis moletée p.MH-660 (couvercle de lampe)	Tornillo moleteado p.MH-660(cub. de lámp)	
E312369D	Abdeckplatte für Linse MH-660	Cover for lens MH-660	Abdeckplatte für Linse MH-660	Abdeckplatte für Linse MH-660	

## Spare-parts MH-660

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<b>E312369E</b>	Tilt-Achse für MH-660	Tilt-axis for MH-660	Tilt-Achse für MH-660	Tilt-Achse für MH-660	
<b>E312369F</b>	Versteifungsblech für Achse MH-660	Stiffener sheet for axle MH-660	Versteifungsblech für Achse MH-660	Versteifungsblech für Achse MH-660	
<b>E312369G</b>	Halteblech für Motor PAN-Achse MH-660	Fixation Steppermotor PAN axle MH-660	Fixation Steppermotor PAN axle MH-660	Fixation Steppermotor PAN axle MH-660	
<b>E312369H</b>	Versteifungsblech für Arme MH-660	Support sheet for arms MH-660	Support de métal pour bras de MH-660	Soporte de metal para brazos de MH-660	
<b>E312369I</b>	Halter für Bewegungsdämpfer MH-660	Holder for movement absorber	Support p.amortisseur de mouvement MH-660	Soporte p.amortiguador de moción MH-660	
<b>E312369K</b>	Halter für Objektivlinse MH-660	Holder for objective-lens MH-660	Halter für Objektivlinse MH-660	Halter für Objektivlinse MH-660	
<b>E312369L</b>	Bodenplatte für MH-660	Base-plate for MH-660	Bodenplatte für MH-660	Bodenplatte für MH-660	
<b>E312369M</b>	Armabdeckung für MH-660 Silber	Cover of arm for MH-660 silver	Couvercle de bras pour MH-660 argent	Cubierta de brazo para MH-660 plateado	
<b>E3129520</b>	Temperaturmeßwiderstand 15K	Thermistor 15k	Thermistance 15k	Termistor 15K	
<b>E3129590</b>	Anschlussleitung für Steppermotor	Wires for Steppermotor	Anschlussleitung für Steppermotor	Anschlussleitung für Steppermotor	
<b>E312369K</b>	Halter für Objektivlinse MH-660	Holder for objective-lens MH-660	Halter für Objektivlinse MH-660	Halter für Objektivlinse MH-660	
<b>E312369L</b>	Bodenplatte für MH-660	Base-plate for MH-660	Bodenplatte für MH-660	Bodenplatte für MH-660	
<b>E4000226</b>	Diode 1 N 5819	Diode 1 N 5819	Diode 1 N 5819	Diode 1 N 5819	
<b>E4000387</b>	Transistor IRFIZ 44N	Transistor IRFIZ 44N	Transistor IRFIZ 44N	Transistor IRFIZ 44N	
<b>E4000387</b>	Transistor IRFIZ 44N	Transistor IRFIZ 44N	Transistor IRFIZ 44N	Transistor IRFIZ 44N	
<b>E4000471</b>	IC SN 75176 BP	IC SN 75176 BP	IC SN 75176 BP	IC SN 75176 BP	
<b>E4050111</b>	IC PBM 3962 SMD	IC PMB 3962 SMD	IC PBM 3962 SMD	IC PBM 3962 SMD	
<b>E6502045</b>	Schaltplan für MH-660	Circuit diagram for MH-660	Schema de connexions pour MH-660	Esquema cableado para MH-660	

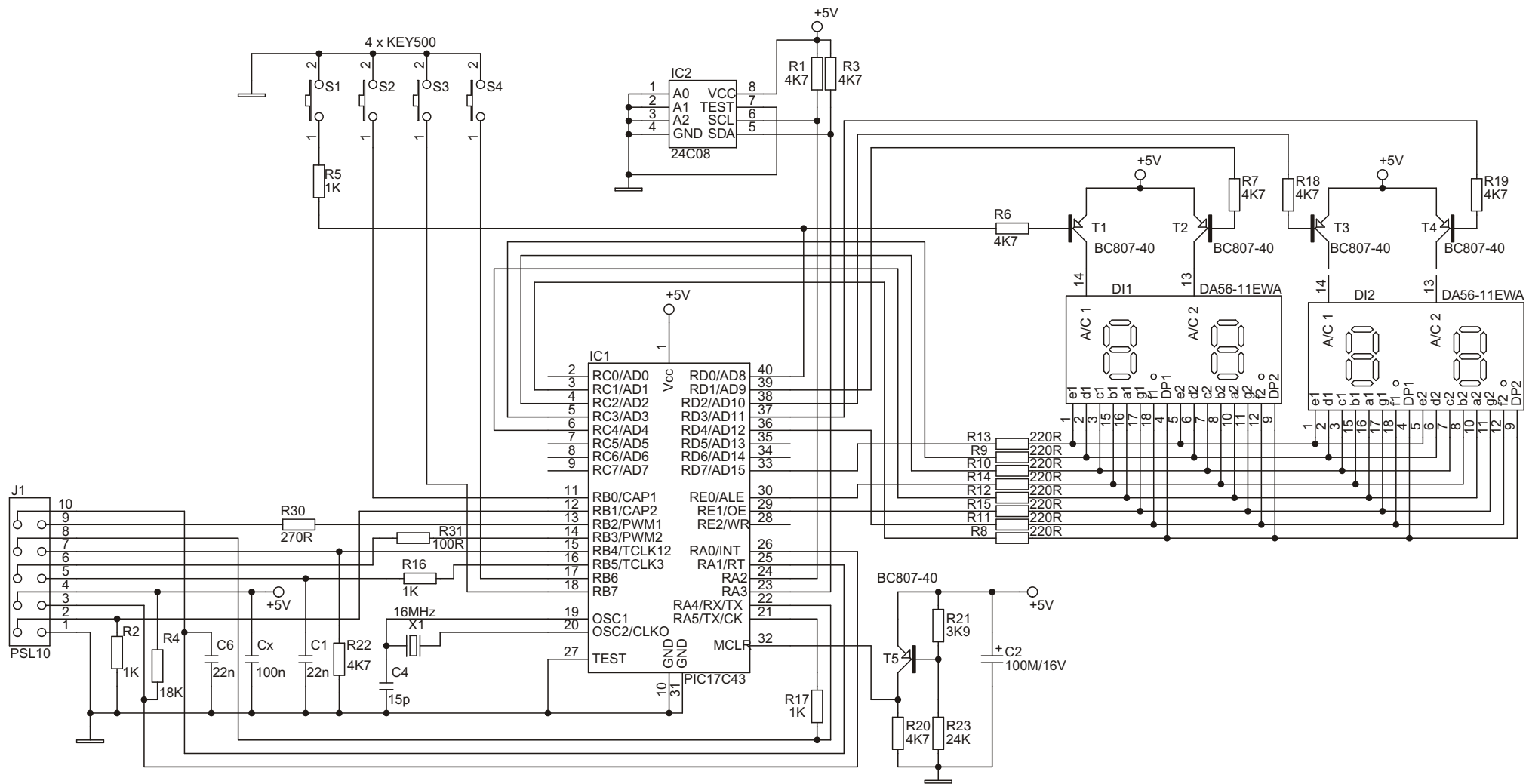




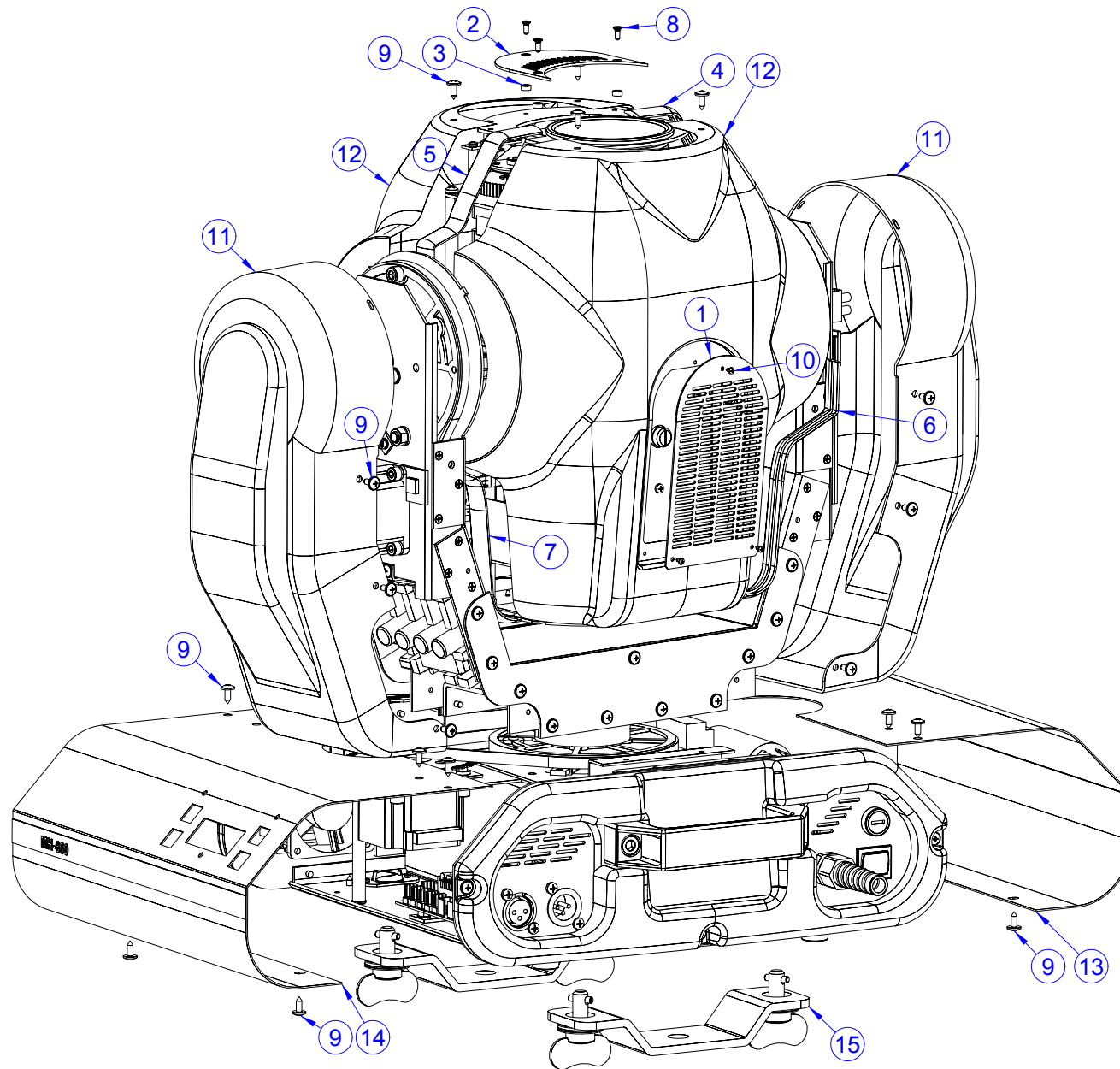




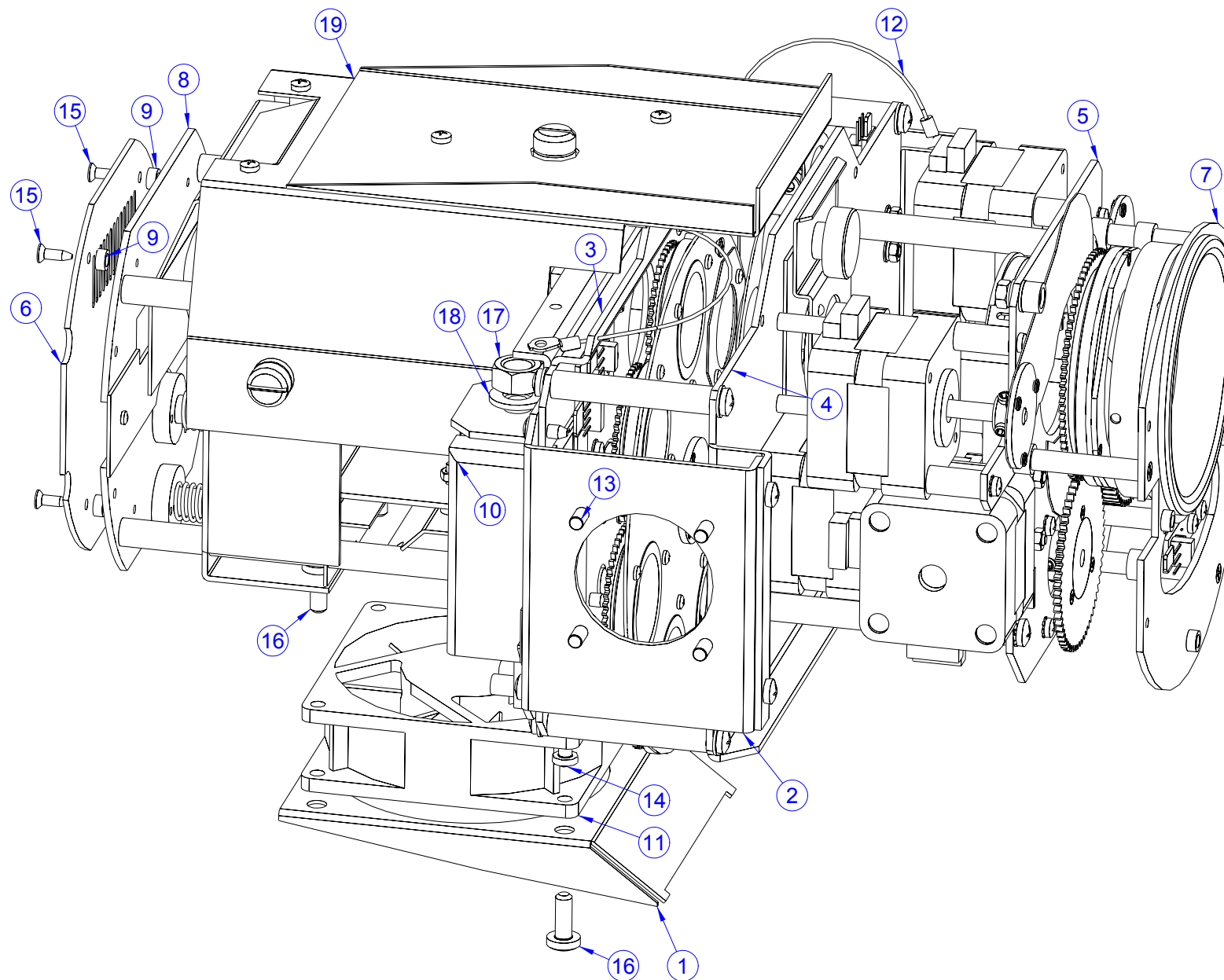




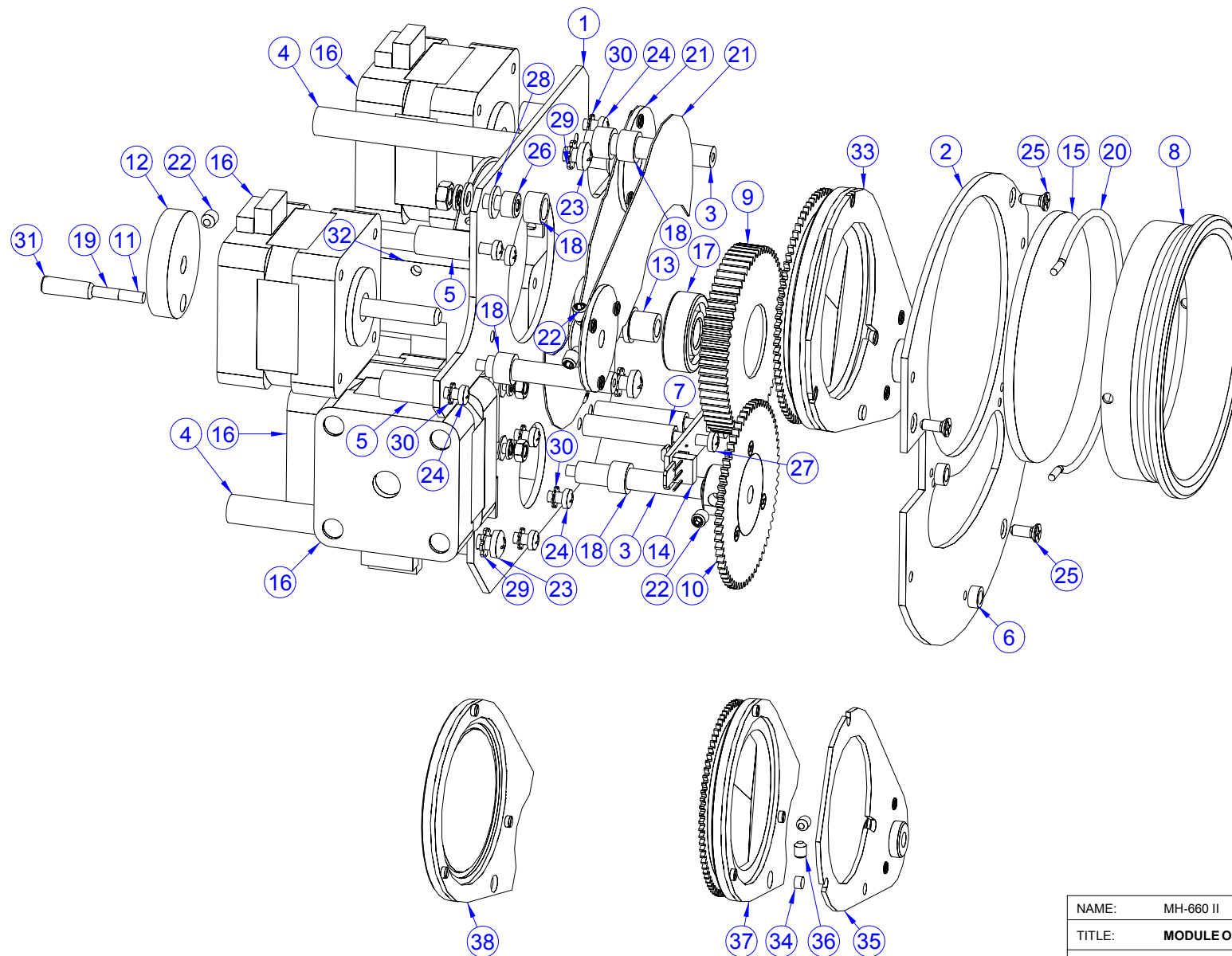
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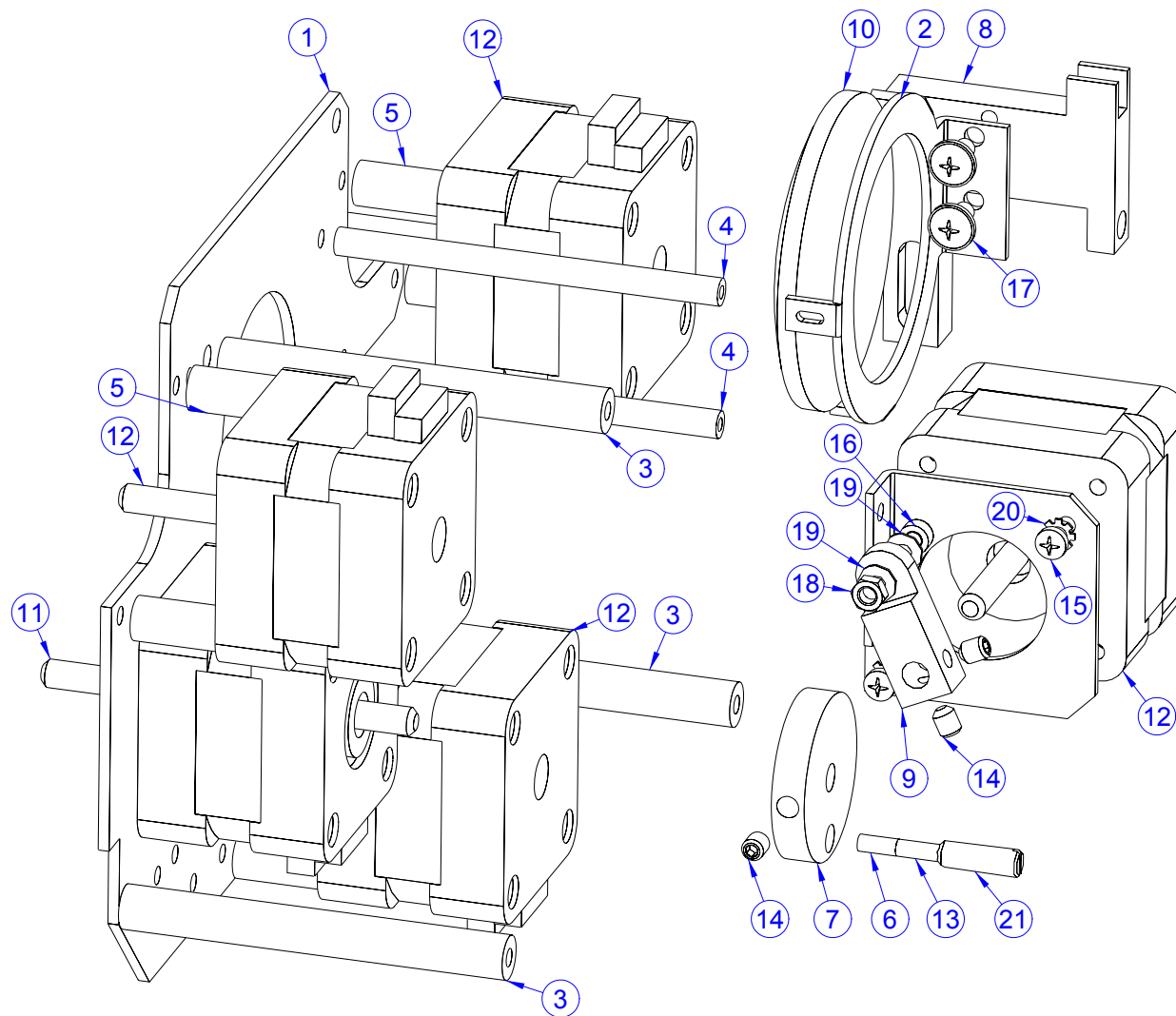
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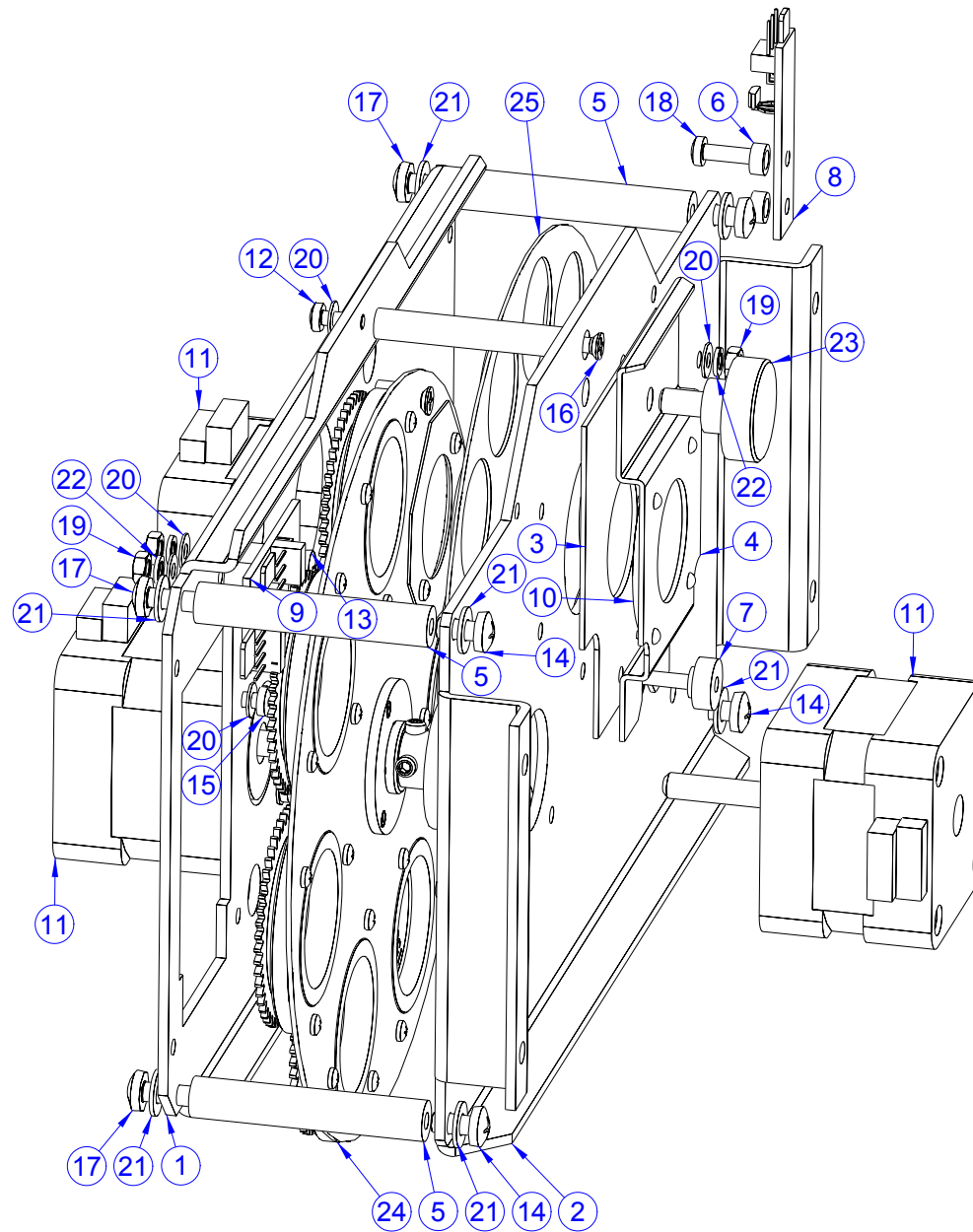
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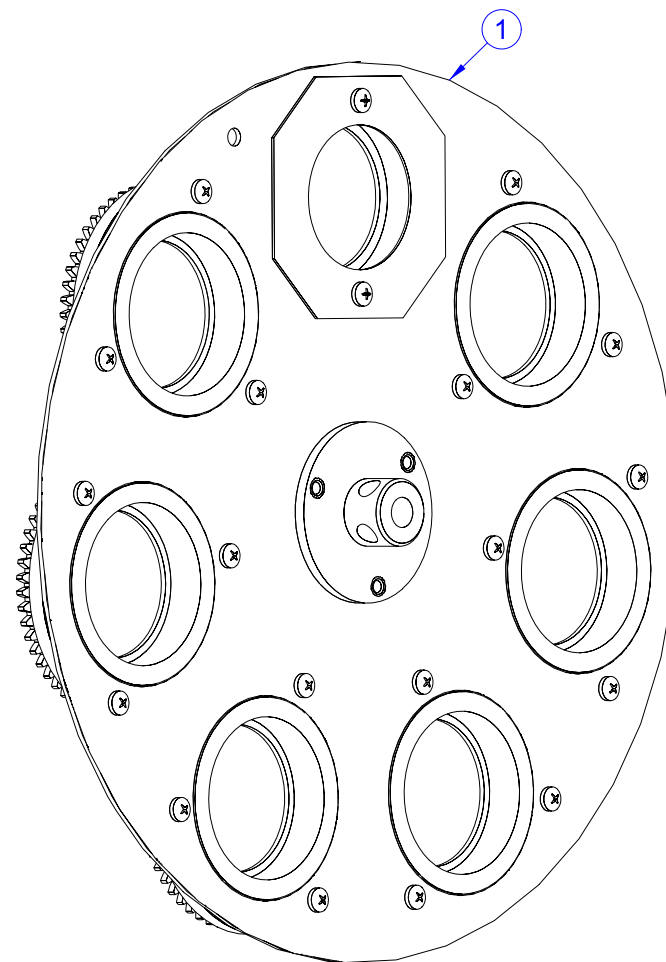
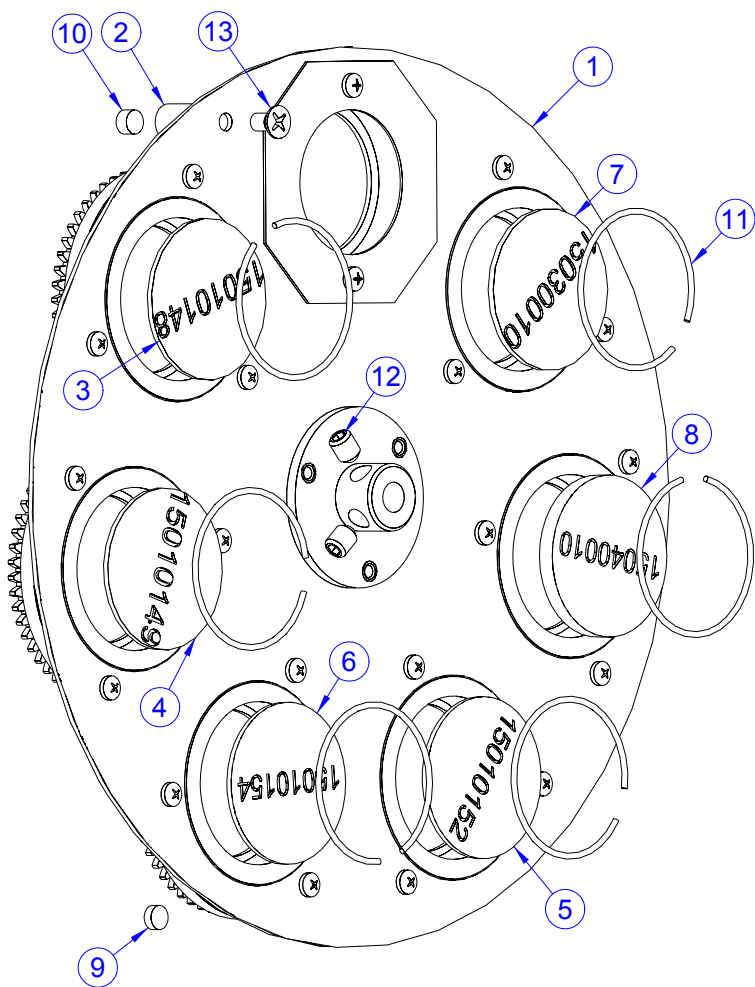
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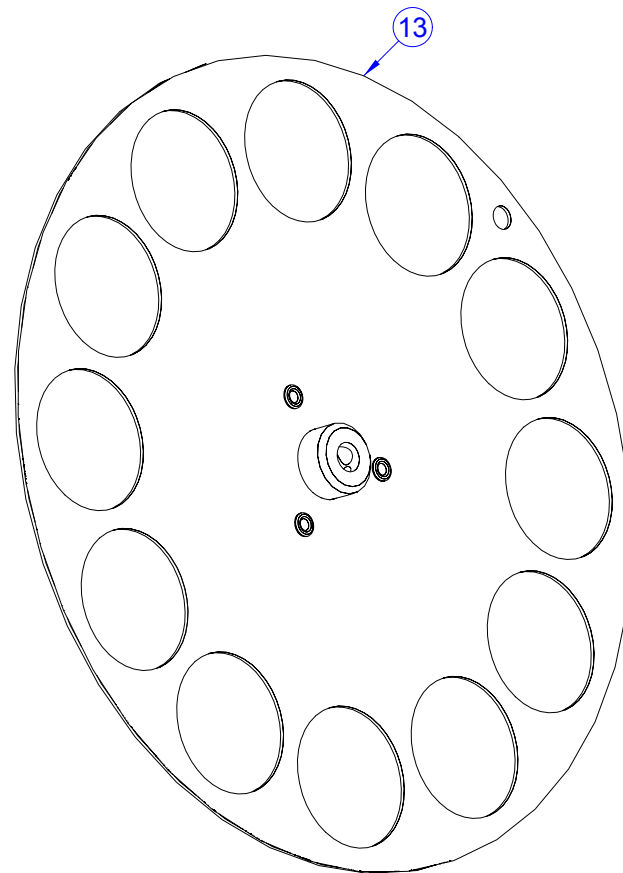
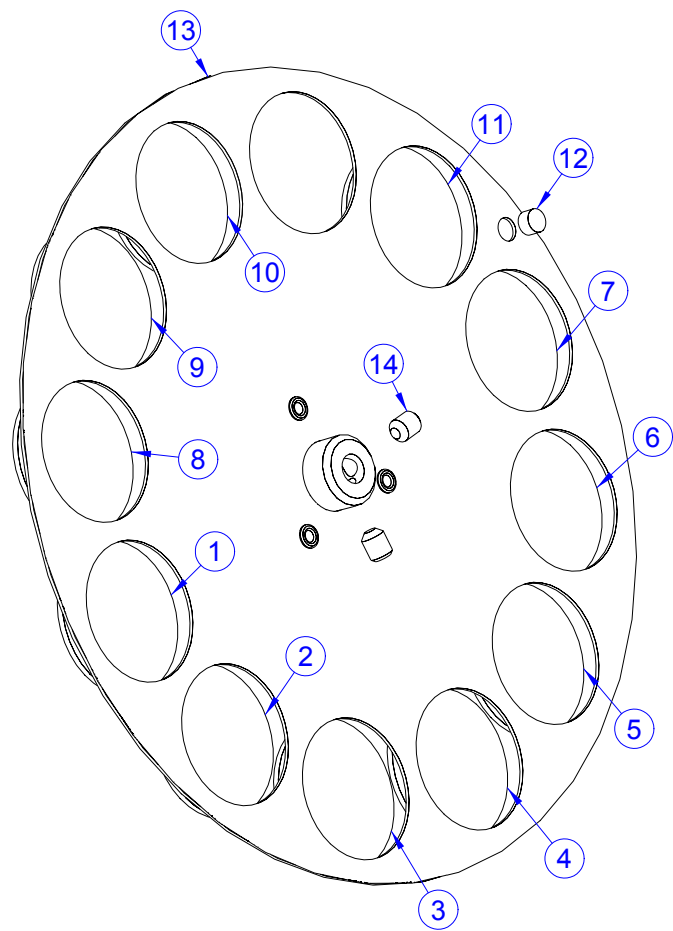
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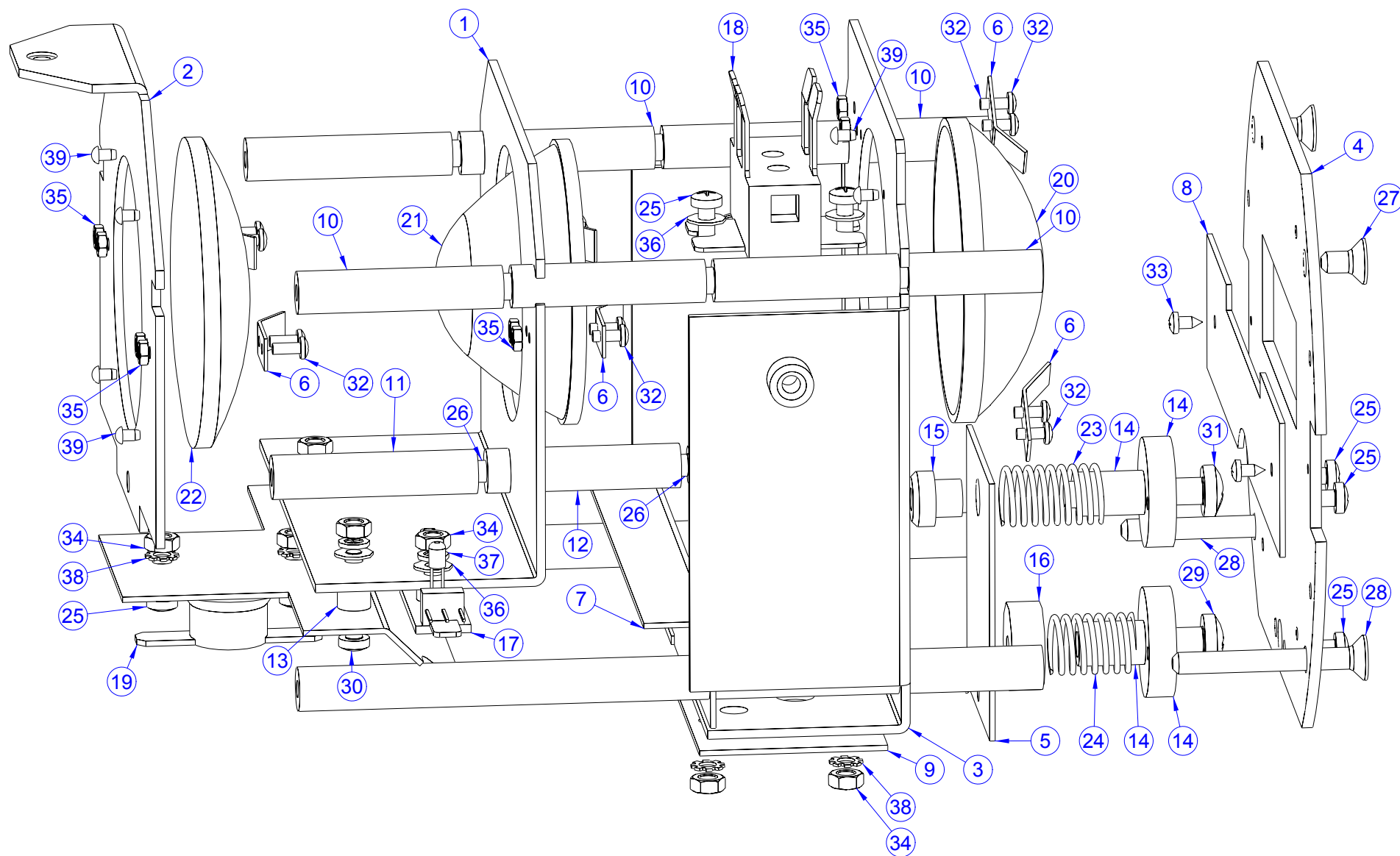


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VERSION: V 1	DATE: 18.2.2002	SHEET: 6 OF 12

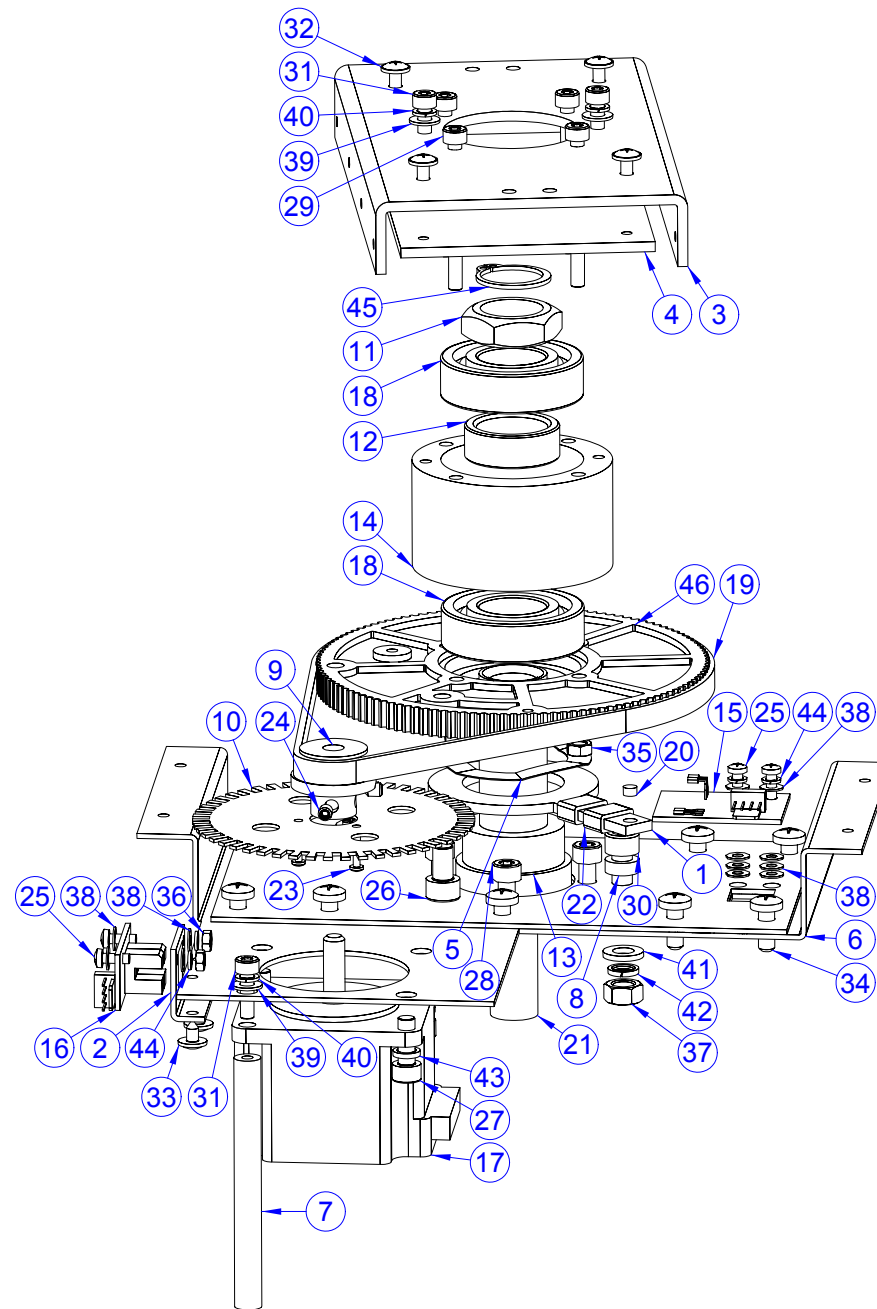


NAME:	MH-660 II		
TITLE:	COLOR WHEEL		
DOCUMENT:	99010045		
VERSION: V 1	DATE: 18.2.2002	SHEET: 7 OF 12	

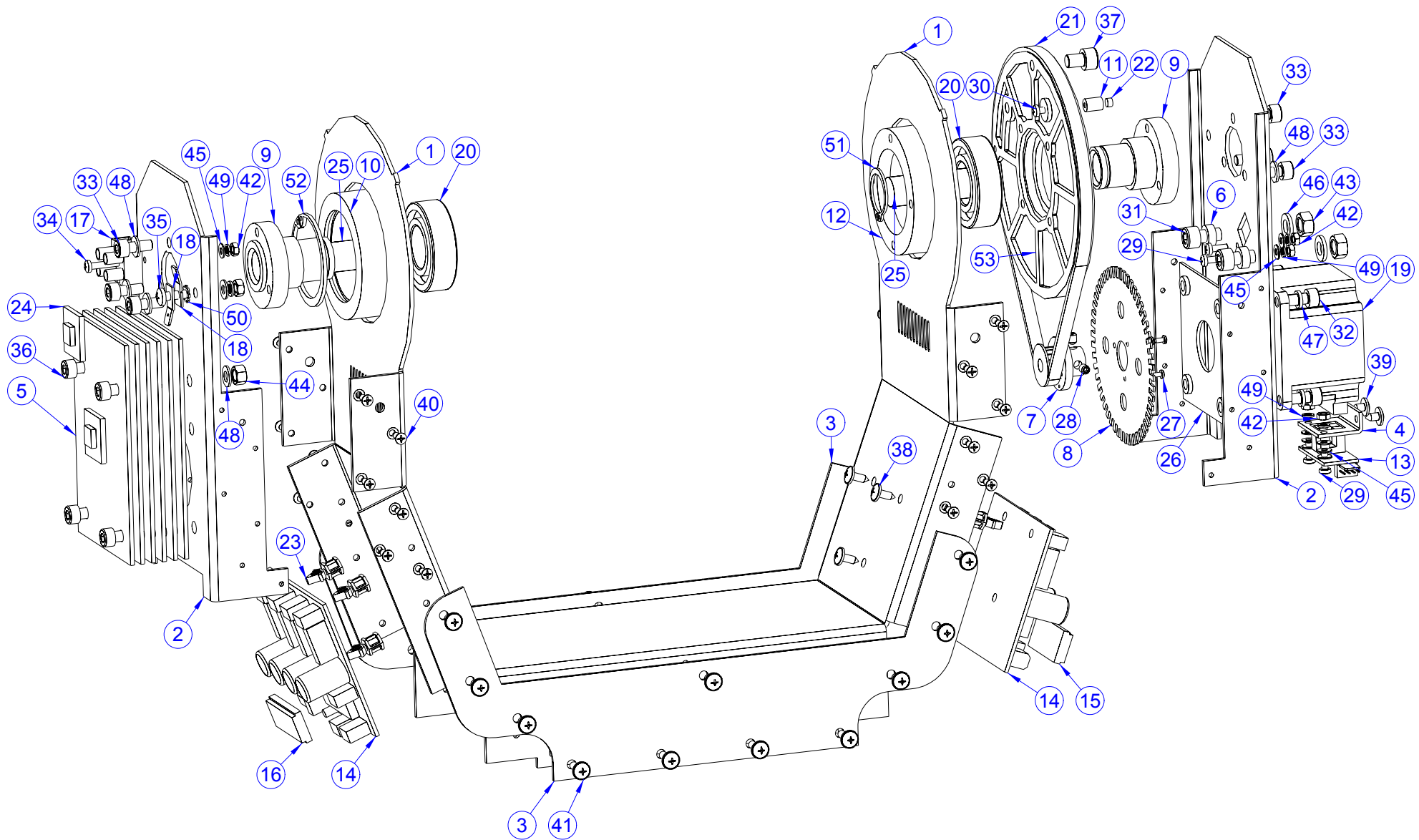




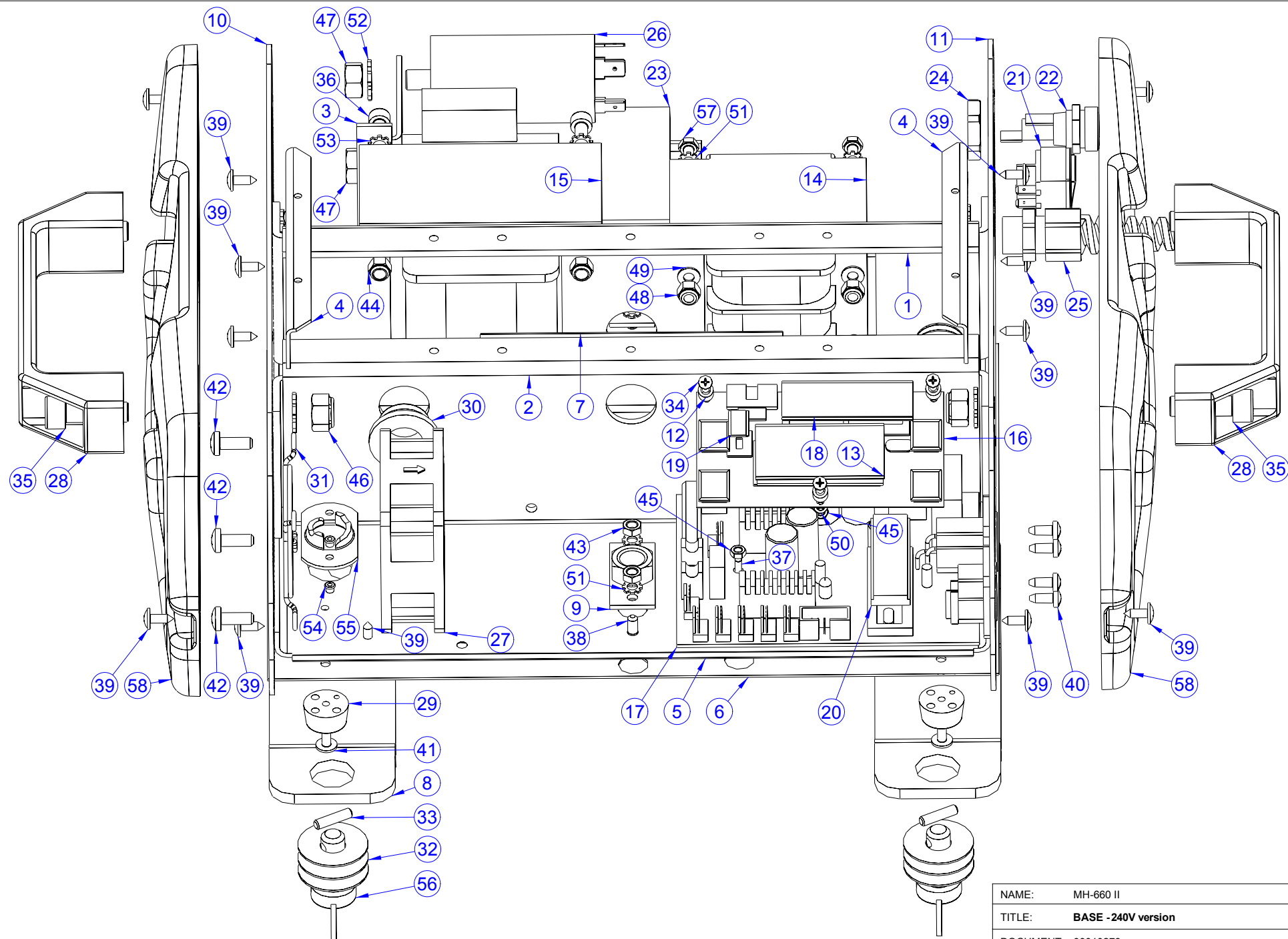
NAME: MH-660 II	
TITLE: <b>SOURCE OF LIGHT</b>	
DOCUMENT: 99010033	
VERSION: V 1	DATE: 18.2.2002
SHEET: 8 OF 12	



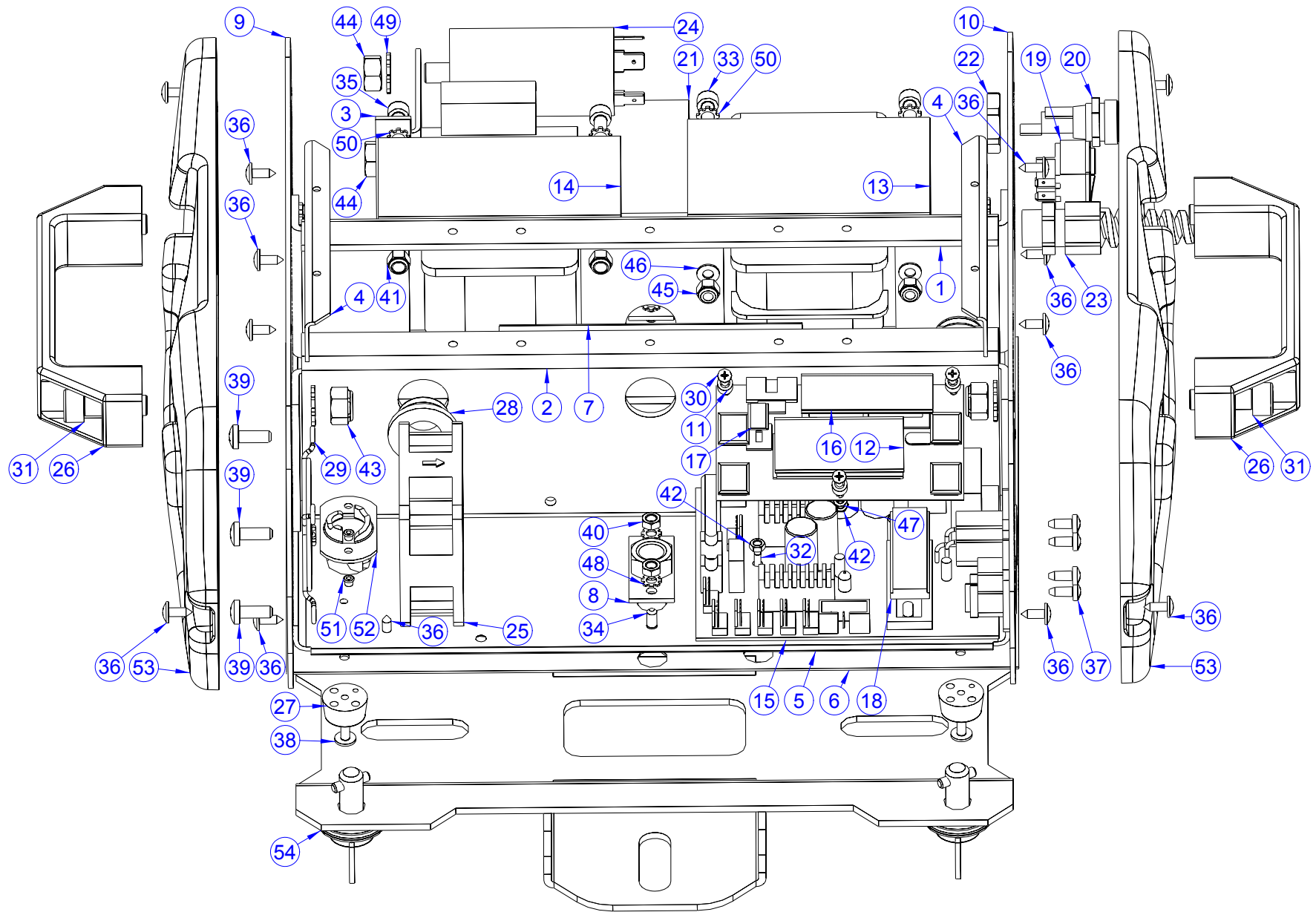
NAME:	MH-660 II		
TITLE:	AXE "X"		
DOCUMENT:	99010252		
VERSION: V 1	DATE: 18.2.2002	SHEET: 9 OF 12	



NAME:	MH-660 II		
TITLE:	ARM OF HEAD		
DOCUMENT:	99010034		
VERSION: V 1	DATE: 18.2.2002	SHEET: 10 OF 12	



NAME:	MH-660 II		
TITLE:	BASE - 240V version		
DOCUMENT:	99010273		
VERSION: V 1	DATE: 18.2.2002	SHEET: 11 OF 12	



NAME:	MH-660 II		
TITLE:	BASE - 110V version		
DOCUMENT:	99010349		
VERSION: V 1	DATE: 18.2.2002	SHEET: 12 OF 12	