



Table of Contents

Group	Page Number
Upper Console and display	3, 4 & 5
Accessory Pack	3
Interconnect Box Assembly	6 & 7
Base Pedestal	8 & 9
Optical Heads	10 & 11
Toe Line Heads	12 & 13
Optic Modules & Cable Assembly	14 & 15
CPU	16 & 17
Windows (Optional)	17
Keyboard, Printer & Remote Display	18 & 19
Wheel Clamps	20 & 21
Calibration Kit	22

An (*) indicates a part not illustrated.

An indicates parts included as an assembly or group.

A xxxxx indicates a new or changed part number.

FMC reserves the right to make changes in the product without notice.

Upper Console and Display

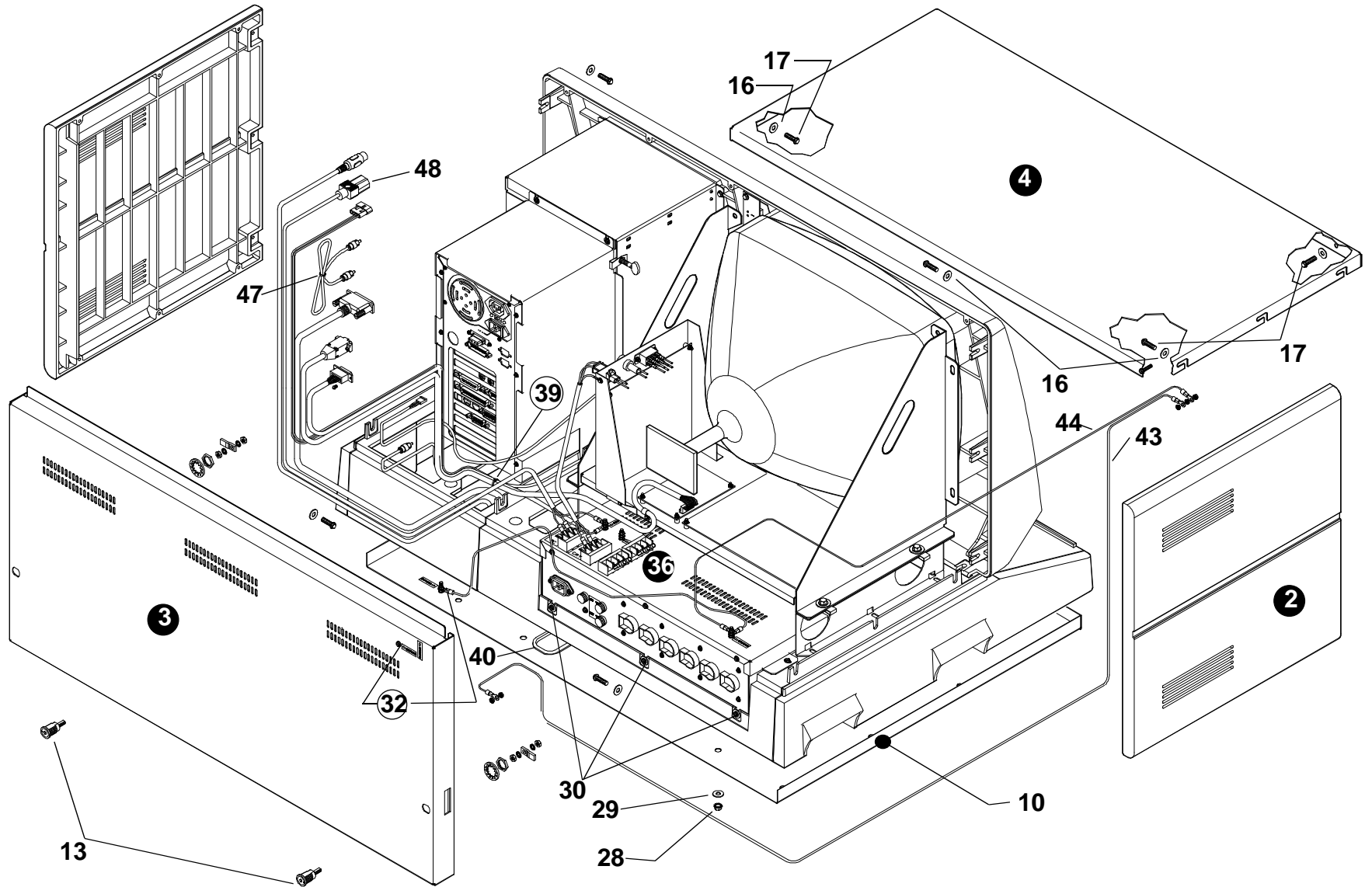


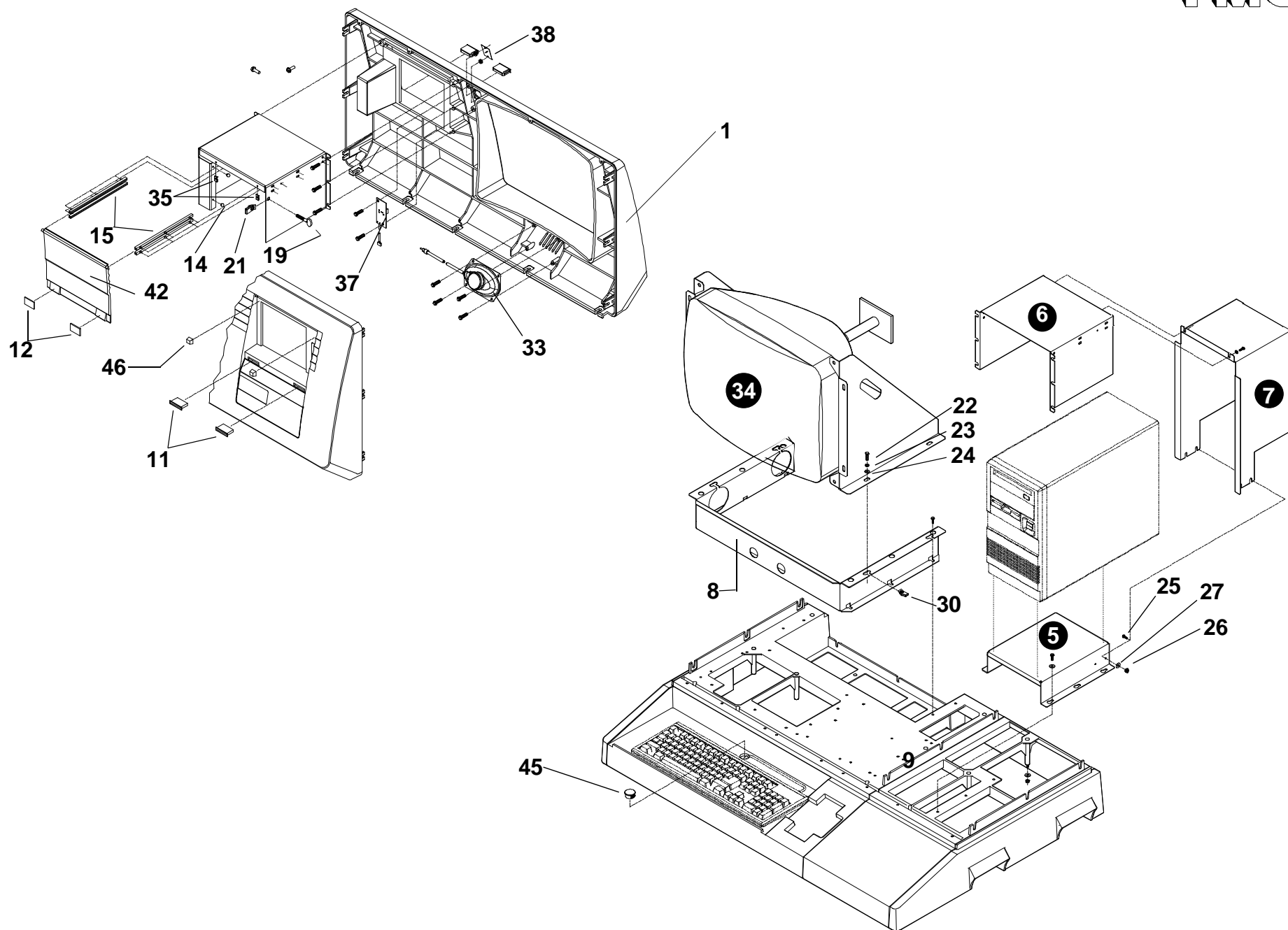
Reference Number	Part Number	Description	Reference Number	Part Number	Description
1	85500	Bezel front	28	1101540	Nut, Keps 1/4-20 (12 used)
	86000	Bezel front (V5/V6)	29	1107381	Washer, flat 1/4-20 (12 used)
2	85509	Panel side (2 used)	30	1101884	Screw self tap #8-32x3/4 (5 used)
	85509	Panel side (2 used)(V5/V6)	31	1101538	Washer, lock #8 (6 used)
3	85510	Door, rear access	32	83558	Screw ground, 8-32 (3 used)
	86004	Door, rear access(V5/V6)	33	85638	Assembly, Speaker/Phonocable
4	85511	Panel, top	34	85564	Crt-19" color open frame
	86005	Panel, top(V5/V6)		86011	Crt-14" color open frame (V6)
5	85512	Bracket, PC support bottom		86010	Crt-14" Mono open frame(V5)
6	85513	Bracket, PC support top	35	1101753	Nut, Tinnerman 8-32 (2 used)
7	85545	Bracket, PC support rear	36	85554	Interconnect box assembly
8	85514	Bracket, CRT support	37	85537	Assembly, remote receiver
9	85515	Shelf keyboard	38	85539	Optical filter
	86008	Shelf keyboard(V5/V6)	39	64383	Tie wrap
10	85619	Panel, shield	40	999692	Flex grommet
	86067	Panel, shield (V5/V6)	41	1110594	Screw 4-40x3/16" (2 used)
11	85516	Magnet Snap in (2 used)	42	85508	Door front Bezel
12	85517	Plate Striker (2 used)	43	85686	GND wire top panel to back panel 12"
13	85518	Latch, vise action (2 used)	44	85687	Ground Wire 28" (2 Used)
14	85519	Plug, dome (4 used)	45	1122061	Plug, hole
15	85520	Card guide (4 used)	46	85664	Bumper front bezel
16	1107381	1/4, Washer (29 used)	47	84163	Tie wrap
17	122057	Screw self-tap 6-32 (56 used)	48	85661	Cable assy. power jack main
18	1122058	1/4-20 Nut, self clinch	*	85716	AC Power cord (115V)
19	1102723	1/4-20x1.0 Screw thumb	*	85717	AC Power cord (230V)
20	1122059	Retaining ring (2 used)			
21	1101800	Nut, 1/4-20, Tinnerman (5 used)			
22	1100805	Screw, 1/4-20x3/4" (4 used)			
23	1100241	Washer, lock (4 used)			
24	1100254	Washer, flat (4 used)			
25	1101883	Screw, self tap #8-32 x3/8" (4 used)			
26	1181298	Nut, Keps #8-32 (14 used)			
27	61746	Washer, flat, black oxide (9 used)			

Accessory Pack

86821 **Standard**
86806 **Basic**

Upper Console and Display





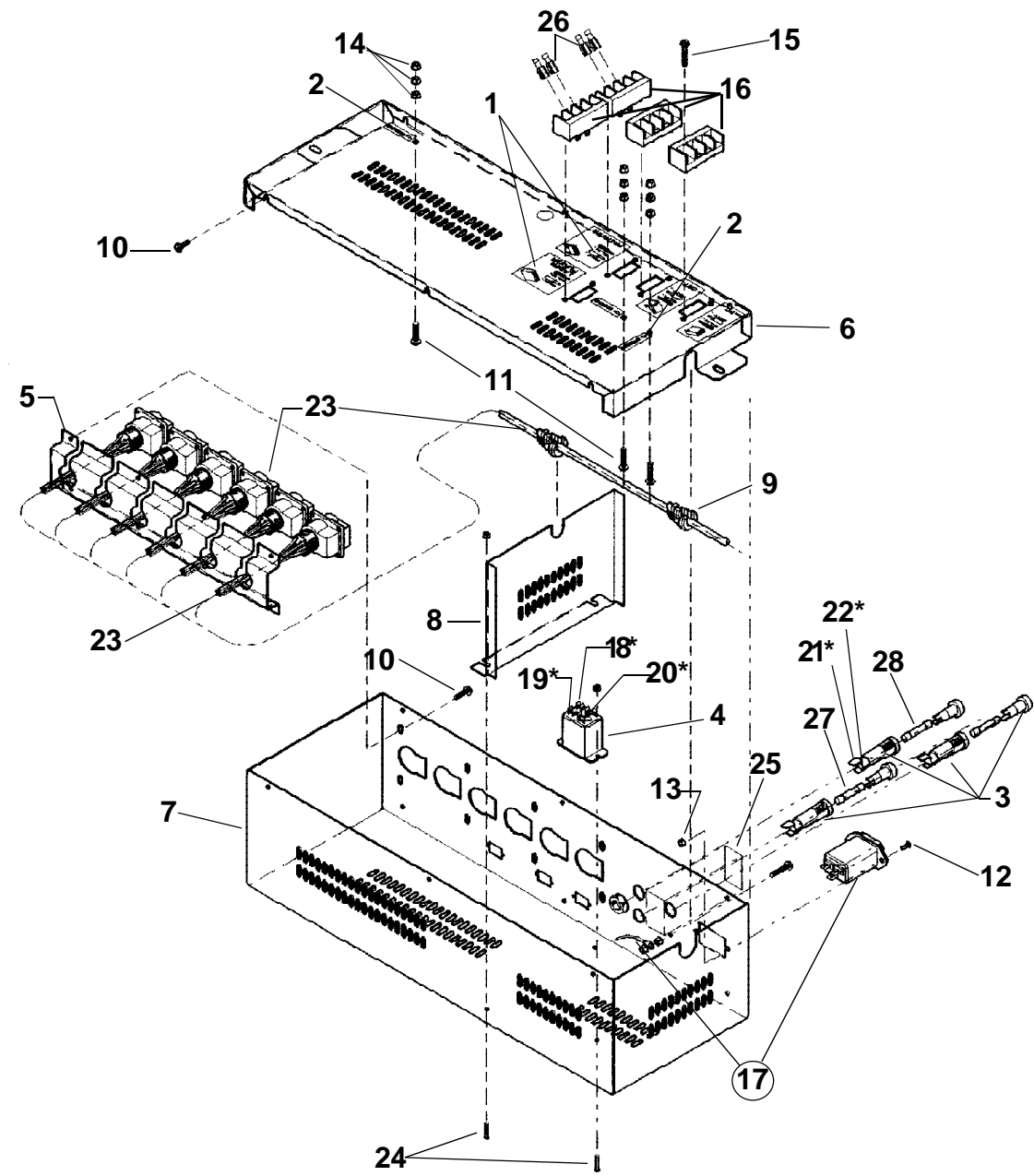
Interconnect Box Assembly 85544



Reference Number	Part Number	Description
1	85704	Label power strip
2	60852	Label- Ground screw (3 used)
3	85547	Fuse holder with cap (3 used)
4	85657	Relay, DPDT
5	85665	Panel connector
6	85667	Panel top
7	85668	Panel bottom
8	85669	Panel divider
9	85670	Clamp-strain relief (2)
10	1101883	Screw self tap 8-32x3/8 (14)
11	83558	8-32x3/4 ground screw (3 used)
12	1122049	Screw, self tap 6-32X3/8 (2 Used)
13	1101760	Nut keps 6-32 (6)
14	1181298	Nut keps 8-32 (11)
15	1101884	Screw self tap 8-32x3/4 (8)
16	85535	Block Terminal (4)
17	85661	Cable assy, power
18	85662	Cable Assy. Main Fuse/relay
19	85709	Wire, terminal, blocks/relay (black)
20	85708	Wire, terminal blocks-relay (white)
21	85706	Wire, Cpu-main fuse (white)
22	85707	Wire, Cpu-main fuse (black)
23	85674	Cable assy, HIB interconnect
24	1122051	PEM stud, 6-32X12 (4)
25	85730	Label, Fuse holder
26	1101594	Terminal, Female 18-22 AWG wire (4)
27	74208	Fuse 3A
28	74120	Fuse 8A Slowblow (2 Used)

** Wiring harness not shown for clarity. References are shown in their approximate location.*

Interconnect Box Assembly



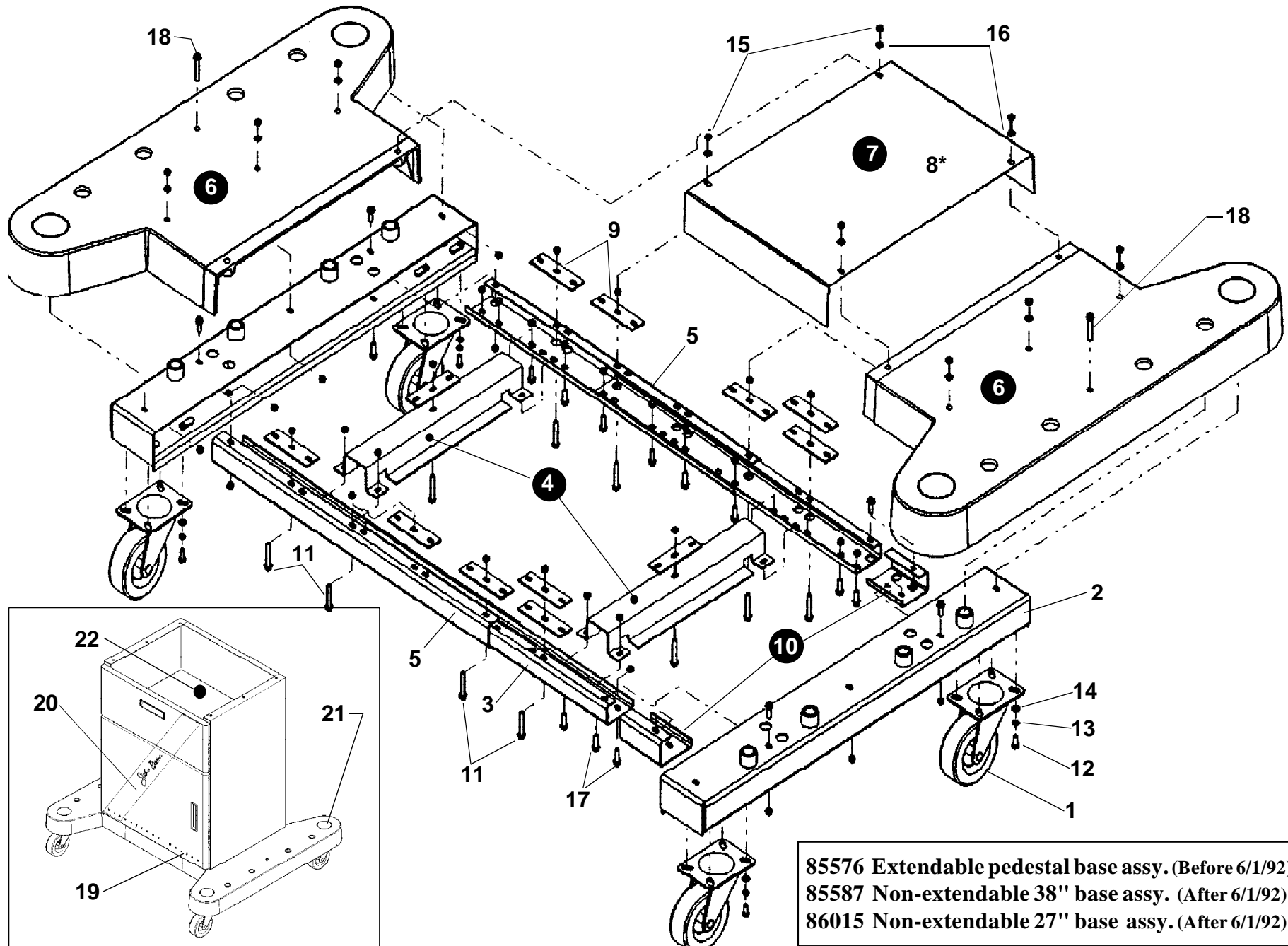
Base Pedestal



Reference Number	Part Number	Description
1	63590	Caster (4 Used)
2	85578	Rail weldment side (2 Used)
3	85579	Rail, RH cross (2 Used)
4	85580	Rail,center cross (2 Used)
5	85581	Rail, LH cross (2 Used)
6	85583	Cover, pedestal (2 Used)
7	85584	Extension Pedestal large
8	86006	Extension, pedestal-V6
9	85618	Spacer rails (12 Used)
10	85659	Spacer,pedestal (2 Used)
11	1122050	1/4-20x 1 1/2 screw self tap (12 Used)
12	1100044	5/16-18X3/4, Screw -HHC
13	1100242	5/16-18 lock washer (16 Used)
14	1107382	5/16 flat washer (16 Used)
15	1101540	1/4-20, keps nut (54 Used)
16	1107381	1/4 flat washer (12 Used)
17	1122075	1/4-20 X 3/4, screw-HHC (28 Used)
18	1101882	1/4-20X1 1/2 Screw -Pan head (2 Used)
19	85596	Decal Visualiner Series
20	85693	Decal JohnBean
*	86594	SV8 Lower Cabinet Decal
*	86595	SV8 Lower Cabinet Decal
21	85672	Decal Red dot (4 Used)
22	85585	Lower Cabinet Assy. (Complete with doors and slide drawer.)
*	85683	GM Decal Kit
*	85573	GM Blue Lower Cabinet
*	86710	GM Optical Sensor Pack

Above parts are used in the extendable base pedestal base assy.

Base Pedestal



85576 Extendable pedestal base assy. (Before 6/1/92)
85587 Non-extendable 38" base assy. (After 6/1/92)
86015 Non-extendable 27" base assy. (After 6/1/92)

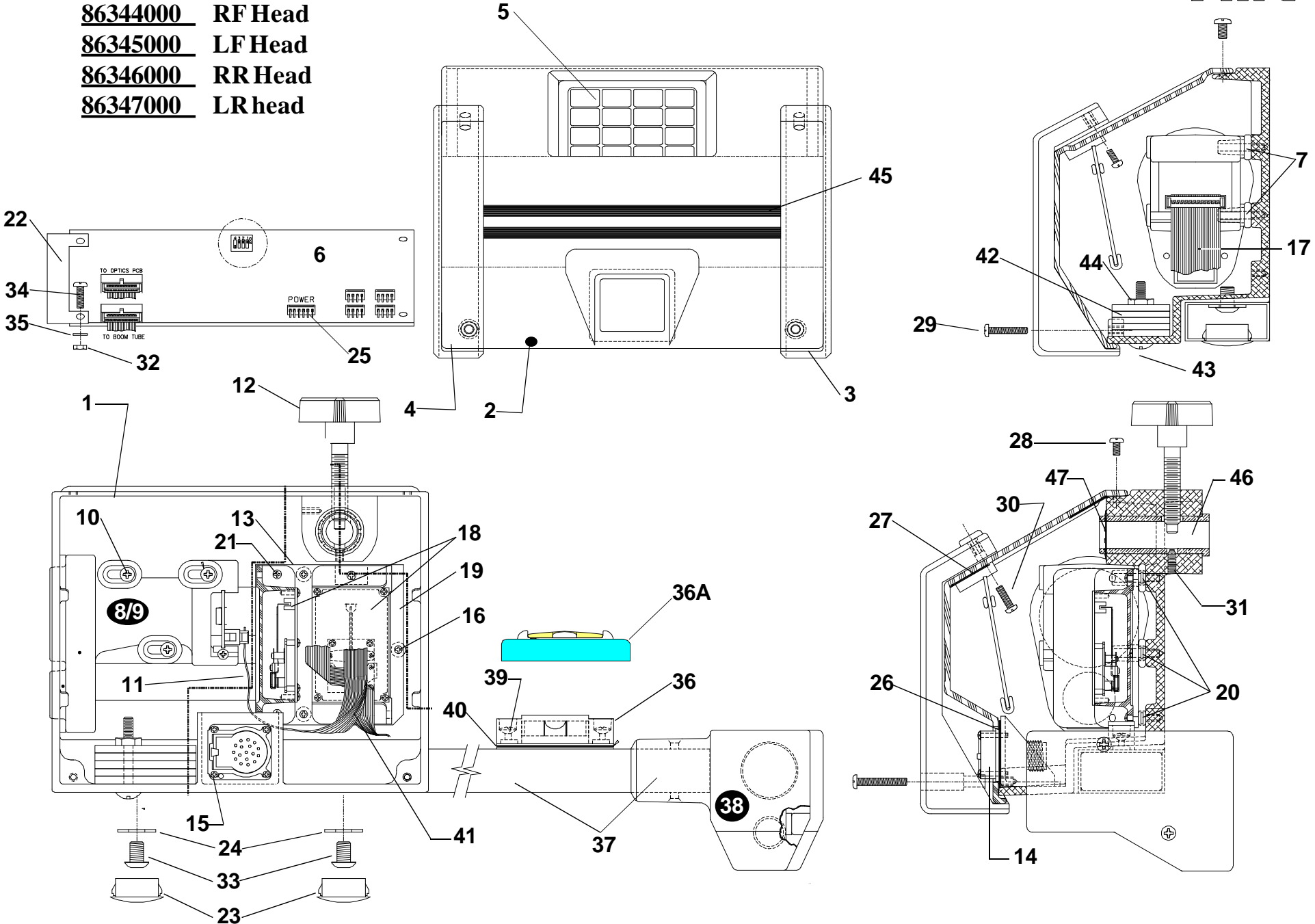
Optical Heads

Reference Number	Part Number	Description	Reference Number	Part Number	Description
1	85480	Headhousing with bearing assy. RF	26	83237	Gasket seal, cable assy.
	85479	Headhousing with bearing assy. LF	27	985268	Strip seal. (Cover to housing)
	85482	Headhousing with bearing assy. RR	28	1101957	Screw, PHM 10-24X.375 (2 Used)
	85481	Headhousing with bearing assy. LR	29	1122064	Screw, 10-24X1.00 (2 Used)
2	85604	Cover, head	30	1101688	Screw, 8-32X.375 (2 Used)
3	85606	Cushion, head cover RH	31	1122040	Screw, set steel 10-24X.56
4	85607	Cushion, head cover LH	32	1101255	Nut, hex stop
5	85605	Switch, membrane	33	1187795	5/16-18X3 Button Head setscrew
6	<u>86254EXO</u>	PCB Assy, Toe	34	1101731	Screw, PHM 6-32X.625 (4 Used)
7	83615	Grommet, optics	35	1101955	Washer, Nylon #6 (4 Used)
8	83088	Optics Assy, LF & RF (Detail Pg.15)	36	84467	Level vial - Clear SQ.
9	83089	Optics Assy, LR & RR (Detail Pg.15)	36A	86159	Level vial - Black RD.
10	1101965	Screw, RHM 10-24X2.25 (3 Used)	37	86561	Tube Assy. Right front head
11	83140	Cable Assy, LED drive, Track toe	*	86562	Tube Assy. Left front head
12	83258	Clamp screw/knob assy. (4 Used)	*	<u>86600</u>	Boom Tube (with nutserts)Black vial
*	83083	Shaft locking screw	38	83821	Projector housing Left front head
*	84323	Knob, locking	*	83822	Projector housing Right front head
*	1112968	Shaft screw (brass) 10-32x7/16"			Note: (Projector Detail on Page15)
13	83661	Plate, backing	39	1116201	Screw, oval hd 6-32X.625 (2 Used)
14	83327	Support, receptacle	40	84468	Gasket, level vial
15	1115607	Screw, PHM 4-40X.75		86160	Gasket, level vial - Black
16	1101533	Screw, PHM 8-32X.375	41	64383	Tie wrap
17	83140	Cable, Rear LED array	42	83284	Counter weight (4 Used)
18	<u>85792SVC</u>	Inclinometer assy. (All)	43	1115840	Screw, RHM 10-24X1.25
19	84346	Plate, inclinometer mount	44	1101479	Nut, Keps 10-24
20	80267	Grommet, adjustment (3 each 84346)	45	85666	Decal stripe, head cover
21	1101689	Screw, PHM 6-32X.25		85642	Head bushing (4 Used)
22	85548	Bracket, toe PCB (2 Used)		1101967	Ring retaining (4 Used)
23	83834	Plug, 1" plastic (2 Used)			
24	1100255	Washer, 5/16 std.			
25	83113	Cable assy., (Receptacle to PCB)			

Optical Heads



- 86344000** RF Head
- 86345000** LF Head
- 86346000** RR Head
- 86347000** LR head



Toe Line Heads

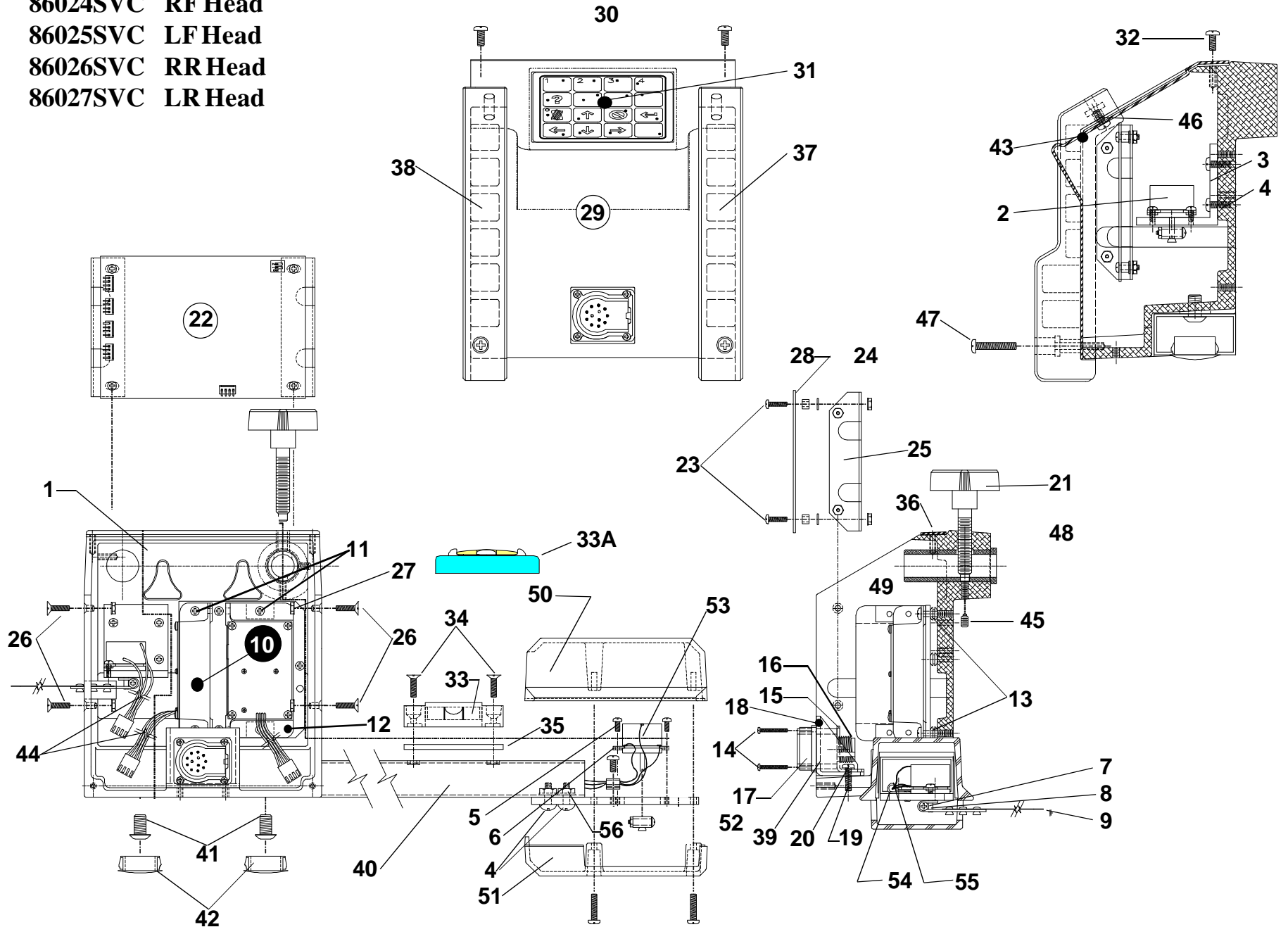


Reference Number	Part Number	Description	Reference Number	Part Number	Description
1	86098	Headhousing with bearing assy. RF	27	1101760	Nut, Keps #6-32
	86097	Headhousing with bearing assy. LF	28	63453	Spacer, Toe PCB
	86099	Headhousing with bearing assy. RR	29	86094	Cover, head
	86100	Headhousing with bearing assy. LR	30	1101911	Screw, #8-32x3/8" Truss head (2 used)
2	84153	Pot Assy., Front track toe	31	85605	Switch, membrane
3	84048	Mounting plate	32	985166	Strip seal. (Cover to housing)
4	1115755	Screw, #8-32x1/2 Button head (3 used)	33	84467	Level vial - Clear SQ.
5	1101607	Screw, #4-40x1/4" Pan head (2 used)	33A	<u>86159</u>	Level vial - Black RD.
6	84064	Cleat, toe pot mounting	34	1116201	Screw, oval hd 6-32X.625 (2 Used)
7	1101731	Screw, PHM 6-32X.625 (4 Used)	35	84468	Gasket, level vial
8	1101760	Nut, Keps #6-32		<u>86160</u>	Gasket, level vial - Black vial
9	84315	Arm Assembly	36	84145	Gasket, upper head
10	<u>85792</u>	Inclinometer assy. (All)	37	86095	Cushion, head cover RH
11	1115680	Screw, #6-32x1/32"	38	86096	Cushion, head cover LH
12	84346	Plate, inclinometer mount	39	84146	Gasket, lower head
13	80267	Grommet, adjustment (3 each 84346)	40	<u>86559</u>	Tube assy. , Right front head
14	1115607	Screw, PHM 4-40X.75	*	<u>86560</u>	Tube assy, Left front head
15	83661	Plate, backing	*	<u>86599</u>	Tube only, with nutserts
16	86135	Cable assy. (Receptacle to PCB)	41	1187795	5/16-18X3 Button Head setscrew
17	83327	Support, receptacle	42	83834	Plug, 1" plastic (2 Used)
18	83096	Bracket, cable connector	43	985271	Strip seal. (Cover to housing)
19	1101533	Screw, PHM 8-32X.375	44	64383	Tie wrap
20	1187293	Washer, flat #8	45	1122040	Screw, set steel 10-24X.56
21	83258	Clamp screw/knob assy. (4 Used)	46	1101688	Screw, 8-32X.375 (2 Used)
*	83083	Shaft locking screw	47	10063-4160	Screw #8-32x3/8"
*	84323	Knob, locking	48	85642	Head bushing (4 Used)
*	1112968	Shaft screw (brass) 10-32x7/16"	49	1101967	Ring retaining (4 Used)
22	86028EXO	PCB Assy., Toe	50	84038	Cover, top cross toe pot
23	1101876	Screw, #6-32x1/2" Pan head	51	84039	Cover, bottom cross toe pot
24	1103955	Washer, #6 flat	52	84037	Plate, mounting cross toe pot
25	86089	Angle bracket, toe PCB	53	84152	Pot, cross toe
26	1101879	Screw #6-32x1/2" flat head (4 used)	54	1101795	Strain relief
			55	1101836	Screw, strain relief holding
			56	1181278	Nut, pot mounting plate

Toe Line Heads



- 86024SVC RF Head
- 86025SVC LF Head
- 86026SVC RR Head
- 86027SVC LR Head



Optic Modules and Cable Assembly



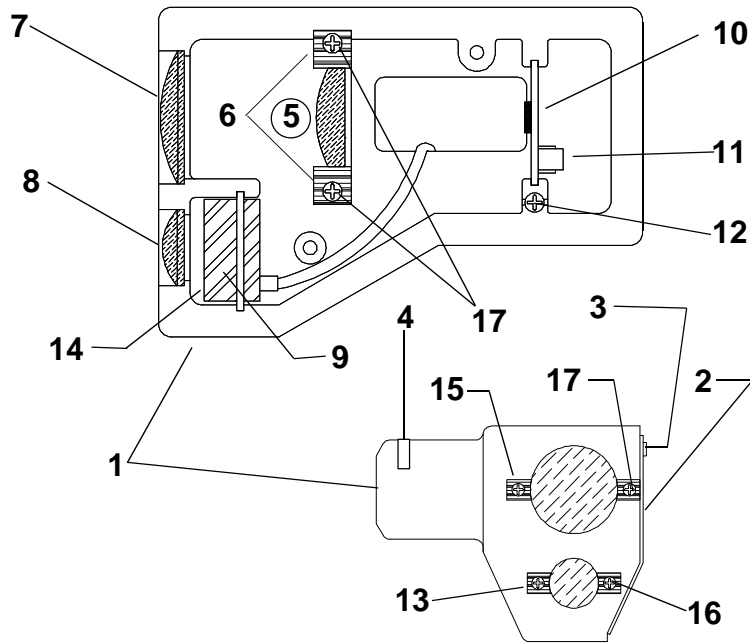
Reference Number	Part Number	Description
		Cross Toe
x 1	83822	Lens Housing projector RH
o	83821	Lens Housing projector LH
x 2	83121	Projector housing cover RH
o	83117	Projector housing cover LH
.	3 1101825	Screw, 8-18x3/4" CSK (2 used)
.	4 1101835	Screw, 1/4-20x1/2" black oxide (3 used)
.	5 63031	Lens, plano, collumating
.	6 84975	Retainer, collumating lens
.	7 82134	Lens Projection (cross & rear heads track)
.	8 63019	Lens, Receiver
.	9 83157	PCB assy., receiver
.	10 83154	PCB assy., LED Array
.	11 83141	Cable assy, LED Array
.	12 1101789	Screw, LED array holding 8X1/2"
.	13 85541	Clip, photocell retaining
.	14 83131	Gasket
.	15 83816	Clip, lens retaining (3 Used)
.	16 1115725	Screw, receiver lens retaining (2 Used)
.	* 1101760	Hex nut #6-32 (Receiver lens retainer)
.	17 1122049	Screw, Projector retaining (6 Used)
x. Included	<u>83823</u>	Right front housing assy.
o. Included	<u>83824</u>	Left front housing assy.

Reference Number	Part Number	Description
		Track Toe
1	83820	Optics module
2	63031	Lens, plano, cylindrical
3	82159	Lens, Prism (Tri Lens)
4	83130	Lens Housing Track Toe (rear heads only)
5	82134	Lens Projection (cross & rear heads track)
6	63019	Lens, Receiver
7	83153	PCB assy., receiver
8	83154	PCB assy., LED Array
9	1101789	Screw, LED array holding 8X1/2"
10	85541	Clip, photocell retaining
11	83131	Gasket
12	83818	Clip, lens retaining (5 Used)
13	1115725	Screw, receiver lens retaining (2 Used)
14	1101760	Hex nut #6-32 (Receiver lens retainer)
*	1122049	Screw, Projector retaining (3 Used)

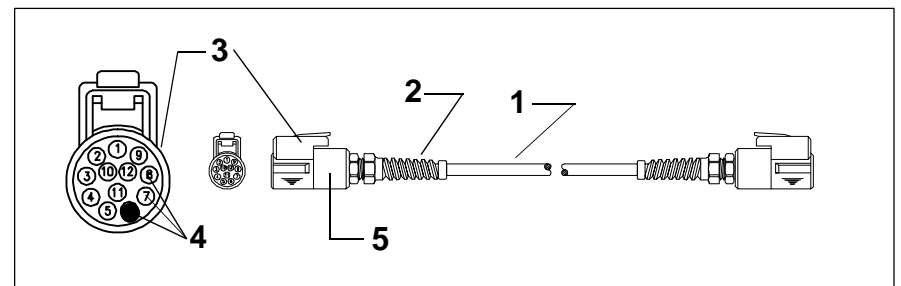
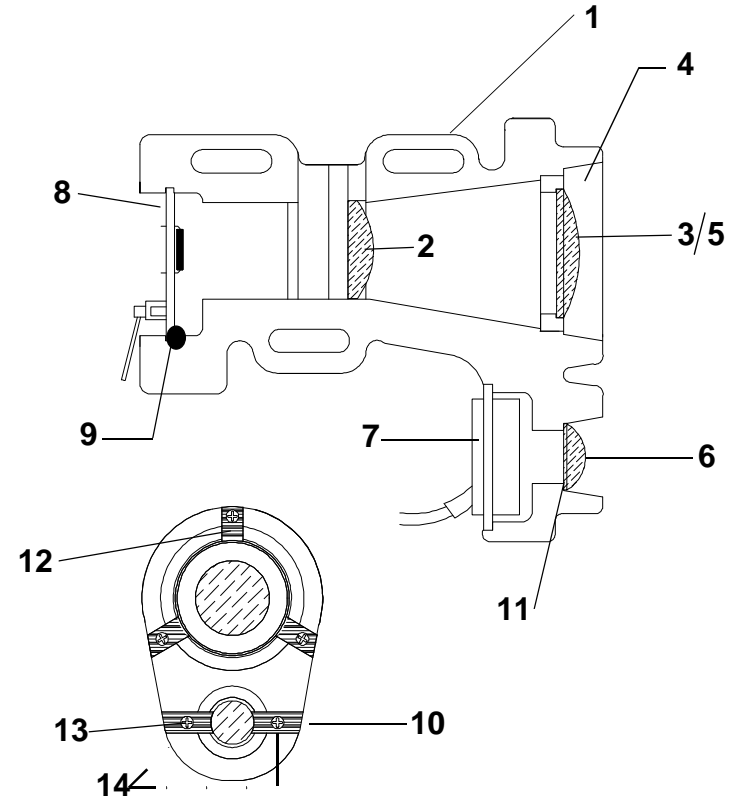
- 85617 Head Interconnect Cable Assembly (All 33 ft.)**
- 85616 Head Interconnect Cable Assembly (All 65ft.)**
- 86110 Head Interconnect Cable Assembly (Wired Rack)**
- 85660 Head Interconnect Cable Kit (2 X 65 ft.)**
- 69804 Wired Rack to Head (Curly Cable)**
- 86278 Wired Rack to Head (Straight Cable)**

Reference Number	Part Number	Description
1	85676	Cable 4 Conductor (33.3')
2	81121	Flex fitting (Less nut)
3	83194	Connector plug, 12 pin
4	70877	Contact socket (8 used)
5	83319	Sleeve (2 Used)

Cross Toe



Track Toe



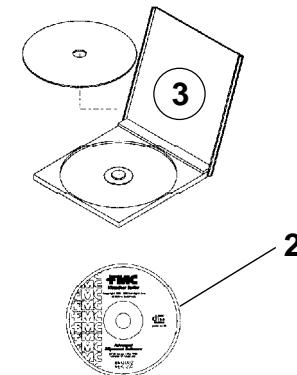
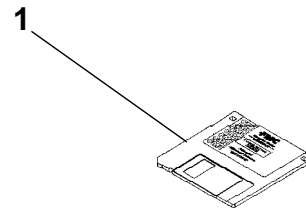
CPU



Reference Number	Part Number	Description	Part Number PC Ass'y	Drives	Motherboard	Ass,y	Ram
1	85530	Case assy. mini-tower w/power supply	86326	Floppy	286 (86286)-V5b		1-Meg
2	85529	Power supply 200 watt	86397	Floppy	286 (86395)-V5b		2-Meg
3	85526EXO	Motherboard, 286-16	86363	Floppy	286 (86364)-V5b		4-Meg
4	85521	256k X 9simm (1 Meg. each)	86009	Floppy	386 (86358)		4-Meg
5	85528	Controller VGA	85525	CD	386 (86358)		4-Meg
6	85527SVC	IDE Controller card	85677	CD & Floppy	386 (86358)		4-Meg
7	<u>86128</u> **	Drive kit, cd-rom (w/ 86367 CD)	85678	CD, Floppy, HD	386 (86358)		4-Meg
*	85590	Cover, CD slot	85680	Floppy & HD	386 (86358)		4-Meg
8	1101760	Nut, keps #6-32	85777	CD	386 (86356)		8-Meg
9	85501**	Controller Assy. head interface	85778	CD & Floppy	386 (86356)		8-Meg
10	85549	Bracket, 12VDC connector	85779	CD, Floppy, HD	386 (86356)		8-Meg
11	1101532	Screw, #6-32x3/8" Pan head	85780	Floppy & HD	386 (86356)		8-Meg
12	85536	Cable assy, PC power supply	85782	Floppy	386 (86356)		8-Meg
13	85663	Cable assy, PC speaker/HIB	85781	CD, Floppy, HD	486 (86360)		8-Meg
14	1101594	Terminal, female 18-22 AWG wire	85791	CD, Floppy, HD	486 (86359)		4-Meg
15	1101616	Terminal, #8 ring 16-22 AWG wire	86523	CD, Floppy	486 (86359)		4-Meg
16	84121	Cable Audio	86524	CD, Floppy	486 (86360)		8-Meg
17	86016	Drive, Floppy 1.44Meg. 3.5"	<u>86800</u>	CD, Floppy, HD	486 Windows		8-Meg
*	85591	Cover, Floppy slot	85521	SIMM			1-Meg
18	85532	Drive, Hard 40 MB IDE	86354	SIMM			4-Meg
*	85793	Drive, Hard 200 MB					
19	1122049	Screw, self tap #6-32x3/8"					
20	85737	Power Splitter 3.5" floppy					
	85639	Power cord (115V)					
	85655	Power cord (220V)					

SOFTWARE

1	<u>86432</u>	Floppy (2) - Blank Formatted
	<u>*86399</u>	Floppy software - Basic without specs.
	<u>*86311</u>	Floppy software - Basic with specs.
2	<u>*86366</u>	Floppy software - Advanced
	<u>*86367</u>	CD ROM software only (1 CD)
3	<u>*86368</u>	CD and Floppy software
	86165	Compact disk Caddy

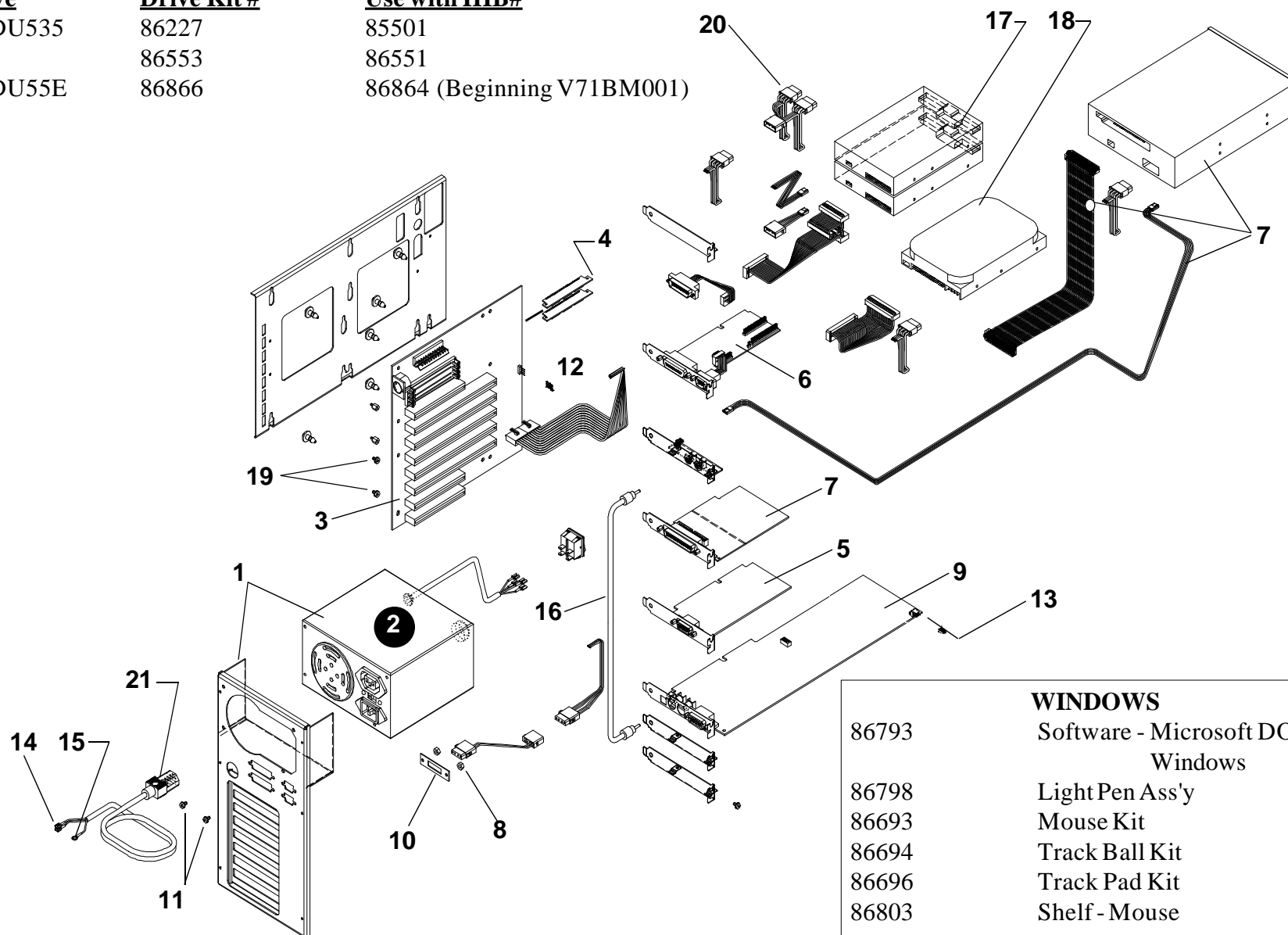


** See chart on page 17

* Indicates software with license

CPU

<u>CDDrive</u>	<u>Drive Kit #</u>	<u>Use with HIB#</u>
Sony CDU535	86227	85501
Mitsumi	86553	86551
Sony CDU55E	86866	86864 (Beginning V71BM001)



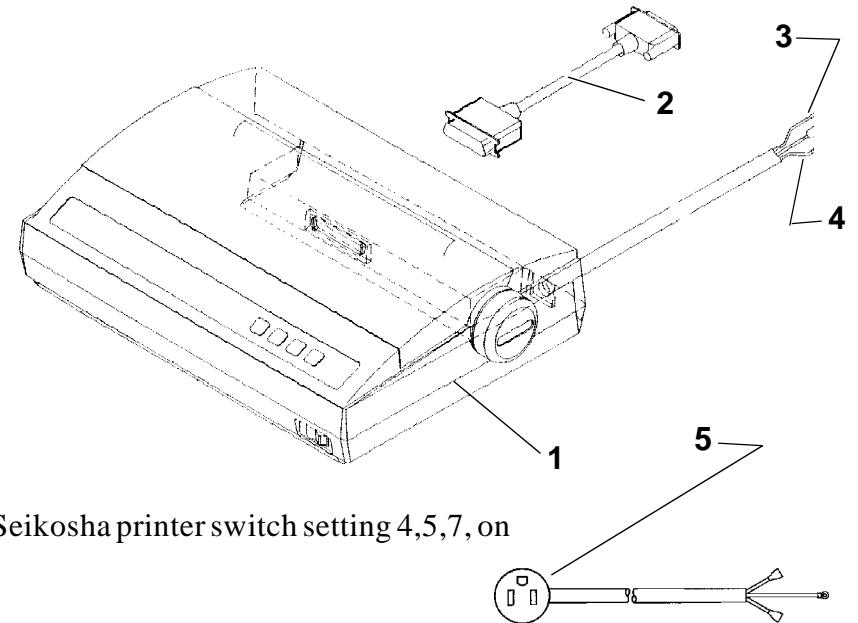
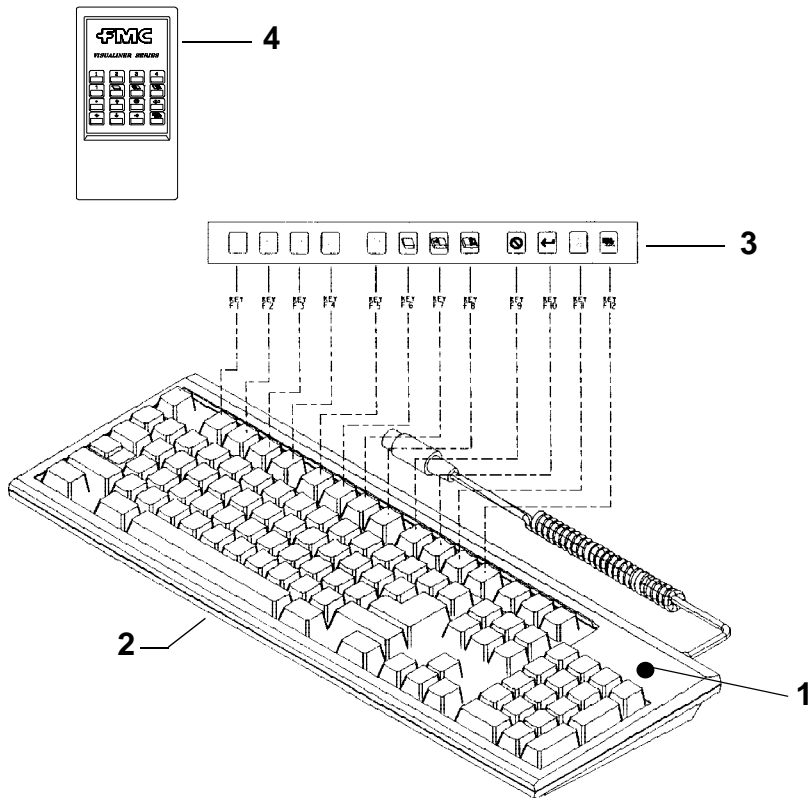
	WINDOWS
86793	Software - Microsoft DOS & Windows
86798	Light Pen Ass'y
86693	Mouse Kit
86694	Track Ball Kit
86696	Track Pad Kit
86803	Shelf - Mouse

Keyboard, Printer & Remote

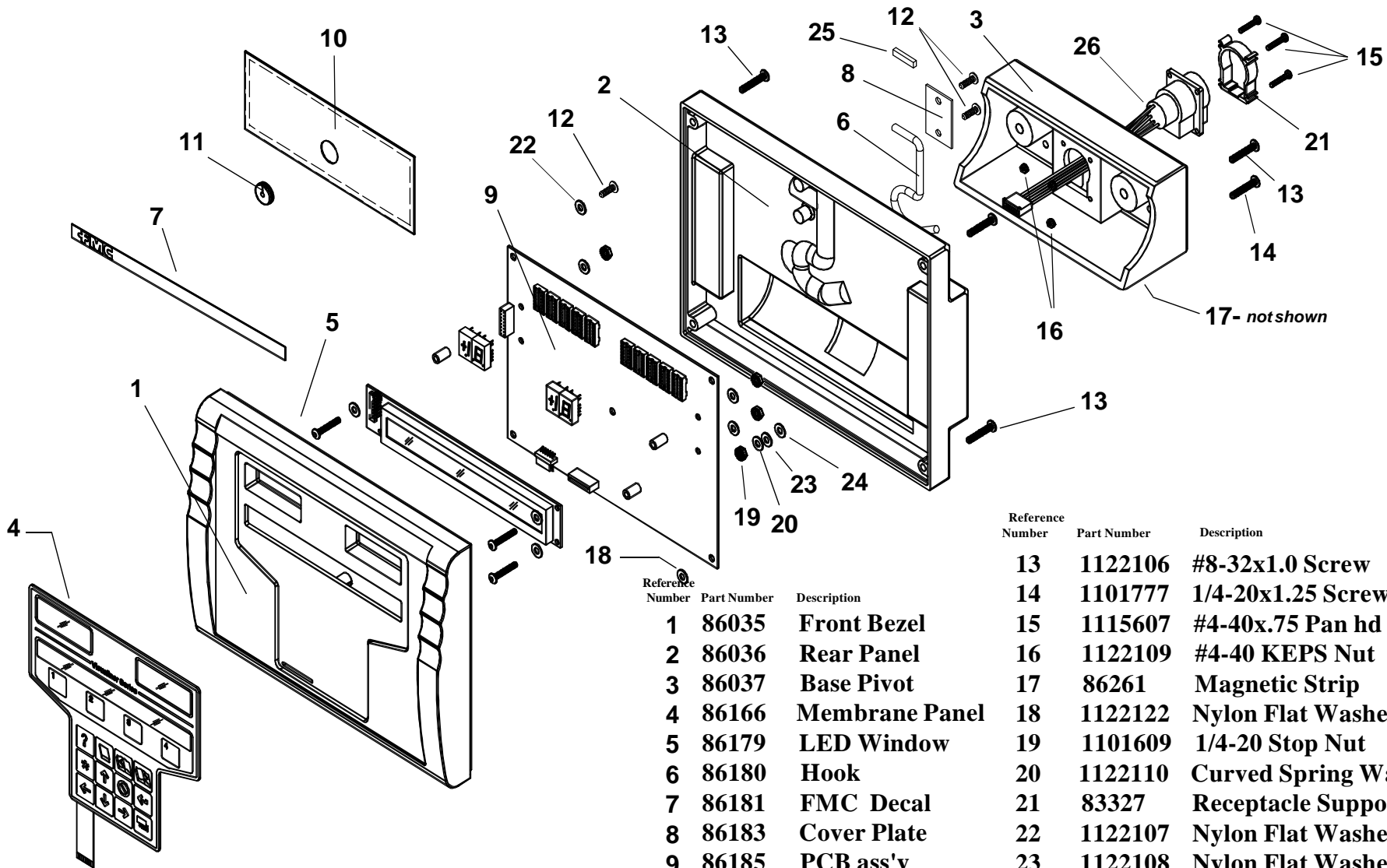


Reference Number	Part Number	Description
1	85569	Keyboard
*	85718	Keyboard with Decal (#3)
*	85594	Cable, keyboard jumper assy. (UL&CSA)
2	86134	Keyboard cover Antec Keyboard
*	86105	Keyboard cover Unitek Keyboard
*	86157	Keyboard cover Fujitsu Keyboard
*	86158	Keyboard cover Maxiswitch Keyboard
3	85690	Keyboard decal kit
4	85567	Remote control
*	1122063	Battery for Remote

Reference Number	Part Number	Description
1	86019	Printer kit 220V
	86018	Printer kit 115V
	86617	Printer Kit 115V (24 Pin)
		Items #2 & #5 included with kits
*	84336	Printer 115V
*	86023	Printer 220V
2	83055	Printer interface cable
*	83049	Printer paper
3	1101594	Terminal, female 18-22 AWG wire
4	1101616	Terminal, #8 ring 16-22 AWG wire
5	86162	Cable Assy., Printer jumper
*	84150	Wire cord clip
*	61278	Cable Tie
*	83787	Seikosha printer ribbon



Remote Display 86038



Reference Number	Part Number	Description
1	86035	Front Bezel
2	86036	Rear Panel
3	86037	Base Pivot
4	86166	Membrane Panel
5	86179	LED Window
6	86180	Hook
7	86181	FMC Decal
8	86183	Cover Plate
9	86185	PCB ass'y
10	86262	Cover Seal
11	1122121	Grommet
12	1101554	#8-32x.38 screw
13	1122106	#8-32x1.0 Screw
14	1101777	1/4-20x1.25 Screw
15	1115607	#4-40x.75 Pan hd
16	1122109	#4-40 KEPS Nut
17	86261	Magnetic Strip
18	1122122	Nylon Flat Washer
19	1101609	1/4-20 Stop Nut
20	1122110	Curved Spring Washer
21	83327	Receptacle Support
22	1122107	Nylon Flat Washer
23	1122108	Nylon Flat Washer
24	1107381	Steel Flat Washer
25	985268	Seal Strip
26	86135	Head Cable Ass'y

Kits

86277 - Remote w/ 33 ft cable

86278 - Remote w/ Curly cable

Wheel Clamp 85632 (85631 - Pair)



Reference Number	Part Number	Description
1	85643	Bracket assy. lower
2	85644	Bracket assy. locking
3	63780	Friction pin (2 Used)
4	58815	Spring, friction (2 Used)
5	1110677	Screw, RHM 10-32x.25 (2 Used)
6	1122074	Grommet-clamp (4 Used)
7	85630	Boot, grabber (3 Used)
8	1103441	Screw, socket head (3 Used)
9	86068	Bracket sliding machined (1 Used)
10	85645	Bracket Assy. Sliding (1 Used)
11	85649	Wheel clamp stubshaft (1 Used)
12	85650	Bracket-clamp, upper (1 Used)
13	85633	Wedge Grip double ended (3 Used)
14	85648	Bracket Clamp lower (1 Used)
15	<u>86477</u>	Rod-extension wheel clamp (2 Used)
16	85646	Rod wheel clamp (2 Used)
17	1122068	Wedge Grip "O" ring. (3 Used)
18	85647	Grabber holder
19	1122064	Screw, bracket mounting
20	1101479	Nut, bracket mounting
21	57666	Spring, lock plate
22	83067	Bar, tightening
23	83068	Cover
24	83097	Screw assy. clamp, knob
*	83066	Screw, long
*	83084	Knob
*	1112969	Screw, socket head 32x5/8"
25	83202	Decal "FMC"
26	1115690	Screw, 6-32x3/8"
27	1103441	Screw, set, 1/4-20x3/8"
28	<u>86409</u>	Knob, Screw-in rod stop
29	<u>85804</u>	Spacer Kit, wedge grip (See Kits)
*	<u>63499</u>	Bungi cord

Kits

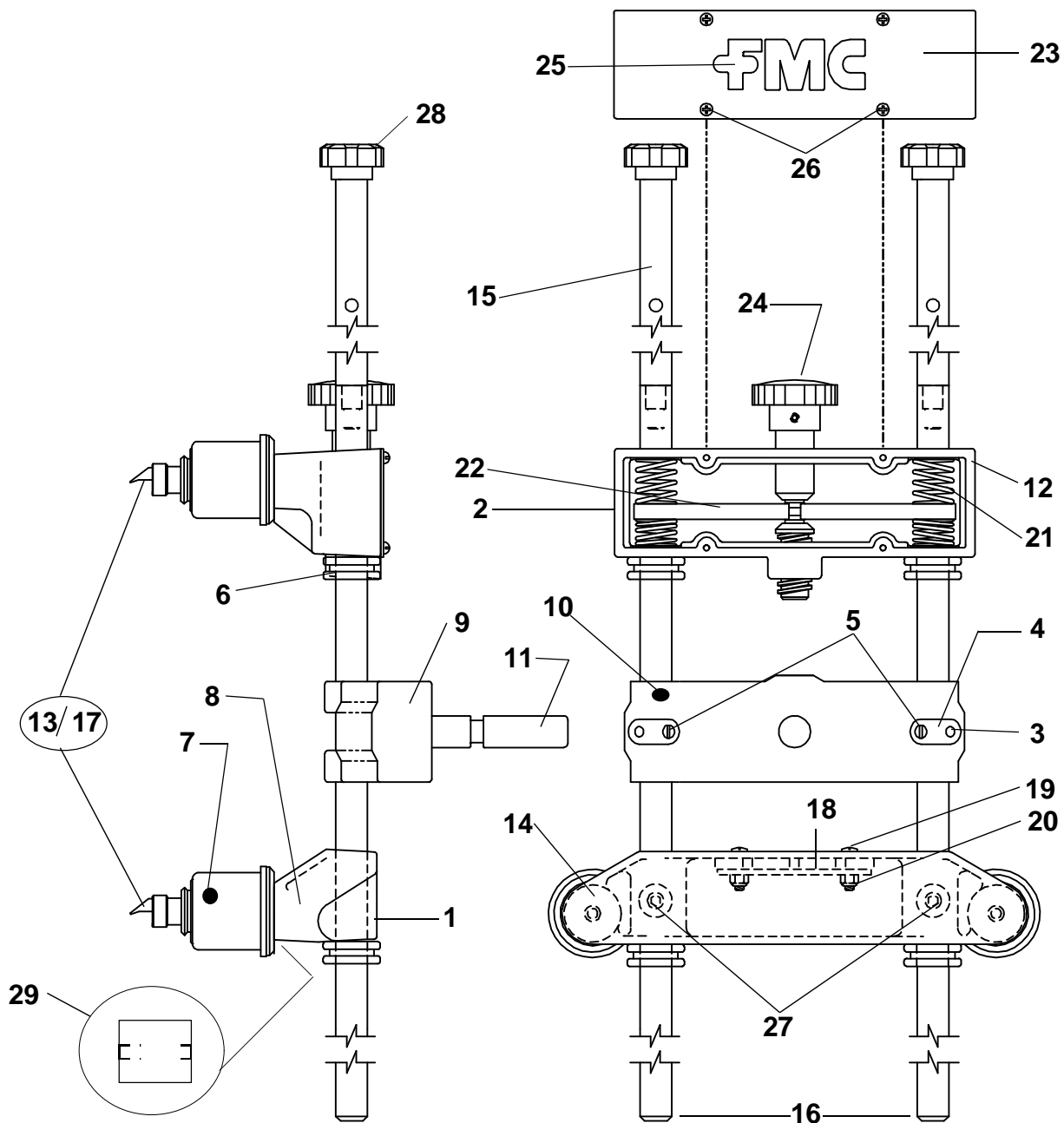
86783 - Rod extension

8	86474 - Rod extension 1.75" rod
12	86556 - Long Wedge Grips
12	1122068 - "O" Rings

85804 - Spacer, grabber (12-85803)

12	85083 - Spacers
12	11102356 - Screw 5/16 - 18x21/4
12	1122145 - Screw 1/4 - 20x21/2

Wheel Clamps



Calibration Kit 84196 (Optional)



Reference Number	Part Number	Description
1	84199	Bar Assembly
2	1101729	Snap Ring
3	1100108	Knurled Cup 3/8-16x1/2"(Shaft retaining Screws)
*	84198	Calibration stand assembly
4	84102	Calibration stand
5	110162	Shoulder screw 3/8"
6	63388	Pointer, calibration fixture
7	59778	Spacer
8	1182563	5/16-18 Hex Nut
9	83258	Screw, head locking assy.
10	83259	Screw, calibration assy.
11	83785	Track toe calibration fixture assembly
*	83783	Fixture, track toe calibration
12	1110770	Screw, cone pt 1/4-20x3/8"
13	84630	Calibration stub shaft
*	86127	Calibration Software with above hardware (Floppy only)
*	86112	Calibration Software with above hardware and enhanced calibration features
*	NOT SHOWN	

Calibration Kit 84196

