



Humanetics Innovative Solutions, Inc.

Hybrid-III 10 Year-Old Child Dummy

420-0000-H

FMVSS213, 49CFR Part 572, Subpart T



Brand Harmonized Parts Catalog





For information on Humanetics products, please visit our web site at www.humaneticsatd.com

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Background

On February 21, 2012, the National Highway Traffic Safety Administration (NHTSA) issued a Final Rule on the Hybrid III 10-year-old crash test dummy. The new rule amends the current child seat standard to include child seats and boosters for children weighing between 65 and 80 pounds. The 10-year-old will help evaluate higher weight restraint systems for the first time in compliance tests.

In development since 1997, the 10-year-old dummy is the next step in assessing child seat performance and it is the agency's best tool available for measuring the risk of injury to a higher weight child in the event of a crash. The latest addition to the Anthropomorphic Test Device (ATD) family will provide new information on the risk of injury to a child using head and knee excursions and chest accelerations.

Head Assembly – Harmonized

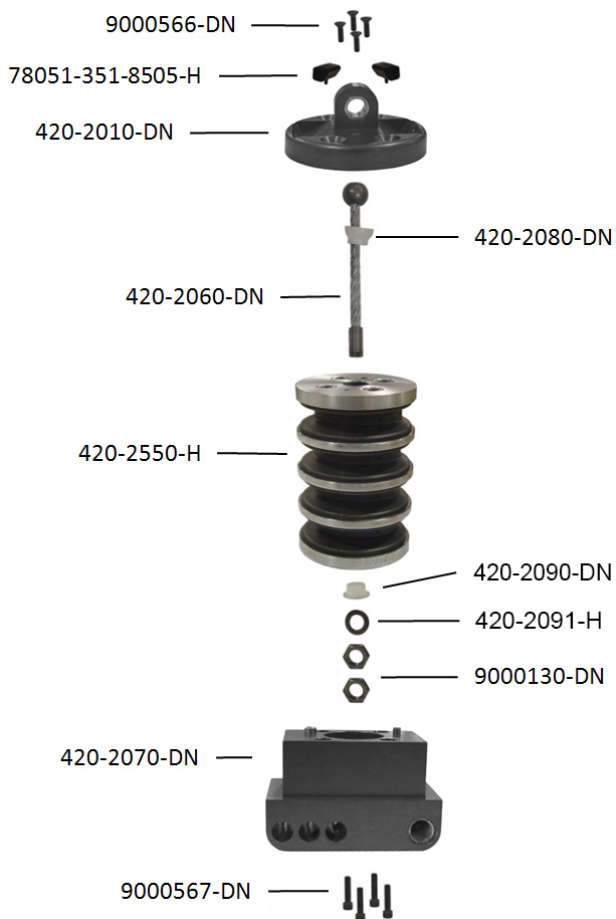


Part Number	Description	Qty. Req'd Per Dummy
880105-100X-H	Head Assembly, Complete, Tested/Certified* Head machined to accept six-axis neck transducer	1
880105-109-1-H	Head Skin and Skull, Tested/Certified	
880105-109-H	Head Skin Tested/Certified	1
880105-102-DN	Six-Axis Machined Skull	1
880105-102XB-DN	Six-Axis Machined Skull with ballast	
9000624-DN	Screw, SHCS 10-24 x 1/2	4
880105-106-H	Skull Cap Skin	1
880105-103-DN	Skull Cap, Machined	1
78051-383X-DN	Structural Replacement, 6-axis Neck Transducer	1
1717	Pivot Pin, Neck Transducer	1
9000264-DN	Screw, SHCS 1/4 - 28 x 7/8	4
9000677-DN	Stripper Bolt Shim, 1/4 x 3/8 x 1/16	4
9000452-DN	Screw, SSCP 8-32 x 1/4	2

*The Complete Head Assembly is supplied with an accelerometer mount kit free of charge. Please specify the type required when placing order.

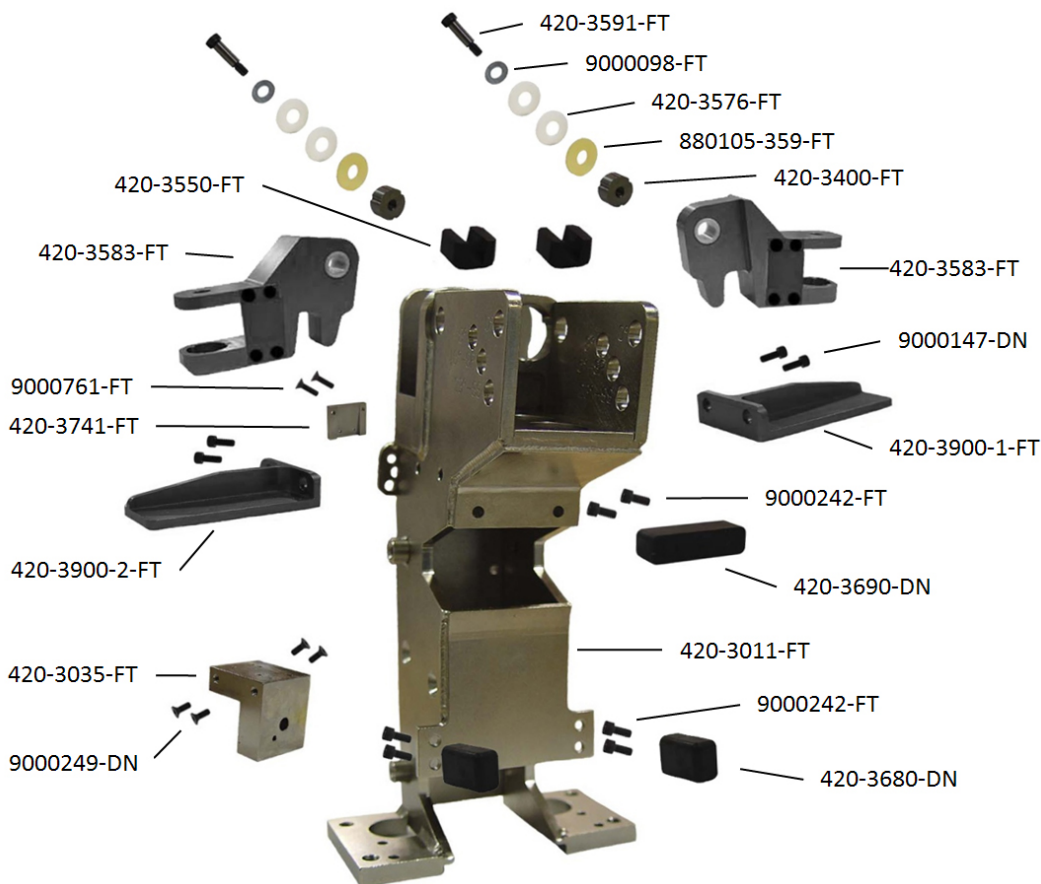
*Accelerometer Mount - Refer to Accelerometer Mount Matrix for Options

Neck Assembly – Harmonized



Part Number	Description	Qty. Req'd Per Dummy
420-2000-H	Neck Assembly, H3 10YO	1
420-2550-H	Neck Molded Assembly, Tested/Certified	1
420-2010-DN	Nodding Joint Assy.	1
420-2060-DN	Neck Cable	1
420-2070-DN	Lower Neck Bracket	1
420-2080-DN	Neck Bushing Upper	1
420-2090-DN	Neck Bushing Lower	1
78051-351-8505-H	Nodding Block, 84 – 87 Shore A	2
9000130-DN	Nut, Hex Jam 3/8-24	2
9000566-DN	Screw, FHCS 10-24 x 5/8	4
9000567-DN	Screw, SHCS ¼-28 x 1	4
420-2091-H	Washer, Nylon 13/32 ID x ¾ OD x 3/32 THK	1
Neck Bracket to Thorax mounting hardware		
9003699-FT	Washer, Fiber 5/16 X 9/16 X 1/32	2
420-0011-DN	Screw, SHSS 5/16 X 2, Modified	1
9002934-DN	Nut, Hex Jam 1/4-20 X 5/32	1
9001160-DN	Screw, BHCS 3/8-16 X 5/8	2

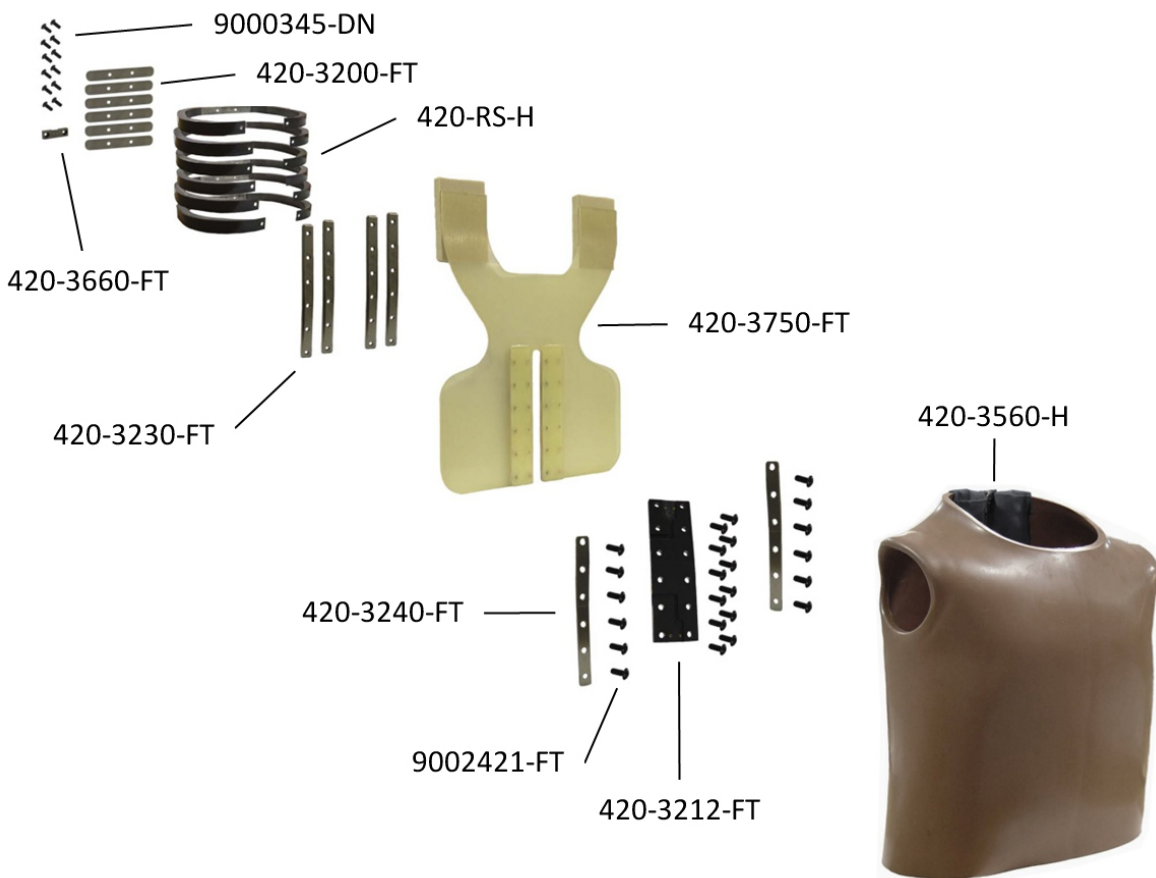
Thorax Assembly – Harmonized



Part Number	Description	Qty. Req'd Per Dummy
420-3000-H	Upper Torso Assembly Complete, H3 10YO	1
420-3011-FT	Spine Box Weldment	1
420-3583-FT	Shoulder Support Assembly	2
420-3900-1-FT	Upper Rib Stop Assembly Left	1
420-3900-2-FT	Upper Rib Stop Assembly Right	1
420-3035-FT	Mount Chest, H3-10YO, Tilt Sensor	1
420-3550-FT	Bumper, Shoulder	2
420-3741-FT	Mount Back, Upper	1
420-3690-DN	Upper Stop Sternum	1
420-3680-DN	Lower Stop Sternum	1
420-3400-FT	Clavicle Link Pivot Nut	2
420-3576-FT	Shoulder Pivot Washer	4
420-3591-FT	Screw Modified	2
880105-359-FT	Washer, Clavicle Link	2
9000098-FT	Washer Flat 3/8 (7/16 X 1 X .084) Zinc	2
9000147-DN	Screw, SHCS 10-32 X 1/2	4
9000242-FT	Screw SHCS 6-32 X 1/4	6
9000249-DN	Screw, FHCS 10-32 X 3/8	8
9000761-FT	Screw FHCS 2-56 X 1/4	2

*The Complete Upper Torso Assembly is supplied with an accelerometer mount kit free of charge. Please specify the type required when placing order.

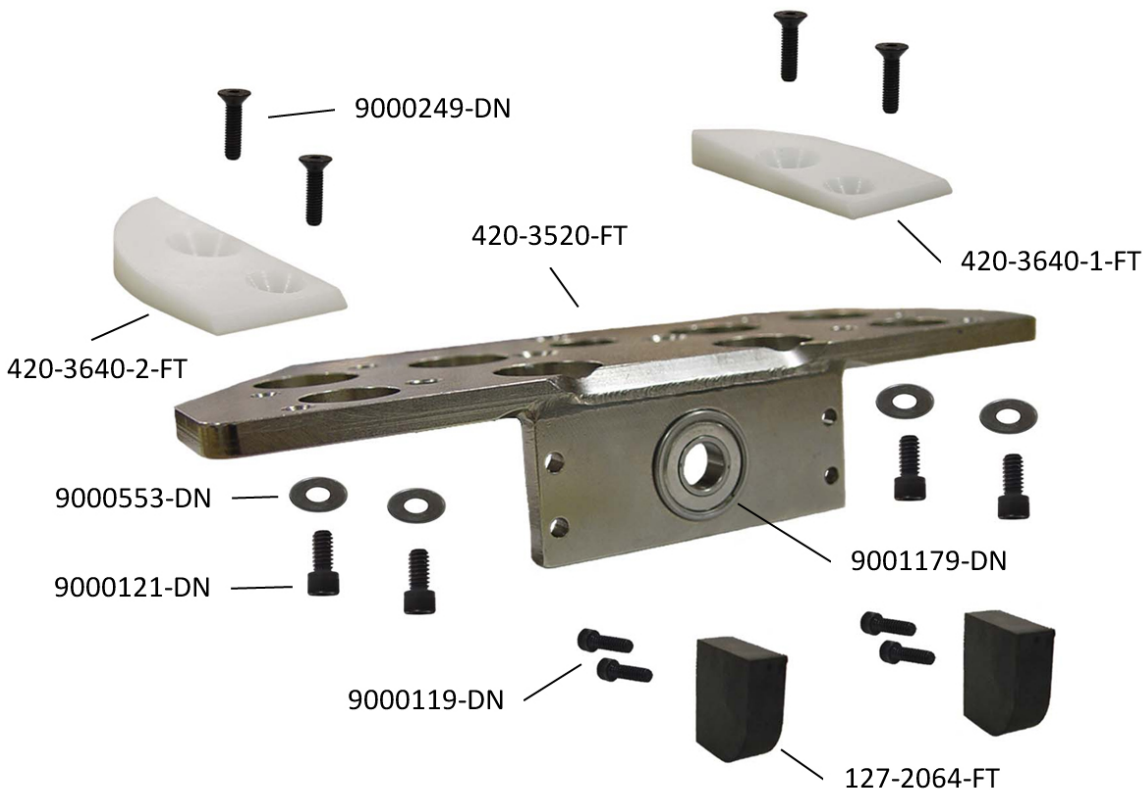
Thorax Assembly – Harmonized (Con’t)



Part Number	Description	Qty. Req'd Per Dummy
420-3000-H	Upper Torso Assembly Complete, H3 10YO (cont'd)	
420-3560-H	Chest Flesh Assembly H3 10YO	1
420-3750-FT	Bib Assembly	1
420-RS-H	Rib Set Complete, Tested, H3 10YO	1
420-3610-1-H	Individual Rib, Rib # 1, untested	1
420-3610-2-H	Individual Rib, Rib # 2, untested	1
420-3610-3-H	Individual Rib, Rib # 3, untested	1
420-3610-4-H	Individual Rib, Rib # 4, untested	1
420-3610-5-H	Individual Rib, Rib # 5, untested	1
420-3610-6-H	Individual Rib, Rib # 6, untested	1
420-3200-FT	Support, Rib Rear	6
420-3660-FT	Back Accel Mount Lower	1
420-3230-FT	Threaded Strip Rib	4
420-3240-FT	Plate Front Rib End Stiffener	2
420-3212-FT	Transducer Arm Slider	1
9002421-FT	Screw BHCS 8-32 X 5/8	24
9000345-DN	Screw, BHCS 8-32 X 3/8	12

*The Complete Upper Torso Assembly is supplied with an accelerometer mount kit free of charge. Please specify the type required when placing order.

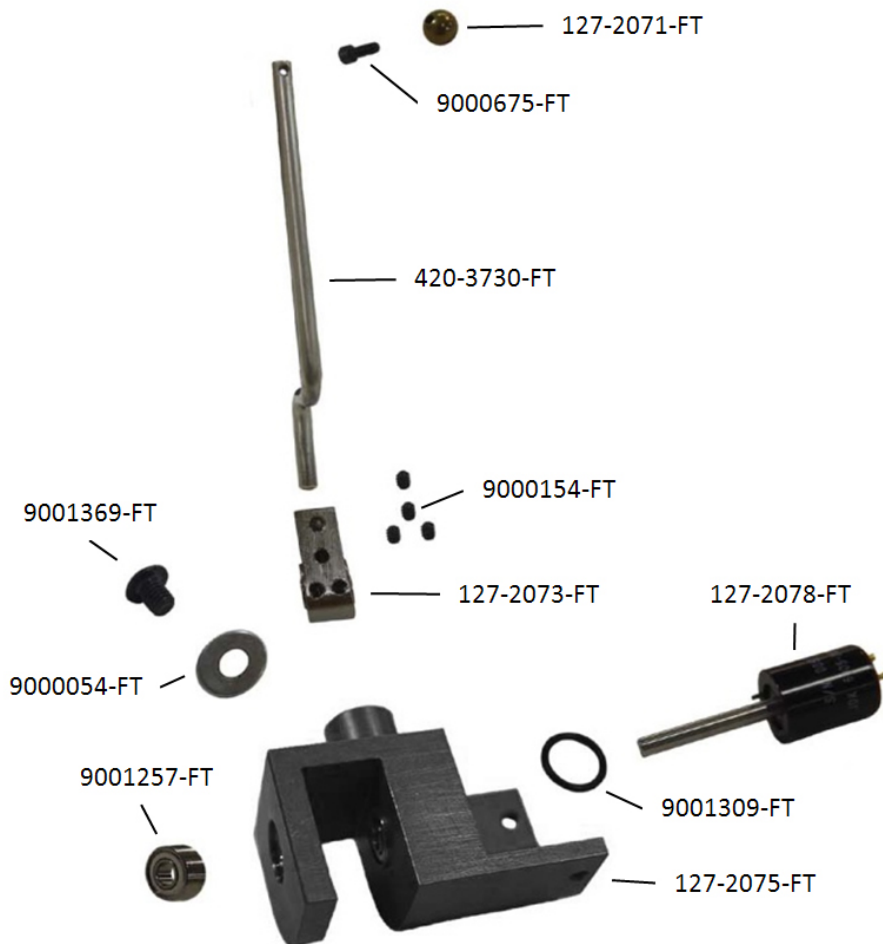
Thorax Assembly – Harmonized (Con’t)



Part Number	Description	Qty. Req'd Per Dummy
420-3000-H	Upper Torso Assembly Complete, H3 10YO (cont'd)	
420-3520-FT	Mounting Plate Adaptor Assembly	1
420-3640-1-FT	Lower Rib Stop Left	1
420-3640-2-FT	Lower Rib Stop Right	1
127-2064-FT	Molded Stop	2
9001179-DN	Bearing SR6SS	1
9000249-DN	Screw, FHCS 10-32 X 3/8	4
9000121-DN	Screw, SHCS 1/4-20 X 1/	4
9000119-DN	Screw, SHCS 6-32 X 1/2	4
9000553-DN	Washer, Flat .281 ID X .50 OD X .06 THK	4

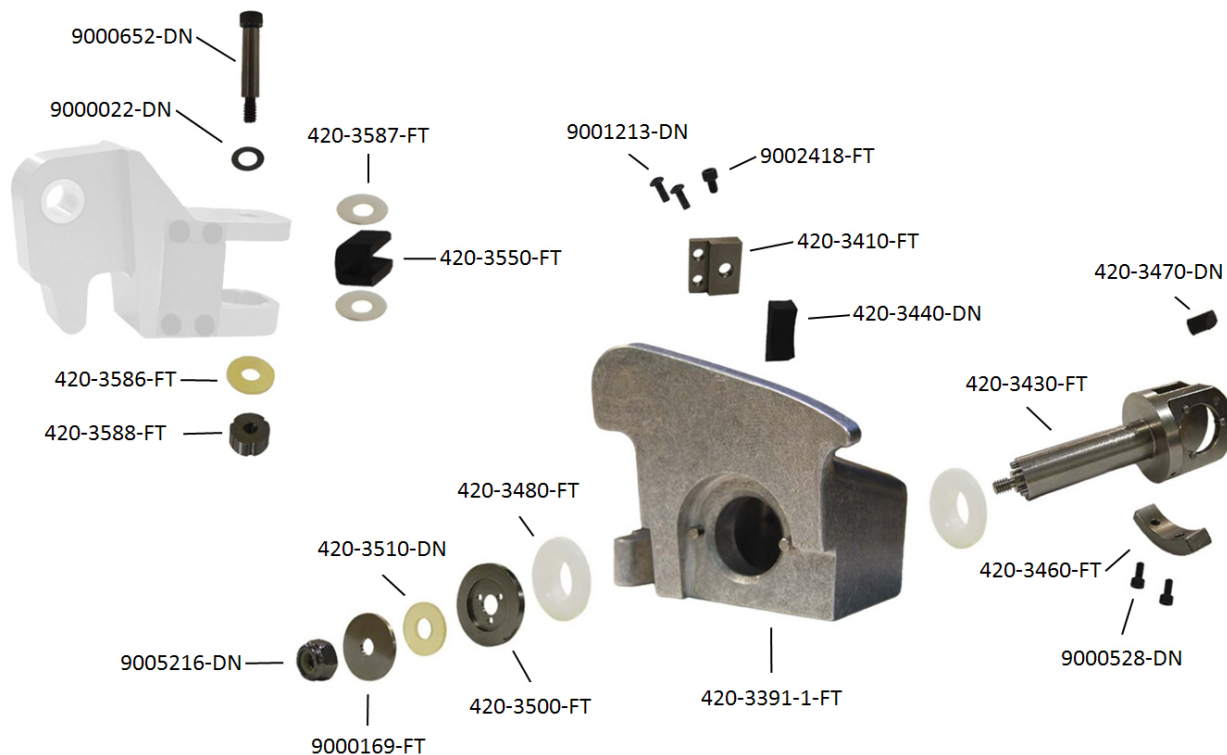
*The Complete Upper Torso Assembly is supplied with an accelerometer mount kit free of charge. Please specify the type required when placing order.

Transducer Assembly – Harmonized



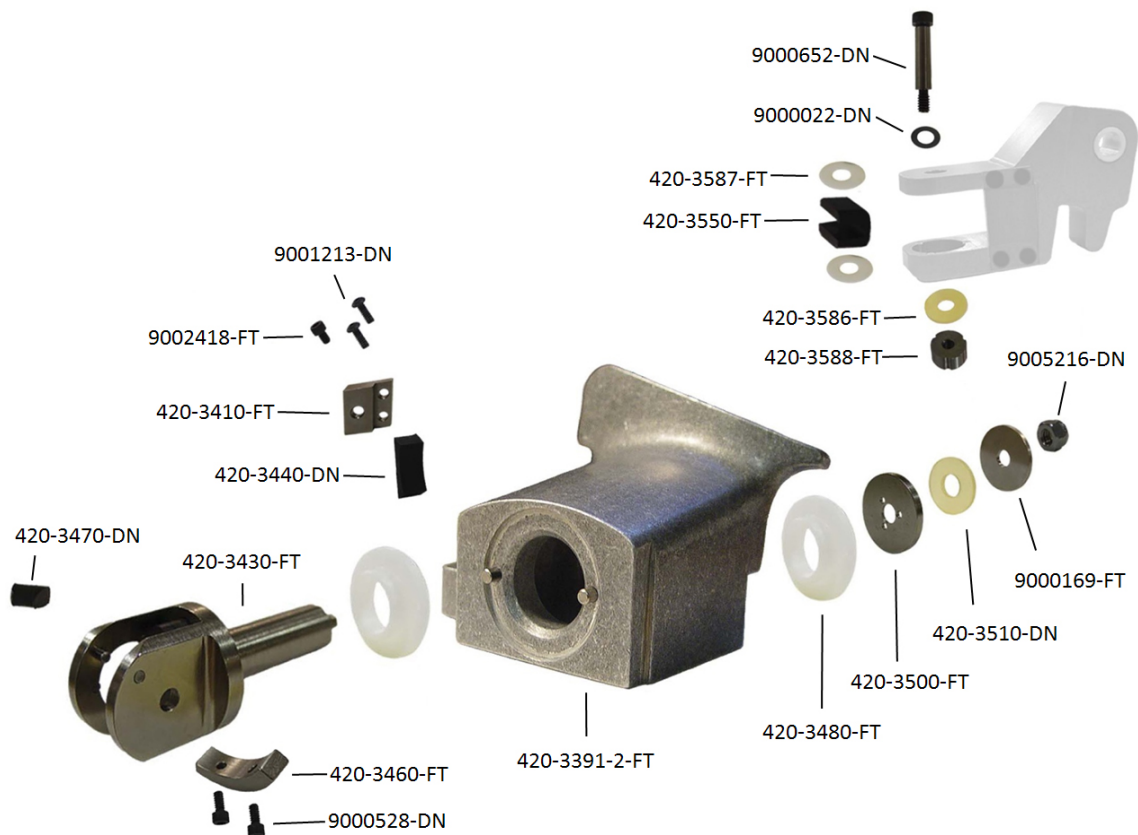
Part Number	Description	Qty. Req'd Per Dummy
420-3000-H	Upper Torso Assembly Complete, H3 10YO (cont'd)	
420-3710-FT	Transducer Assembly	1
9001369-FT	Screw, BHCS 1/4-20 x 1/2	1
9000054-FT	Washer-Flat .265 x .500 x .032	1
420-3720-FT	Transducer Arm Assembly	1
420-3730-FT	Transducer Arm	1
127-2071-FT	Transducer Ball	1
9000675-FT	Screw, SHCS 2-56 X 3/8	1
127-2073-FT	Arm Connector	1
9000154-FT	Screw, SSCP 4-40 x 3/16	4
127-2075-FT	Bracket, Potentiometer -Machined	1
9001257-FT	Bearing	2
127-2078-FT	Potentiometer	1

Shoulder Assembly Left – Harmonized



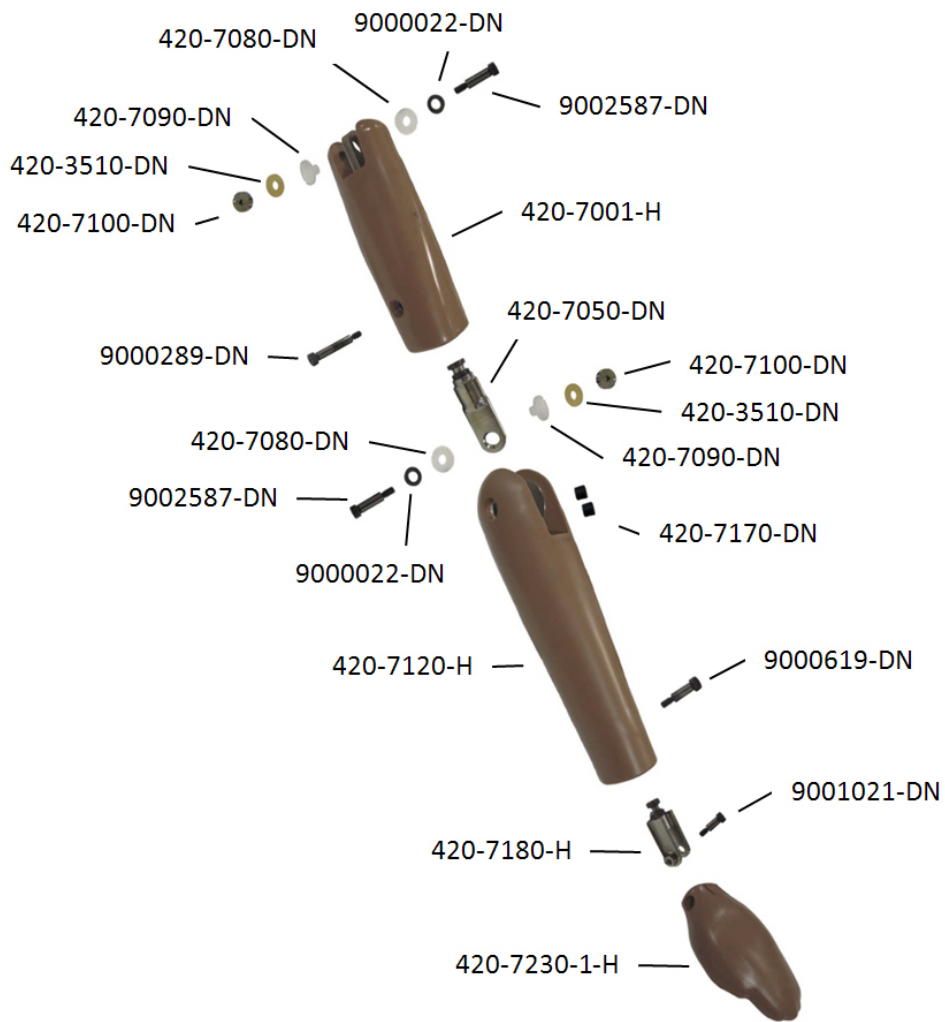
Part Number	Description	Qty. Req'd Per Dummy
420-3000-H	Upper Torso Assembly Complete, H3 10YO (cont'd)	
420-3550-FT	Bumper, Shoulder	1
420-3586-FT	Shoulder Washer	1
420-3587-FT	Shoulder Pivot Washer II	2
420-3588-FT	Pivot Nut	1
9000652-DN	Screw, SHSS 5/16 X 1	1
900022-DN	Washer, Flat .328 ID X .562 OD X .062	1
420-3800-1-H	Shoulder Assembly, Left	1
420-3391-1-FT	Clavicle Link Assembly Left	1
420-3410-FT	Shoulder Stop Bracket	1
420-3430-FT	Shoulder Yoke Assembly	1
420-3440-DN	Shoulder Stop Assembly	1
420-3460-FT	Stop Steel	1
420-3480-FT	Shoulder, Bushing Yoke Pivot	2
420-3500-FT	Washer Retaining	1
420-3510-DN	Washer, Shoulder Joint Spring	1
420-3470-DN	Shoulder, Stop Assembly	1
9000528-DN	Screw, SHCS 4-40 x 1/4	2
9001213-DN	Screw, BHCS 6-32 x 3/8	2
9002418-FT	Screw, SHCS 8-32 x 1/4	1
9005216-DN	Nut, Hex 1/4-20 Jam Lock	1
9000169-FT	Washer, Fender 1/4 Zinc (9/32 x 1)	1

Shoulder Assembly Right – Harmonized



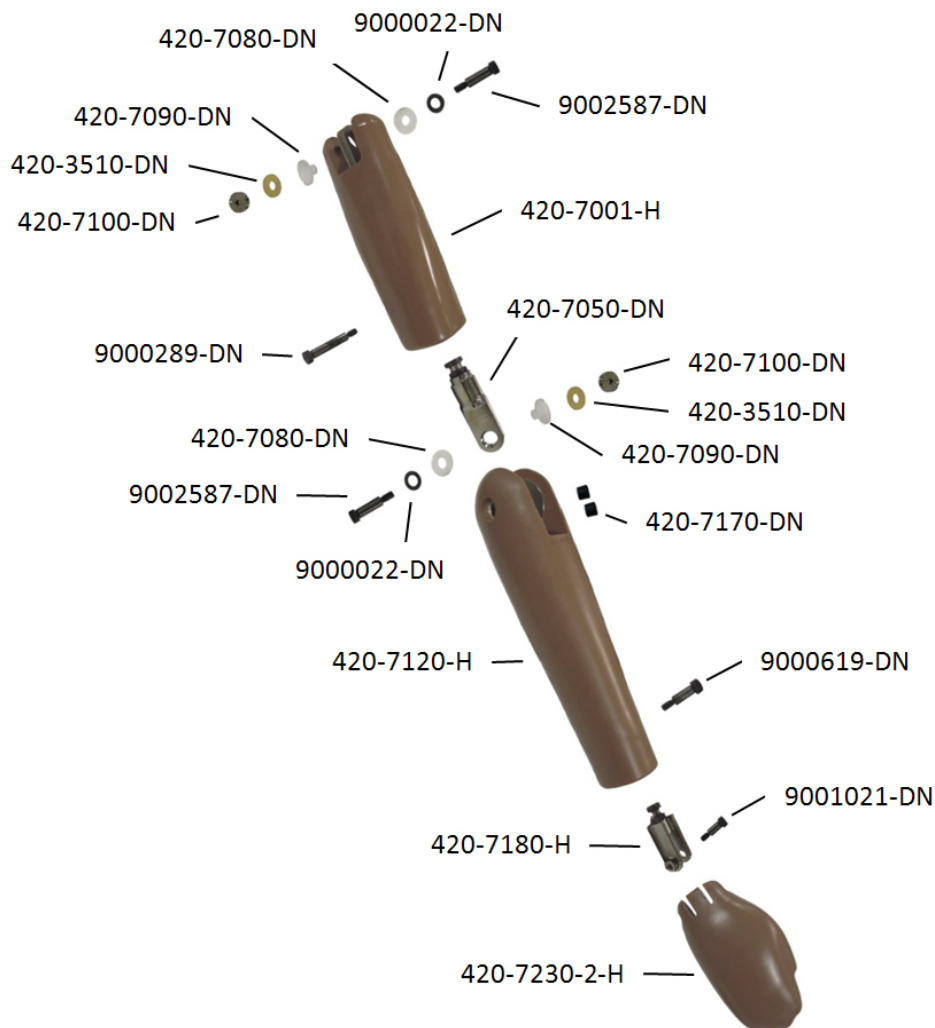
Part Number	Description	Qty. Req'd Per Dummy
420-3000-H	Upper Torso Assembly Complete, H3 10YO (cont'd)	
420-3550-FT	Bumper, Shoulder	1
420-3586-FT	Shoulder Washer	1
420-3587-FT	Shoulder Pivot Washer II	2
420-3588-FT	Pivot Nut	1
9000652-DN	Screw, SHSS 5/16 X 1	1
9000022-DN	Washer, Flat .328 ID X .562 OD X .062	1
420-3800-2-H	Shoulder Assembly, Right	1
420-3391-2-FT	Clavicle Link Assembly Right	1
420-3410-FT	Shoulder Stop Bracket	1
420-3430-FT	Shoulder Yoke Assembly	1
420-3440-DN	Shoulder Stop Assembly	1
420-3460-FT	Stop Steel	1
420-3480-FT	Shoulder, Bushing Yoke Pivot	2
420-3500-FT	Washer Retaining	1
420-3510-DN	Washer, Shoulder Joint Spring	1
420-3470-DN	Shoulder, Stop Assembly	1
9000528-DN	Screw, SHCS 4-40 x 1/4	2
9001213-DN	Screw, BHCS 6-32 x 3/8	2
9002418-FT	Screw, SHCS 8-32 x 1/4	1
9005216-DN	Nut, Hex 1/4-20 Jam Lock	1
9000169-FT	Washer, Fender 1/4 Zinc (9/32 x 1)	1

Arm Assembly Left – Harmonized



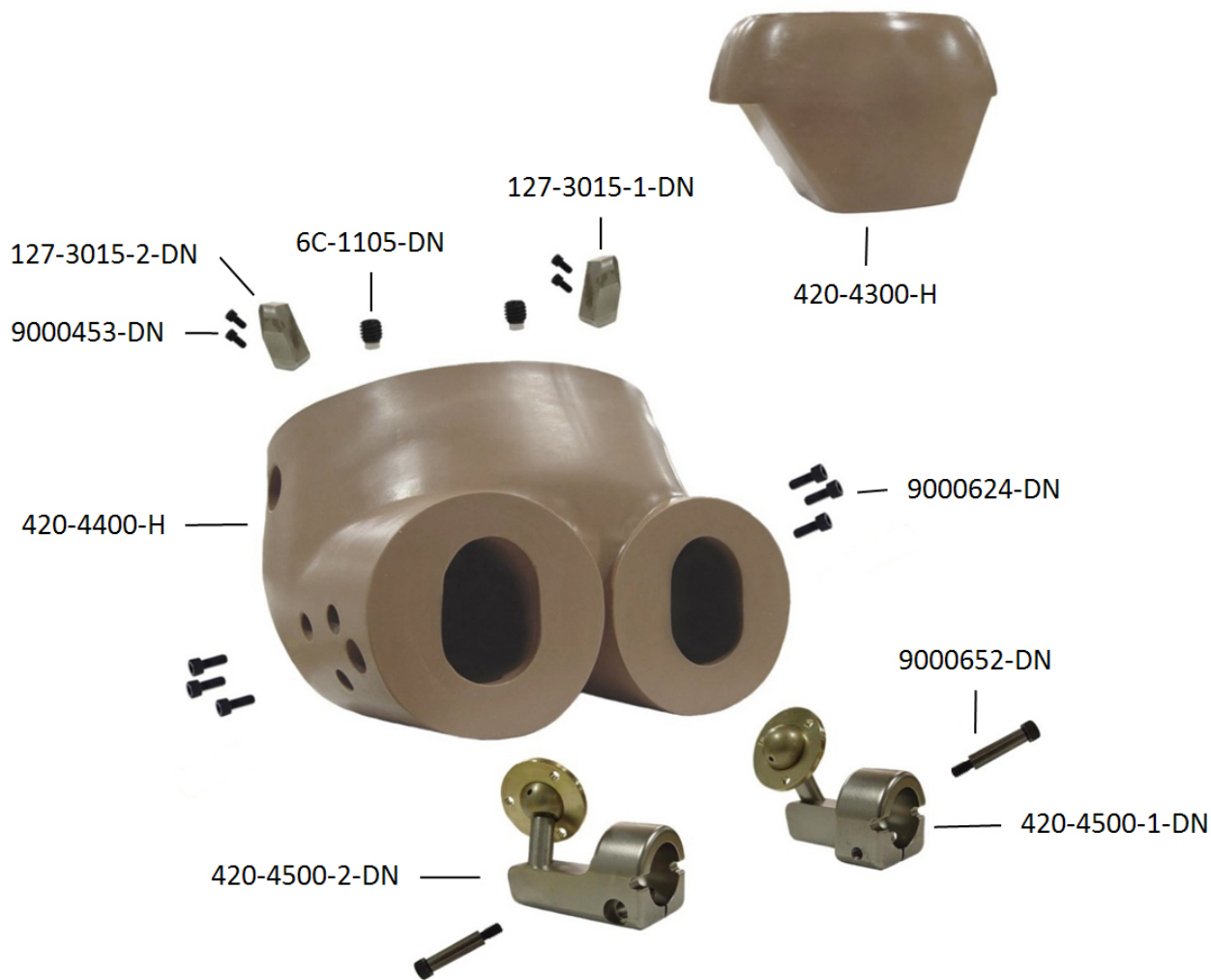
Part Number	Description	Qty. Req'd Per Dummy
420-7000-1-H	Arm Assembly Complete, Left	1
420-7001-H	Upper Arm Molded Assembly	1
420-7120-H	Molded Arm Lower	1
420-7230-1-H	Hand Molded, Left	1
420-7180-H	Wrist Rotation Weldment	1
420-7100-DN	Nut Upper Arm Pivot	2
420-3510-DN	Washer, Shoulder Joint Spring	2
420-7050-DN	Upper Arm, Lower Part	1
420-7080-DN	Washer, Upper Arm and Elbow Pivot	2
420-7090-DN	Bushing, Upper Arm and Elbow Pivot	2
9001021-DN	Screw, SHSS 5/16 X 5/8	1
9000619-DN	Screw, SHSS 1/4 X 5/8	1
9002587-DN	Screw, SHSS 5/16 X 7/8	2
9000022-DN	Washer, Flat 328 ID X .562 OD X .062	2
9000289-DN	Screw, SHSS 1/4 X 1-1/4	1

Arm Assembly Right – Harmonized



Part Number	Description	Qty. Req'd Per Dummy
420-7000-2-H	Arm Assembly Complete, Right	1
420-7001-H	Upper Arm Molded Assembly	1
420-7120-H	Molded Arm Lower	1
420-7230-2-H	Hand Molded, Right	1
420-7180-H	Wrist Rotation Weldment	1
420-7100-DN	Nut Upper Arm Pivot	2
420-3510-DN	Washer, Shoulder Joint Spring	2
420-7050-DN	Upper Arm, Lower Part	1
420-7080-DN	Washer, Upper Arm and Elbow Pivot	2
420-7090-DN	Bushing, Upper Arm and Elbow Pivot	2
9001021-DN	Screw, SHSS 5/16 X 5/8	1
9000619-DN	Screw, SHSS 1/4 X 5/8	1
9002587-DN	Screw, SHSS 5/16 X 7/8	2
9000022-DN	Washer, Flat 328 ID X .562 OD X .062	2
9000289-DN	Screw, SHSS 1/4 X 1-1/4	1

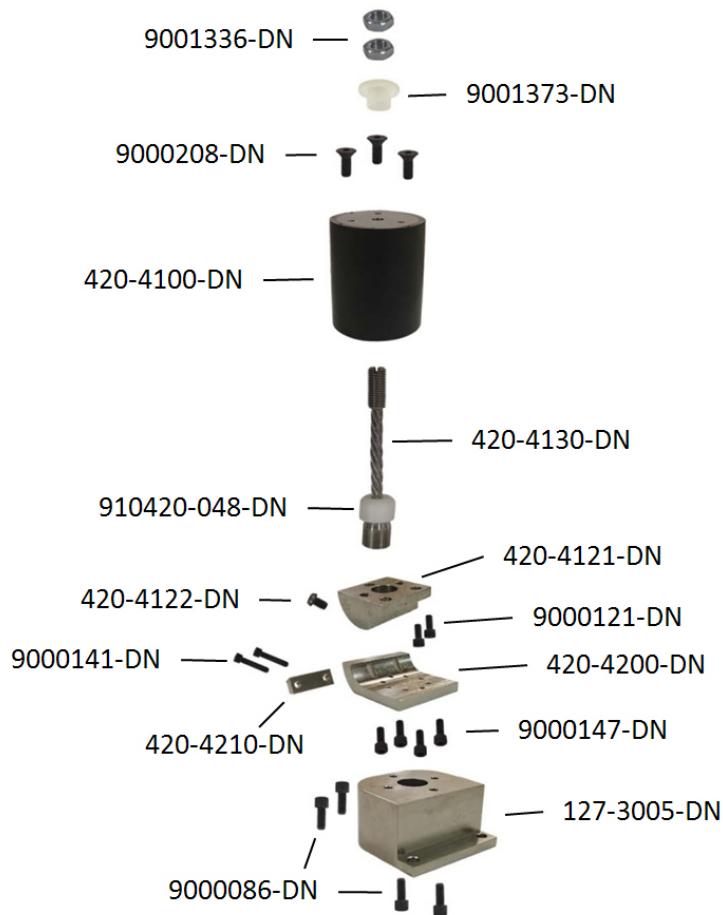
Lower Torso Assembly – Harmonized



Part Number	Description	Qty. Req'd Per Dummy
420-4000-H	Lower Torso Assembly	1
420-4300-H	Abdomen H3-10YO	1
6c-1105-DN	6 YR H3-Femur Friction Plunger Assembly	2
420-4400-H	Pelvis Flesh Molded Assembly	1
127-3015-1-DN	6 Year Old A.S.I.S. Load Cell SR, Left	1
127-3015-2-DN	6 Year Old A.S.I.S. Load Cell SR, Right	1
9000453-DN	Screw, SHCS ¼-28 x 3/4	4
420-4500-1-DN	Femur Assembly, Left, HIII 10YR	1
420-4500-2-DN	Femur Assembly, Right, HIII 10YR	1
9000624-DN	Screw, SHCS 10-24 X 1/2	6
9000652-DN	Screw, SHSS 5/16 X 1	2

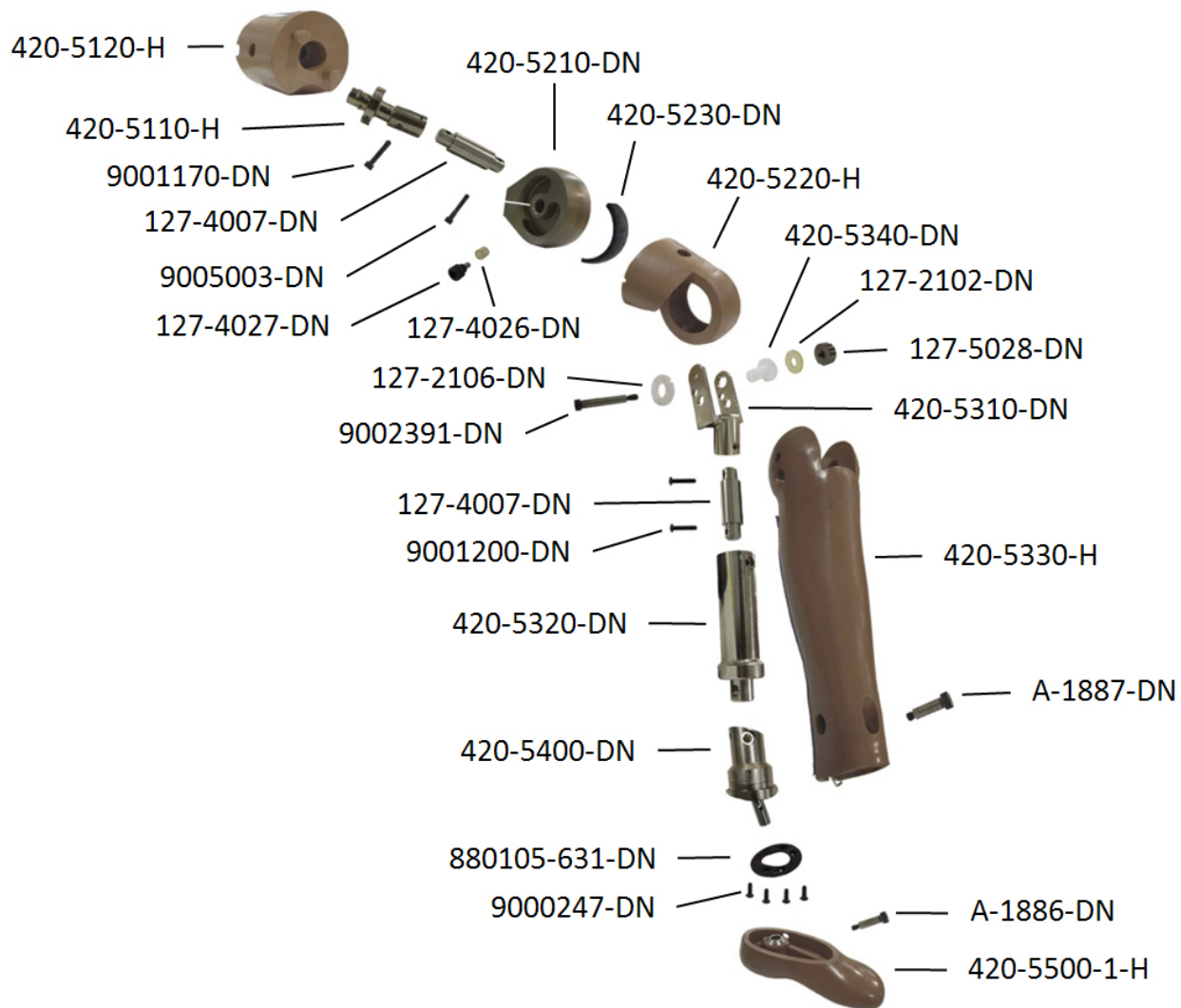
*The Complete Lower Torso Assembly is supplied with an accelerometer mount kit free of charge. Please specify the type required when placing order.

Lumbar Assembly – Harmonized



Part Number	Description	Qty. Req'd Per Dummy
420-4000-H	Lower Torso Assembly (cont'd)	1
420-4101-DN	Lumbar Spine Assembly	1
420-4100-DN	Lumbar Spine	1
420-4130-DN	Cable, Lumbar	1
9001336-DN	Nut, Hex Jam 5/16-24	2
9001373-DN	Bushing Nylon Shoulder for 5/16 x ¼ SCRW	1
910420-048-DN	Mounting Plate Insert	1
420-4121-DN	Lumbar Attachment, HIII 10 YR	1
420-4200-DN	Bracket, Lumbar Adjustment 10YO-H3	1
420-4210-DN	Nut, Adjustment Bracket 10YO-H3	1
420-4122-DN	Screw - Modified	1
127-3005-DN	6YR H3-Lumbar Adaptor	1
9000208-DN	Screw, FHCS 10-32 x ½	3
9000121-DN	Screw, SHCS 1/4-20 X 1/2	2
9000141-DN	Screw, SHCS 1/4-28 X 1 1/4	2
9000147-DN	Screw, SHCS 10-32 X 1/2	4
9000086-DN	Screw, SHCS 1/4-20 X 7/8	4

Leg Assembly Left – Harmonized

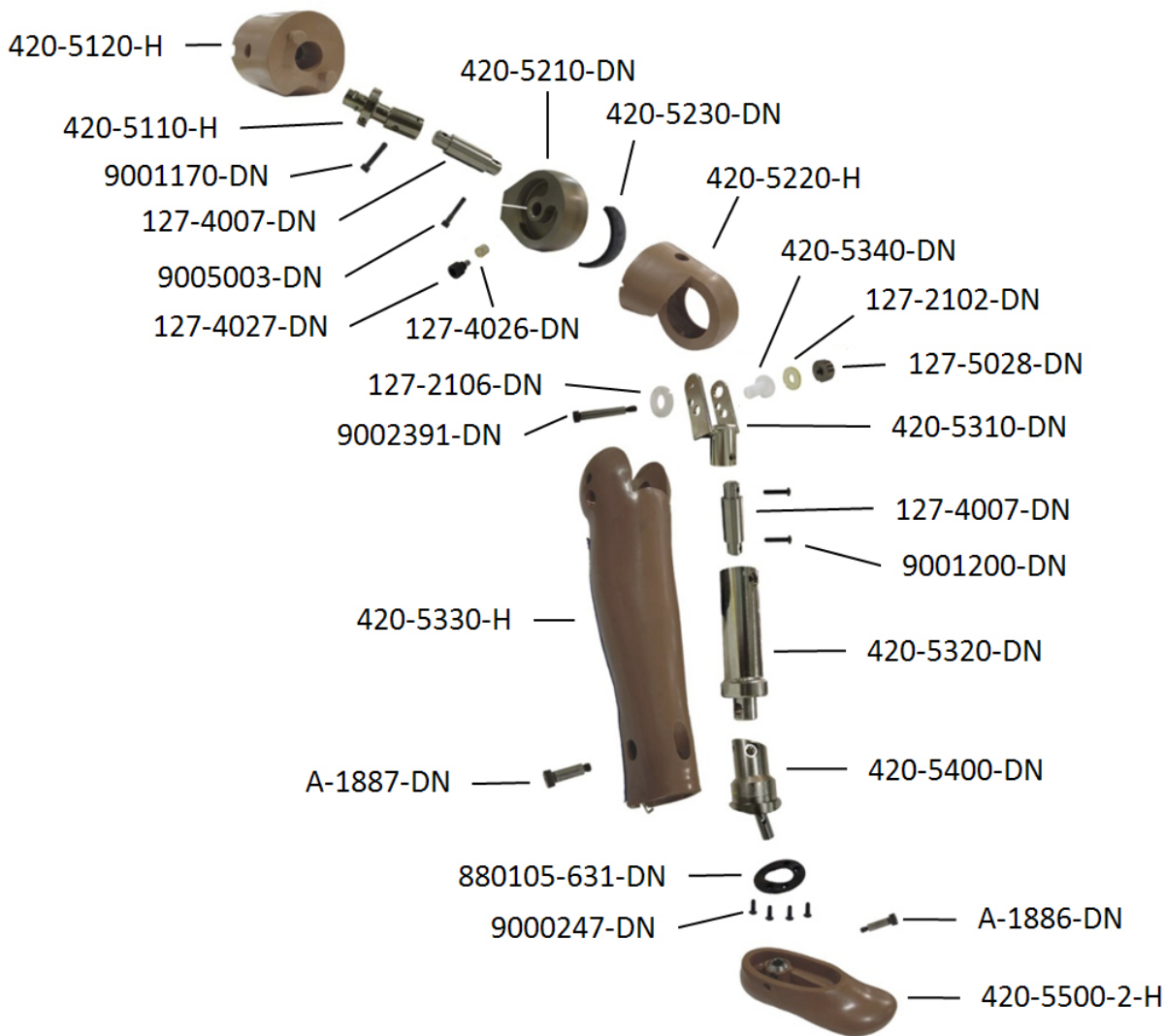


Part Number	Description	Qty. Req'd Per Dummy
420-5000-1-H	Leg Assembly, Left H3-10 Year Old	1
420-5100-H	Upper Leg Assembly	1
420-5120-H	Upper Leg Flesh	1
420-5110-H	Upper Leg Weldment	1
127-4007-DN	Load Cell Simulator, Femur, HIII 6YR	1
9001170-DN	Screw, SHCS 1/4-20 X 1-1/4	1
9005003-DN	Screw, SHCS 1/4-20 X 1 1/2	1
127-4027-DN	Screw, Lower Leg Rotation Stop	1
127-4026-DN	Bumper, Lower Leg Rotation Stop	1
420-5200-H	Knee Assembly	1
420-5220-H	Knee Flesh, HIII 10YR	1
420-5210-DN	Knee Cap 10YO-H3	1
420-5230-DN	Knee Insert – H3 10 YR Old	1
9002391-DN	Screw, SHSS 5/16 X 1 3/4	1

420-5000-1-H CON'T

127-2106-DN	6 YR H3-Bushing Wshr Elbow/Shoulder/Knee	1
420-5340-DN	Knee Bushing	1
127-2102-DN	6 YR H3-Yoke Spring Washer	1
127-5028-DN	6 YR H3-Nut	1
420-5300-H	Lower Leg Assembly	1
420-5330-H	Lower Leg Flesh	1
420-5310-DN	Lower Leg, Upper Weldment	1
420-5320-DN	Lower Leg Bone, HIII 10YO	1
127-4007-DN	Load Cell Simulator, Femur, HIII	1
9001200-DN	Screw, BHCS 1/4-20 X 1 ¼	2
420-5400-DN	Ankle Assembly, HIII 10YO	1
	<i>See Detailed Assembly following Legs</i>	
A-1887-DN	Ankle to Leg Attachment Bolt	1
880105-631-DN	Bumper, Ankle Assembly	1
9000247-DN	Screw, BHCS 6-32 X 1/2	4
420-5500-1-H	Molded Foot Assembly, Left	1
A-1886-DN	Foot Attachment Bolt	1

Leg Assembly Right – Harmonized

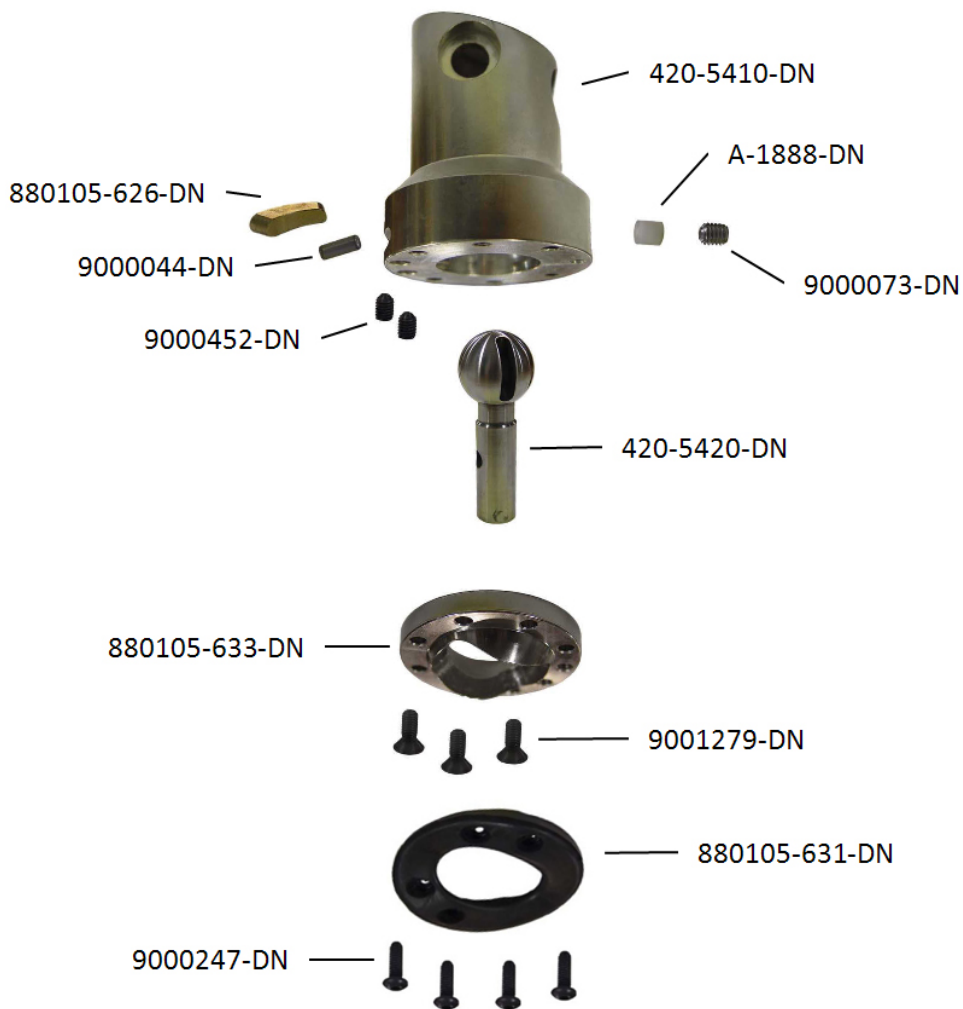


Part Number	Description	Qty. Req'd Per Dummy
420-5000-2-H	Leg Assembly, Right H3-10 Year Old	1
420-5100-H	Upper Leg Assembly	1
420-5120-H	Upper Leg Flesh	1
420-5110-H	Upper Leg Weldment	1
127-4007-DN	Load Cell Simulator, Femur, HIII 6YR	1
9001170-DN	Screw, SHCS 1/4-20 X 1-1/4	1
9005003-DN	Screw, SHCS 1/4-20 X 1 1/2	1
127-4027-DN	Screw, Lower Leg Rotation Stop	1
127-4026-DN	Bumper, Lower Leg Rotation Stop	1
420-5200-H	Knee Assembly	1
420-5220-H	Knee Flesh, HIII 10YR	1
420-5210-DN	Knee Cap 10YO-H3	1
420-5230-DN	Knee Insert – H3 10 YR Old	1
9002391-DN	Screw, SHSS 5/16 X 1 3/4	1

420-5000-2-H CON'T

127-2106-DN	6 YR H3-Bushing Wshr Elbow/Shoulder/Knee	1
420-5340-DN	Knee Bushing	1
127-2102-DN	6 YR H3-Yoke Spring Washer	1
127-5028-DN	6 YR H3-Nut	1
420-5300-H	Lower Leg Assembly	1
420-5330-H	Lower Leg Flesh	1
420-5310-DN	Lower Leg, Upper Weldment	1
420-5320-DN	Lower Leg Bone, HIII 10YO	1
127-4007-DN	Load Cell Simulator, Femur, HIII	1
9001200-DN	Screw, BHCS 1/4-20 X 1 ¼	2
420-5400-DN	Ankle Assembly, HIII 10YO	1
	<i>See Detailed Assembly following Legs</i>	
A-1887-DN	Ankle to Leg Attachment Bolt	1
880105-631-DN	Bumper, Ankle Assembly	1
9000247-DN	Screw, BHCS 6-32 X 1/2	4
420-5500-2-H	Molded Foot Assembly, Right	1
A-1886-DN	Foot Attachment Bolt	1

Ankle Assembly – Harmonized



Part Number	Description	Qty. Req'd Per Dummy
420-5400-DN	Ankle Assembly, HIII 10YR	1
420-5410-DN	Upper Ankle Shell, 10YO-H3	1
420-5420-DN	Ankle Shaft	1
880105-633-DN	Ankle Lower Shell	1
880105-626-FT	Stop Pin Retainer	1
9000044-DN	Pin, Dowel 3/16 x 3/8	1
A-1888-DN	Ankle Friction Pad	1
9000073-DN	Screw, SSCP 5/16-18 x 3/8	1
9000452-DN	Screw, SSCP 8-32 x 1/4	2
9000247-DN	Screw, BHCS 6-32 x 1/2	4
9001279-DN	Screw, FHCS 6-32 x 1/2	3
880105-631-DN	Bumper, Ankle Assembly	1

Accelerometer Mounts

Accelerometer Type	Complete Dummy (420-000-H)	Components		
		880105-100X-H	420-3000-H	420-4000-H
	6-Axis	Head	Chest	Pelvis
Endevco				
7264-2000	420-7264-2000-DN	880105-1211-ASSY-DN	420-9211-ASSY-DN	127-3550-DN
7264C-2000	420-7264C-2000-DN	880105-1211-ASSY-DN	420-9211-ASSY-DN	127-3550-DN
Endevco				
7264A-2000	420-7264A-2000-DN	880105-1211B-ASSY-DN	420-9212-ASSY-DN	127-3550B-DN
7264B-2000	420-7264B-2000-DN	880105-1211B-ASSY-DN	420-9212-ASSY-DN	127-3550B-DN

Clothes / Misc.

Part Number	Description	Qty. Req'd Per Dummy
6001749-DN	Shirt	1
6001750-DN	Pants	1
6001751	Shoes	1
PADI-H3-10YO	Proc. For Assy, Disassy & Insp., H3 10 YO	1
78051-231-H	Lifting Ring	1