

7 CTL TOTAL SPINE SYSTEM CERVICAL - THORACIC - LUMBAR

The CTL Total Spine Implant Removal System is the first "truly" Universal spine extraction system that encompasses all the instruments you need to remove virtually all Cervical, Thoracic and Lumbar locking nuts, screws and plates commonly used in today's Orthopaedic/Spine procedures.

The system includes:

23 dedicated C-spine extractors for removal of screws and plates (C1 through C7)
80+ extractors specifically designed to work with over 25 spinal companies products.

Newly designed stadium style case, uniquely designed for maximum visibility, accessibility and rapid identity of instruments.

Attachments include:

- 80 Extractors
- 3 Extensions
- T & Straight Ratcheting Handles
- 2 Torque Claws
- Open End Wrenches
- Rod Gripping Vice Grips
- Needle Noose Pliers

Specific Extractors for:

- | | |
|--------------------|---------------|
| ■ Advance Spine® | ■ Lifespan® |
| ■ Aesculap® | ■ Life Spine® |
| ■ Alphatec® | ■ Medtronic® |
| ■ Atlas Spine® | ■ Nuvasive® |
| ■ Blackstone® | ■ Orthotec® |
| ■ Biomet® | ■ Seaspine® |
| ■ Corin® | ■ Stryker® |
| ■ Codmed® | ■ Synthes® |
| ■ Cross® | ■ Ulrich® |
| ■ Depuy® | ■ US Spine® |
| ■ EBI® | ■ Zimmer® |
| ■ Globus Medical® | |
| ■ Interpore Cross® | |
| ■ K2 Medical® | |



Surgical Technique Guide

CTL TOTAL SPINE SYSTEM

CERVICAL - THORACIC - LUMBAR

The CTL Total Spine System is designed to remove cervical and thoracolumbar spinal implants



THORACOLUMBAR SPINE

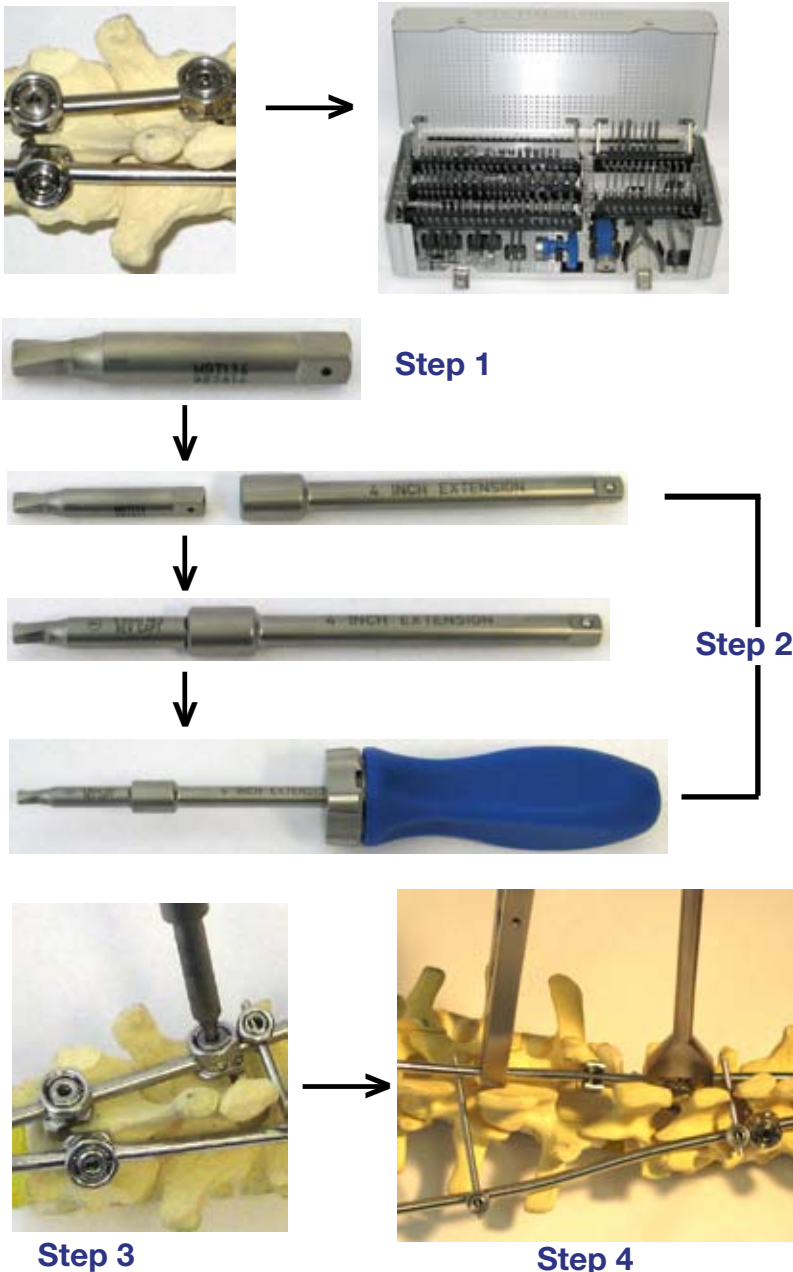
For Thoracolumbar Spine, use extractors 1 through 63.

Step 1 - Identify the proprietary spinal implant system from surgical notes and/or x-rays. Find the manufacturer (MFR) and system name on the implant-extractor Interface Matrix on previous page, and select the recommended extractor(s) for use. If a range of extractors are recommended, visually inspect the locking nut(s) and screw(s), and select the extractors from the given range that are appropriate. Alternatively, if the proprietary spinal implant cannot be identified, determine the correct size/configuration (e.g., 2mm Hex Driver, T-30 Torx, etc.) of the locking nut(s) and/or screw(s).

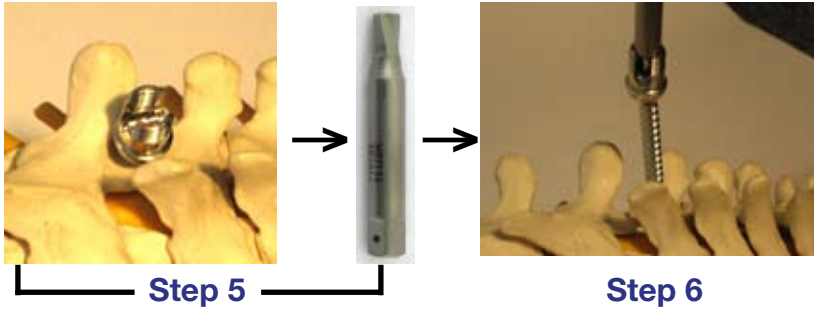
Step 2 - Insert the selected extractor into the one the shaft extensions provided (MDS1034, MDS1035, or MDS1036). Insert the shaft extensions into the ratcheting screwdriver handle (HD233 or MRH0311). Rotate the cap to switch between a clockwise and counterclockwise driving mode.

Step 3 - Remove the locking nut(s) and/or set screw(s) with the above assembled screwdriver.

Step 4 - Stabilize and remove the spinal rods with the locking pliers (WR121) and counter-torque shaft (MDS1037) or MDS1038) and/or needle-nose pliers (WR141).



Surgical Technique Guide



Note - For broken and stripped screws, please contact Judd Medical Customer Service Team for information on the Universal Broken, Stripped and Seized Screw Extraction System Product Code MKS1022

Step 5 - Select the appropriate pedicle screw extractor (Refer to Step 1). Repeat Step 2. For manufacturers that do not have an internal configuration at the bottom of their uni-axial pedicle screw(s), use either the 5mm (MBT161) or 6mm (MBT162) saddle extractors.

Step 6 - Remove the pedicle screw using the selected extractor. Use the needle-nose pliers (WR141) to aid with extraction.

CERVICAL SPINE

For cervical spine, use extractors 67 through 90. Extractors 1 through 63 may also be used.

Step 1 - Identify the proprietary spinal implant system from surgical notes and/or x-rays. Find the manufacturer (MFR) and system name on the implant-extractor Interface Matrix on previous page, and select the recommended extractor(s) for use. If a range of extractors are recommended, visually inspect the locking nut(s) and screw(s), and select the extractors from the given range that are appropriate.

Alternatively, if the proprietary spinal implant cannot be identified, determine the correct size/configuration (e.g., 2.0mm Cruciform, Hex Driver, T-15 Torx, etc.) of the locking nut(s) and/or screw(s).



Step 1, Step 4



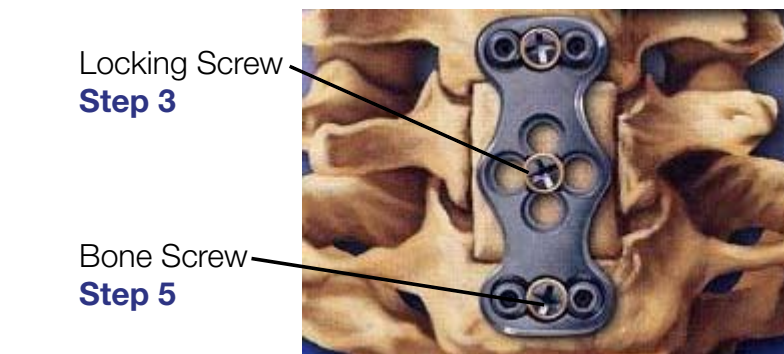
Step 2

Step 2 - Insert the selected extractor into the ratcheting screwdriver handle (HD233 or MRH0311). Rotate the cap to switch between a clockwise and counter-clockwise driving mode. If necessary, use one of the shaft extensions provided (MDS1034, MDS1035, or MDS1036).

Step 3 - Remove the locking nut(s) and/or set screw(s) from the rod or plate implant system with the above assembled screwdriver. If the system does not work with the locking nuts or screws, proceed to Step 4.

Step 4 - Select the appropriate pedicle/bone screw extractor (Refer to Step 1). Repeat Step 2.

Step 5 - Remove the bone screw(s) using the selected extractor. Use the needle-nose pliers (WR141) to aid with extraction.



Note - For broken and stripped screws, please contact Judd Medical Customer Service Team for information on the Universal Broken, Stripped and Seized Screw Extraction System Product Code MKS1022

7. CTL TOTAL SPINE SYSTEM (Cervical - Thoracic - Lumbar) CASE CONTENT

MKS 1031 CTL TOTAL SPINE SYSTEM CASE MEASUREMENTS; 23" x 9" x 5.5", TOTAL WEIGHT: 21 LBS					
Tip No.	Part No.	Description	Tip No.	Part No.	Description
Case	CA175	CTL TOTAL SPINE CASE	49	MBT163	Depuy, Moss-Miami Socket
1	MBT128	2.0mm Hex Driver	50	MBT166	Depuy, Moss-Miami Interrupted Socket
2	MBT129	2.5mm Hex Driver	51	MBT167	Synthes, Click'X Driver
3	MBT130	3.0mm Hex Driver	52	MBT168	Harrington Rod, Straight
4	MBT131	3.5mm Hex Driver	53	MBT169	Harrington Rod, Bent
5	MBT132	4.0mm Hex Driver	54	MBT170	Harrington Rod, Hex Wrench
6	MBT133	4.5mm Hex Driver	55	MBT171	Harrington Rod, Round Wrench
7	MBT134	5.0mm Hex Driver	56	MBT172	EBI, Square Driver
8	MBT135	7.0mm Hex Driver	57	MBT173	EBI, Spinelink II Socket
9	MBT136	7/64 Hex Driver	58	MBT174	EBI, Spinelink II Driver
10	MBT137	1/8 Hex Driver	59	MBT191	Stryker, Xia Driver
11	MBT138	5/32 Hex Driver	60	MBT198	T-30 Torx
12	MBT139	3/16 Hex Driver	61	MBT199	T-40 Torx
13	MBT140	7/32 Hex Driver	67	MBT185	Blade Driver, Small
14	MBT141	1/4 Hex Driver	68	MBT186	Blade Driver, Medium
15	MBT113	5mm Hex Socket	69	MBT194	2.0mm Cruciform Driver
16	MBT114	6mm Hex Socket	70	MBT195	2.5mm Cruciform Driver
17	MBT115	7mm Hex Socket	71	MBT181	3.0mm Cruciform Driver
18	MBT116	8mm Hex Socket	72	MBT182	4.5mm Cruciform Driver
19	MBT117	9mm Hex Socket	73	MBT183	6.0 Cruciform Driver
20	MBT118	10mm Hex Socket	74	MBT192	T-8 Torx Driver
21	MBT119	1/8 Hex Socket	75	MBT193	T-10 Torx Driver
22	MBT120	5/32 Hex Socket	76	MBT177	T-15 Torx Driver
23	MBT121	3/16 Hex Socket	77	MBT175	Aesculap, 5 Star Driver
24	MBT122	7/32 Hex Socket	78	MBT190	Alphatec, Unlock Tool
25	MBT123	1/4 Hex Socket	79	MBT187	Blackstone, 2-Prong
26	MBT124	5/16 Hex Socket	80	MBT188	Blackstone, Tri-Lob Driver
27	MBT125	3/8 Hex Socket	81	MBT184	Corin Cervive, 3-Prong Driver
28	MBT126	7/16 Hex Socket	82	MBT180	Depuy Spine, Outer Nut Socket
29	MBT127	1/2 Hex Socket	83	MBT196	Interpore Cross Unlocking Tool
30	MBT142	T-20 Torx Driver	84	MBT179	Medtronic Quad Driver
31	MBT143	T-25 Torx Driver	85	MBT189	Stryker Spine 4-Prong
32	MBT146	Flat Driver, Medium	86	MBT178	Spinelink ACS, EBI
33	MBT147	Phillips Driver, Medium	87	MBT176	Zimmer Spine Cervi-LOK Driver
37	MBT151	Advanced Spine, Sleeve Nut		MMI1233	Seaspine Unlocking Tool Assy
38	MBT152	Advanced Spine, Anchor		MHRS0311	Ratcheting In-Line Handle
39	MBT153	Synthes, 11mm 12 pt.		HD233	Ratcheting T-Handle
40	MBT154	Spine Tech, Octagon		MDS1034	8" Extension
41	MBT155	Aesculap 4-Prong		MDS1035	6" Extension
42	MBT156	Cross, 13.8 Hex		MDS1036	4" Extension
43	MBT157	Cross, Cap Nut Bit		MDS1037-M01	CTR Torq, Single Claw
44	MBT158	Cross, Pentalobe Driver		MDS1038-M01	CTR Torq, Double Claw
45	MBT159	Cross, 2 Prong		WR119-M01	Double Open-End Wrench 7/32 x 9/32
46	MBT160	Corin, 3 Lok Driver		WR120-M01	Double Open-End Wrench 1/4 x 3/8
47	MBT161	Saddle, 5mm Driver		WR121-M01	Rod Grippers
48	MBT162	Saddle, 6mm Driver		WR141-M01	Needle Nose Pliers

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7. CTL TOTAL SPINE SYSTEM (Cervical - Thoracic - Lumbar)

Anterior Cervical Systems		
MFR	Name	Extractor #
Abbott Spine	SC-Acufix	1-14*
Aesculap	ABC	2
Aesculap	ABC2	2 & 77
Aesculap	Spectrum	2
Alphatec	Deltaloc Reveal	2 & 78
Atlas	Verteview	69-73
Biomet	C-Tek	2
Biomet	Cyclops	1-14
Biomet	Solitaire	2
Biomet	Spinelink	86
Blackstone	3 degree ACP	79 & 80, 29-32, 60-61, or 74-76
Blackstone	Hallmark	2, 80
Blackstone	NewBridge	1-14
Codman	ACP slimlock	2, 67
Corin	Cervive	1-14 & 81
DePuy Acromed	DOC	69-73 &/or 67-68
Depuy	Aegis	2 & 80
Depuy	Skyline	2 & 80
Depuy	Slim Loc	2*
EBI	Spinelink	86
Globus	Assure/Assure T	2
Globus	Providence	1 or 2
Interpore Cross	C-Tek	2
Interpore Cross		83
Life Spine	Neo	30-31, 60-61, or 74-76
Life Spine	Neo SL	30-31, 60-61, or 74-76
Life Spine	Kinetic	30-31, 60-61, or 74-76
Medtronic	Atlantis	2 & 69-73
Medtronic	Orion	2
Medtronic	Zephyr	33 or 69-73 **
Medtronic		84
NuVasive	Gradient	70-73
Orthotec	Zenith	2*
Seaspine	Sonoma	MMI1223**
Stryker	Reflex Hybrid ACP Implant	69-73 or 67-68
Stryker		85
Synthes	CSLP	33 or 69-73**
Ulrich	ADD/ ADD-DDD Plus	1, 2
Ulrich	Osium	1-14 & 69-73
Zimmer	Ceri-Lok	87
Zimmer	Trinica	2

Posterior Cervical Systems		
MFR	Name	Extractor #
Aesculap	S4	2
Depuy	Mountaineer	2, 6

Posterior Cervical Systems		
MFR	Name	Extractor #
Synthes	Cervifix	2
Synthes	Axon	2 & 76
Synthes	Arch Fix System	30-31, 60-61, or 74-76
Synthes	Starlock	30-31, 60-61, or 74-76*

ThoracoLumbar Spine Systems		
MFR	Name	Extractor #
Aesculap	S4	1-14
Alphatec	Zodiac ROC	24 & 27
Alphatec	Zodiac	4 & 13
Alphatec	Solanus	12, 4, &/or 14
Alphatec	Tamarack	4 & 26
Biomet	Array	13, 16, &/or 48
Biomet	Omega 21	5 & 27
Biomet	Omega 21 LP	5, 27 &/or 4
Biomet	Polaris	13 & 15
Biomet	Synergy	45, 3, & 15
Blackstone	SFS	7, 3, & 37
Depuy	Discovery Facet Bolt	5
Depuy	Expedian 6.35mm	7
Depuy	Monarch 5.5mm	3, 5 & 13
Depuy	Moss-Miami SI	6
Globus	Revere	3 & 5
Globus	H-Link	3 & 5
Globus	ProTex	4
Life Spine	Conquest	25
Life Spine	Pilot	5 & 15-29
Life Spine	Pilot P	5 & 27
Life Spine	Lynx Crosslink	26
Medtronic	3D TSRH	48 &/or WR119
Medtronic	TSRH	48 &/or WR120
Medtronic	Sextant	1-14 &/or 84
Medtronic	Legacy CD Horizon	31
Nuvasive	SpheRx	1-14 (and/or star?)
Orthotec	Clarix	15-29, 30-31, 60-61, & 71-73
Synthes	Click X	1-14
Synthes	Pangea	1-14
Synthes	Universal	1-14
US Spine	Preference	1-14
US Spine	Preference Classic	1-14
Zimmer	Dynesys Dynamic Device	3
Zimmer	Sequoia	1-14
Zimmer	Optima ZS	1-14 &/or 68
Zimmer	ST360	1-14 & 15-29
Zimmer	InCompass	1-14 & 15-29
Zimmer	TiTile2/Northstar	1-14 & 15-29

* Driver Only
** Set Screw Only