

WTR III Transporter

Wheeled/Tracked Transformer Transporter

OPERATION & MAINTENANCE MANUAL
P/N TX920, Revision 5: 020322



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ADAPT THE TRANSPORTER BASED ON YOUR NEEDS

CUES® equipment is designed to be easy to use during day to day operation. However, it is powered electrically and thus must be operated with care and safety. PLEASE READ THE INFORMATION ON SAFETY AND MAINTENANCE EVEN IF THE SYSTEM IS SET UP BY SOMEONE ELSE.

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INTRODUCTION: WTR III Wheeled / Tracked Transformer Transporter

This manual includes setup, operation, troubleshooting, and maintenance instructions for the CUES WTR III Transformer Transporter. CUES uses proven video technology to provide a versatile tool to assist with sewer line inspections.

The instructions provided in this manual are for *multi conductor and single conductor* systems. First, determine if the existing system is multi conductor or single conductor before proceeding. The multi-conductor cable is approximately ½" in diameter and contains 8 to 12 conductors depending on the age of the system. If you are uncertain about what type of system you have, please call our Customer Service Department at 1-800-327-7791.

If the unit is being used with an existing TV system, modifications might need to be made to the end of the TV cable and/or the truck's electrical wiring, depending on the specific system. If you're uncertain about the modifications required for the system or need more information regarding a retrofit, please call our Customer Service Department at 1-800-327-7791.



***WTR Shown with an OZIII Pan/Tilt/Optical View Camera in
the Optional Tracked Version - 15 Inch Diameter Pipe***

The WTR III Transporter Highlights:

- The WTR III is designed to be a component of a multi-conductor or single-conductor CCTV pipeline inspection system.
- The WTR III is a wheeled or optional tracked transporter that's designed to carry the OZ III camera through the pipeline during CCTV inspections.
- The WTR III features a “modular” design. It can travel either as a:
 - wheeled transporter, P/N TX351, with wheel module P/N's TX322 and P/N TX323
 - or as a tracked transporter, P/N TX351-1, with track module P/N's TX324 and P/N TX325, to adapt to various pipe conditions.
- The unit can easily switch between wheeled and tracked drive mode with only a few screw changes.
- Can inspect 6 inch through 24 inch pipelines, in either wheeled or tracked mode, without prior stringing or other setup procedures.

Features & Benefits:

- WTR III can inspect dead-end lines or lines without accessible exits.
- WTR III has a proven transmission mechanism with the capability of power forward, power reverse, and freewheel for easy back-out of a dropped manhole and high speed retrieval without running over the cable.
- Existing CUES 12-pin configuration truck systems can operate the WTR III transporter system directly; CUES trucks with 5/4 cable ends can operate the WTR III transporter system with a 5/4-to-12 pin adapter.
- WTR III can be used with any 3-pin single-conductor system.
- WTR III operates most efficiently with the new CUES platinum lightweight and high-strength video cable. The auto-payout reel system is recommended to optimize inspection distance when operating with gold-cable setups.
- WTR III transporter includes a built-in locking connector and protective housing for direct insertion of the OZ III camera — no additional camera interface cables are required and the camera retention locking mechanism securely attaches the camera to the main body.
- With a small cross profile and reduced length with an OZ III camera, WTR III in the tracked mode (TX351-1) can fit into 5 inch diameter pipe. In 6 inch pipe, the TX351-1 with OZ III camera has a large bottom clearance; it can travel through inverts with limited space and traverse 22, 45, and 90 degree sweeps. With the OZ III camera, it can inspect 6 inch diameter relined pipe with full pan, tilt, and zoom capability.
- In tracked mode (TX351-1), WTR III can travel at maximum speed of ~35fpm with the standard motor transmission module, P/N TX320; with the optional high-speed motor transmission module, TX320-1 (sold separately), WTR III can travel at maximum speed of ~60fpm.

Features & Benefits - continued:

- WTR III in tracked mode can use weighted adapters; in wheeled mode, WTR III can flexibly use weighted adapters as well as CUES existing spacers to center the camera in the pipe. The configuration evolution allows greater weight-to-gain increased traction and larger bottom clearance for larger size pipe.
- In wheeled mode (TX351), WTR III can inspect 6 inch diameter pipe with a large bottom clearance.
- In wheeled mode, WTR III can use all CUES existing wheel sets: from 6" steel or rubber wheels to 12"-15" pneumatic rubber wheels. Larger wheels enable faster travel speed in larger pipe: it can travel at a maximum speed of ~60fpm with 6" rubber wheels (or 6" steel wheels) and ~120fpm with the 12"-15" pneumatic wheels.
- WTR III comes with a new electric connector interface for easier operation and better protection against leaks and damages. The motor transmission module and wheeled modules are waterproof, and the tracked module sprockets have a self-cleaning mechanism — all of which contributes to a more reliable and better performing system that's capable of operating in severely dirty, sludgy, muddy, greasy, or sandy, etc., or other difficult and hazardous environments.
- WTR III is capable of using different sizes (6", 8", 10-15", 12-15"), different materials/structures and traction mechanisms (rubber, steel with teeth, and pneumatic), CUES existing wheels in wheeled mode, as well as using CUES track modules with contoured high traction cleats in tracked mode. WTR III can be easily optimized to provide maximum performance versatility for various pipe size, material, and conditions.
- In tracked drive mode, the tension can be adjusted on both the left and right side track modules to achieve better performance and increased track cleat life.
- The cone-shaped motor housing and new smoother motor transmission profile facilitates easier, less restricted passage through severe offsets in forward drive and retrieval modes.



SYSTEM DESCRIPTION: WTR III

CUES offers the WTR III for customers that require an affordable but extraordinarily versatile transporter that can operate with wheels or tracks to adapt to varying, difficult, and hazardous pipelines ranging from 6" diameter relined pipe up to 24" storm pipes. The WTR III is distinguished as the first "modular" transporter in the CCTV pipeline inspection industry. While keeping a very compact profile at its minimum configuration, WTR's advanced modular design concept enables end-users to switch between wheeled or tracked drive mode to adapt to different pipe conditions.

The WTR III in tracked drive mode has a similar small cross profile and shorter length as its predecessor, CUES Ultra Shorty III. With an 18" length (the same as the Ultra Shorty III), it can operate in 5" diameter pipe with more than 1" bottom clearance. Using weighted adapters, WTR III in either tracked or wheeled drive mode can inspect storm drain/wastewater pipelines up to 24" in diameter.

WTR III in tracked drive mode can power drive at speeds from 0 to 30 feet per minute with standard motor module; and with optional high-speed motor module (for tracked drive mode use only), it can power drive at speeds from 0 to 60 feet per minute.

Without much increase in profile, but with significant increase in top and bottom clearance, the WTR III in wheeled drive mode can use all CUES Compact Pipe Ranger (CPR) wheel sets as well as 6-15" pipe spacer kits.

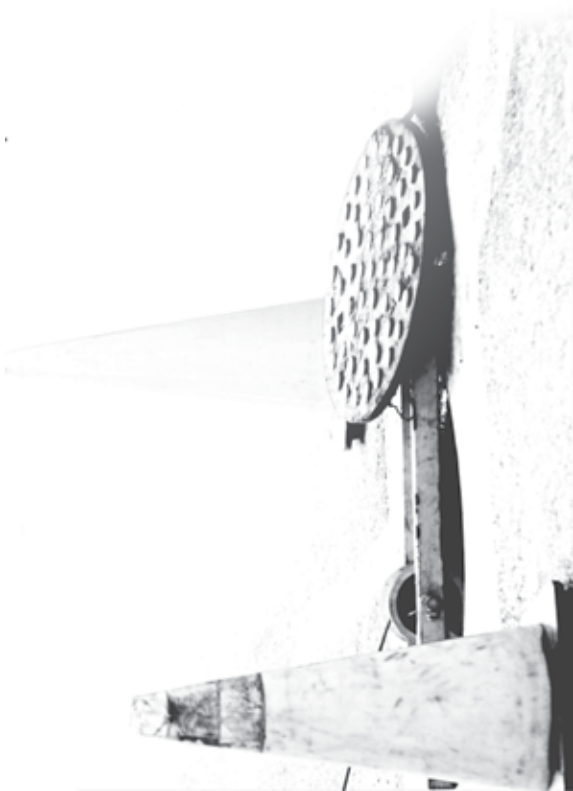
Since existing CUES wheel sets can be used, the end-user will have more flexibility to adapt the WTR III to various pipe conditions without incurring financial burdens. In addition, the larger wheel size enables the WTR III to travel faster in larger size pipes; approximately 120 feet per minute (maximum speed) with the CPR 12"-15" pneumatic wheels.



SYSTEM CONFIGURATIONS:

P/N	Description	System Weights:	System Lengths:
P/N TX351	TRANSPORTER ASSY in Wheeled Drive Mode, WTR III with MZ300 camera	31.2 lbs	19.68 inch 24.90 inch
P/N TX351-1	TRANSPORTER ASSY in Tracked Drive Mode, WTR III with MZ300 camera	24.5 lbs	18.04 inch 23.53 inch
P/N MZ300	OZ III Camera Assembly, MML	8.9 lbs	
P/N TX351-2	TRANSPORTER ASSY, S/C, WHEELED, WTR III	31.2 lbs	
P/N TX351-3	TRANSPORTER ASSY, S/C, TRACKED, WTR III	24.5 lbs	

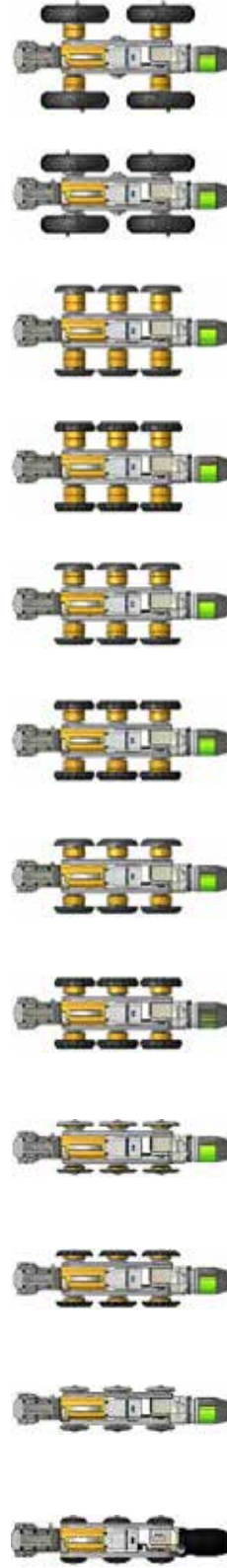
Optional Kits:
Refer to the Configuration Matrices on the subsequent pages for optional kit P/N's and descriptions.



WTR III in Recommended Configuration
Φ6"~Φ15" Pipe Wheeled Configuration Matrix

TX915

Configuration	6" RUBBER	6" STEEL	8" RUBBER	8" STEEL	10" RUBBER	10" STEEL	12" RUBBER	12" STEEL	15" RUBBER	15" STEEL	12" PNEU	15" PNEU
WHEEL KITS	N/A	TX923-3	WM308	WS906	WM310	WM310-2	WM310	WM310-2	WM310	WM310-2	WM312	WM312
HUB, Inner	none	None	WM089 (6x)	None	WM089 (6x)	none	WM089 (6x)	none	WM089 (6x)	None	WM100 (4x)	WM100 (4x)
HUB, Outer	none	none	WM090 (6x)	None	WM091 (6x)	none	WM091 (6x)	None	WM091 (6x)	None	none	none
WHEEL/TIRE	TX111 (6x)	TX108-3 (6x)	WM092 (6x)	WS112-1 (6x)	WM093 (6x)	WM108-1 (6x)	WM093 (6x)	WM108-1 (6x)	WM093 (6x)	WM108-1 (6x)	WT331 (4x)	WT331 (4x)
SPACER KITS	none	none	WM058 (6x)	WM058 (6x)	WM061 (6x)	WM061 (6x)	WM058 (6x) WM061 (6x)	WM058 (6x) WM061 (6x)	WM061 (12x)	WM061 (12x)	none	WM058 (6x) WM061 (6x)
HUB SCREWS	none	none	103052 (18x)	none	102001 (18x)	none	102001 (18x)	None	102001 (18x)	None	none	none
CAPTIVE SCREW	WM098-1 (6x)	WM098-1 (6x)	WM099-1 (6x)	HW2819 (6x)	None	none	None	None	None	None	none	none
MOTOR	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)	TX342 (8.5" Lng)
CONN CABLE	none	none	none	none	HW1567 (1.5" Lng, 6x)	HW1567 (1.5" Lng, 6x)	HW1568 (2.0" Lng, 6x)	HW1568 (2.0" Lng, 6x)	HW1569 (2.5" Lng, 6x)	HW1569 (2.5" Lng, 6x)	HW1568 (2.0" Lng, 4x)	HW1570 (3.5" Lng, 4x)
ATTACHMENT SCREW	none	none	none	none	none	none	none	none	none	none	none	none
Weight	31.2 lbs	32.3 lbs	35.8 lbs	35.5 lbs	43.3 lbs	44.2 lbs	46.4 lbs	47.3 lbs	49.4 lbs	50.3 lbs	39.8 lbs	56.4 lbs



NOTE: 1.1 Spacer Kits (WM317 or WM317-1) are required for 7~15" pipe configurations; and the kits include all wheel attachment screws.

1.2 Apply adequate Anti-Seize (LPS Nickel Part No. 03908, CUES #CS407) to wheel mounting screws for all configurations.

1.3 Tighten the wheel mounting screws with 15 ft-lbs torque.

1.4 When setting up for relined pipe select configuration for next smallest pipe and add 6x WM223 wheel spacers (included in WM317). Use WM224-1 screws for 7in pipe setup.

Φ18"-Φ24" Pipe Wheeled Configuration Matrix

Configuration	18" RUBBER	18" STEEL	21" RUBBER	21" STEEL	24" RUBBER	24" STEEL	18" PNEUM	21" PNEUM	24" PNEUM
WHEEL KIT EXTENDER KIT	WM310 TX912	WM310-2 TX912	WM310 TX912	WM310-2 TX912	WM310 TX912	WM310-2 TX912	WM312 TX912	WM312 TX912	WM312 TX912
HUB, Inner	WM089 (6x)	none	WM089 (6x)	none	WM089 (6x)	none	WM100 (4x)	WM100 (4x)	WM100 (4x)
HUB, Outer	WM091 (6x)	none	WM091 (6x)	none	WM091 (6x)	none	none	None	none
WHEEL/TIRE	WM093 (6x)	WM108-1 (6x)	WM093 (6x)	WM108-1 (6x)	WM093 (6x)	WM108-1 (6x)	WT331 (4x)	WT331 (4x)	WT331 (4x)
HUB SCREWS	103052 (18x)	none	103052 (18x)	none	102001 (18x)	none	none	none	none
WHEEL/TIRE MOUNT SCREWS	HW2237 (6x) (.312-24 x .63")	HW2237 (6x) or WM098-1 (6x) (.312-24 x .63")	HW2237 (6x) (.312-24 x .63")	HW2237 (6x) or WM098-1 (6x) (.312-24 x .63")	HW2237 (6x) (.312-24 x .63")	HW2237 (6x) or WM098-1 (6x) (.312-24 x .63")	HW1568 (6x) (.312-24 x 2.0")	HW1568 (6x) (.312-24 x 2.0")	HW1568 (6x) (.312-24 x 2.0")
ADAPTERS (-1 = BRASS)	TX330 (1x) TX331 (1x) TX332 (1x) TX333 (1x) TX333-1 (1x)	TX330 (1x) TX331 (1x) TX332 (1x) TX333 (1x) TX333-1 (1x)	TX332 (2x) TX333 (2x) TX333-1 (1x)	TX332 (2x) TX333 (2x) TX333-1 (1x)	TX330 (1x) TX331 (1x) TX332 (2x) TX333 (2x) TX333-1 (1x)	TX330 (1x) TX331 (1x) TX332 (2x) TX333 (2x) TX333-1 (1x)	TX331 (1x) TX332 (1x) TX333 (1x) TX333-1 (1x)	TX330 (1x) TX331 (1x) TX332 (1x) TX333 (1x) TX333-1 (1x)	TX332 (2x) TX333 (2x) TX333-1 (1x)
SHAFT EXTENDER	TX336-15	TX336-15	TX336-18	TX336-18	TX336-21	TX336-21	TX336-12	TX336-15	TX336-18
MOTO CONN, 4-PIN CABLE	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length
CONNECT STRIP & SCREWS	TX337-15 (1x) WM098-1 (2x) or WM098 (2x)	TX337-15 (1x) WM098-1 (2x) or WM098 (2x)	TX337-18 (1x) WM098-1 (2x) or WM098 (2x)	TX337-18 (1x) WM098-1 (2x) or WM098 (2x)	TX337-21 (1x) WM098-1 (2x) or WM098 (2x)	TX337-21 (1x) WM098-1 (2x) or WM098 (2x)	none	TX337-15 (1x) WM098-1 (2x) or WM098 (2x)	TX337-18 (1x) WM098-1 (2x) or WM098 (2x)
Weight	47.7 lbs	48.6 lbs	52.3 lbs	53.2 lbs	55.8 lbs	56.7 lbs	37.8 lbs	50.4 .lbs	56.4 lbs



NOTE: 2.1 Apply adequate Anti-Seize (LPS Nickel Part No. 0908, CUES #CS407) to wheel mounting screws for all configurations.

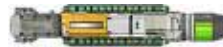
2.2 Tighten the wheel mounting screws with 15 ft-lbs torque.

2.3 Substitution of brass adapters for aluminum adapters in the leftmost (outboard port) position is recommended to rebalance the transporter's center of gravity effected by the offset motor position.

2.4 Wear strips (TX024) included in adapter kit (TX903 & TX912) are for use with track configuration only.

Φ6" ~ Φ24" Pipe Tracked Configuration Matrix

Configuration	6"	8" RELINED	8"	10"	12"	15"	18"	21"	24"
KIT Number	TX903	TX903	TX903	TX903	TX903	TX903	TX912	TX912	TX912
ADAPTERS (-1 = BRASS)	none	TX334 (1x) TX335 (1x) TX335-1 (1x)	TX330 (1x) TX331 (1x) TX331-1 (1x)	TX330 (2x) TX331 (2x) TX331-1 (1x)	TX332 (1x) TX333 (1x) TX333-1 (1x)	TX330 (1x) TX331 (1x) TX332 (1x) TX333 (1x) TX333-1 (1x)	TX332 (2x) TX333 (2x) TX333-1 (1x)	TX330 (1x) TX331 (1x) TX332 (2x) TX333 (2x) TX333-1 (1x)	TX332 (3x) TX333 (3x) TX333-1 (1x)
SHAFT EXTENDER	none	TX107	TX336-8	TX336-10	TX336-12	TX336-15	TX336-18	TX336-21	TX336-24
MOTOR CONN. 4-PIN CABLE	TX342 8.5" Length	TX342 8.5" Length	TX342 8.5" Length	TX342 8.5" Length	TX342 8.5" Length	TX342 8.5" Length	TX342-1 16" Length	TX342-1 16" Length	TX342-1 16" Length
CONNECT STRIP & SCREWS	none	none	none	none	none	TX337-15 (1x) WM098-1 (2x) or WM098 (2x)	TX337-18 (1x) WM098-1 (2x) or WM098 (2x)	TX337-21 WM098-1 (2x) or WM098 (2x)	TX337-24 (1x) WM098-1 (2x) or WM098 (2x)
Weight	33.4 lbs	34.8 lbs	35.7 lbs	38.0 lbs	41.3 lbs	43.6 lbs	49.2 lbs	51.5 lbs	57.1 lbs



TX903: KIT, ADAPTER EXTENSION, FIT $\phi 7'' \sim \phi 15''$ PIPE, TRACKED WTR III

TX903 (7"-15" pipe)	1 ea.	TX334	Adapter, .5X Width, Righthand, WTR III, Aluminum
	1 ea.	TX335	Adapter, .5X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX335-1	Adapter, .5X Width, Lefthand, WTR III, Brass
	2 ea.	TX330	Adapter, 1X Width, Righthand, WTR III, Aluminum
	2 ea.	TX331	Adapter, 1X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX331-1	Adapter, 1X Width, Lefthand, WTR III, Brass
	1 ea.	TX332	Adapter, 3X Width, Righthand, WTR III, Aluminum
	1 ea.	TX333	Adapter, 3X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX333-1	Adapter, 3X Width, Lefthand, WTR III, Brass
	1 ea.	TX107	Shaft Extender, Drive, 1" LG (8" Relined), WTR III
	1 ea.	TX336-8	Shaft Extender, Drive, 1.5" LG, WTR III
	1 ea.	TX336-10	Shaft Extender, Drive, 3" LG, WTR III
	1 ea.	TX336-12	Shaft Extender, Drive, 4.5" LG, WTR III
	1 ea.	TX336-15	Shaft Extender, Drive, 6" LG, WTR III
	1 ea.	TX337-15	Strip, Adapter Connection, 8.5" LG, WTR III
	2 ea.	WM098-1 (or WM098)	Screw, Captive, Hex, 5/16-24UNF x 0.625"
	9 ea.	TX024	Wear Strip, 8 inch, Adapter, US III
	18 ea.	HW1224	Screw, Pan, Phil, 6-32 x .25, Brass
	1 ea.	TX915	Instr Sht, Config Matrix, Wheeled/Tracked, WTR III
	1 ea.	TX093	Skid Plate, 8"+ Track/18"+ Wheel, WTR III
	2 ea.	103063	Screw, Flat, Phil, 8-32 x .73, 18-8 SST
	1 ea.	TX093-INST	Instruction Sheet, Skid Plate, WTR III

TX912: KIT, ADAPTER EXTENSION (from $\phi 7'' \sim \phi 15''$ PIPE CONFIGURATIONS), FIT $\phi 18'' \sim \phi 24''$ PIPE, WHEELED & TRACKED WTR III

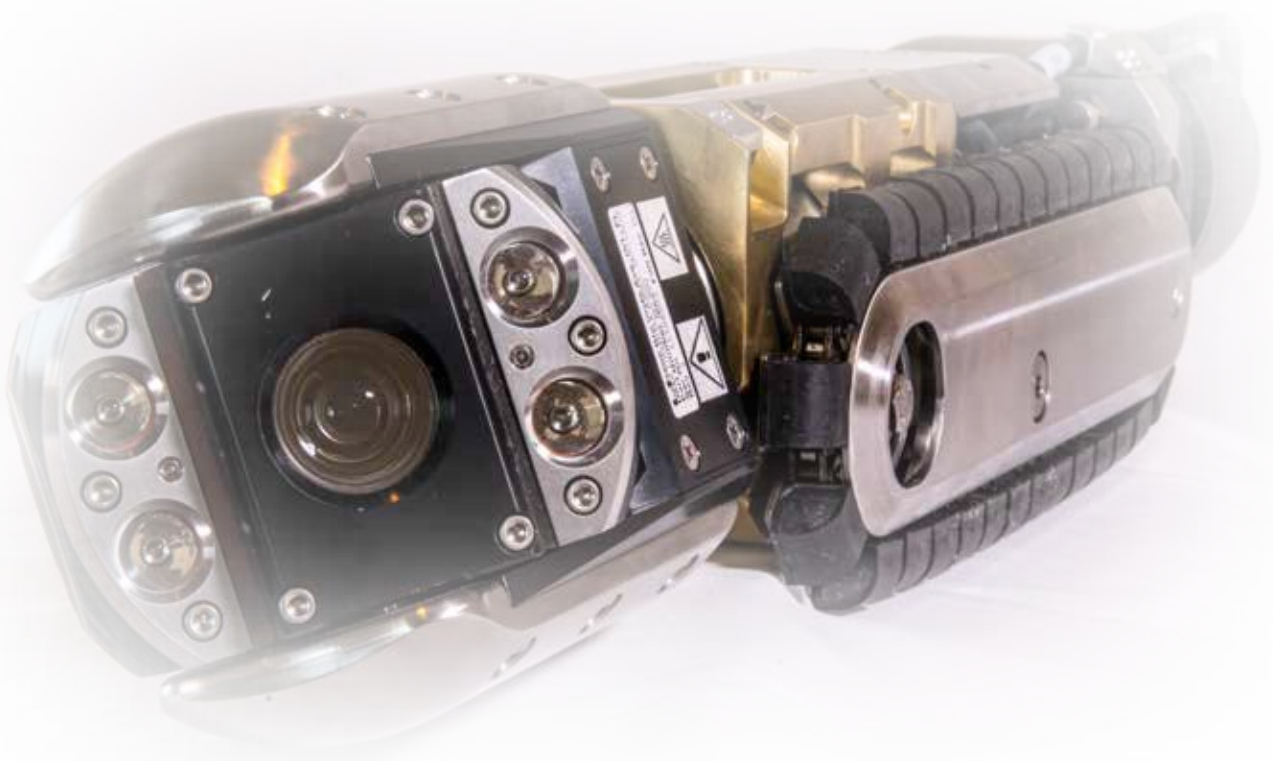
TX912 (18"-24" pipe)	1 ea.	TX330	Adapter, 1X Width, Righthand, WTR III, Aluminum
	1 ea.	TX331	Adapter, 1X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX331-1	Adapter, 1X Width, Lefthand, WTR III, Brass
	2 ea.	TX332	Adapter, 3X Width, Righthand, WTR III, Aluminum
	2 ea.	TX333	Adapter, 3X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX333-1	Adapter, 3X Width, Lefthand, WTR III, Brass
	1 ea.	TX336-12	Shaft Extender, Drive, 4.5" LG, WTR III
	1 ea.	TX336-15	Shaft Extender, Drive, 6" LG, WTR III
	1 ea.	TX336-18	Shaft Extender, Drive, 9" LG, WTR III
	1 ea.	TX336-21	Shaft Extender, Drive, 10.5" LG, WTR III
	1 ea.	TX336-24	Shaft Extender, Drive, 12" LG, WTR III
	1 ea.	TX337-15	Strip, Adapter Connection, 8.5" LG, WTR III
	1 ea.	TX337-18	Strip, Adapter Connection, 11.5" LG, WTR III
	1 ea.	TX337-21	Strip, Adapter Connection, 13" LG, WTR III
	1 ea.	TX337-24	Strip, Adapter Connection, 16" LG, WTR III
	8 ea.	WM098-1 (or WM098)	Screw, Captive, Hex, 5/16-24UNF x 0.625"
	12 ea.	HW2237	Screw, Socket Cap, Hex, 5/16-24UNF x 0.625"
	6 ea.	TX024	Wear Strip, 8 inch, Adapter, US III
	12 ea.	HW1224	Screw, Pan, Phil, 6-32 x .25, Brass
	1 ea.	TX342-1	Cable Assembly, 16" long, 4-pin, WTR III
	1 ea.	TX915	Instr Sht, Config Matrix, Wheeled/Tracked, WTR III
	1 ea.	TX093	Skid Plate, 8"+ Track/18"+ Wheel, WTR III
	2 ea.	103063	Screw, Flat, Phil, 8-32 x .73, 18-8 SST
	1 ea.	TX093-INST	Instruction Sheet, Skid Plate, WTR III

TX913: KIT, ADAPTER EXTENSION, FIT $\phi 18''$ ~ $\phi 24''$ PIPE, TRACKED WTR III (USED WITH TX903)

TX913 (18"-24" pipe)	2 ea.	TX332	Adapter, 3X Width, Righthand, WTR III, Aluminum
	2 ea.	TX333	Adapter, 3X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX333-1	Adapter, 3X Width, Lefthand, WTR III, Brass
	1 ea.	TX336-18	Shaft Extender, Drive, 9" LG, WTR III
	1 ea.	TX336-21	Shaft Extender, Drive, 10.5" LG, WTR III
	1 ea.	TX336-24	Shaft Extender, Drive, 12" LG, WTR III
	1 ea.	TX337-18	Strip, Adapter Connection, 11.5" LG, WTR III
	1 ea.	TX337-21	Strip, Adapter Connection, 13" LG, WTR III
	1 ea.	TX337-24	Strip, Adapter Connection, 16" LG, WTR III
	6 ea.	WM098-1 (or WM098)	Screw, Captive, Hex, 5/16-24UNF x 0.625"
	1 ea.	TX342-1	Cable Assembly, 16" long, 4-pin, WTR III
	1 ea.	TX915	Instr Sht, Config Matrix, Wheeled/Tracked, WTR III
	1 ea.	TX093	Skid Plate, 8"+ Track/18"+ Wheel, WTR III
	2 ea.	103063	Screw, Flat, Phil, 8-32 x .73, 18-8 SST
	1 ea.	TX093-INST	Instruction Sheet, Skid Plate, WTR III

TX914: KIT, ADAPTER EXTENSION, FIT $\phi 18''$ ~ $\phi 24''$ PIPE, WHEELED WTR III (USED WITH WM310, WM310-1, WM312, OR TX922)

TX914 (18"-24" pipe)	1 ea.	TX330	Adapter, 1X Width, Righthand, WTR III, Aluminum
	1 ea.	TX331	Adapter, 1X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX331-1	Adapter, 1X Width, Lefthand, WTR III, Brass
	2 ea.	TX332	Adapter, 3X Width, Righthand, WTR III, Aluminum
	2 ea.	TX333	Adapter, 3X Width, Lefthand, WTR III, Aluminum
	1 ea.	TX333-1	Adapter, 3X Width, Lefthand, WTR III, Brass
	1 ea.	TX336-12	Shaft Extender, Drive, 4.5" LG, WTR III
	1 ea.	TX336-15	Shaft Extender, Drive, 6" LG, WTR III
	1 ea.	TX336-18	Shaft Extender, Drive, 9" LG, WTR III
	1 ea.	TX336-21	Shaft Extender, Drive, 10.5" LG, WTR III
	1 ea.	TX337-15	Strip, Adapter Connection, 8.5" LG, WTR III
	1 ea.	TX337-18	Strip, Adapter Connection, 11.5" LG, WTR III
	1 ea.	TX337-21	Strip, Adapter Connection, 13" LG, WTR III
	6 ea.	WM098-1 (or WM098)	Screw, Captive, Hex, 5/16-24UNF x 0.625"
	12 ea.	HW2237	Screw, Socket Cap, Hex, 5/16-24UNF x 0.625"
	1 ea.	TX342-1	Cable Assembly, 16" long, 4-pin, WTR III
	1 ea.	TX915	Instr Sht, Config Matrix, Wheeled/Tracked, WTR III
	1 ea.	TX093	Skid Plate, 8"+ Track/18"+ Wheel, WTR III
	2 ea.	103063	Screw, Flat, Phil, 8-32 x .73, 18-8 SST
	1 ea.	TX093-INST	Instruction Sheet, Skid Plate, WTR III



4

SYSTEM SET-UP & INSTALLATION

LEFT SIDE

RIGHT SIDE



IMPORTANT! When removing the wheels or tracks, always start with the left side (looking from the rear of the transporter). When installing wheel or tracks, start on the right side.

LEFT SIDE

RIGHT SIDE



TX325



TX323

TX324



TX322

LEFT SIDE
TX325



RIGHT SIDE
TX324



CONVERTING THE WTR III FROM WHEELS TO TRACKS

IMPORTANT! When *removing* the wheels or tracks (looking from the rear of the transporter), always start with the left side. When *installing* wheel or tracks, start on the right side.

To remove the wheels:

START WITH THE LEFT SIDE OF THE TRANSPORTER FIRST!

1. Cut the large tie-wrap that's retaining the large cable to the motor transmission module.
2. Using a 3/16" hex-bit wrench, remove the screws that secure the wheels to the transporter.
3. Using a 3/16" hex-bit wrench, remove the bolt that secures the left side wheel module.



IMPORTANT!
Wheels must be torqued to
15 ft lbs. prior to usage!

4 SYSTEM SET-UP & INSTALLATION

CONVERTING THE WTR III FROM WHEELS TO TRACKS

ON THE RIGHT SIDE OF THE TRANSPORTER...

3. Using a 3/16" hex bit wrench, remove the bolt that secures the left side wheel module to the brass body.
4. Using a 9/64" hex bit wrench, remove the three screws that attach the right wheel module to the motor assembly.
5. Slide the wheel module off of the shaft.

CONVERTING THE WTR III FROM TRACKS TO WHEELS

NOTE: Wheel module Installation is achieved by performing the opposite steps of this removal procedure.



CONVERTING THE WTR III FROM WHEELS TO TRACKS

TO INSTALL THE RIGHT TRACK MODULE

1. Verify that the key is still in place on the shaft. Place the track against the motor transmission module. Obtain the right track module. Turn the track until the keyway is aligned with the key on the shaft and slide it in. Apply a small amount of blue thread-locker on the three captive mounting screw threads.
2. Install the right-side track module onto the motor module. **IMPORTANT!** Ensure that all 3 screws are pulled down evenly while tightening.
3. Once bottomed-out, back-off (1) turn to prevent the track module from binding on the motor transmission module. Do not fully tighten the screws yet.



1



2



3



4 SYSTEM SET-UP & INSTALLATION

CONVERTING THE WTR III FROM WHEELS TO TRACKS

TO INSTALL THE CAMERA CRADLE AND LEFT TRACK MODULE

4. Install the camera cradle module onto the right side track module.
5. Align the slot of the left track module with the pin on the shaft of the motor transmission module and install.

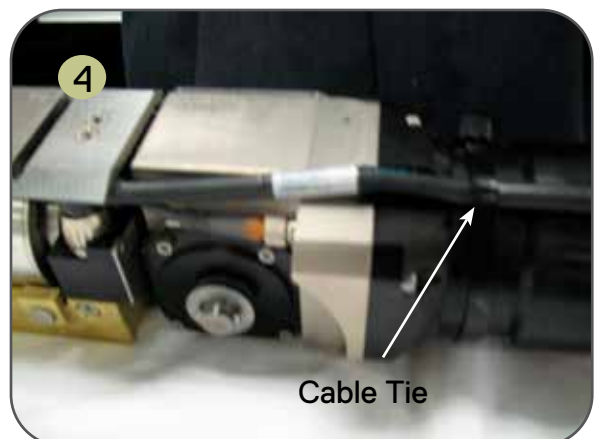


CONVERTING THE WTR III FROM WHEELS TO TRACKS

FINAL INSTALLATION AND TEST

1. First, elevate the unit and ensure that the tracks are not touching the ground. Plug the unit into the truck mainline cable. Put it in the forward position, turn the controller ON, and rotate the knob to full speed.
2. While the unit is running, tighten the two top screws, then turn the unit off.
3. Move the tracks to obtain access to the lower screw. Then tighten the lower screw between the cleats.
4. Install the cable tie and cut off any excess.

NOTE: Do not use tape or cable ties to secure the tow cables to the motor transmission module. Verify that there is proper strain relief between the main cable to the transporter cable. Adjust as necessary. Verify that the chain tension is correct. Refer to P/N's TX324 and TX325 in the BOM section of this manual for more information.



4 SYSTEM SET-UP & INSTALLATION

ADAPTING THE WTR III TO DIFFERENT PIPE CONFIGURATIONS -TRACKS

WTR III TRACK VERSION ONLY - HOW TO INSTALL THE ADAPTERS - The WTR III 15" track configuration is shown in this procedure. All other configurations are assembled in a similar fashion, but with different parts that are provided in the Configuration Matrix in this manual.

Remove the track assemblies from the unit (refer to the instructions provided in the previous INSTALLING THE TRACK MODULES procedure. The removal process is achieved by performing the opposite steps of this installation procedure). Remove the cable tie from the motor transmission module.

Shaft Extenders:

NOTE: For configurations 8" and larger, install shaft extender P/N TX336- and applicable dash number that corresponds with the pipe size to be inspected (refer to the *Configuration Matrix* in this manual).

Connect Strip:

NOTE: For configurations 15" and larger, install the TX337- and applicable dash number that corresponds with the pipe size to be inspected (refer to the *Configuration Matrix* in this manual).

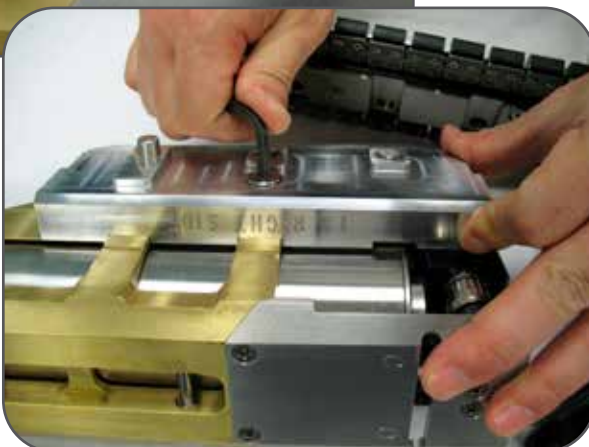
Cable:

NOTE: For configurations involving 18" and larger pipe, it will be necessary to change the TX342 cable. TX342 must be removed and TX342-1 must be installed. Refer to the CABLE INSTALLATION AND REMOVAL procedure in this manual for detailed instructions.



1. Install the adapter(s) on the right side.

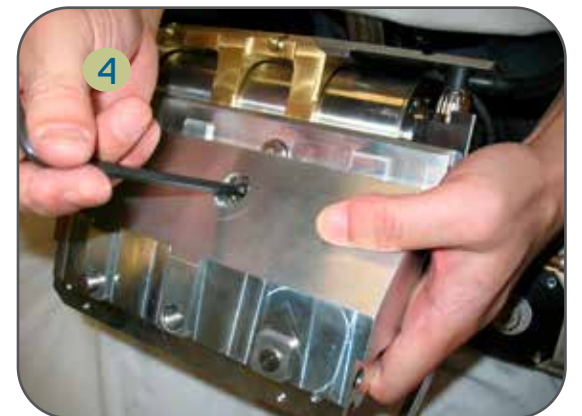
1



HOW TO INSTALL THE ADAPTERS

2. When all of the adapters are in place on the right side, install screw P/N WM098 to affix TX337-xxx to the outer-most/lowest adapter.
3. Install the right track assembly with the attached motor transmission module.
4. Install the adapter(s) on the left side.
5. Install screw P/N WM098 to affix TX337-xxx to the left adapter(s).

Refer to the *Configuration Matrix* for the proper configuration for each pipe size to be inspected!



4

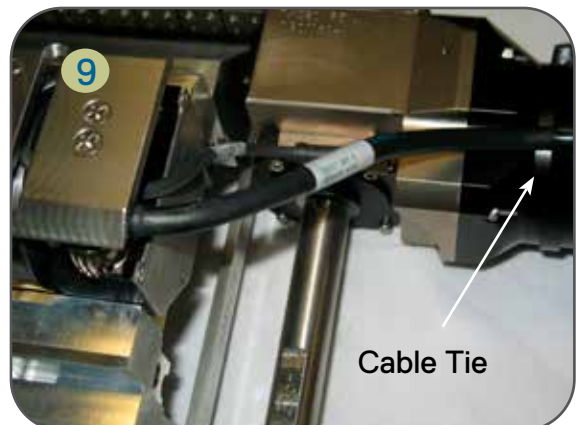
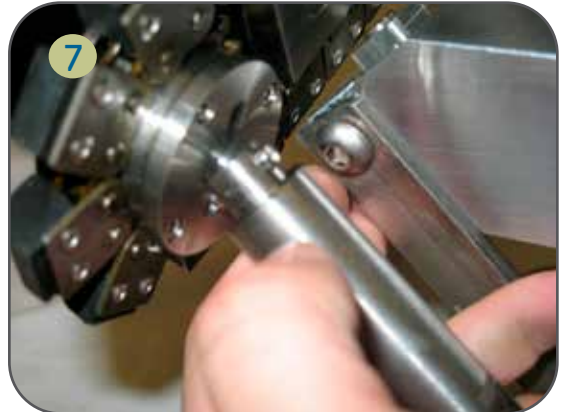
SYSTEM SET-UP & INSTALLATION

ADAPTING THE WTR III TO DIFFERENT PIPE CONFIGURATIONS -TRACKS

HOW TO INSTALL THE ADAPTERS

6. Install the appropriate shaft extender to the shaft on the motor module (refer to the *Configuration Matrix* in this manual).
7. Align the slot on the wheel module to the shaft extender pin.
8. Install and tighten the screw on the left side track module.
9. Provide proper strain relief, install the cable tie, and cut off any excess.

NOTE: Do not use tape or cable ties to secure the tow cables to the motor transmission module. Verify that there is proper strain relief between the main cable to the transporter cable. Adjust as necessary. Verify that the chain tension is correct. Refer to P/N's TX324 and TX325 in the BOM section of this manual for more information.



ADAPTING THE WTR III TO DIFFERENT PIPE CONFIGURATIONS - WHEELS

Refer to the *Configuration Matrix* for the proper configuration for each pipe size to be inspected!

NOTE: For 18" - 24" configurations, a combination of adapters and spacers are required. Refer to the Configuration Matrix in this manual for additional information.

The adaptation of the transporter to different pipe sizes is accomplished by changing the tires. The WTR III incorporates the new **quick-change** wheel assemblies that are designed for maximum efficiency and ease-of-use.

To Remove the Tires:

1. For 6" - 8" rubber and steel wheel assemblies, loosen the large center captive screw using a 3/16th hex bit wrench.
For 10" and larger wheel assemblies, loosen and remove the large center screw using a 1/4" hex bit wrench.
2. Separate the wheel assembly and spacer, if applicable, from the shaft.

To Mount the Tires:

3. Select the appropriate tire, spacer, and screw, if applicable, for the pipe size to be inspected. Refer to the Configuration Matrix in this manual for more information.
4.
 - a. For 8" and larger pipe configurations, install the spacer, ensuring that the tri-lobe pocket on the spacer is aligned with the tri-lobe on the shaft. For 8" and larger configurations, the wheel assembly tri-lobe pocket needs to align with the raised tri-lobe on the spacer.
 - b. For 6" configurations, align the wheel assembly tri-lobe pocket with the tri-lobe on the shaft.
5. Hold the wheel and spacer against the WTR III shaft and secure the appropriate screw using a torque wrench.

4 SYSTEM SET-UP & INSTALLATION

ADAPTING THE WTR III TO DIFFERENT PIPE CONFIGURATIONS - WHEELS

IMPORTANT!

When changing wheels, always apply anti-seize compound, P/N CS407, to all screw threads!
Torque wheels to 15 ft lbs.



- 1 2 Pictures for the quick-change 6" rubber and steel wheel assemblies:

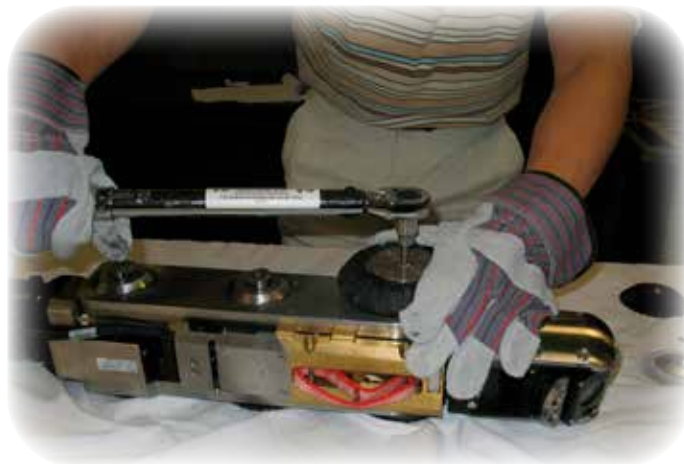


Pictures for the 10" rubber wheel assemblies...note the insertion of the applicable spacer and screw prior to securing to the transporter body.



IMPORTANT!

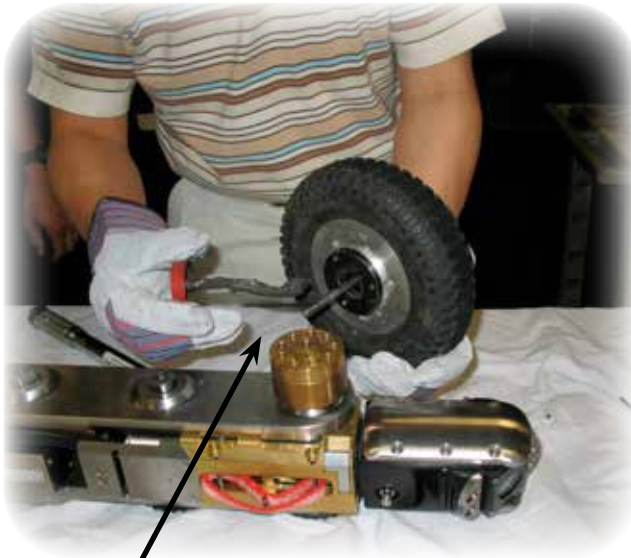
When changing wheels, always apply anti-seize compound, P/N CS407, to all screw threads!
Torque wheels to 15 ft lbs.



4 SYSTEM SET-UP & INSTALLATION

ADAPTING THE WTR III TO DIFFERENT PIPE CONFIGURATIONS - WHEELS

Pictures for the 15" pneumatic wheel assemblies...note the insertion of the applicable spacers (2) and screw prior to securing to the transporter body.:



IMPORTANT!

When changing wheels, always apply anti-seize compound, P/NCS407, to all screw threads!
Torque wheels to 15 ft lbs.

CABLE INSTALLATION AND REMOVAL

There are three cables that are used on the WTRIII.
They are:

TX342 -	CABLE ASSY,4-PIN,WTR III,8.5"L
TX342-1 -	CABLE ASSY,4-PIN,WTR III,16"L
TX343 -	CABLE ASSY,12 PIN>8 PIN, WTR3/ US3/OZ3 Adapt

Refer to the Configuration Table for the correct cable usage when changing out TX342 and TX342-1.

Under normal circumstances, TX343 should not be removed unless it needs replacement.

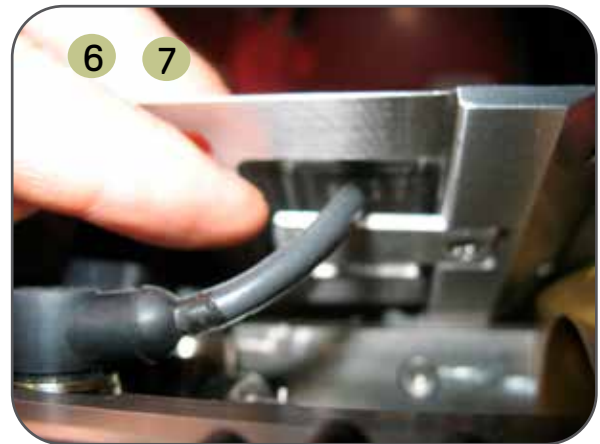
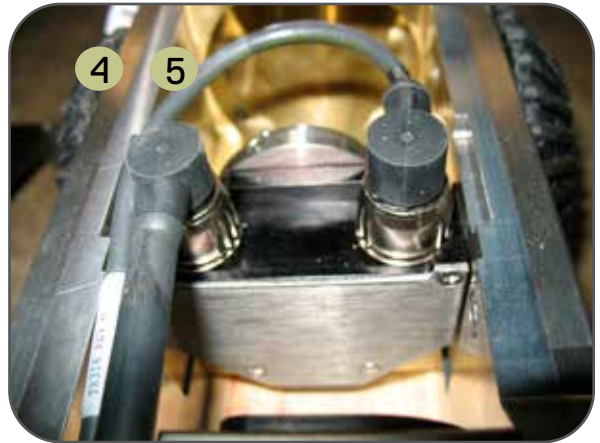
CABLE REMOVAL

1. Loosen and remove the screws that attach the connector protective guard.
2. Carefully and slowly lift the guard up to expose the attached cable. Slide the cable out of the slot. Set the guard aside.
3. Rotate the connector locking ring 1/8th turn and pull up on the connector to remove.



CABLE INSTALLATION

4. P/N's TX342/TX342-1 cables will loop toward the front of the transporter. TX343 exits toward the rear.
5. Orient the applicable cable correctly and insert. Important! Do not force the connector since it can be easily damaged if not inserted properly. It should easily slide down. Push on top of the connector to engage the locking ring. Verify that the connector is properly seated by observing that the two red dots are aligned.
6. Obtain the connector protective guard and carefully slide the cable into the slot.
7. Install the screws with blue threadlocker.



ELECTRICAL CONNECTIONS FOR THE CAMERAS

NOTE: Before performing any of the following connections, make sure that the PCU (Power Control Unit) and other components are OFF (0).

CUES OZIII Optical Zoom Pan & Tilt Camera is 'plug and go' and can be easily installed on the WTR III. To connect the OZIII to the transporter, perform the following:

1. Ensure that all of the equipment is OFF before making any of the necessary connections involving the transporter or camera. Visually inspect the connectors to ensure that they are clean and free of debris prior to mating. Clean with commercially available electrical contact cleaner, if necessary.
2. Locate the indicator line on the top of the camera tube.
3. With the camera indicator line facing upwards, Insert the camera into the transporter camera cradle while depressing the camera locking latch.
4. Ensure that the camera indicator line is in the 12- o'clock position at all times while inserting.

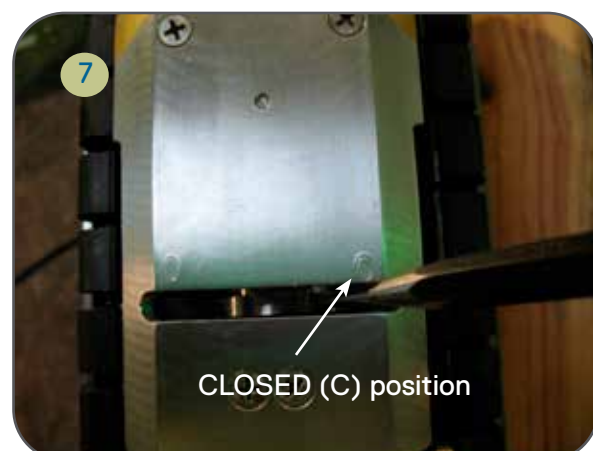
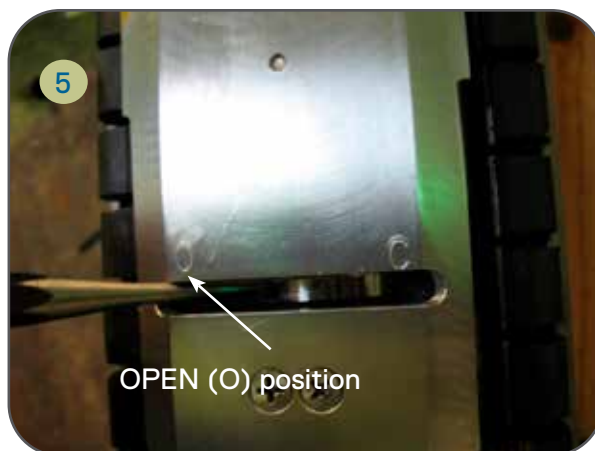


4

SYSTEM SET-UP & INSTALLATION

Locate the 'C' and 'O' that's located on the stainless steel plate (near the connector) inside the cradle.

5. Using the camera connector tool, P/N HW1886, move the transporter locking connector ring to the OPEN (O) position. Slide the camera in until it's docked in the bulkhead.
6. Ensure that the camera is secured to the transporter connector and the forward camera locking latch is engaged with the camera bulkhead.
7. Using the camera connector tool, P/N HW1886, move the locking ring to the CLOSED (C) position to lock the camera into place. When finished, remove the Camera Connector Tool from the unit and stow.



TRANSPORTER CONTROLLER OPERATIONS

First make sure that the power has been turned off. Then make all the necessary electrical connections including the camera. Attach the tow cables and ensure that the TV cable has at least three or four inches of slack when the tow cables are taut. Set the transporter into the pipeline and power up the system.

To move the WTR III transporter, gently turn the speed control clockwise. When you intend to advance at full throttle, gently accelerate to speed. This helps to reduce wear on the motor and other electrical components. When you stop moving forward, you are in freewheel forward.

When changing from forward to reverse freewheel, allow the transporter to come to a complete stop before moving in the opposite direction. After the transporter has stopped, switch the controller to reverse, advance the control knob clockwise for about two seconds to disengage the clutch. The transporter is now ready to freewheel. Now you can use your winch or reel to pull the transporter back towards the control point and entry manhole. To use the power reverse, gently turn the speed control clockwise.

NOTE: The WTR III was not designed to plow through heavy grease or other obstructions. Damage to the equipment will result from improper use.

MAINTENANCE

The WTR III transporter is a sensitive piece of electronic equipment. Power surges and abrupt shut downs can cause it to fail. We strongly suggest that you keep your mobile generator properly adjusted. The generator should deliver a steady 110 to 120 volts. Should the Engineering Panel indicate that your generator is operating outside these guidelines, see your Generator Manual for the proper adjustments or contact authorized service personnel.

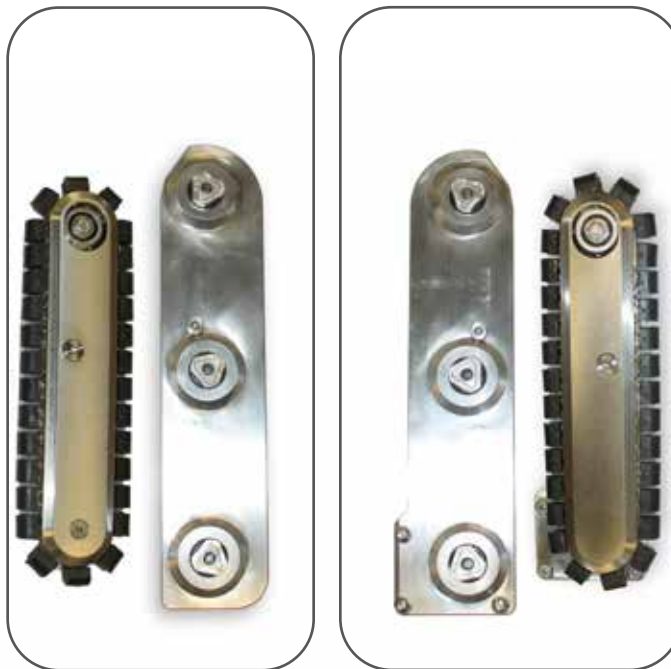
The camera and transporter **must** be cleaned with detergent and water after each day of use. After cleaning your WTR III, oil the tracks with chain lubricant. This will keep the tracks clean, functional and well protected from the outside environment. Verify that the chain tension is correct. Refer to P/N's TX324 and TX325 in the BOM section of this manual for more information.

Before operating your WTR III, always check the cables coming out of the motor housing. Look for cuts or worn areas. If wear on the cables is discovered, the cables should be repaired or replaced immediately. Do not operate the WTR III transporter with worn or cut cables. NOTE: Do not use tape or cable ties to secure the tow cables to the motor transmission module. Verify that there is proper strain relief between the main cable to the transporter cable. Adjust as necessary.

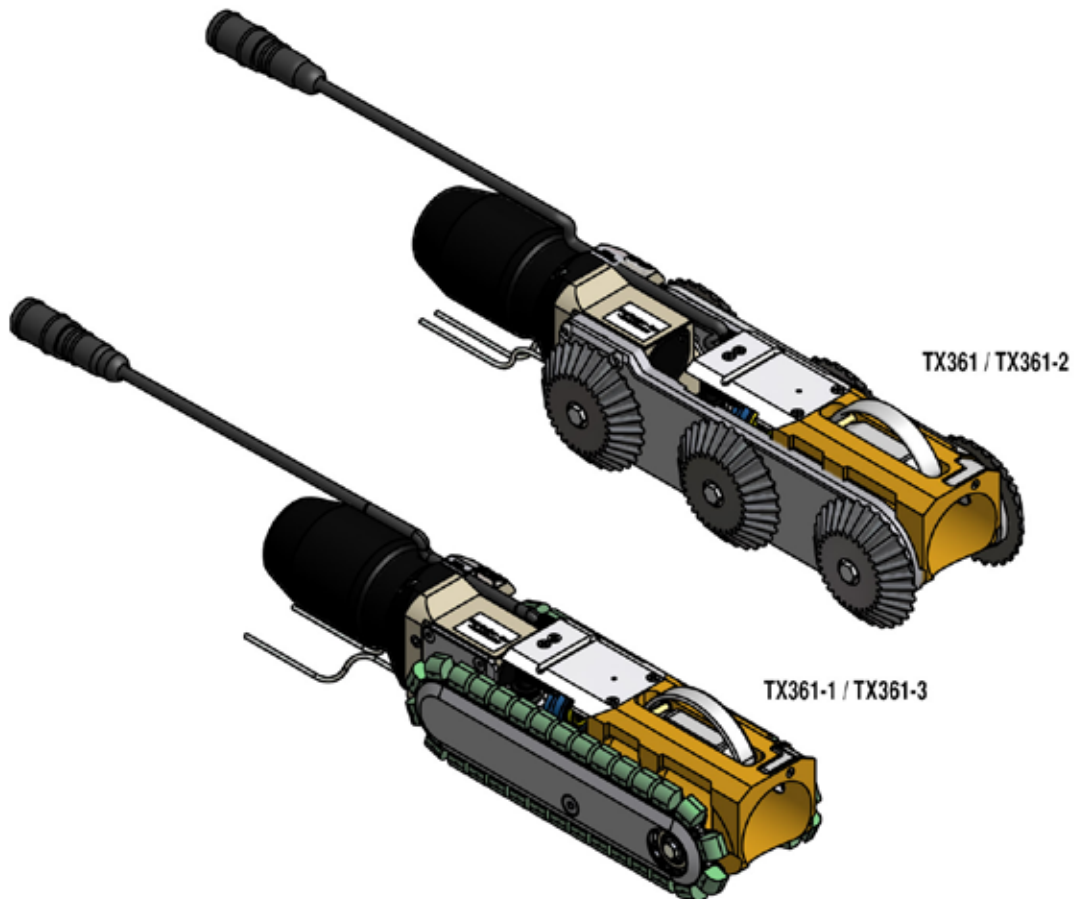
Never remove the cover from the motor or controller. Each of these areas contains delicate electronic components. ***Opening any of these areas will result in the warranty being voided.***

WTR III Spare Parts:

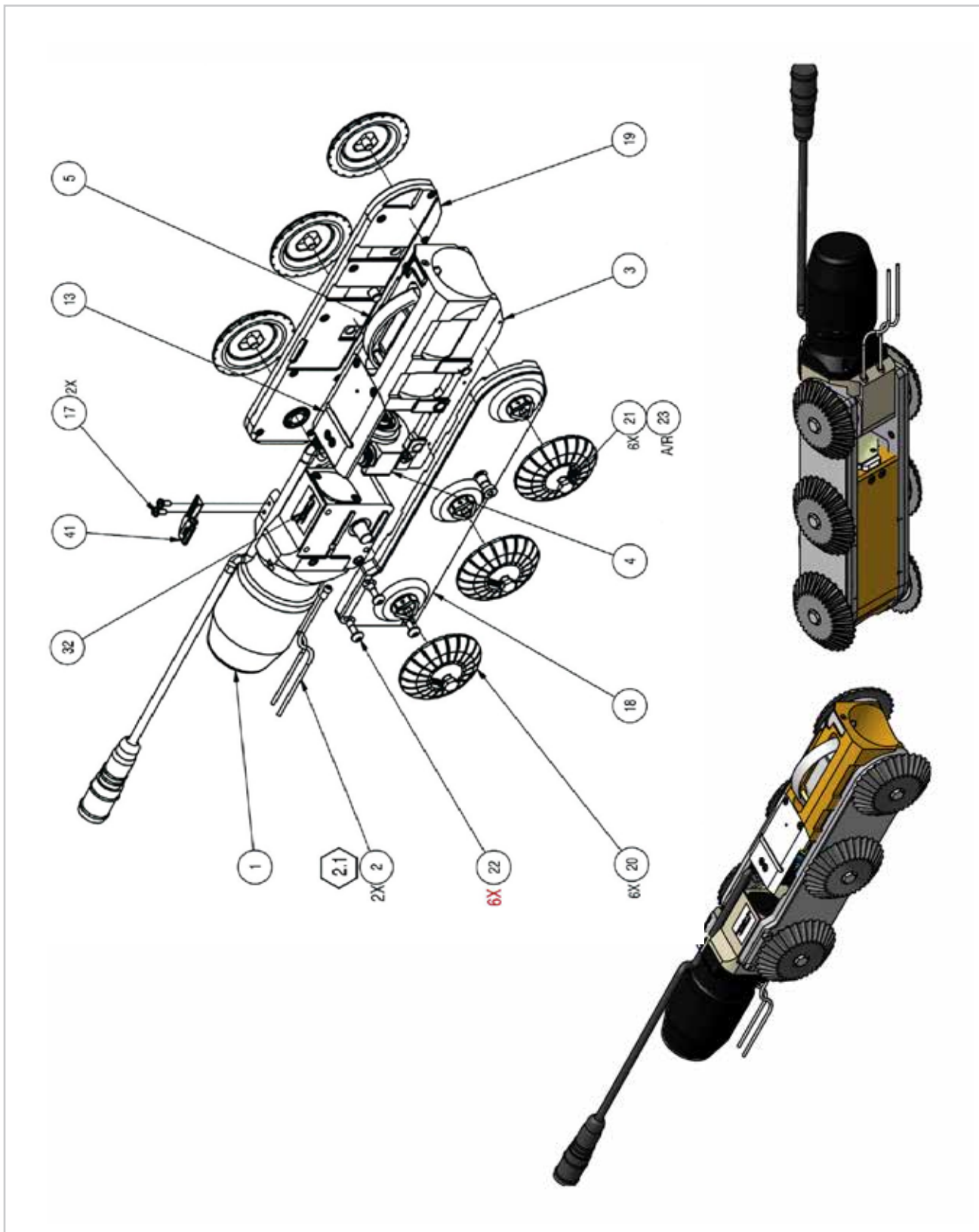
P/N	Description
TX343	CABLE ASSY,12 PIN>8 PIN, WTR3/US3/OZ3
TX342	CABLE ASSY,4-PIN,WTR III,8.5"L
TX342-1	CABLE ASSY,4-PIN,WTR III,16"L
TX324	TRACK MODULE ASSY,RIGHTHAND,WTRIII
TX325	TRACK MODULE ASSY,LEFTHAND,WTRIII



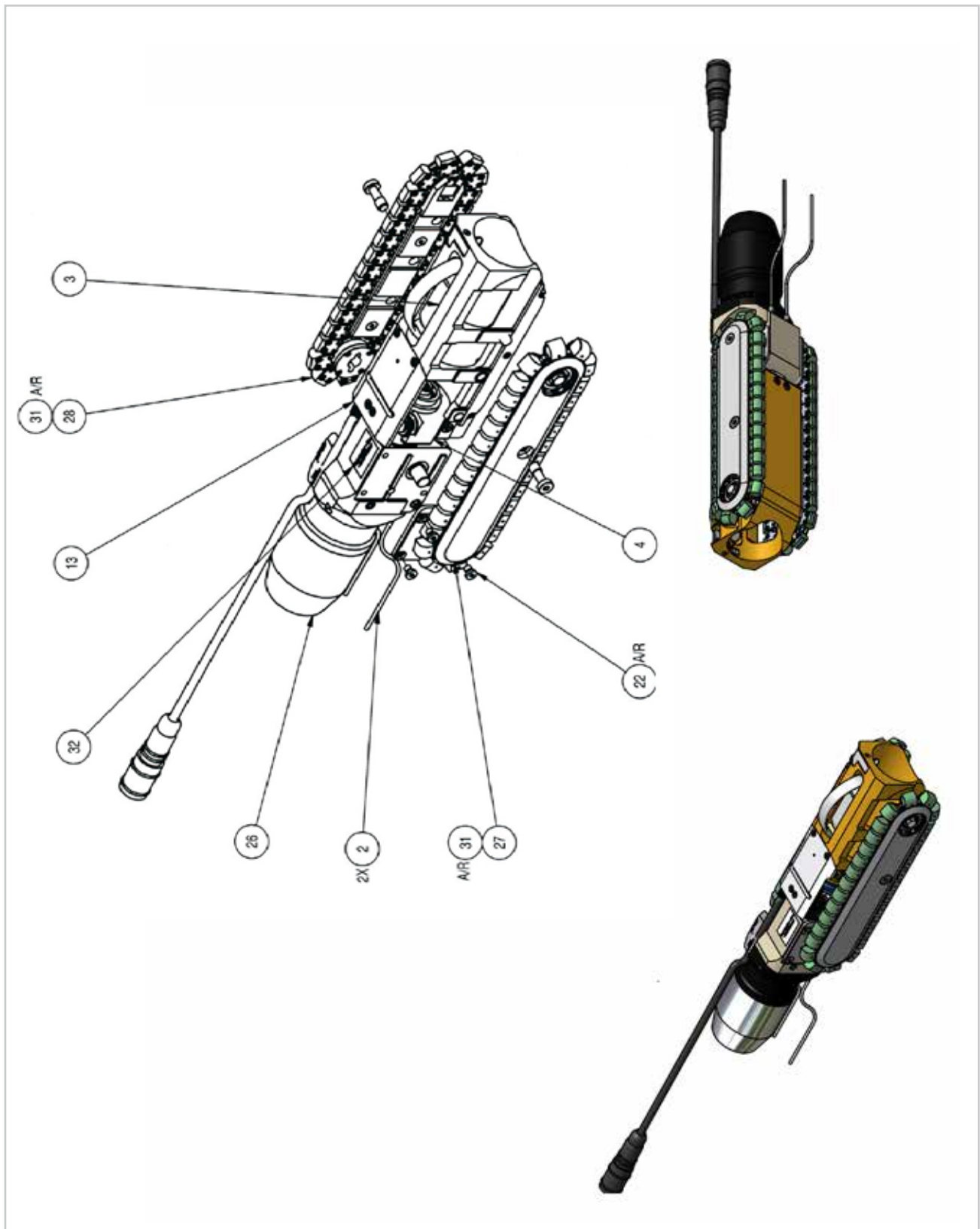
CONFIGURATION LIST	
PART NUMBER	DESCRIPTION
TX361	WHEELED MODE, M/C, WTR III
TX361-1	TRACKED MODE, M/C, WTR III
TX361-2	WHEELED MODE, S/C, WTR III
TX361-3	TRACKED MODE, S/C, WTR III



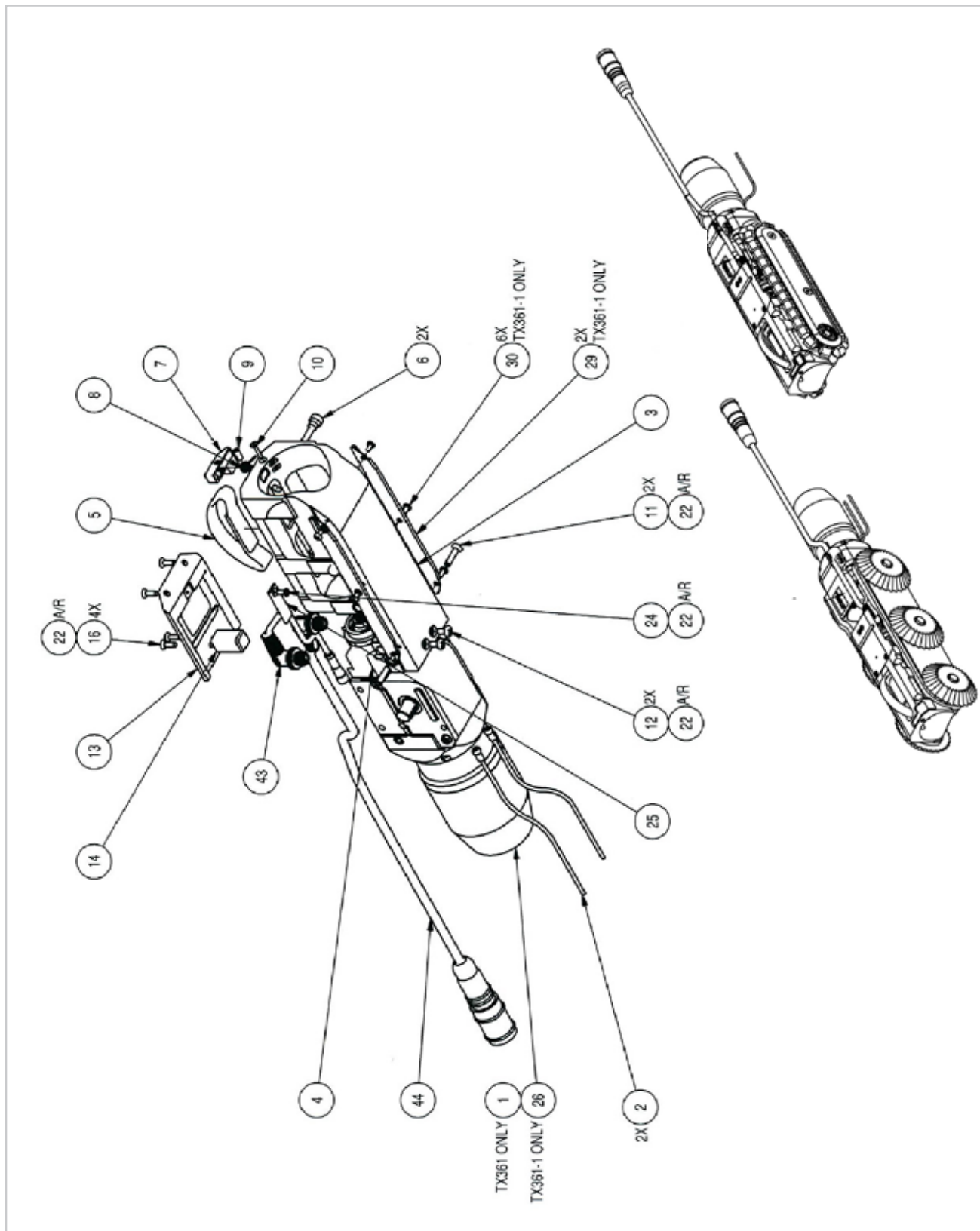
TRANSPORTER ASSY,M/C,WHEELED,WTRIII, TX361



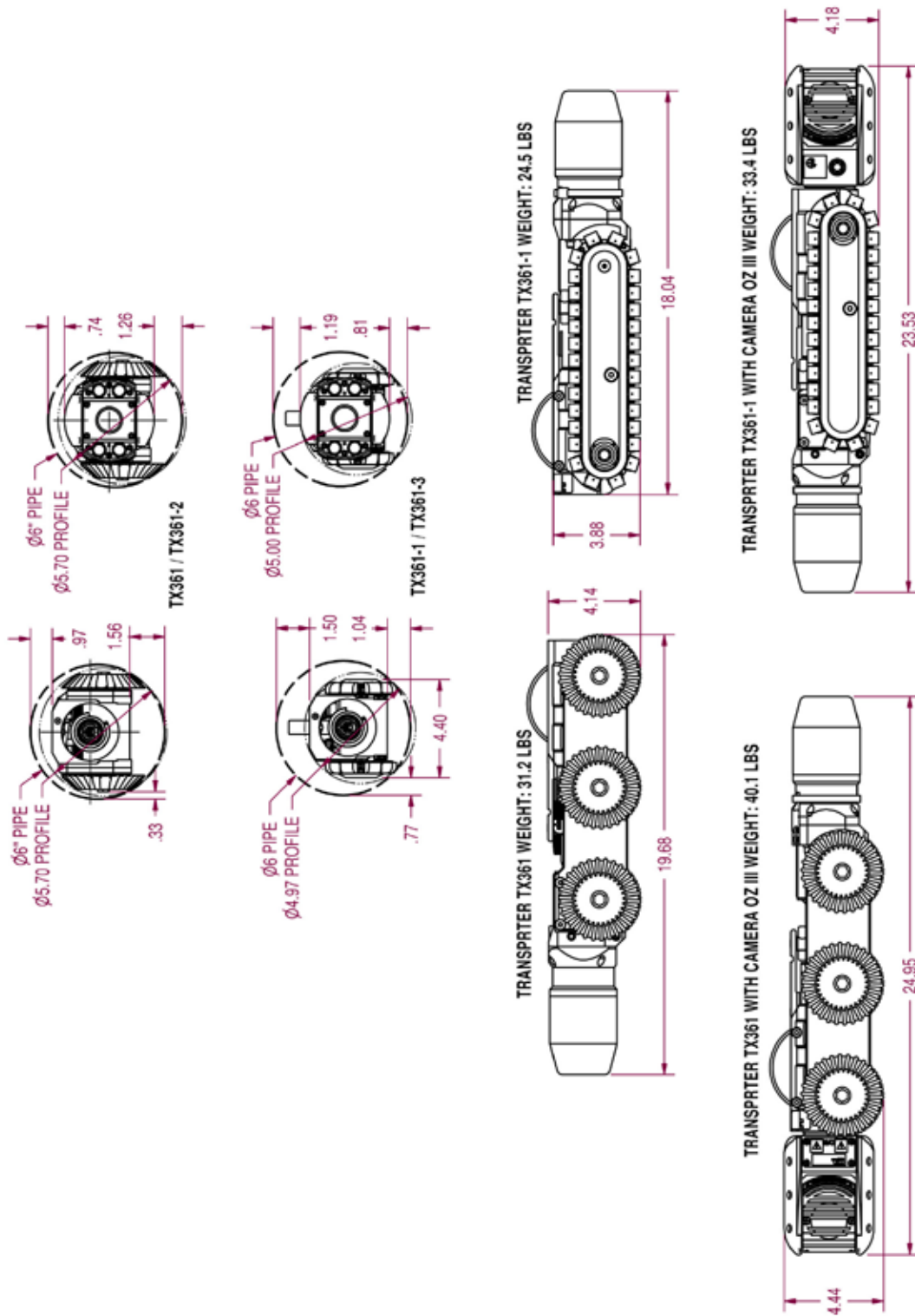
TRANSPORTER ASSY,M/C,WHEELED,WTRIII, TX361



TRANSPORTER ASSY,M/C,WHEELED,WTRIII, TX361



TRANSPORTER ASSY,M/C,WHEELED,WTRIII, TX361



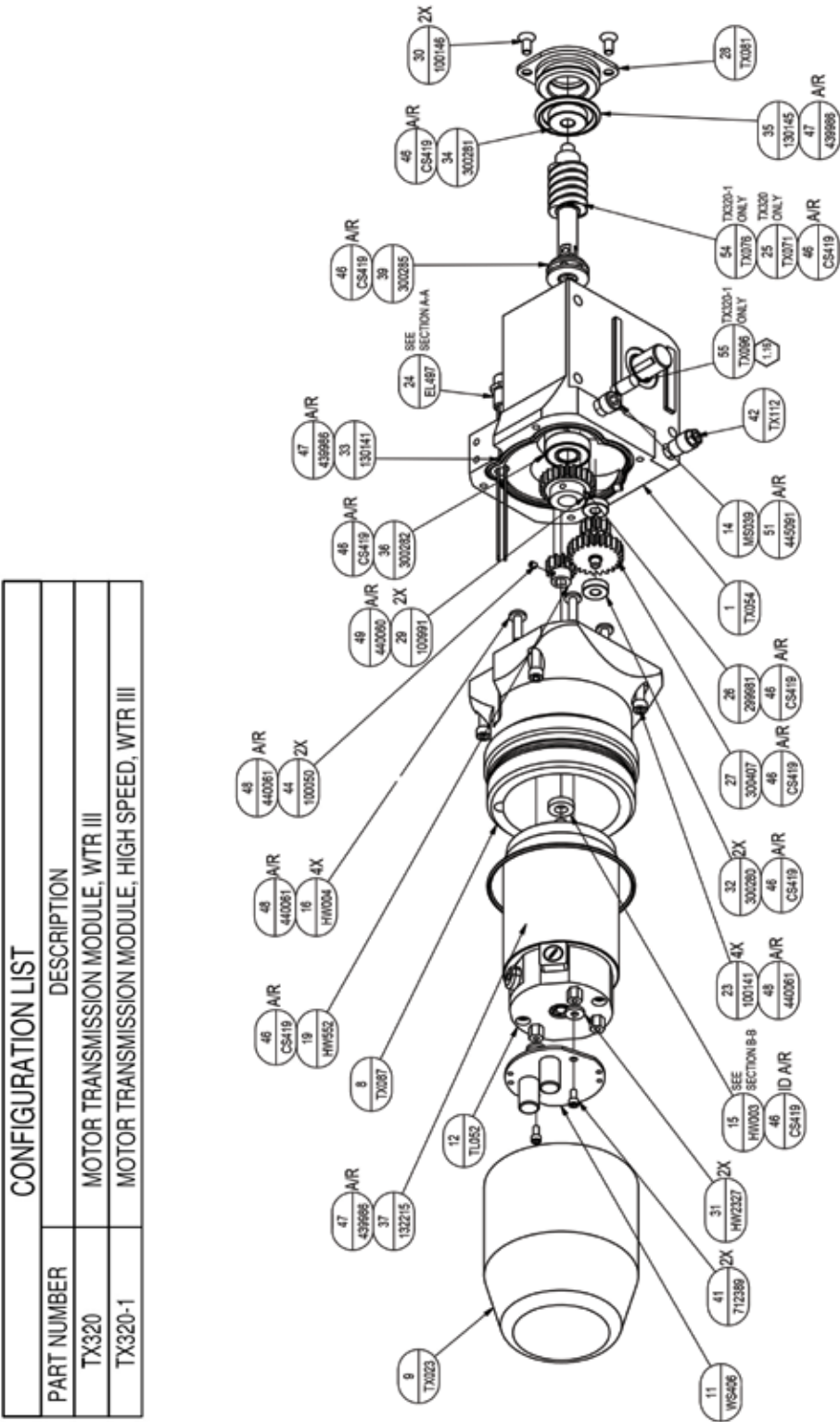
TRANSPORTER ASSY,M/C,WHEELED,WTRIII, TX361

TRANSPORTER ASSY,M/C,WHEELED,WTRIII, TX361, Rev F			
Item	Description	Part Number	Qty
0002	CABLE,TOW,F/WTRIII & USIII,54"	120165	2
0003	CRADLE BODY,MODULARIZED,WTRIII	TX056	1
0004	BULKHEAD ASSY,WTRIII/USIII	TX345	1
0005	LOOP,LIFTING,WEBBING,U-SHTY,WTR,CPR	MC223	1
0006	SCREW,SHOULDER LIFT STRAP,CPR	WM107	2
0007	BUTTON,LATCH CAMERA	WM086	1
0008	SPRING,TORSION,.357 OD X .045,MOD	WM102	1
0009	SPACER,.188 OD X .115 ID X .406 LG	HW1581	1
0010	SCREW,CAP,4-40 X 5/8LG,FH,SS	HW1582	1
0011	SCREW,FLAT,10-32X7/8,PHILLIP,SS	712444	2
0012	SCREW,PAN,10-32X3/8 SST	103031	2
0013	GUARD,CONNECTOR PROTECTIVE,WTRIII	TX084	1
0014	BUMPER BLOCK,CONN.GUARD PLT,WTRIII	TX090	1
0015	QUICK CARD, WHEEL SCREW GUIDE	WM961	1
0016	SCREW,8-32X1/2 FL,PH,SS	103062	4
0017	SCREW,PAN,8-32X3/8 PHIL SST	103065	1
0022	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
0024	SCREW,FLT UNDCUT,6.32X.25,18-8,SS	HW1975	1
0025	PLATE,CABLE HOLDER,WTR III	TX092	1
0026	TRAN/MTR,FWD,NEU/REV,H-SPD,TRK,WTR	TX320-1	1
0027	TRACK MODULE ASSY,RIGHTHAND,WTRIII	TX324	1
0028	TRACK MODULE ASSY,LEFTHAND,WTRIII	TX325	1
0029	WEARSTRIP,SIDE,USIII	TX009	2
0030	SCREW,PAN HD,6-32 X 1/4,BRASS,PHIL	HW1224	6
0031	MRO-LUBRICANT,LPS CHAINMATE,11-OZ	CS478	1
0032	LABEL,THERMAL XFR,1.500"W X .500"H	CS221	1
0033	TOOL,CHISEL,5/32TIP X 5/16HEX X5L	HW1886	1
0038	MANUAL,OPERATION,WTR III	TX920	1
0041	CLAMP,CABLE,WTR	TX095	1
0043	CABLE ASSY,4-PIN,WTRIII/USIII,8.5"L	TX342	1
0044	CABLE ASSY,12P>8P,WTR3/US3/OZ3 ADAP	TX343	1

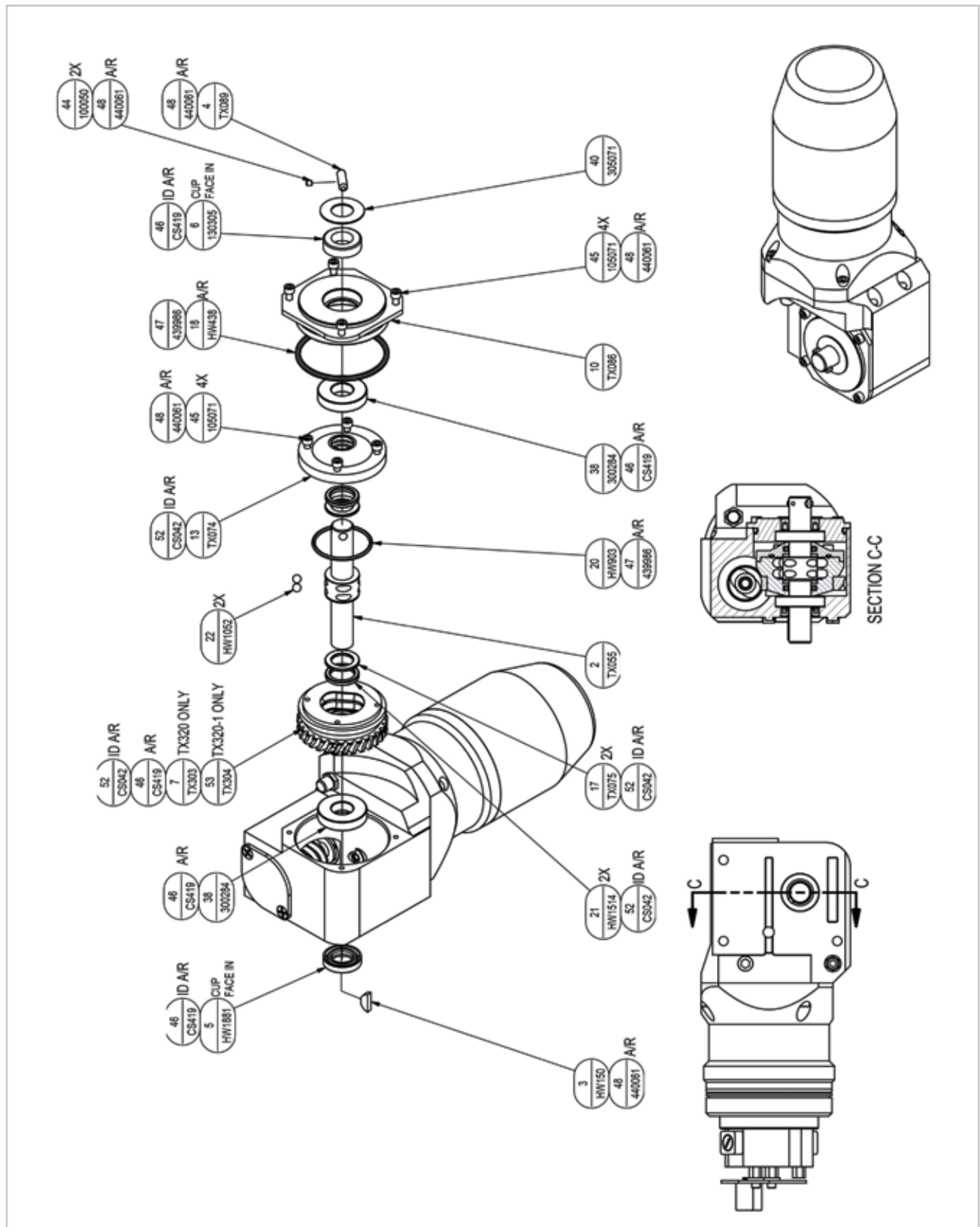
TRANSPORTER ASSY,M/C,TRACK,WTRIII, TX361-1, Rev F			
Item	Description	Part Number	Qty
0001	TRAN/MTR,FWD,NEU/REV,WHL,WTR	TX320	1
0002	CABLE,TOW,F/WTRIII & USIII,54"	120165	2
0003	CRADLE BODY,MODULARIZED,WTRIII	TX056	1
0004	BULKHEAD ASSY,WTRIII/USIII	TX345	1
0005	LOOP,LIFTING,WEBBING,U-SHTY,WTR,CPR	MC223	1
0006	SCREW,SHOULDER LIFT STRAP,CPR	WM107	2
0007	BUTTON,LATCH CAMERA	WM086	1
0008	SPRING,TORSION,.357 OD X .045,MOD	WM102	1
0009	SPACER,.188 OD X .115 ID X .406 LG	HW1581	1
0010	SCREW,CAP,4-40 X 5/8LG,FH,SS	HW1582	1
0011	SCREW,FLAT,10-32X7/8,PHILLIP,SS	712444	2
0012	SCREW,PAN,10-32X3/8 SST	103031	2
0013	GUARD,CONNECTOR PROTECTIVE,WTRIII	TX084	1
0014	BUMPER BLOCK,CONN.GUARD PLT,WTRIII	TX090	1
0016	SCREW,8-32X1/2 FL,PH,SS	103062	4
0017	SCREW,PAN,8-32X3/8 PHIL SST	103065	2
0018	WHEEL MODULE ASSY,RIGHTHAND,WTRIII	TX322	1
0019	WHEEL MODULE ASSY,LEFTHAND,WTRIII	TX323	1
0020	WHEEL,RUBBER,6"PIPE,WTRIII	TX111	6
0021	SCREW,CAPT,HEX,5/16-24UNF X 0.625	WM098-1	6
0022	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
0023	MRO-ANTI-SEIZE,LPS NICKEL,P/N 03908	CS407	1
0024	SCREW,FLT UNDCUT,6.32X.25,18-8,SS	HW1975	1
0025	PLATE,CABLE HOLDER,WTR III	TX092	1
0032	LABEL,THERMAL XFR,1.500"W X .500"H	CS221	1
0033	TOOL,CHISEL,5/32TIP X 5/16HEX X5L	HW1886	1
0034	TOOL,3/8"DR TRQ WRNCH,MICROMTR ADJ	CS472	1
0035	TOOL,3/8DR,1/2"X6POINT SOCKET	CS486	1
0036	TOOL,3/8"DR,1/4"HEX BIT SOCKET	CS474	1

TRANSPORTER ASSY,S/C,WHEELED,WTRIII, TX361-2, Rev F			
Item	Description	Part Number	Qty
37	CABLE ASSY,S/C,3P>8P,WTRIII/USIII	TX344	1
39	TRANSPORTER ASSY,M/C,WHEELED,WTRIII	TX361	1
44	CABLE ASSY,12P>8P,WTRIII>USIII	TX343	-1

TRANSPORTER ASSY,S/C,TRACK,WTRIII, TX361-3, Rev F			
Item	Description	Part Number	Qty
37	CABLE ASSY,S/C,3P>8P,WTRIII/USIII	TX344	1
40	TRANSPORTER ASSY,M/C,TRACK,WTRIII	TX361-1	1
44	CABLE ASSY,12P>8P,WTRIII>USIII	TX343	-1



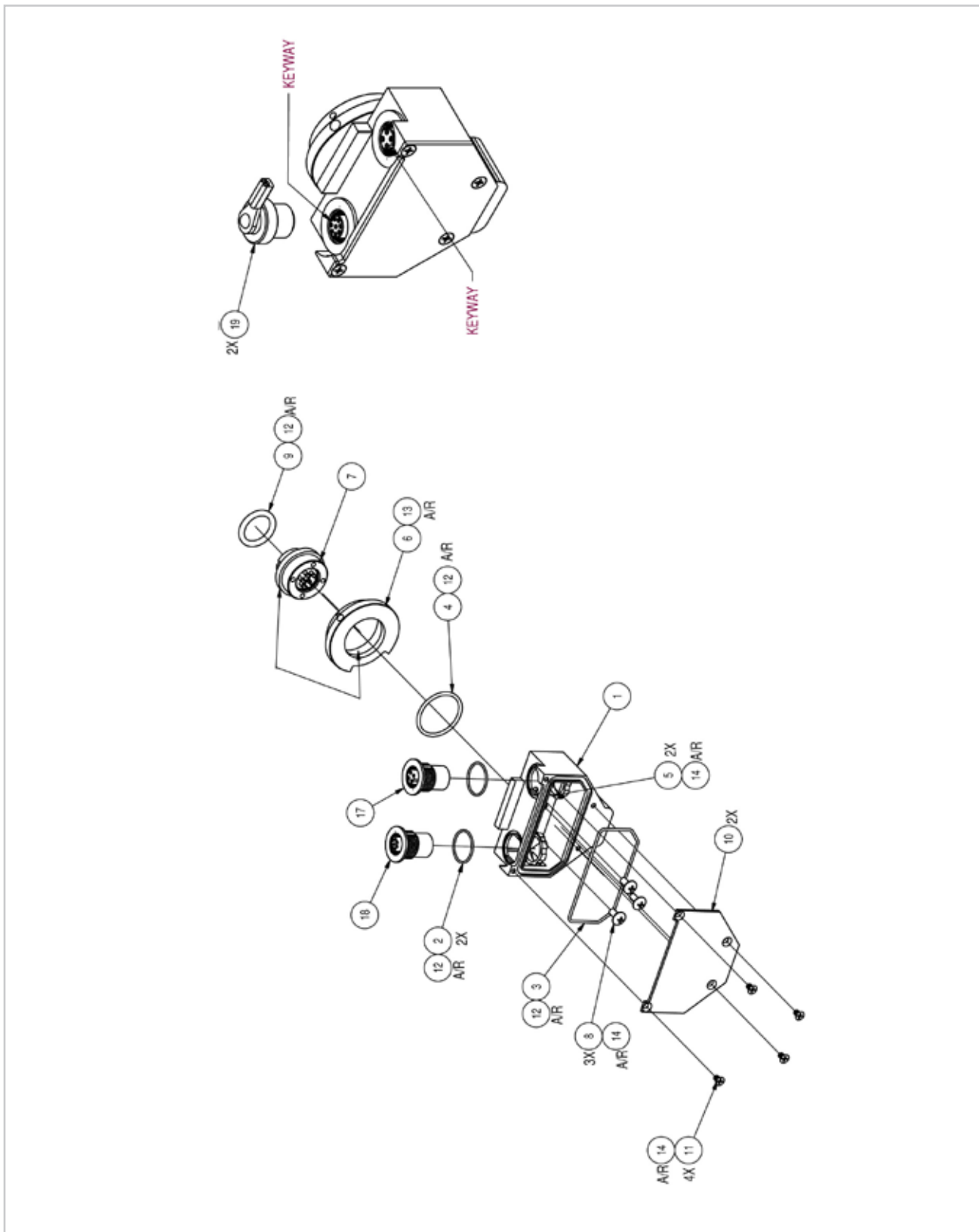
TRAN/MTR,FWD,NEU/REV,WHEEL,WTRIII, TX320



TRAN/MTR,FWD,NEU/REV,WHEEL,WTRIII, TX320

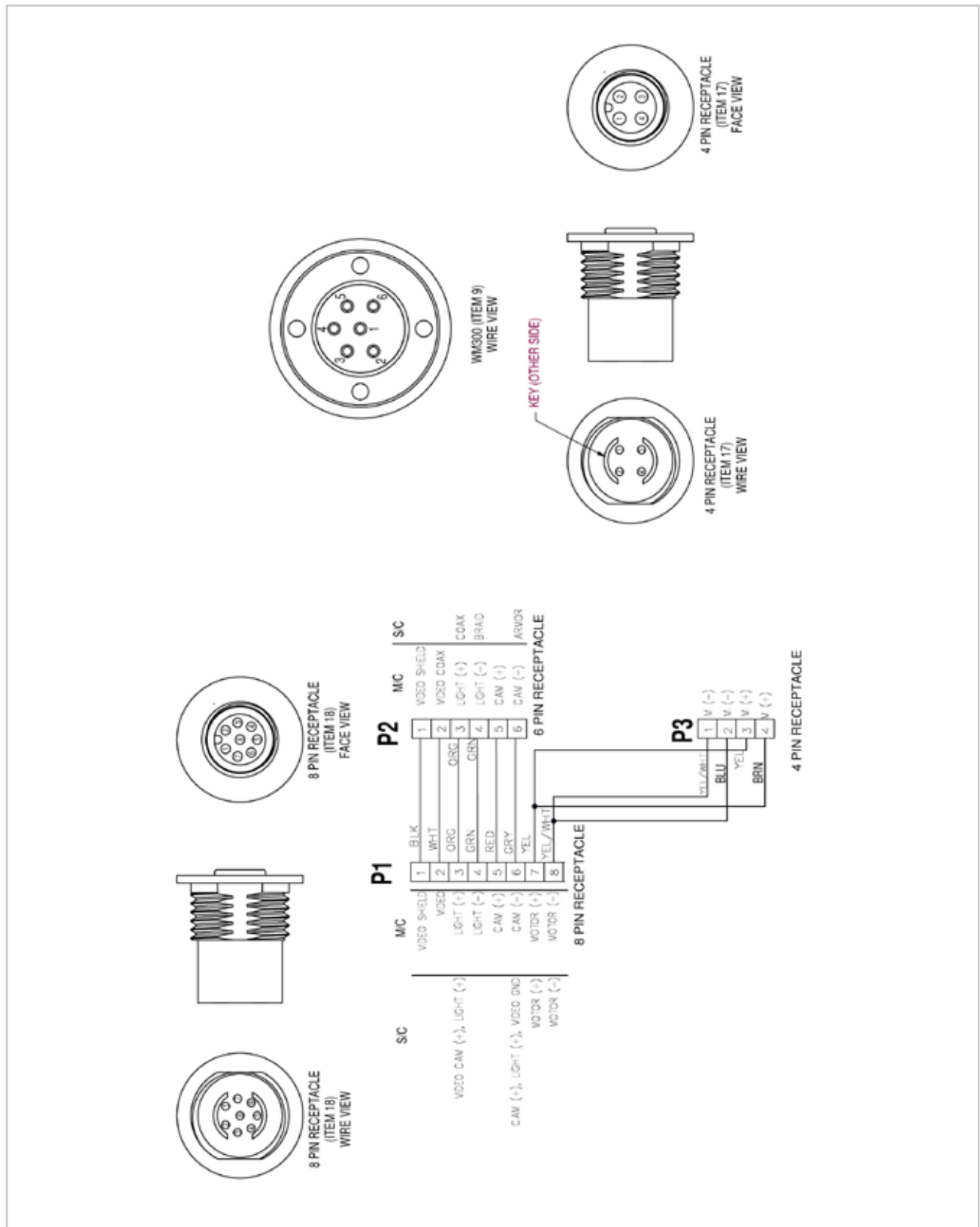
TRAN/MTR,FWD,NEU/REV,WHEEL,WTRIII, TX320, Rev J			
Item	Description	Part Number	Qty
0001	HOUSING,WTR TRNS,MODULARIZED,WTRIII	TX054	1
0002	SHAFT,DR,MTR TRN,MODULARIZED,WTRIII	TX055	1
0003	KEY,WOODRUFF,404,FLTBTM,1/8X½,316SS	HW150	1
0004	PIN,DOWEL,.1877X.656,18-8 SST	TX089	1
0005	SEAL,OIL,0.5X0.875X0.188,DBL LIP	HW1881	1
0006	SEAL,OIL,.5ID X.875 OD X.252THK	130305	1
0007	CLUTCH,RACE,W/WORM GEAR,BAL,DBL	TX303	1
0008	MOUNT,MTR TRANS MODULE,WTRIII	TX087	1
0009	MOTOR CAN,CONE,USIII,WTRIII,US21	TX023	1
0010	COVER,TRANS/MTR MODULE,WTRIII	TX086	1
0011	PCB ASSY,FILTER,NON-FUSED	WS406	1
0012	MOTOR,140VDC,.12HP,W/STANDOFF,TRANS	TL052	1
0013	CLUTCH,COVER,BALL,DBL,WTRIII	TX074	1
0014	PLUG,LOW PROFILE,1/8 NPT	MS039	1
0015	SEAL,OIL,.25 BORE X.5 OD .125THK	HW003	1
0016	SCREW,SEAL(8-32X9/16L)PHIL HEAD	HW004	4
0017	BEARING,THRT,.502X.780X.063,CLTSHFT	TX075	2
0018	O-RING,2-135,BUNA,195 IDX.103	HW438	1
0019	GEAR,DRIVE,SPUR,12T/24P,TEARDROP	HW552	1
0020	O-RING,2-026 BUNA	HW903	1
0021	SEAL,QUAD,9/16"IDX3/4"ODX3/32"W	HW1514	2
0022	BALL,BEARING,3/16DIA,TUNGSTEN CARBI	HW1052	2
0023	SCREW,CAP,SKT HD,8-32X5/8,SST	100141	4
0024	RECEPTACLE,4PIN,MALE	EL497	1
0025	WORM/SHAFT,16DP,.625PD,14.5PA,S.THD	TX071	1
0026	GEAR,MODIFIED	299981	1
0027	GEAR,TANDEM	300407	1
0028	HOUSING,BEARING,OUTER,TRANS,WTRIII	TX081	1
0029	SCREW,SET,6-32X3/16 SST	100991	2
0030	SCREW,FLAT,8-32X3/8 PHIL SST	100146	2
0031	WASHER.375X.136+.005-0IDX.062T,PHEN	HW2327	2
0032	BEARING,BALL,3/16 ID X 1/2 OD X5/32	300280	2
0033	O-RING,EP 2-038	130141	1
0034	BEARING,BALL,1/4 ID X 3/4 OD X 7/32	300281	1
0035	O-RING,2-214,EP	130145	1
0036	BEARING,BALL,SLD,3/8 IDX7/8 ODX9/32	300282	1

TRAN/MTR,FWD,NEU/REV,WHEEL,WTRIII, TX320, Rev J			
Item	Description	Part Number	Qty
0037	O-RING,2-039 EP	132215	1
0038	BEARING,BALL,1/2 ID X 1-1/8 OD X1/4	300284	2
0039	BEARING,THRUST	300285	1
0040	SPACER,SPROCKET-TRANSPORTER	305071	1
0041	SCREW,CAP,SKT HD,4-40X1/4,W/NYLOK	712389	2
0042	STUD,RETAINING,TOW CABLE,WTRIII	TX112	1
0044	SCREW,SET,4-40X1/8 SST	100050	2
0045	SCREW,CAP,SKT HD,6-32X3/8,SST	105071	8
0046	MRO-GREASE,MOBIL 1 SYNTHETIC	CS419	1
0047	LUBE,ORING, SUPER O LUBE, 2 OZ TUBE	439986	1
0048	MRO-REMOVABLE LCK,ND 121200-2,BLUE	CS036	1
0049	MRO-PERMANENT LOCK,ND 140500-50,RED	440060	1
0050	MRO-SEALANT,POURABLE TRANSLUCENT	445066	1
0051	MRO-SEAL.HGH PRESS,ND 440400-50,BRN	445091	1
0052	MRO-LUBRICANT,SIL-GLYDE W/SILICONE	CS042	1



BULKHEAD ASSY,WTRIII/USIII, TX345

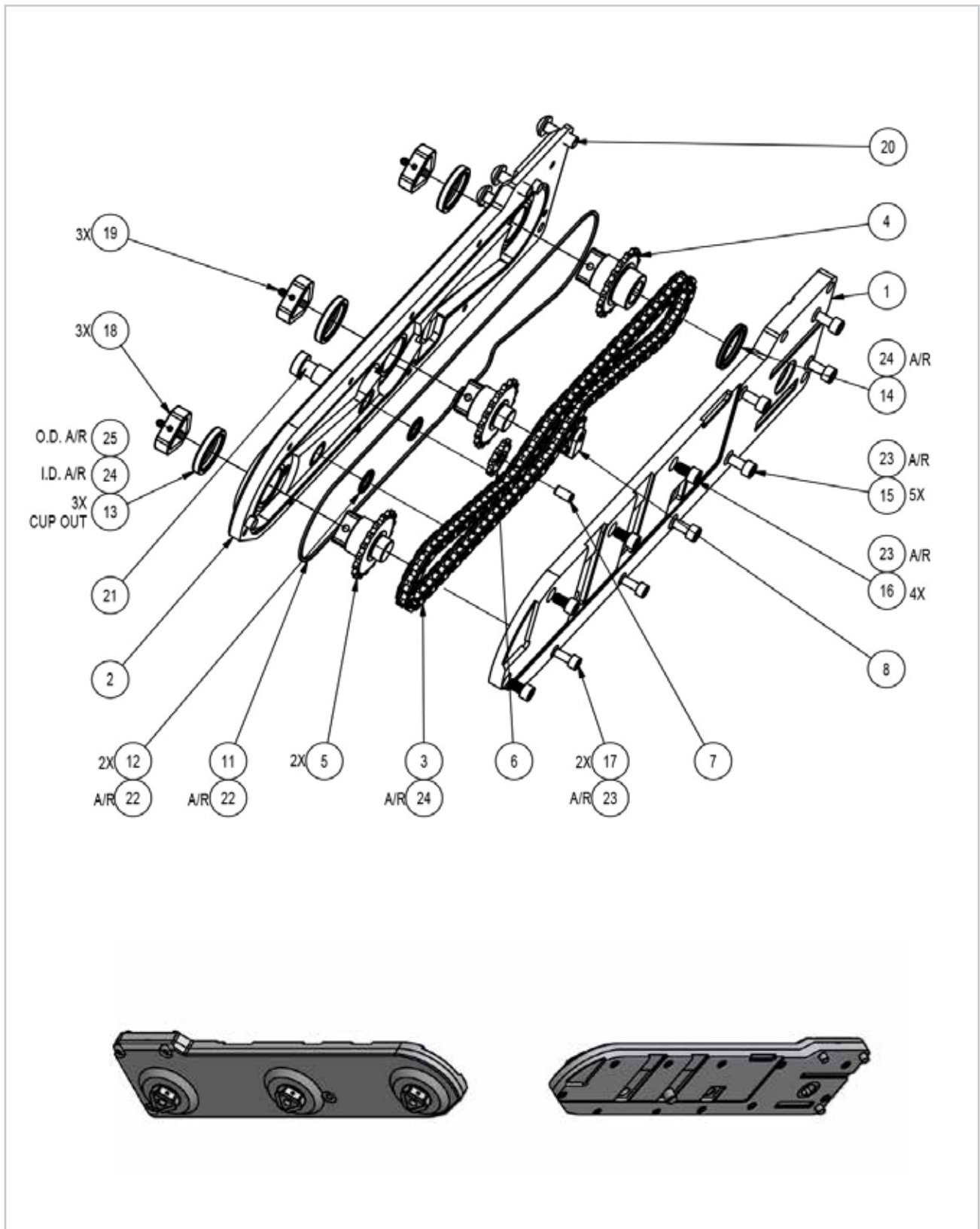
BULKHEAD ASSY,WTRIII/USIII, TX345



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EXPLODED VIEW DRAWINGS & BOM'S

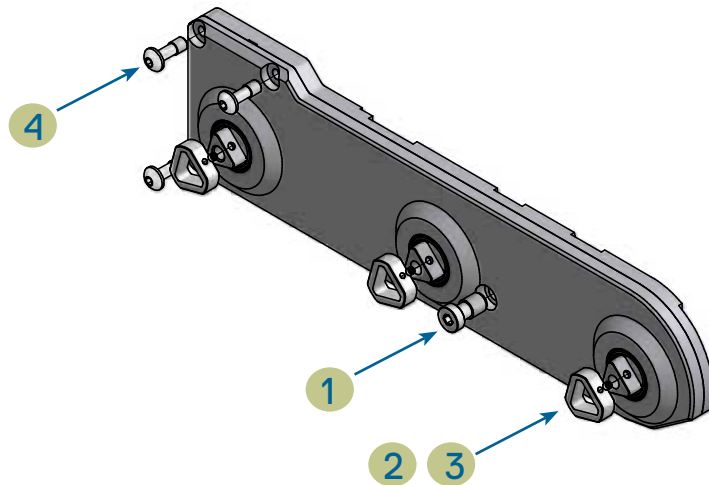
BULKHEAD ASSY,WTRIII/USIII, TX345, Rev A			
Item	Description	Part Number	Qty
1	BULKHEAD,WTRIII	TX082	1
2	O-RING,17MM X 1MM,BUNA-N,SHORE A-70	HW1972	2
3	O-RING,#2-033,1.989IDX.070W,BUNA	PM127	1
4	O-RING,2-022 BUNA	712565	1
5	NUT,ROUND CONNECTOR	TX085	2
6	NUT,TWIST LOCK,6-PIN	WM021	1
7	CONNECTOR,TWIST LOCK,FEMALE,6 SCKT	WM300	1
8	SCREW,STD CAP, HEX, SKT,6-32X.250,SST	103060	3
9	O-RING,17MM ID X3MMW,BUNA,SHOREA70	HW1772	1
10	PLATE,SEAL,BULKHEAD,WTRIII	TX083	1
11	SCREW,FLAT,4-40X3/16 PHIL SST	100110	4
12	MRO-LUBRICANT,O-RING 2 OZ TUBE	439986	1
13	MRO-GREASE,MOBIL 1 SYNTHETIC	CS419	1
14	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
15	TUBE,SHRINK,BLACK 3/32"	712595	1
16	TUBE,SHRINK,BLACK 1/8"	712789	1
17	RECEPTACLE,F 250V,5AMP,4WIRE,SPCL	TX102	1
18	RECEPTACLE,F 250V,5AMP,8WIRE,SPCL	TX103	1
19	CONNECTOR CLOSURE CAP, CPR LIFT	EC1762	REF



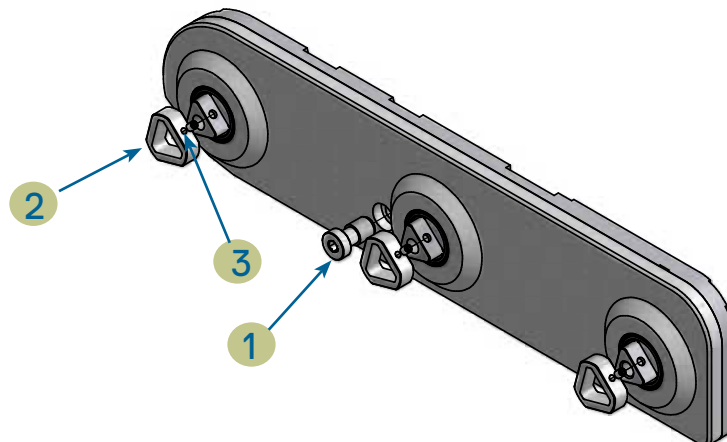
WHEEL MODULE ASSY,RIGHT HAND,WTRIII, TX322

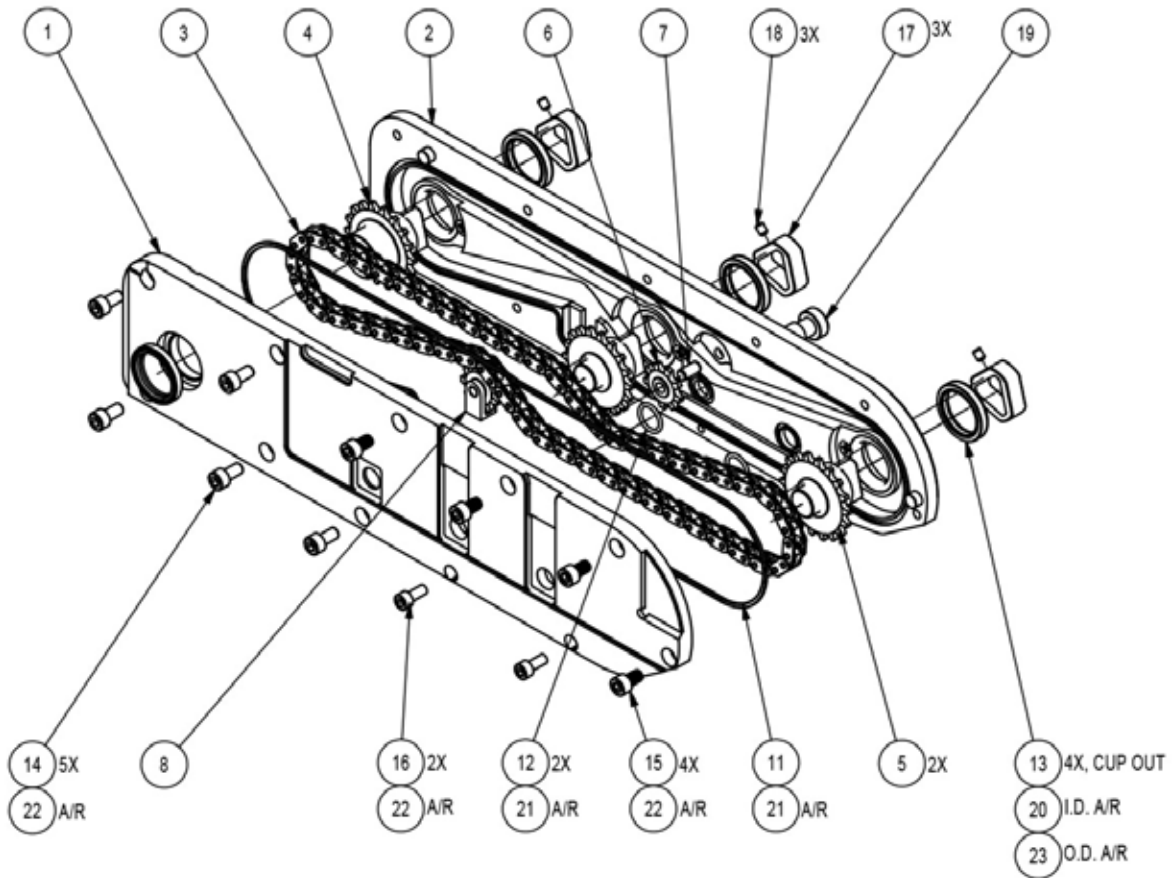
WHEEL MODULE ASSY,RIGHTHAND,WTRIII, TX322, Rev F			
Item	Description	Part Number	Qty
0001	PLATE ASSY,BASE,RH,WHLD,WTRIII	TX311	1
0002	COVER ASSY,BASE,RH,WHEELED,WTRIII	TX319	1
0003	CHAIN,PITCH 0.25,100LK,CNT RVT,25"L	TX038	1
0004	SPRKT/SHFT,DR,PWR,RH SIDE,WTRIII	TX035	1
0005	SHAFT/SPRKT,MID,FRNT,WHL DR,WTRIII	TX036	2
0006	SPROCKET,9T,W/BUSHING,WTRIII	TX314	1
0007	PIN,DOWEL,0.1875X0.375,416SST,HRD	HW1868	1
0008	TENSIONER ASSY,CHAIN,WHLD,WTRIII	TX315	1
0011	O-RING,BIG SIDE SEAL,TRN MOD,WTRIII	TX044	1
0012	O-RING,10.5X1.5,BUNA-N	HW1933	2
0013	SEAL,OIL,20MMX26MMX4MM TCM	HW1869	3
0014	O-RING,QUADRING,4-117,.812IDX.103CS	HW1956	1
0015	SCREW,CAP,SKT HD,10-32X3/8,SST	103030	5
0016	SCREW,CAP,HX,SKT,10-32X0.312,18-8SS	HW1882	4
0017	SCREW,SHCS,8-32X3/8 SST	100448	2
0018	COLLET,WHEEL,SHAFT,DRIVE,WTRIII	TX031	3
0019	SCREW,SET,6-32X3/16 SST NYLOCK	101087	3
0020	SCREW,CAP,BTN,HEX,¼-28UNF X .700	TX042	3
0021	SCREW,CP,HX,.375-16X.0625X.7,17-4PH	TX030	1
0022	MRO-LUBRICANT,O-RING 2 OZ TUBE	439986	1
0023	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
0024	MRO-GREASE,SYNTH,SIL-PTFE,14-OZ	CS476	1
0025	MRO-LOCTITE,#380,CYANOACRYLATE GLUE	CS469	1

Item	P/N	Description	QTY
TX322 - WHEEL MODULE ASSY, RIGHTHAND, WTRIII			
1	TX030	SCREW,CP,HX,.375-16X.0625X.7,17-4PH (main screw for the right and left wheel modules)	
2	TX031	COLLET,WHEEL,SHAFT,DRIVE,WTRIII	
3	101087	SCREW,SET,6-32X3/16 SST NYLOCK (set screw for TX031)	
4	TX042	SCREW,CAP,BTN,HEX,¼-28UNF X .700 (screws that attach the right wheel module to the motor transmission module)	



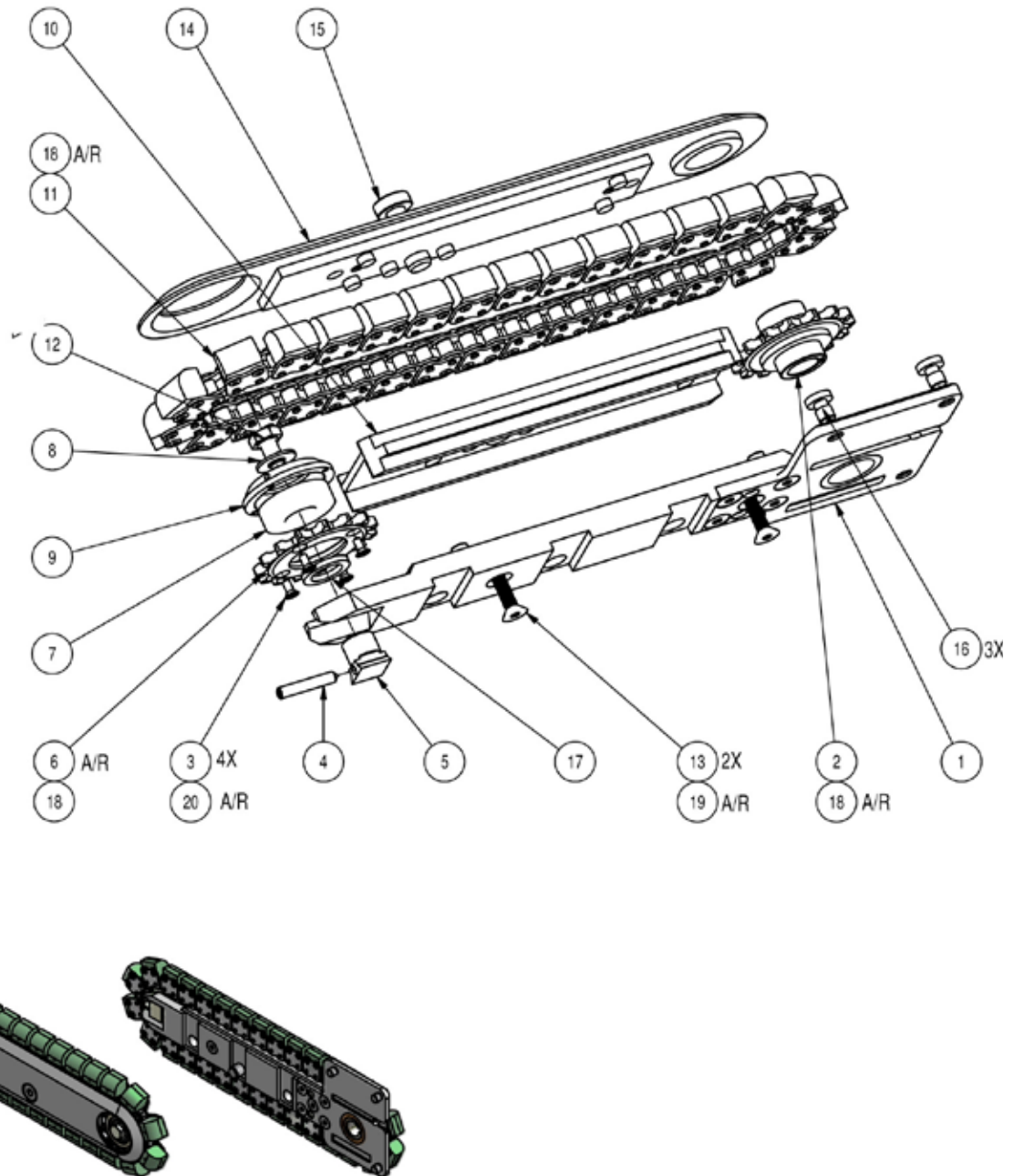
Item	P/N	Description	QTY
TX323 - WHEEL MODULE ASSY, LEFTHAND, WTRIII			
1	TX030	SCREW,CP,HX,.375-16X.0625X.7,17-4PH (main screw for the right and left wheel modules)	
2	TX031	COLLET,WHEEL,SHAFT,DRIVE,WTRIII	
3	101087	SCREW,SET,6-32X3/16 SST NYLOCK (set screw for TX031)	





WHEEL MODULE ASSY,LEFTHAND,WTRIII, TX323

WHEEL MODULE ASSY,LEFTHAND,WTRIII, TX323, Rev D			
Item	Description	Part Number	Qty
0001	PLATE ASSY,BASE,LH,WHLD,WTRIII	TX310	1
0002	COVER ASSY,BASE,LH,WHEELED,WTRIII	TX318	1
0003	CHAIN,PITCH 0.25,100LK,CNT RVT,25”L	TX038	1
0004	SPRKT/SHAFT,DR,PWR,LEFT,WTRIII	TX048	1
0005	SHAFT/SPRKT,MID,FRNT,WHL DR,WTRIII	TX036	2
0006	SPROCKET,9T,W/BUSHING,WTRIII	TX314	1
0007	PIN,DOWEL,0.1875X0.375,416SST,HRD	HW1868	1
0008	TENSIONER ASSY,CHAIN,WHLD,WTRIII	TX315	1
0011	O-RING,BIG SIDE SEAL,TRN MOD,WTRIII	TX044	1
0012	O-RING,10.5X1.5,BUNA-N	HW1933	2
0013	SEAL,OIL,20MMX26MMX4MM TCM	HW1869	4
0014	SCREW,CAP,SKT HD,10-32X3/8,SST	103030	5
0015	SCREW,CAP,HX,SKT,10-32X0.312,18-8SS	HW1882	4
0016	SCREW,SHCS,8-32X3/8 SST	100448	3
0017	COLLET,WHEEL,SHAFT,DRIVE,WTRIII	TX031	3
0018	SCREW,SET,6-32X3/16 SST NYLOCK	101087	3
0019	SCREW,CP,HX,.375-16X.0625X.7,17-4PH	TX030	1
0020	MRO-GREASE,SYNTH,SIL-PTFE,14-OZ	CS476	1
0021	MRO-LUBRICANT,O-RING 2 OZ TUBE	439986	1
0022	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
0023	MRO-LOCTITE,#380,CYANOACRYLATE GLUE	CS469	1



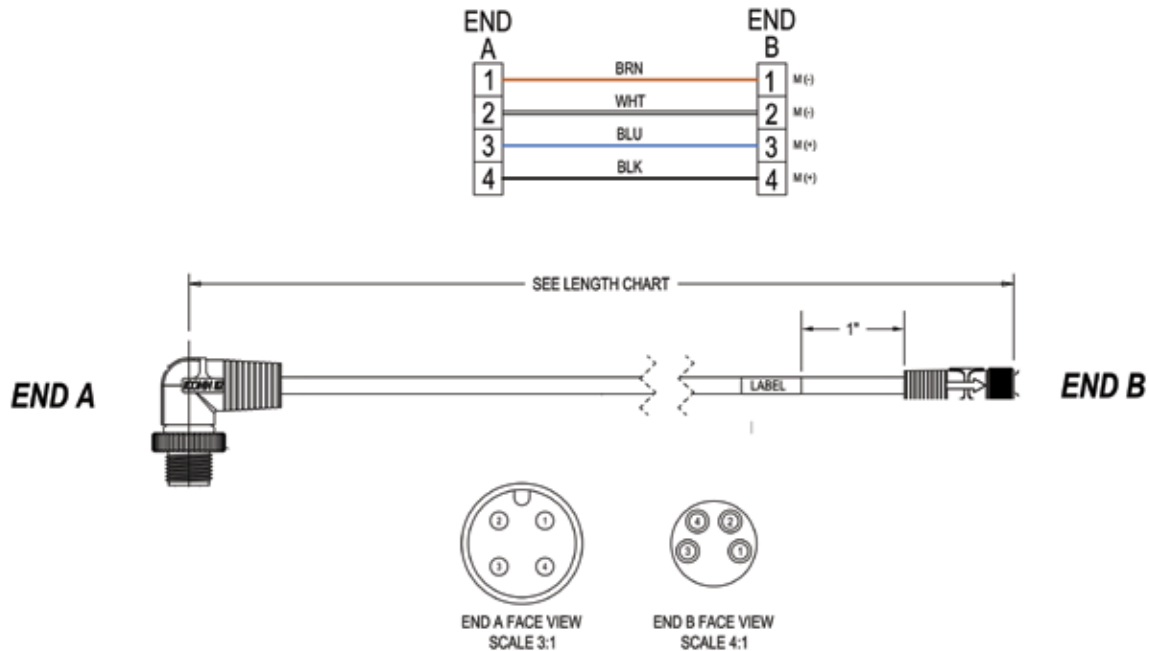
TRACK MODULE ASSY,RIGHT HAND,WTRIII, TX324

TRACK MODULE ASSY,RIGHTHAND,WTRIII, TX324, Rev C			
Item	Description	Part Number	Qty
1	PLATE ASSY,BASE,CONN,RH,TRK,WTRIII	TX312	1
2	SPRCKT/SHFT,35PT 15T,HX HOLE,WTRIII	TX060	1
3	SCREW,FLAT,4-40X5/16,SS	HW266	4
4	SCREW,SET,8-32X1LG,LOK,CONEPT	HW769	1
5	SPINDLE,IDLER SPROCKET	MC267	1
6	SPROCKET,35P,15T,FACE MOUNT	MC268	1
7	BEARING,SEALED.5BX1.125ODX.312THK	HW018	1
8	WASHER,FLAT,1/4"SST	101736	1
9	HUB,IDLER SPROCKET	MC269	1
10	WEAR SLIDER,CHAIN,TRK,RIGHT,WTRIII	TX061	1
11	TRACK ASSY,RND CLEAT, 30 CNT, USIII	TX305	1
12	SCREW,CAP,HX,1/4-28X3/8,SS,NYL PLT	HW1069	1
13	SCREW,FLAT,HEX,SKT,10-32X.75,18-8SS	HW1889	2
14	COVER ASSY,RH,TRK MOD,WTRIII	TX313	1
15	SCREW,CAP,LOW,3/8-16X.969,17-4SS	TX051	1
16	SCREW,FLT,HEX,SKT,.25-28X.375,17-4	TX069	3
17	SPACER,SPROCKET,RH,TRACK,WTRIII	TX052	1
18	MRO-LUBRICANT,LPS CHAINMATE,11-OZ	CS478	1
19	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
20	MRO-PERMANENT LOCK,ND 140500-50,RED	440060	1

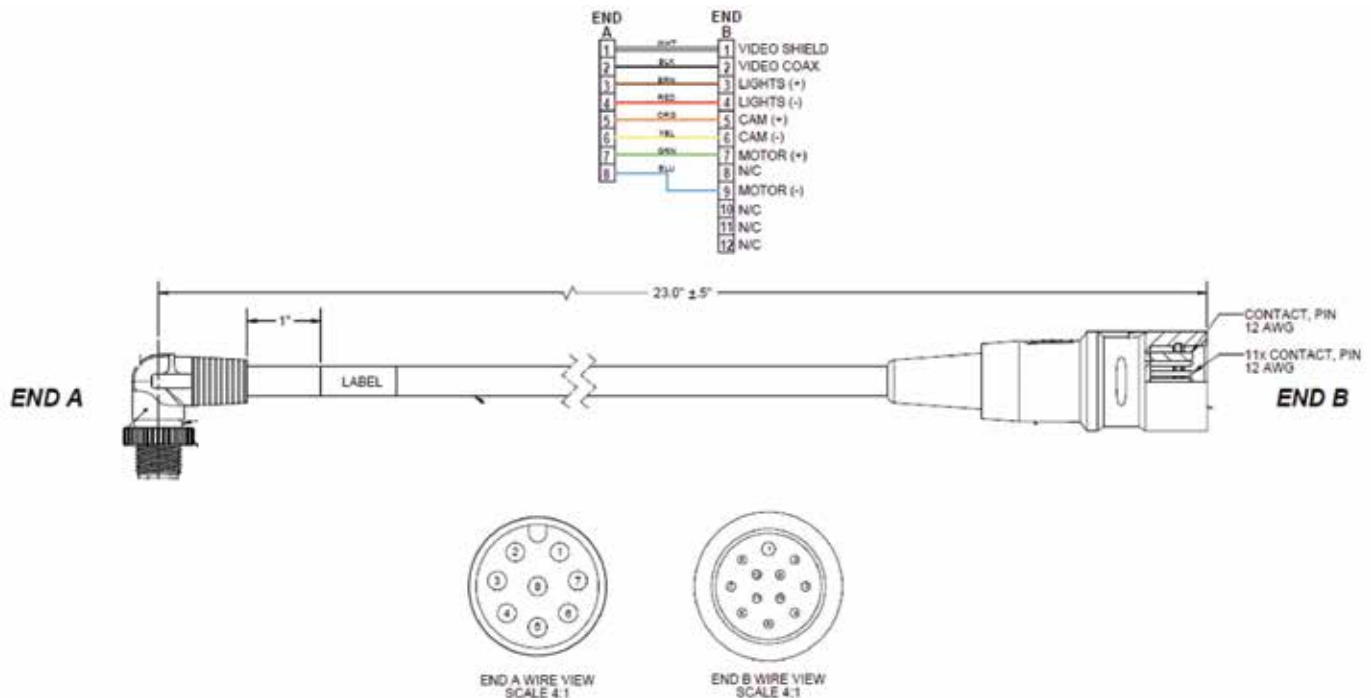
TRACK MODULE ASSY,LEFTHAND,WTRIII, TX325, Rev D			
Item	Description	Part Number	Qty
1	COVER,BASE,TRK MOD,LEFT,WTRIII	TX064	1
2	SPINDLE,FIX,SPKT,FRNT DR,LFT,WTRIII	TX065	1
3	SCREW,FLT,HX,SKT,.250-28X.50,18-8SS	HW1890	1
4	BEARING,SEALED.5BX1.125ODX.312THK	HW018	2
5	SPROCKET,DRIVE,#35,15T,FWC	MC270	1
6	SCREW,CAP,SKT HD,4-40X1/2,SST	105061	4
7	COUPLING,SHAFT,DR,TRK,LEFT,WTRIII	TX068	1
8	WEAR SLIDR,CHAIN,TRK MOD LFT,WTRIII	TX066	1
9	PLATE,BASE,TRK MOD,LEFT,WTRIII	TX067	1
10	SCREW,SET,8-32X1LG,LOK,CONEPT	HW769	1
11	SPINDLE,IDLER SPROCKET	MC267	1
12	SPROCKET,35P,15T,FACE MOUNT	MC268	1
13	HUB,IDLER SPROCKET	MC269	1
14	SCREW,FLAT,4-40X5/16,SS	HW266	4
15	WASHER,1/2IDX7/8ODX1/32THK,SST	HW267	3
16	SCREW,CAP,HX,1/4-28X3/8,SS,NYL PLT	HW1069	1
17	WASHER,FLAT,1/4"SST	101736	1
18	TRACK ASSY,RND CLEAT, 30 CNT, USIII	TX305	1
19	SCREW,CAP,LOW,3/8-16X.969,17-4SS	TX051	1
20	SCREW,FLAT,HEX,SKT,10-32X.75,18-8SS	HW1889	2
21	MRO-LUBRICANT,LPS CHAINMATE,11-OZ	CS478	1
22	MRO-REMOVABLE LCK,ND 121200-50,BLUE	440061	1
23	MRO-PERMANENT LOCK,ND 140500-50,RED	440060	1

CABLE ASSEMBLIES

CONFIGURATION LIST	
PART NUMBER	DESCRIPTION
TX342	CABLE ASSY, 4-PIN, WTRIII/USIII, 8.5" L
TX342-1	CABLE ASSY, 4-PIN, WTRIII/USIII, 16" L



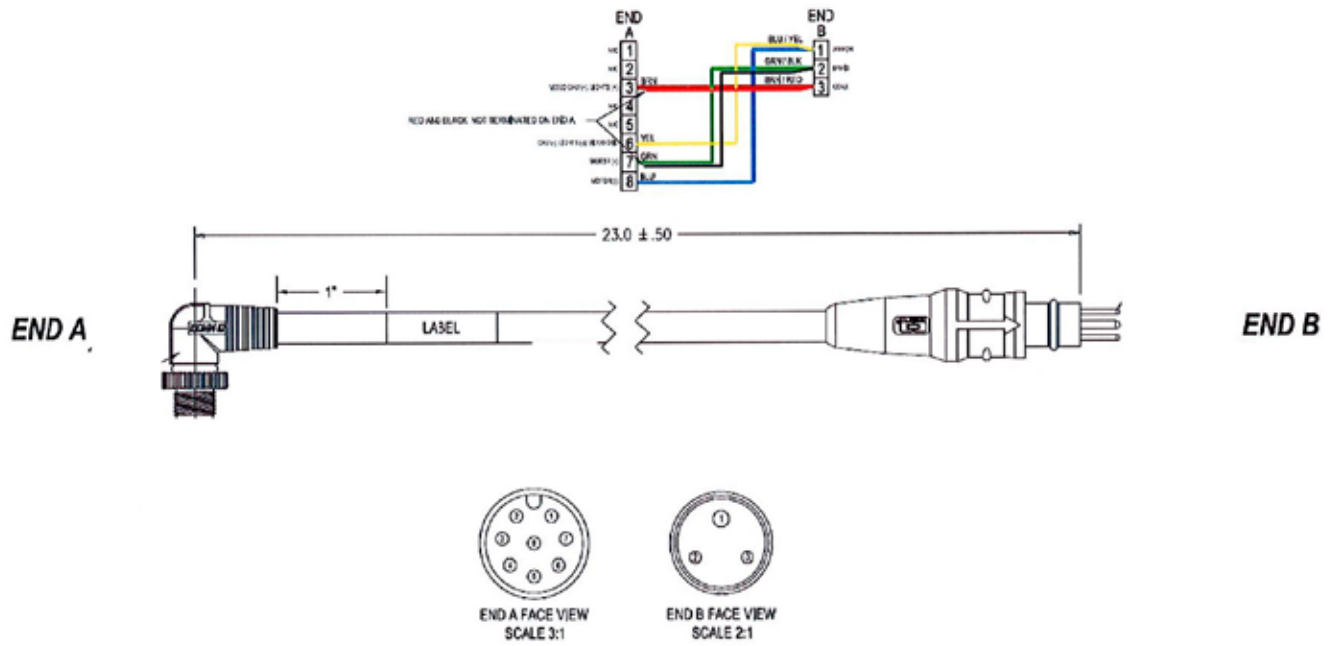
CABLE ASSY,4-PIN,WTRIII/USIII,8.5"L, TX342



CABLE ASSY,12P>8P,WTRIII>USIII, TX343

CABLE ASSEMBLIES

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CABLE ASSY,S/C,3P>8P,WTRIII/USIII, TX344

CUES STANDARD 12 MONTH WARRANTY

CUES ("CUES") warrants that all parts, components, and equipment manufactured by CUES shall be free from defects in material and workmanship under normal use and service for which it was intended for a period of twelve (12) months from the date of shipment of materials by CUES to the purchaser. CUES' obligation under this warranty is limited, at CUES' option, to replacing or repairing, free of charge, any defective materials returned, freight prepaid, to the CUES designated service facility. For all warranty claims, the materials must be returned in accordance with CUES Material Return Policy.

Major items of equipment, such as vehicles, generators, etc., furnished, but not manufactured by CUES, will be covered only under the warranty of the third party manufacturer of such equipment. Expendable parts, such as light bulbs, fuses, connectors, etc., are excluded from this warranty.

Purchaser must notify CUES of a breach of warranty not later than the last day of the warranty period; otherwise, such claims shall be deemed waived.

CUES does not warrant the materials to meet the requirements of the safety codes of any federal, state, municipal or other governmental or administrative jurisdiction. Purchaser assumes all risk and liability whatsoever resulting from the use of its products, whether used singly or in combination with other products, machines or equipment.

This Warranty shall not apply to any materials, or parts thereof, which have; (a) been repaired or altered by anyone other than CUES without CUES' written consent; (b) been subject to misuse, abuse, negligence, accident, or damage; (c) not been installed or operated in accordance with CUES' printed instructions, or; (d) been operated under conditions exceeding or more severe than those set forth in the specifications of design tolerance of the equipment.

THIS WARRANTY AND THE OBLIGATION AND LIABILITIES OF CUES HEREUNDER ARE EXCLUSIVE AND IN LIEU OF (AND PURCHASER HEREBY WAIVES) ALL OTHER WARRANTIES, GUARANTEES, REPRESENTATIONS, OBLIGATIONS, OR LIABILITIES, EXPRESSED OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDLESS WHETHER OR NOT OCCASIONED BY CUES' NEGLIGENCE.

CUES SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE RESULTING, DIRECTLY OR INDIRECTLY, FROM THE USE OR LOSS OF USE OF THE MATERIALS, OR FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, ECONOMIC LOSSES, LOSS OF PROFITS, LOSS OF BUSINESS, OR LOSS OF BUSINESS OPPORTUNITY. Without limiting the generality of the foregoing, this exclusion from liability embraces Purchaser's expenses for downtime or for making up downtime, damages to property, and injury to or death of any persons.

CUES neither assumes nor authorizes any person (including employees, agents, or representatives of CUES) to assume for it any other liability, guarantee, or warranty in connection with the sale or use of the materials, and no oral agreements, warranties, or understandings exist collateral to or affecting this warranty.

This warranty shall not be extended, altered, modified, or waived except by a written instrument signed by CUES.

SAFETY PRECAUTIONS

Precautions must always be taken when operating electronic equipment. Exposed wires, damaged equipment, or improper operation can lead to a dangerous situation.

Please take a few minutes and read this entire manual prior to operating the equipment. Follow all safety procedures and thoroughly inspect equipment prior to use each day. This will help the equipment retain its full value and will reduce the risk of injury, property, and/or equipment damage.



- Read the entire manual before attempting to connect or operate any equipment.
- Connect and disconnect cables only when the electric power is turned OFF.
- Never remove protection covers from the equipment or power generator. Internal repairs should only be done by an authorized CUES technician.
- If using a portable generator, always place it in an open area away from other equipment, manholes or obstructions prior to start-up; do not use a portable generator in an enclosed area.
- Upon receipt of the equipment, check for visible damage. If there is any evidence of rough handling, if damage is found, or if any equipment is missing, please contact the CUES Customer Service at 1-800-327-7791.

PERSONAL SAFETY EQUIPMENT & TRAINING

CUES stresses the use of appropriate safety equipment while working in and around manholes and during system operation. Safety should constantly remain the utmost priority. NOTE: The user of CUES products is responsible for all training and operation under federal, state and local guidelines and regulations for both confined space entry and traffic control. Recommended safety equipment includes but is not limited to the following:

- Safety goggles
- Work gloves
- Steel-toed boots
- Reflective vests
- Hard hats
- Filter masks (full respirators may be necessary)
- Flashlights
- Safety lines
- Traffic warning signs
- Traffic cones
- Gas detectors
- Ventilation fans

CUES ® makes no warranty for the use of its products and assumes no responsibility for any errors or omissions in this document or for incidental or consequential damages resulting from misuse of the products.

CUES MATERIAL RETURN POLICY

To ensure the orderly return of CUES products from our customers and to assure proper credit and warranty replacements handled in a timely manner, CUES has implemented a MATERIAL RETURN AUTHORIZATION (MRA) SYSTEM. Please read and follow the instructions below to ensure your MRA is handled properly and efficiently:

1. Once it is determined that a CUES product needs to be returned, call the CUES Parts Department in Orlando at 1-800-327-7791.
2. CUES will provide an MRA number by phone and ask a few questions.
3. CUES will then mail or fax the MATERIAL RETURN AUTHORIZATION (MRA) FORM with the MRA number, or include it with the replacement parts, if applicable.
4. Follow all instructions on the MRA Form. Make 2 copies - one for your records and the other will be used as a packing list.
5. Place an MRA sheet in with the parts that are shipped back to CUES along with a copy of the original packing slip or invoice, if possible. Send only the parts originally agreed upon with your Parts Representative. Any deviations/changes will require an additional MRA.
6. Make sure to include a copy of the MRA form for a packing slip.
7. Write the MRA number on the outside of the box.
8. Please take care in packing the parts that are to be shipped back to CUES. Parts must be individually protected from each other and appropriate packing material must be used to prevent damage during shipping.
9. Freight on the material returned is to be prepaid by the customer. Depending on the warranty determination, CUES, at its' option, may credit freight charges both ways.
10. The parts must be returned to CUES within 5 days of receipt of the MRA for credit to be granted.

Under normal circumstances, a warranty determination can be made within 30 days, and if under warranty, the part will be replaced at no charge. A credit will be issued if you have already received a replacement part. No credits will be issued until CUES receives the defective part.

*****NOTE*****

CUES will not warrant look-alike parts sold by competitors and reserves the right to charge a restocking fee. CUES shall not be liable for any loss or damage resulting, directly or indirectly, from the use of the materials, or for special, indirect, or consequential damages, economic losses, loss of profits, loss of business, or loss of business opportunity.

Without limiting the generality of the foregoing, this exclusion from liability embraces purchaser's expenses for downtime or for making up downtime, damages to property, and injury to or death of any persons.

CUES neither assumes nor authorizes any person (including employees, agents, or representatives of CUES) to assume for it any other liability, guarantee, or warranty in connection with the sale or use of the materials, and no oral agreements, warranties, or understandings exist collateral to or affecting this warranty. This warranty shall not be extended, altered, modified, or waived except by a written instrument signed by an authorized CUES representative.

CUES MATERIAL RETURN AUTHORIZATION

Cust #:	Name:	Contact:	Date: 4/21/2004
Original SO #: N/A	SO Orig:	Dated:	New SO #:
S.O. To Be Credited:			
Return For:	Reason:	Territory	Prod. Ref. Cd: 51200
Orig:			
Explanation:			

Items Returned	
1	
2	
3	
4	
5	
6	

To ensure your MRA is handled properly and efficiently, please follow the instructions below.

1. Ship parts back within five (5) business days of receiving your MRA number. Parts ordered in error are subject to a restocking fee.
 2. Send only the parts originally agreed upon with your customer service representative. Any deviations will require an additional MRA.
 3. Make a copy of this sheet and keep the original for your records. Use the copy as a packing slip.
 4. Write the MRA number on the outside of the box.
 5. Parts must be individually protected from each other (original packaging would be best) and appropriate packing material must be used to prevent against damage during shipping.
- Note:** If parts are not well protected and arrive at our facility damaged in any manner, we will automatically reject them and return them to you without credit.

PARTS WILL BE RETURNED TO CUSTOMER AT CUSTOMER EXPENSE WITHOUT AN MRA NUMBER DOCUMENTED ON BOX. CUES IS NOT RESPONSIBLE FOR SHIPMENT FROM CUSTOMER TO CUES.

Use this section as a Packing Slip.

**Please remember to write the
MRA number on the box.**

MRA #:
XXXX

Return To:

Cues
3600 Rio Vista Avenue
Orlando, Fl. 32805
(407) 849-0190
FAX (407) 425-1569
WATS 800-327-7791

CUES PARTS & SERVICE

At CUES, we realize your return on investment is directly related to daily production in the field. By stocking the largest inventory of OEM equipment in our industry, CUES strives to ship all parts orders on the same day or within 24 hours after receipt of the order.

Whether you need a camera or a fuse, CUES will quickly process and ship your order in accordance with your schedule requirements! Our experienced parts professionals can help you with parts identification, shipping methods, equipment operation questions, and connect you to the correct specialist for troubleshooting!

CUES offers four convenient stocking locations that contain a large assortment of parts, finished products, portable, and truck mounted systems. Texas, Arizona, Oklahoma and Louisiana customers can be serviced by our local dealerships. Contact us at your most convenient stocking location! For authorized dealer locations, log onto our website at www.cuesinc.com.

Parts can be ordered via phone or facsimile! For operating hours, contact information, and locations, log onto our website at www.cuesinc.com. Contact us at your most convenient stocking location! Log onto our website at www.cuesinc.com to view the CUES Parts Department & Dealers hours & locations.

CUES Parts Department: Parts turnaround is normally within 24 hours after receipt of order. Please note that special shipping arrangements can be made at the time of the order. All return shipments received at CUES freight collect will be refused upon delivery unless previously authorized by CUES personnel. Normal operating hours are 8am to 5pm, EST., Phone: 800-327-7791, Fax: 800-831-1184.

CUES Service Depot: Service turnaround is normally 72 hours or less upon receipt at our depot, excluding weekends and holidays. All return shipments received at CUES freight collect will be refused upon delivery unless previously authorized by CUES personnel. Normal operating hours are 8am to 5pm, EST., Phone: 800-327-7791.

West Coast

For West Coast Customers:

The parts and service depot is located at 1943 S. Augusta Court, Ontario, CA, 91761. Normal operating hours are 8am to 5pm, PST
Phone: 800-544-8695

Canada

For Canadian Customers:

The parts and service depot is located at 1675 Sismet Road, Unit 2 & 3, Mississauga, Ontario L4W1P9
Phone: 905-238-9178

Midwest

CUES Midwest:

www.cuesmidwest.com
2325 Parklawn Drive, Suite K
Waukesha, WI 53186
Phone: 262-717-3165
Fax: 262-717-3167

CUES RECORD OF REVISIONS

This Record of Revision page is designed to allow the manual user to determine the engineering/manufacturing level to which the manual is written. As engineering changes to this hardware are made at CUES, necessary information in the manual will be revised to reflect those changes. The latest change level and the rationale for any change(s) will be explained in tabular format on this page to allow the manual user to be better equipped should the need arise to call CUES regarding technical information.

Original Manual	Revision	Revision Date	Change Description
WTR III	1	020210	Updated all BOM and exploded view drawings
	2	060115	Added the revised Wheel Configuration Matrix, which now includes the new 8" steel wheel kit. Updated all BOM & Exploded View Drawings. Corrected cable part numbers referenced in Chapter 4
	3	062320	Added the revised Wheel Configuration Matrix; Updated all BOM & Exploded View Drawings
	4	120220	Updated WHEEL MATRIX per ECN # 122496
	5	020322	Corrected a few errors on pages 16 and 52.

Innovation for over 50 Years

CUES is the world's leading manufacturer of closed circuit television video (CCTV) inspection, rehabilitation, pipe profiling equipment and asset inspection/decision support software. For over 50 years, **CUES** has provided innovative pipeline inspection technology and solutions to enable accurate condition assessment and proactive maintenance programs for buried infrastructure.

In addition to inspection equipment, **CUES** also designs, manufactures, and sells a broad range of pipeline rehabilitation and profiling equipment. These include chemical grouting systems for sewer line pipe joints capable of using a wide variety of grouting products. **CUES** also manufactures lateral reinstatement cutting systems which enable the reinstating of laterals in mainline sewers after they have been relined with any of a wide variety of liner materials. Pipe profiling is accomplished via Laser for Sonar based systems.

CUES has the most locations and dealers available to serve you! To find a local **CUES** facility, find the operating hours for a particular location, or to contact us at your most convenient stocking location, please log onto our website at www.cuesinc.com or call the **CUES** Corporate Headquarters in Orlando, Florida for more information.