V518

Bobcat®

VersaHANDLER

Service Manual

S/N 367610501, 367611001 & Above
S/N 367711001 & Above



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Troubleshooting Chart (Control Valve)

The following troubleshooting chart is provided for assistance in locating and correcting problems which are most common. Many of the recommended procedures must be done by authorized Bobcat Service Personnel

⚠ WARNING

Check for correct function after adjustments, repairs or service. Failure to make correct repairs or adjustments can cause injury or death.

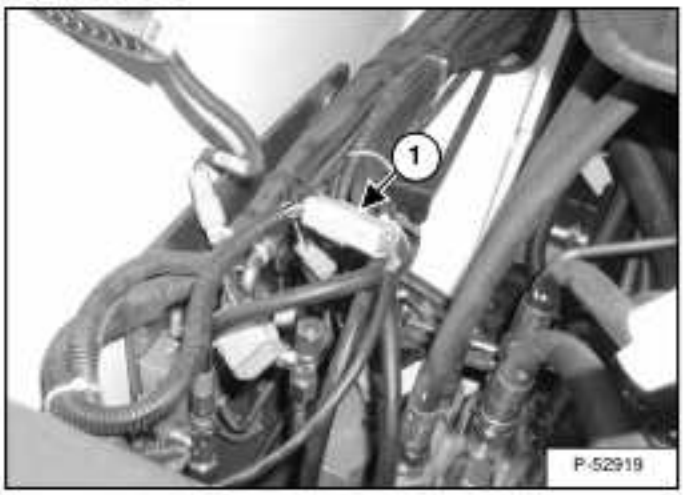
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PROBLEM	CAUSE	CORRECTION
Lack of strength at all actuators	Load sense relief cartridge defective	Replace relief cartridge
	Load sense relief cartridge out of adjustment	Make necessary adjustments
Lack of force on one actuator only	Secondary relief valve out of adjustment	Reset to original pressure
	Secondary relief valve blocked open	Replace relief valve
Lack of load hold	Load check valve failure	Replace load check valve
	Excessive clearance between housing and spool	Replace housing and spool
Simultaneous movement of controls	Blockage of individual compensator orifice	Remove and clean orifice
	Individual pressure compensator blocked	Replace housing and compensator
	Load sense line leakage	Replace load sense regulator
Engine remains under load after spools are returned to neutral	Flow regulator blocked	Replace flow regulator
	Flow regulator filter clogged	Replace filter
Detent malfunction	Controller defective	Replace controller
Spool return difficult	Tie rod bolts too tight	Re-torque tie rod bolts
Spool leaking oil	Defective spool seal	Replace spool seal
Oil leakage between valve section	Defective seals	Replace seals

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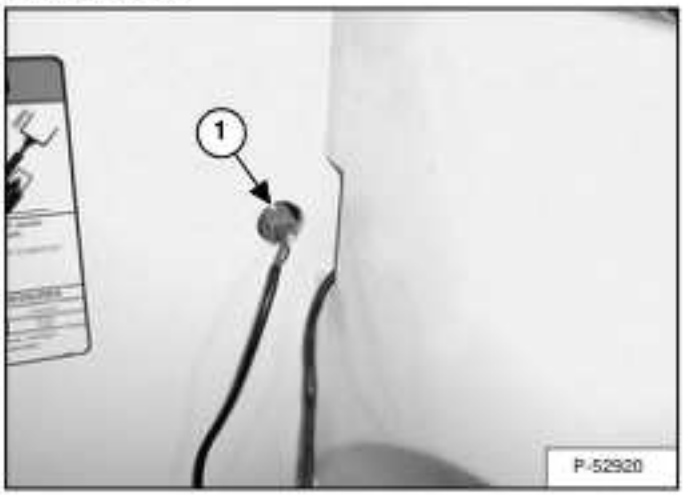
Removal And Installation (Cont'd)

Figure 50-80-5



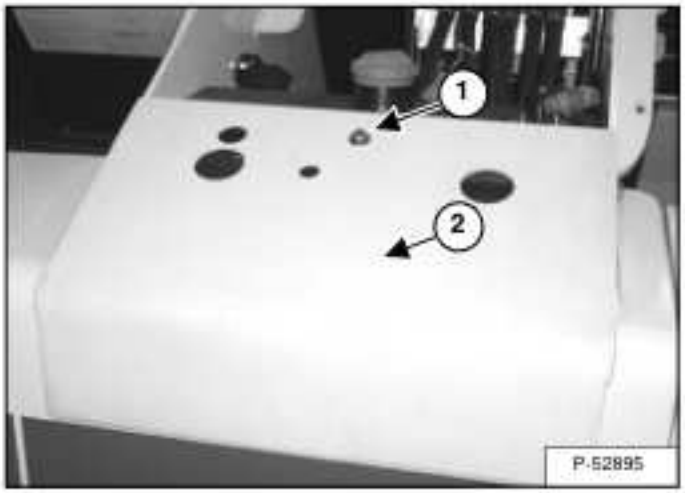
Unplug both tail light harnesses (Item 1) **[Figure 50-80-5]**.

Figure 50-80-6



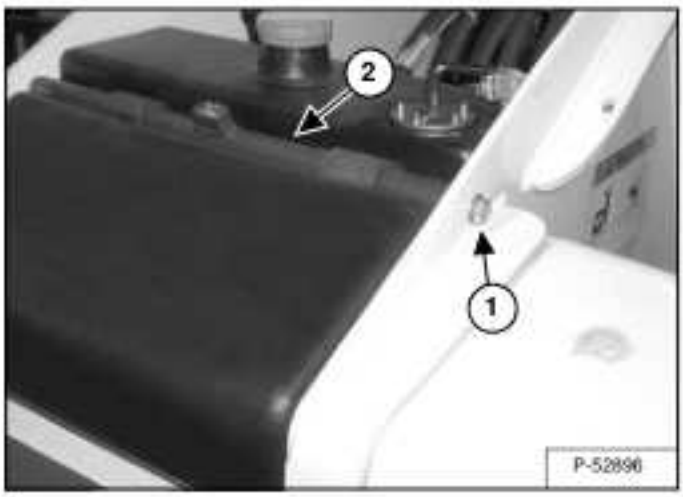
Remove the tail light harness (Item 1) **[Figure 50-80-6]** from the frame. (both sides)

Figure 50-80-7



Remove the bolt (Item 1) and rear plate (Item 2) **[Figure 50-80-7]**.

Figure 50-80-8



Remove the bolt (Item 1) (both sides) and remove the cross bracket (Item 2) **[Figure 50-80-8]**.

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Tires

Standard Tires	Dunlop T37 400/70x20-44 PSI (3 bar)
Optional Tires	Titan Lift Rigger II 400/70-20-58 PSI (4 bar)
	Continental Traction Farmer 15.0/55-17-51 PSI (3.5 bar)

Capacities

		Type
Fuel Tank	31.7 gals. (120 L)	Diesel #2 or #1
Hyd./Hydros. System	22 gals. (83 L)	6563328
Eng. Cooling System	18 qts. (17 L)	Antifreeze mixture (Ethylene Glycol)
Engine Oil Change w/Filter	9 qts (8,5 L)	See Oil Chart
Front Axle	11.1 qts (10,5 L)	100032-06A
Rear Axle	11qts. (10 L)	100032-06A
Front Reduction Gearbox	0.85 qts. (0,8 L)	100032-06A
Planetary Carrier	1.3 qts. (1,3 L)	100032-06A

Hydraulic System

Hydraulic Pump	Engine driven, 22 GPM (83 L/min)
Hydraulic Pressure	3626 PSI (250 bar)
Auxiliary Flow	

Electrical System

Alternator	12-Volt, 100 amp open frame with internal regulator
Battery	12 Volt - 900 CCA @ 0° F (-18° C)

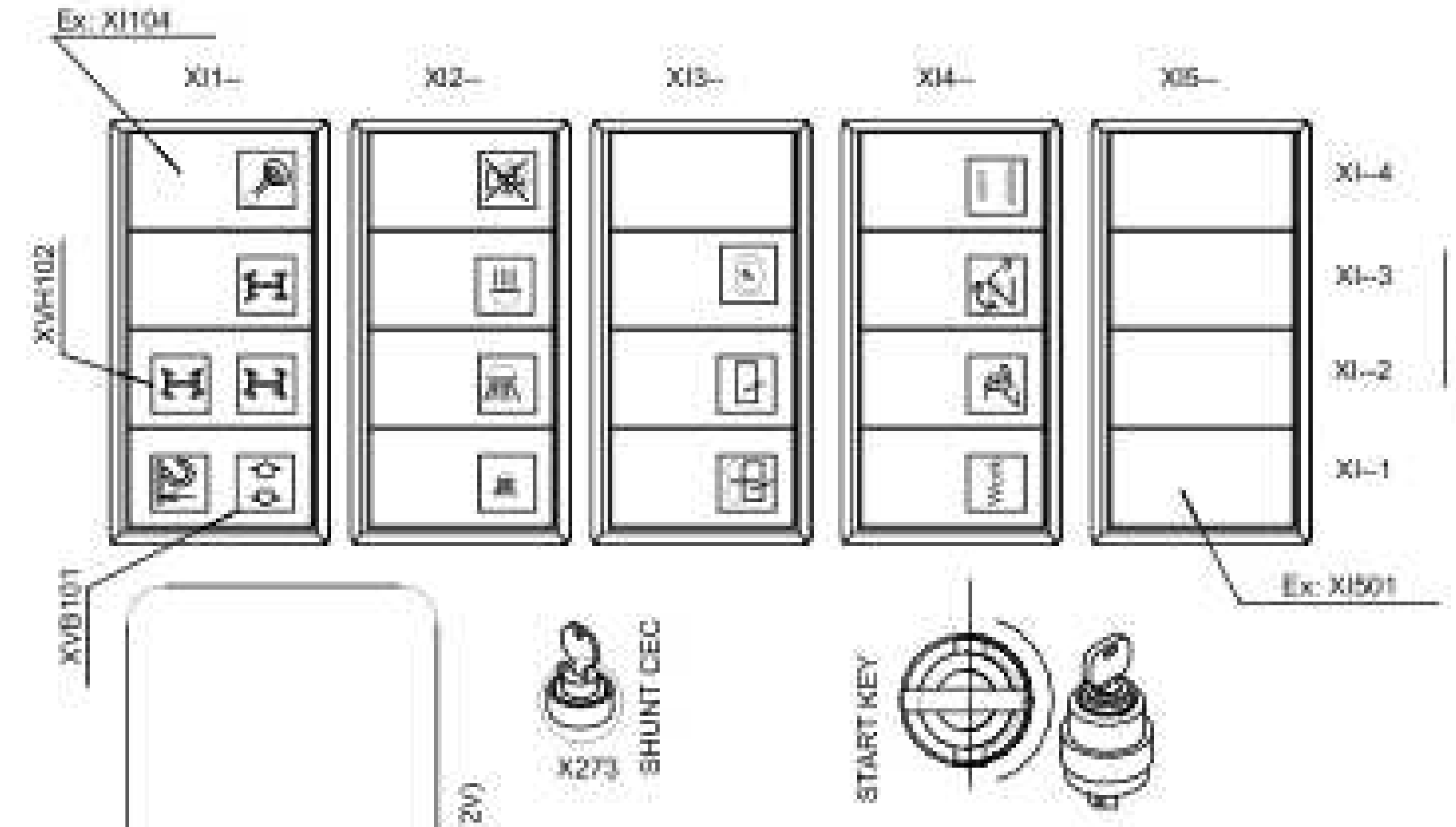
Instrument Panel

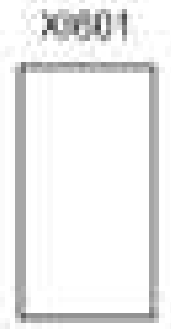
Full compliment of instrumentation for engine, hydraulic and machine functions.

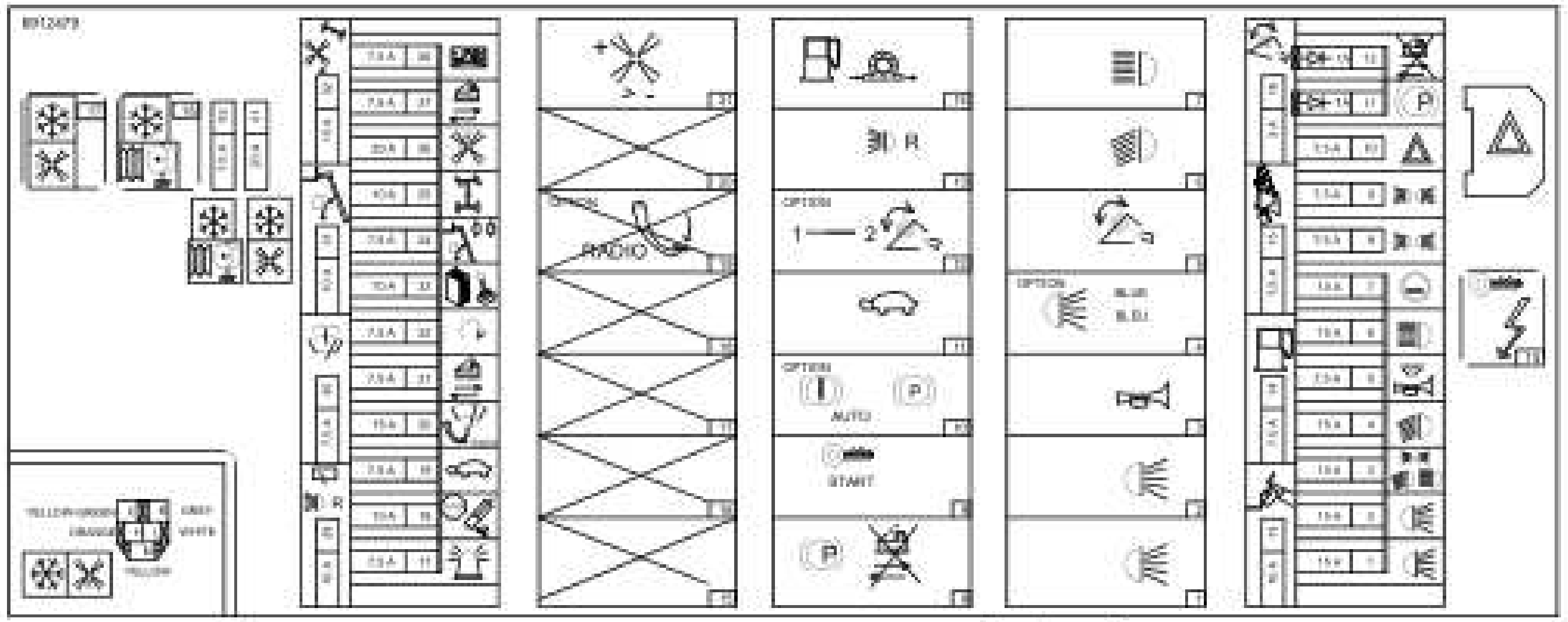
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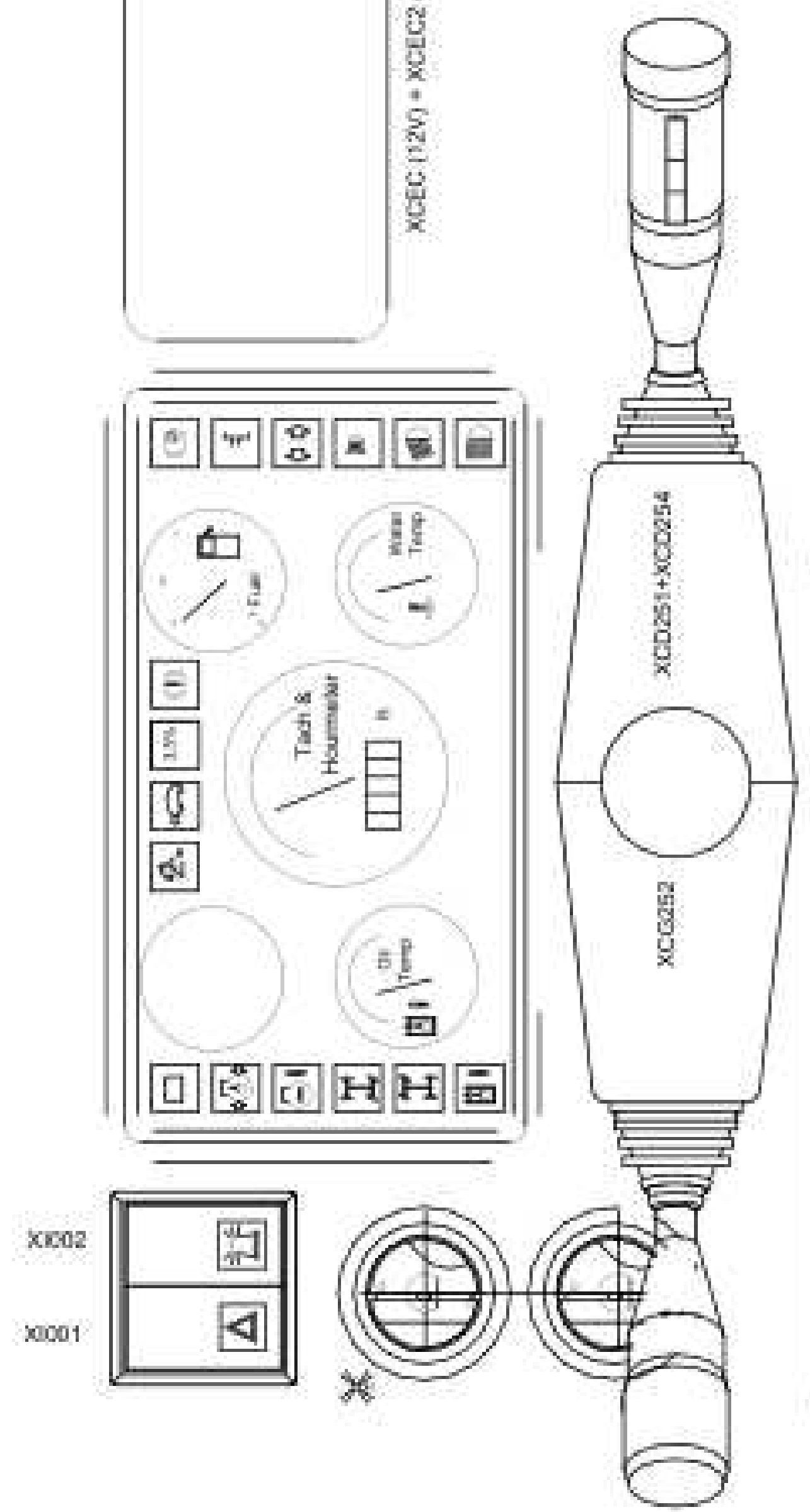
ELECTRICAL SCHEMATIC
V518 (S/N 367612001 AND ABOVE)
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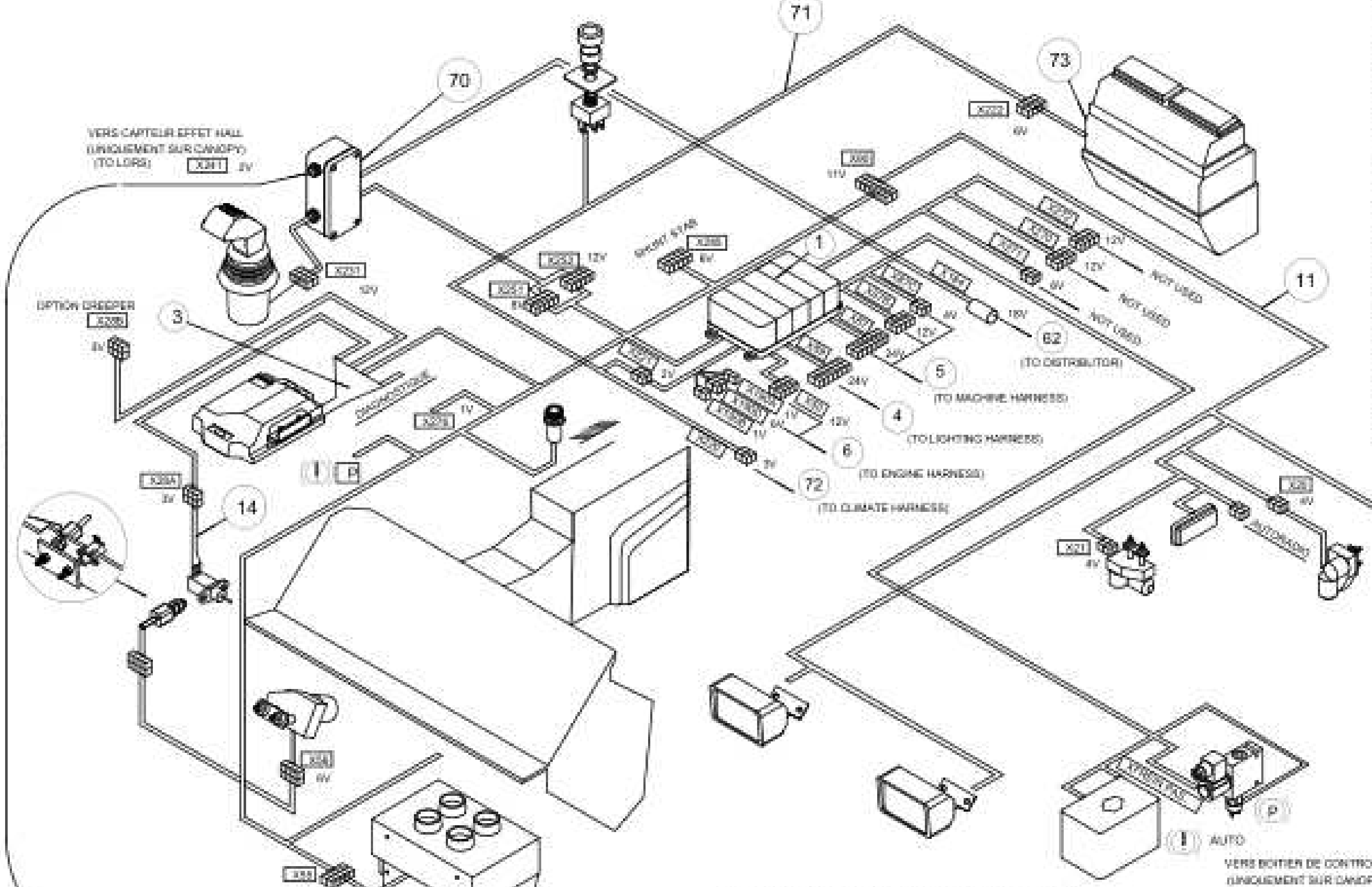


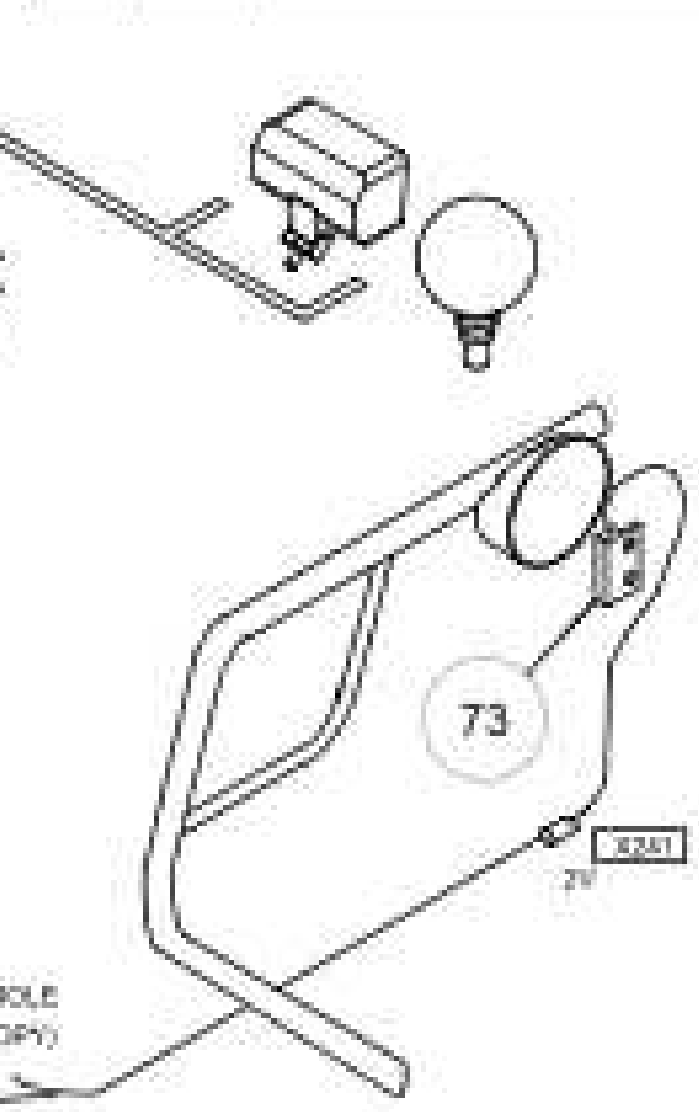






Connector No.	Number of pins	CONNECTIONS XX / YY	LOCATION
X20	4V	1/REAR WIPER	CAB ROOF
X21	4V	1/ROOF WIPER	CAB ROOF
X28A	3V	1/14	CAB AXE PEDAL
X28B	3V	1/CREEP OPTION	CONSOLE
X60	12V	1/8	BELOW FUSE BOX
X16	4V	1/HEATER	BELOW FRONT CONSOLE
X36	5V	1/WINDSHIELD WIPER	BELOW FRONT CONSOLE
X37	24V	1/8	BELOW FUSE BOX
X37B	12V	1/5	BELOW FUSE BOX
X37C	4V	1/8	BELOW FUSE BOX
X68	24V	1/4	BELOW FUSE BOX
X80	11V	1/11	CAB SIDE FUSE BOX
X154	18V	1/62	BELOW FUSE BOX
X180A	1V	1/8	BELOW FUSE BOX
X180B	1V	1/8	BELOW FUSE BOX
X180D	6V	1/6	BELOW FUSE BOX
X220	3V	[illegible]	SIDE FUSE BOX
X221	2V	[illegible]	SIDE FUSE BOX
X222	4V	[illegible]	REAR OF CAB
X231	12V	1/JOYSTICK	SIDE FUSE BOX
X237	2V	[illegible]	LEFT SIDE OF CAB
X251	8V	1/70	CAB CENTER
X252	12V	1/70	CAB CENTER
X270	12V	1/... (NOT USED)	BELOW FUSE BOX
X271	6V	1/... (NOT USED)	BELOW FUSE BOX
X272	12V	1/... (NOT USED)	BELOW FUSE BOX
X273	1V	1/...OPTION (NOT USED)	SIDE FUSE BOX
X248	6V	1/SHUNT STAB	SIDE FUSE BOX





CAB ELECTRICAL CONNECTIONS

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