



MEI *Martronic Engineering, Inc.*



GPS Leveling Control



308L-GPS

OPERATING MANUAL
GPS Machine Control System
With Proportional Valve Drivers

LASER-TECH~ Model 308-L

OPERATING MANUAL

OVERVIEW *****

The 308-L GPS Machine Control System is a powerful addition to land leveling and earth moving machinery, yet is easy to use. Some of the unique features are listed below:

- AUTOMATED CONTROL OF "ON/OFF AND "PROPORTIONAL" VALVES.
- ADJUSTMENTS FOR BLADE UP AND DOWN SPEED
- PRESSURE COMPENSATED PUMP ACTIVATION OUTPUT.
- SENSOR CENTER SENSITIVITY ADJUSTMENT.
- 12 OR 24 VOLT OPERATION (SEE NOTE)
- COMPACT SIZE FOR EASY MOUNTING.

FRONT PANEL SWITCHES *****

POWER:

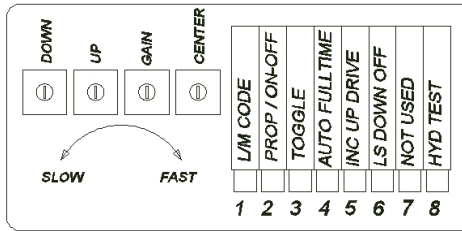
TOGGLES POWER ON AND OFF

AUTO:

ACTIVATES THE AUTOMATIC MODE. THE BLADE ELEVATION IS CONTROLLED BY THE LASER/MACHINE CONTROL SYSTEM.

BLADE UP / DOWN:

FOR MANUAL BLADE ELEVATION CONTROL. TOGGLING THE SWITCH DISENGAGES THE AUTOMATIC MODE.



ADJUSTABLE – ITEMS *****

VALVE SPEED, DOWN

THE FIRST POTENTIOMETER SETS THE “NEAR CENTER” BLADE DOWN SPEED. THE OVERALL SPEED IS SET WITH HYDRAULIC FLOW CONTROLS.

VALVE SPEED, UP

THE SECOND POTENTIOMETER SETS THE “NEAR CENTER” BLADE UP SPEED. THE OVERALL SPEED IS SET WITH HYDRAULIC FLOW CONTROLS.

GAIN

THE THIRD POTENTIOMETER SETS THE OVERALL SPEED GAIN AS THE DISTANCE FROM CENTER INCREASES

CENTER

THE LAST POTENTIOMETER SETS THE “CENTER” CHANNEL WIDTH. CLOCKWISE ROTATION MAKES A WIDER CENTER CHANNEL.

SWITCHES:

#	UP/DOWN
1.	“L” CODE / “M” CODE
2.	PROPORTIONAL VALVE / ON/OFF VALVE
3.	NORMAL AUTO BLADE SWITCH / TOGGLE
4.	NORMAL AUTO ACTIVATION / ALWAYS ON (JD)
5.	UP DOWN SAME SPEED / FASTER UP SPEED
6.	LOAD SENSE NORMAL / LS ON UP ONLY
7.	N/U
8.	HYDRAULIC MINIMUM SPEED ONLY

SOLENOID DRIVE OUTPUTS:

ALL POWER OUTPUTS HAVE RESETTING FUSE LINKS. IF A SHORT CIRCUIT OCCURS IN ONE OF THE FUNCTIONS, ONLY THAT FUNCTION WOULD BE DISABLED. WHEN THE PROBLEM IS CORRECTED, THE 308-L PANEL WILL AUTOMATICALLY RESTORE POWER. OUTPUTS ARE NORMALLY LOW, DRIVEN TO 12 (OR 24) VDC ON ACTIVATION.

OUTPUT CABLE CONNECTIONS *****

POWER INPUT

A	BLACK	CHASSIS GROUND
B	RED	12 OR 24 VDC INPUT (SEE NOTE)

OUTPUT (4 PIN CONNECTOR)

A	LOAD SENSE OUTPUT
B	COMMON GROUND
C	DOWN DRIVE
D	UP DRIVE

SPECIFICATIONS *****

INPUT POWER: 12 OR 24 VDC OPERATION. (SEE NOTE)
NEGATIVE GROUND.
NOMINAL 10 AMP MINIMUM CURRENT

REQUIREMENT. 5 AMP MAX WITH MOST SOLENOIDS.
*NOTE: 12VDC SOLENOID VALVE COILS ARE STANDARD.
SPECIFY 24VDC IF REQUIRED.*

OUTPUT POWER: 3 AMP MAXIMUM PER VALVE SOLENOID

TEMPERATURE: -20 TO 70 DEGREES C