

GREER COMPANY

INSTALLATION DATA

MICROGUARDs 414

LINKBELT HTC 8665
D6P17031



PSR Professional Service & Repair Inc.

Professional Service & Repair Inc. is a full-service mobile crane repair, inspection, and certification company. At Professional Service & Repair we understand the critical aspect of your crane being operational to your project schedule and budget. We will deliver world class service to have your crane operational in the minimum amount of time.

PSR is the global provider for sales, repair and installation of Load Moment Indicating (LMI) systems, Anti-Two Block Systems (A2B), and Rated Capacity Indicating systems. Please contact us with your crane repair and certification needs today.

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Main Line: 706-718-0856

Fax: 706-569-7004

E-Mail: jeff@psrinc.biz

**P.O. Box 6506
Columbus, GA
31917-6506**

MICROGUARD 414 INSTALLATION MANUAL

MAIN PARTS LIST

COMPONENT DESCRIPTION	GREER P/N	LBCE P/N	QTY
COMPUTER ASSEMBLY	A440104	D6L0003	1
COMPUTER PROGRAM EPROM ASSEMBLY	M414370	N/A	1
CAPACITY CHART EPROM ASSEMBLY	D414000	D6P17031	1
DISPLAY ASSEMBLY	A444106	D3L0024	1
DISPLAY PROGRAM EPROM ASSEMBLY	M444000	N/A	1
BOOM ANGLE SENSOR	A220200	D6L0012	2
REELING DRUM #1, MAIN EXTENSION SENSOR	A210110	D6L0001	1
REELING DRUM #2, INNER EXTENSION SENSOR	A210120	D6L0002	1
PRESSURE TRANSDUCER, PISTON	A200110	D6L0004	1
PRESSURE TRANSDUCER, ROD	A200130	D6L0005	1
CABLE, POWER IN AND FUNCTION KICK-OUT	A047081	D3L0018	1
CABLE, DISPLAY	A047061	D3L0017	1
CABLE, SWING POTENTIOMETER	A047041	D3L0019	1
CABLE, BOOM ANGLE SENSOR	A047022	D6L0013	1
CABLE, EXTENSION SENSOR AND A.T.B. SIGNAL	A047250	D6L0006	1
CABLE, REEL #1 TO REEL #2	A047210	D6L0007	1
CABLE, REEL #2 TO ETCS COMPUTER	A047230	D6L0008	1

REELING DRUM:

CONNECTION POINT FOR CABLE REEL #1	HEAD OF TIP SECTION
CONNECTION POINT FOR CABLE REEL #2	HEAD OF INNER MID SECTION

UNITS OF CALIBRATION

LENGTH	FEET
FORCE	LBS.1000
MOMENT	FT-LBS.1000
ANGLE	DEGREES

ALARM SETTINGS

ALARM 0	MOTION-CUT RELAY	100%
ALARM 1	PRE-ALARM RELAY	90°@
ALARM 2	AUDIBLE ALARM	90%

ROPE SETTINGS

STANDARD ROPE	ROPE FORCE	ENTERED AS
3/4 INCH TYPE RB	12,920 #	13.0 (TO ENSURE 130,000 AT 10 PARTS OF LINE)

INTERNAL LINKS

RU NORMALLY OPEN TORL2 COMMON. 16 A.W.G
PULL UP RESISTOR 47on, DoUT4 TO SVP

MICROGUARD 414 INSTALLATION MANUAL

CABLE SCHEDULE

CABLE 1 D6L0004

PISTON PRESSURE TRANSDUCER
 4 CONDUCTOR SHIELDED COLOR CODED GREEN
 CABLE CONNECTOR MS3475W14-5PZ
 COMPUTER CONNECTOR MS3474W14-5SZ

PIN	CABLE COLOR	FUNCTION	COMPUTER	COLOR
C	RED	TRANSDUCER DRIVE +	DR +	RED
D	BLUE	TRANSDUCER DRIVE -	DR -	BLUE
B	YELLOW	TRANSDUCER SIGNAL +	TX0 +	YELLOW
E	GREEN	TRANSDUCER SIGNAL -	TX0 -	GREEN
A	NOT USED			

CABLE 2 D6L0005

ROD PRESSURE TRANSDUCER
 4 CONDUCTOR SHIELDED COLOR CODED RED
 CABLE CONNECTOR MS3475W14-5PZ
 COMPUTER CONNECTOR MS3474W14-5SZ

PIN	CABLE COLOR	FUNCTION	COMPUTER	COLOR
C	RED	TRANSDUCER DRIVE +	DR +	RED
D	BLUE	TRANSDUCER DRIVE -	DR -	BLUE
B	YELLOW	TRANSDUCER SIGNAL +	TX1 +	YELLOW
E	GREEN	TRANSDUCER SIGNAL -	TX1 -	GREEN
A	NOT USED			

CABLE 3 D6L0006

REEL #1. BOOM EXTENSION, ETCS AND ATB SIGNAL TO COMPUTER
 8 CONDUCTOR SHIELDED
 CABLE CONNECTORS MS3475WI4-15PX
 COMPUTER CONNECTOR MS3474W14-15SX
 CABLE WIRING CONNECTIONS

PIN	COLOR	FUNCTION	COMPUTER	LOGIC	COLOR
N	RED	DRIVE +	DR +		RED
D	BLUE	DRIVE -	DR -		BLUE
E	GREEN	EXTENSION SIGNAL #1	AIN 2		GREEN
J	YELLOW	EXTENSION SIGNAL #2	AIN 1		YELLOW
G	BROWN	A.T.B. SIGNAL	ATB LO	HI = ATB	VIOLET
B	BLACK	A.T.B. GROUND	DIGITAL 0V		BLACK
L	WHITE	TELESCOPE MODE	D'OUT 4	HI = MODE A	WHITE
R	ORANGE	FUNCTION KICK-OUT	RL2 N/O	LO = FKO	ORANGE

MICROGUARD 414 INSTALLATION MANUAL

CABLE 4 D6L0013

BOOM ANGLE SENSOR
3 CONDUCTOR SHIELDED COLOR CODED BLUE
CABLE CONNECTOR MS3475W14-5PY
COMPUTER CONNECTOR MS3474W14-5SY

CABLE WIRING CONNECTIONS

MS3475	CABLE COLOR	FUNCTION	AMGLE SENSOR
C	RED	DRIVE +	C
D	BLUE	DRIVE -	B
A	GREEN	BOOM ANGLE SIGNAL	A

COMPUTER CONNECTIONS

PIN	CABLE COLOR	FUNCTION	COMPUTER	COLOR
C	RED	DRIVE +	DR +	RED
D	BLUE	DRIVE -	DR -	BLUE
A	GREEN	BOOM ANGLE SIGNAL	AIN 3	<u>GREEN</u>

CABLE 6 D3L0019

SWING POTENTIOMETER
4 CONDUCTOR SHIELDED
CABLE CONNECTOR MS3475W14-5PX
COMPUTER CONNECTOR MS3474W14-5SX

CABLE 6 WIRING CONNECTIONS

MS3475	CABLE COLOR	FUNCTION	PACKARD CON'R
C	RED	DRIVE +	C
D	BLACK	DRIVE -	D
B	WHITE	AIN 5	A
E	GREEN	AIN 6	B

CABLE 6 COMPUTER CONNECTIONS

PIN	CABLE COLOR	FUNCTION	COMPUTER	COLOR
C	RED	DRIVE +	ATB BOARD CON 1	RED
D	BLUE	DRIVE -	ATB BOARD CON 2	BLACK
B	WHITE	SWING SIGNAL A	AIN 5	WHITE
E	GREEN	SWING SIGNAL B	AIN 6	GREEN

MICROGUARD 414 INSTALLATION MANUAL

CABLE 7 D3L0017

DISPLAY
 8 CONDUCTOR SHIELDED
 CABLE CONNECTOR MS3475W14-15PW
 COMPUTER CONNECTOR MS3474W14-15SW

CABLE 7 WIRING CONNECTIONS

MS3475	CABLE COLOR	FUNCTION	DISPLAY CON'R
A	WHITE	DATA LINE A	6
B	BLACK	DIGITAL 0V	2
C	VIOLET <i>SEE NOTE</i>	DIGITAL 0V	4
D	BLUE	RESET LINE	8
E	GREEN	DATA LINE B	7
F	YELLOW	+5VA	3
N	RED	+5VB	1

NOTE VIOLET REPLACED BY ORANGE CONDUCTOR ON SOME CABLES

CABLE 7 COMPUTER CONNECTIONS

PIN	CABLE COLOR	FUNCTION	COMPUTER	COLOR
A	WHITE	DATA LINE A	DA	WHITE
B	BLACK	DIGITAL 0 VOLT	0V	BLACK
C	VIOLET <i>SEE NOTE</i>	DIGITAL 0 VOLT	0V	VIOLET
D	BLUE	RESET LINE	RES	BLUE
E	GREEN	DATA LINE B	DB	GREEN
F	YELLOW	LOGIC POWER SUPPLY	+5VA	YELLOW
N	RED	LIGHTING POWER SUPPLY	+5VB	RED

NOTE VIOLET REPLACED BY ORANGE CONDUCTOR ON SOME CABLES

CABLE 8 D3L0018

POWER AND FUNCTION KICK-OUT
 4 CONDUCTOR 16 AWG SHIELDED
 CABLE CONNECTOR MS3475W14-5PW
 COMPUTER CONNECTOR MS3474W14-5SW

CABLE 8 WIRING CONNECTIONS

MS3475	CABLE COLOR	FUNCTION	PACKARD CON'R	LBCE WIRING
C	RED	BATTERY +	A	CABLE 346A
D	BLACK	BATTERY -	B	CABLE 346B
B	WHITE	F.K.O. +V IN	G	CABLE 349A
E	GREEN	F.K.O. +V OUT	D	CABLE 349B

CABLE 8 COMPUTER CONNECTIONS

PIN	CABLE COLOR	FUNCTION	COMPUTER	COLOR
C	RED	POWER IN	B +	RED
D	BLACK	GROUND	B -	BLACK
B	WHITE	F.K.O. +V IN	RU COMMON	WHITE
E	GREEN	F.K.O. +V OUT	RL2 NORMALLY OPEN	ORANGE

MICROGUARD 414 INSTALLATION MANUAL

CABLE 9 D6L0007

REEL #1. BOOM EXTENSION, ETCS AND ATB SIGNAL TO REEL #2

8 CONDUCTOR SHIELDED

CABLE CONNECTORS MS3475WI4-15P

CABLE WIRING CONNECTIONS

PIN	CABLE COLOR	LOGIC LEVEL	FUNCTION
N	RED		DRIVE + EXT. SENSOR
D	BLUE		DRIVE - EXT. SENSOR
E	GREEN		EXTENSION SIGNAL #2
G	YELLOW		ETCS SIGNAL #1
B	BROWN		ETCS DRIVE +
J	BLACK		ETCS DRIVE -
L	WHITE	HI = A, LO = B	TELESCOPE MODE
R	ORANGE	HI = SAFE, LO = FKO	FUNCTION KICK-OUT

CABLE 10 D6L0006

REEL #2. ETCS SIGNALS TO ETCS COMPUTER

8 CONDUCTOR SHIELDED

CABLE CONNECTORS/REEL MS3475WI4-15PY

COMPUTER CONNECTOR/ETCS MS3106-18-1P

CABLE WIRING CONNECTIONS

PIN	CABLE COLOR	FUNCTION	ETCS PIN
B	RED	ETCS DRIVE +	A
J	BLUE	ETCS DRIVE -	C
G	GREEN	ETCS SIGNAL #1	F
E	YELLOW	ETCS SIGNAL #2	B
L	WHITE	TELESCOPE MODE	I
R	ORANGE	F.K.O.	D

SYSTEM BY-PASS SWITCH

COLOR	SWITCH	FUNCTION	COMPUTER CON'N
RED	COMMON	BATTERY +	RU COMIDON
BLACK	N/O	BY-PASS RELAYS WHEN CLOSED	RU NORMALLY OPEN
YELLOW	N/C	SIGNAL BY-PASS WHEN OPEN	DIN 10

A.T.B. BOARD CONNECTIONS

COLOR	BOARD	FUNCTION	COMPUTER CON'N
RED	CON 1	4700 SERIES RESISTOR	CONNECTOR 6/C
BLACK	CON 2	2200 SERIES RESISTOR	CONNECTOR 6/D
VIOLET	A.T.B. LO	A.T.B. SIGNAL IN	CONNECTOR 6/G
RED	+ 5V	5V LOGIC POWER	+5VA
BLACK	0V	0V LOGIC POWER	DIGITAL 0V
WHITE	A.T.B. OUT	A.T.B. SIGNAL OUT	DIN 13
RED	CON 3	SWING POTENTIOMETER DRIVE	DR+
BLUE	CON 4	SWING POTENTIOMETER DRIVE	DR-
YELLOW	+VP	POWER SUPPLY	+VP