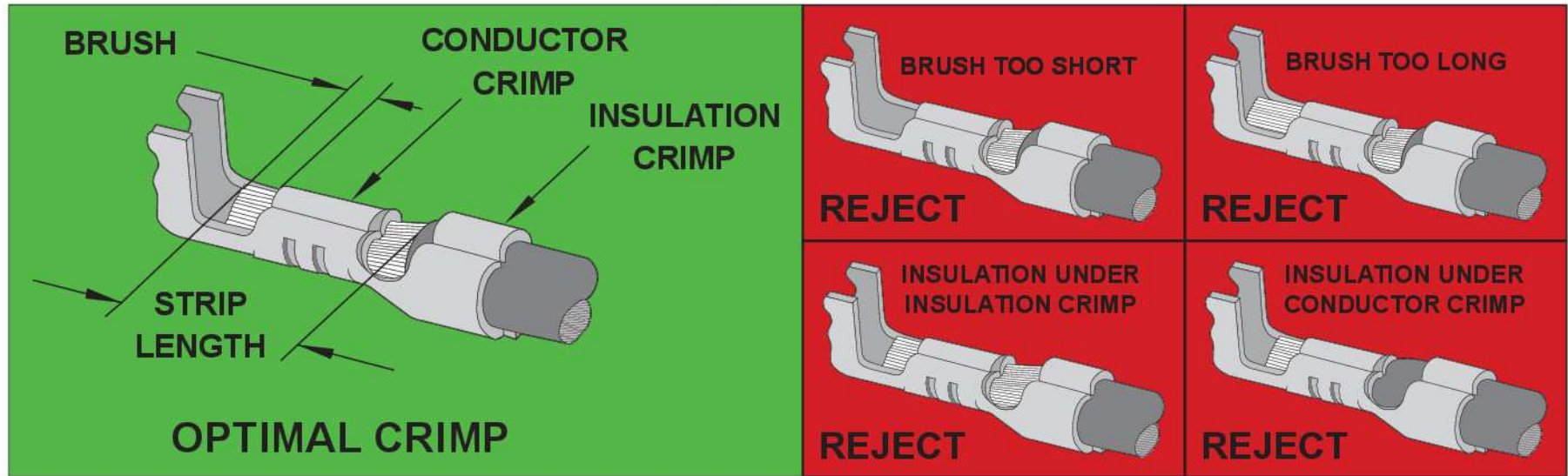
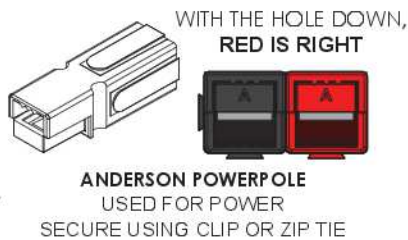


ELECTRICAL CHEAT SHEET

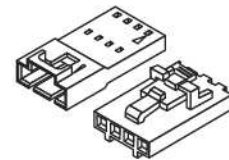
CRIMP QUALITY CONTROL



COMMON CONNECTORS

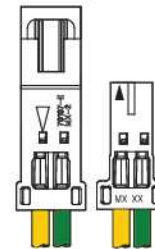


WHEN CRIMPING ZIP
CORD, RED IS RIGHT

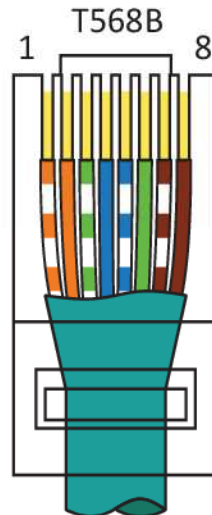
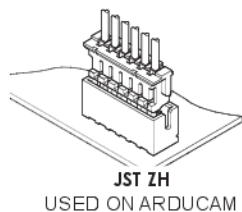
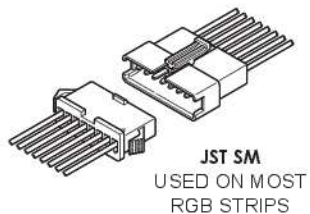
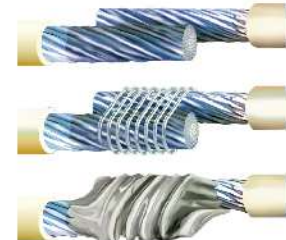


MOLEX SL
USED FOR CAN, OTHER ROBUST
LOW CURRENT CONNECTIONS

YELLOW WIRE ON PIN 1
(INDICATED BY ARROW)



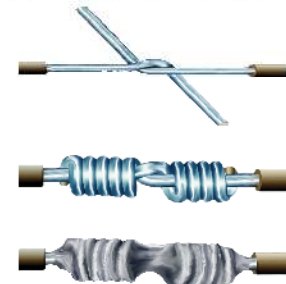
LASH SPLICE



FRC LEGAL WIRE GAUGE

APPLICATION	MINIMUM AWG
40A BREAKER CIRCUIT	12 AWG
30A BREAKER CIRCUIT	14 AWG
20A BREAKER CIRCUIT	18 AWG
20A FUSE CIRCUIT	18 AWG
10A FUSE CIRCUIT	22 AWG
5A BREAKER CIRCUIT	
ROBORIO	
VRM IN	24 AWG
VRM 2A OUT	
SIGNAL	28 AWG

WESTERN UNION SPLICE



COMMONLY ORDERED PARTS	
DESCRIPTION	PART NUMBER
SB50 HOUSING RED	992G1-BK
SB50 CONTACT 6AWG	5900-BK
POWERPOLE HOUSING RED	1327G6
POWERPOLE HOUSING BLACK	1327
POWERPOLE CONTACT 10-14 AWG	261G3 or 261G2-LPBK
POWERPOLE CONTACT 12-16 AWG	1331-BK
POWERPOLE CONTACT 16-20 AWG	262G2 or 1332-BK
POWERPOLE RETENTION CLIP	110G68 or PCLIP
#6 RING TERMINAL WITH INSULATION CRIMP, 10-12 AWG	61424-1
#6 RING TERMINAL 10-12 AWG	2-35476-1
#4 RING TERMINAL WITH INSULATION CRIMP 16-20 AWG (FITS 2X 22AWG)	61386-1
JACKETED CAN	WCP-1153
MOLEX SL TPA	738380002
MOLEX SL FEMALE 2 PIN HOUSING	0050579702
MOLEX SL MALE 2 PIN HOUSING	0701075002
MOLEX SL FEMALE CONTACT GOLD	0016020088
MOLEX SL MALE CONTACT GOLD	0016020116



COMMON TERMS	
TERM	DEFINITION
CAN	"CONTROL AREA NETWORK" A COMMUNICATION PROTOCOL USED BY DEVICES FOR BIDIRECTIONAL COMMUNICATION ON A CHAIN. COMMONLY FOUND AS A 22AWG GREEN AND YELLOW TWISTED PAIR. MUST BE TERMINATED USING 120Ω RESISTOR BETWEEN HIGH AND LOW (YELLOW AND GREEN RESPECTIVELY)
PDH	"POWER DISTRIBUTION HUB" WHICH CONNECTS DIRECTLY TO BREAKER AND BATTERY AND DISTRIBUTES POWER. BREAKERS AND FUSES FOR OVERCURRENT PROTECTION. CONNECTS TO CAN FOR DIAGNOSTIC INFORMATION
ROBORIO	MAIN ROBOT COMPUTER
RSL	"ROBOT SIGNAL LIGHT" USED TO INDICATE STATUS OF ROBOT
VRM	"VOLTAGE REGULATOR MODULE" USED TO SUPPLY SENSORS AND DEVICES WITH REGULATED 12V OR 5V POWER RATHER THAN RAW BATTERY VOLTAGE
PWM	"PULSE-WIDTH MODULATION" SIMPLE UNIDIRECTIONAL SIGNALING USED TO TRANSMIT A VALUE BETWEEN 0-100%
AWG	"AMERICAN WIRE GAUGE" AMERICAN STANDARD FOR WIRE DIAMETER. PRONOUNCED GAUGE. SMALLER NUMBER MEANS LARGER DIAMETER, DOUBLING WIRE DECREASES AWG BY 3
TIN	USED AS A VERB, TO FUSE THE COPPER STRANDS OF A WIRE TOGETHER USING SOLDER OR APPLY A THIN COATING OF SOLDER TO A SOLDERING IRON OR PCB PAD
WETTING	CONTACT BETWEEN SOLDER AND METALIC SURFACE. POOR WETTING IS SHOWN AS BEADING UP ON THE SURFACE, GOOD WETTING SPREADS OUT WITH SMALL CONTACT ANGLE
CAT 5/CAT6	"CATEGORY 5/6" ETHERNET CABLE, 4 TWISTED PAIRS, SOLID OR STRANDED
FUSE	OVERCURRENT PROTECTION DEVICE WITH COLORFUL PLASTIC HOUSING. PERMANANTLY DAMAGED WHEN TRIPPED
BREAKER	OVERCURRENT PROTECTION DEVICE WITH COLORFUL METAL HOUSING. AUTOMATICALLY RESETS AFTER COOLING WHEN TRIPPED, TRIP INDICATED BY BLINKING LIGHT ON PDH
FALCON 500	BRUSHLESS MOTOR WITH BUILT IN MOTOR CONTROLLER. CONTROLLED OVER CAN
KRAKEN X60	NEWER BRUSHLESS MOTOR WITH BUILT IN MOTOR CONTROLLER. CONTROLLED OVER CAN, REPLACABLE LEADS
SPARK MAX	STANDALONE MOTOR CONTROLLER, COMPATIBLE WITH WIDE RANGE OF BRUSHED AND BRUSHLESS MOTORS