**GUAVA CONTROLLER BOX – INTERNAL WIRING & CABLES**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Description** | **Spec / Details** | **MFG** | **MFG Part No** | **DiGiKEY**  **Part No** | **Qty /**  **Mach** | **Qty**  **Order** |
| **Connector** | **Receptacle** | **14-POS, panel mount w. brass inserts** |  |  | A106308-ND | 4 | 8 |
|  | Receptacle | ---------------”--------; different Keying |  |  | ? |  |  |
| Pin/ Socket | Socket | 14-18 AWG Tin Sockets for Receptacle |  |  | A31997-ND |  |  |
| Pin/ Socket | Socket | 14-18 AWG Gold Sockets for Receptacle |  |  | A25012-ND |  |  |
| Pin/ Socket | Socket | 20-24 AWG Tin Sockets for Receptacle |  |  | A31995-ND | 48 | 250 |
| Pin/ Socket | Socket | 20-24 AWG Gold Sockets for Receptacle |  |  | A25108-ND |  |  |
| \*Connector | **Plug** | **14-POS**, free hanging |  |  | A1358-ND | 4 | 8 |
| \* | Plug | ---------//-----------; different Keying |  |  | ? |  |  |
| \*Pin/ Socket | Pin | 14-18 AWG Tin Pin for Plug |  |  | A31998-ND |  |  |
| \*Pin/ Socket | Pin | 14-18 AWG Gold Pin for Plug |  |  | A25127-ND |  |  |
| \*Pin/ Socket | Pin | 20-24 AWG Tin Pin for Plug |  |  | A31989-ND | 48 | 250 |
| \*Pin/ Socket | Pin | 20-24 AWG Gold Pin for Plug |  |  | A25107-ND |  |  |
| \*Str Relief | Straight Housing | Cable Clamp for 14-Pos; 0.453” opening |  |  | A32516-ND | 2 | 4 |
| \*Str Relief | Straight Housing | Cable Clamp for 14-Pos; 0.703” opening |  |  | A33767-ND |  |  |
| \*Str Relief | 90 Deg Housing | ------//---------; 0.453” opening; full cover |  |  | A33754-ND | 2 | 4 |
| \*Str Relief | 90 Deg Housing | ------//---------; 0.453” opening; half cover |  |  | A33758-ND |  | 1 |
| **Connector** | **Receptacle** | **4-POS, panel mount w. brass inserts** |  |  | A25053-ND | 1 | 3 |
| Pin/ Socket | Socket | 14-18 AWG Tin Sockets for Receptacle |  |  | A31997-ND | 2 | 50 |
| Pin/ Socket | Socket | 14-18 AWG Gold Sockets for Receptacle |  |  | A25012-ND |  |  |
| Pin/ Socket | Socket | 20-24 AWG Tin Sockets for Receptacle |  |  | A31995-ND | 2 | 50 |
|  |  |  |  |  |  |  |  |
| \*Connector | **Plug** | **4-POS**, free hanging |  |  | A1357-ND | 1 | 3 |
| \*Pin/ Socket | Pin | 14-18 AWG Tin Pin for Plug |  |  | A31998-ND | 2 | 50 |
| \*Pin/ Socket | Pin | 14-18 AWG Gold Pin for Plug |  |  | A25127-ND |  |  |
| \*Pin/ Socket | Pin | 20-24 AWG Tin Pin for Plug |  |  | A31989-ND | 2 | 50 |
|  |  | \* Not Box (Internal) BOM |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Type** | **Description** | **Spec / Details** | **MFG** | **MFG Part No** | **DiGiKEY**  **Part No** | **Qty/**  **Mach** | **Qty**  **Order** |
| \*Str Relief | Straight Housing | Cable Clamp for 4-Pos; 0.217” opening |  |  | A99541-ND |  |  |
| \*Str Relief | Straight Housing | Cable Clamp for 4-Pos; 0.329” opening |  |  | A104910-ND |  |  |
| \*Str Relief | Straight Housing | Cable Clamp for 4-Pos; 0.453” opening |  |  | A32518-ND |  | 2 |
| \*Str Relief | 90 Deg Housing | ------//---------; 0.329” opening; full cover |  |  | A32501-ND | 1 | 2 |
| \*Str Relief | 90 Deg Housing | ------//---------; 0.329” opening; half cover |  |  | A33756-ND |  |  |
| **Connector** | **Receptcl/Socket** | **D-Sub** RCPT **25POS IDC** | 3M | 8350-7005 | 3M15414-ND | 1 | 3 |
| \* | Plug | D-Sub Plug 25POS IDC | 3M | 8225-8000 | 3M15408-ND | 1 | 3 |
| \*Str Relief | Back Shell | Backshell DB25 Flat Ribbon | Norcomp | 976-025-010R031 | 976-25RPE-ND | 1 | 2 |
| Connector | Housing | 8-POS .100 Dual (Black) | Molex | 22-55-2081 | WM2521-ND | 1 | 50 |
| Connector | Housing | 20-POS .100 Dual (Black) | Molex | 22-55-2201 | WM2527-ND | 1 | 50 |
| Crimp | Female/Socket | Connector Crimp - Socket | Molex | 0016020102 | WM2510-ND | 18 | 250 |
| Connector | LCD Socket | IDC 10POS Dual 30AU | FCI | 71600-010LF FCI | 609-1739-ND | 2 | 50 |
| Cable | Flat | Cable 25 Cond 100FT Shield Flat | 3M | 3517/25 100SF | MB25H-100-ND | 1 | 1 |
| **Connector** | Thermistor/switch | Connector Housing 2POS .100 W/Latch | Molex | 0050579452 | WM2900-ND | 6 | 50 |
| Connector | Motor Conn | Connector Housing 4POS .100 W/Latch | Molex | 0050579404 | WM2902-ND | 6 | 50 |
| Connector | Switch Conn | Connector Housing 3POS .100 W/Latch | Molex | 0050579403 | WM2901-ND | 3 | 50 |
| \*\*Connector | Socket/ Female | Connector Term Female 22-24AWG Tin | Molex | 0016020102 | WM2510-ND | 30 | 250 |
| \* Connector | Housing | Conn Housing Male 2POS .100 | Molex | 0701070001 | WM2533-ND |  | 50 |
| \* Connector | Pin/ Male | Conn Term Male Pin 24-30AWG Tin | Molex | 0016020108 | WM2565-ND |  | 250 |
| \* Connector | Housing | Conn Housing Male 4POS .100 | Molex | 0701070003 | WM2535-ND |  | 50 |
| Terminal | 24V Power Switch | Conn Fast Receptacle14-16 AWG .250 | TE Conn. | 3-350820-2 | A27824-ND | 5 | 100 |
| Terminal | Grounding | Conn. Ring 15-20AWG #M3 | TE Conn. | 160344-2 | A107160CT-ND | 4 | 100 |
| **Switch** | **Power Switch** | **Switch Rocker DPST 20A 125V** | E-Switch | R5ABLKBLKFF0 | EG1529-ND | 1 | 5 |
|  | (2nd Source) | Switch Rocker DPST 16A 125V | Cherry | WRG32F2FBBNN | CH784-ND |  |  |
| **Wire/ Cable** | **Motor Power** | **Shielded 4Cond 22AWG / 100Ft** | Gen Cable | C07623.12.10 | W504-100-ND | 1 | 1 |
|  |  | Shielded 4Cond 22AWG / 500 ft |  |  | W504-500-ND |  |  |
|  |  | Shielded 4Cond 22AWG / 1000 ft |  |  | W504-1000-ND |  |  |
| Wire | Bed Heat Power | 16AWG Stranded – Violet – 100 ft | Gen Cable | C2065A.12.19 | C2065V-100-ND | 1 | 1 |
|  |  | 16AWG Stranded – Violet – 1000 ft | Gen Cable | C2065A.12.19 | C2065V-1000-ND |  |  |
| **Type** | **Description** | **Spec / Details** | **MFG** | **MFG Part No** | **DiGiKEY**  **Part No** | **Qty/**  **Mach** | **Qty**  **Order** |
| Wire | Bed Thermistor | 24AWG Stranded – Yellow – 100 ft | Gen Cable | C2015A.12.05 | C2015Y-100-ND | 1 | 1 |
|  |  | 24AWG Stranded – Yellow – 1000 ft | Gen Cable | C2015A.21.05 | C2015Y-1000-ND |  |  |
| Wire | Ext Power (2) | 24AWG Stranded – Red – 100 ft | Gen Cable | C2015R.12.03 | C2015R-100-ND | 1 | 1 |
|  |  | 24AWG Stranded – Red – 1000 ft | Gen Cable | C2015R.21.03 | C2015R-1000-ND |  |  |
| Wire | Ext Thermistor (2) | 24AWG Stranded – Orange – 100 ft | Gen Cable | C2015A.12.04 | C2015A-100-ND | 1 | 1 |
|  |  | 24AWG Stranded – Orange – 1000 ft | Gen Cable | C2015A.21.04 | C2015A-1000-ND |  |  |
| Wire | Ext Fan (2) | 24AWG Stranded – Red – 100 ft | Gen Cable | C2015R.12.03 | C2015R-100-ND | 1 | 1 |
|  |  | 24AWG Stranded – Red – 1000 ft | Gen Cable | C2015R.21.03 | C2015R-1000-ND |  |  |
| Wire |  | 24AWG Stranded – Black – 100 ft | Gen Cable | C2015A.12.01 | C2015B-100-ND | 1 | 1 |
|  |  | 24AWG Stranded – Black – 1000 ft | Gen Cable | C2015A.21.01 | C2015B-1000-ND |  |  |
| Wire | Ext Motor (2) | Same as Motor Power Wire - ?? mm |  |  |  |  |  |
| Wire | 24VDC | 16AWG Stranded – Red – 100 ft | Gen Cable | C2065A.12.03 | C2065R-100-ND | 1 | 1 |
|  |  | 16AWG Stranded – Red – 1000 ft | Gen Cable | C2065A.21.03 | C2065R-1000-ND |  |  |
| Wire | 24VDC Common | 16AWG Stranded – Yellow – 100 ft | Gen Cable | C2065A.12.05 | C2065Y-100-ND | 1 | 1 |
|  |  | 16AWG Stranded – Yellow – 1000 ft | Gen Cable | C2065A.21.05 | C2065Y-1000-ND |  |  |
| Wire | **Z**-Right Motor | Same as Motor Power Wire - ?? mm |  |  |  |  |  |
|  | Z- Left Motor | Same as Motor Power Wire - ?? mm |  |  |  |  |  |
| Wire | Z- Switch | 24AWG Stranded – White – 100 ft | Gen Cable | C2015A.12.02 | C2015W-100-ND | 1 | 1 |
|  |  | 24AWG Stranded – White – 1000 ft | Gen Cable | C2015A.21.02 | C2015W-1000-ND |  |  |
| Wire |  | 24AWG Stranded – Black – 100 ft | Gen Cable | C2015A.12.01 | C2015B-100-ND | 1 |  |
|  |  | 24AWG Stranded – Black – 1000 ft | Gen Cable | C2015A.21.01 | C2015B-1000-ND |  |  |
| Wire | **X**- Motor | Same as Motor Power Wire - ?? mm |  |  |  |  |  |
| Wire | X- Switch | 24AWG Stranded – White – 100 ft | Gen Cable | C2015A.12.02 | C2015W-100-ND | 1 |  |
|  |  | 24AWG Stranded – White – 1000 ft | Gen Cable | C2015A.21.02 | C2015W-1000-ND |  |  |
| Wire |  | 24AWG Stranded – Black – 100 ft | Gen Cable | C2015A.12.01 | C2015B-100-ND | 1 |  |
|  |  | 24AWG Stranded – Black – 1000 ft | Gen Cable | C2015A.21.01 | C2015B-1000-ND |  |  |
| Wire | **Y**- Motor | Same as Motor Power Wire - ?? mm |  |  |  |  |  |
| Wire | X- Switch | 24AWG Stranded – White – 100 ft | Gen Cable | C2015A.12.02 | C2015W-100-ND | 1 |  |
|  |  | 24AWG Stranded – White – 1000 ft | Gen Cable | C2015A.21.02 | C2015W-1000-ND |  |  |
| Wire |  | 24AWG Stranded – Black – 100 ft | Gen Cable | C2015A.12.01 | C2015B-100-ND | 1 |  |
|  |  | 24AWG Stranded – Black – 1000 ft | Gen Cable | C2015A.21.01 | C2015B-1000-ND |  |  |
| **TB** | Power Plug | Term Block Plug 6POS STR 5.08MM | Molex | 39530-0006 | WM7822-ND | 1 | 25 |
| TB | Heat & Fan | Term Block Plug 2POS STR 5.08MM | Molex | 39530-0002 | WM7819-ND | 5 | 50 |
|  |  |  |  |  |  |  |  |
| Wire Tubing | Corrugated Tubing | TUBING CORRUGATED LOOM .25"X100' | Panduit | CLT25F-C20 | 298-1141-ND | 1 | 1 |

**TOOLS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Description** | **Spec / Details** | **MFG** | **MFG Part No** | **DiGiKEY**  **Part No** | **Qty/**  **Mach** | **Qty**  **Order** |
| Hand Tool | Crimp Tool | TOOL CRIMPER RATCHETING 16-24AWG | TE Conn. | 91505-1 | A9841-ND |  | 1 |
| Hand Tool | Insertion Tool | TOOL INSERTION CPC CONTACTS | TE Conn. | 200893-2 | 200893-2-ND |  | 2 |
| Hand Tool | Extraction Tool | CONTACT EXTRACTION TOOL | TE Conn. | 305183 | A1329-ND |  | 2 |
| Bench Tool | Applicator | (TBD) |  |  |  |  |  |
| Bench Tool | Flat C/Conn Press | HAND PRESS BENCH MOUNT | PanaVise | 502 | 502PV-ND |  | 1 |
|  |  | HAND PRESS IDC CONVERSION KIT | PanaVise | 506 | 506PV-ND |  | 1 |
|  |  | BASE PLATE SOCKET IDC | PanaVise | 510 | 510PV-ND |  | 1 |
|  |  |  |  |  |  |  |  |
| Hand Tool | Crimp Tool | TOOL CRIMP CGRD KK MICROFIT SPOX | Molex | 0640160201 | WM17552-ND |  | 1 |
| Hand Tool | Insertion Tool | TOOL HAND INSERTION | Molex | 0011020022 | WM9911-ND |  | 2 |
| Hand Tool | Extraction Tool | TOOL HAND EXTRACTION | Molex | 0011030036 | WM1032-ND |  | 2 |
| Bench Tool | Applicator | TOOL APPLICATOR 22-24AWG CRIMP | Molex | 0639023200 | WM6338-ND |  | tbd |
|  |  |  |  |  |  |  |  |
| Hand Tool | Pwr SW Terminal | HAND CRIMP TOOL/FASTOS(W/O DIES) | TE Conn. | 58078-3 | A28005-ND |  | 1 |
|  | Dies | DIE SET ULTRA-FASTONS 16-14 AWG | TE Conn. | 90391-3 | A28008-ND |  | 1 |
|  |  |  |  |  |  |  |  |
| **Type** | **Description** | **Spec / Details** | **MFG** | **MFG Part No** | **MOUSER ELEC.** | **Qty/**  **Mach** | **Qty**  **Order** |
| Connector | Housing | Heavy Duty Power Connectors PP15/45 HOUSING ONLY - BLACK |  |  | 879-1327G6-BK  (Mouser Part no) | 2 | 50 |
| Connector | Terminal | Heavy Duty Power Connectors PP15 #16-20 AWG CONT LOW DETENT |  |  | 879-1332-BK  (Mouser Part No) | 2 | 50 |
| **Type** | **Description** | **Spec / Details** | **MFG** | **MFG Part No** | **McMaster-Carr** | **Qty/**  **Mach** | **Qty**  **Order** |
| \* Shrink Tubing | Motor EMI Tubing | EMI/RFI-Shield Heat-Shrink Tubing 3/16" ID Before, 3/32" ID After -  48" Length, Black. |  |  | 7937K21 | 1 | 1 |
| \* Wire Tubing | Shroud Tubing |  |  |  |  |  |  |

\*\* If go to Applicator, then part number: WM2510CT for Tape Reel

\* Not part of Box (Internal) BOM