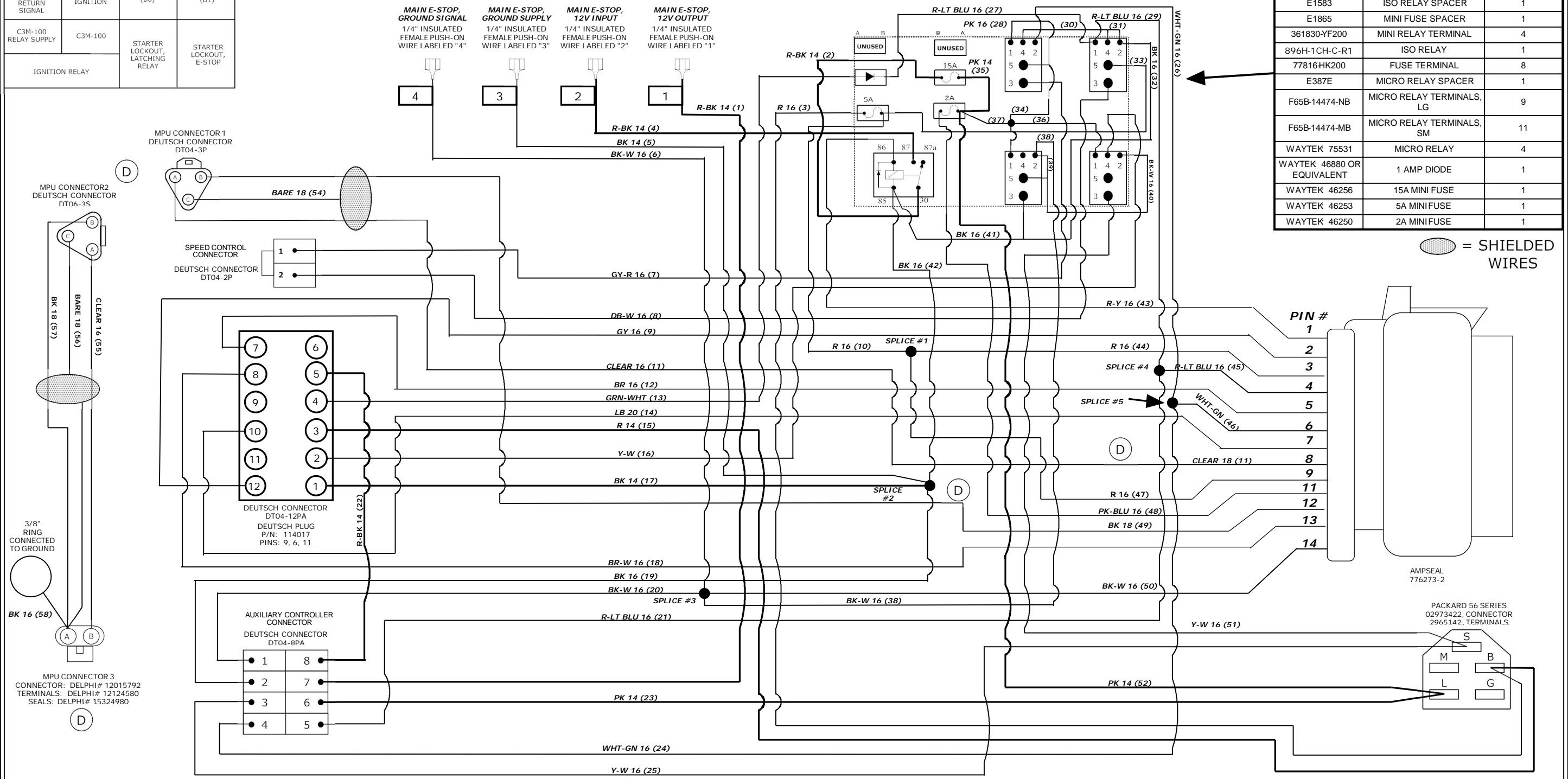


**AEES R65096-001A  
FUSE & RELAY BLOCK ASSY  
FUNCTION GUIDE**

|                        |          |                                 |                            |
|------------------------|----------|---------------------------------|----------------------------|
| UNUSED                 | UNUSED   | ENGINE SPEED INCREASE (B0)      | ENGINE SPEED DECREASE (B1) |
| THROTTLE RETURN SIGNAL | IGNITION |                                 |                            |
| C3M-100 RELAY SUPPLY   | C3M-100  | STARTER LOCKOUT, LATCHING RELAY | STARTER LOCKOUT, E-STOP    |
| IGNITION RELAY         |          |                                 |                            |

**FUSE & RELAY BLOCK ASSEMBLY**

| P/N                        | DESCRIPTION               | QUANTITY |
|----------------------------|---------------------------|----------|
| E1827C                     | COVER                     | 1        |
| E792B                      | BOTTOM                    | 1        |
| R65096-001A                | 2-MODULE                  | 1        |
| E1583                      | ISO RELAY SPACER          | 1        |
| E1865                      | MINI FUSE SPACER          | 1        |
| 361830-YF200               | MINI RELAY TERMINAL       | 4        |
| 896H-1CH-C-R1              | ISO RELAY                 | 1        |
| 77816HK200                 | FUSE TERMINAL             | 8        |
| E387E                      | MICRO RELAY SPACER        | 1        |
| F65B-14474-NB              | MICRO RELAY TERMINALS, LG | 9        |
| F65B-14474-MB              | MICRO RELAY TERMINALS, SM | 11       |
| WAYTEK 75531               | MICRO RELAY               | 4        |
| WAYTEK 46880 OR EQUIVALENT | 1 AMP DIODE               | 1        |
| WAYTEK 46256               | 15A MINI FUSE             | 1        |
| WAYTEK 46253               | 5A MINI FUSE              | 1        |
| WAYTEK 46250               | 2A MINI FUSE              | 1        |



○ = SHIELDED WIRES

**JUMPER CONNECTOR  
DEUTSCH CONNECTOR  
DT06-08SA**

|     |       |
|-----|-------|
| ● 8 | ● 1 ● |
| ● 7 | ● 2 ● |
| ● 6 | ● 3 ● |
| ● 5 | ● 4 ● |

DEUTSCH PLUG  
P/N: 114017  
PINS: 1 - 6  
INSTALL ONTO  
AUXILIARY CONTROLLER  
CONNECTOR.

**REVISIONS**

| REV | DESCRIPTION   | NAME | DATE       | ECO#   |
|-----|---|------|------------|--------|
| A   | RELEASED - NEW PART   | TJW  | 9/18/2012  | 0464   |
| B   | MODIFIED TERMINATION STYLE OF E-STOP AND IGN SWITCH. ADDED RESISTOR TO RPM SIGNAL WIRE.                 | TJW  | 10/7/2012  | 0557   |
| C   | ADDED JUMPER CONNECTOR.   | TJW  | 11/13/2012 | 0562   |
| D   | REMOVED RESISTOR AND ADDED SHIELDED CABLE FOR SPEED SIGNAL. SEPARATING RELAY GROUND AND CONTROL GROUND. | TJW  | 9/25/2013  | 0749-1 |

Title: **WH00023**  
HARNESS, CONTROLS INC, SPEED CTRL

Author: **T. WELCH**

Date: **9/18/2012**

Revision: **D**


**NORTHERN  
POWER  
PRODUCTS, INC.**

Sheet: **1 OF 3**

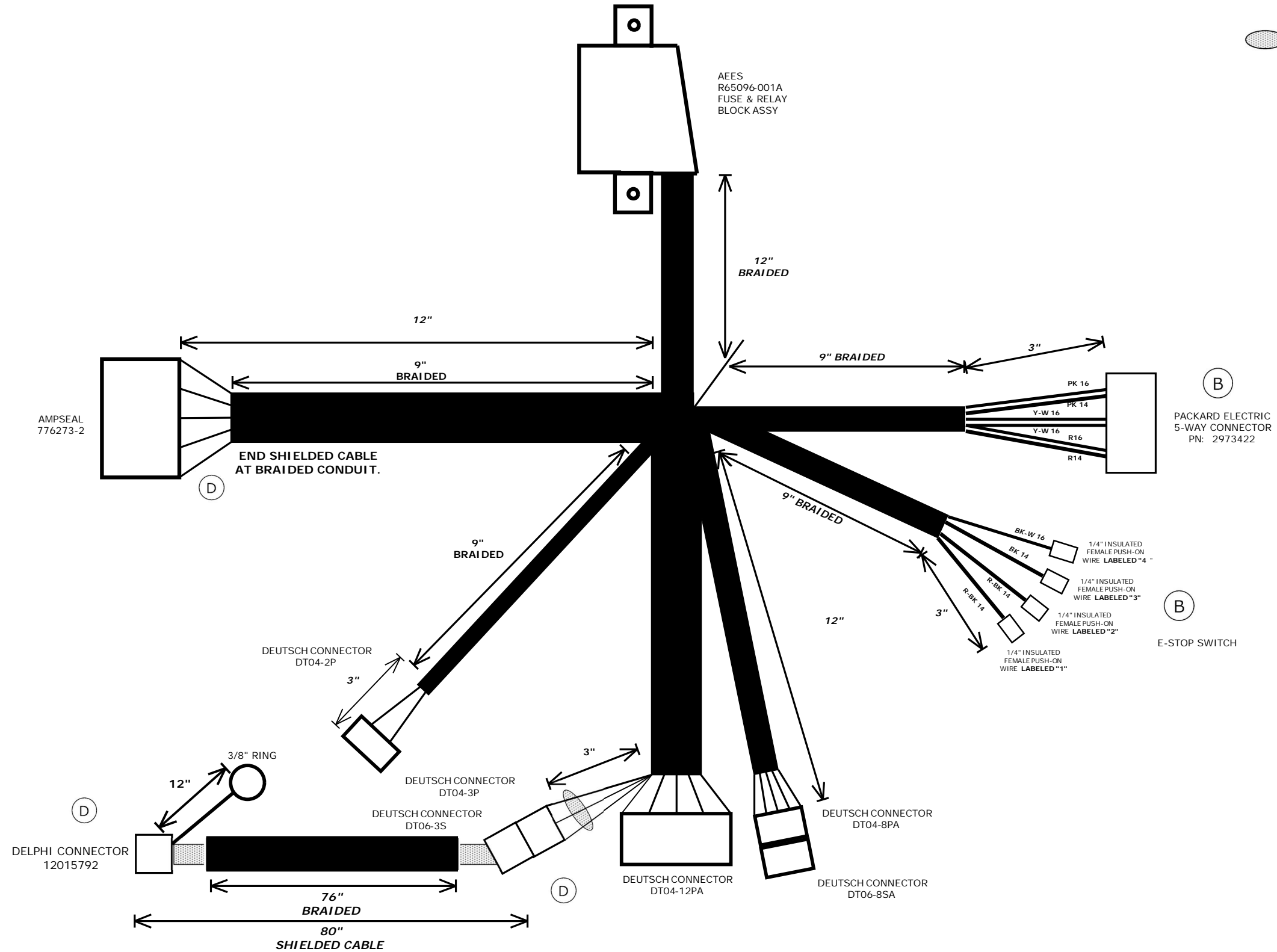
| WIRE CUT CHART         |                                      |  |                                      |   |  |
|------------------------|--------------------------------------|--|--------------------------------------|---|--|
| COLOR/GAGE/<br>CIRCUIT | CONN 1<br>/ PIN #                    | FROM                                     | CONN 2<br>/ PIN #                    | TO  | COMMENTS   |
| R-BK 14 (1)            | 1/4" FEMALE PUSH-ON                  | MAIN E-STOP, 12V OUTPUT                  | DT04-BPA / 7                         | AUX E-STOP, 12V INPUT                           | WIRE LABELED "1"                                   |
| R-BK 14 (2)            | SONG CHUAN: B96H-1CH-C-R1 / 30       | IGNITION RELAY                           | 15A FUSE / B                         | IGNITION CIRCUIT FUSE                           |  |
| R 16 (3)               | 5A FUSE / A                          | C3M-100 RELAY SUPPLY FUSE                | #10 RING / IGNITION SWITCH / AC      | IGNITION SWITCH                                 |  |
| R-BK 14 (4)            | 1/4" FEMALE PUSH-ON                  | MAIN E-STOP, 12V INPUT                   | SONG CHUAN: B96H-1CH-C-R1 / 87       | IGNITION RELAY                                  | WIRE LABELED "2"                                   |
| BK 14 (5)              | 1/4" FEMALE PUSH-ON                  | MAIN E-STOP, GROUND SUPPLY               | SPLICE #2 / PARALLEL BUTT CONNECTOR  | SPLICE #2                                       | WIRE LABELED "3"                                   |
| BK-W 16 (6)            | 1/4" FEMALE PUSH-ON                  | MAIN E-STOP, GROUND SIGNAL               | SPLICE #3 / PARALLEL BUTT CONNECTOR  | SPLICE #3                                       | WIRE LABELED "4"                                   |
| GY-R 16 (7)            | DT04-2P / 1                          | SPEED CONTROL HARNESS, INCREASE RPM      | WAYTEK : 75531, 12V SPDT 20A/10A / 3 | ENGINE SPEED INCREASE MICRO RELAY               |  |
| DB-W 16 (8)            | DT04-2P / 2                          | SPEED CONTROL HARNESS, DECREASE RPM      | WAYTEK : 75531, 12V SPDT 20A/10A / 3 | ENGINE SPEED DECREASE MICRO RELAY               |  |
| GY 16 (9)              | DT04-12PA / 12                       | ENGINE HARNESS / COOLANT TEMP SENDER     | 776273-2 / 2                         | CONTROLS INC ( C3M-100) / COOLANT TEMP SENDER   |  |
| R 16 (10)              | 5A FUSE / B                          | C3M-100 RELAY SUPPLY FUSE                | SPLICE #1 / PARALLEL BUTT CONNECTOR  | SPLICE #1                                       |  |
| CLEAR 18 (11)          | DT04-3P / A                          | MPU CONNECTOR 1 / SPEED SIGNAL           | 776273-2 / 8                         | RPM SIGNAL                                      | SHIELDED CABLE                                     |
| BR 16 (12)             | DT04-12PA / 7                        | ENGINE HARNESS / GLOW RELAY 86           | 776273-2 / 5                         | CONTROLS INC ( C3M-100) / PRE HEAT SIGNAL       |  |
| GRN-WHT (13)           | DT04-12PA / 4                        | ENGINE HARNESS / ENERGIZE TO STOP OUTPUT | WAYTEK : 46880, DIODE / A            | 1 AMP DIODE INPUT                               |  |
| LB 20 (14)             | DT04-12PA / 10                       | ENGINE HARNESS / OIL PRESS SENDER        | 776273-2 / 7                         | CONTROLS INC ( C3M-100) / OIL PRESS SENDER      |  |
| R 14 (15)              | DT04-12PA / 3                        | ENGINE HARNESS / BATTERY POWER           | #10 RING / 30                        | IGNITION SWITCH                                 |  |
| Y-W (16)               | DT04-12PA / 2                        | ENGINE HARNESS / STARTER RELAY 86        | WAYTEK : 75531, 12V SPDT 20A/10A / 4 | STARTER LOCKOUT, E-STOP RELAY                   |  |
| BK 14 (17)             | DT04-12PA / 1                        | ENGINE HARNESS / GROUND                  | SPLICE #2 / PARALLEL BUTT CONNECTOR  | SPLICE #2                                       |  |
| BR-W 16 (18)           | DT04-12PA / 8                        | ENGINE HARNESS / FUEL LEVEL SENDER       | 776273-2 / 13                        | CONTROLS INC ( C3M-100) / FUEL LEVEL SIGNAL     |  |
| BK 16 (19)             | DT04-BPA / 2                         | AUX CONTROLLER / GROUND                  | SPLICE #2 / PARALLEL BUTT CONNECTOR  | SPLICE #2                                       |  |
| BK-W 16 (20)           | DT04-BPA / 1                         | AUX CONTROLLER / E-STOP SHUTDOWN SIGNAL  | SPLICE #3 / PARALLEL BUTT CONNECTOR  | SPLICE #3                                       |  |
| R-LT BLU 16 (21)       | DT04-BPA / 5                         | AUX CONTROLLER / DECREASE RPM SIGNAL     | SPLICE #4 / PARALLEL BUTT CONNECTOR  | SPLICE #4                                       |  |
| R-BK 14 (22)           | DT04-12PA / 5                        | ENGINE HARNESS / IGNITION POWER          | DT04-BPA / 8                         | AUX CONTROLLER E-STOP, 12V OUTPUT               |  |
| PK 14 (23)             | DT04-BPA / 6                         | AUX CONTROLLER / ACC POWER               | #10 RING / ACC                       | IGNITION SWITCH                                 |  |
| GRN-Y 16 (24)          | DT04-BPA / 4                         | AUX CONTROLLER / INCREASE RPM SIGNAL     | SPLICE #5 / PARALLEL BUTT CONNECTOR  | SPLICE #5                                       |  |
| Y-W 16 (25)            | DT04-BPA / 3                         | AUX CONTROLLER / START REQUEST           | #10 RING / 50                        | IGNITION SWITCH                                 |  |
| GRN-Y 16 (26)          | WAYTEK : 75531, 12V SPDT 20A/10A / 2 | ENGINE SPEED INCREASE MICRO RELAY        | SPLICE #5 / PARALLEL BUTT CONNECTOR  | SPLICE #5                                       |  |
| R-LT BLU 16 (27)       | WAYTEK : 46880, DIODE / B            | 1 AMP DIODE OUTPUT                       | WAYTEK : 75531, 12V SPDT 20A/10A / 1 | ENGINE SPEED DECREASE MICRO RELAY               |  |
| PK 16 (28)             | WAYTEK : 75531, 12V SPDT 20A/10A / 1 | ENGINE SPEED INCREASE MICRO RELAY        | WAYTEK : 75531, 12V SPDT 20A/10A / 5 | ENGINE SPEED INCREASE MICRO RELAY               |  |
| R-LT BLU 16 (29)       | WAYTEK : 75531, 12V SPDT 20A/10A / 1 | ENGINE SPEED DECREASE MICRO RELAY        | SPLICE #4 / PARALLEL BUTT CONNECTOR  | SPLICE #4                                       |  |
| BK 16 (30)             | WAYTEK : 75531, 12V SPDT 20A/10A / 4 | ENGINE SPEED INCREASE MICRO RELAY        | WAYTEK : 75531, 12V SPDT 20A/10A / 4 | ENGINE SPEED DECREASE MICRO RELAY               |  |
| BK 16 (31)             | WAYTEK : 75531, 12V SPDT 20A/10A / 4 | ENGINE SPEED DECREASE MICRO RELAY        | WAYTEK : 75531, 12V SPDT 20A/10A / 2 | ENGINE SPEED DECREASE MICRO RELAY               |  |
| BK 16 (32)             | WAYTEK : 75531, 12V SPDT 20A/10A / 2 | ENGINE SPEED DECREASE MICRO RELAY        | WAYTEK : 75531, 12V SPDT 20A/10A / 3 | STARTER LOCKOUT, LATCHING RELAY                 |  |
| PK 16 (33)             | WAYTEK : 75531, 12V SPDT 20A/10A / 5 | ENGINE SPEED DECREASE MICRO RELAY        | 5A FUSE / B                          | C3M-100 RELAY SUPPLY FUSE                       |  |
| PK 16 (34)             | 2A FUSE / A                          | C3M-100 FUSE                             | WAYTEK : 75531, 12V SPDT 20A/10A / 5 | ENGINE SPEED INCREASE MICRO RELAY               |  |
| PK 14 (35)             | 2A FUSE / A                          | C3M-100 FUSE                             | 15A FUSE / A                         | IGNITION RELAY                                  |  |
| Y-W 16 (36)            | WAYTEK : 75531, 12V SPDT 20A/10A / 1 | STARTER LOCKOUT, LATCHING RELAY          | WAYTEK : 75531, 12V SPDT 20A/10A / 1 | STARTER LOCKOUT, E-STOP RELAY                   |  |
| PK 16 (37)             | 2A FUSE / A                          | C3M-100 FUSE                             | WAYTEK : 75531, 12V SPDT 20A/10A / 1 | STARTER LOCKOUT, LATCHING RELAY                 |  |
| BK-W 16 (38)           | WAYTEK : 75531, 12V SPDT 20A/10A / 2 | STARTER LOCKOUT, LATCHING RELAY          | SPLICE #3 / PARALLEL BUTT CONNECTOR  | SPLICE #3                                       |  |
| BK-W 16 (39)           | WAYTEK : 75531, 12V SPDT 20A/10A / 2 | STARTER LOCKOUT, LATCHING RELAY          | WAYTEK : 75531, 12V SPDT 20A/10A / 5 | STARTER LOCKOUT, LATCHING RELAY                 |  |
| BK-W 16 (40)           | WAYTEK : 75531, 12V SPDT 20A/10A / 5 | STARTER LOCKOUT, LATCHING RELAY          | WAYTEK : 75531, 12V SPDT 20A/10A / 2 | STARTER LOCKOUT, E-STOP RELAY                   |  |
| BK 16 (41)             | SONG CHUAN: B96H-1CH-C-R1 / 85       | IGNITION RELAY                           | WAYTEK : 75531, 12V SPDT 20A/10A / 3 | STARTER LOCKOUT, E-STOP RELAY                   |  |
| BK 16 (42)             | SONG CHUAN: B96H-1CH-C-R1 / 85       | IGNITION RELAY                           | SPLICE #2 / PARALLEL BUTT CONNECTOR  | SPLICE #2                                       |  |
| R-Y 16 (43)            | SONG CHUAN: B96H-1CH-C-R1 / 86       | IGNITION RELAY                           | 776273-2 / 1                         | CONTROLS INC ( C3M-100) / RUN SIGNAL            |  |
| R 16 (44)              | SPLICE #1 / PARALLEL BUTT CONNECTOR  | SPLICE #1                                | 776273-2 / 3                         | CONTROLS INC ( C3M-100) / BAT POSITIVE          |  |
| R-LT BLU 16 (45)       | SPLICE #4 / PARALLEL BUTT CONNECTOR  | SPLICE #4                                | 776273-2 / 4                         | CONTROLS INC ( C3M-100) / DECREASE RPM OUTPUT   |  |
| GRN-Y (46)             | SPLICE #5 / PARALLEL BUTT CONNECTOR  | SPLICE #5                                | 776273-2 / 6                         | CONTROLS INC ( C3M-100) / INCREASE RPM OUTPUT   |  |
| R 16 (47)              | SPLICE #1 / PARALLEL BUTT CONNECTOR  | SPLICE #1                                | 776273-2 / 9                         | CONTROLS INC ( C3M-100) / BAT POSITIVE          |  |
| PK-BLU 16 (48)         | 2A FUSE / B                          | C3M-100 FUSE                             | 776273-2 / 11                        | CONTROLS INC ( C3M-100) / SWITCHED POWER TO C3M |  |
| BK 18 (49)             | DT04-3P / B                          | MPU CONNECTOR 1 / GROUND                 | 776273-2 / 12                        | CONTROLS INC ( C3M-100) / GROUND                | SHIELDED CABLE                                     |
| BK-W 16 (50)           | SPLICE #3 / PARALLEL BUTT CONNECTOR  | SPLICE #3                                | 776273-2 / 14                        | CONTROLS INC ( C3M-100) / E-STOP SIGNAL         |  |
| Y-W 16 (51)            | WAYTEK : 75531, 12V SPDT 20A/10A / 3 | STARTER LOCKOUT, ENGINE RUNNING RELAY    | #10 RING / 50                        | IGNITION SWITCH                                 |  |
| PK 14 (52)             | 2A FUSE / A                          | C3M-100 FUSE                             | #10 RING / ACC                       | IGNITION SWITCH                                 |  |
| R-BK 14 (53)           | DT06-08SA / 7                        | E-STOP, 12V INPUT                        | DT06-08SA / 8                        | E-STOP, 12V OUTPUT                              |  |
| BARE 18 (54)           | DT04-3P / C                          | MPU CONNECTOR 1 / SHIELD WIRE            | NOT TERMINATED                       | NOT TERMINATED                                  | END SHIELD APPROXIMATELY 3" FROM 776273 CONNECTOR. |
| CLEAR 18 (55)          | 12015792 / B                         | MPU CONNECTOR 3 / SPEED SIGNAL           | DT04-3S / A                          | MPU CONNECTOR 2 / SPEED SIGNAL                  | SHIELDED CABLE                                     |
| BARE 18 (56)           | 12015792 / A                         | MPU CONNECTOR 3 / SHIELD WIRE            | DT04-3S / C                          | MPU CONNECTOR 2 / SHIELD WIRE                   | SHIELDED CABLE                                     |
| BLK 18 (57)            | 12015792 / A                         | MPU CONNECTOR 3 / GROUND                 | DT04-3S / B                          | MPU CONNECTOR 2 / GROUND                        | SHIELDED CABLE                                     |
| BLK 16 (58)            | 3/8" RING                            | ENGINE BLOCK / GROUND                    | 12015792 / A                         | MPU CONNECTOR 3 / GROUND                        |  |

REVISIONS

| REV | DESCRIPTION   | NAME | DATE       | ECO#   |
|-----|---|------|------------|--------|
| A   | RELEASED - NEW PART   | TJW  | 9/18/2012  | 0464   |
| B   | MODIFIED TERMINATION STYLE OF E-STOP AND IGN SWITCH. ADDED RESISTOR TO RPM SIGNAL WIRE.                 | TJW  | 10/7/2012  | 0557   |
| C   | ADDED JUMPER CONNECTOR.   | TJW  | 11/13/2012 | 0562   |
| D   | REMOVED RESISTOR AND ADDED SHIELDED CABLE FOR SPEED SIGNAL. SEPARATING RELAY GROUND AND CONTROL GROUND. | TJW  | 9/25/2013  | 0749-1 |

|           |  |   |
|-----------|--|---|
| Title:    | WH00023<br>HARNESS, CONTROLS INC, SPEED CTRL |  |
| Author:   | T. WELCH                                     |   |
| Date:     | 9/18/2012                                    | Sheet: 2 OF 3   |
| Revision: | D  |   |

○ = SHIELDED WIRES



| REVISIONS |   |      |            |        |
|-----------|---|------|------------|--------|
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| C         | ADDED JUMPER CONNECTOR.   | TJW  | 11/13/2012 | 0562   |
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|  |  |
|--|--|
| Title: WH00023<br>HARNES, CONTROLS INC, SPEED CTRL | <b>NORTHERN<br/>POWER<br/>PRODUCTS, INC.</b> |
| Author: T. WELCH                                   |  |
| Date: 9/18/2011                                    | Sheet: 3 OF 3                                |
| Revision: D  |  |