

# Eberhard Manufacturing Company



## **Power-Up Locking System With Light Feature Operations and Applications Manual**

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Drawings and dimensions shown in this catalog are for reference only. For manufacturing production or tooling purposes, obtain current engineering print from factory.

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## **POWER-UP Locking System – Supplied Hardware**

### **Base System for (7) compartment door locks:**

- **1-16720-50PK Control Module W/2 Key fobs and Dome Light Feature**  
Includes: **1-16720-4 Control Module with Dome Light Feature – Qty. (1)**  
**16720-5 Key Fob (Transmitter) – Qty. (2)**
- **16720-1 Power Actuator – Qty. (7)**
- **16720-2 Power Actuator Mtg. Screws – Phillips Pan Head #8-18 Type “AB” Thread – Qty. (14)**
- **16720-3 Connecting Rod – Qty. (7)**
- **1-16720-6 Cab Wire Harness with Dome Light Feature – Qty. (1)**  
Provides independent power locking for compartment doors  
Provides optional connection to OEM power locking system using OEM fob (transmitter)  
Provides optional power for dome light feature
- **2-16720-7 Compartment Wire Harness with Dome Light Feature – Qty. (1)**  
Provides (3) actuators for road side – (4) actuator for curb side  
Provides power leads for self-grounding dome lights

### **Expansion System for (18) compartment door locks:**

- **2-16720-8 Expansion Relay Harness with Dome Light feature – Qty. (1)**
- **2-16720-9 Expansion Compartment Wire Harness with Dome Light Feature – Qty. (1)**  
\* Requires 2-16720-8 Expansion Relay Harness with Dome Light Feature  
Adds an additional (6) actuators for road side – (5) actuator for curb side  
Provides for a total of (9) actuators for road side – (9) actuator for curb side total

### **Options:**

- **2-16720-10 Expansion Compartment Wire Harness with Dome Light Feature – Qty. (1)**  
Adds (2) actuators per side to 2-16720-7 Compartment Wire Harness with Dome Light Feature  
\* Does not require 2-16720-8 Expansion Relay Harness with dome Light Feature  
Provides for a total of (5) actuators for road side – (6) actuators for curb side total
- **16746-U Power 3 Way Toggle Switch Kit W/Connectors – Qty. (1)**  
Provides a non-illuminated toggle switch for the compartment door locks to a cab without an OEM power locking system  
Includes: **3 Way Toggle Switch, non-illuminated – Qty. (1)**  
**Trim Plate – Qty. (1)**  
**Wire Harness – Qty. (1)**  
**Butt Splice Connector – Qty. (2)**  
**Insulated Ring Terminal for #10 Stud – Qty. (1)**
- **1-16746-U Power 3 Way Toggle Switch Kit W/Connectors – Qty. (1)**  
Provides an illuminated toggle switch for the compartment door locks to a cab without an OEM power locking system  
Includes: **3 Way Toggle Switch, illuminated – Qty. (1)**  
**Trim Plate – Qty. (1)**  
**Wire Harness – Qty. (1)**  
**Butt Splice Connector – Qty. (2)**  
**Insulated Ring Terminal for #10 Stud – Qty. (2)**

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## **POWER-UP Locking System – System Protection**

### **Electrical Protection:**

- **1-16720-4 Control Module:** Provides over-trigger protection for power actuators
- **1-16720-6 Cab Wire Harness:** In-line fuse protection – 40 amp for output, 5 amp for processor & 15amp for lights
- **2-16720-8 Expansion Relay Wire Harness:** Individual relay for each side of the vehicle.  
In-line fuse protection – 40 amp for power

### **System Protection:**

- **1-16720-4 Control Module:**
  - ▶ Incorporates a “Lock Pulse Timer” to provide a 0.4 second pulse from the control module to the actuators. If the buttons on the key fob are held down for an extended period, the “Lock Pulse Timer” will prevent the actuators from being damaged by over firing.
  - ▶ Incorporates a “Time Out” feature that prevents damage to the actuators by shutting down the system for 30 seconds if the buttons on the key fob are activated more than 8 times in a 30 second period. After the 30 second “Time Out” period, the system will function as normal.
  - ▶ Can hold up to (4) key fobs with different signals. If any key fobs are lost or damaged and needs to be replaced, the control module can learn/program new and/or additional key fobs.
  - ▶ Can be set-up for use in either positive or negative polarity.
- **1-16720-4 Control Module – Dome Light Function:**
  - ▶ Incorporates a feature to activate/deactivate dome lights for up to 8 compartments. On the key fob, when Button #2 (Unlock) is depressed, the dome lights will be activated for 10 minutes. When Button #1 (Lock) is depressed, the dome lights will be turned off. Optionally, when Button #1 (Lock) and Button #3 (N/A) are depressed at the same time, the dome lights will be activated for 10 minutes. By depressing Button #1 (Lock) and Button #4 (N/A) at the same time, the dome lights will be turned off.
- **16720-1 Power Actuators:**
  - ▶ Working voltage: 8.8 VDC to 13.7 VDC.
  - ▶ Current absorption: 4.5 A (Max.).
  - ▶ Temperature range: -18.4° F to +188.6° F.
  - ▶ Power: 7.8 lbf.
- **16720-5 Key Fob (Transmitter):**
  - ▶ Working range of 150 feet. Maximum.
  - ▶ Frequency = 303.875 MHz, Rolling Code
  - ▶ Separate “Lock” & “Unlock” Buttons.

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## **POWER-UP Locking System – Wiring Breakdown**

Locate and mount 1-16720-4 Control module in a high position in front drivers' side compartment. Make sure the control module is in a position where it will not be damaged or come into contact with water.

Make wire connections as noted below:

For base system with (7) compartment door locks, connect wire harnesses as follows:

1-16720-4 Control Module to 1-16720-6 Cab Wire Harness to 2-16720-7 Compartment Wire Harness.

For system with (11) compartment door locks, connect wire harnesses as follows:

1-16720-4 Control Module to 1-16720-6 Cab Wire Harness to 2-16720-7 Compartment Wire Harness to 2-16720-10 Expansion Compartment Wire Harness.

For system with (8) to (18) compartment door locks, connect wire harnesses as follows:

1-16720-4 Control Module to 1-16720-6 Cab Wire Harness to 2-16720-8 Expansion Relay Wire Harness to 2-16720-7 Compartment Wire Harness to 2-16720-9 Expansion Compartment Wire Harness.

**1-16720-4 Control Module and 1-16720-6 Cab Wire Harness with Dome Light Feature:**

Terminal connections from outer terminal towards the center on control module:

- Terminal #1: Blue Wire – Motor connection for actuators – 12 ga. wire
- Terminal #2: Green Wire – Motor connection for actuators – 12 ga. wire
- Terminal #3: Red Wire – Wire connection for power from cab – 14 ga. Wire
- Terminal #4: Black Wire – Wire connection for chassis ground (actuators) – 14 ga. wire
- Terminal #5: Black Wire – Wire connection for chassis ground (actuators) – 14 ga. wire

**10 Pin Connector:**

- Position #1: Black Wire – Ground – 18 ga. wire
- Position #2: Blue/White Wire – Wire connection to OEM actuator, unlock circuit – 18 ga. Wire  
Wire length = 15 feet, non terminated end  
– Optional wire connection to the 16746-U or 1-16746-U unlock circuit (Brown Wire) – 20 ga. Wire
- Position #3: Dark Green – Wire connection to optional dome light control circuit – 18 ga. Wire
- Position #6: Red Wire – Power – 18 ga. Wire
- Position #8: Green/White Wire – Wire connection to OEM actuator, lock circuit – 18 ga. Wire  
Wire length = 15 feet, non terminated end  
– Optional wire connection to the 16746-U or 1-16746-U lock circuit (Purple Wire) – 20 ga. Wire
- Position #4, #5, #7, #9 & #10 are not used.

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## **POWER-UP Locking System – Wiring Breakdown**

**NOTE:** Blue/White wire & Green/White wire are for optional connection to OEM power locking system. These wires can be run along with the Red power wire listed below to the cab. Run the wires along the factory wire harness using wire harness holders in the frame rails. Drill and grommet all holes in vehicle as required to prevent accidental grounding.

### **1-16720-6 Cab Wire Harness with Dome Light Feature:**

- **Red Wire** – Wire connection to auxiliary OEM power source in cab – 10 ga. wire  
– Wire length = 16 feet
- **Black Wire** – Wire connection for chassis ground – 10 ga. Wire  
– Wire length = 2 feet
- **End Connector** – Connector (female) on end of cab wire harness to plug into mating connector (male) on 2-16720-7 Compartment Wire Harness or optional 2-16720-8 Expansion Relay Wire Harness.

**NOTE:** Red power wire can be run along with the optional Blue/White & Green/White OEM power locking connection wires to the cab. Run the wires along the factory wire harness using wire harness holders in the frame rails. Drill and grommet all holes in vehicle as required to prevent accidental grounding.

### **2-16720-7 Compartment Wire Harness with Dome Light Feature: Base System for (7) compartment door locks:**

- **Main trunk wires for both road side & curb side are 14 ga.**
- **Branch wires for connection to the actuators are 18 ga.**
- **Branch wires for connection to the dome lights are 14 ga.**

#### **Harness branch wire/power actuator wire connections – Retracting actuator to lock:**

- **Green harness wire connects to Blue power actuator wire**
- **Blue harness wire connects to Red power actuator wire**

#### **Harness branch wire/power actuator wire connections – Extending actuator to lock:**

- **Green harness wire connects to Red power actuator wire**
- **Blue harness wire connects to blue power actuator wire**
- **End Connector** – Connector (male) on end of compartment wire harness to plug into mating connector (female) on 1-16720-6 Cab Wire Harness or optional 2-16720-8 Expansion Relay Wire Harness.
- **End Connectors** – Connectors (female) on end of compartment wire harness to plug into mating connectors (male) on 2-16720-9 Expansion Compartment Wire Harness or optional 2-16720-10 Expansion Compartment Wire Harness.

**NOTE:** Drill and grommet all holes in vehicle as required to prevent accidental grounding.

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## **POWER-UP Locking System – Wiring Breakdown**

### **2-16720-8 Expansion Relay Wire Harness with Dome Light Feature:**

**Expansion onto 2-16720-7 Compartment Wire Harness for (8) to (18) compartment door locks:  
Required for 2-16720-9 Expansion Compartment Wire Harness.**

- **Red Wire** – Wire connection to auxiliary OEM power source in cab – 10 ga. wire  
– Wire length = 18 feet 2 in.
- **Black Wire** – Wire connection for chassis ground – 10 ga. Wire  
– Wire length = 4 feet
  
- **End Connector** – Connector (male) on end of expansion relay wire harness to plug into mating connector (female) on 1-16720-6 Cab Wire Harness.
- **End Connectors** – Connector (female) on end of expansion relay wire harness to plug into mating connector (male) on 2-16720-7 Compartment Wire Harness.

**NOTES: 1) Drill and grommet all holes in vehicle as required to prevent accidental grounding.  
2) Locate and mount relay blocks in a high position in front drivers' side compartment.  
Make sure the relays are in a position where they can be accessed for replacement if necessary and where they will not be damaged or come into contact with water.**

### **2-16720-9 Expansion Compartment Wire Harness with Dome Light Feature:**

**Expansion onto 2-16720-7 Compartment Wire Harness for (8) to (18) compartment door locks:  
Requires 2-16720-8 Expansion Relay Wire Harness.**

- **Main trunk wires for both road side & curb side are 14 ga.**
- **Branch wires for connection to the actuators are 18 ga.**
- **Branch wires for connection to the dome lights are 14 ga.**

**Harness branch wire/power actuator wire connections – Retracting actuator to lock:**

- **Green harness wire connects to Blue power actuator wire**
- **Blue harness wire connects to Red power actuator wire**

**Harness branch wire/power actuator wire connections – Extending actuator to lock:**

- **Green harness wire connects to Red power actuator wire**
- **Blue harness wire connects to Blue power actuator wire**
  
- **End Connectors** – Connectors (male) on end of expansion compartment wire harness to plug into mating connectors (female) on 2-16720-7 Compartment Wire Harness.

**NOTE: Drill and grommet all holes in vehicle as required to prevent accidental grounding.**



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## **POWER-UP Locking System – Wiring Breakdown**

### **2-16720-10 Expansion Compartment Wire Harness:**

**Expansion onto 2-16720-7 Compartment Wire Harness for (11) compartment door locks:**

- **Main trunk wires for both road side & curb side are 14 ga.**
- **Branch wires for connection to the actuators are 18 ga.**
- **Branch wires for connection to the dome lights are 14 ga.**

**Harness branch wire/power actuator wire connections – Retracting actuator to lock:**

- **Green harness wire connects to Blue power actuator wire**
- **Blue harness wire connects to Red power actuator wire**

**Harness branch wire/power actuator wire connections – Extending actuator to lock:**

- **Green harness wire connects to Red power actuator wire**
- **Blue harness wire connects to Blue power actuator wire**
- **End Connectors – Connectors (male) on end of expansion compartment wire harness to plug into mating connectors (female) on 2-16720-7 Compartment Wire Harness.**

**NOTE: Drill and grommet all holes in vehicle as required to prevent accidental grounding.**

### **16720-1 Power Actuator:**

- **Actuator wires are 18 ga.**

**Harness branch wire/power actuator wire connections – Retracting actuator to lock:**

- **Green harness wire connects to Blue power actuator wire**
- **Blue harness wire connects to Red power actuator wire**

**Harness branch wire/power actuator wire connections – Extending actuator to lock:**

- **Green harness wire connects to Red power actuator wire**
- **Blue harness wire connects to Blue power actuator wire**

**NOTES: 1) Drill and grommet all holes in vehicle as required to prevent accidental grounding.  
2) Power actuators to be mounted with the protruding motor housing in an upward position to prevent condensation from pooling around the internal motor.**

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## **POWER-UP Locking System – Wiring Breakdown**

### **16746-U Power 3 Way Toggle Switch Kit W/Connectors:**

**Non-illuminated toggle switch for the compartment door locks to a cab without an OEM power locking system.**

**Locate a position for mounting and cut a .93” wide x 1.74” tall opening to receive the trim plate and toggle switch. Trim plate will fit a panel of .08” to .16” thick.**

**Make wire connections as noted below:**

- **Purple Wire – Wire connection to the Green/White lock circuit from the 1-16720-6 Cab Wire Harness – 20 ga. wire**  
Wire length = 3 feet 2-1/2 in.  
Use supplied butt splice connector to make wire connection.
- **Brown Wire – Wire connection to the Blue/White unlock circuit from the 1-16720-6 Cab Wire Harness – 20 ga. Wire**  
Wire length = 3 feet 2-1/2 in.  
Use supplied butt splice connector to make wire connection.
- **Black Wire – Wire connection for chassis ground – 20 ga. Wire**  
Wire length = 3 feet 2-1/2 in.  
Use supplied insulated ring terminal to make wire connection.

**NOTES: 1) Drill and grommet all holes in vehicle as required to prevent accidental grounding.**  
**2) Plastic connector on the end of the wire harness is not required. Customer to cut off and discard. Use the supplied butt splice connectors and insulated ring terminal to make the wire connections.**  
**3) Jumpers on the 1-16720-4 Control Module need to be changed to the negative polarity settings. Position the jumpers located on the bottom end of the control module on the bottom two pins.**

### **1-16746-U Power 3 Way Toggle Switch Kit W/Connectors:**

**Illuminated toggle switch for the compartment door locks to a cab without an OEM power locking system.**

**Locate a position for mounting and cut a .93” wide x 1.74” tall opening to receive the trim plate and toggle switch. Trim plate will fit a panel of .08” to .16” thick.**

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## **POWER-UP Locking System – Wiring Breakdown**

Make wire connections as noted below:

- **Purple Wire** – Wire connection to the Green/White lock circuit from the 1-16720-6 Cab Wire Harness – 20 ga. wire  
Wire length = 3 feet 2-1/2 in.  
Use supplied butt splice connector to make wire connection.
- **Brown Wire** – Wire connection to the Blue/White unlock circuit from the 1-16720-6 Cab Wire Harness – 20 ga. Wire  
Wire length = 3 feet 2-1/2 in.  
Use supplied butt splice connector to make wire connection.
- **Black Wire** – Wire connection for chassis ground – 20 ga. Wire  
Wire length = 3 feet 2-1/2 in.  
Use supplied insulated ring terminal to make wire connection.
- **Black Wire** – Wire connection for chassis ground – 20 ga. Wire  
Wire length = 3 feet 2-1/2 in.  
Use supplied insulated ring terminal to make wire connection.
- **Gray Wire** – Wire connection to the parking light circuit on the vehicle – 20 ga. Wire  
Wire length = 3 feet 2-1/2 in.

**NOTES:** 1) Drill and grommet all holes in vehicle as required to prevent accidental grounding.  
2) Plastic connector on the end of the wire harness is not required. Customer to cut off and discard. Use the supplied butt splice connectors and insulated ring terminals to make the wire connections.  
3) Jumpers on the 1-16720-4 Control Module need to be changed to the negative polarity settings. Position the jumpers located on the bottom end of the control module on the bottom two pins.

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## **POWER-UP Locking System – Miscellaneous**

### **Setting for positive or negative polarity:**

**For positive polarity – Standard setting:** Position the jumpers located on the bottom end of the control module on the top two pins.

**For negative polarity:** Position the jumpers located on the bottom end of the control module on the bottom two pins.

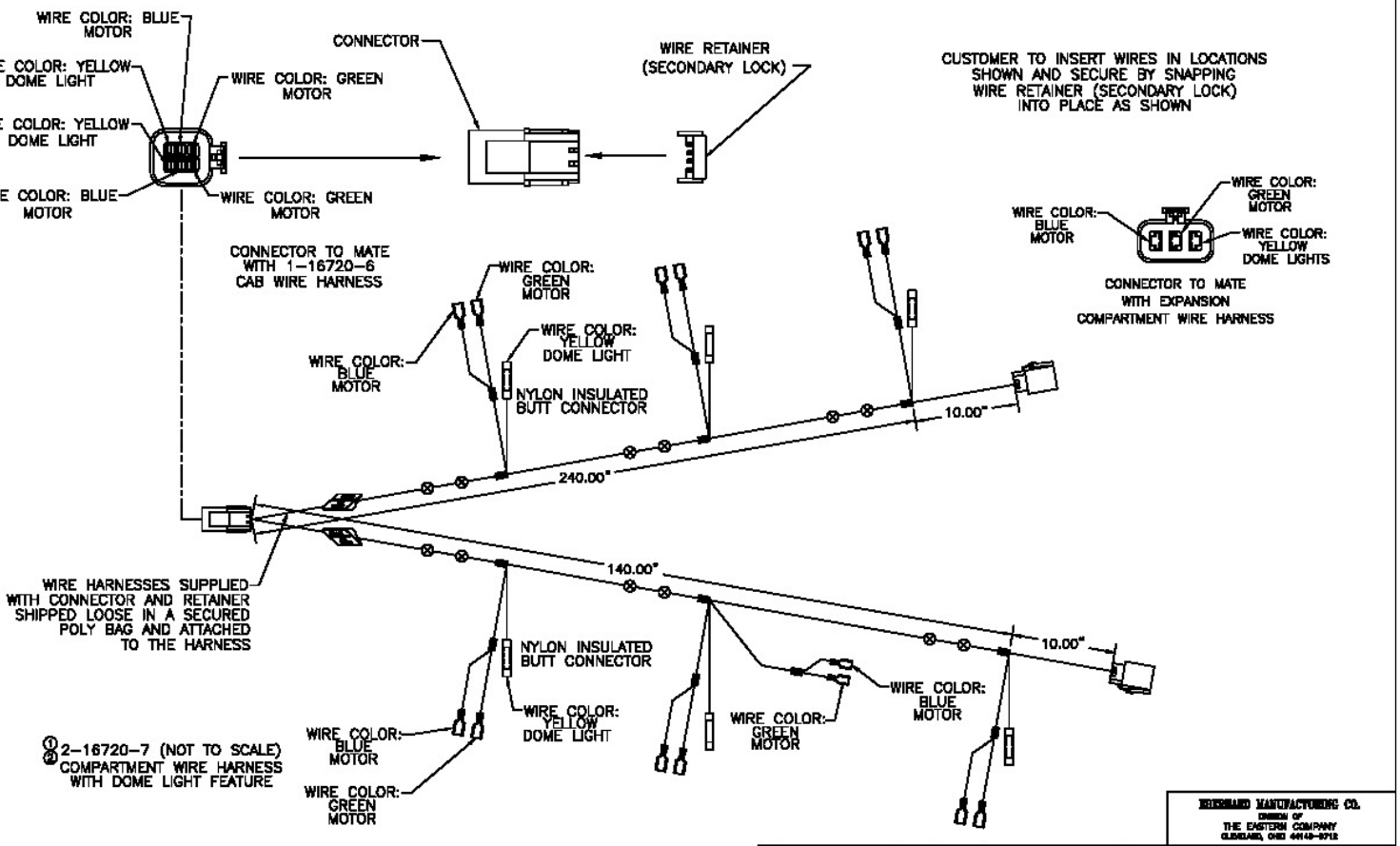
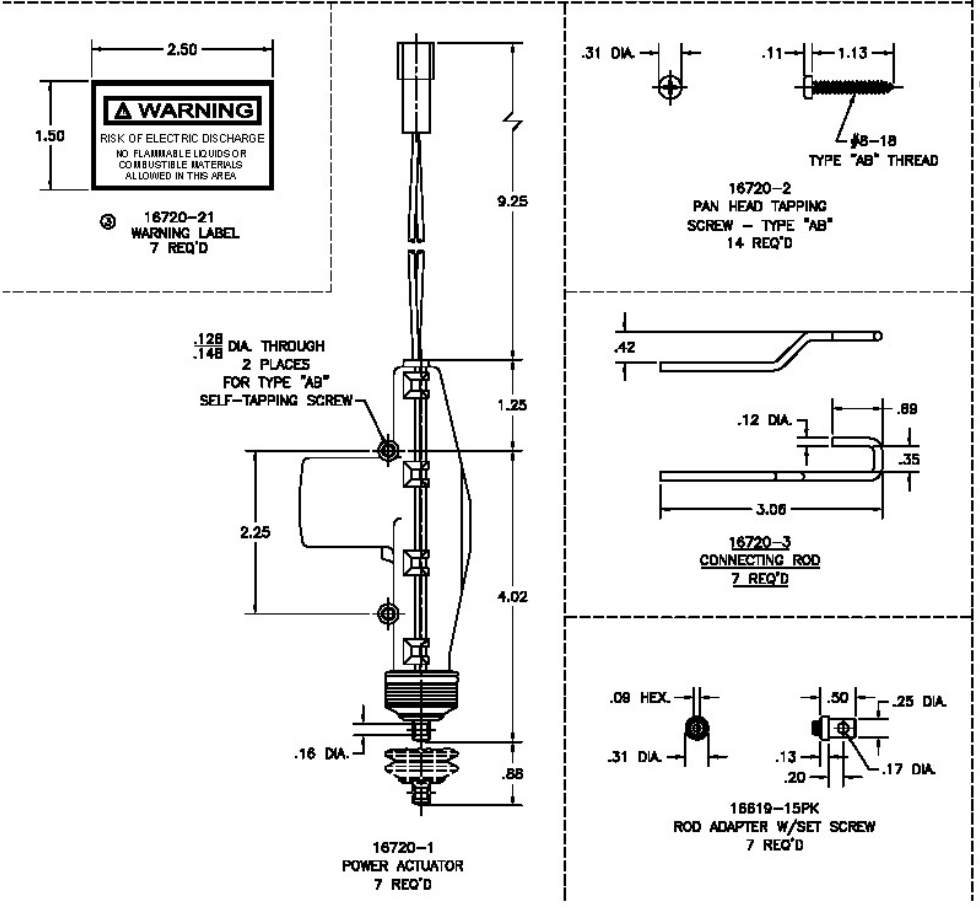
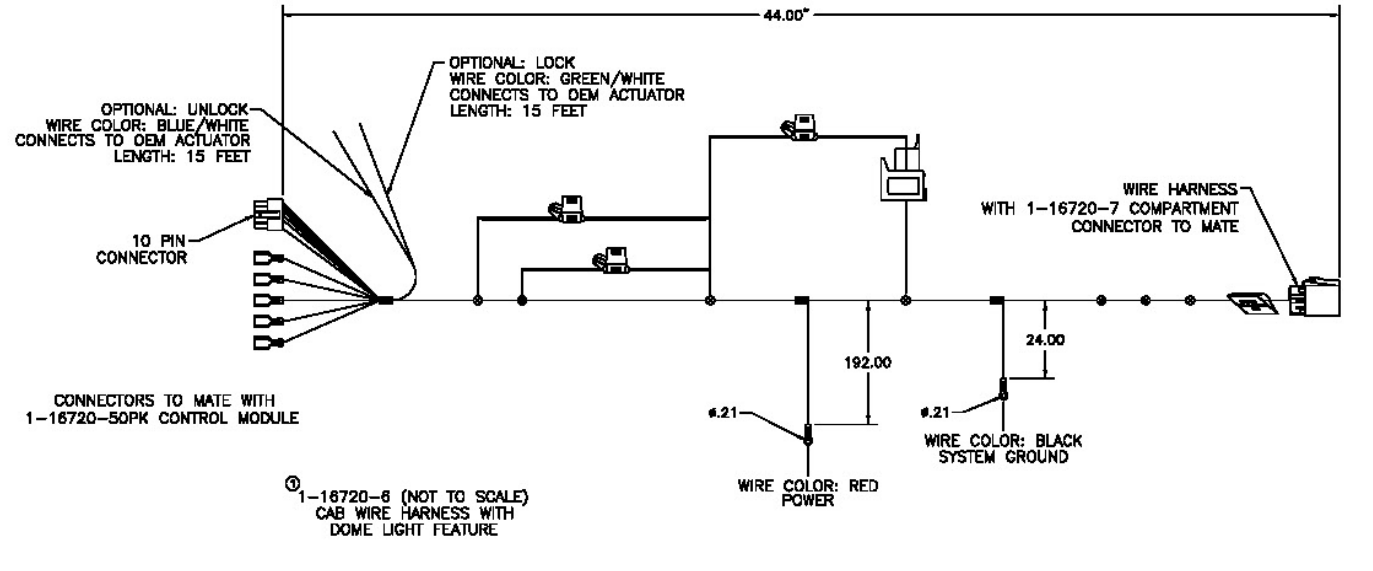
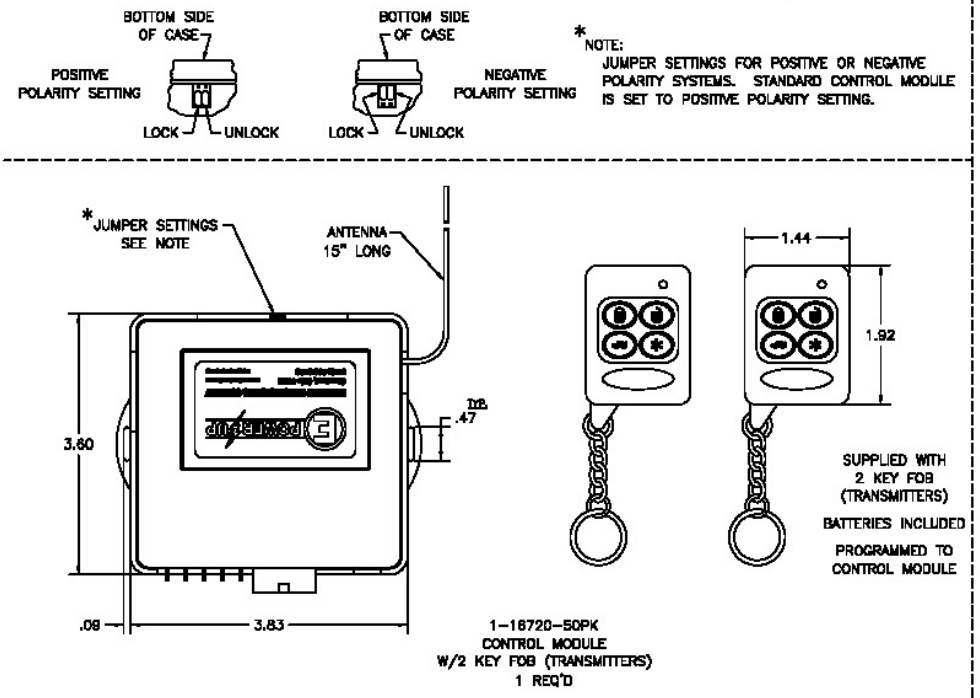
### **Programming the key fobs:**

Press the program button on the side of the control module (3) times; the red LED will then light up. Press button #1 on all of the key fobs that will be associated with the vehicle, (up to 4 key fobs), within 10 seconds of the red LED lighting up. When the LED light goes off, the key fobs are then programmed to the control module. Test each key fob by locking and unlocking the system to ensure proper operation. **NOTE: All key fobs must be programmed at the same time using this procedure. Programming one key fob at a time will erase the previous programmed key fob.**

### **Replacement Components:**

- **1-16720-6 Cab Wire Harness: In-line fuse:**
  - Power: 40-Amp fuse – ATC style fuse or equivalent**
  - Signal: 5-Amp fuse – ATC style fuse or equivalent**
  - Lights: 15-Amp fuse – ATC style fuse or equivalent**
  - Dome Light Relay: 30-Amp - Replacement relay p/n: Hella Relay p/n: 49400B or equivalent**
- **2-16720-8 Expansion Relay Wire Harness: Individual relay for each side of the vehicle.**
  - Relay: 30-Amp - Replacement relay p/n: Hella Relay p/n: 49400B or equivalent**
  - Power: 40-Amp fuse – ATC style fuse or equivalent**
- **16720-5 Key Fob (Transmitter): 23AP (12V Alkaline), 23-279 (12V Alkaline) or equivalent**

**GENERAL NOTE:** See notes on the drawings and materials specifications listed herein for the proper use of material. Electrical wiring and all other electrical components shall be installed in accordance with the National Electrical Code (NEC) and all applicable local codes. The manufacturer shall be responsible for the proper use of the material and the proper installation of the material. The manufacturer shall be responsible for the proper use of the material and the proper installation of the material.



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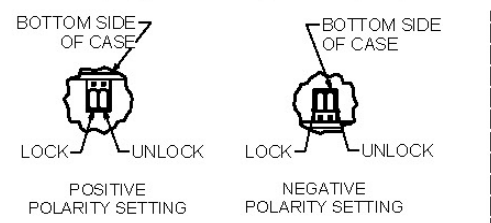
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1	1-16720-2 PAN HEAD TAPPING SCREW - TYPE "AB"	01	10-01-01	1	AM	AM	
1	1-16720-3 CONNECTING ROD	01	10-01-01	1	AM	AM	
1	1-16720-4	01	10-01-01	1	AM	AM	

1-16720-U

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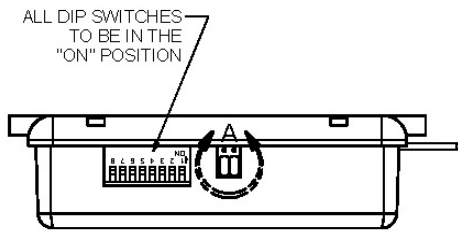
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REVISION HISTORY					
REV	DESCRIPTION	EN	DATE	REV. BY	APVD. BY
0	CONVERTED TO 3D	EN 5597	3/29/2013		
1	REVISED NOTE, REVISED LABEL	EN 5760	7/8/2016	SAA	LSW
2	REVISED VIEWS	EN 5765	8/12/2016	SAA	LSW

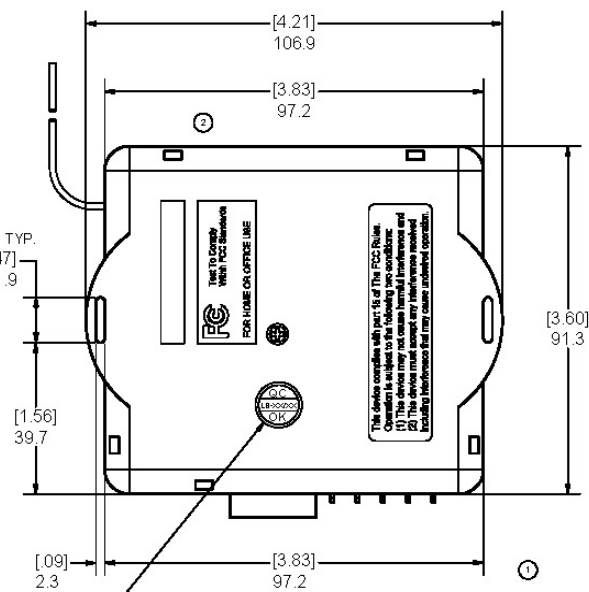
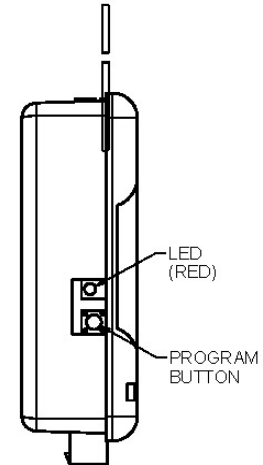
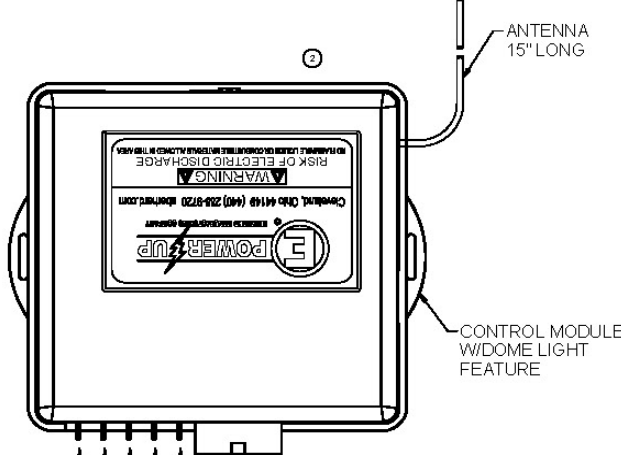
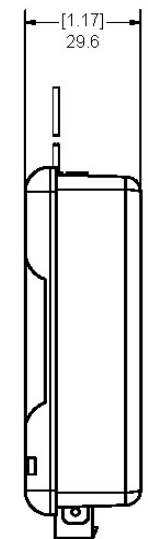


VIEW A

JUMPER SETTINGS FOR POSITIVE OR NEGATIVE POLARITY SYSTEMS. STANDARD CONTROL MODULE IS SET TO POSITIVE POLARITY SETTING.

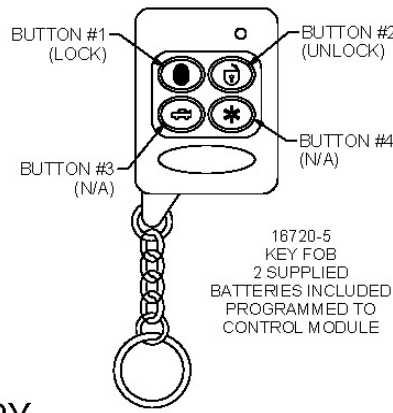
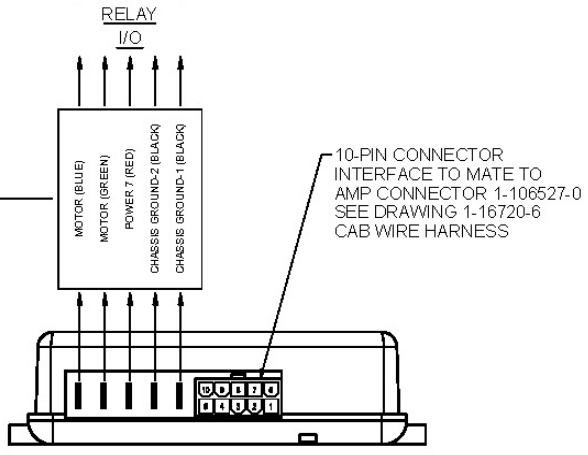


- FEATURES:
- CONTROL MODULE CAN HOLD UP TO (4) KEY FOB'S (TRANSMITTERS) WITH DIFFERENT SIGNALS.
  - CONTROL MODULE INCORPORATES A LOCK PULSE TIMER THAT PROVIDES A .4 SECOND PULSE FROM THE CONTROL MODULE TO THE ACTUATORS. IF THE BUTTONS ON THE KEY FOB (TRANSMITTER) ARE HELD DOWN FOR AN EXTENDED PERIOD, THE LOCK PULSE TIMER WILL PREVENT THE ACTUATORS FROM BEING DAMAGED.
  - CONTROL MODULE INCORPORATES A TIME-OUT FEATURE THAT ELIMINATES DAMAGE TO THE ACTUATORS BY SHUTTING DOWN THE SYSTEM FOR 30 SECONDS IF THE BUTTONS ON THE KEY FOB (TRANSMITTER) ARE ACTIVATED MORE THEN 8 TIMES IN A 30 SECOND PERIOD. AFTER THE 30 SECOND TIME-OUT PERIOD, THE SYSTEM WILL FUNCTION AS NORMAL.
  - CONTROL MODULE INCORPORATES A FEATURE TO ACTIVATE/DEACTIVATE DOME LIGHTS. WHEN BUTTON #2 (UNLOCK) IS ACTIVATED, THE DOME LIGHTS WILL BE ACTIVATED FOR 10 MINUTES. WHEN BUTTON #1 (LOCK) IS ACTIVATED, THE DOME LIGHTS WILL BE TURNED OFF. OPTIONALLY, WHEN BUTTON #1 (LOCK) AND BUTTON #3 (N/A) ARE PRESSED AT THE SAME TIME, THE DOME LIGHTS WILL BE ACTIVATED FOR 10 MINUTES. BY PRESSING BUTTON #1 (LOCK) AND BUTTON #4 (N/A) AT THE SAME TIME, THE DOME LIGHTS WILL BE TURNED OFF.
  - KEY FOB (TRANSMITTER) HAS A RANGE OF 150 FEET MAXIMUM.



REFERENCE - WIRE CONNECTIONS WITH 1-16720-6 CAB WIRE HARNESS:

- MOTOR (BLUE): WIRE CONNECTION FOR ACTUATORS.
- MOTOR (GREEN): WIRE CONNECTION FOR ACTUATORS.
- POWER 7 (RED): WIRE CONNECTION FOR POWER FROM CAB.
- CHASSIS GROUND-2 (BLACK): WIRE CONNECTION FOR CHASSIS GROUND FOR ACTUATORS.
- CHASSIS GROUND-1 (BLACK): WIRE CONNECTION FOR CHASSIS GROUND FOR ACTUATORS.



NOTE: TO PROGRAM CONTROL MODULE TO ADDITIONAL KEY FOB (TRANSMITTERS), PRESS THE PROGRAM BUTTON ON CONTROL MODULE (3) TIMES, LED WILL LIGHT UP, THEN PRESS BUTTON #1 ON THE KEY FOB (TRANSMITTER).

QUALITY CONTROL STICKER WITH DATE CODE TO BE APPLIED UPON SUCCESSFUL COMPLETION OF TESTING

16720-5 KEY FOB 2 SUPPLIED BATTERIES INCLUDED PROGRAMMED TO CONTROL MODULE

UNCONTROLLED COPY

SUPERSEDES DRAWING 1-16720-50PK SHEET 1 OF 2 DATED 12-21-04

CUSTOMER PRINT SHEET 1 OF 2

**EBERHARD MANUFACTURING CO.**  
DIVISION OF  
THE EASTERN COMPANY  
CLEVELAND, OHIO 44149-6712

NAME: CONTROL MODULE W/2 KEY FOB'S (TRANSMITTERS) & DOME LIGHT FEATURE

DATE: 3/29/2013

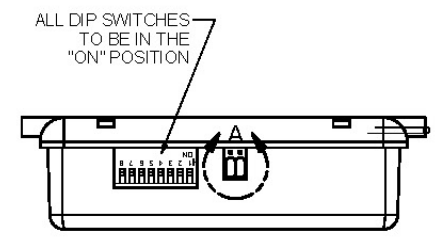
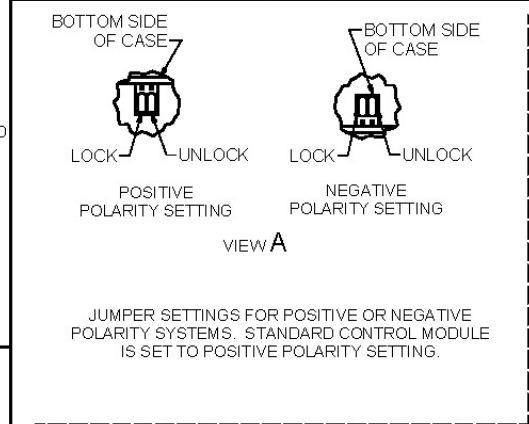
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DRAWING NUMBER: 1-16720-50PK

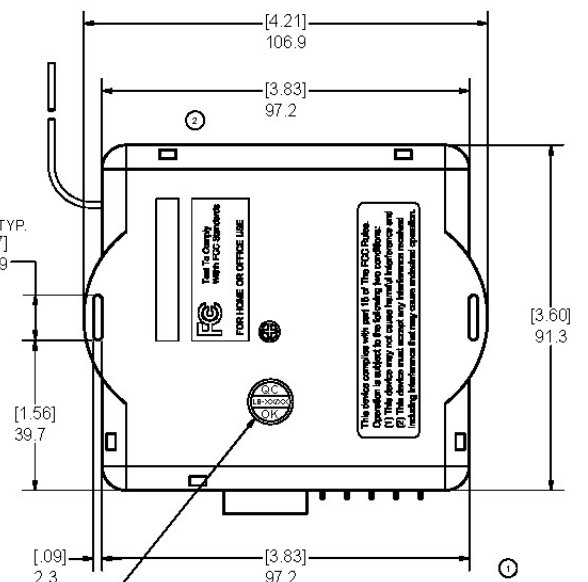
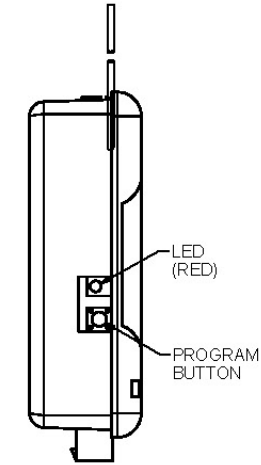
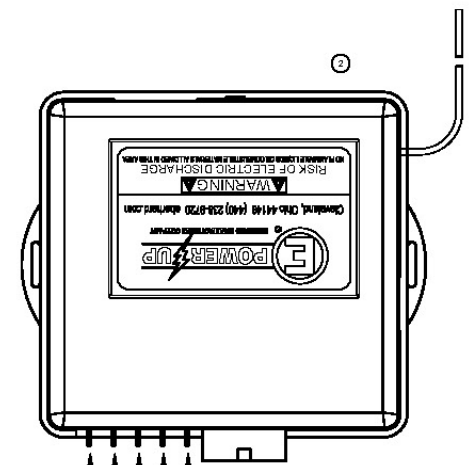
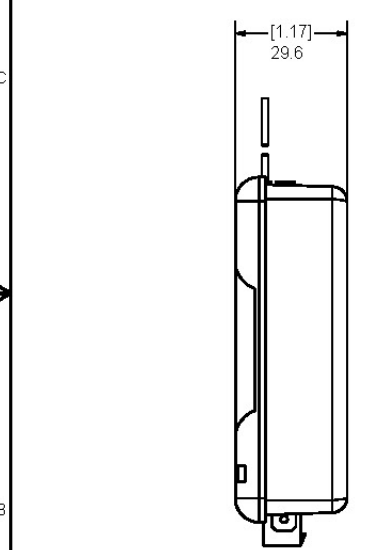
C:\Working\_Folder\Archive\Prod\116XXX\16720\16720-50PK-SH1.dwg

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REVISION HISTORY					
REV	DESCRIPTION	EN	DATE	REV. BY	APVD. BY
1	CONVERTED TO 3D	EN 5597	3-29-13		
1	REVISED NOTE, REVISED LABEL	EN 5760	7/8/2016	SAA	LSW
2	REVISED VIEWS	EN 5765	8/12/2016	SAA	LSW

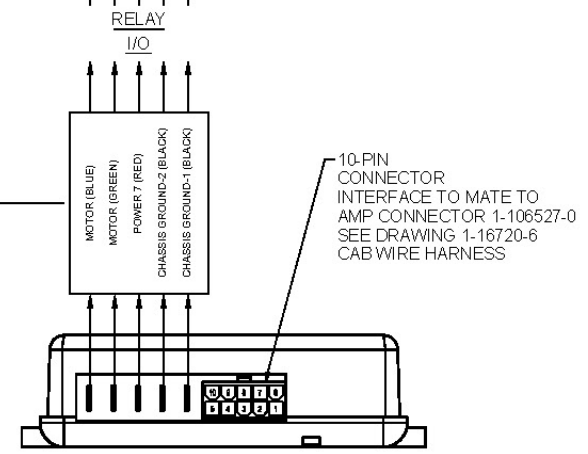


- FEATURES:**
- CONTROL MODULE CAN HOLD UP TO (4) KEY FOBs (TRANSMITTERS) WITH DIFFERENT SIGNALS.
  - CONTROL MODULE INCORPORATES A LOCK PULSE TIMER THAT PROVIDES A 4 SECOND PULSE FROM THE CONTROL MODULE TO THE ACTUATORS. IF THE BUTTONS ON THE KEY FOB (TRANSMITTER) ARE HELD DOWN FOR AN EXTENDED PERIOD, THE LOCK PULSE TIMER WILL PREVENT THE ACTUATORS FROM BEING DAMAGED.
  - CONTROL MODULE INCORPORATES A TIME-OUT FEATURE THAT ELIMINATES DAMAGE TO THE ACTUATORS BY SHUTTING DOWN THE SYSTEM FOR 30 SECONDS IF THE BUTTONS ON THE KEY FOB (TRANSMITTER) ARE ACTIVATED MORE THEN 8 TIMES IN A 30 SECOND PERIOD. AFTER THE 30 SECOND TIME-OUT PERIOD, THE SYSTEM WILL FUNCTION AS NORMAL.
  - CONTROL MODULE INCORPORATES A HORN/HONK OUTPUT AND A LIGHT/FLASH OUTPUT.
  - CONTROL MODULE INCORPORATES A FEATURE TO ACTIVATE/DEACTIVATE DOME LIGHTS. WHEN BUTTON #2 (UNLOCK) IS ACTIVATED, THE DOME LIGHTS WILL BE ACTIVATED FOR 10 MINUTES. WHEN BUTTON #1 (LOCK) IS ACTIVATED, THE DOME LIGHTS WILL BE TURNED OFF. OPTIONALLY, WHEN BUTTON #1 (LOCK) AND BUTTON #3 (N/A) ARE PRESSED AT THE SAME TIME, THE DOME LIGHTS WILL BE ACTIVATED FOR 10 MINUTES. BY PRESSING BUTTON #1 (LOCK) AND BUTTON #4 (N/A) AT THE SAME TIME, THE DOME LIGHTS WILL BE TURNED OFF.
  - KEY FOB (TRANSMITTER) HAS A RANGE OF 150 FEET MAXIMUM.



**REFERENCE - WIRE CONNECTIONS WITH 1-16720-6 CAB WIRE HARNESS:**

- MOTOR (BLUE): WIRE CONNECTION FOR ACTUATORS.
- MOTOR (GREEN): WIRE CONNECTION FOR ACTUATORS.
- POWER 7 (RED): WIRE CONNECTION FOR POWER FROM CAB.
- CHASSIS GROUND-2 (BLACK): WIRE CONNECTION FOR CHASSIS GROUND FOR ACTUATORS.
- CHASSIS GROUND-1 (BLACK): WIRE CONNECTION FOR CHASSIS GROUND FOR ACTUATORS.



**NOTE:**  
TO PROGRAM CONTROL MODULE TO ADDITIONAL KEY FOB (TRANSMITTERS), PRESS THE PROGRAM BUTTON ON CONTROL MODULE (3) TIMES, LED WILL LIGHT UP, THEN PRESS BUTTON #1 ON THE KEY FOB (TRANSMITTER).

SUPERSEDES DRAWING 1-16720-4 SHEET 1 OF 2 DATED 1-17-05.

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CUSTOMER PRINT SHEET 1 OF 2

**EBERHARD MANUFACTURING CO.**  
DIVISION OF  
THE EASTERN COMPANY  
CLEVELAND, OHIO 44149-9712

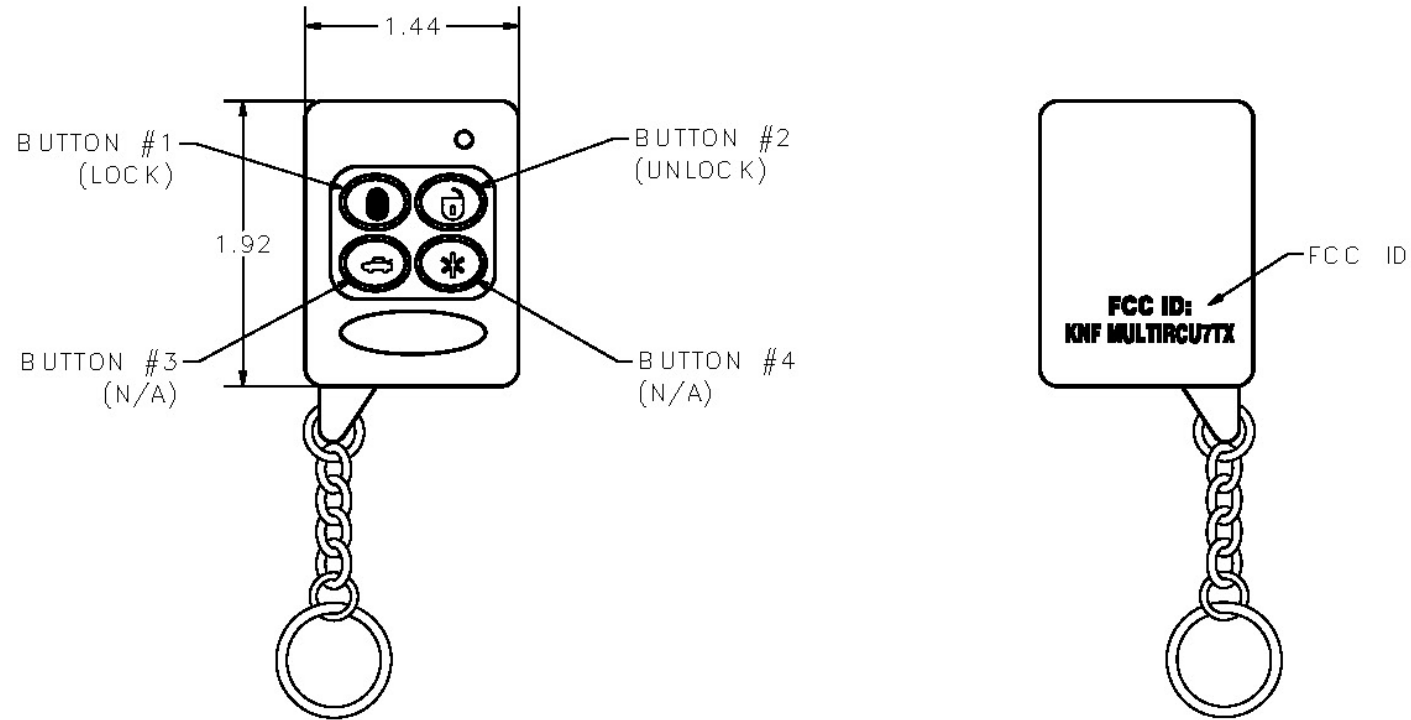
NAME: CONTROL MODULE WITH DOME LIGHT FEATURE  
PART NUMBER: 1-16720-4

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE AS FOLLOWS:	DATE: 3/29/2013	SCALE: FULL
AND LES: b-20 b-26	DRY: P.L.P.	CHECK: FULL
2 PLACE DEC: b-03 b-36		
3 PLACE DEC: b-015 b-38		
ALL HOLES: b-005 b-13		

C:\TEMP\8131ba3-b2b-4e7b-beb7-74e9f6e8a70ea\Pro\1163\XX\16720\1-16720-4 SH1.dwg

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REVISION HISTORY			
REV	DESCRIPTION	EN	DATE
1	CONVERTED TO 3D	5597	3-29-13



PROGRAMMING THE KEY FOBBS:  
 TO PROGRAM THE CONTROL MODULE TO ADDITIONAL KEY FOB (TRANSMITTERS), PRESS THE PROGRAM BUTTON ON CONTROL MODULE (3) TIMES, LED WILL LIGHT UP, THEN PRESS BUTTON #1 ON ALL OF THE KEY FOBBS THAT WILL BE ASSOCIATED WITH THE VEHICLE, (UP TO 4 KEY FOBBS), WITHIN 10 SECONDS OF THE LED LIGHTING UP. TEST EACH KEY FOB BY LOCKING AND UNLOCKING THE SYSTEM TO ENSURE PROPER OPERATION.  
 NOTE: ALL KEY FOBBS MUST BE PROGRAMMED AT THE SAME TIME USING THIS PROCEDURE. PROGRAMMING ONE KEY FOB AT A TIME WILL ERASE THE PREVIOUS PROGRAMMED KEY FOB.

CUSTOMER PRINT  
 SHEET 1 OF 2

UNCONTROLLED COPY

NOTES:

- FOR USE WITH 1-16720-4 CONTROL MODULE ONLY.
- BATTERY INCLUDED WITH KEY FOB (TRANSMITTER).
- REPLACEMENT BATTERIES:  
 23AP (12V ALKALINE) OR 23-279 (12V ALKALINE)

SUPERSEDES DRAWING 16720-5 SHEET 1 OF 2 DATED 1-10-07.

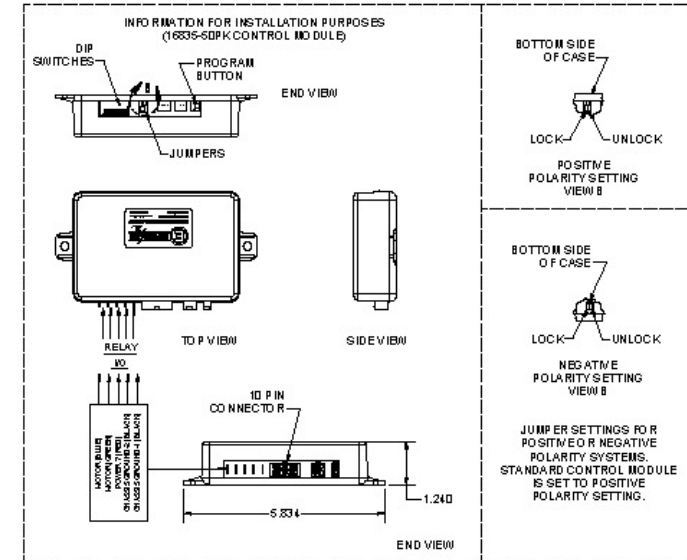
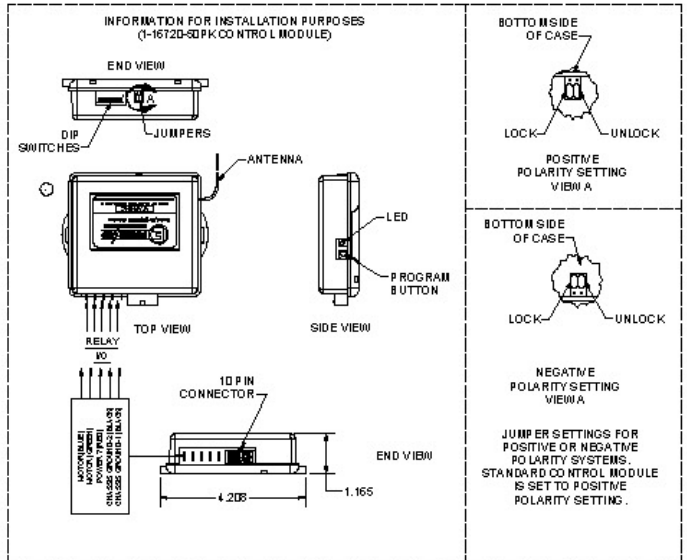
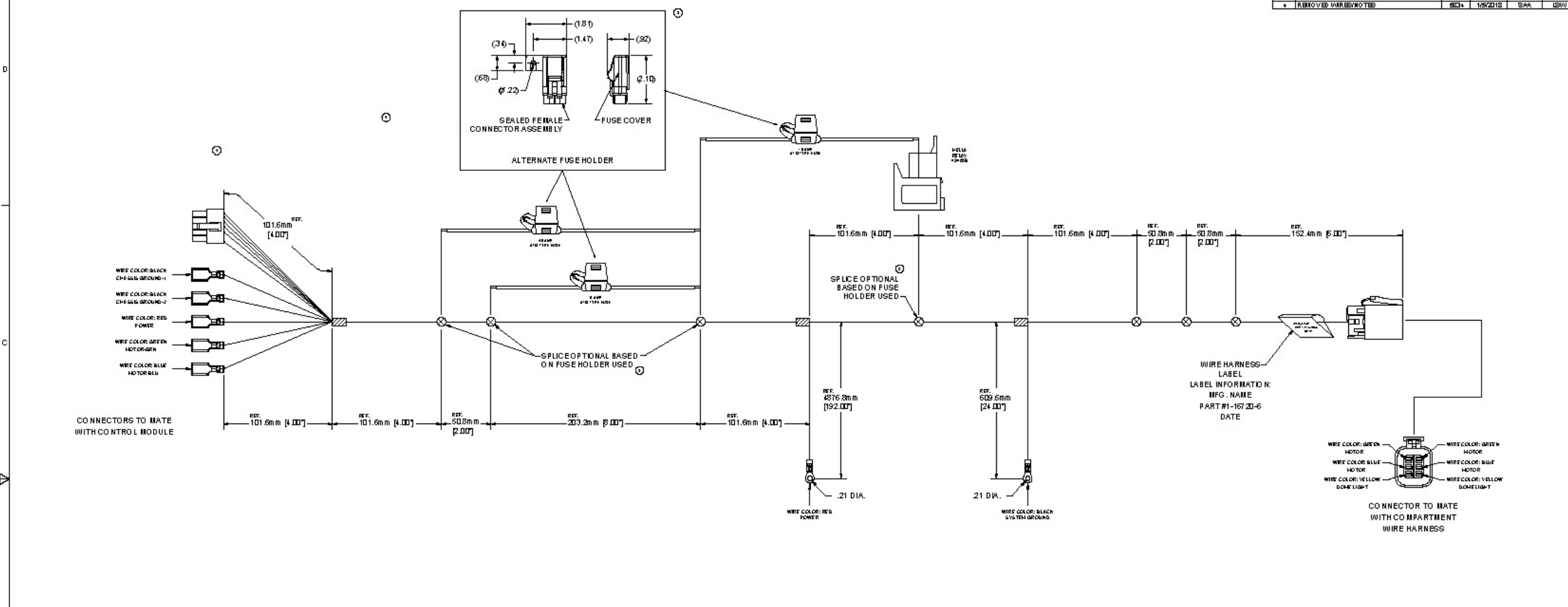
THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.15-2009		DATE 3/29/2013
LINEAR MEASURE: INCH	DR. BY FLP	SCALE FULL
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE AS FOLLOWS:	SCALE FULL	CHECK BY
ANGLES: ±2° ±2°		
2 PLACE DEC.: ±.03 ±.06		
3 PLACE DEC.: ±.015 ±.038		
ALL HOLES: ±.005 ±.13		

<b>EBERHARD MANUFACTURING CO.</b> DIVISION OF THE EASTERN COMPANY CLEVELAND, OHIO 44149-9712	
NAME KEY FOB (TRANSMITTER)	
MATERIAL -----	PART NUMBER 16720-5



CONVERTED TO 3D  
 1-1672D-50PK CONTROL MODULE  
 1-1672D-50PK CONTROL MODULE  
 1-1672D-50PK CONTROL MODULE

REV	DESCRIPTION	REV	DATE	REV. BY	APP'D. BY
1	CONVERTED TO 3D	REV	3/25/13		
2	UPDATED VIEW	REV	10/3/14		
3	REVISED TITLE	REV	10/9/15		
4	ADD ED VISIBILITIES	REV	3/4/2016	SAK	LSM
5	REMOVED VARKEYNOTES	REV	10/20/16	SAK	LSM



NOTES:  
 1. DIMENSIONS ARE MEASURED FROM BACK OF CONNECTOR TO CENTER OF BREAKOUTS OR SPLICES.  
 2. HARNESS IS COIL-WRAPPED IN DIAMETER NO LARGER THAN 10 INCHES AND SHIPPED IN A SEALED POLY BAG.  
 3. HARNESS IS 100% CONTINUITY CHECKED.

UNCONTROLLED COPY

METRIC

DIMENSION	TOLERANCE
ALL DIMENSIONS	±.25 mm
	[.009]

DIMENSIONS SHOWN IN [ ] ARE IN INCHES

CUSTOMER PRINT SHEET 1 OF 2

**DOVER MANUFACTURING CO.**  
 DIVISION OF THE EASTERN COMPANY  
 CLEVELAND, OHIO 44115-1000

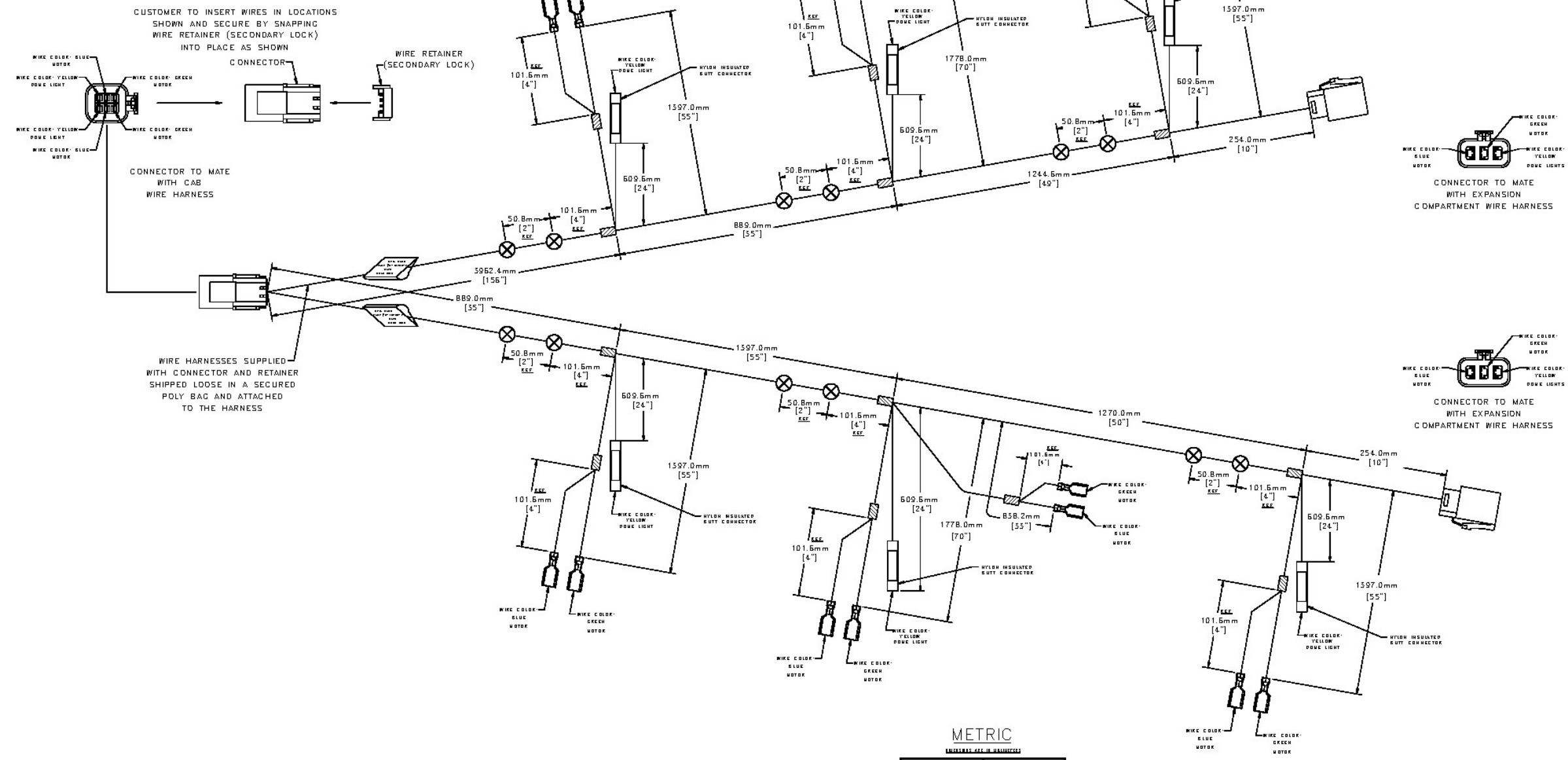
CAB WIRE HARNESS WITH DO ME LIGHT FEATURE

1-1672D-6

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REV.	DESCRIPTION	BY	DATE
1	CONVERTED TO A		

NOTE - CONNECTION TO 16720-1 POWER ACTUATOR:  
 RETRACT ACTUATOR TO LOCK:  
 GREEN HARNESS WIRE CONNECTS TO BLUE POWER ACTUATOR WIRE  
 BLUE HARNESS WIRE CONNECTS TO RED POWER ACTUATOR WIRE  
 EXTEND ACTUATOR TO LOCK:  
 GREEN HARNESS WIRE CONNECTS TO RED POWER ACTUATOR WIRE  
 BLUE HARNESS WIRE CONNECTS TO BLUE POWER ACTUATOR WIRE



- NOTES:
1. DIMENSIONS ARE MEASURED FROM BACK OF CONNECTORS, TO CENTER OF BREAKOUTS OR SPLICES, AND TO THE END OF TERMINALS.
  2. HARNESSES ARE INDIVIDUALLY COIL-WRAPPED IN DIAMETER NO LARGER THAN 10 INCHES AND SHIPPED IN A SEALED POLY BAG.
  3. HARNESSES ARE 100% CONTINUITY CHECKED.

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METRIC

DIMENSION	TOLERANCE
ALL DIMENSIONS	±25.0 mm [±.99"]

DIMENSIONS SHOWN IN [ ] ARE IN INCHES

CUSTOMER PRINT SHEET 1 OF 2

**EBERHARD MANUFACTURING CO.**  
 DIVISION OF THE EASTERN COMPANY  
 CLEVELAND, OHIO 44149-9715

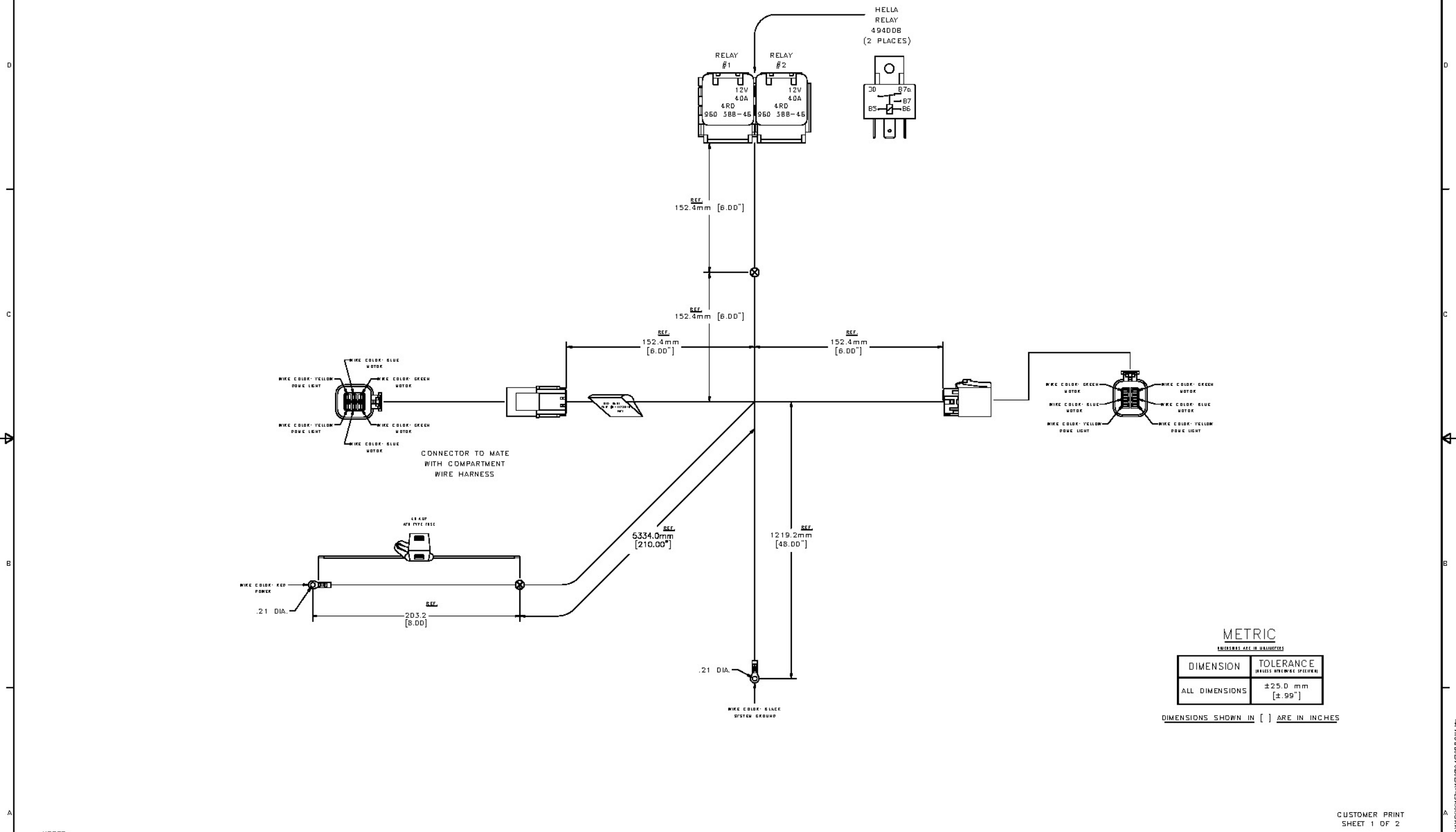
DESIGNED BY	DATE	NO.	REV.
DRAWN BY	DATE	NO.	REV.
CHECKED BY	DATE	NO.	REV.
APPROVED BY	DATE	NO.	REV.

COMPARTMENT WIRE HARNESS WITH DOME LIGHT FEATURE

2-16720-7

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REV.	DESCRIPTION	BY	DATE
1	CONVERTED TO B	SPF	2-28-13



METRIC  
UNLESS SPECIFIED OTHERWISE

DIMENSION	TOLERANCE
ALL DIMENSIONS	±25.0 mm [±.99"]

DIMENSIONS SHOWN IN [ ] ARE IN INCHES

- NOTES:
1. DIMENSIONS ARE MEASURED FROM BACK OF CONNECTOR TO CENTER OF BREAKOUTS OR SPLICES.
  2. HARNESS TO BE CDIL-WRAPPED IN DIAMETER NO LARGER THAN 10 INCHES AND PLACES IN A SEALED POLY BAG.
  3. HARNESS IS 100% CONTINUITY CHECKED.

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CUSTOMER PRINT  
SHEET 1 OF 2

EBERHARD MANUFACTURING CO.		DIVISION BY THE EASTERN COMPANY CLEVELAND, OHIO 44149-9712	
FOR REVISIONS TO BE ENTERED HERE DATE 11-1-13	REV.	BY	DATE
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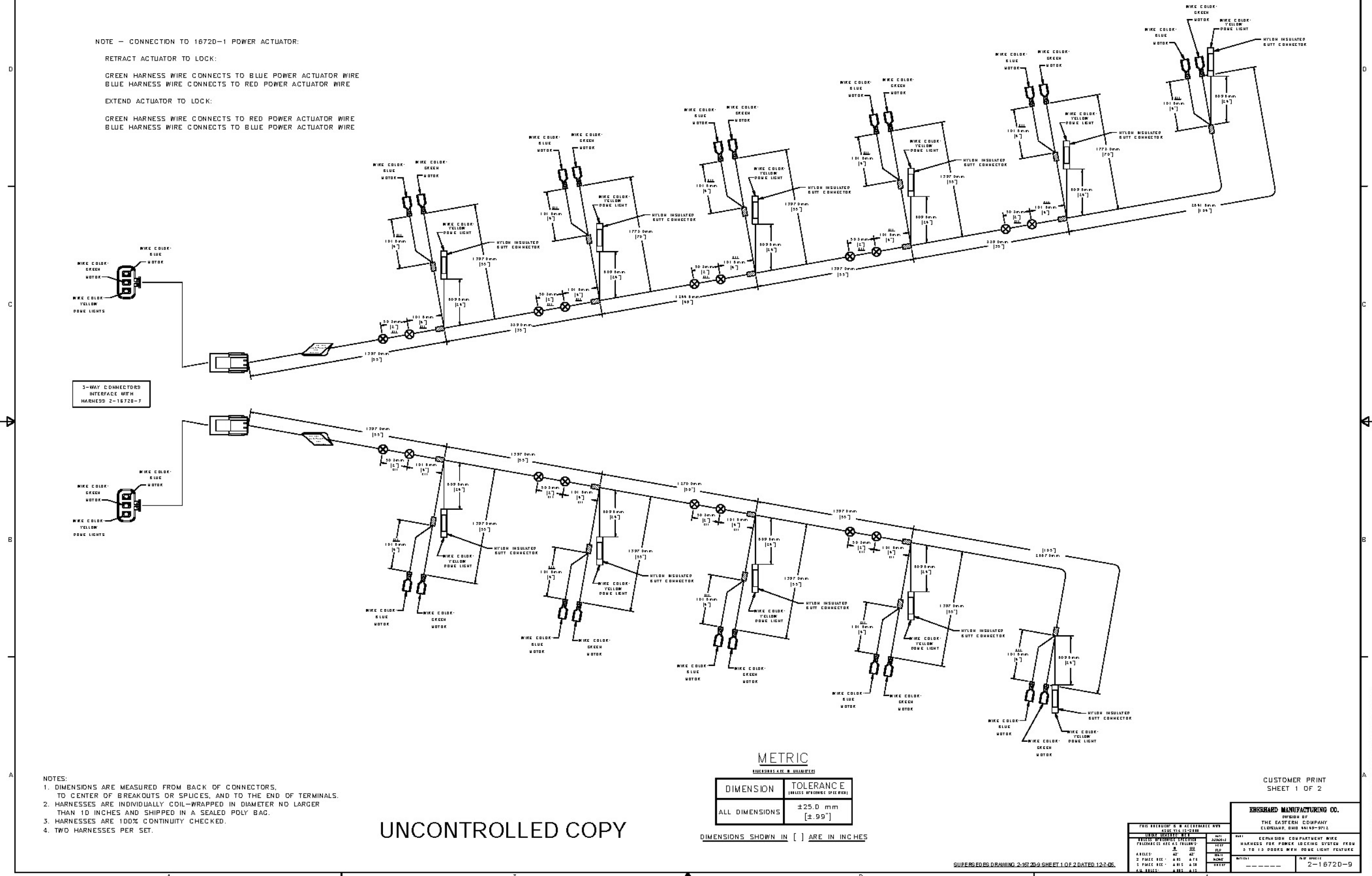
SUPersedes DRAWING 2-16720-S SHEET 1 OF 2 DATED 12-1-05.

COMPASSING FOUR (160) 161/PROVINCIAL/2005-10720S SH1.DWG

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REV	DESCRIPTION	EN	DATE
1	CONVERTED TO A	WFL	1/20/11

NOTE - CONNECTION TO 16720-1 POWER ACTUATOR:  
 RETRACT ACTUATOR TO LOCK:  
 GREEN HARNESS WIRE CONNECTS TO BLUE POWER ACTUATOR WIRE  
 BLUE HARNESS WIRE CONNECTS TO RED POWER ACTUATOR WIRE  
 EXTEND ACTUATOR TO LOCK:  
 GREEN HARNESS WIRE CONNECTS TO RED POWER ACTUATOR WIRE  
 BLUE HARNESS WIRE CONNECTS TO BLUE POWER ACTUATOR WIRE



- NOTES:
1. DIMENSIONS ARE MEASURED FROM BACK OF CONNECTORS, TO CENTER OF BREAKOUTS OR SPLICES, AND TO THE END OF TERMINALS.
  2. HARNESSES ARE INDIVIDUALLY COIL-WRAPPED IN DIAMETER NO LARGER THAN 10 INCHES AND SHIPPED IN A SEALED POLY BAG.
  3. HARNESSES ARE 100% CONTINUITY CHECKED.
  4. TWO HARNESSES PER SET.

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METRIC

DIMENSION	TOLERANCE
ALL DIMENSIONS	±25.0 mm [±.99"]

DIMENSIONS SHOWN IN [ ] ARE IN INCHES

CUSTOMER PRINT SHEET 1 OF 2

EBERHARD MANUFACTURING CO.  
 DIVISION OF THE EASTERN COMPANY  
 CLEVELAND, OHIO 44149-9712

REV	DESCRIPTION	EN	DATE
1	CONVERTED TO A	WFL	1/20/11

SUPERSEDES DRAWING 2-16720-9 SHEET 1 OF 2 DATED 12-7-05

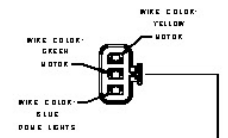
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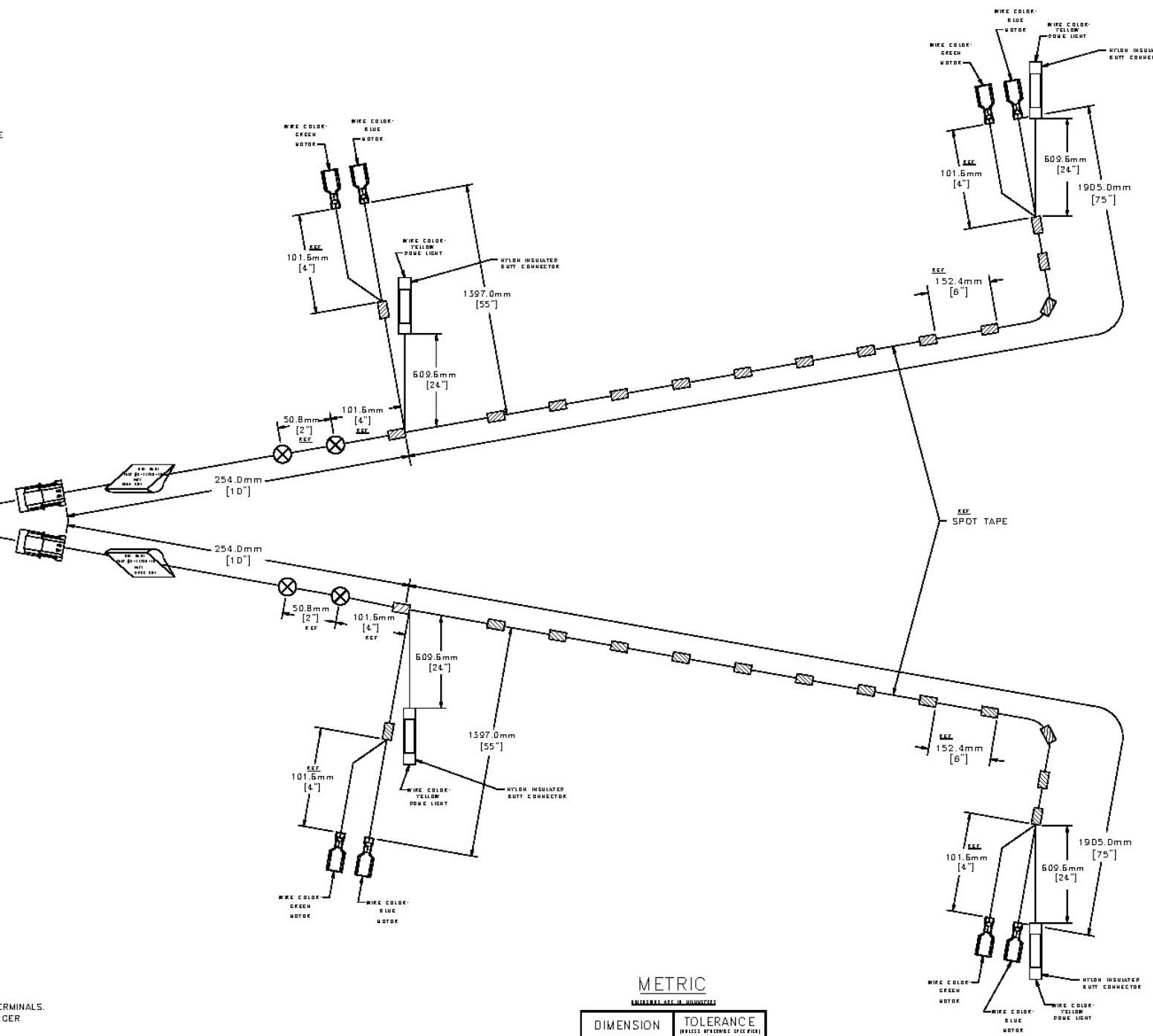
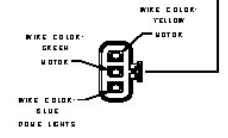
REV	DESCRIPTION	EN	DATE
1	COMPLETED	SP	2017

NOTE - CONNECTION TO 1672D-1 POWER ACTUATOR:  
 RETRACT ACTUATOR TO LOCK:  
 GREEN HARNESS WIRE CONNECTS TO BLUE POWER ACTUATOR WIRE  
 BLUE HARNESS WIRE CONNECTS TO RED POWER ACTUATOR WIRE  
 EXTEND ACTUATOR TO LOCK:  
 GREEN HARNESS WIRE CONNECTS TO RED POWER ACTUATOR WIRE  
 BLUE HARNESS WIRE CONNECTS TO BLUE POWER ACTUATOR WIRE

CONNECTOR TO MATE COMPARTMENT WIRE HARNESS



3-WAY CONNECTORS INTERFACE WITH HARNESS 2-1672D-7



- NOTES:
1. DIMENSIONS ARE MEASURED FROM BACK OF CONNECTORS, TO CENTER OF BREAKOUTS OR SPLICES, AND TO THE END OF TERMINALS.
  2. HARNESSES ARE INDIVIDUALLY COIL-WRAPPED IN DIAMETER NO LARGER THAN 10 INCHES AND SHIPPED IN A SEALED POLY BAG.
  3. HARNESSES ARE 100% CONTINUITY CHECKED.
  4. TWO HARNESSES PER SET.

METRIC

DIMENSION	TOLERANCE
ALL DIMENSIONS	±25.0 mm [±.99"]

DIMENSIONS SHOWN IN [ ] ARE IN INCHES

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CUSTOMER PRINT SHEET 1 OF 2

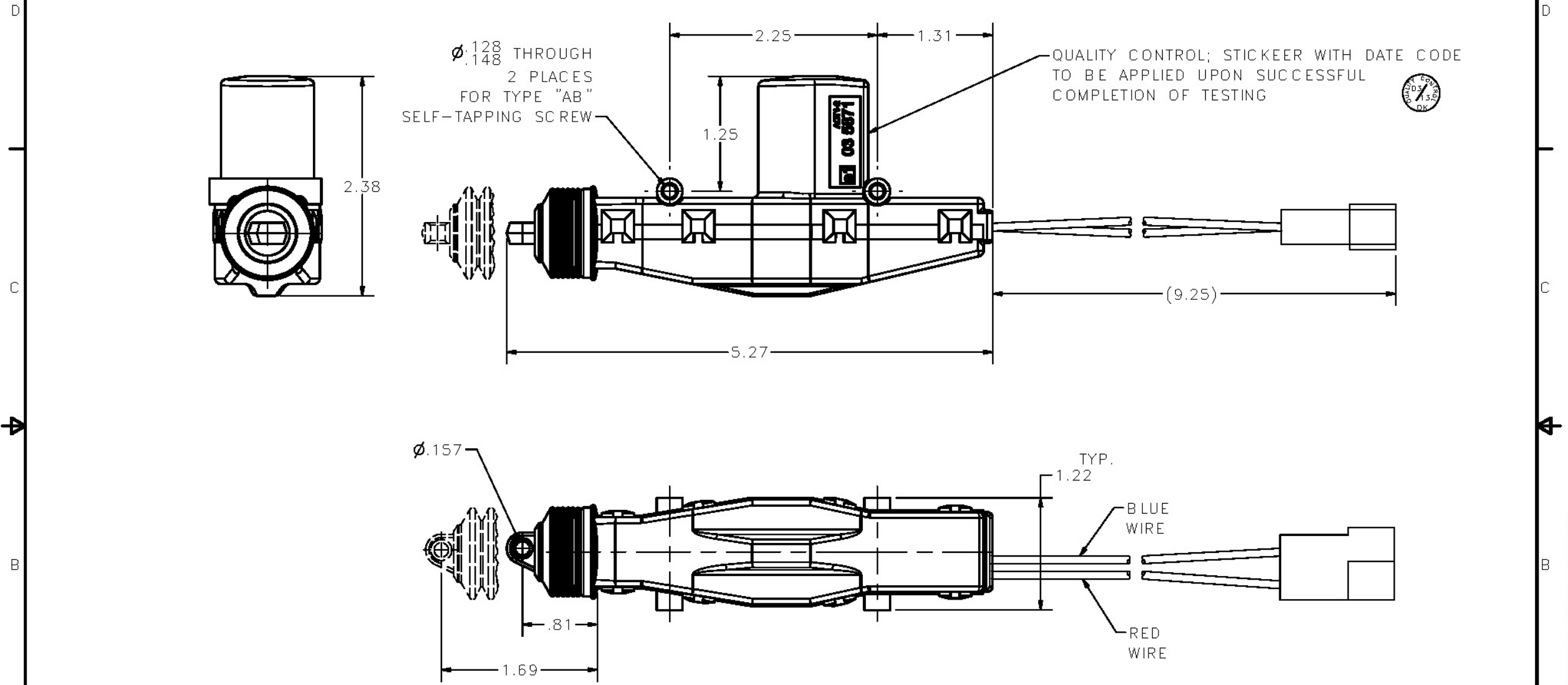
EVSERHARD MANUFACTURING CO.  
 DIVISION OF THE EASTERN COMPANY  
 CLIFTON, OHIO 44625-1011

THIS DRAWING IS A SUBSTITUTE FOR	DATE: 11-15-2017	REV: 1	DATE: 11-15-2017
DESIGNED BY: JMM/ML	DATE: 11-15-2017	CHKD BY: JMM/ML	DATE: 11-15-2017
RELEASED BY: JMM/ML	DATE: 11-15-2017	DATE: 11-15-2017	DATE: 11-15-2017
3 PAGE SET: 40, 41, 42	DATE: 11-15-2017	DATE: 11-15-2017	DATE: 11-15-2017
1 PAGE SET: 40, 41, 42	DATE: 11-15-2017	DATE: 11-15-2017	DATE: 11-15-2017
4. FILE NO: 4.011.011	DATE: 11-15-2017	DATE: 11-15-2017	DATE: 11-15-2017

SUPERSEDES DRAWING 2-1672D-10 SHEET 1 OF 2 DATED 9-22-05.

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REVISION HISTORY			
REV	DESCRIPTION	EN	DATE
1	REVISED, REDRAWN AND CONVERTED TO 3D	5597	3-29-13



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CUSTOMER PRINT SHEET 1 OF 2

TECHNICAL DATA:  
 WORKING VOLTAGE: 8.8 VDC TO 13.7 VDC  
 CURRENT ABSORPTION: 4.5 A (MAX.)  
 TEMPERATURE RANGE: -18.4° F TO +188.6° F  
 POWER: 7.868 lbf.

SUPERSEDES DRAWING 16720-1 SHEET 1 OF 2 DATED 3-14-03.

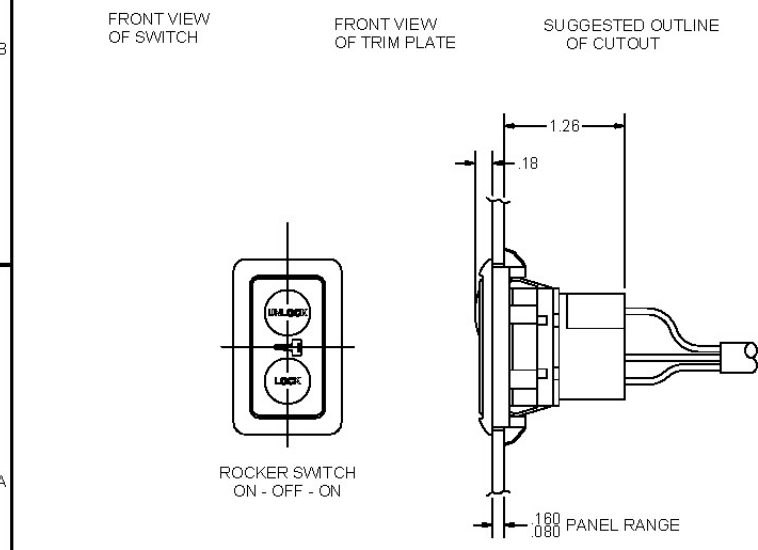
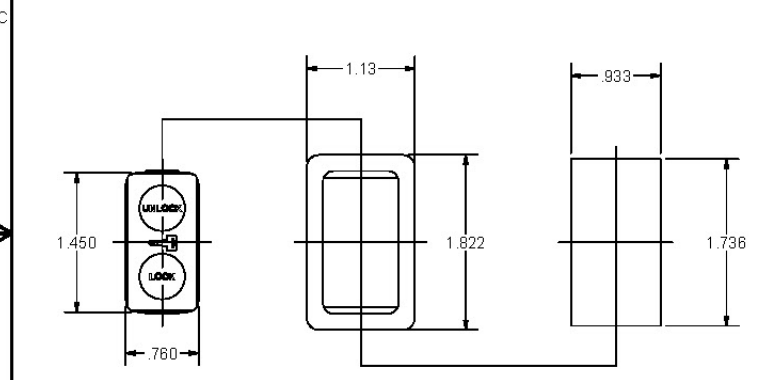
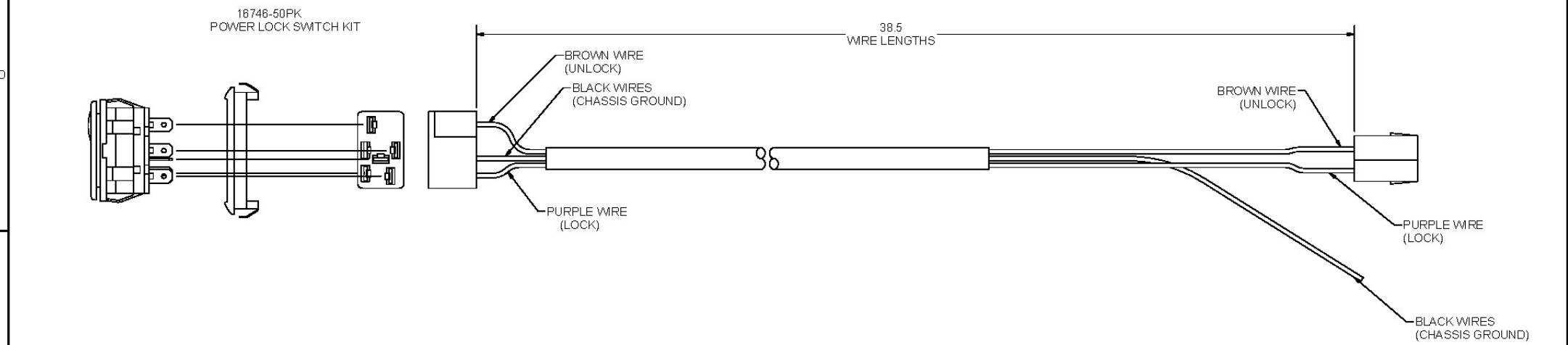
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LINEAR MEASURE: INCH	DATE 3/29/2013
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE AS FOLLOWS:	DR BY FLP
ANGLES: ±2' ±2'	SCALE FULL
2 PLACE DEC.: ±.05 ±.76	CHK BY
3 PLACE DEC.: ±.015 ±.38	
ALL HOLES: ±.005 ±.13	

<b>EBERHARD MANUFACTURING CO.</b> DIVISION OF <b>THE EASTERN COMPANY</b> CLEVELAND, OHIO 44149-9712	
POWER ACTUATOR	
MATERIAL *	PART NUMBER 16720-1

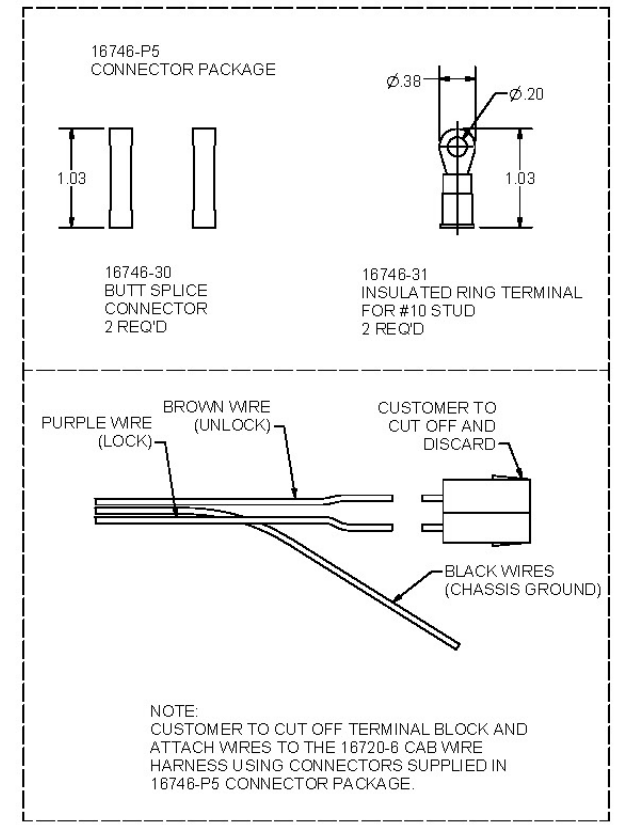
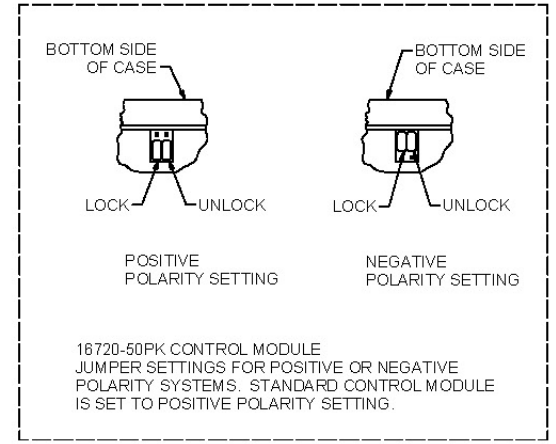
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REVISION HISTORY					
REV	DESCRIPTION	EN	DATE	REV BY	APVD BY
1	CONVERTED TO 3D	5737	1-29-16	FLP	MR



- NOTES:
1. BROWN WIRE (UNLOCK) - CONNECTS TO THE BLUE/WHITE WIRE IN THE 16720-8 CAB WIRE HARNESS. PURPLE WIRE (LOCK) - CONNECTS TO THE GREEN/WHITE WIRE IN THE 16720-8 CAB WIRE HARNESS. BLACK WIRES (CHASSIS GROUND) GRAY WIRE (ILLUMINATION) - CONNECTS TO THE PARKING LIGHT CIRCUIT ON THE VEHICLE.
  2. JUMPERS ON THE 16720-50PK CONTROL MODULE WILL NEED TO BE CHANGED TO NEGATIVE POLARITY.
  3. 1-16746-50PK POWER LOCK SWITCH KIT AND 1-16746-P5 CONNECTOR PACKAGE TO BE SHIPPED LOOSE, BULK PACKED.



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SUPERSEDES DRAWING 16746-U DATED 12-17-03

THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.15-2012		DATE: 1/29/2016		NAME: FLP	
UNLESS OTHERWISE SPECIFIED TO TOLERANCES ARE AS FOLLOWS:		SCALE: FULL		MATERIAL: 16746-U	
ANG LES:	.12	ANG LES:	.12		
2 PLACE DEC.:	.00	3 PLACE DEC.:	.015		
ALL DIMS:	.125	ALL DIMS:	.125		

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DIVISION OF  
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CLEVELAND, OHIO 44149-9712

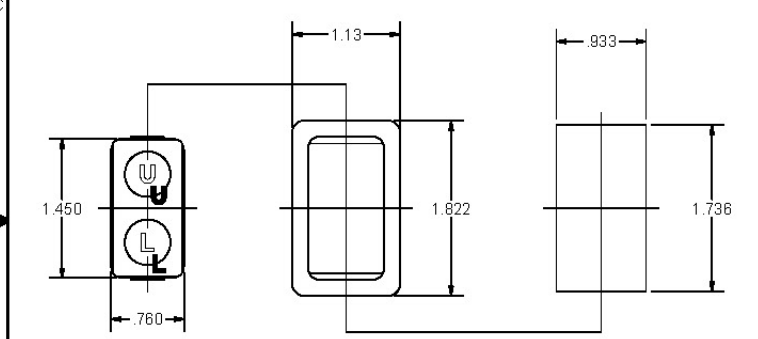
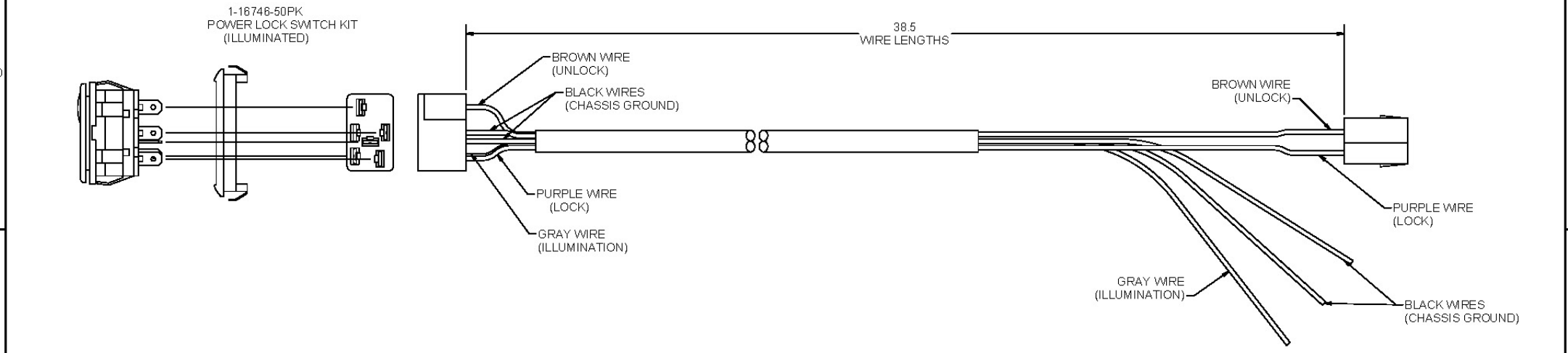
POWER LOCK SWITCH KIT WITH CONNECTORS

16746-U

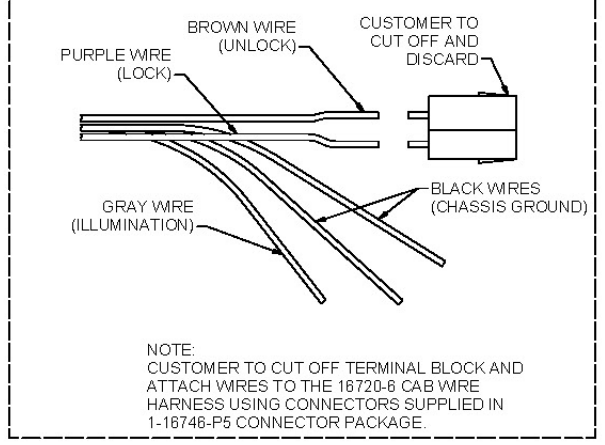
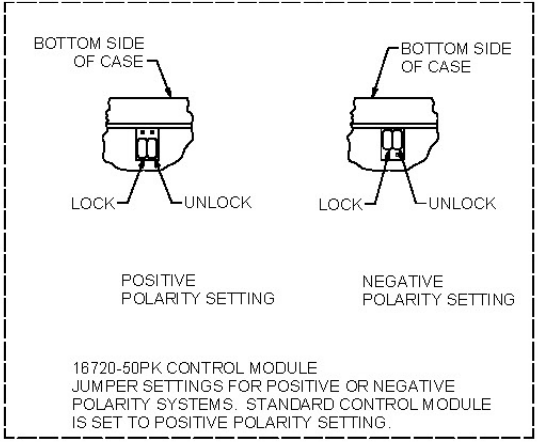
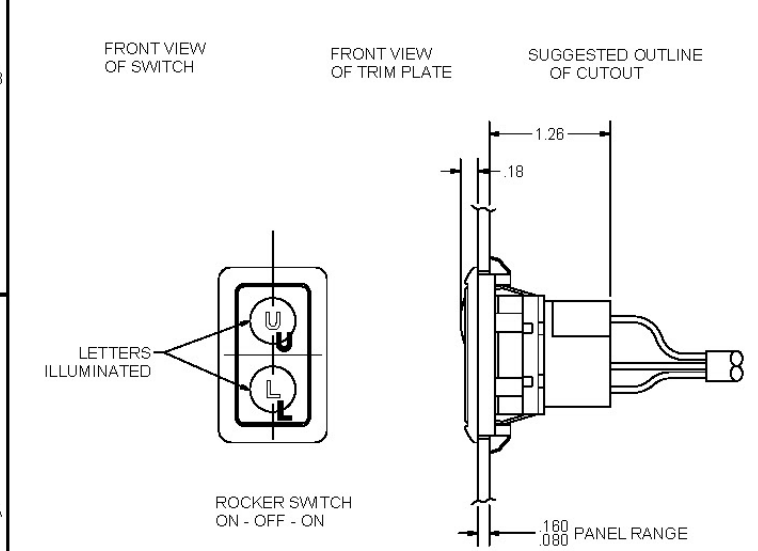
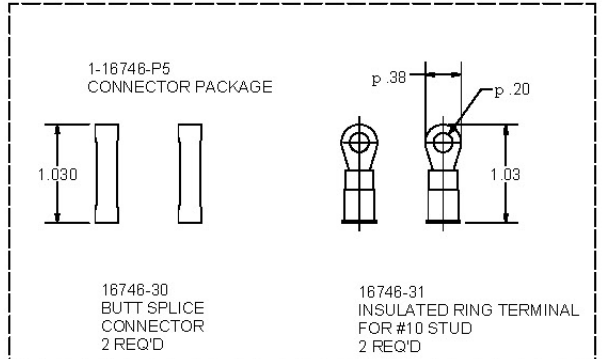
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REVISION HISTORY					
REV	DESCRIPTION	EN	DATE	REV BY	APVD BY
1	CONVERTED TO 3D	5737	1-29-16	FLP	MR



- NOTES:
1. BROWN WIRE (UNLOCK) - CONNECTS TO THE BLUE/WHITE WIRE IN THE 16720-8 CAB WIRE HARNESS.  
PURPLE WIRE (LOCK) - CONNECTS TO THE GREEN/WHITE WIRE IN THE 16720-8 CAB WIRE HARNESS.  
BLACK WIRES (CHASSIS GROUND)  
GRAY WIRE (ILLUMINATION) - CONNECTS TO THE PARKING LIGHT CIRCUIT ON THE VEHICLE.
  2. JUMPERS ON THE 16720-50PK CONTROL MODULE WILL NEED TO BE CHANGED TO NEGATIVE POLARITY.
  3. 1-16746-50PK POWER LOCK SWITCH KIT AND 1-16746-P5 CONNECTOR PACKAGE TO BE SHIPPED LOOSE, BULK PACKED.



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SUPERSEDES DRAWING 1-16746-U, DATED 12-17-03

THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.15-2000		DATE: 1/20/2016		NAME: POWER LOCK SWITCH KIT (ILLUMINATED) WITH CONNECTORS	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE AS FOLLOWS:		DRW BY: FLP	SCALE: FULL	MATERIAL: _____	
ANGLES:	2 PLACED DEC: 3 PLACED DEC: ALL DIMS:	20 24 30 36	30 36	PART NUMBER: 1-16746-U	

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CLEVELAND, OHIO 44146-9712

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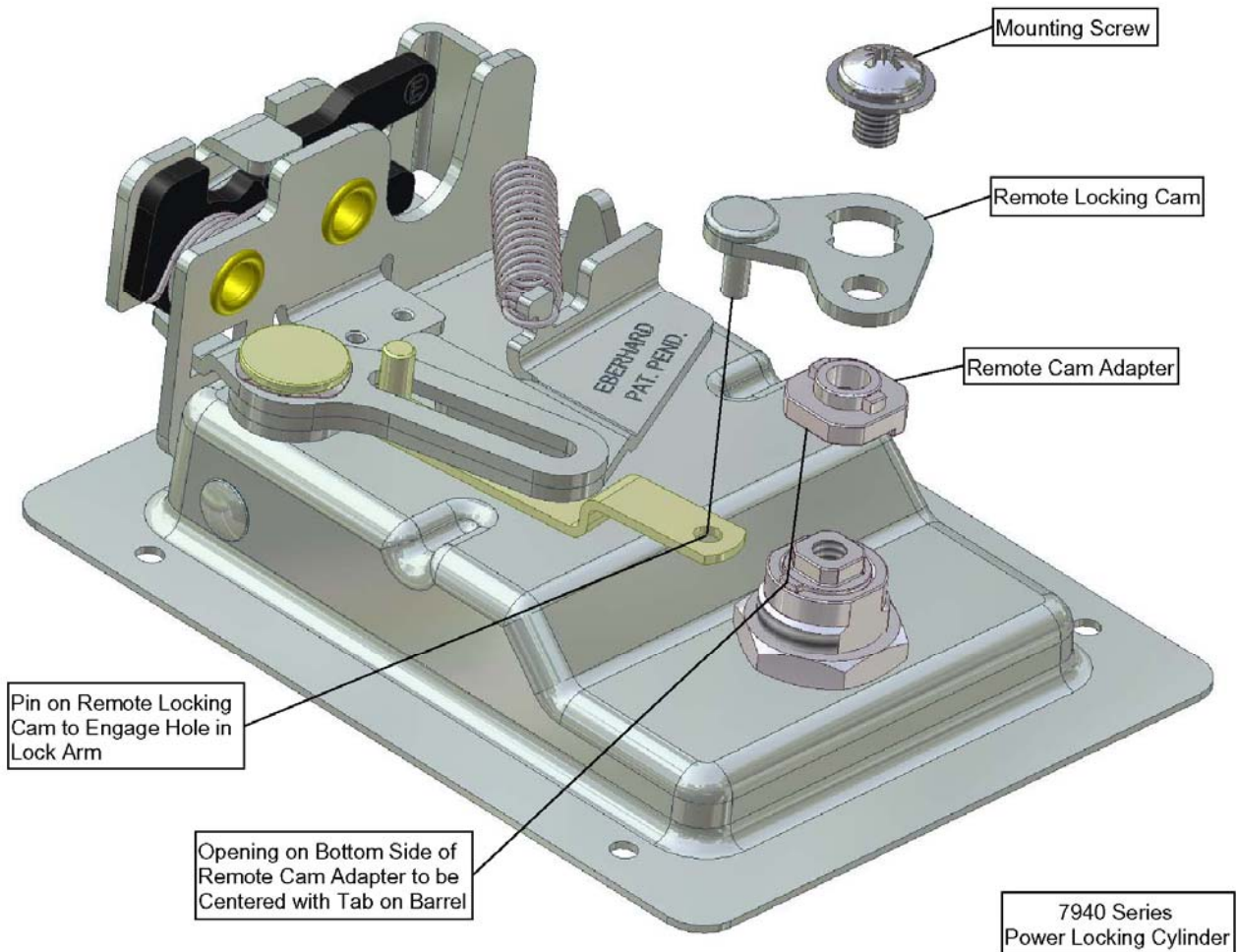


# Eberhard Manufacturing Company POWER-UP Locking System – Key Cylinder

Typical assembly of a power locking key cylinder:

Configuration of power locking key cylinders will vary depending on the application. The ability to make various handle configurations power locking will need to be reviewed and verified on a product by product basis.

For reference only, the components are to be assembled as shown to enable proper function with the power actuators. After assembly, the key cylinder and remote locking cam are to be able to rotate 90° clockwise and counterclockwise independently. The key is to be removable in one position only. This will enable the power actuator to operate the cam when the key is not installed.



## POWER UP COMPONENTS

PART NO.	DESCRIPTION
16720-1 01	(1) Power Lock Activator
16720-2 01	(2) Power Activator Mtg. Screw Phillips Pan head #8-18 Type AB Thread
16720-50PK	Control Module Kit includes:
16720-4 01	(1) Control Module
16720-5 01	(2) Key Fob Transmitter
Standard Wiring Components (for 1-7 activators)	
16720-6 01	(1) Cab Wiring Harness
16720-7 06	(1) Compartment Wiring Harness
Expansion Wiring Components (for 8-18 activators)	
16720-8 01	Expansion Relay Harness
16720-9 01	Expansion Compartment Wiring Harness

*An illuminated or nonilluminated power toggle switch kit can be engineered to provide in-cab actuation.*

*To program the control module to additional key fobs, press the program button on the control module three times. LED will light up, then press button one (#1) on the key fob(s).*

*Control Module can be set up for positive or negative polarity systems.*

*Optional systems can be designed for customer requests.*

*The Standard power system is independent from the OEM power locking system. During service or maintenance, compartments can be kept secure with a separate and unique key fob that cannot be opened with the OEM remote.*

## TECHNICAL DATA

Transmitter provided with battery installed.  
Replacement batteries available.

Working Voltage:	8.8 VDC to 13.7 VDC
Current Absorption:	4.5 A (max)
Temperature Range:	-18.4° F to +188.6° F
Power:	7.868 lbf.



Industrial, Vehicular & Specialty Systems

*A Division of The Eastern Company*

### EBERHARD MANUFACTURING COMPANY

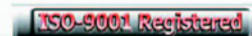
21944 Drake Road  
Cleveland, Ohio 44149  
Phone: (440) 238-9720  
Toll Free: (800) 334-6706  
Fax: (440) 572-2732  
www.eberhard.com



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### EBERHARD HARDWARE MFG., LTD.

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Phone: (519) 842-8457  
Toll Free: (800) 567-3344  
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*For Eberhard's complete catalog of over  
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our sales department.*

# POWER UP™

## LOCKING SYSTEMS



# EBERHARD®

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THE EASTERN COMPANY



# POWERUP™

## LOCKING SYSTEMS FROM EBERHARD



The POWER UP Locking System can be mated with many popular Eberhard latches including single and multipoint paddles, Paddle, Rotary, "T" and "D" handle style latches. Consult the factory to select the proper connecting components to "Power Up" your equipment.



# CONVENIENCE & SECURITY

### POWER LOCK OR UNLOCK UP TO 18 INDIVIDUAL EBERHARD LATCHES WITH ONE TOUCH OF A BUTTON!

The Power Up module can be used in conjunction with OEM power lock systems. Optional systems can be designed to meet your requirements. The standard Power Up system is independent from the OEM power locking system which allows for separate locking of service or maintenance compartments with its own unique fob. Optional cab wire harness is available to connect the standard Power Up system to OEM key fob.

- **SECURITY**  
*All latches are locked at one time.*
- **CONVENIENCE**  
*Simple one-button touch secures all latches with a range of up to 150 feet.*
- **RELIABILITY**  
*Proven operation of components in simulated cycle-testing up to 200,000 cycles.*
- **DURABLE CONSTRUCTION**  
*Sealed actuators and insulated plug-in connections.*
- **COMPATIBILITY**  
*Operates with existing power lock systems. Ideal on Service Bodies, Ambulances, RVs, Buses, or their Single or Multi-Latch power locking systems.*

**THE EBERHARD CONTROL MODULE** incorporates a lock pulse timer that provides a .4 second pulse from the control module to the actuators. If the buttons on the key fob (transmitter) are held down for an extended period, the lock pulse timer will prevent the actuators from being damaged.

The control module incorporates a time-out feature that eliminates damage to the actuators by shutting down the systems for thirty seconds if the buttons on the key fob (transmitter) are activated more than eight times in a thirty-second period. After the thirty-second time-out period, the system will function as normal.

The Power-Up control module can be programmed to accept up to four key fobs to operate the same power system.

If a key fob is lost or damaged, the control module can be programmed to accept a new key fob signal.



**POWER UP LOCKING SYSTEMS** are ideal for use on service bodies, ambulances, RVs, or buses for single or multipoint power locking of compartments.

Eberhard has for over 140 years been a leading designer and manufacturer of vehicular and industrial hardware for trucks, trailers, rescue equipment, utility and van bodies, farm vehicles, construction equipment, as well as tonneau covers, truck caps and toolboxes, electrical panels, electronic enclosures and related products.

