TOSHIBA

G9000 Series
SCiB Energy Storage System
HMI INSTALLATION INSERT

Part # 201642-000
November 2019

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Purpose

This insert provides information on how to safely install your Toshiba International Corporation power electronics product. The manual accompanying this insert includes a section of general safety instructions that describes the warning labels and symbols that are used throughout the manual. Read the manual completely before installing, operating, or performing maintenance on this equipment.

The manual, this insert, and the accompanying drawings should be considered a permanent part of the equipment and should be readily available for reference and review. Dimensions shown in the manual are in metric and/or the English customary equivalent.

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1 Introduction

This insert provides information on how to safely install the Human–Machine Interface (HMI) Option for the G9000 Series SCiB Energy Storage System (ESS). The SCiB ESS Manual (PN 98485) includes a section of general safety instructions that describes the warning labels and symbols that are used throughout the manual. Read the SCiB ESS Manual completely before installing, operating, performing maintenance on the equipment, or taking any actions described in this insert.

Qualified personnel should read the SCiB ESS manual carefully before transporting, installing, and wiring the SCiB ESS. In addition they should have a thorough understanding of the information provided in the chapters titled:

- General Safety Instructions
- Important Safety Instructions
- Safety Precautions
- Installation Precautions

Read this SCiB ESS Installation and Operation Manual for important instructions on operating the G9000 UPS with the SCiB ESS. This insert and the accompanying drawings should be considered a permanent part of the equipment and should be readily available for reference and review.

Keep the Installation Manual and the Operation Manual near the SCiB ESS for necessary reference.

Dimensions shown in the manual are in metric and/or the English customary equivalent.

SAVE THESE INSTRUCTIONS

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2 Hardware Contents

The following table shows the bill of material for the HMI Option kit.

TABLE 2.1: HMI KIT BILL OF MATERIAL

TIC PN	Description	Quantity
201334	HMI DISPLAY 7IN WDSCRN TFT	1
200866	BRKT HMI EXOR07_RES-TOUCH	1
201639	WIRE KIT MULTI HMI SCiB	1
201624	SCiB ESS HMI INSTALLATION MANUAL	1

3 Installation Procedure

Refer to Figure 3.1 for Installation Overview when following the below procedure.

3.1 Install HMI into Mounting Bracket:

1. Locate the HMI Mounting Bracket (PN 200866) and remove from packaging. (Figure 3.2 & Figure 3.3)
2. Locate the HMI Display (PN 201334). (Figure 3.4 & Figure 3.5)
3. Remove HMI Display from packaging, keeping the (4) mounting clips with screws available.
4. Slide HMI Display (PN 201334) onto HMI Mounting Bracket (200866). Ensure you can clearly read the connection ports on the backside of the HMI screen, this will indicate you have placed the screen in its proper orientation. (Figure 3.6)
5. Secure the (4)clips onto the HMI by aligning them to the slots on the HMI screen, and tightening the provided bottom head screws. Follow torque recommendations given in figures. (Figure 3.8 – Figure 3.10)
6. Assembly should resemble Figure 3.11 when completed.

3.2 Install HMI assembly onto ESS Cabinet:

7. Remove SCiB Cover Plate, be sure to retain the washers, locks, and nuts for HMI installation. Bolts remain on the door. (Figure 3.12–Figure 3.14)
8. Remove protective film on HMI screen.
9. Mount the HMI assembly onto the door. Ensure HMI connections are located on the bottom for proper orientation.
10. Secure the assembly to the door by utilizing the washers, locks, and nuts previously removed. Be sure to follow the drawing attached to this instruction guide. (Figure 3.15 & Figure 3.16)

3.3 Wiring Connections:

11. Refer to wiring schematic (Figure 3.20) to determine wire terminations for following steps.
12. Use 78704 to connect the HMI to the communication port on (90700) board. Follow LED wiring as a guide for routing and anchoring. (Figure 3.17 & Figure 3.19)
13. Use 78703 to connect HMI for power and ground. Ground conductor will connect to the Door-GND terminal located at the bottom of the Door by utilizing the NRG M5 Termination. Follow LED Wiring as a guide for routing and anchoring the power cable to TB4. (Figure 3.18)

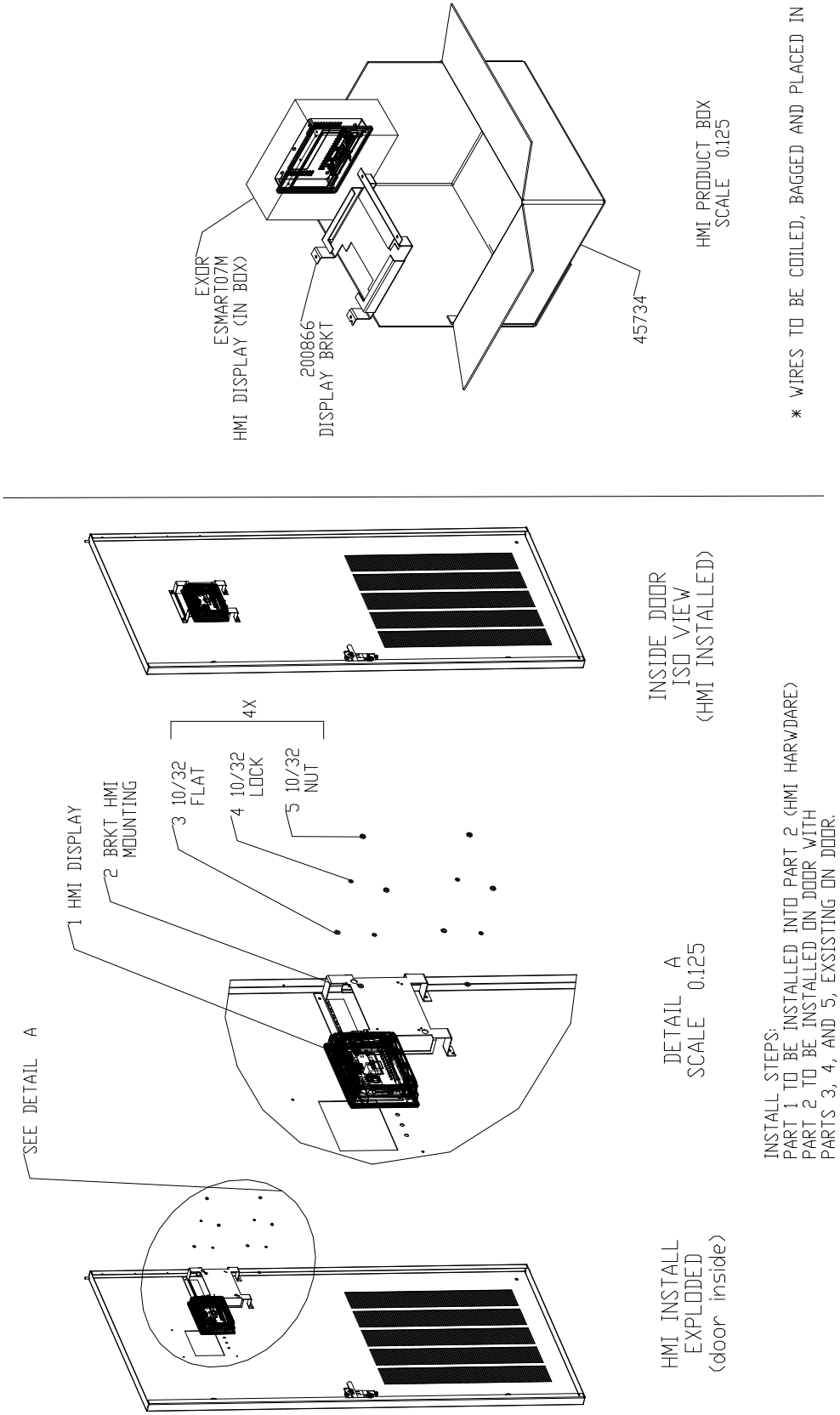

FIGURE 3.1: HMI INSTALLATION OVERVIEW

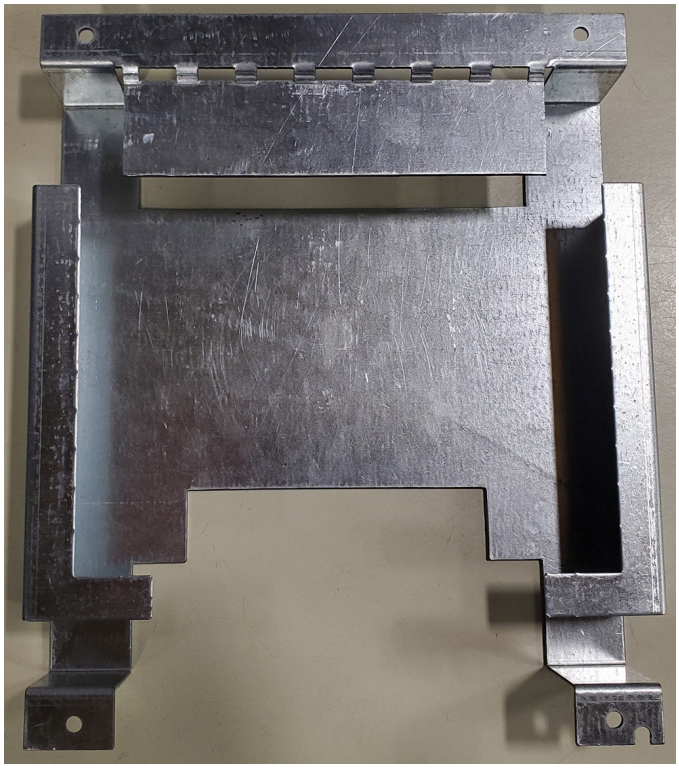

FIGURE 3.2: HMI BRACKET (PN 200866), FRONT VIEW

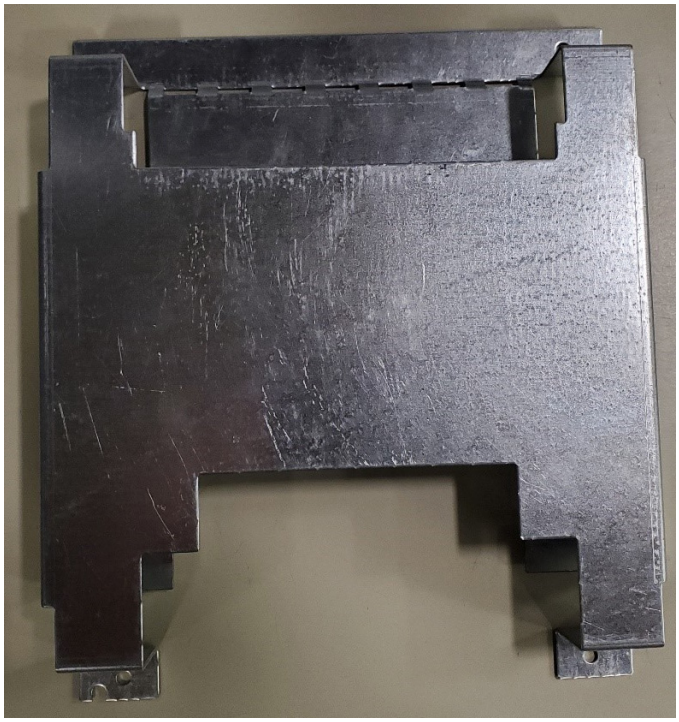

FIGURE 3.3: HMI BRACKET (PN 200866), BACK VIEW

FIGURE 3.4: HMI SCREEN (200134), FRONT VIEW

FIGURE 3.5: HMI SCREEN (200134), BACK VIEW

FIGURE 3.6: HMI ASSEMBLY, PROPER ORIENTATION

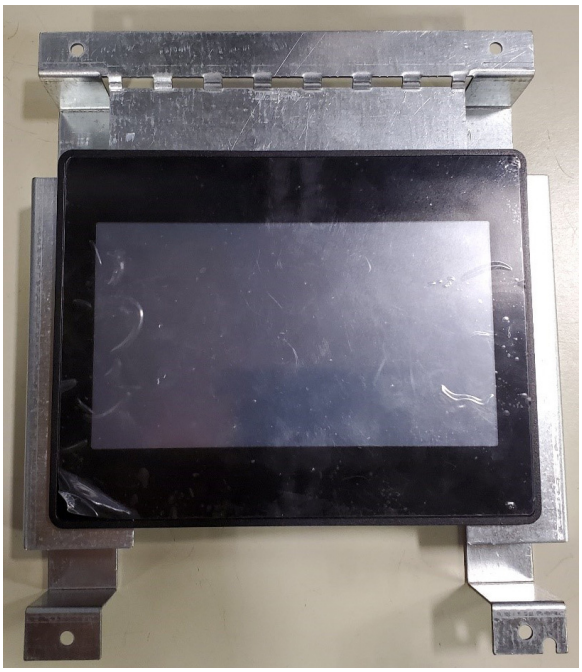

FIGURE 3.7: HMI ASSEMBLY, FRONT VIEW

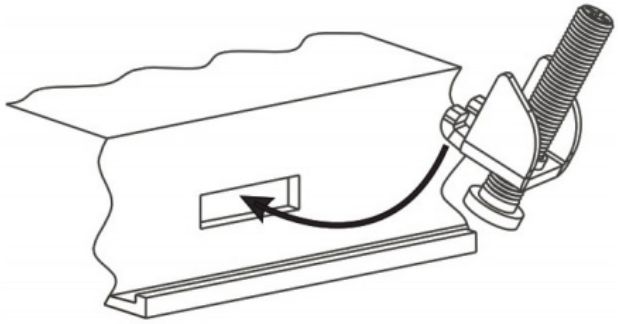

FIGURE 3.8: HMI MOUNTING CLIPS

FIGURE 3.9: HMI CLIP INSTALLATION VIEW

FIGURE 3.10: SECURING HMI TO BRACKET

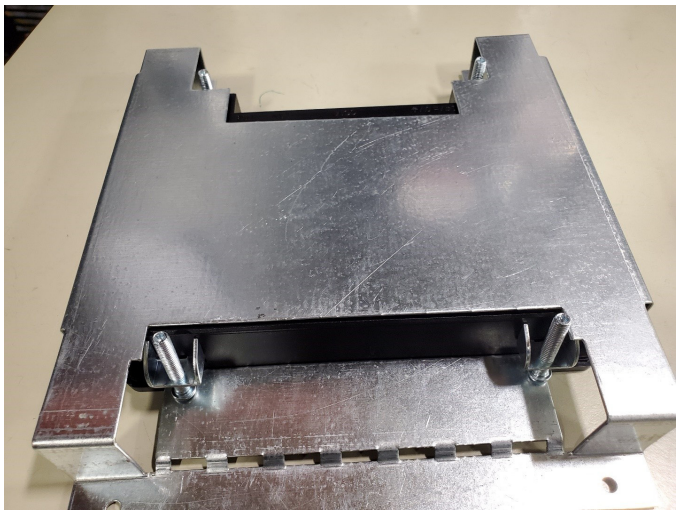

FIGURE 3.11: COMPLETED ASSEMBLY

FIGURE 3.12: COVER PLATE FOR REMOVAL, FRONT VIEW

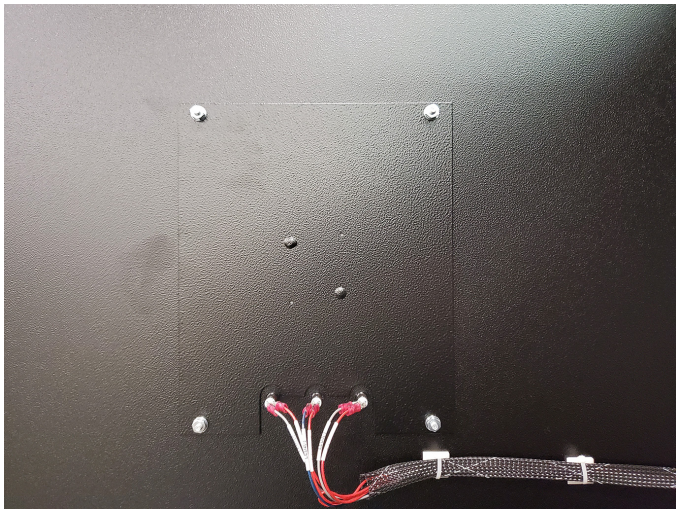

FIGURE 3.13: COVER PLATE REMOVAL, BACK VIEW

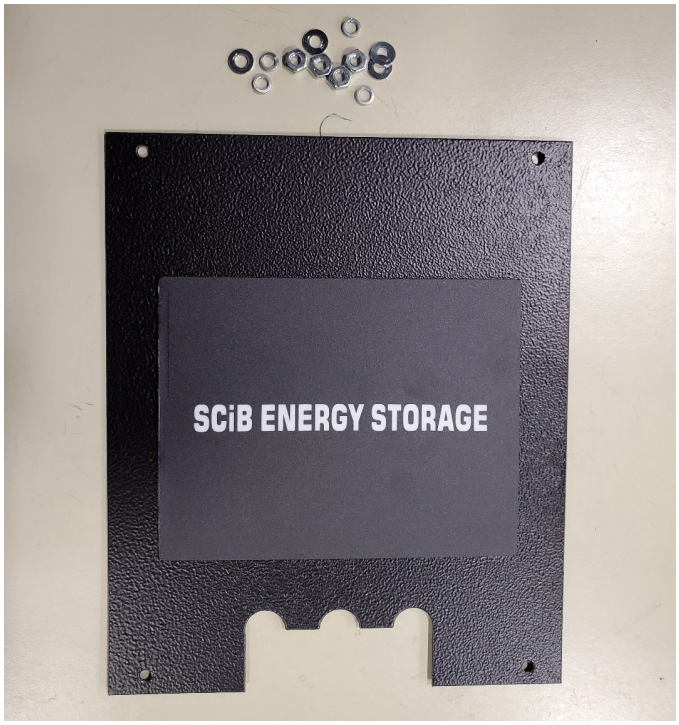

FIGURE 3.14: COVER PLATE REMOVED

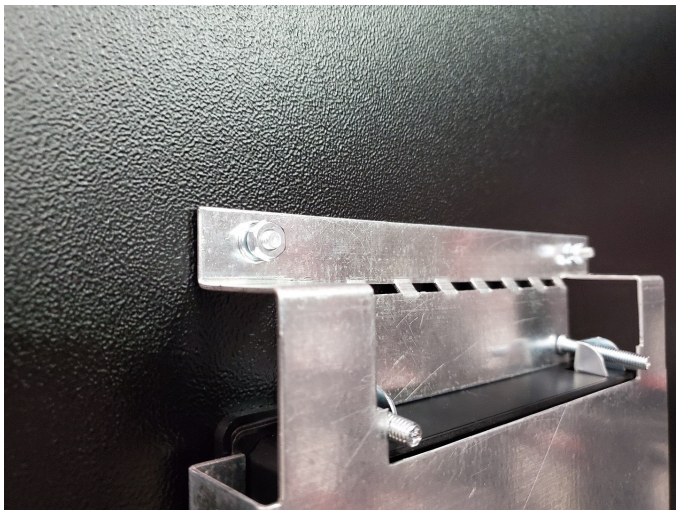

FIGURE 3.15: HMI ASSEMBLY MOUNTED ON DOOR

FIGURE 3.16: HMI ASSEMBLY, INSTALLED, FRONT VIEW

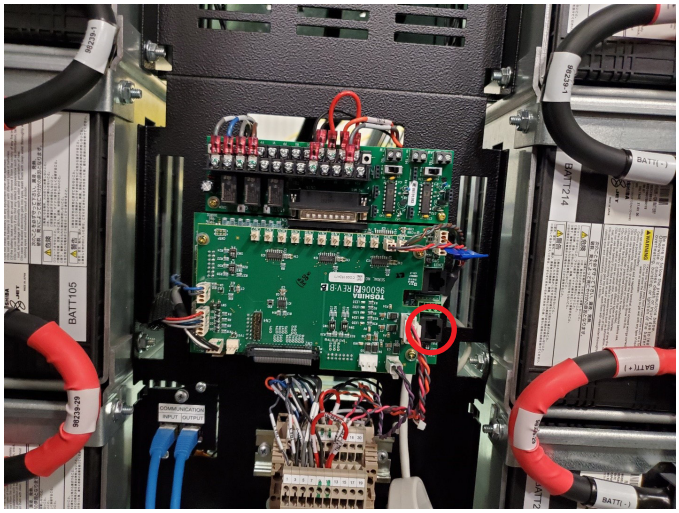

FIGURE 3.17: HMI CONNECTION POINT 78704

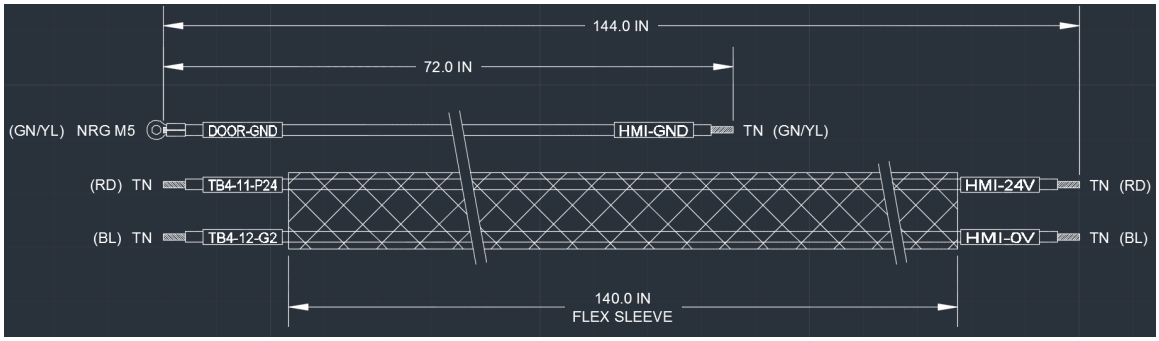

FIGURE 3.18: 78703 WIREKIT DIAGRAM

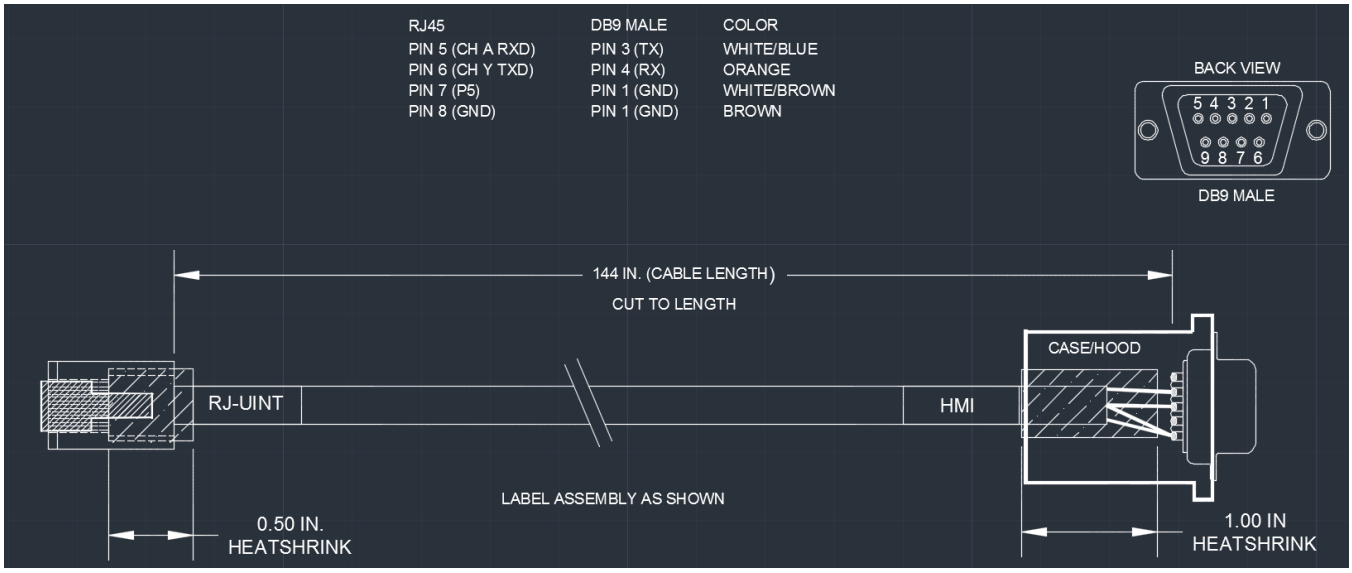

FIGURE 3.19: 78704 WIREKIT DIAGRAM

Notes:

JP1 & JP2 Configurations:
G9000 750KVA or lower, Connect JP1 from 1 to 9 & JP2 from 2 to 10.
G9000 1MVA or higher, Connect JP1 from 9 to 11 & JP2 from 10 to 12.

HMI Wire Kit:
Wirekit# 78703 (Power) & 78704 (Communication) are subassemblies of Wirekit# 201639

---------- Indicates Customer/Contractor Connection

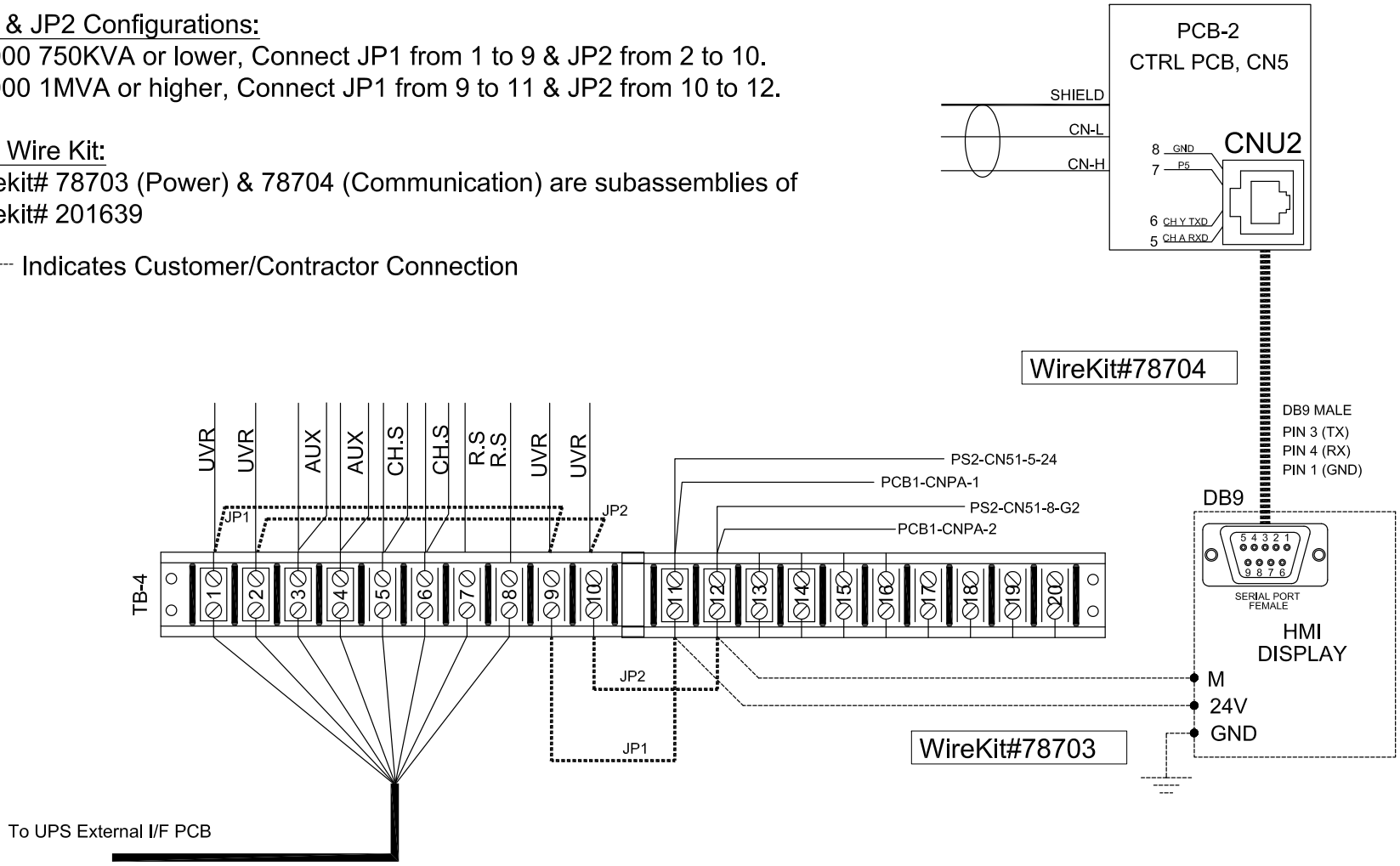

FIGURE 3.20: HMI WIRING SCHEMATIC

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