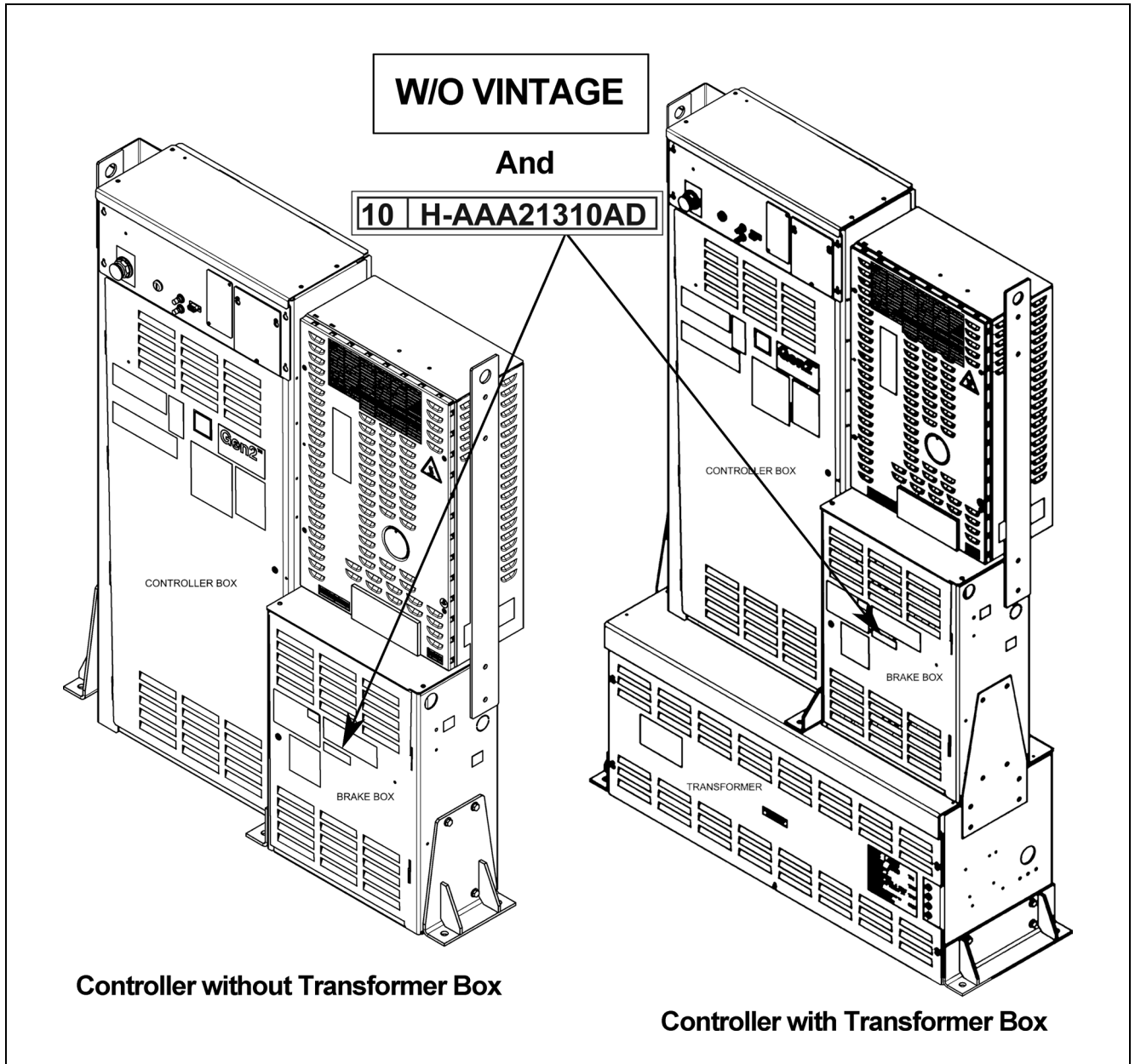


**Gearless Variable  
Frequency Controller NSAA  
Global Control System**

**Spare Parts Leaflet  
10-AAA21310AD**

**February 19, 2025 / Page 1 of 7**



This document does not contain any technical data subject to EAR or ITAR

**SERVICE ENGINEERING**  
**Otis Elevator Company**  
**Bloomfield, Connecticut USA**

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# History

**10-AAA21310AD**

## Leaflet Description

This leaflet lists spare parts for type AAA21310AD gearless variable frequency controller NSAA global control system.

## Leaflet Revisions

| Date Revised      | Subject Matter Expert             | Reason for Revision  |
|-------------------|-----------------------------------|--|
| September 5, 2008 | Paul Hoppie                       | New SPL  |
| January 27, 2010  | Joe Della Porta                   | Added KBA21310AAT2, KBA21310AAN2, and KBA21310AAV2 (p. 4).   |
| June 30, 2010     | Priyank Mehta & Sohaib Shaikh     | Added notes 1, 2; added drive p/ns KBA21310AAN2, KBA21310AAV2, and GCA21310A2 (p. 5)                         |
| January 26, 2011  | Matt Fournier                     | Added part, special Wago tool (p. 5).  |
| January 26, 2011  | Joe Della Porta                   | Added p/n KDA21310AAT2, KCA21310AAN2, KCA21310AAV2 (p. 5).   |
| March 21, 2011    | Joe Della Porta                   | Added vintage no. for SPL and added 120A CR drive.   |
| August 10, 2011   | Joe Della Porta                   | List drives (p. 3); add new and add SPLs (p. 5); new p. 6.   |
| July 20, 2016     | Cuauhtemoc Castro Inzunza         | Updated p. 5.  |
| February 7, 2018  | Anh Pham                          | Corrected descriptions, added new parts on p. 5.   |
| May 8, 2019       | Jim Harte and Anh Pham            | Added new 60A R3 drive part number K*A21310ABR5 and K*A21310ABR6 on p. 6.                                    |
| July 22, 2020     | Jim Harte and Anh Pham            | Corrected p/n on p. 6.   |
| July 29, 2020     | Ali Bozorgzadeh                   | Corrected table formatting on p. 6.  |
| July 7, 2021      | Brian Hoose                       | Corrected TIP references on p. 6.  |
| December 1, 2021  | Ali Bozorgzadeh                   | Updated/Corrected p. 6.  |
| August 17, 2022   | Doug LaBrecque                    | Corrected p/n KCA21310ABR6 on p. 6.  |
| April 24, 2024    | Charles Demery                    | Added new ref. information for new 40A drive (p. 2); Added new 40A drive p/n and description info. (p. 5–6). |
| February 19, 2025 | Charles Demery/ Vinay Subramanyam | Added new 60 A / 208 V drive p/n and description info in related drawings.                                   |

## Related Drawings

| Drawing No. | Title   | Drawing No. | Title   |
|-------------|---|-------------|---|
| AAA21310AD  | Gearless Variable Frequency Controller NSAA Global Control System | K*A21310AAT | 20 A Regenerative Drive Assembly: OVFR2B-402            |
| A*A21305BL  | Brake Box   | K*A21310AAC | 25 A Regenerative Drive Assembly: OVFR1A-402 (OBSOLETE) |
| A*A21310AD  | Controller Assy.  | H*A21310AZ  | OVFR05A-404 & OVFR05A-204                               |

Continued on next page

# History (continued)

**10-AAA21310AD**

## Related Drawings (continued)

| Drawing No. | Title   | Drawing No. | Title  |
|-------------|---|-------------|--|
| A*A21305BR  | Transformer Box   | K*A21310AAA | 40 A Regenerative Drive Assembly: OVFR 404R (OBSOLETE) |
| A*A21310Z   | 60 A Regenerative Drive Assembly: OVFR1A-406 (OBSOLETE)           | K*A21310AAV | 40 A Regenerative Drive Assembly: OVFR2B-404           |
| G*A21310A   | 60 A Regenerative Drive Assembly: OVFR2A-406                      | A*A21305DD  | 120 A CR drive assembly                                |
| K*A21310ABR | 60 A Regenerative Drive Assembly: OVFR03A-406                     | K*A21310ABL | 40A Ultra Regenerative Drive Assembly: OVFR3B-204      |
| AAA21310AD  | Gearless Variable Frequency Controller NSAA Global Control System | K*A21310ABR | 60 A Regenerative Drive Assembly: OVFR03A-206          |

## Related Documents

| Document ID        | Title   |
|--------------------|---|
| SPL 10-ABA21305BL  | NSAA Global Control System Brake Module                   |
| SPL 10-ABA21305BN  | Global Control System: Controller Box                     |
| SPL 10-ADA21305BR  | Global Control System: Transformer Box                    |
| SPL 10-KDA21310AAL | Low Cost Regenerative Drive Assembly, Spare Parts Leaflet |
| SPL 10-AAA21305DD  | 120A CR drive assembly Spare Parts Leaflet                |
| SPL 10-KAA21310ABL | Ultra Drive 40A Drive Assembly                            |
| SPL 10-GAA21150    | OVFWW Spare Parts Leaflet                                 |
| SPL 10-KCA21310ABR | OVFR03A-406; 60A R3 Drive                                 |
| TIP 1.1.18.2-4     | 60 Amp ReGen Drives Replacement with New 60A R3           |

## Subject Matter Expert

| Name     | Department                 |
|----------|----------------------------|
| Anh Pham | OSC Electrical Engineering |

## About Spare Parts Leaflets...

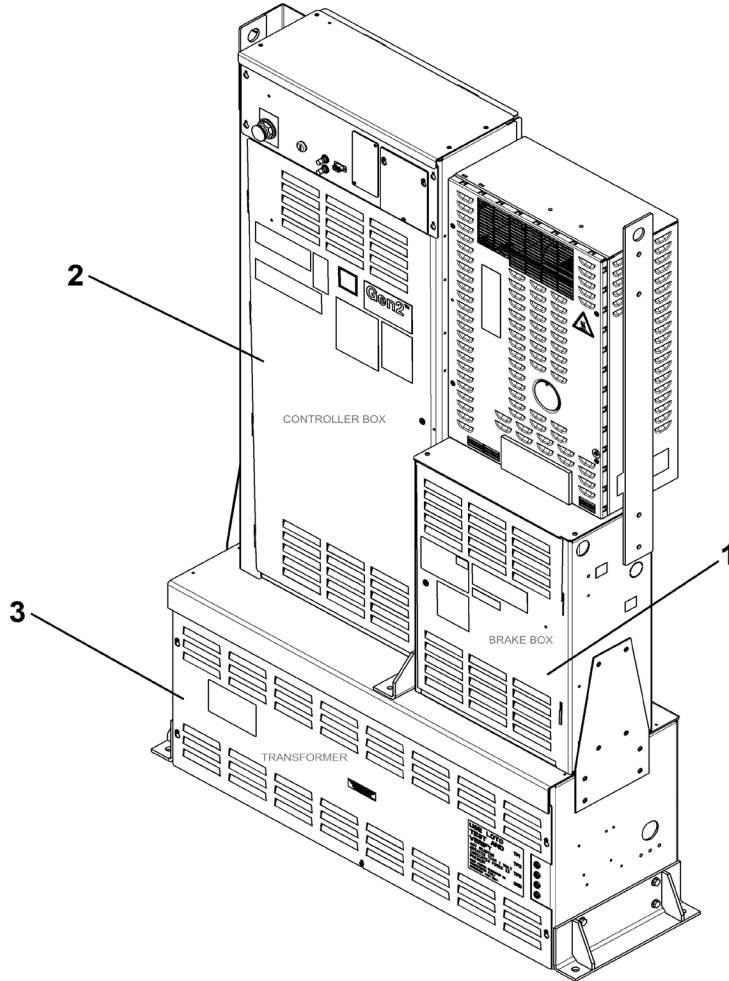
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as "special" or "custom" are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPs, Field Education Articles, Construction Letters, etc. for further information.

If you have any suggestions about this document, please contact the subject matter expert listed on this page.

# GCS Controller Assembly

**10-AAA21310AD**

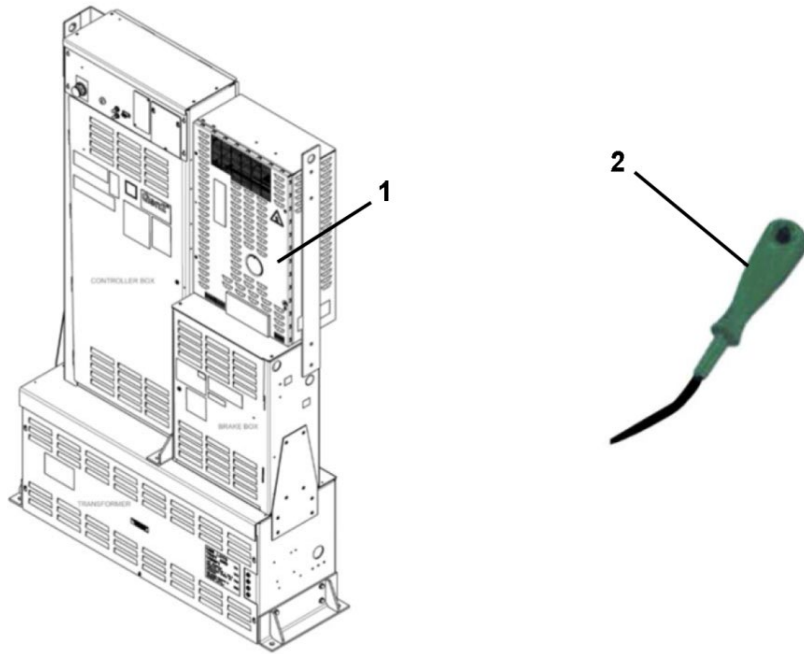


| W/O VINTAGE and AAA21310AD |          |   |
|----------------------------|----------|---|
| REF. No.                   | PART No. | DESCRIPTION   |
| 1                          | ---      | Assembly, GCS Brake Box, See SPL 10-ABA21305BL for Detailed Parts Listing       |
| 2                          | ---      | Assembly, GCS Control Module, See SPL 10-ABA21305BN for Detailed Parts Listing  |
| 3                          | ---      | Assembly, GCS Transformer Box, See SPL 10-ADA21305BR for Detailed Parts Listing |

*(Continued on next page)*

# GCS Controller Assembly

**10-AAA21310AD**



| REF. No. | PART No.   | DESCRIPTION  |
|----------|--|--|
| 1        | KBA21310AAT2<br>KCA21310AAT2<br>KDA21310AAT2               | Drive, Regenerative (OVFR2B-402), 20 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 3</b> on p. 6        |
|          | KCA21310ABL7<br>KDA21310ABL7<br>HAA21310AZ1<br>HAA21310AZ1 | Drive, Regenerative (OVFR3B-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 5</b> on p. 6        |
|          | KAA21310AAC2<br>KBA21310AAC2<br>KCA21310AAC2               | Drive, Regenerative (OVFR1A-402), 25 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 5</b> on p. 6        |
|          | KCA21310ABL7<br>KDA21310ABL7<br>HAA21310AZ1<br>HAA21310AZ1 | Drive, Regenerative (OVFR3B-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 5</b> on p. 6        |
|          | KBA21310AAN2<br>KCA21310AAN2                               | Drive, Regenerative (OVFR2B-403), 30 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTES 1 and 3</b> on p. 6 |
|          | KCA21310ABL7<br>KDA21310ABL7<br>HAA21310AZ1<br>HAA21310AZ1 | Drive, Regenerative (OVFR3B-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 6</b> on p. 6        |
|          | KAA21310AAA2<br>KBA21310AAA2<br>KCA21310AAA2               | Drive, Regenerative (OVFR1A-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 3</b> on p. 6        |
|          | KCA21310ABL7<br>KDA21310ABL7<br>HAA21310AZ1<br>HAA21310AZ1 | Drive, Regenerative (OVFR3B-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 6</b> on p. 6        |

(Continued on next page)

*(Refer to illustration on previous page)*

| REF. No.                     | PART No.   | DESCRIPTION   |                   |
|------------------------------|--|---|-------------------|
| 1                            | KBA21310AAV2<br>KCA21310AAV2                               | Drive, Regenerative (OVFR2B-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTES 2</b> and <b>3</b> |                   |
|                              | KCA21310ABL7<br>KDA21310ABL7<br>HAA21310AZ1<br>HAA21310AZ1 | Drive, Regenerative (OVFR3B-404), 40 A, 480 VAC<br>Drive UD404R2 (OVFR05A-404) 40 A, 480 VAC<br>See <b>NOTE 6</b>               |                   |
|                              | KCA21310AAN6   | Drive, Regenerative (OVFR2B-204), 30A, 208–240 VAC  |                   |
|                              | KCA21310ABL8<br>KDA21310ABL8<br>HAA21310AZ2<br>HAA21310AZ2 | Drive, Regenerative (OVFR3B-204), 40 A, 208–240 VAC<br>Drive UD404R2 (OVFR05A-204) 40 A, 208-240 VAC<br>See <b>NOTE 6</b>       |                   |
|                              | KCA21310AAV6   | Drive, Regenerative (OVFR2B-204), 40 A, 208–240 VAC   |                   |
|                              | KCA21310ABL8<br>KDA21310ABL8<br>HAA21310AZ2<br>HAA21310AZ2 | Drive, Regenerative (OVFR3B-204), 40A, 208–240 VAC<br>Drive UD404R2 (OVFR05A-204) 40 A, 208-240 VAC                             | See <b>NOTE 6</b> |
|                              | ABA21310Z2<br>GEA21310A2                                   | Drive, Regenerative (OVFR1A-406), 60 A, 480 VAC<br>Drive, Regenerative (OVFR2A-406), 60 A, 480 VAC                              | See <b>NOTE 4</b> |
|                              | KBA21310ABR5<br>KCA21310ABR5                               | Drive, Regenerative (OVFR03A-406), 60A, 480V  | See <b>NOTE 7</b> |
| KBA21310ABR6<br>KCA21310ABR6 | Drive, Regenerative (OVFR03A-206), 60A, 230V               |   |                   |
| 2                            | MT-105041  | Tool, Terminal Block Operating used with all Wago Terminal Blocks   |                   |

**NOTE 1:** Order PE cable ACA27076CR749 when ordering OVFR2B-403, 30 A drive.

**NOTE 2:** Order PE cable ACA27076CR748 when ordering OVFR2B-404, 40 A drive.

**NOTE 3:** See SPL 10-KDA21310AAL for detailed parts listing.

**NOTE 4:** See SPL 10-GAA21150-2 for detailed parts listing.

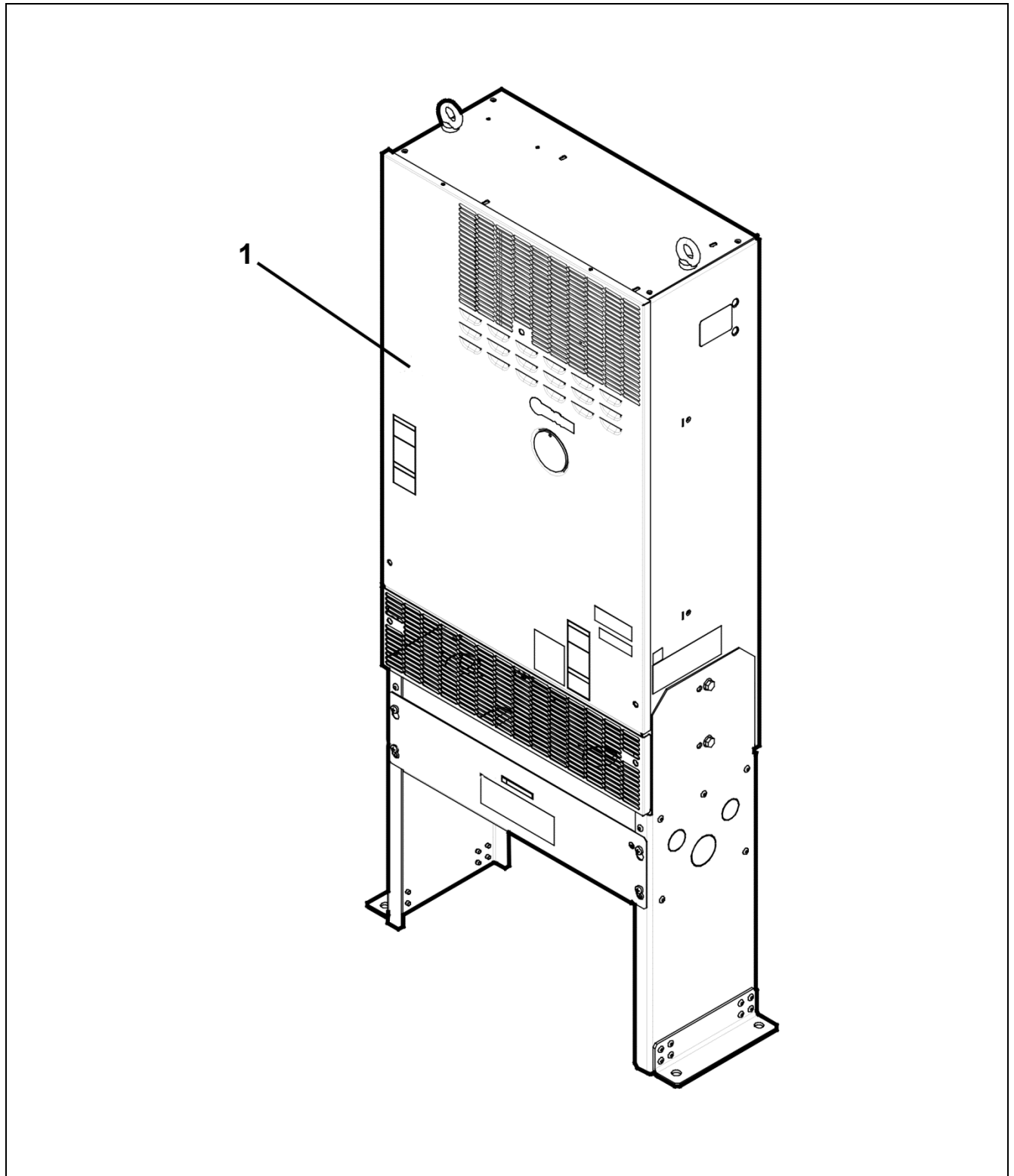
**NOTE 5:** Order kit AAA27076HT2 when replacing a K\_A21310AAT or K\_A21310AAC drive with a K\_A21310ABL drive. See TIP 1.1.18.2-3.

**NOTE 6:** Order kit AAA27076HT3 when replacing a K\_A21310AAN or K\_A21310AAV drive with a K\_A21310ABL drive. See TIP 1.1.18.2-3.

**NOTE 7:** Order kit AAA27076HT6 when replacing an ABA21310Z or GEA21310A drive with a K\_A21310ABR drive. See TIP 1.1.18.2-4.

# GCS Controller Assembly

10-AAA21310AD



| REF. No. | PART No. | DESCRIPTION  |
|----------|----------|--|
| 1        | ---      | Drive, 120A CR Regenerative Drive Assembly<br>See SPL 10-AAA21305DD for Detailed Parts Listing |