



QE20 Extra Cabinets Installation Instructions

1. General Description

This sheet describes specific installation instructions and wiring for extra cabinets (beyond the first) in a QE20 system. The QE20 Installation Manual LT0712 (supplied with the first cabinet) covers the generic cabinet installation and wiring instructions, including mains, battery, etc.

2. Kit Contents

Each extra cabinet contains in a carton supplied in the cabinet the following parts that are used in the installation of the cabinet:

- 1 x CN0695 splicing connector and LM0637 220mm black wire for 0V wiring in the previous cabinet
- 12 x HW0325 9mm wiring saddles for internal wiring (some may be fitted in the cabinet already)
- 16 x HW0327 21mm plastic wiring saddles for fitting to the mounting frames to secure field wiring
- 1 x LM0652 Battery lead
- 1 x LM0653 Battery joining lead
- Some cable ties.
- LT0724 This manual.

Additionally, the cabinet may have the following long looms that need to be unclipped and connected to the previous cabinet as per the Internal Wiring section and diagrams below.

- 2 x 4way looms (2.5m) for wiring QBus and UBus (if any user interface is present) back to the previous cabinet.
- 2 x Ethernet looms (2.1m) for wiring Amplifier QBus and WIP Audio Chain back to the previous cabinet.
- 1 x Black wire (3.5m) for wiring 0V back to a PSE in the previous cabinet.
- 1 x 24V power pair for wiring to the 24V Power connector J5 or J6 on the back of the Master User Interface.

3. Cabinet Installation

Refer to Section 2.3 of LT0712 QE20 Installation Manual (supplied with the first cabinet) for details on mounting the cabinet.

4. Mains Wiring

Each cabinet containing Power Supply Equipment must have its own AC mains feed from a separate circuit breaker on the switchboard. Refer to Section 2.4 of LT0712 QE20 Installation Manual for details on mains wiring.

5. Battery Wiring

Each cabinet containing Power Supply Equipment must have its own batteries, sized to suit the loads of that cabinet. Refer to Section 2.6 of LT0712 QE20 Installation Manual for details on battery wiring.

6. Internal Wiring

Refer to Section 2.8 of LT0712 QE20 Installation Manual and the following drawings for the wiring between each extra cabinet and the previous cabinet.

- 2001-1 Sheet 8 Multi-Cabinet Inner Door UBus Linking (if user interface modules present in the extra cabinet)
- 2001-1 Sheet 9 Multi-Cabinet Amplifier Linking
- 2001-1 Sheet 10 Multi-Cabinet PSE Linking
- 2001-1 Sheet 11 Multi-Cabinet WIP & ROM 4-Way QBus Linking
- 2001-1 Sheet 12 Multi-Cabinet WIP Audio Bus Linking

7. Field Wiring

Refer to the installation instructions for each module type contained in the cabinet for their field wiring details.

8. Power On and Testing

Refer to the installation instructions for each module type contained in the cabinet for power on & testing

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NOTES

1. THE USER THE MASTER USER INTERFACE MODULE CAN POWER A MAXIMUM OF 120 ZONES (15 X 8 ZONE AND 8 WIP MODULES) DIRECTLY. ADDITIONAL 8Z/8W MODULES WILL REQUIRE LM0687 & SEPARATE POWER WIRING.
2. THE EXTENDER BOARDS CAN BE WIRED IN ANY ORDER.
3. THE USER INTERFACE MODULE DOOR MUST BE IN THE SAME CABINET AS THE QE20 CONTROLLER.
4. SEE SHEET 1 FOR EARTH WIRING - NOT SHOWN HERE.

KEY

- RJ45 PATCH LEAD
- 4 WAY QBUS PATCH LEAD 734-075
- 4 WAY QBUS PATCH LEAD LM0663
- DC POWER LOOM

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5341	KJS	LSC	MH	DC	20-8-20
B	4 WAY QBUS PATCH LEAD CONNECTIONS UPDATED. NOTE 4 ADDED.	5588	KJS	RC	MH	DC	21-12-22

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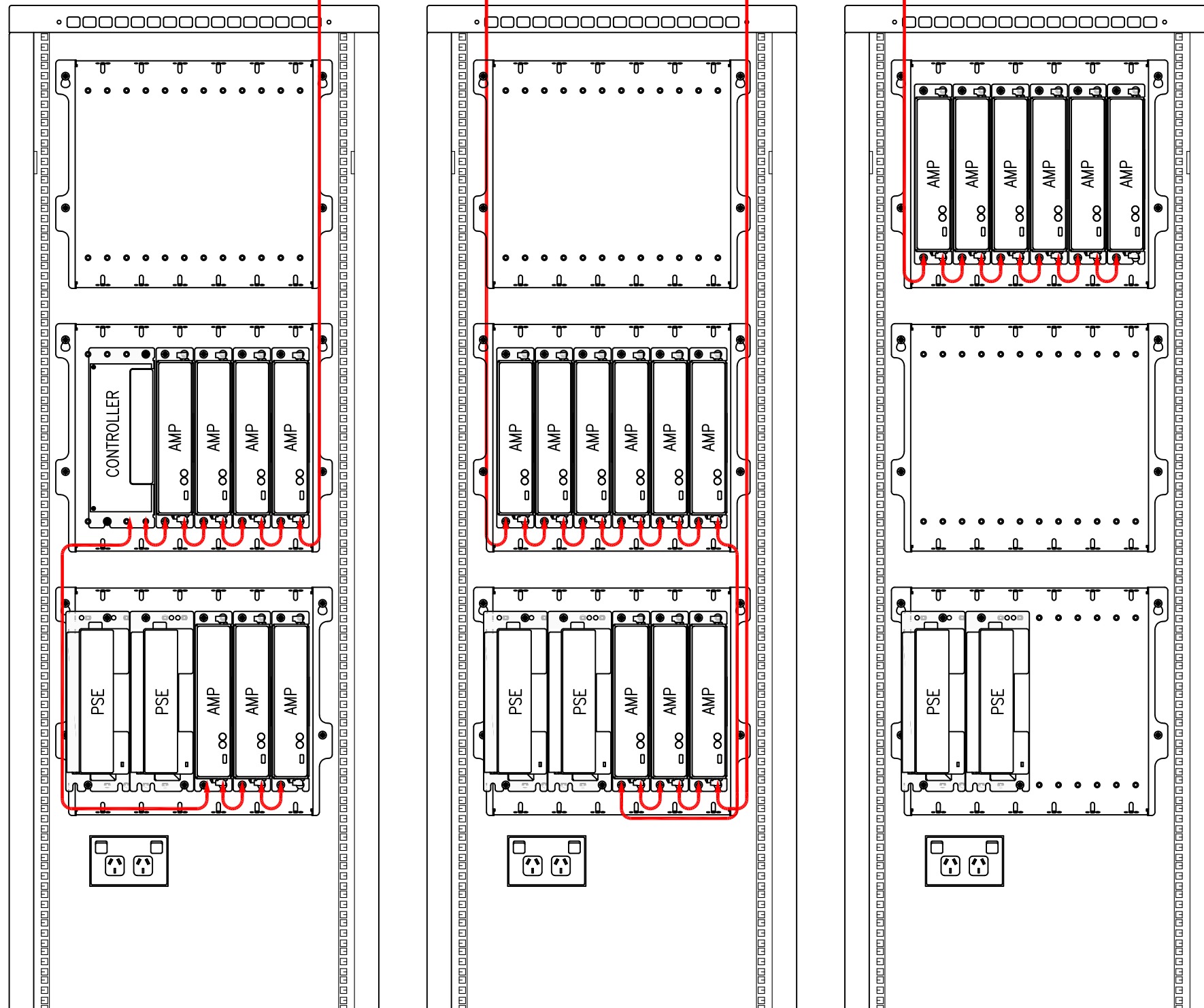
**QE20
MULTI CABINET
INNER DOOR WIRING**

DRAWING No: 2001-1 SHEET 8 of N

A2	ISS/REV B	PART No:	
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LM0392
RJ45 PATCH LEAD 2.1m

LM0392
RJ45 PATCH LEAD 2.1m



NOTES

1. CABINETS MUST BE DIRECTLY ADJACENT FOR DIRECT LINKING.
2. PATCH LEADS BETWEEN CABINETS CAN START FROM ANY UNUSED QBUS PORT ON AN AMPLIFIER OR THE CONTROLLER.
3. 0V MUST BE LINKED BETWEEN PSE IN DIFFERENT CABINETS. SEE SHEET 10.

KEY

— RJ45 PATCH LEAD

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5341	KJS	LSC	MH	DC	20-8-20
B	DRG DESCRIPTION UPDATED.	5588	KJS	RC	MH	DC	21-12-22

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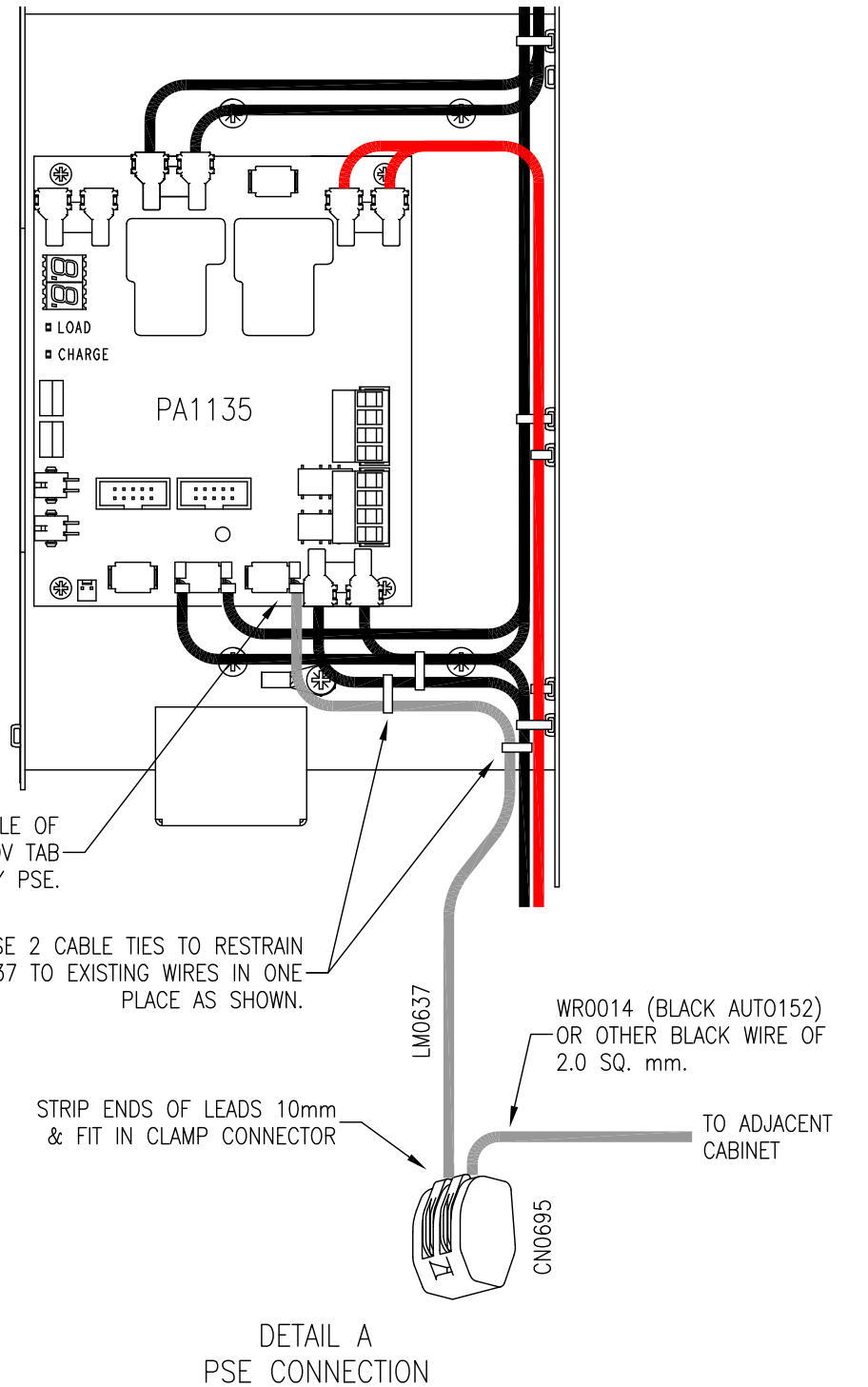
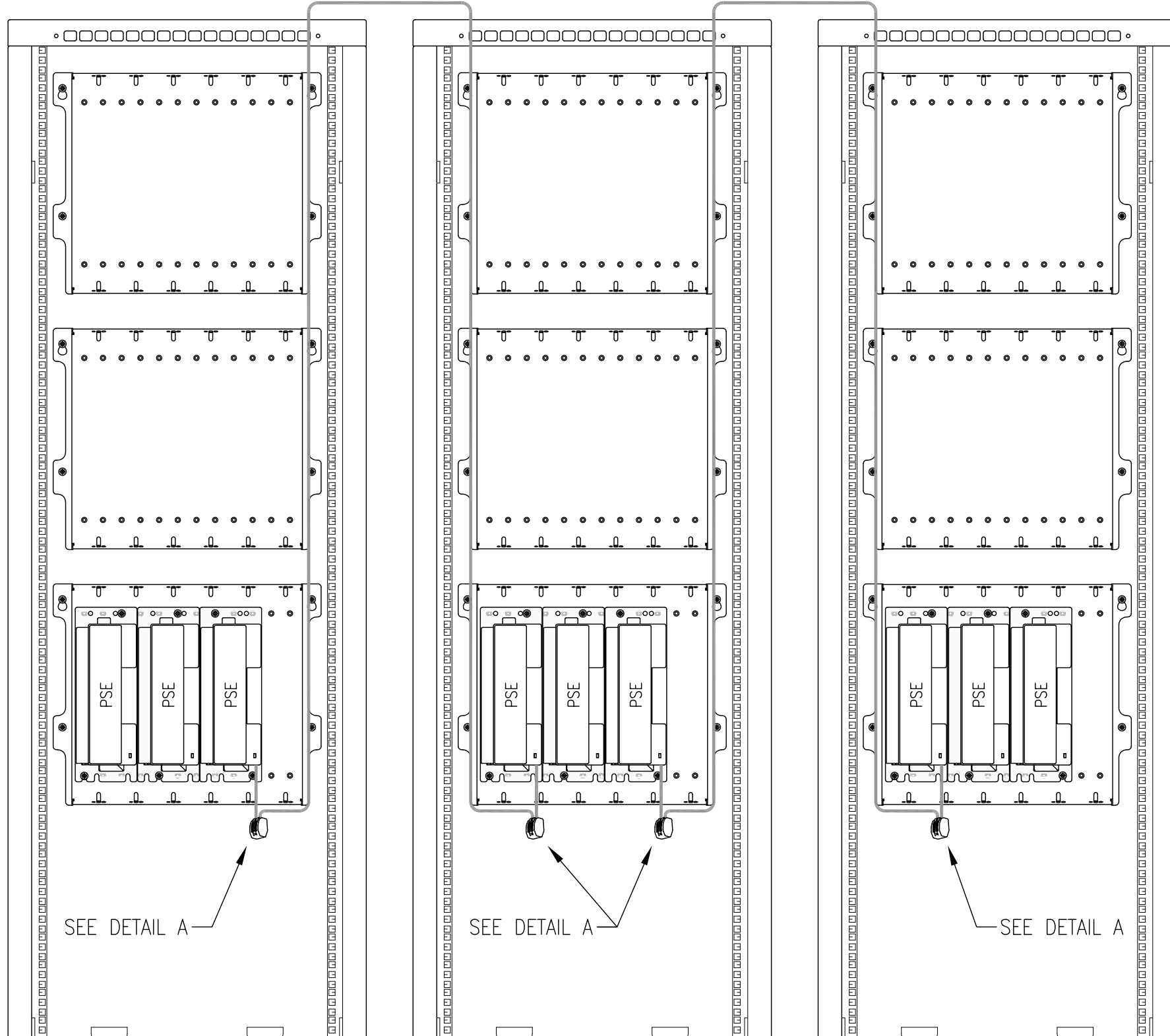
**QE20
MULTI CABINET
AMPLIFIER QBUS LINKING**

DRAWING No: 2001-1 SHEET 9 of N

A3 ISS/REV A PART No:

WR0014, BLACK AUTO152
2.7m (28U CAB), 3.5m (40U CAB)

WR0014, BLACK AUTO152
2.7m (28U CAB), 3.5m (40U CAB)



FIT 6.3QC RECEPTACLE OF LM0637 TO UNUSED OV TAB OF ANY PSE.

USE 2 CABLE TIES TO RESTRAIN LM0637 TO EXISTING WIRES IN ONE PLACE AS SHOWN.

STRIP ENDS OF LEADS 10mm & FIT IN CLAMP CONNECTOR

WR0014 (BLACK AUTO152) OR OTHER BLACK WIRE OF 2.0 SQ. mm.

TO ADJACENT CABINET

DETAIL A
PSE CONNECTION

NOTES

1. WIRING AMPLIFIER POWER FROM ONE CABINET TO ANOTHER IS NOT RECOMMENDED DUE TO EXCESSIVE VOLTAGE DROP.

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5341	KJS	LSC	MH	DC	20-8-20

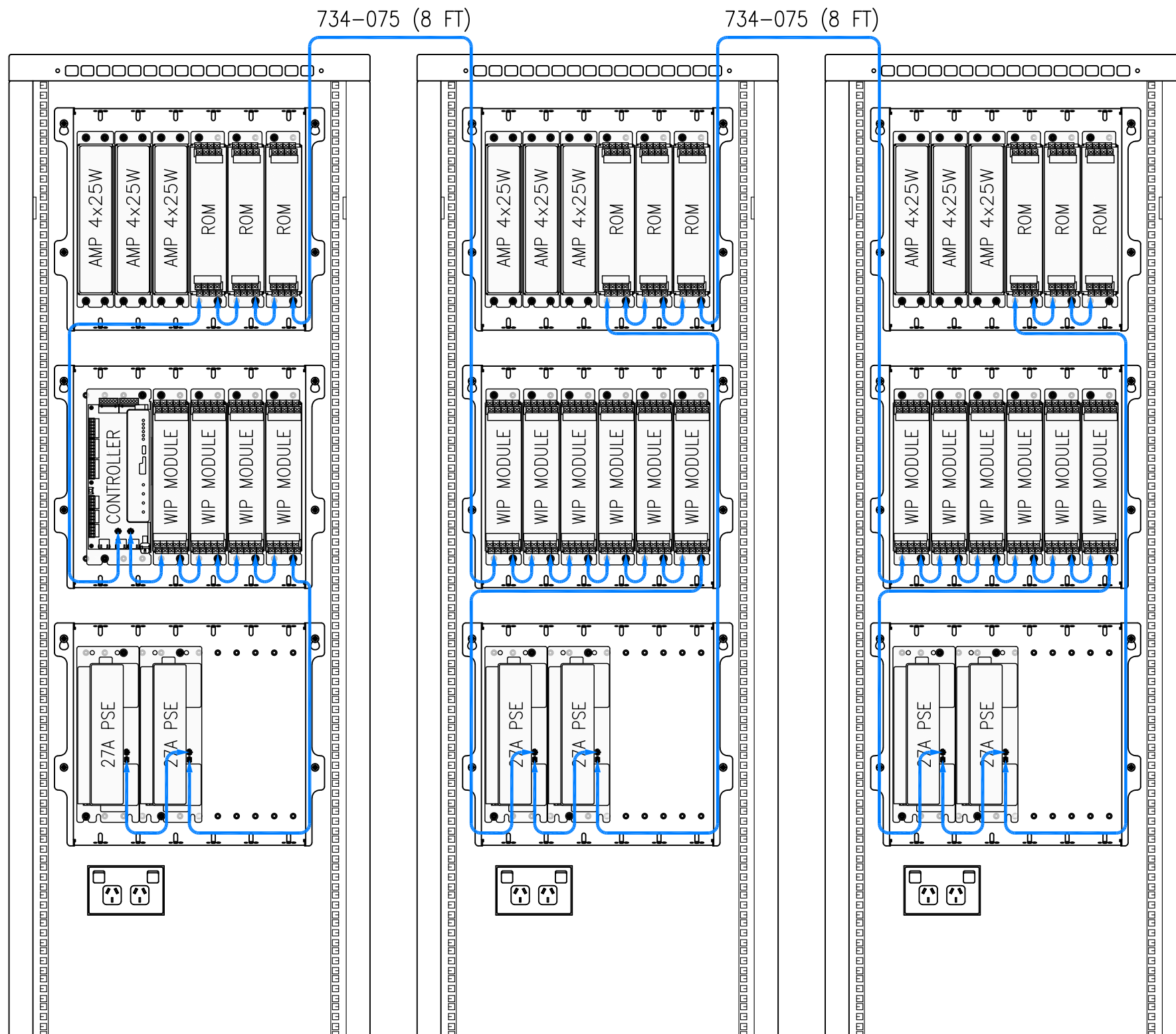
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**QE20
MULTI CABINET
PSE LINKING**

DRAWING No: **2001-1** SHEET **10** of **N**

A3	ISS/REV A	PART No:
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NOTES

1. 4 WAY QBUS LINKING APPLIES TO WIP MODULES, RELAY MODULES & PSE MODULES. SEE SHEET 9 FOR AMPLIFIER QBUS LINKING.
2. CABINETS MUST BE DIRECTLY ADJACENT FOR DIRECT LINKING.
3. QBUS LEADS BETWEEN CABINETS CAN START FROM ANY UNUSED QBUS CONNECTOR ON A MODULE OR FROM THE CONTROLLER MODULE.
4. THE MODULE "QBUS IN" CONNECTOR IS CONNECTED TO EITHER THE QBUS CONNECTOR OF A CONTROLLER MODULE, OR "QBUS OUT" CONNECTOR OF AN ADJACENT MODULE, WITH A 4 WAY QBUS LOOM OF A SUITABLE LENGTH.
5. ADDITIONAL MODULES ARE DAISY CHAINED TOGETHER USING THE MODULE "QBUS IN" & "QBUS" OUT CONNECTORS WITH 4 WAY QBUS LOOMS. THERE ARE NO SPECIAL ROUTING REQUIREMENTS FOR QBUS WIRING.
6. FIRST WIP/INPUT MODULE IN EACH ADDITIONAL CABINET MUST HAVE LK2 NOT FITTED.

KEY

— 4 WAY QBUS PATCH LEADS

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5341	KJS	LSC	MH	DC	2-9-20
B	NOTES UPDATED, NOTE 6 ADDED.	5588	KJS	RC	MH	DC	21-12-22

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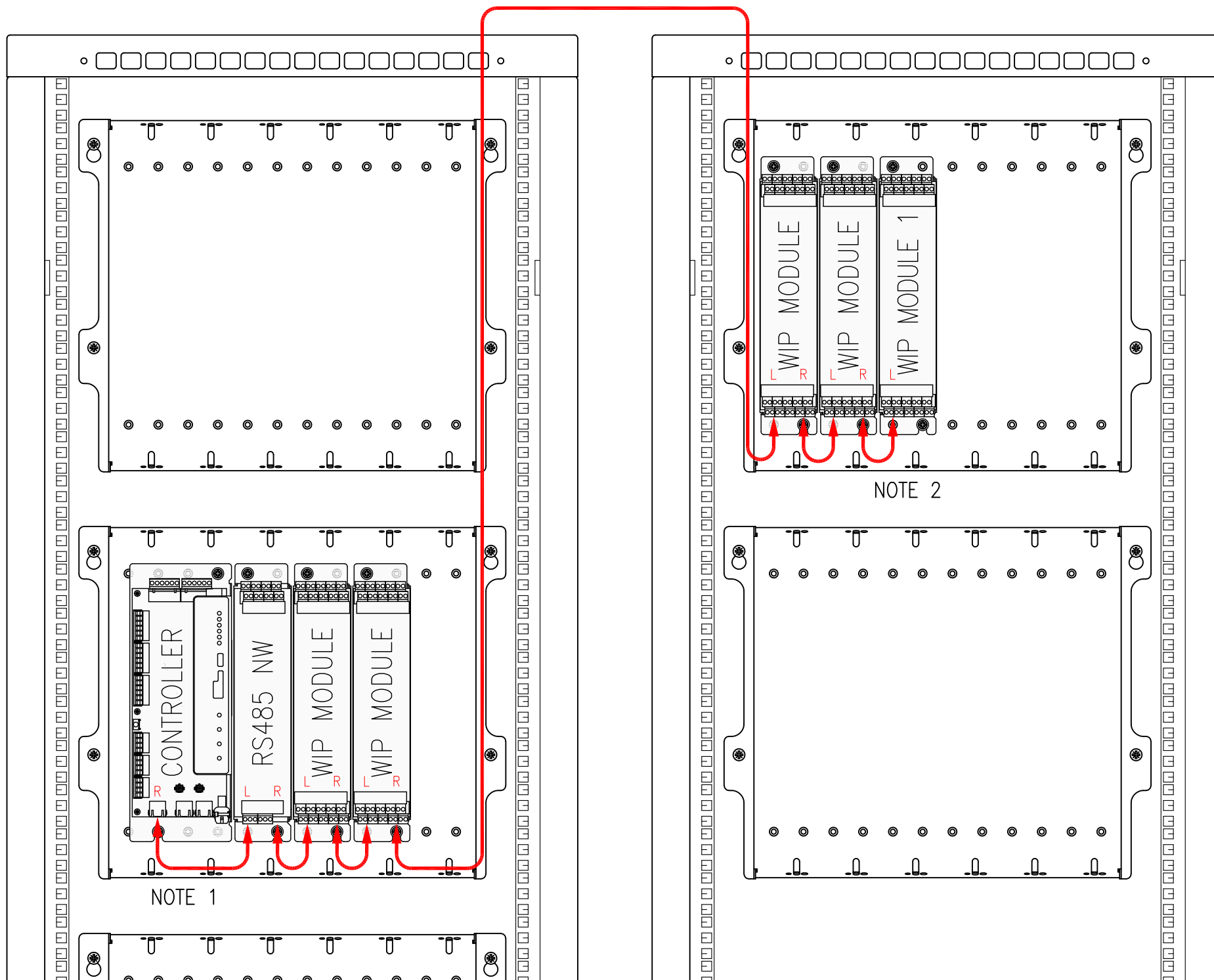
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**QE20
 MULTI CABINET
 4 WAY QBUS LINKING**

DRAWING No: **2001-1** SHEET **11** of **N**

A3	ISS/REV B	PART No:
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LM0392 RJ45 PATCH LEAD 2.1m
NOTE 3



NOTES

1. THE AUDIO CHAIN ALWAYS STARTS AT THE CONTROLLER (RIGHT PORT).
2. THE AUDIO CHAIN ALWAYS ENDS AT THE WIP MODULE WITH ADDRESS 1 (LEFT PORT).
3. INTERMEDIATE LINKING IS ALWAYS RIGHT PORT TO LEFT PORT. THE ORDER OF MODULE TYPES & ADDRESSES IS NOT IMPORTANT, APART FROM WIP 1, WHICH MUST BE THE LAST.

KEY

— RJ45 PATCH LEADS

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3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5341	KJS	LSC	MH	DC	2-9-20
B	NOTE 3 UPDATED.	5588	KJS	RC	MH	DC	21-12-22

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QE20
MULTI CABINET
WIP AUDIO BUS LINKING

DRAWING No: **2001-1** SHEET **12** of **N**

A3	ISS/REV B	PART No:
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