



# laminarmedica

## insulated shipping systems



# ChillPouch™

Author

Test Date

Approved

Issue Date

### Authority and Liability

The results shown are given in good faith and that they represent the test as carried out. As Laminar Medica has no control over the use of this package they will restrict their liability to replacement of faulty product only. The customer is asked to check the results to verify the suitability of this design for their own use. Customers are advised to ensure that their product will not be affected by condensation that will occur in this or any other type of cold chain distribution system.

This study has been carried out to test the ChillPouch™ shipper with vial presentations in maximum and minimum quantities.



## ChillPouch™ Thermal Performance Summary



### ChillPouch™ A4 system

#### Dimensions

Internal dimensions	297 x 210mm
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#### Weights

Total system weight	593grammes
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#### Payloads

Maximum load	12x 5ml glass vial in carton
Minimum load	1x 5ml glass vial in carton

#### Bill of Materials

ChillPouch	1x A4 pouch
Coolpack	1x frozen MC0173 (normalised @ -18°C ( 5°C) for 24hrs)
Divider	1x A4 divider
Absorbent pad	1x A4 absorbent pad

### ChillPouch™ A3 system

#### Dimensions

Internal dimensions	420 x 297mm
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#### Weights

Total system weight	1196grammes
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#### Payloads

Maximum load	12x 5ml glass vial in carton
Minimum load	1x 5ml glass vial in carton

#### Bill of Materials

ChillPouch	1x A3 pouch
Coolpack	1x frozen MC0175 (normalised @ -18°C ( 5°C) for 24hrs)
Divider	1x A3 divider
Absorbent pad	1x A3 absorbent pad



## ChillPouch™ Chilled Thermal Performance Summary

The tables below summarise the testing completed. The tables contain the Individual number given to each test, the ChillPouch™ system used, the product load of each test, the flat ambient temperature of the test and the duration the ChillPouch™ was able to maintain the product temperature between the stated thresholds.

### +2°C to +8°C threshold

Test Number	ChillPouch™ System	Product	Product Quantity	Threshold Temperatures	External Ambient	Duration Achieved
T5839-17	A4	5ml Glass vial in carton	1	2°C - 8°C	10	25:10
T5839-18	A4	5ml Glass vial in carton	12	2°C - 8°C	10	26:50
T5839-19	A3	5ml Glass vial in carton	1	2°C - 8°C	10	30:30
T5839-20	A3	5ml Glass vial in carton	24	2°C - 8°C	10	29:50
T5839-37	A4	5ml Glass vial in carton	1	2°C - 8°C	15	16:50
T5839-38	A4	5ml Glass vial in carton	12	2°C - 8°C	15	14:30
T5839-39	A3	5ml Glass vial in carton	1	2°C - 8°C	15	18:10
T5839-40	A3	5ml Glass vial in carton	24	2°C - 8°C	15	19:40

### +2°C to +15°C threshold

Test Number	ChillPouch™ System	Product	Product Quantity	Threshold Temperatures	External Ambient	Duration Achieved
T5839-25	A4	5ml Glass vial in carton	1	2°C - 15°C	20	16:10
T5839-26	A4	5ml Glass vial in carton	12	2°C - 15°C	20	16:20
T5839-27	A3	5ml Glass vial in carton	1	2°C - 15°C	20	16:00
T5839-28	A3	5ml Glass vial in carton	24	2°C - 15°C	20	16:30
T5839-33	A4	5ml Glass vial in carton	1	2°C - 15°C	25	10:50
T5839-34	A4	5ml Glass vial in carton	12	2°C - 15°C	25	11:30
T5839-35	A3	5ml Glass vial in carton	1	2°C - 15°C	25	12:10
T5839-36	A3	5ml Glass vial in carton	24	2°C - 15°C	25	13:10
T5839-41	A4	5ml Glass vial in carton	1	2°C - 15°C	30	7:50
T5839-42	A4	5ml Glass vial in carton	12	2°C - 15°C	30	7:00
T5839-43	A3	5ml Glass vial in carton	1	2°C - 15°C	30	9:10
T5839-44	A3	5ml Glass vial in carton	24	2°C - 15°C	30	10:10



## ChillPouch™ Frozen Thermal Performance Summary

### ChillPouch™ A4 system -20°C to 0°C threshold

#### Dimensions

Internal dimensions	297 x 210mm
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#### Weights

Total system weight	1082grammes
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#### Payloads

Maximum load	12x 5ml glass vial in carton
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#### Bill of Materials

ChillPouch	1x A4 pouch
Coolpack	2x frozen MC0173 (normalised @ -18°C ( 5°C) for 24hrs)
Absorbent pad	1x A4 absorbent pad

### ChillPouch™ A3 system -20°C to 0°C threshold

#### Dimensions

Internal dimensions	420 x 297mm
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#### Weights

Total system weight	2174grammes
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#### Payloads

Maximum load	12x 5ml glass vial in carton
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#### Bill of Materials

ChillPouch	1x A3 pouch
Coolpack	2x frozen MC0175 (normalised @ -18°C ( 5°C) for 24hrs)
Absorbent pad	1x A3 absorbent pad

### -20°C to 0°C threshold performance table

Test Number	ChillPouch™ System	Product	Product Quantity	Threshold Temperatures	External Ambient	Duration Achieved
T5839-52	A4	5ml Glass vial in carton	12	-20°C - 0°C	10	31:30
T5839-53	A3	5ml Glass vial in carton	24	-20°C - 0°C	10	34:50
T5839-48	A4	5ml Glass vial in carton	12	-20°C - 0°C	19	15:10
T5839-49	A3	5ml Glass vial in carton	24	-20°C - 0°C	19	20:00
T5839-50	A4	5ml Glass vial in carton	12	-20°C - 0°C	25	14:20
T5839-51	A3	5ml Glass vial in carton	24	-20°C - 0°C	25	17:20



## ChillPouch™ Packing Instructions



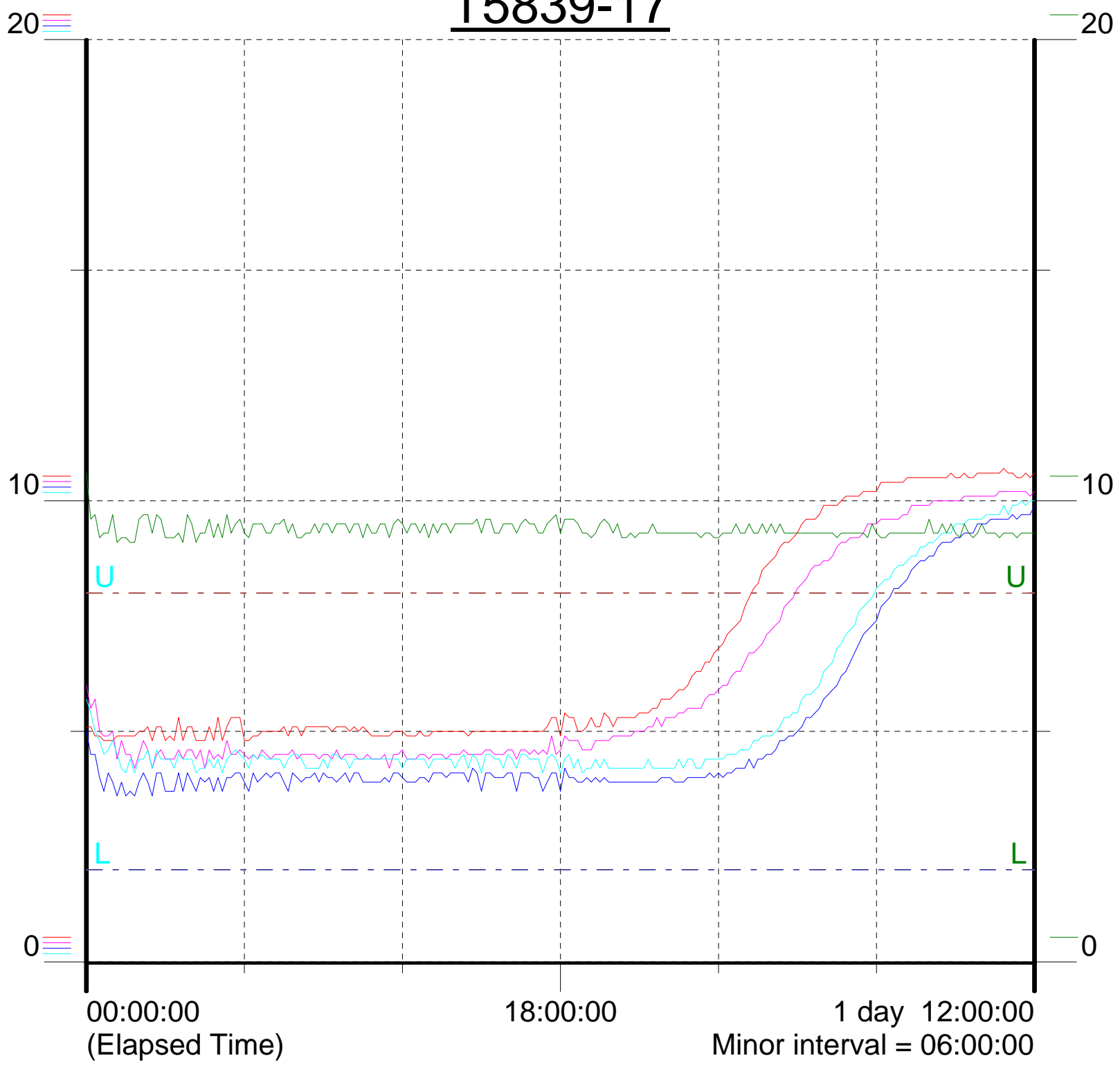
### Packaging Instructions – Above +2°C thresholds

- a. -18°C Medicoool MC0175 to be conditioned at room temperature (+22°C ( 5°C)) for 5minutes prior to assembly
- b. Insert one frozen Medicoool pack into the ChillPouch™
- c. Next, insert one Divider into the ChillPouch™ alongside the frozen Medicoool
- d. Insert one Absorbent Pad next to the Divider
- e. Insert the product next to the Absorbent Pad
- f. Remove the backing off the sealing tape
- g. Fold the sealing tape over the opening of the ChillPouch™
- h. Ensure the sealing tape is securely attached
- i. Insert the relevant documentation into the document wallet

### Packaging Instructions – Below 0°C thresholds

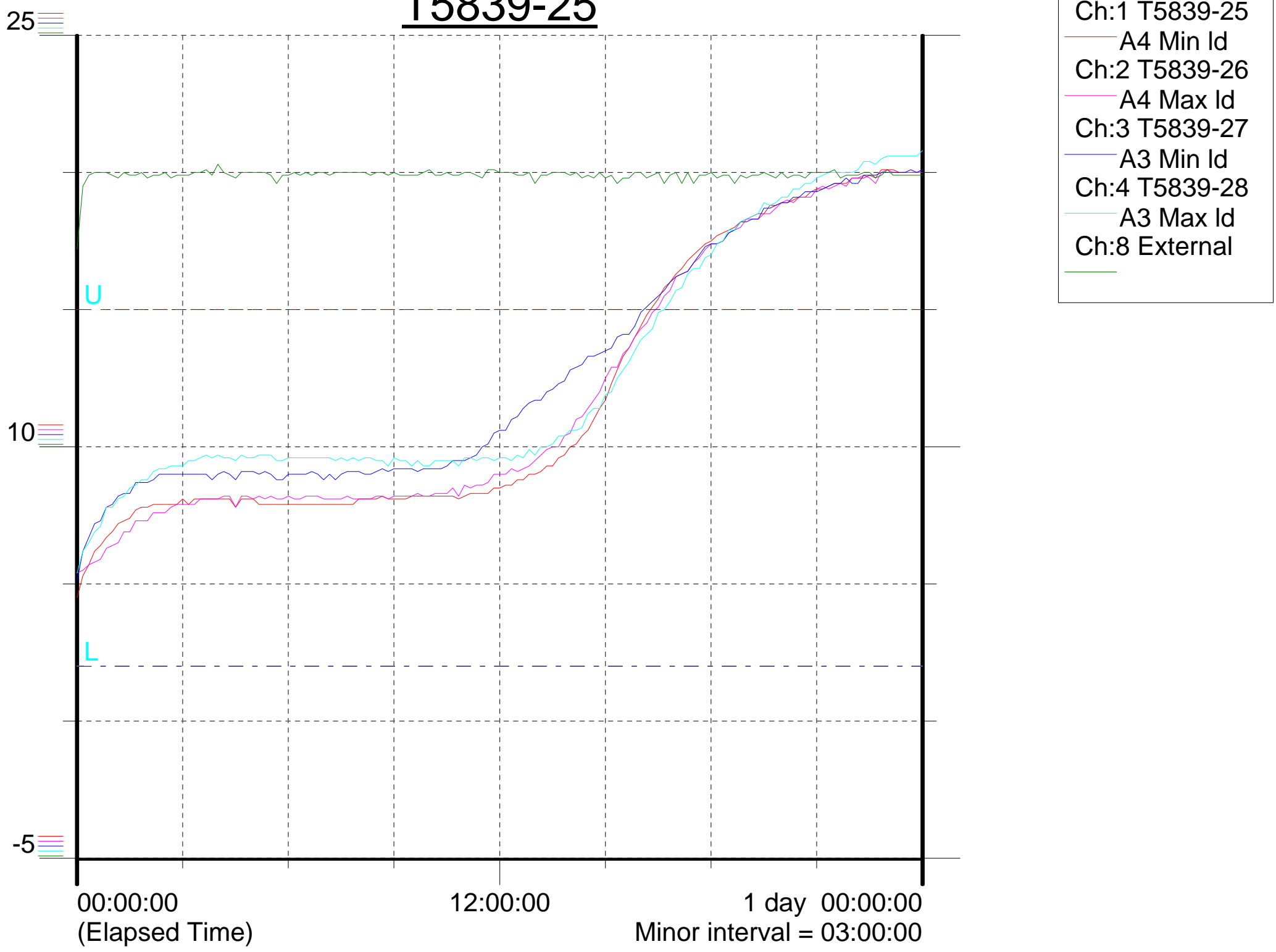
- a. No ice conditioning required
- b. Insert two frozen Medicoool packs (one either side of the product)
- c. No divider required
- d - i. As above

# T5839-17

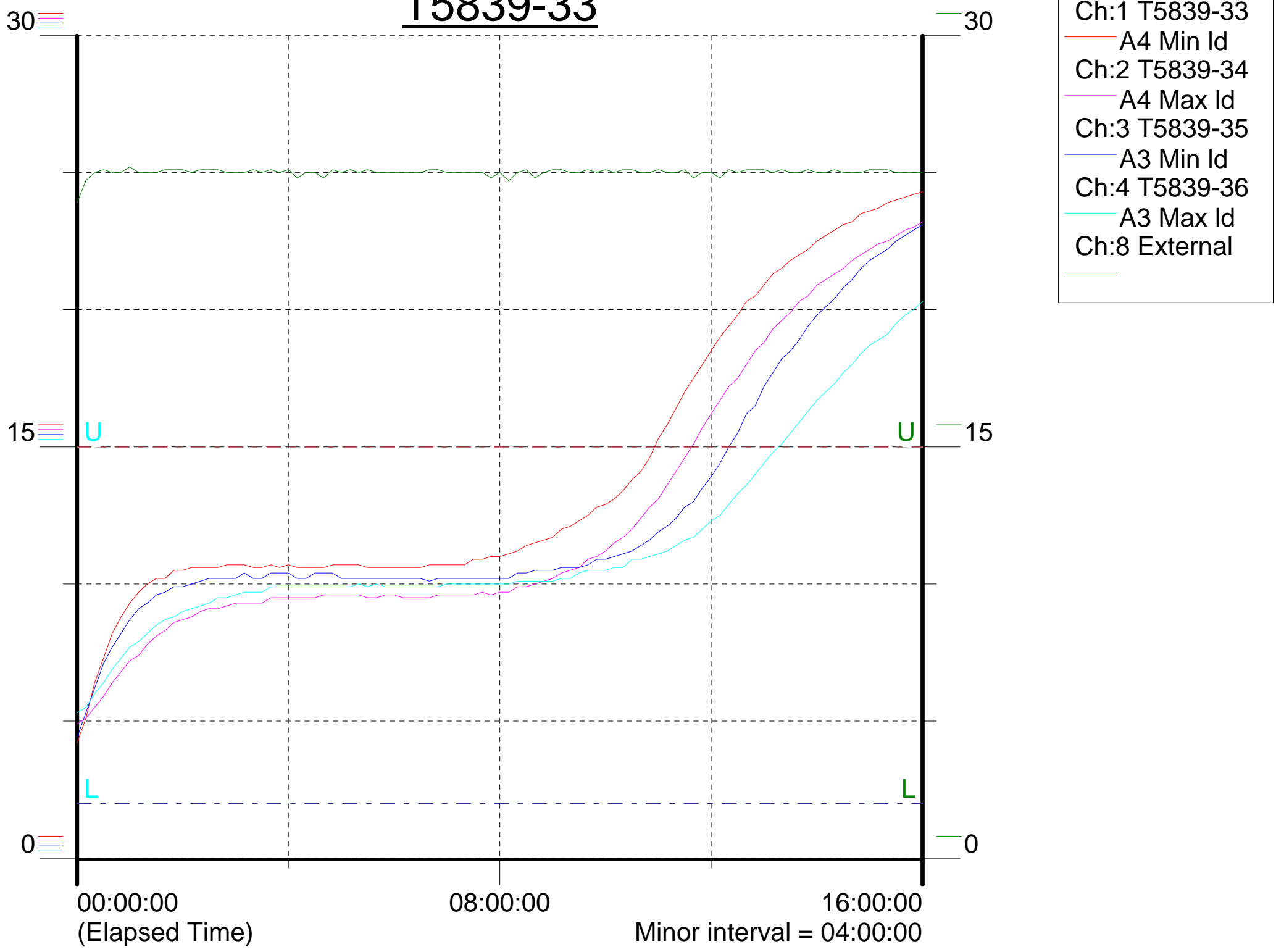


- Ch:1 T5839-17
  - Ch:2 T5839-18
  - Ch:3 T5839-19
  - Ch:4 T5839-20
  - Ch:7 External
- A4 Min Id
- A4 Max Id
- A3 Min Id
- A3 Max Id

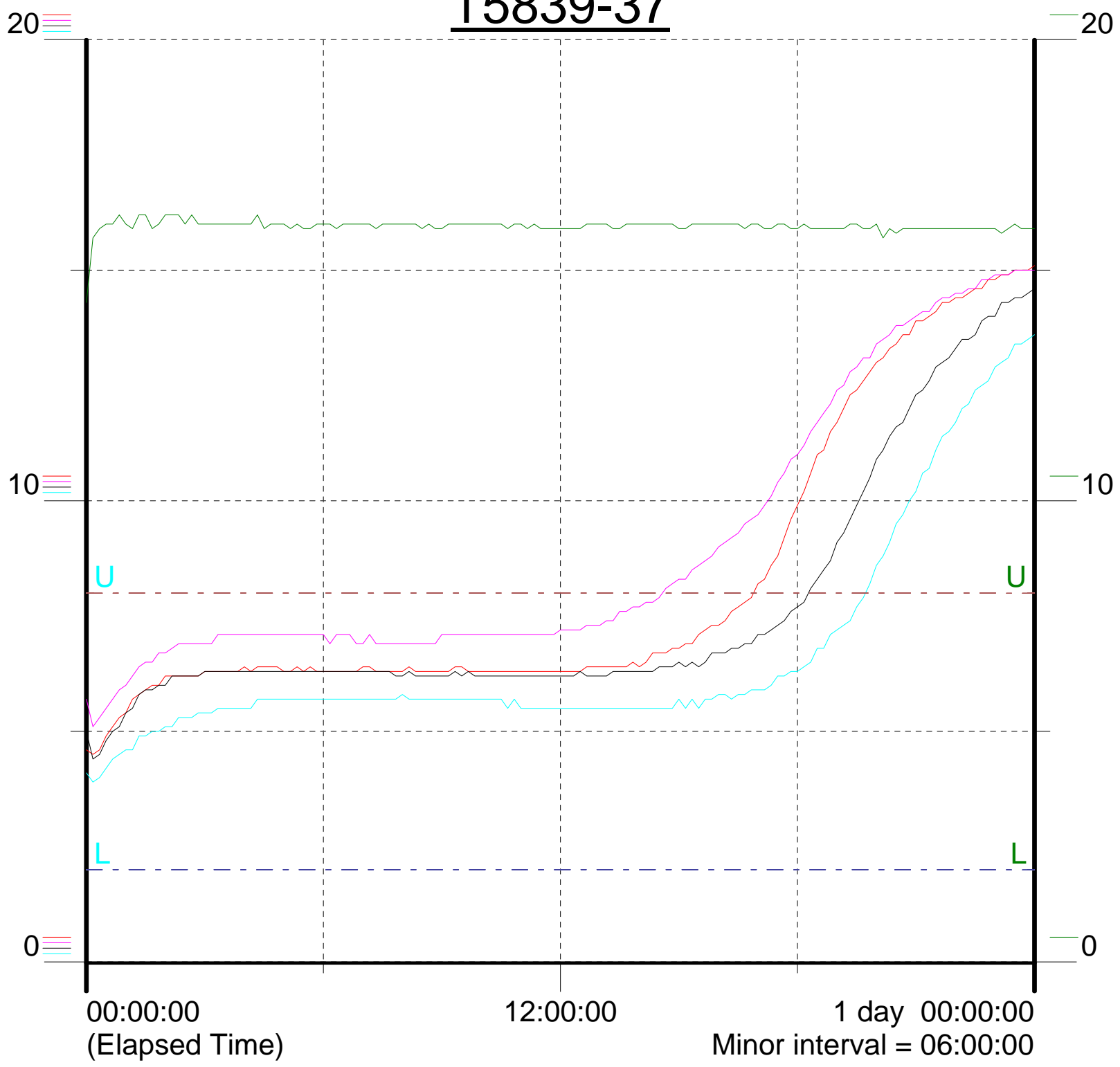
# T5839-25



# T5839-33



# T5839-37



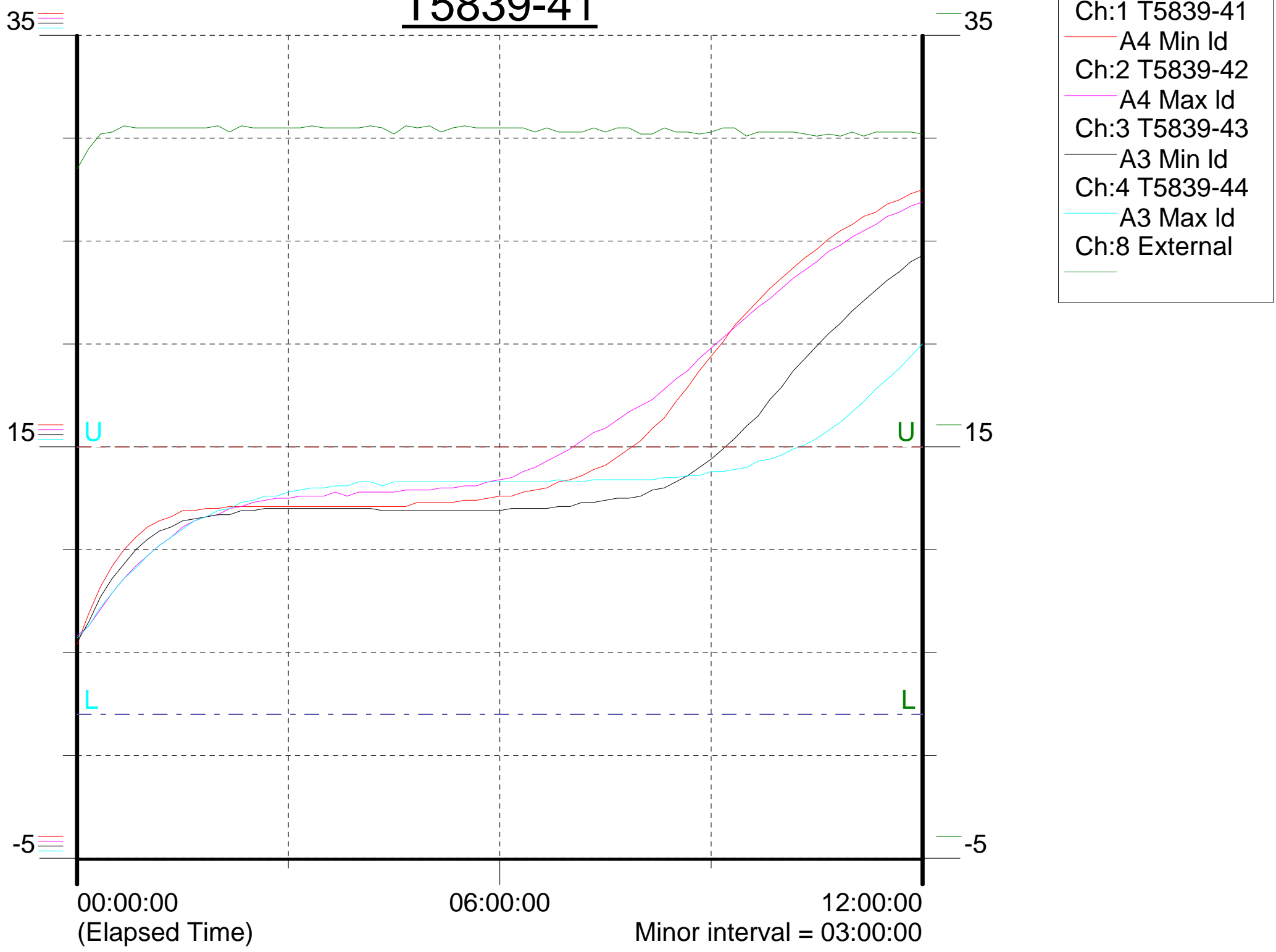
- Ch:1 T5839-37
- Ch:2 T5839-38
- Ch:3 T5839-39
- Ch:4 T5839-40
- Ch:8 External

00:00:00  
(Elapsed Time)

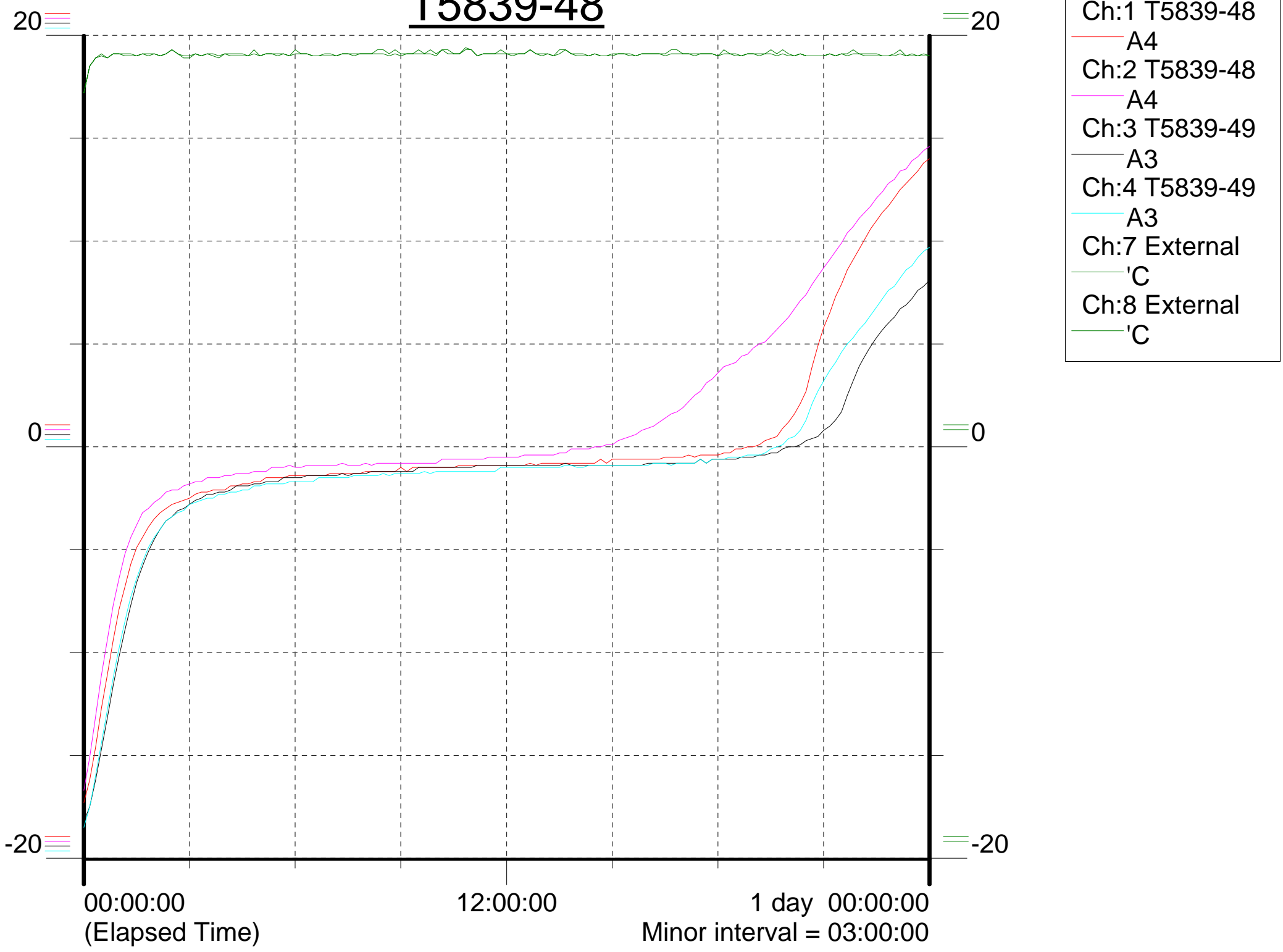
12:00:00

1 day 00:00:00  
Minor interval = 06:00:00

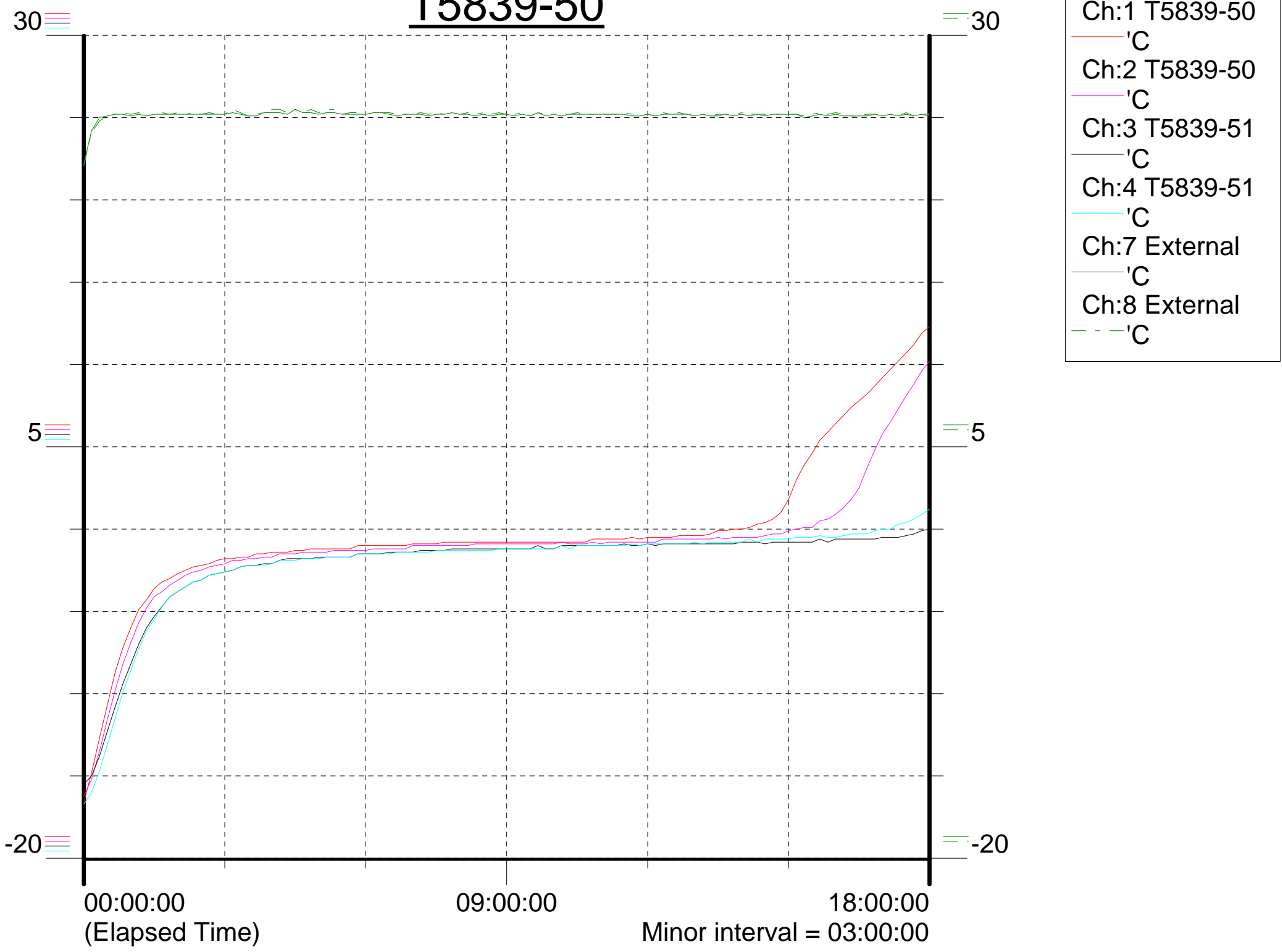
# T5839-41



# T5839-48



# T5839-50



# T5839-52/53

