# MPS Logic:
# 2023-02-23-a

# Contents

**1 Ignored when Insertable Faraday Cup FC10241 Is In or PR10241 Is In** **4**
1.1 TD11390 Position . . . 4

**2 Ignored when Insertable Faraday Cup FC10241 Is In, PR10241 Is In, or TD11390 Is In** **5**
2.1 Bunch Length Monitor 3014 Position . . . 5
2.2 Collimator LI20 2058 Klixon . . . 5
2.3 EPS Summary Fault . . . 5
2.4 OTRS LI20 3158 (Mirror 3158) Position . . . 6
2.5 Oven Beryllium Window Position . . . 6
2.6 Plasma Oven Position . . . 6
2.7 PMON Position Position . . . 7
2.8 Sector 20 Beam Dump Shutter Position . . . 7
2.9 VVFS LI20 1986 Position . . . 7
2.10 VVPG LI20 3076 Position . . . 7
2.11 VVPG LI20 3160 Position . . . 8
2.12 VVPG LI20 3250 Position . . . 8

**3 Ignored when PR10241 Is In** **9**
3.1 PROF IN10 465 Position . . . 9
3.2 PROF IN10 471 Position . . . 9
3.3 PROF IN10 571 Position . . . 9
3.4 PROF IN10 711 Position . . . 10
3.5 PROF LI11 335 Position . . . 10
3.6 VVPG LI20 3172 Position . . . 10

**4 Always Evaluated** **11**
4.1 Bypass Recover . . . 11
4.2 Gun RF Peak Power 10-2 . . . 11
4.3 Gun Waveguide Vacuum Summary . . . 11
4.4 Insertable Faraday Cup FC10241 Position . . . 11
4.5 IOC-IN10-MP01 MPS Support IOC Heartbeat . . . 12
4.6 Laser Heater Shutter . . . 12
4.7 MPS Beam Permit: Gun RF . . . 12
4.8 MPS Beam Permit: Laser Heater Shutter . . . 13
4.9 MPS Beam Permit: Mechanical Shutter . . . 13
4.10 MPS Mechanical Shutter Inconsistent State . . . 13
4.11 MPS Mechanical Shutter Position . . . 13
4.12 PLC-IN10-MP01 MPS Support PLC Heartbeat . . . 14
4.13 PR10465 and Laser Heater Attenuator . . . 14
4.14 PR10471 and Laser Heater Attenuator . . . 14
4.15 Rate Request: Gun RF 1 Hz . . . 15

4.16 Rate Request: Gun RF 10 Hz . . . . . 15
4.17 VVPG IN10 155 Position . . . . . 15
4.18 VVPG IN10 215 Position . . . . . 15
4.19 YAG IN10 241 Position . . . . . 16

**5 Ignore Logic** **17**
5.1 Insertable Faraday Cup FC10241 Is In . . . . . 17
5.2 PR10241 Is In . . . . . 17
5.3 TD11390 Is In . . . . . 17

# 1 Ignored when Insertable Faraday Cup FC10241 Is In or PR10241 Is In

## 1.1 TD11390 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 30 Hz | 30 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
$A$ = `DUMP_LI11_390_OUT_LMTSW_STATE`,
$B$ = `DUMP_LI11_390_IN_LMTSW_STATE`

# 2 Ignored when Insertable Faraday Cup FC10241 Is In, PR10241 Is In, or TD11390 Is In

## 2.1 Bunch Length Monitor 3014 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 30 Hz | 30 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
$A$ = `BLEN_LI20_3014_OUT_LMTSW_STATE`,
$B$ = `BLEN_LI20_3014_IN_LMTSW_STATE`

## 2.2 Collimator LI20 2058 Klixon

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not OK | F | 0 Hz | 0 Hz | – | – | – | – | – |
| OK | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
$A$ = `COLL_LI20_2058_KLIXON_STATE`

## 2.3 EPS Summary Fault

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not OK | F | 0 Hz | 0 Hz | – | – | – | – | – |
| OK | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
$A$ = `EXPT_LI20_1_STATUS_STATE`

## 2.4 OTRS LI20 3158 (Mirror 3158) Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `OTRS_LI20_3158_OUT_LMTSW_STATE`,
*B* = `OTRS_LI20_3158_IN_LMTSW_STATE`

## 2.5 Oven Beryllium Window Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Open | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| Closed | T | F | 30 Hz | 30 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `VVPG_LI20_3208_OPEN_STATE`,
*B* = `VVPG_LI20_3208_CLOSED_STATE`

## 2.6 Plasma Oven Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 30 Hz | 30 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `OVEN_LI20_3185_OUT_LMTSW_STATE`,
*B* = `OVEN_LI20_3185_IN_LMTSW_STATE`

## 2.7 PMON Position Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 30 Hz | 30 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `PROF_LI20_45_OUT_LMTSW_STATE`,
*B* = `PROF_LI20_45_IN_LMTSW_STATE`

## 2.8 Sector 20 Beam Dump Shutter Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `LI20_MPS_14_DUMPSHTR_OUT_STATE`,
*B* = `LI20_MPS_14_DUMPSHTR_IN_STATE`

## 2.9 VVFS LI20 1986 Position

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Open | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Open | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = `VVFS_LI20_1986_POSITION_STATE`

## 2.10 VVPG LI20 3076 Position

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Open | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Open | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
$A$ = VVPG_LI20_3076_POSITION_STATE

## 2.11 VVPG LI20 3160 Position

| Name | $A$ | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Open | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Open | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
$A$ = VVPG_LI20_3160_POSITION_STATE

## 2.12 VVPG LI20 3250 Position

| Name | $A$ | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Open | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Open | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
$A$ = VVPG_LI20_3250_POSITION_STATE

# 3 Ignored when PR10241 Is In

## 3.1 PROF IN10 465 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 10 Hz | 10 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `PROF_IN10_465_OUT_LMTSW_POSITION`,
*B* = `PROF_IN10_465_IN_LMTSW_POSITION`

## 3.2 PROF IN10 471 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 10 Hz | 10 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `PROF_IN10_471_OUT_LMTSW_STATE`,
*B* = `PROF_IN10_471_IN_LMTSW_STATE`

## 3.3 PROF IN10 571 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 10 Hz | 10 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `PROF_IN10_571_OUT_LMTSW_STATE`,
*B* = `PROF_IN10_571_IN_LMTSW_STATE`

## 3.4 PROF IN10 711 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 10 Hz | 10 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `PROF_IN10_711_OUT_LMTSW_STATE`,
*B* = `PROF_IN10_711_IN_LMTSW_STATE`

## 3.5 PROF LI11 335 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 10 Hz | 10 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
*A* = `PROF_LI11_335_OUT_LMTSW_STATE`,
*B* = `PROF_LI11_335_IN_LMTSW_STATE`

## 3.6 VVPG LI20 3172 Position

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Open | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Open | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = `VVPG_LI20_3172_POSITION_STATUS`

# 4 Always Evaluated

## 4.1 Bypass Recover

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not recovered | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Ok | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = `LP_BYPASS_RECOVER`

## 4.2 Gun RF Peak Power 10-2

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Fault | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Ok | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = `KLYS_LI10_21_PEAKPOWER_STATE`

## 4.3 Gun Waveguide Vacuum Summary

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Ok | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Ok | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = `MKSU_LI10_61_WGVACSUM_STATE`

## 4.4 Insertable Faraday Cup FC10241 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 30 Hz | 30 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
$A$ = FARC_IN10_241_OUT_LMTSW_STATE,
$B$ = FARC_IN10_241_IN_LMTSW_STATE

## 4.5 IOC-IN10-MP01 MPS Support IOC Heartbeat

| Name | $A$ | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Ok | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Ok | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
$A$ = IOC_IN10_MP01_HEARTBEATSUM_STATE

## 4.6 Laser Heater Shutter

| Name | $B$ | $A$ | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | – | – | – | 30 Hz | – | – | – |
| Out | F | T | – | – | – | 30 Hz | – | – | – |
| In | T | F | – | – | – | 30 Hz | – | – | – |
| Broken | T | T | – | – | – | 0 Hz | – | – | – |

Where
$A$ = SHUT_HT10_950_OUT_POSITION,
$B$ = SHUT_HT10_950_IN_POSITION

## 4.7 MPS Beam Permit: Gun RF

| Name | $A$ | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Permitted | F | 0 Hz | – | – | – | – | – | – |
| Permitted | T | 30 Hz | – | – | – | – | – | – |

Where
$A$ = LP_ALLOWS_BEAM_POCKELS_CELL

## 4.8 MPS Beam Permit: Laser Heater Shutter

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Permitted | F | – | – | – | 0 Hz | – | – | – |
| Permitted | T | – | – | – | 30 Hz | – | – | – |

Where
*A* = LP_ALLOWS_BEAM_LH_SHUT

## 4.9 MPS Beam Permit: Mechanical Shutter

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Permitted | F | – | 0 Hz | – | – | – | – | – |
| Permitted | T | – | 30 Hz | – | – | – | – | – |

Where
*A* = LP_ALLOWS_BEAM_MECH_SHUT

## 4.10 MPS Mechanical Shutter Inconsistent State

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Readback Does Not Match | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Ok | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = SHUT_LT10_950_FAULT_STATE

## 4.11 MPS Mechanical Shutter Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | – | – | – | – | – | – |
| Out | F | T | 30 Hz | – | – | – | – | – | – |
| In | T | F | 30 Hz | – | – | – | – | – | – |
| Broken | T | T | 0 Hz | – | – | – | – | – | – |

Where
*A* = SHUT_LT10_950_OUT_POSITION,
*B* = SHUT_LT10_950_IN_POSITION

## 4.12 PLC-IN10-MP01 MPS Support PLC Heartbeat

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Ok | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Ok | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = PLC_IN10_MP01_HEARTBEATSUM_STATE

## 4.13 PR10465 and Laser Heater Attenuator

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Screen not out; Attn not in | F | F | – | – | – | 0 Hz | – | – | – |
| Screen Out (Attn not in) | F | T | – | – | – | 30 Hz | – | – | – |
| Attn In (Screen not out) | T | F | – | – | – | 30 Hz | – | – | – |
| Attn In and Screen Not Out | T | T | – | – | – | 30 Hz | – | – | – |

Where
*A* = PROF_IN10_465_OUT_LMTSW_POSITION,
*B* = FLTR_HT10_950_IN_POSITION

## 4.14 PR10471 and Laser Heater Attenuator

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Screen not out; Attn not in | F | F | – | – | – | 0 Hz | – | – | – |
| Screen Out (Attn not in) | F | T | – | – | – | 30 Hz | – | – | – |
| Attn In (Screen not out) | T | F | – | – | – | 30 Hz | – | – | – |
| Attn In and Screen Not Out | T | T | – | – | – | 30 Hz | – | – | – |

Where
*A* = PROF_IN10_471_OUT_LMTSW_STATE,
*B* = FLTR_HT10_950_IN_POSITION

## 4.15 Rate Request: Gun RF 1 Hz

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Requested | F | 30 Hz | – | – | – | – | – | – |
| Requested | T | 1 Hz | – | – | – | – | – | – |

Where
*A* = LP_MAX_RATE_PC_1_HZ

## 4.16 Rate Request: Gun RF 10 Hz

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Requested | F | 30 Hz | – | – | – | – | – | – |
| Requested | T | 10 Hz | – | – | – | – | – | – |

Where
*A* = LP_MAX_RATE_PC_10_HZ

## 4.17 VVPG IN10 155 Position

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Out | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = VVPG_IN10_155_POSITION_STATE

## 4.18 VVPG IN10 215 Position

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Not Out | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | T | 30 Hz | 30 Hz | – | – | – | – | – |

Where
*A* = VVPG_IN10_215_POSITION_STATE

# 4.19 YAG IN10 241 Position

| Name | *B* | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|---|
| Moving | F | F | 0 Hz | 0 Hz | – | – | – | – | – |
| Out | F | T | 30 Hz | 30 Hz | – | – | – | – | – |
| In | T | F | 10 Hz | 10 Hz | – | – | – | – | – |
| Broken | T | T | 0 Hz | 0 Hz | – | – | – | – | – |

Where
$A$ = `YAGS_IN10_241_OUT_LIMSW_POSITION`,
$B$ = `YAGS_IN10_241_IN_LIMSW_POSITION`

# 5 Ignore Logic

## 5.1 Insertable Faraday Cup FC10241 Is In

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Is In | T | – | – | – | – | – | – | – |

Where
*A* = `FARC_IN10_241_IN_LMTSW_STATE`

## 5.2 PR10241 Is In

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Is In | T | – | – | – | – | – | – | – |

Where
*A* = `YAGS_IN10_241_IN_LIMSW_POSITION`

## 5.3 TD11390 Is In

| Name | *A* | GUNL | MS | BYKIK | LHS | GUNH | GUNS | BYKIKS |
|---|---|---|---|---|---|---|---|---|
| Is In | T | – | – | – | – | – | – | – |

Where
*A* = `DUMP_LI11_390_IN_LMTSW_STATE`