Alignment procedure TEM/STEM JEOL JEM2200FS

Transmission Electron diffraction

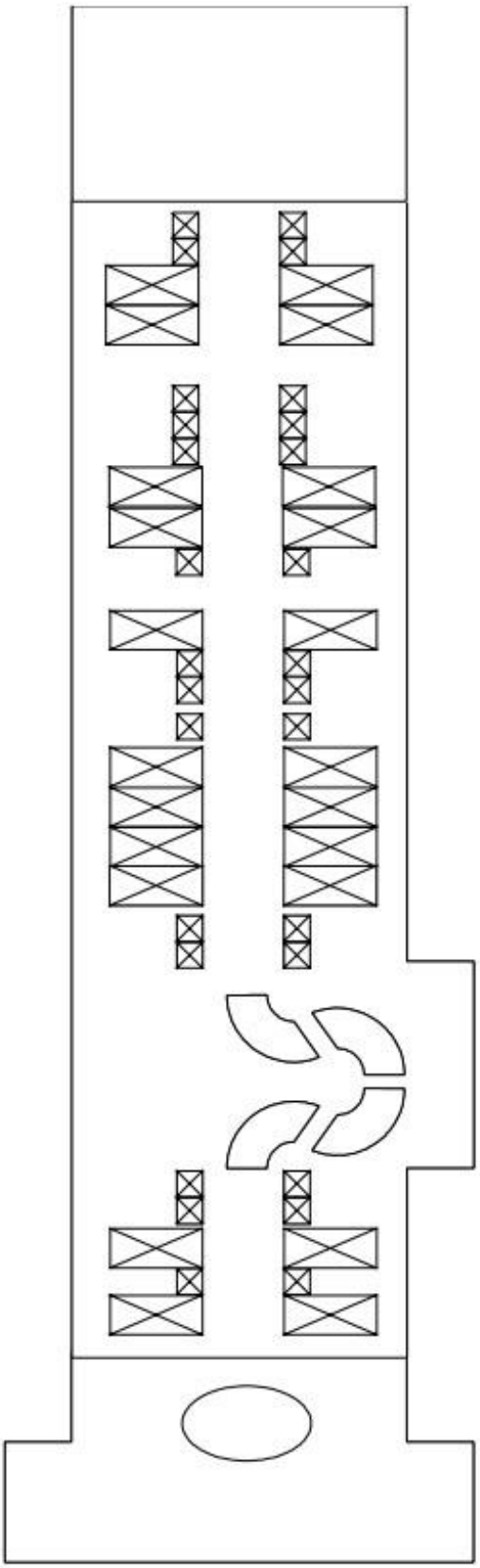
SELECTED AREA ELECTRON DIFFRACTION

PROBE CONTROL (LEFT PANEL)	:	TEM
APERTURE CONTROL (LP)	:	CLA2, HCA0, SAA0, ENTA0
MODE SELECTOR (RIGHT PANEL)	:	MAG1
MAG/CAM L (RP)	:	50 kx (appropriate)
BRIGHTNESS (LP)	:	CCW, smallest spot
SHIFT X/Y (LP/RP)	:	Center beam
BRIGHTNESS (LP)	:	CW, widen to field of view
SPECIMEN SHIFT (GP or TRACKBALL)	:	Recognizable area of specimen
STD FOCUS (RP)	:	Reset
SPECIMEN HEIGHT (GP)	:	Eucentric height
APERTURE CONTROL (LP)	:	SAA1 (appropriate), centered
MODE SELECTOR (RP)	:	SA DIFF
MAG/CAM L (RP)	:	100 cm
PLA (RP)	:	Center non-diffracted beam
BRIGHTNESS (LP)	:	CCW till diffuse background
APERTURE CONTROL (LP)	:	HCA1, Edge visible
DIFF FOCUS (RP)	:	Edge of HCA in focus
APERTURE CONTROL (LP)	:	HCA0
BRIGHTNESS (LP)	:	CW, for parallel beam and sharp diffraction spots
SCREEN MONITOR WINDOW @ TEM PC	:	Record pattern

Construction of JEOL TEM/STEM JEM2200FS

External view

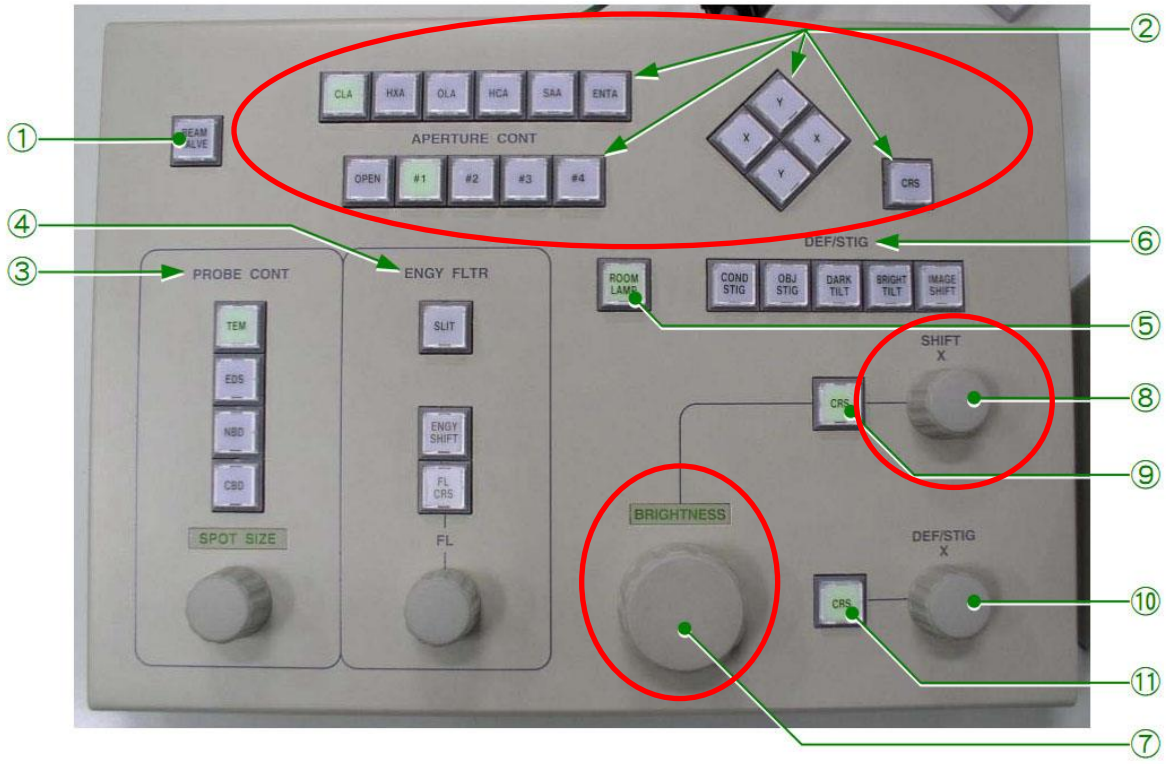
Layout of lenses and deflection coils



GUN-A1	Gun 1st deflector coil
GUN-A2	Gun 2nd deflector coil
CL1	1st condenser lens
CL2	2nd condenser lens
CL-STIG	CL stigmator coil
CL-A1	CL 1st deflector coil
CL-A2	CL 2nd deflector coil
CM	Condenser minilens
OL	Objective lens
OL-STIG	OL stigmator coil
OM	Objective minilens
IS1	1st image shift coil
IS2	2nd image shift coil
IL-STIG	IL stigmator coil
IL1	1st intermediate lens
IL2	2nd intermediate lens
IL3	3rd intermediate lens
IL4	4th intermediate lens
FL-STIG1	Filter lens 1st stigmator coil
FL-A1	Filter lens 1st deflector coil
FL	Filter lens
FL-A2	Filter lens 2nd deflector coil
FL-STIG2	Filter lens 2nd stigmator coil
PL1	1st projector lens
PL-A	IL deflector coil
PL2	2nd projector lens

Operation panels

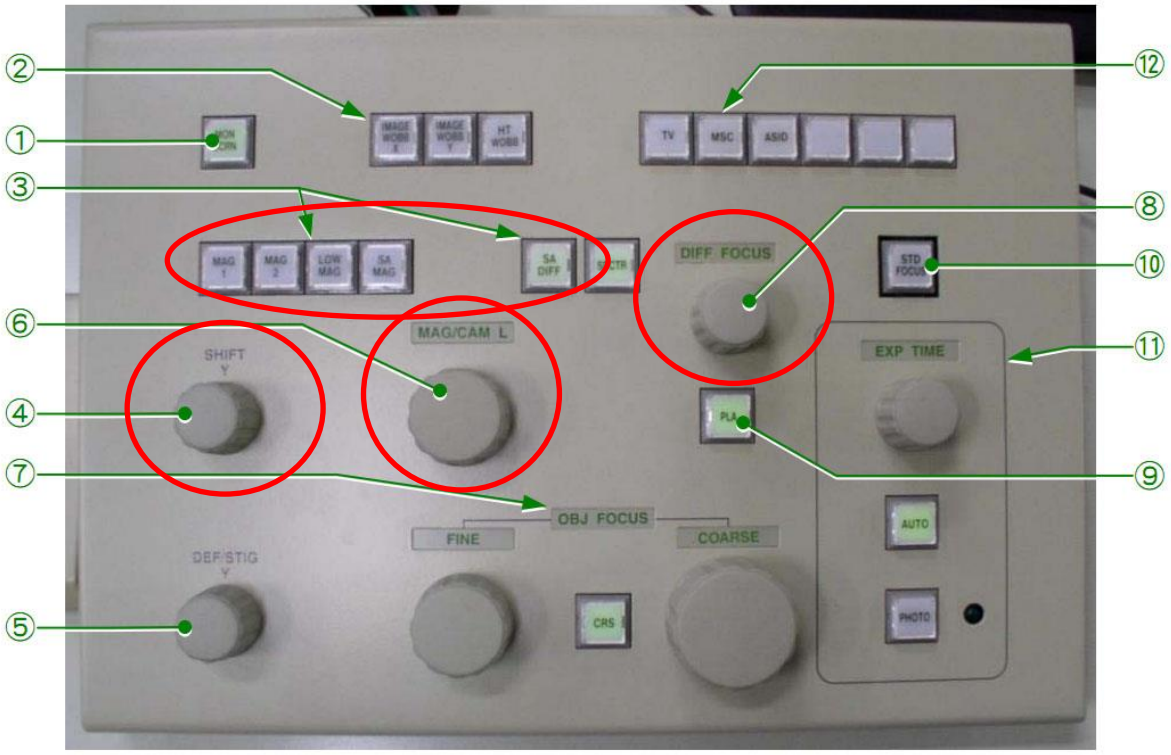
Left hand panel (LP)



No	Function control
1	Open/Close gun valve
2	Aperture control
3	Probe control
4	Energy filter control
5	Room light control (not active)
6	Control for deflector/stigmator selection
7	Brightness control
8	Beam shift control x
9	Fine/coarse selector for brightness and beam shift
10	Deflector/stigmator control x
11	Fine/coarse selector for deflector/stigmator control

Operation panels

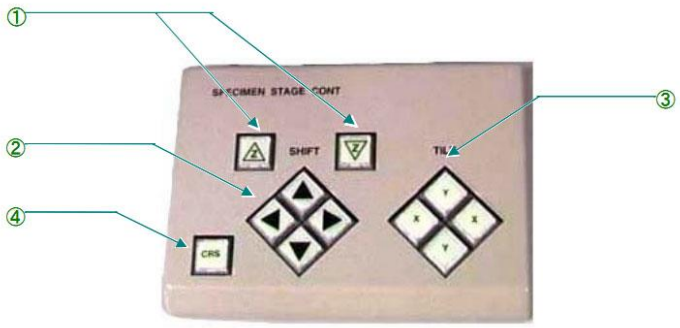
Right hand panel (RP)



No	Function control
1	Monitor screen control
2	Wobbler control
3	Imaging/diffraction/spectroscopy control
4	Beam shift control y
5	Deflector/stigmator control y
6	Control for magnification/camera length
7	Objective focus control
8	Diffraction focus control
9	Projection lens alignment control
10	Standard focus
11	Photo control
12	Multifunction keys

Operation panels

Goniometer control panel (GP)



No	Function control
1	Specimen height control
2	Specimen shift control
3	Goniometer tilt control
4	Coarse/fine control button

Trackball for specimen position control

Software control windows

Screenshot Monitor TEM