

# Medeli SP4200

## Instructions

Anders Borg, 2023-10-10, revision 15

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## Introduction

I enjoy this stage piano a lot, in part because of its oddities, and despite it being launched 2017 it's in my opinion still worth every penny, at least for home use, and with the stand with pedal unit, its many voices, styles, songs, connectors etc., yet...

Mileage may vary, but I found the owner's manual to be quite confusing, and hard to grasp how to use each feature, especially recording. Also, the UI/UX design of the piano is rather poor (**Function** times out, **Record** works in mysterious ways, etc.). With the number of buttons at hand, this could have been done much better.

The instructions are based on practical research, and I use it myself, so any new insights will be added over time.

It's not complete, but rather drilling down into the topics I found needed clarification at the time. I might go through Performance in more detail, a rather unique and odd feature, but quite pleasing when you get the hang of it. And you are supposed to be able to upload Yamaha-compatible styles to it (I got instructions from Medeli support that don't work). They partly deny this, as Medeli keyboards don't support Yamaha CASM. Etc.

It's intentionally split up into one page per topic, so you get the full description of each topic on one (printed or viewed) page. The text is also intentionally brief but hopefully to the point. I don't point out whether you need to press Shift, as that's obvious from the function (rather than button) name.

It works as well with Thomann SP-5600 (that I have), Kurzweil KA-120, Beale Stageperformer 1000, Classic Cantabile SP-250, Fame SP-4, and possible other rebrands of the Medeli SP4200. I don't guarantee it works with any other Medeli piano or keyboard, even if they are also based on the A2S synth engine, as Medeli tends to switch things around in each instrument. The closest Medeli keyboards I found were the DP330, Grand 300 and MK401, that are also available from others.

Thomann tried to improve on the original manual, but rather made it even worse (other clone providers didn't make that mistake). Stunningly, all manuals still list drum sets as "Chinese Instruments" in the Voice list. That's impressive. And why did they remove the Chinese instruments from the international version? I would have appreciated them.

Feel free to point out omissions and errors. Please also mention any other clones based on the SP4200.

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## Auto Accompaniment

### Select

1. Either press **Style** or a quick selection button (recommended).
2. Select the desired style.

### Prepare

3. Press any of **Sync Start** (sync with first chord), **Intro/Ending** (for intro), **Fill A**, **Fill B**, and **Fade** (for fade in) based on your needs.

### Chord Mode

4. Press **Chord Mode** (cycled) for:
  - **A.B.C.:** Use the left part of the keyboard to play simplified or full (recommended) chords. **Lower** can be used to change the chord sound.
  - **Full Range:** The whole keyboard is used to play full chords and melody. Release the chord (with possible sustain) to play the melody (accompaniment will not trigger on single notes). **Lower** will be inactive.
  - **Neither:** Use this for just rhythms and playing.

### O.T.S.

5. Press **O.T.S.** to activate preset instruments fitting the selected style (**A.B.C.** is activated if not already).
6. Press **M1** to **M4** for the different instruments.

### Start

7. Start accompaniment by either pressing **Start/Stop**, or **Sync Start** and then a chord.
8. **Intro/Ending** (for ending), **Fill A**, **Fill B**, and **Fade** (for fade out) can be used while accompaniment is active.

### Notes

- After **Fill A** or **Fill B** has completed each will go into **Main A** or **Main B**.
- **Fill B** (and **Main B**) is typically livelier and more complex than **Fill A** (and **Main A**).
- **Fill A**, **Fill B** and **Intro/Ending** will adapt to the chords you are playing.
- For rhythms without auto-chords: Deactivate **Chord Mode**, and press **Start/Stop** or **Sync Start**.
- For auto-chords without accompaniment: Don't press **Start/Stop** or **Sync Start**.
- Choose a new style while accompaniment is stopped unless you want the tempo of the first style to be used with the new one.
- You can lower the volume of the accompaniment with **Accomp v** and save a registration memory possibly with **A.B.C.** and other settings activated suitable for accompaniment play.
- I've found using accompaniment for correct timing much better than using **Metronome**, as it's more natural and interesting, even with only rhythm playing, and can be varied with the accompaniment-related buttons. The metronome is also quite sharp sounding, not blending well with softer instruments, and it's not possible to lower its volume via the mixer.

## Harmony

Harmony makes it easy to add harmony and other note effects to one or more notes you play with the right hand, based on played chords or automatically, depending on type.

### Use

1. Press **Function^** until you see **Duet** (by default).
2. Go through the list of harmony types with **◀** until you see the one you want. See Function for a list of harmony types.
3. Wait until Function exits.
4. Activate by pressing **Harmony**.
5. 1+5, Octave, Echo, Tremolo, and Trill don't need **Chord Mode A.B.C.** activated. The others do.
6. You can deactivate **Harmony** or choose some other harmony type via **Function^**.

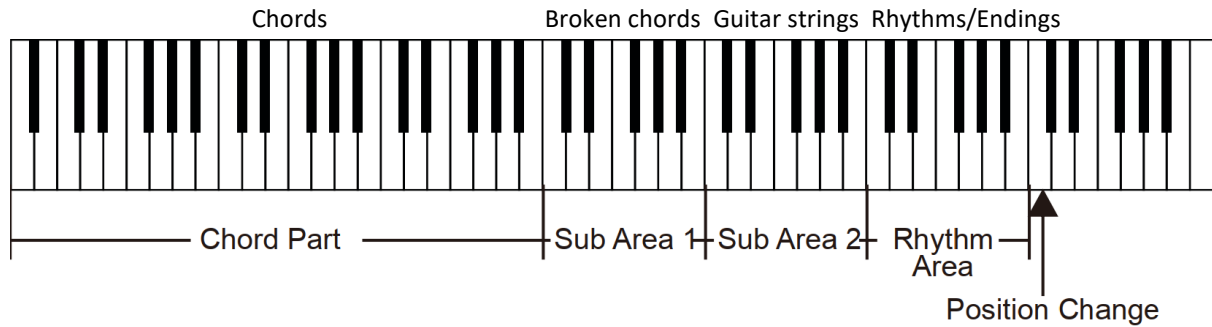
### Notes

- From a MIDI perspective also the auto-generated notes are sent, so if you record what's being played, they are recorded as well.

## Performance Assistant

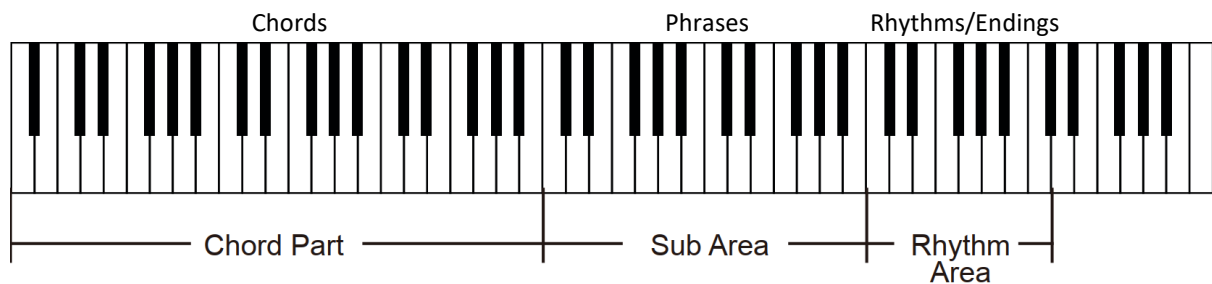
1. Press **Perform**.
2. Select **113 Acoustic Guitar (steel)** or **001 Acoustic Grand Piano**.
3. Select beat with **+/Yes**.

## Guitar



- Black keys: Noises (same for each octave)
- Chord Part **A0** to **B3**: Similar to **A.B.C.**.
- Sub Area 1 **C4** to **B4**: Broken chords.
- Sub Area 2 **C5** to **A5**: Play strings 1 to 6.
- Rhythm Area:
  - **C6** to **G6**: Rhythms
  - **A6** to **B6**: Endings
- Position Change **C7**: High position. The display shows **Perform.H**.

## Piano



- Chord Part **A0** to **B3**: Similar to **A.B.C.**.
- Sub Area **C4** to **B5**: Phrases.
- Rhythm Area:
  - **C6** to **G6**: Rhythms
  - **A6** to **C7**: Endings

## Exit

1. Press **Perform**.

## Function

Press **Function** and step to each setting.

<b>Setting</b>	<b>Display</b>	<b>Range</b>	<b>Default</b>
Tune	nnn Tune	-50 to 50	0
Beat Type	nnn Beat	0,2 to 9	4
Split Point	nnn Split Pt	1 to 88	34 (F#3)
Sustain Pedal	nnn selected	Sustain Pedal, Soft Pedal, Start/Stop Accompaniment, Select Memory	Sustain Pedal
Soft Pedal	nnn selected	Soft Pedal, Start/Stop Accompaniment, Select Memory	Soft Pedal
Harmony Type	nnn selected	<i>Duet, Standard Trio, Full Chord, Rock Duet, Country Duet, Country Trio, Block, 4 Close 1, 4 Close 2, 4 Open, 1+5, Octave 1, Octave 2, Strum, Echo 1 to 4, Tremolo 1 to 4, Trill 1 to 4</i>	Duet
Equalizer Type	nnn selected	Pop, Rock, Classical, Jazz, Dance, Reset	Reset
Reverb Type	nnn selected	Room 1, Room 2, Room 3, Hall 1, Hall 2, Hall 3, Church 1, Church 2, Delay, Pan Delay	Hall 1
Reverb Level	nnn Rev Lev	0 to 127	Voice
Chorus Type	nnn selected	Chorus 1, Chorus 2, GM Chorus 1, GM Chorus 2, Flanger 1, Flanger 2, Rotary 1, Rotary 2	GM Chorus 2
Chorus Level	nnn Chr Lev	0 to 127	Voice
MIDI In Channel	nnn Receive	1 to 16, All	All
MIDI Out Channel	nnn Transmit	1 to 16	1
Auto Power Off	nnn PowerOff	Off, 30, 60	30

## Notes

- Harmony types in italics require **Chord Mode** **A.B.C.**.
- Harmony types Echo, Tremolo and Trill are synced with **Tempo** and get shorter with increasing numbers.
- Pressing Yes/No at the same time resets to the default value, as shown in Default.

## Registration Memory

You can store up to 48 registrations (8 banks by 6 memories), that are combinations of selected voice, style, tempo, mixer, and most other settings.

The display shows selected bank and memory under **Memory**.

Registrations are only accessible when **O.T.S.** is off.

### Select

1. Possibly press **Bank** (cycle 1 to 8).
2. Press **M1** to **M6**.

### Store

1. Possibly press **Bank** (cycle 1 to 8).
2. Hold **Store** and then press **M1** to **M6**.
3. Confirm with **+ / Yes**.

### Notes

- A registration saves almost all settings (voice, style, function, mixer, tempo. Start from scratch (power on state) and make only needed changes, so you don't get surprises when you select it later.
- Preferably set the volumes equal via **Mixer** and **Accomp** for all registrations so that you can switch between them without volume differences.



## Record

### User song selection

- Press **Record** (**Record User Song 1, RecSong1** is shown).

### Song

- Choose what song to save to (**RecSong1** to **RecSong5** = **Song 121** to **125**).
- If you choose one that's already been recorded to, you can complement it.

### Leave

- You can leave recording at this point via **Voice** etc.

### Recording preparation

- Press **Record** again to enter recording preparation mode (**REC** is shown).

### Settings

- Select a **Voice** or a registration via **M1** to **M6**, and **Tempo**.

### Track selection

- An empty melody track is selected automatically (shown flashing on the display).
- Possibly choose some other with **Melody 1** to **Melody 5**.
- Mute individual recorded tracks with the same buttons.
- Press **Accomp** if you want to save accompaniment to a track.
- If you do you can now select a **Style** and a **Chord Mode**. You can also change this while recording.
- If you only want to record accompaniment, you can mute all other tracks.

### Track deletion

- Press **Record** for more than 2 seconds (**Delete?** is shown).
- Use **Melody 1** to **Melody 5** to select what tracks are to be deleted (those showing a marker).
- Delete with **+ / Yes**. Cancel with **- / No**.
- If you delete all tracks the whole song is deleted.

### Recording start

- Start recording by beginning playing or by pressing **Start/Stop**.

### Recording stop

- Press **Record** to stop recording or to leave without recording if nothing has been played.
- The recorded song with all parts will now play automatically on repeat. Stop with **Start/Stop**.
- Individual tracks can be muted using **Melody 1** to **Melody 5**.
- Press **Record** to go back to user song selection.

### Notes

- You can save recorded songs to a USB stick as MIDI files. See the USB section.

## Song

### Play

1. Press **Song** twice (if you don't it will auto-play all songs after each other).
2. Select a song. User songs are at **121 to 125**.
3. In user songs individual tracks can be muted using **Melody 1** to **Melody 5**.
4. Press **Start/Stop** to play the selected song. The song will count in one beat (seen on the display).
5. The song will repeat after completion unless you press **Start/Stop**.

### Control

1. Hold **>>** or **<<** for fast forward/backward.
2. Press **||** to pause or play.
3. Press **U** to set loop start and end. While looping press **U** to leave loop mode.
4. Press **Start/Stop** to stop playing.

### Exit

1. Press **Voice** etc to leave song mode.

## Lesson Mode

### Prepare

2. Press **Song** twice.
3. Select the song you want to use for the lesson.
4. Press **Lesson**. **Lesson** is shown on the display.
5. Press **L** or **R**, or **L** and **R** simultaneously, depending on what hand(s) you want to train. See the selection under **Lesson**.
6. Select type of lesson by pressing **Lesson**. See the selection under **Lesson**.
  1. Only tests timing.
  2. Only tests pitch.
  3. Both timing and pitch are tested.
7. Press **Start/Stop** to start the lesson.

## Chord Dictionary

Use this feature to learn how chords are played. Chord types and chord notes are printed above the keyboard for your reference. **A.B.C.** is activated automatically.

### Chord Learning Mode

1. Press **Dict** once so **Dict. 1** is shown.
2. Use **C4** to **B5** to select a chord type.
3. Use **C6** to **B6** to select a chord root.
4. The display shows what the chord is called and the position for that chord.
5. Play that chord in the **A.B.C.** area **A0** to **B3** for a vocal confirmation.
6. Continue from 2.
7. Exit by pressing **Dict** twice.

### Chord Examining Mode

1. Press **Dict** twice so **Dict. 2** is shown.
2. The display shows a random chord name, without showing how to play it.
3. Try to play the correct chord in the **A.B.C.** area within 3 seconds for an **OK** (warning: very loud!).
4. After that time the chord will be shown.
5. Play that chord position for an **OK** if you didn't manage before.
6. Continue from 2.
7. Exit by pressing **Dict** once.

## USB

### Prepare

1. Insert a USB stick.
2. Press **USB Device** to enter.
3. **◂** chooses menu, **+/Yes** selects operation, **-/No** exits.
4. Press **USB Device** to exit.

### Play

1. Move to **Play** with **◂** and select it with **+/Yes**.
2. Navigate the file tree with **◂**.
3. Enter a folder with **+/Yes**.
4. Back up by pressing **+/Yes** on ..
5. Play a song with **Start/Stop**.

### Load

1. Move to **Load** with **◂** and select it with **+/Yes**.
2. Select what you want to load: **LoadSong, LoadSty, LoadMem**.
3. Navigate to a file as before.
4. Select the file with **+/Yes**.
5. Select what user song or style to store it to. Doesn't apply to memory.
6. Load with **+/Yes**.

### Save

1. Move to **Save** with **◂** and select it with **+/Yes**.
2. Select what you want to save: **SaveSong, SaveSty, SaveMem**.
3. Select what song or style to save.
4. Name the file using the keybed (see the symbols above the keys). The file name can max have 8 symbols.
5. Save with **+/Yes**.
6. You can't overwrite existing files.

### Delete

1. Move to **Delete** with **◂** and select it with **+/Yes**.
2. Select what you want to delete: **UserSong, UserSty, UserMem**.
3. Navigate to a file as before.
4. Select the file with **+/Yes**.
5. Delete with **+/Yes**.

### Format

1. Move to **Format** with **◂** and select it with **+/Yes**.
2. Format with **+/Yes**.

## MIDI Functions

- The PCSUITE software mentioned in the manual is named Pootute and can be downloaded from Medeli. Supposedly you should be able to import Yamaha-compatible styles with Pootute, but I've not succeeded.
- I don't know how to create user styles via the instrument if it's now possible.
- Traditional MIDI will be deactivated if you also use MIDI over USB, so you can only use either/or. Understandable but annoying all the same.
- Much more can be controlled via MIDI than directly via built-in controllers, not the least vibrato, modulation, filter cutoff/resonance, panning, attack/release/decay, portamento etc. Via a suitable MIDI controller, they can be used in real time.
- To evaluate this, and for live use, I made a MIDI controller based on Arduino, MIDI Shield, BLE Shield, Android phone and an application with all controllers available as continuous 1D or 2D pads on one page.
- MIDI-OX is also great for evaluating controllers.
- Verified controllers:
  - Control Change:
    - Effect: 1, 5, 6, 7, 10, 11, 32, 64, 65, 66, 67, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 91, 93, 98, 99, 100, 101, 120, 121, 122, 123, 126, 127
    - No noticeable effect: 4, 122 (see below)
    - Not evaluated yet: 20
  - Pitch Bend: The range can be changed with Pitch Bend Sensitivity (RPN 0) up to two octaves up and down. When using Pitch Bend on the piano only a coarse value is sent.
  - Program Change: Is used with Bank Select to reach all available voices.
- Channel Pressure (Aftertouch) doesn't seem to have any effect by default. What should be affected can be controlled via SYSEX. This also goes for Modulation and Pitch Bend.
- There are also two customizable CCs (even their CC numbers can be set).
- Local Control Off (CC 122) is not supported, which is a bummer. The alternative is to silence the voice volumes via the **Mixer**: Upper1, Upper2, Lower. Save this to a registration memory.
- What's being played via the keybed is not affected by incoming CCs etc, so after setting voice volumes to 0, you need to route outgoing MIDI to incoming MIDI via an external MIDI controller for the effects to be heard with what's being played.
- There are also numerous RPNs, NRPNs and SYSEX with similar controllers, but not all the same. Most of those haven't been verified.
- The MIDI controller specification for Medeli instruments using the A2S engine can be ordered from Medeli in Hong Kong. It covers controller-related CCs, RPNs, NRPNs and SYSEX.
- Note that several of the CCs and volume are reset when changing voice (directly via **Voice** or via a registration).
- It sends All Sound Off when a drum kit is selected and the previous voice was not a drum kit. This is probably a safety thing, so that there are no stray notes.

## Voices, Styles and Songs

### Voices

- 001-077 Piano
  - 001 Acoustic
  - 018 Harpsichord
  - 023 Combinations
  - 030 Electric
  - 054 Wood & Bells
- 078-107 Organ
  - 078 Organ
  - 091 Church
  - 096 Reed
  - 100 Accordion & Harmonica
- 108-141 Guitar
  - 108 Acoustic
  - 119 Electric Clean
  - 131 Electric Distortion
- 142-166 Bass
  - 142 Acoustic
  - 155 Synth
- 167-210 Strings & Orchestral
  - 167 Violin
  - 181 Harp etc
  - 186 Ensemble
  - 192 Synth
  - 197 Voice
  - 206 Hit
- 211-271 Brass
  - 211 Trumpet
  - 214 Trombone
  - 218 Tuba
  - 220 Muted
  - 223 French
  - 226 Section
  - 229 Synth
  - 244 Sax
  - 256 Oboe
  - 260 English
  - 264 Bassoon
  - 268 Clarinet
- 272-294 Pipe
  - 272 Piccolo
  - 276 Flute
  - 281 Recorder
  - 284 Pan
  - 287 Bottle
  - 289 Shakuhachi
  - 291 Whistle
  - 293 Ocarina
- 295-344 Synth Lead
- 345-384 Synth Pad
- 385-409 Synth SFX
- 410-427 Ethnic Misc.
  - 419 Sitar
  - 412 Banjo
  - 414 Shamisen
  - 416 Koto
  - 419 Kalimba
  - 421 Bag Pipe
  - 423 Fiddle
  - 426 Shanai
- 428-487 Percussive
- 488-528 SFX
- 529-591 Combined
- 592-600 Drum Sets
  - 592 Standard
  - 593 Room
  - 594 Power
  - 595 Electronic
  - 596 Analog
  - 597 Jazz
  - 598 Brush
  - 599 Orchestra
  - 600 SFX

### Styles

- 001-010 8 Beat
- 011-030 16 Beat
- 031-060 Pop & Ballad
- 061-075 Rock
- 076-094 Ballroom
- 095-105 Dance
- 106-135 Soul & Funk
- 136-145 Country
- 146-162 Latin
- 163-180 Waltz & Traditional
- 181-190 World
- 191-230 Pianist

### Songs

- 001-018 Folk & Country
- 019-071 Golden & Pop
- 072-100 Classical
- 101-105 Piano Hanon
- 106-120 Piano Beyer

## Tips

- Deactivate **DSP** if you feed the audio into a mixer, as it adds noticeable noise (especially through headphones), and you are likely to use external effects anyway that are much better. Without it the sound is remarkably clean. Otherwise keep it on for a more pleasing speaker or headphone sound.

## Reference

- **A.B.C.** = Auto Bass Chord
- **O.T.S.** = One Touch Setting