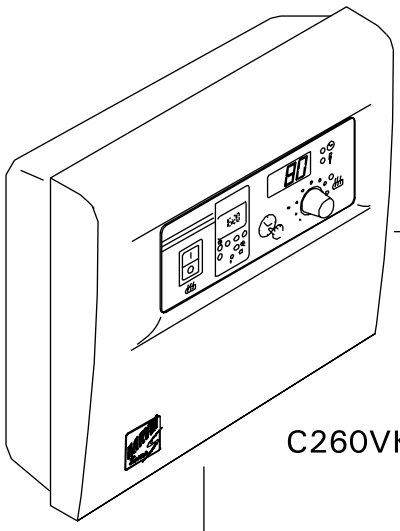
C260

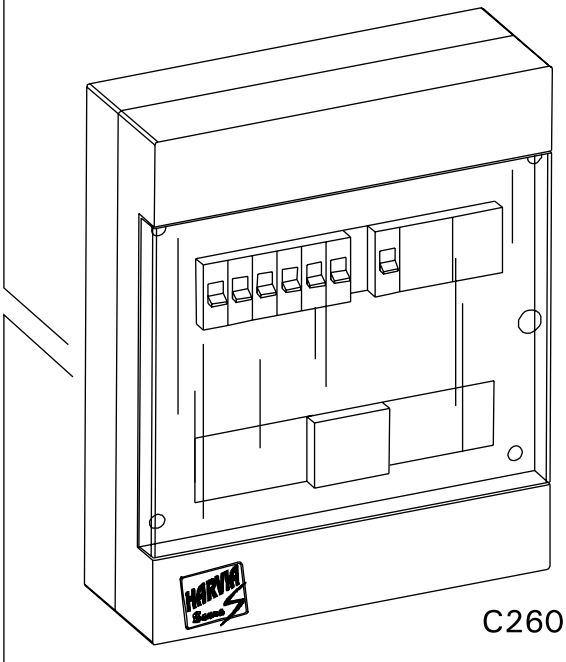
EN Control unit

CZ Ovladaci jednotka



SENSOR

C260VKK



C260K

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1. CONTROL UNIT C260

Control unit C260 is intended for the control of electric heaters fitted with 2 series parallel connectors for use in large saunas. Control unit C260 consists of a control unit (C260VKK), a power unit (C260K) and a thermostat. There are two versions of the power unit so the control unit can be used with heaters that have different power output levels. Power units that are equipped to handle smaller power output come with 16 A circuit breakers which allows them to control sauna heaters with up to 22 kW of power output (for instance two 11 kW heaters or one 20 kW heater). The more powerful power units that come with 25 A circuit breakers can control sauna heaters with up to 34 kW of power output.

The functions of the control unit are controlled by components in the thermostat's sensor box.The temperature sensor and the overheating limiter are located in the sensor box. The temperature is sensed by an NTC thermistor, and there is an overheating limiter that can be reset. In case of malfunction, this overheating limiter will cut off the heater power permanently (the overheating limiter can be reset by pressing the reset button, see Figure 35). Mechanical damage to the temperature sensor or overheating limiter circuitry (power failure/short circuit) will cause an error message (Er1, Er2 or Er3) to appear in the display unit in the control unit, and the power to the heater will be cut off.

- Er1 = power failure in the temperature sensor circuit (LO)
- Er2 = temperature sensor short-circuited
- Er3 = overheating limiter circuit cut off

The error message will disappear after the malfunction has been corrected.

1.1. Technical data

C260VKK control unit:

- maximum setting temperature in the control unit's display is 110 °C, setting precision ± 1 °C
- maximum temperature reading displayed is 125 °C
- maximum number of hours the heater stays on can be set by means of the DIP switch in the control unit , as follows: 6 hs, 12 hs, 18 hs or continuously (see engineer's instruction 3)
- a weekly timer in the control unit is programmed to function during power cuts of up to approximately two hours
- dimensions of the control unit: breadth 250 mm, height 223 mm and depth approx. 70 mm
- weight approx. 1,1 kg

C260K power unit:

- dimensions of the power unit: breadth 280 mm, height 350 mm and depth 110 mm
- weight approx. 3 kg

Thermostat:

- temperature sensor NTC thermistor 22kΩ/T = 25 °C
- resettable overheating limiter
- dimensions (mm): 51 x 73 x 27
- weight 175 g with leads (ca 4 m)

CZ

1.OVLADACI JEDNOTKA C260

Ovladaci jednotka C260 je primarne urcena pro ovladani elektrickych kamen, ktere mají 2 rady paraelních pripojení , které se pouzivaji pro velke komercni sauny.
Ridici jednotka se sklada z ovladaci jednotka C260VKK a silove casti C260K a teplotniho cidla.
Tyto jednotky se vyrabeji ve 2 provedenich a to podle výkonu kamen ke kterým je jednotka urcena.
Jednotka s oznacenim C260-20 je urcena pro výkony 10,5 - 22 Kw s jistice 16A a C260-34 je pro výkony 26 - 34 Kw a jistice jsou 25 A.

Funkce a teplota jsou ovládány pomocí ovládací jednotky a mereny teplotním cidlem, které se umistuje do sauny. Teplotní cidlo a ochrana proti prehrátí je umístena v krabicce cidla teploty. Teplota je snimana pomoci NTC termistoru, v prípade prehrátí teplotní ochrana vypne kamna a pokud se nestikne resetování teplotní ochrany, kamna se znovu nesepnou. Viz. obr. 35.

Mechanicke poskozeni nebo zkrat zpusobi zobrazeni chyboveho hlaseni (Er1, Er2 nebo Er3) a kamna se vypnou.

- Er1 = výpadek napájení v okruhu teplotního cidla
- Er2 = teplotní cidlo má zkrácené okruh
- Er3 = teplotní ochrana vypla okruh

Chybové zprávy zmiznou po ostraneni vsech poruch.

1.1. Technické informace

C260VKK - kontrolni jednotka

- maximalni nastaveni teploty v kontrolni jednotce je 110 C, presnost nastaveni je +/- 1 C
- maximalni teplota zobrazena na displeji je 125 C
- maximalni doba kamen v provozu je podle nastaveni DIP prepinace v kontrolni jednotce. Nastaveno muze byt 6h, 12h, 18h nebo nepretrzite (vice v sekci 3)

Týdenní casovac má záložní baterii a pokud vypadne napájení, vnitrni pamet s nastavenim se uchova dalsi 2 hodiny.

- rozmery ovladaci jednotky: sirka 280mm, vyska 350mm a hloubka cca 70mm
- váha cca 1,1kg

C260K silova cast:

- rozmery silové casti: sirka 280mm, vyska 350 mm a hloubka cca 110mm
- vaha: cca 3 kg

Termostat:

- teplotni cidlo termistor NTC 22Kohm/T = 25 C
- resetovaci ochrana proti prehrati
- rozmery (mm): 51x73x27
- vaha 175g s privodnim kabelem (ca 4 m)

EN

2. C260VKK CONTROL UNIT: INSTRUCTIONS FOR USE

Before you switch the heater on check always that there aren't any things over the heater or in the near distance of the heater.

The control unit is a device for controlling the power unit (C260K) according to the timer switches (ON/OFF) and the temperatures registered by the thermostat's sensors. The timer switches can be controlled from the control unit by either pressing the key manually (3) or by pre-setting the time using the weekly timer (2). The timer switch may also be set remotely using a separate time switch, a switching device connected to a telephone line or with a manually controlled switch. Remote control mode comes into force automatically when the normal switch contact points short-circuit the low-tension control line. The control unit also emits a 24 volt direct current signal that the heater is on and ready for use, for example to the indicator lamp (max 1 W).

Normally the control unit is used either by means of the weekly timer or remote control. There can be no mix of functions as they are prioritized equally and can muddle up each others' functions. The manual key (3), however, allows the heater to be switched on in exceptional circumstances and programmed timings consequently need to be changed.

2.1. Main Switch (1)

The main switch (1) connects power to the control unit's electronics. **The main switch must always be in the ON position, so that the heater can be switched on by means of the manual key (3), when so desired, by remote control or by means of the programmed weekly timer.** The display screen shows when the power is on and waits a few seconds to indicate the temperature of the sauna room until "OFF" appears in the screen. The unit is now ready to control the power unit either on site from the control unit itself (manually/weekly timer) or by remote control.

The weekly timer (Weektimer) is powered separately from the main switch. The control unit has backup power to last for 2 hours, so short power failures do not affect the programs stored in the weekly timer's memory. In other words, after a short power failure, the control unit will continue to follow the weekly timer's program.

If the power failure exceeds 1 hour and the weekly timer's display screen shuts down, the programs are erased. When the power is restored, the display will show the code "ER8" which means that the weekly timer needs to be reprogrammed. Before programming, however, use the reset button to reset the weekly timer and press the manual button until the error message "ER8" disappears.

If control unit is controlled by external control i.e. computer or similar system, control unit will continue to switch the heater on and off normally even after a long power failure.

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2. C260VKK ovládací jednotka Instrukce pro užití

Pred zapnutim kamen zkontrolujte jestli u kamen nejsou zadne nevhodne predmety , ktere by mohli zpusobit pozar.

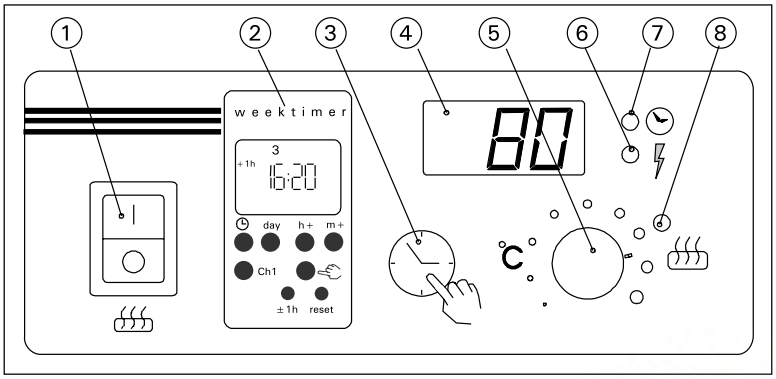
Kontrolni jednotka je urcena pro ovladani silove casti jednotky (C260K) podle casove spinani (ON / OFF) a vyhodnocovani teploty podle teplotniho cidla.
Ovladani casoveho nastaveni muze byt ovladano manualne skrz ovladaci panel (3) nebo prednastavenim spinani pomoci tydenniho casovace. (2). Casovac muze byt samozrejme ovladan pomoci oddeleneho casovace, spinaci zarizeni muze byt vedeno po telefonni lince nebo manualne ovladany.

Mod dalkoveho ovladani nabehne automaticky kdyz se na normalnich prepinacich kontaktech snizi napeti na nizkou uroven. Ovladaci jednotka dava napeti 24V , ze jsou kamna sepnute a pripraveny pro pouziti, priklad. : indikacni kontrolka (max. 1 W)

Standartne se jednotka pouziva pres tydenni casovac nebo dalkove ovladani. Tyto ruzne moznosti ovladani se nedaji kombinovat.

2.1. Hlavní vypínac (1)

Hlavni vypinac (1) spína ovladaci jednotku.
Hlavni vypinac musi byt v pozici ON pokud chcete kamna ovladat manualne dle (3), dalkove nebo pomoci tydeniho casovace.
Dislej se rozsviti kdyz ji sepnete a pockate nekolik sekund na zobrazeni teploty v saune dokud se na displeji nezobrazi OFF.
Ovladaci jednotka je nyní pripravena pro ovladani silove casti skrz ovladaci panel na siti nebo manualne, popr. tydennim casovacem.
Týdenní casovac ma napajeni oddelene od hlavniho vypinace a v pripade vypadku napajeni ma jednotka zalozni napajeni po dobu cca 2 hodin. Takze se tydenni casovani nesmaze. V dalsim kroku bude jednotka pokracovat ve zvolenem tydennim nastaveni.
Pokud bude vypadek proudu delsi a zobrazeni didpleje se vypne, naprogramovani bude smazano.
Kdyz se napajeni obnovi, na displeji se zobrazi hlaska ER8, ktera znamena ze se musi casovac znovu nastavit. Pred opetovnym programovanim stiknete resetovaci tlacitko na tydennim casovaci a nasledne stiknete tlacitko manualni ovladani dokud chybova hlaska ER8 nezmizi.
Kdyz je ovladaci jednotka ovladana externim ovladanim, pocitacem nebo podobnym systemem, ovladat kamna bude okamzite po znovu obnoveni napajeni.



Obrázek 1. Ovládací jednotka: ovládací prvky a indikacní kontrolky

Figure 1. Control unit: switches and indicator lights

The main switch functions like an emergency OFF switch as power to the heater can be disconnected by selecting position "0" whether the heater has been switched on manually or with the timer.

Hlavni vypinac funguje jako nouzovy vypinac a kamna se odpoji prepnutim do polohy OFF

2.2. Weekly Timer (Weektimer) (2)

In addition to its normal clock functions (real time), the weekly timer shows in the screen at the same time the day of the week, the current control mode (ON/OFF/locked/ unlocked), summer time setting (± 1h) and the twelve-hour clock symbols AM/PM.

The weekly timer has a memory with ten separate programmable ON/OFF functions, i.e. there are 20 timing programs:

- weekday(s),
- hour
- minute
- ON/ OFF
- summer/ winter.

The timer is programmed by pressing the controls below the screen. (Fig. 2)

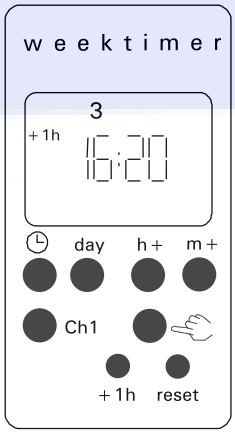


Figure 2.
Obrazek 2.

2.2.1. Basic Mode

When the weekly timer is switched on the rows of numbers and other symbols light up. Before programming commences, the clock's settings must be cleared as follows (Fig. 3):

- press the [reset] -button once (with the tip of a pen, for example).
- This will remove any erroneous data contained within the clock. After resetting, the screen will remain according to the diagram 3 for a while, but then the numbers 1–7 representing the days of the week will start to flash in the upper part of the screen. (Fig. 4)

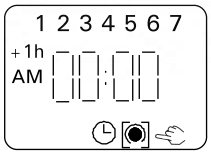


Figure 3.
Obrazek 3.

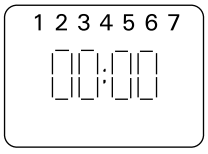


Figure 4.
Obrazek 4.

2.2. Týdenní casovac (2)

Krome funkce jednotky jako bežné hodiny (v reálném case), týdenní casovac zobrazuje také den v týdnu , sepnutí proudu (ZAPNUTO/VYPNUTO/ZAMÿENO/ODEM4ENO), nastavení letního casu (± 1 h) a dvanáctihodinové cykly AM/PM.

Týdenní casovac má pamet s deseti ruznými programy (zapnutí a vypnutí) , napríklad je zde možnost 20 casovacích programu:

- dny v tydnu
- hodiny
- minuty
- ON / OFF
- letni / zimni cas

Casovac je programovatelný tlacítky pod displejem (Obr. 2)

2.2.1. Zakladni mod

Když je týdenní casovaÿ zapnutý rádky císel a jiných symbolu se rozsvítí. (Obr. 3):

• stisknete [reset] tlacítko
• Tím se odstraní možné chybné údaje.

Po resetování se na obrazovce rozsvítí na okamžik kontrolka ÿ obr.3,
Poté zacnou císla blikat a je možné zacít s nast. (Obr. 4).

Cisla 1 - 7 v hornim poli znaci dny v tydnu.

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2.2.2.Setting the Weekly Timer to Real Time

- keep the [clock] -button in the down position the whole time.
- press the hours button [h +] to set the time.
- A single push on the [h +] -button moves the setting on one hour at a time; holding the button in continuously speeds up the process.
- Holding in the [h +] -button continuously will cause the hours to appear in the following rotational series:
  00 ... 23 ... 00 or
  AM 00 ... AM 12 ... AM 00/
  PM 00 ... PM 12 ... PM 00,
  depending on the screen display mode selected. (Fig. 5)
- **Please Note!** During summer time real time is set by pressing the [± 1 h] one hour for ward. The reverse process applies for winter time.
- press the [m +] -button for the minutes setting. A single push moves the setting on one minute at a time; holding the button in continuously speeds up the process. (Fig. 6)
- Setting the minutes will not affect the hours setting, even if the number of minutes registered in the screen exceeds 59.
- press the [day] -button to set the right day in the screen. Monday is no. 1, Tuesday no.2, etc.
- press the [± 1h] -button in summer for the summer time symbol to appear in the screen. The hours setting will simultaneously advance by one hour.
- release the [clock] -button

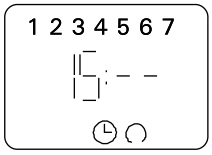

Figure 5.
Obrazek 5.

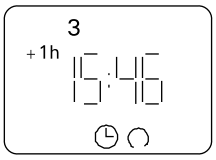

Figure 6.
Obrazek 6.

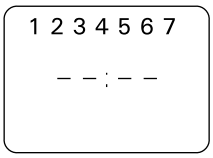

Figure 7.
Obrazek 7.

2.2.3. Programming the Timer Heater On

- press the [Ch] -program button once; the screen will appear as in the diagram. (Fig. 7)
- using the [manual] -button press symbol to activate programming mode in the screen as in the diagram. A dark speck in the arc indicates that the heater is programmed to come on at the desired time. (Fig. 8)
- If you forget to press the programming symbol, it begins to flash when you try to reconfirm and enter the program time with the [Ch] -button.
- press [h +] -button to set desired hour for system to come on
- press [m +] -button to set desired minute for system to come on
- press [day] -button to set desired day of the week for system to come on (Fig. 9)

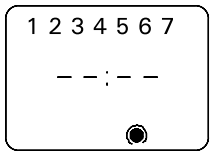

Figure 8.
Obrazek 8.

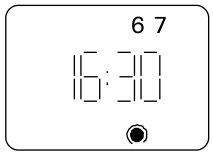

Figure 9.
Obrazek 9.

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2.2.2. Nastaveni tydenniho casovace do do realneho rezimu.

Tlacítky [h +] a [H ÿ] nastahujete celé hodiny.
Pokud podržíte tlacítko [h +] zpusobí to, že se budou zobrazovat serie pro nastavení
00 ... 23 ... 00 nebo
PM 00 ... PM 12 ... AM 00 /
AM 00 ... AM 12 ... AM 00,
V závislosti na režimu zobrazení obrazovky. (Obr. 5)
• Upozornení! Pro nastavení letního a zimního casu se používá tlacítko [± 1 h]
• Tlacítkem [m+] se nastavují minuty . (Obr. 6)
Nastavení celých hodin se nezmení i pokud preskocíte 59 minut.
• Stiskem tlacítka [den] nastavujete dny v týdnu
Pondelí je 1, Úterý je 2, atd.

2.2.3. Programovani casovace

Spinani kamen

Stisknete \[Ch] program jednou tlacítko;
Objeví se obrazovka (Obr. 7)
• pomocí tlacítka \[manuál] aktivujeme nastavený režim

Tmavá teckou v oblouku vyplývá, že ohrívac je naprogramován tak, aby sepl v požadovanou dobu. (Obr. 8)
• Pokud zacne tecka blikat zmácknete tlacítko \[Ch]button.
• stisknte \[h +]tlacítko pro nastavení požadované hodiny.
• stisknte \[m +]tlacítko pro nastavení požadovanych minut pro systém prijde na
• stisknte \[den]tlaítko nastavíte požadovaný denv týdnu. (Obr. 9)

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- The following selection modes are available with the [day] -button:
- 1 2 3 4 5 6 7 = (Mon, Tues, Wed, Thurs, Fri, Sat and Sun) selected
- 1 2 3 4 5 6 = (Mon, Tues, Wed, Thurs, Fri, and Sat) selected
- 1 2 3 4 5 = (Mon, Tues, Wed, Thurs, and Fri) selected
- 6 7 = (Sat and Sun) selected
- 2 = one single day of the week (Tues), scan select
- press the [Ch] - program button once to enter the program timings. The screen will then return to the mode as seen in the diagram. (Fig. 10)

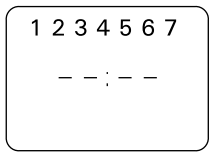


Figure 10.

Heater Off

- using the [manual] -button press the programming mode symbol in the screen. The clear arc symbol indicates that the heater will go off at the programmed time in the screen. (Fig. 11)
- If you forget to press the programming symbol, it begins to flash when you try to reconfirm and enter the program time with the [Ch] -button.
- press [h +] -button to set desired hour for system to go off
- press [m +] -button to set desired minute for system to go off
- press [day] -button to set desired day of the week for system to go off. (Fig. 12)
- The following pre-set options exist:
- 1 2 3 4 5 6 7 = (Mon, Tues, Wed, Thurs, Fri, Sat and Sun) selected
- 1 2 3 4 5 6 = (Mon, Tues, Wed, Thurs, Fri, and Sat) selected
- 1 2 3 4 5 = (Mon, Tues, Wed, Thurs, and Fri) selected
- 6 7 = (Sat and Sun) selected
- 2 = one single day of the week (Tues), scan select
- press the [Ch] -program button once to enter the program timings. The screen will then return to the mode as seen in the diagram. (Fig. 13)

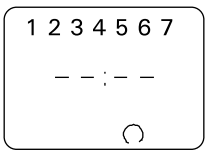


Figure 11.

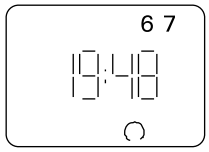


Figure 12.

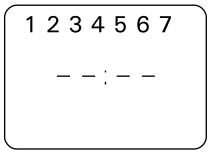


Figure 13.

After the last OFF programming selection mode has been made press the [clock] -button to return to the real time mode in the screen. (Fig. 14)

Please note! Make sure that the heater's control unit is disconnected from the heater's resistors when the timer's program timings are completed.

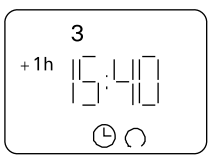


Figure 14.

CZ

Tlacítkem [den] nastavujete vybrané dny sepnutí:

- 1 2 3 4 5 6 7 = (Po, Út, St, ÿt, Pá, So a Ne)
- 1 2 3 4 5 6 = (Pondelí, úterý, streda, ctvrtek, pátek a sobota)vybraný
- 1 2 3 4 5 = (Pondelí, úterý, streda, ctvrtek a pátek)
- 6 7 = (So a Ne)
- 2 = jeden jediný den v týdnu (út)

Stiskem tlacítka [Ch] se aktivuje možnost zmeny nastavení. viz. (Obr. 10)

Vypinani kamen

Po stisknutí tlacítka /manual/ Kolecko na displeji bude prázdné viz. obr. 11 a ohívac vypne dle nastavení.

Pokud zacne koleko blikat stisknete /CH/. Stiskem \[h +] tlacítko pro nastavení požadované hodiny pro systém. Stiskem \[m +]tlacítko pro nastavení požadovanou minutu pro systém Stiskem \[den]tlacítka nastavíte požadovaný den v týdnu pro systém odejít. (Obr. 12)
Možnosti nastavení:

- 1 2 3 4 5 6 7 = (Po,Út,St,Ct,Pá,So,Ne)
- 1 2 3 4 5 6 = (Po,út,st,ct,pá, so)
- 1 2 3 4 5 = (Po,út,st,ct,pá)
- 6 7 = (So a Ne)
- 2 = jeden jediný den v týdnu (út)

Stiskem \[Ch] zapnete program jak jste si jej nastavil
Pak se vráti obrazovka zpt do režimu viz. (Obr. 13) Po posledním OFF programování Stisknte tlacítko \[hodiny] na displeji se zobrazí aktuální nastavení (Obr. 14)

!!!
Pojistky samotných kamen musí být vypnuty pri dokoncování nastavení.

Obrazek 10.

Obrazek 11.

Obrazek 12.

Obrazek 13.

Obrazek 14.

EN

2.2.4. Manual Control Operations with the Weekly Timer

Using the weekly timer's [manual] - button you can turn the heater on instantly as with manual button 3. The appropriate symbol will appear in the screen to show that the system is being manually operated as seen in the diagram. (Fig. 15)

The [manual] -button has four distinct functions:

1. With an initial press of the [manual] -button **the ON function comes on** immediately. The next OFF time programmed in the memory or the OFF time selected by means of the DIP switch disconnects the ON function if the [manual] switch has not been employed to do this earlier.
2. A second press of the button **locks the ON function.** This function is denoted by the appearance of bracket symbols in the screen. This function cannot be removed other than by moving the function a step forward by means of the button. (Fig. 16)
3. A third push **releases the OFF function.** This function is denoted by the appearance of bracket symbols in the screen. This function cannot be removed other than by moving the function a step forward by means of the button. (Fig. 17)
4. A fourth push **returns** the manual control to the real time display mode, thus activating the program timings recorded in the timer's memory. (Fig. 18)

PLEASE NOTE! Switching on the heater at any time other than when the program timings have been recorded should be done by means of the manual switch (3) on the control unit (C260VKK), as it is very easy to do so and it also avoids the above-mentioned problem of the locking functions remaining on.

2.2.5. Checking, Changing and Clearing Programs and Selecting the Display Mode

Checking Program Timings

You can scan programs by pressing the [Ch] -program button. The programs appear in the order you have entered them in the system's memory. The check is made easier if you have entered your programs in order of days of the week. (Fig. 19)

When all the program timings have been scanned the number of programmable settings remaining to you will appear in the screen (Fig. 19). For example, "Fr 14" means that there are another 14 program settings available in the timer's memory. "Fr 00" in the screen means that the memory is full.

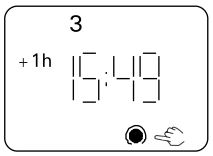


Figure 15.

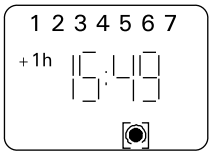


Figure 16.

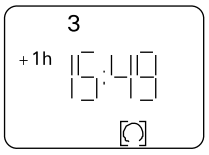


Figure 17.

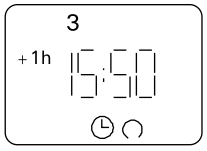


Figure 18.

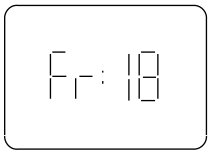


Figure 19.

CZ

2.2.4. Manualni ovladani operaci Tydenni casovac

Použitím tlacítka manual mužete týdením casovacem ovládat kamna rucne jako s manuálním tl. 3.
Rucní ovládání poznáte tak že se zobrazí symbol viz obr. 15

Tlacítko manual má 4 ruzné funkce stiskem manual se zapnout kamna okamžite.
vypnou se podle toho jak je to nastaveno v pameti.
Druhé stisknutí zamkne funkci ON.
Funkce se zruší opetovným stisknutím tlacítka. obr. 16
Tretí stisknutí zamkne funkci OFF.
Funkce se zruší optovným stisknutím tlacítka. obr. 17
tvrté stisknutí vrací manuální ovládání na naprogramované v pameti. viz. (Obr. 18)

POZOR!
Zapnutí topení kdykoliv jindy , než je nastaveno v programu je dobré provádet pomocí rucního prepínace (3) protože je to nejsnadnejší zpusob a zamezí se nechtenému narušení nastavení nacasování sepnutí.

2.2.5. Kontrola zmeny mazání nastavení

Programy se dají prohlížet pomocí tlacítka /CH/
Programy se zobrazují v poradí, které jste zadali do systému. Kontrola je snazší, pokud jste zadali programy v poradí dnu v týdnu. (Obr. 19)

Když jsou všechny programy nacteny (obr. 19). Zobrazí se Napríklad, "Fr 14" Znamená to, že existuje dalších 14 programu.
Nastavení jsou k dispozici v casova pameti. "Fr 00" na obrazovce znamená, že pamet je plná.

EN

Changing Program Timings

- using the [Ch] -program button scan the screen for the program timing to be changed. The time and day settings that appear in the screen can be altered using the appropriate switches, as explained in 2.2.3. (Fig. 20)
- finally, enter the changes using the [Ch] switch
- using the [Clock] switch return to real time display. (Fig. 21)

Clearing Program Timings

- using the [Ch] -program button scan screen for program time/times to be removed
- cancel hours and minutes so that the blank dashes symbol appears (- - : 48) or (19 : - -) (Fig. 22 and 23)
- finally, enter the change using the [Ch] or [clock] switch.
- The dashes will flash for a time and the display will automatically return to real time. The program is now cleared.

An efficient way of clearing all programs is to press the timer's [reset] -button, which will make it necessary to start all programming again from the beginning. See 2.2.2.

Selecting the AM/PM Display Mode

- simultaneously press the [± 1h] summer time button and the [h +] hours button; either AM or PM will appear in the screen. You can set the clock display to read 00:00 ... 11.59, but now the AM and PM symbols indicate that the twelve-hour mode has been selected.
- Please make sure, when programming timings, that the AM/PM settings are correct.
- When there is no AM/PM display in the screen the 24 hour clock display mode is in force.

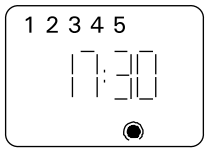


Figure 20.
Obrazek 20.

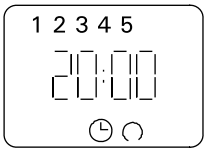


Figure 21.
Obrazek 21.

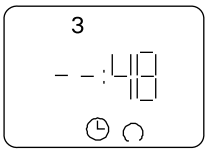


Figure 22.
Obrazek 22.

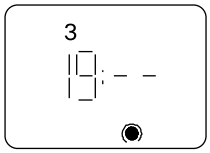


Figure 23.
Obrazek 23.

Zmena v programu nacasovani

- pomocí tlacitka /CH/ budete provadet zmeny v casovani. Pro nastaveni casu a dni se musite pohybovat v menu stejne jako v príkladu 2.2.3 - obr. 20.

- Pro ulozeni zmen stisknete tlacitko /CH/
- stiskem tlacitka / HODINY / se dostanete zpet do realneho zobrazeni casu. (obr. 21)

Mazani v programu nacasovani

- pomoci tlacitka /CH/ se dostanete do ovladani nacasovani. Tlacitky v menu se musite dostat v zadavani hodin a minut na 2 vodorovne carky. Viz. obr. 22 a 23.
- Pro ulozeni stisknete tlacitko /CH/ nebo tlacitko / HODINY /
- pomlcky budou blikat a displej se automaticky vrati do realneho zobrazeni.

Program je nyní vymazaný.

Pro smazani všech programu muzete pouzit tlacitko reset.
Potom zacnete programovat od znovu
Viz. sekce 2.2.2.

Vyber nastaveni dopoledne/odpoledne (AM/PM)

- tlacitkem /+1h/ si nastavujete letni a zimni cas a tlacitkem / H+ / vybirate dopoledne a odpoledne , vse se zobrazi na obrazovce.

Muzete si nastavit zobrazeni
na displeji pro cteni 00:00 - 11:59
ale nyni symboly AM a PM indikuje
12 hodinovy mod ktery lze zvolit.
- Pri nastavovani si budte jisti
ze nastavujete v rezimu ve kterem
chcete.

EN

2.3. Manual Switch (3)

2.3.1. Heater On Instantly

If you press the manual switch (3) once briefly (while the control unit is switched on), the heater comes on immediately for half an hour; there is a reading of 0.5 in the screen and indicator light 8 comes on (heater on). You can increase the time the heater is on by pressing the switch once for every half hour required. For example, six pushes of the button will turn the heater on for a duration of three hours. You can select a duration of up to a maximum of twelve hours. After the selection is made the screen displays the amount of time left for the unit to remain on alternately with the temperature of the sauna and the relevant indicator lights 6 and 7 flash in synchronised rhythm.

The programmed time left diminishes on screen automatically at intervals of 1/10 of an hour, or every six minutes.

2.3.2. Heater Off

If you have turned the heater on in the manner described in 2.3.1, you can switch it off before the programmed time has expired by pressing manual button 3 and holding it in for two seconds. This will turn the heater off, indicator light 8 will go out, and "OFF" will appear in the screen.

2.4. Display Screen (4)

When the control unit is in basic mode (power on) the screen (4) displays the word "OFF", which is the symbol that denotes that the heater is turned off.

In function mode, when the heater has been switched on manually, the screen displays numerically both the time left for the heater to be on and the temperature of the sauna room alternately at intervals of a few seconds.

The numerals in the screen will show only the temperature in the sauna room if the heater has been switched on by means of the weekly timer program or by remote control.

2.5. Temperature Regulator (5)

The desired sauna temperature is set by means of the temperature regulator (5) in the screen (4). By turning it clockwise you increase the temperature, and by turning it anti-clockwise you lower it. When the regulator is turned to the left or right the set temperature automatically becomes visible in the screen and indicator light 6 flashes.

The maximum temperature you can set is 110°C.

2.6. Indicator Light, Red (6)

When indicator light 6 is on continuously, the display shows the temperature of the sauna. If the system has had to be switched on manually, the red and the green indicator lights come on alternately. When the red light is on the screen displays the temperature and when the green light is on the time left for the heater to be on is shown.

When the temperature is being set using the regulator (5) the indicator light flashes rapidly.

CZ

2.3. Manualni owladani (3)

2.3.1. Okamzite sepnuti kamen

Kdyz stisknete kratce tlacitko manualniho ovladani (3)
(kdyz je jednotka zapnuta hlavnim vypinacem)
kamna zacnou topit na pul hodiny
a na displeji se zobrazi 0,5 hodiny
a bude svitit kontrolka 8.
Vícenásobnym stisknutim si budete
zvysovat doba, po kterou kamna
budou topit. Napr. 6x zmacknuti
je 3 hodiny. Maximální doba je 12 hodin
Po vyberu se zacne odpocitavat cas
a kontrolky 6 a 7 budou blikat, dokud
se nesynchronizuji.
Zbyvajici cas se vzdy aktualizuje po
6 minutach.

2.3.2. Vypnuti kamen

Kdyz jste kamna sepli manualne dle
podle popisu 2.3.1. muzete kamna i manualne
predcasne vypnout. Kamna vypnete tim
, ze podrzite tlacitko (3) po dobu 2 sekund.
Tim se kamna vypnou, vypne kontrolka 8
a na displeji zmizi napis OFF.

2.4. Displej (4)

Kdyz je ovladaci jednotka v zakladnim rezimu
na displeji sviti napis OFF, který ale naoznacuje
ze jsou kamna vypnuty.
Kdyz kamna sepnete manualne, na displeji se
zobrazi v radu nekolika sekund zobrazi teplota a
nastaveny cas.
Cislice na displeji s teplotou v saune
se zobrazi pouze tehdy pokud
budou kamna sepnuty tydennim casovacem
nebo dalkovym ovladanim

2.5. Regulace teploty (5)

Nastaveni teploty v saune provadite pomoci
ovladace (5) na displeji (4).
Zmenu teploty provadite otacenim doleva a doprava.
Pri nastavovani zelena kontrolka rychleji blika.
Maximalni teplota ktera lze nastavit je 110 C.

2.6. Kontrolky cerwena (6)

Kdyz kontrolka 6 trvale sviti.
Displej zobrazuje teplotu v saune.
Kdyz sepnete kamna manualne,
cervena a zelena kontrolka budou
blikat stridave.
Cervena kontrolka sviti u teploty
a zelena zobrazuje odpocitavajici se cas.
Kdyz se nastavuje teplota regulatorem (5)
zelena kontrolka zacne rychleji blikat.

EN

2.7. Indicator Light, Green (7)
When indicator light 7 is on, the screen displays the time set for the heater to be on.

2.8. Indicator Light, Red (8)
When indicator light 8 is on, the heater is turned on.

Please note! Make sure that the heater's control unit is disconnected from the heater's resistors when the timer's program timings are completed.

3. CONTROL UNIT'S INSTRUCTIONS TO ENGINEER

In accordance with the regulations in force, connecting the control and power units and the thermostat to the mains may only be carried out by a suitably authorised, professional electrician.

The person responsible for installing the control unit must deliver, along with the heater device, the following instructions for installation and use and give the person who will be in charge of the heater and the control unit the necessary training before leaving the installed device in his/her care!

3.1. Installation of the Control Unit C260VKK
The control unit should be mounted outside the sauna room, in a dry area.

Please note! The control unit may not be the embedded in the wall structure. (Fig. 24)

3.1.1. Removing the Top Plate
The top plate should be removed before you mount the control unit on the wall. The top plate comes off by pressing down on the locking strip at the upper edge of the plate, using a screwdriver, for example. The hole blanks for the connecting wires in the base plate should be pierced in the places where the cables are to be connected. (Fig. 25)

CZ

2.7. Kontrolka zelena (7)
Kdyz sviti zelena kontrolka (7) na na displeji, nacasovani pro kamna je zaple.

2.8. Kontrolka cerwena (8)
Kdyz svizi kontrolka 8, kamna byly sepnuty.
POZOR!
Pÿi nastavovani ÿasovaÿe mÿjte hlavní vypínaÿ vypnutý a až po celkovém nastavení mÿžete Hlavní vypínaÿ sepnout.

3. Instrukce pro montaz jednotky pro poverenou osobu.

V souladu s platnými predpisy, pripojeni ovladacich a silovych jednotek. Zapojeni veskere elektroinstalace muze provadet pouze elektrikar s odpovydajicimi vzdelanim a povolenim. Osoba, která bude jednotku zapojovat je povinna proškolit odpovednou osobu ktera se bude o spinani sauny starat.

3.1. Instalace ovladaci jednotky
Ovladaci jednotka musi byt umistena zvenku sauny v suchých prostorách.
POZOR!!!
Jednotka nesmí byt zapustena pod uroven steny. (Obr. 24)

3.1.1. Demontaz predniho krytu
Predni kryt s musi oddelat drive nez budeme jednotku montovat na zed. Predni kryt sundate tak ze plastove packy zatlacite dovnitr a predni kryt oddelate.

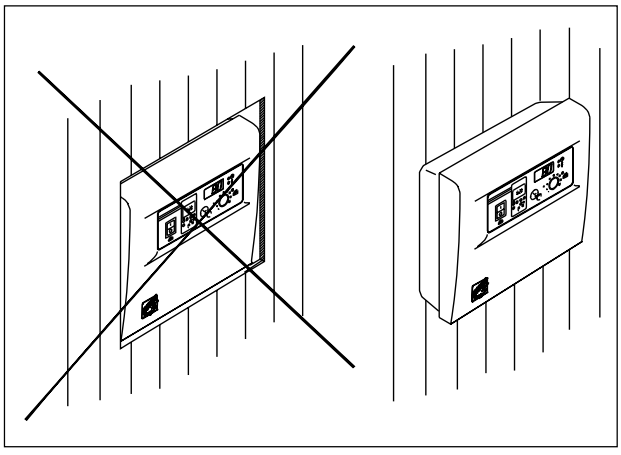


Figure 24. *Wall-mounting the control unit*

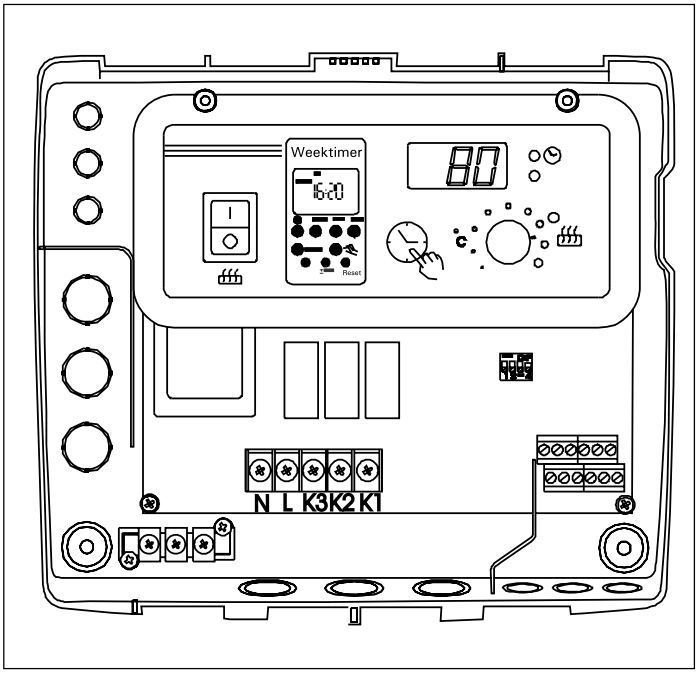


Figure 25. *Location of hole blanks in the base plate of the control unit*

EN

3.1.2. Fastening the Device to the Wall

There are holes for three (3) screws in the base plate, for fastening the unit to the wall. If necessary, drill a hole in the wooden wall using a 2.5 mm bit. If you have to fasten the device to a stone wall, drill a 6 mm hole for a Rawlplug to its complete length. Hit the Rawlplug into the hole and screw fastening screw 1 into place with a screwdriver, until approx. 7 mm of the screw-head is left visible. The electric cables entering and exiting the control unit should be passed through the open holes. The device can be suspended by the upper screw when you have ensured that the screw-head is locked into the narrow notch of the hole in the base plate. Holding the device in the upright position, mark the locations for the two lower fastening screws (2 and 3) and follow the same procedure, except that these screws should be screwed tightly in as far as they go. (Fig. 26)

CZ

3.1.2. Wandbefestigung

Jednotku na zed prichytte dle obrazku 26.

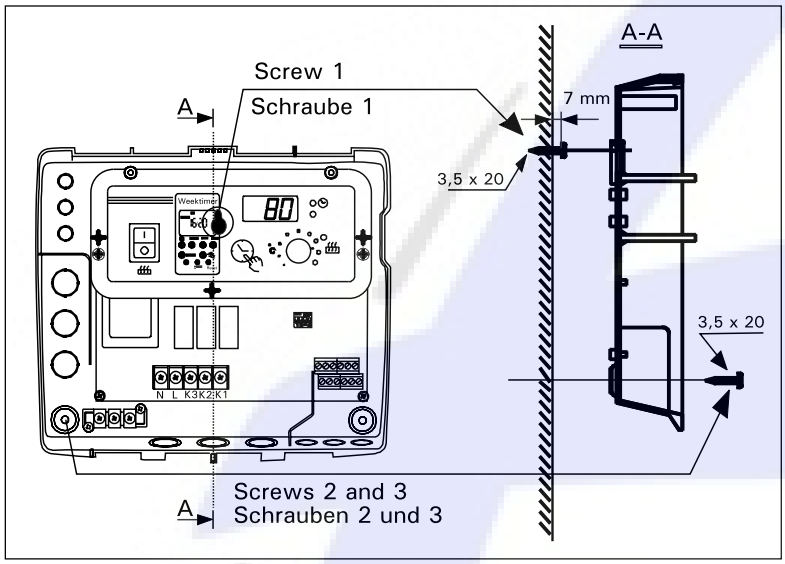


Figure 26. ***Fastening the device to the wall***

3.1.3. Electrical Connections

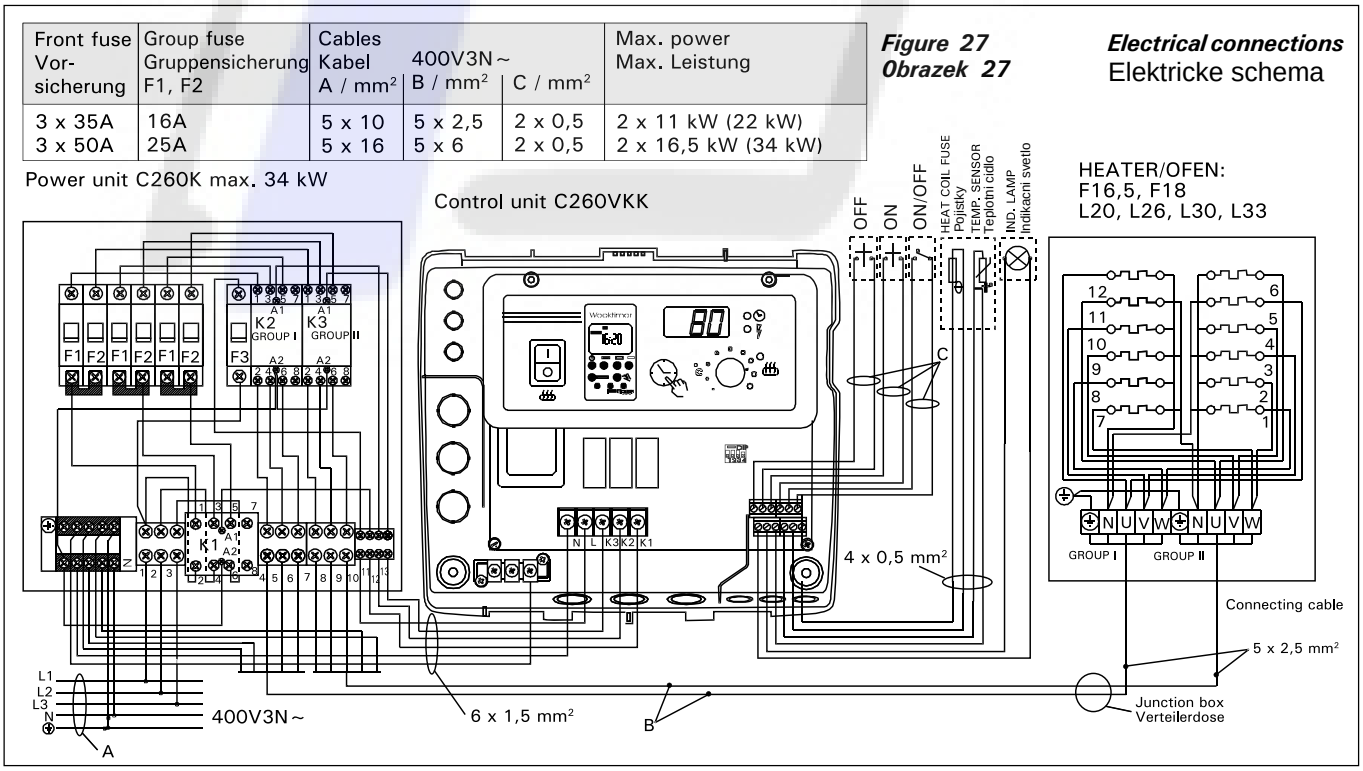
Diagram 27 shows how the connections are made.

3.1.3. Elektricke schema

Front fuse Vor-sicherung	Group fuse Gruppensicherung F1, F2	Cables Kabel 400V3N~ A / mm²	B / mm²	C / mm²	Max. power Max. Leistung
3 x 35A	16A	5 x 10	5 x 2,5	2 x 0,5	2 x 11 kW (22 kW)
3 x 50A	25A	5 x 16	5 x 6	2 x 0,5	2 x 16,5 kW (34 kW)

Figure 27
Obrazek 27

Electrical connections
Elektricke schema



EN

3.1.4. Altering the Basic Settings of the Control Unit

The maximum times you can set the heater to come on from the control unit are : 6 h, 12 h, 18 h or continuously. The settings are carried out by means of DIP switches. The factory pre-set maximum for the heater to be on is twelve hours.

The factory pre-set arrangement may be altered using the two switch lobes on the left side of the DIP switch, as follows (Fig. 28):

Using DIP switch 3, you can select which control option to use for turning the heater on: the weekly timer (Weektimer) or remote control. To select control by weekly timer, set the switch to the ON position, or choose remote control by setting the switch to the OFF position.

Please note! You must always leave DIP switch 4 set to the ON position since the OFF position is reserved for a special function.

3.1.5. Use of the Control Unit by Remote Control

The control unit can be operated by remote control, either by means of the ON/OFF function or by electrical impulses. The remote control device must have contact surfaces that are good electrical conductors (e.g. electrical relay or switch). The connection can also be realised with electronic switch components. (Fig. 29)

Please note! The functions are limited by a 6-hour interval. This prevents the heater from being switched on if less than 6 hours has passed since the previous time the heater was switched OFF.

If you try to switch the heater on during this interval (6 h), the screen will display 'SAF'.

a) the connection controlling the **ON/OFF function** is made at positions 11 and 12 in the connector strip. The ON/OFF function is obtained, for example, by means of the normal ON/OFF switch. The control works by low-tension "short-circuiting" of the control line, so that the cross-section of the wire in the control line cables is sufficient at 0,5 mm^2.

In ON/OFF mode the control unit keeps the heater on as long as the control switch's contact point is closed. If the pre-set time for the heater to be on has not yet shut off power to the heater, opening the control switch's contact point turns the heater off immediately.

b) For the **electrical impulse function** to work the control switch's contact points only have to make contact with each other once. The ON function starts from studs 9 and 10 in the connector strip and the OFF function from studs 7 and 8. The control works by low tension as with the ON/OFF function. If the pre-set time for the heater to be on has not yet shut off power to the heater, momentarily closing the control switch's contact point in impulse function turns the heater off immediately.

Please note! The engineer must give the customer proper instructions on the functions of the remote control system!

3.1.6. Indicator Lamp

The control unit shows heater setting times by means of an indicator lamp (24VDC), which comes on in the place from which the heater is remotely controlled. The indicator lamp comes on when the heater is on.

CZ

3.1.4. Alternativni nastaveni v ovladacim panelu

Maximalni cas ktery lze nastavit pro provoz kamen je 5h, 12h, 18h nebo nepretrzity provoz.
Tyto hodnoty nastavujete pomoci DIP prepinace.
Tovarni nastaveni je na 12 h.
Tovarni nastaveni muzete menit pomoci 2 prepinacu vlevo. viz obr. 28.
Pomoci tretiho prepinace zleva vybirate mezi tydennim rezimem nebo dalkovym ovladanim. 3 - ON - tydenni casovac,
3 - OFF - Dalkove ovladani.

Upozornění! DIP přepínač 4 vždy nechte v pozici ON, pozice OFF je rezervována pro speciální přídavné funkce.

3.1.5. Dalkove ovladani kamen

Řídící jednotka C260 může být ovládána dálkově, buď pomocí ON/OFF funkce (např. spínač, relé), či impulsním snímáním (např. zvonková tlačítka).
Dálkové ovládání pracuje s nízkým napětím, zvolte kabel o průměru minimálně 0,5 mm2. Schéma zapojení viz obr. 29.

Upozornění! Funkčnost je limitována 6h bezpečnostním intervalem vypnutí topidla. Po vypnutí topidla ho dovolí znovu zapnout až po 6 hodin trvající pauze.

Pokud se pokusíte zapnout topidlo dříve, než uběhne 6 hodin od vypnutí, na displeji regulace se objeví nápis "SAF".

A)ON/OFF spínání:

na konektoru se používají svorky 11 a 12 (viz obr. 29). Topidlo je zapnuté tak dlouho, dokud je sepnutý kontakt na svorkách 11 a 12, nebo do ukončení přednastaveného časového intervalu.

Pokud odpojíte kontakt na svorkách v průběhu přednastaveného časového intervalu, topidlo se ihned vypne.

B)Impulzní spínání:

dvě zvonková (impulzní) tlačítka
-Kontakt Vypnutí (OFF) na svorkách 7 a 8
-Kontakt Zapnutí (ON) na svorkách 9 a 10
-Topidlo je zapnuté podle přednastaveného časového intervalu.
Pokud stisknete kontakt OFF v průběhu přednastaveného časového intervalu, topidlo se ihned vypne.

Upozornění! Autorizovaný technik zapojující dálkové ovládání musí zákazníka upozornit, jakým způsobem je toto ovládání provedeno!

3.1.6. Kontrolky pri dalkovem ovladani

Ridici jednotka zobrazuje nastaveni casu kamen pomoci kontrolek (24V DC), ktere se zobrazuji z miste kde jsou kamna dalkove ovladany.
Kontrolky zobrazuji kdyz kamna topi.

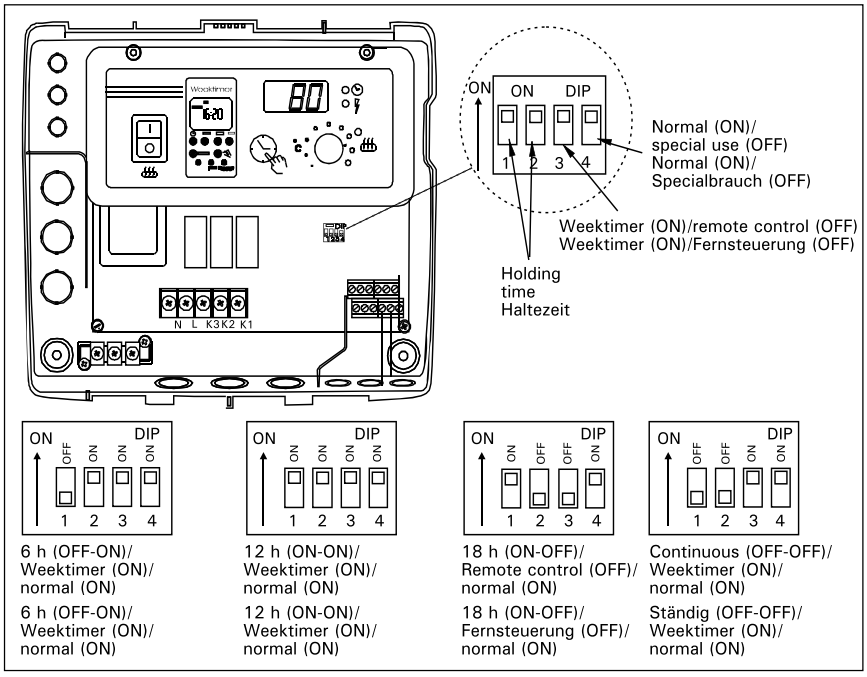


Figure 28. ***Setting the alternative of operating times***
obrazek 28. ***nastaveni a zmeni tovarniho nastaveni***

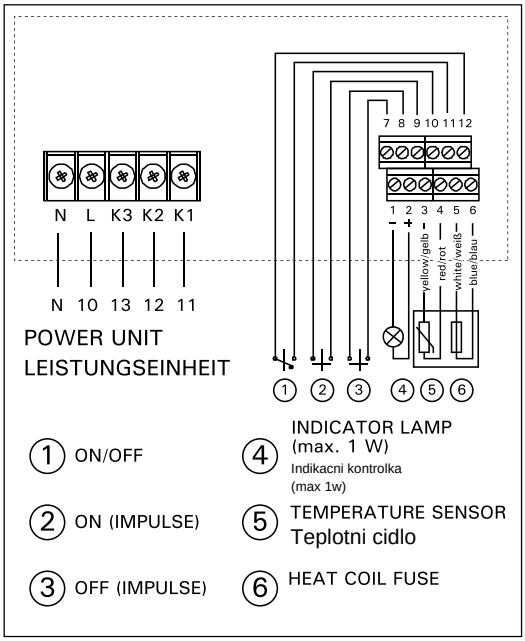


Figure 29. ***External connections***
obrazek 29. ***Externi zapoieni***

Please note! The power of the indicator lamp may not be greater than 1 W.

Finally, fix the control unit's top plate in place.

3.2. Installing the Thermostat's Sensor Box

As the location of the sensor box depends on the power of the heater, that location is shown in the accompanying diagrams only in the case of high-powered heaters of between 20 and 33 kW. (Fig. 30)

The cable enclosed with the thermostat is made of silicon and can withstand temperatures of up to +170 °C. The cable can be extended with lower temperature cable having a corresponding cross-section, as long as you ensure that after the connection has been made the temperature to the cable does not rise above +80 °C. The thermostat's connecting cables must be connected to locations 3, 4, 5 and 6 in the control unit's connector strip in accordance with the relevant connections diagram (Fig. 29). If the cables in the thermostat components become disconnected one of the following error messages will appear in the display screen: "Er1", "Er2" or "Er3". See 1.

3.2. Instalace teplotniho cidla

Umisteni cidla zalezi na vykonu kamen.
Viz. obr. 30 kde jsou vzdy hodnoty pro
kamna 20 - 26 KW a pro kamna 30 - 36 KW.
Kabel k cidlu je silikonovy a snasi teploty
az +170 C. Prodlouzit kabel lze, nejvhodnejsi
je taky silikonovy kabel.
Kabel k cidlu musi byt zapojen podle
nakresu do svorkovnice
3,4,5 a 6. Viz. obr. 29.
Kdyz je kabel nebo cidlo nefunkcni,
na displeji se
zobrazi chybove hlasky ER1, ER2 nebo ER3.

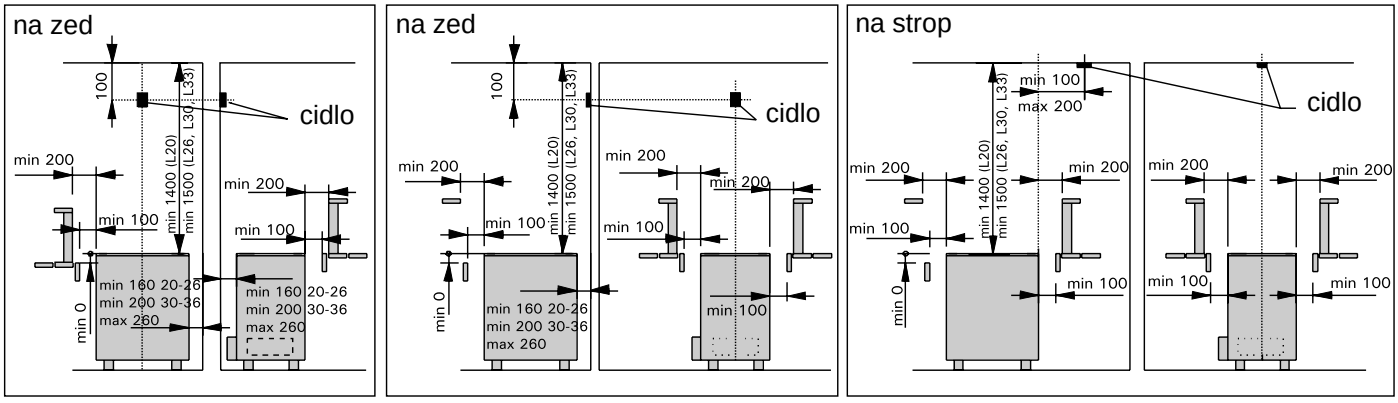


Figure 30. ***Installation of control unit (C260) sensor box and of the heaters L20-L33***
obrazek 30. ***Instalace cidla pro kamna L20-L33***

EN

3.3. Installing the Power Unit C260K

The power unit should be mounted outside the sauna room, in a dry area, at a height of approx. 170 cm from the floor.

Please note! The control unit may not be the embedded in the wall structure. (Fig. 31)

The power unit's contactors and fuses enable electric power to flow along the heater's two power cables. The connection is shown in the diagram.(Fig. 32)

C260-20
K1: contactor 63A
K2 and K3:contactor 25A for power groups G1 and G2
F1 and F2: fuse 16A
F3: fuse 6A for C260VKK

C260-34
K1: contactor 63A
K2 and K1:contactor 25A for power groups G1 and G2
F1 and F2: fuse 25A
F3: fuse 6A for C260VKK

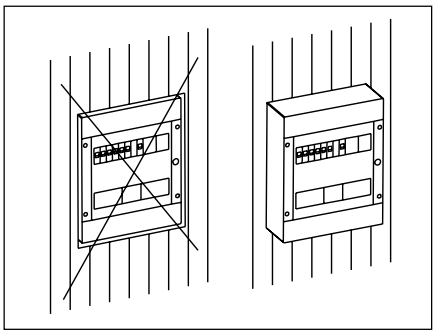


Fig. 31. Installation of the control unit on a wall

3.3.1. Removing the Top Plate

Before installing the power unit, remove the upper part of the box with its top plate from the metal base by unscrewing the fastening screws (4 pcs). (Fig. 33)

3.3.2. Fastening the Device to the Wall

The power unit base should be screwed to the wall (four screws) near the control unit. Pierce the hole bands for the connection wires which will be found at the top or bottom edge of the base (Fig. 34). The close proximity of the units ensures that the connecting leads between the two are short. The ends of the cables are passed into the box.

3.3.3. Electrical connections

The electrical connections are made in accordance with the connections diagram (Fig. 27).

CZ

3.3. Instalace silove casti C260K

Silova cast nesmi byt umistena uvnitr sauny, vzdy zvenku sauny v suchem miste cca 170 cm od zeme.
POZOR!! Silova cast nesmi byt zapustena ve stene. (Obr. 31)
Rozvadece a pojistky zasobuji elektrinou kamna pomoci 2 kabelu. Zapojeni je na obr. 32.

obr. 31. Instalace silove casti

C260-20
K1: Jistice 63A pro obe skupiny G1 a G2
F1 a F2 - 16A
F3: pojistky 6A pro C260VKK

C260-34
K1: Jistice 63A pro obe skupiny G1 a G2
F1 a F2 - 25A
F3: pojistky 6A pro C260VKK

3.3.1. Demontaz predniho krytu silove casti

Pred demontazi predni casti silove skrine musite odsroubovat 4 sroubky z cela. (Obr. 33)

3.3.2. Prichyceni silove casti na zed

Montaz provadejte podle nakresu 34.

3.3.3. Elektricke schema

Elektricke zapojeni najdete v obr. 27.

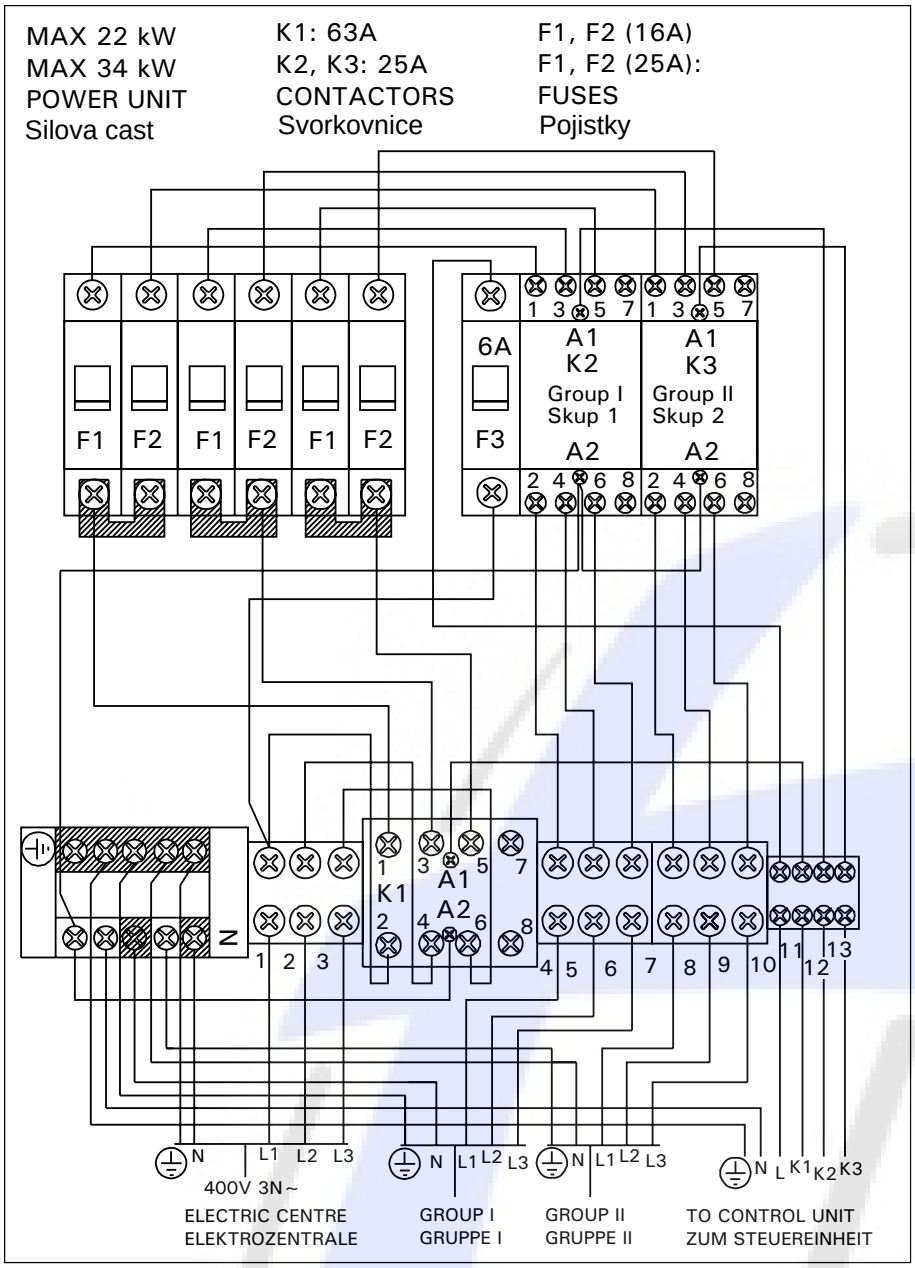


Figure 32. *Internal connections of the power unit*
obrazek 32. *vnitrni zapojeno silove casti*

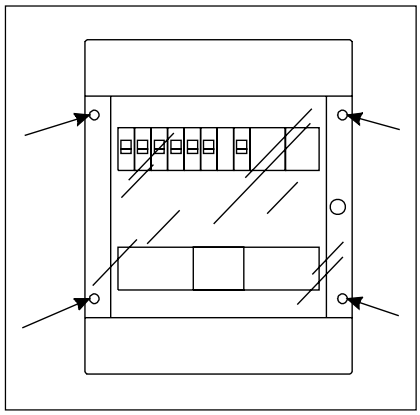


Figure 33.
Removing the top plate
obrazek 33.
demontaz predniho dilu

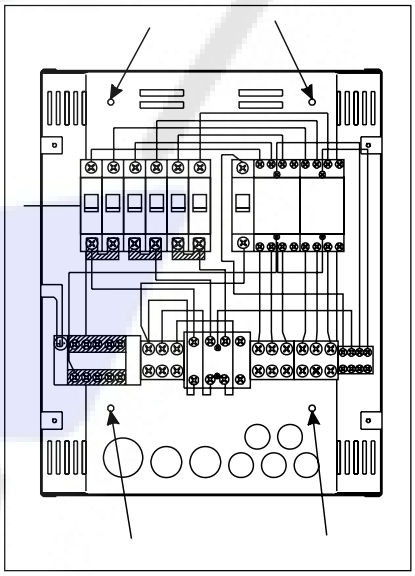
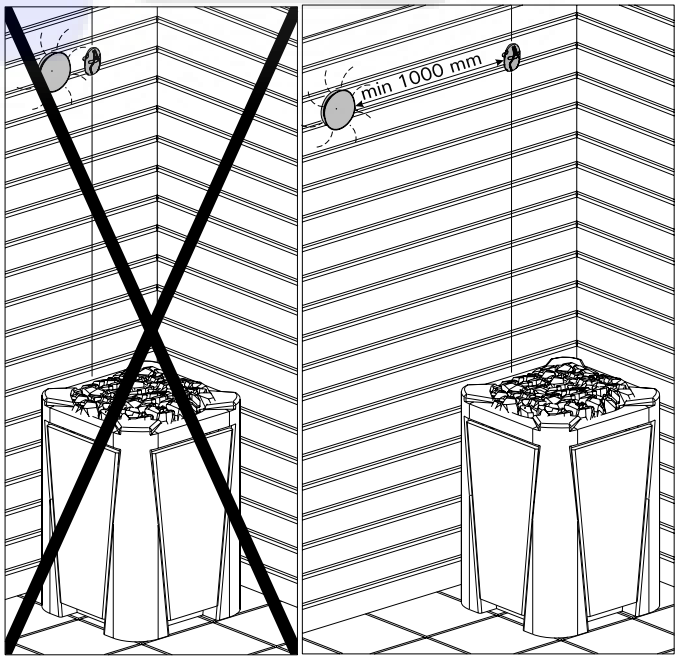


Figure 34.
Wall-mounting the power unit
obrazek 34.
umisteni na zed

Figure 35. Reset button for overheating limiter
obrazek 35. resetovani teplotni ochrana



Instalace teplotniho cidla

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